

Mount Saint Vincent University  
Department of Applied Human Nutrition

**Understanding How School Communities are Addressing Issues Related to Food Insecurity  
in Rural Nova Scotia**

by  
Kendra Lauren Read

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Department of Applied Human Nutrition

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Approved:

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Dr. Patricia Williams, PhD, PDt  
Thesis Co-Supervisor  
Professor and Canada Research Chair in Food Security and Policy Change  
Department of Applied Human Nutrition  
Director, Food Action Research Centre  
Mount Saint Vincent University  
Research Associate, Atlantic Health Promotion Research Centre

---

Dr. Sara Kirk, PhD  
Thesis Co-Supervisor  
Canada Research Chair in Health Services Research, School of Health and Human Performance  
Research Associate, Atlantic Health Promotion Research Centre (AHPRC)  
Adjunct Professor, IWK Health Centre  
Adjunct Professor, Mount Saint Vincent University

---

Dr. Deborah Norris, PhD  
Committee Member  
Associate Professor  
Department of Family Studies and Gerontology  
Mount Saint Vincent University

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Dr. Jessie-Lee McIsaac, PhD  
Committee Member  
Postdoctoral Fellow and Research Associate  
Applied Research Collaborations for Health  
School of Health and Human Performance, Dalhousie University

## Abstract

**Background:** In 2012, 17.5% of households in Nova Scotia reported experiencing food insecurity. For households with children under the age of 18, food insecurity reportedly affected 21.2% of the Nova Scotian population in this same year. For students and families experiencing this reality in Nova Scotia, living in poverty has been shown to negatively influence food accessibility and dietary intake, which can contribute to poor health and weight status, especially for children. While the province has many nutrition and health-related initiatives in place and recognizes the need to create supportive health environments for all residents, limited information about how to create such environments exists. This is especially true for students and families experiencing food insecurity in rural areas of the province.

**Purpose:** This thesis explicated the social relations, social organizations, forces and factors, values, beliefs and ideologies, and ruling elements related to food insecurity within rural NS through gathering experiences and stories from parent participants and school community participants from two elementary school communities in Eastern Shelburne County. This assisted with understanding how school communities are addressing issues related to food insecurity in rural Nova Scotia, including how school communities can support students and families who experience this issue to achieve food security.

**Methods:** The design of this qualitative study was largely rooted in tenets of Institutional Ethnography. Two elementary school communities within Eastern Shelburne County were the primary sites of interest. Data collection involved individual interviews with parent and school community participants, document review, and to a lesser extent, a reflection of the researcher's personal experiences and observations. Bronfenbrenner's Ecological Model and tenets of Institutional Ethnography were used to inform data analysis and interpretation.

**Findings:** The findings of this thesis captured the daily, lived experiences of food insecurity for students and families, along with the perceptions of food insecurity as shared by individuals who, through their work with elementary schools and community-based organizations within the school community, support these students and families. These accounts revealed that there are various types of social organizations, and forces and factors that exist within the school community that maintain efforts to support students and families who experience issues related to food insecurity through ruling elements that carry ideological messages about nutrition and health. These findings revealed that food affordability, food availability, food accessibility, and the use of food-related supports are the primary social relations related to food insecurity most often influenced by social organizations, and forces and factors that exist within society. Ultimately, this research highlighted how and why food insecurity works within these two school communities of Eastern Shelburne County and how various forces and factors within each school community influence the food-related decisions/behaviours made by individuals and families.

**Conclusions & Recommendations:** Rural residency, low-income, and lack of access to personal and/or public transportation are the primary issues that shape the social relations and coping strategies related to the experience of food insecurity. Social organizations including elementary schools, charitable food assistance programs, social support networks, and financial assistance programs are supports used by students and families who experience issues related to food

insecurity. Many of these social organizations use ruling to govern the food-related decisions/behaviours made by students and families who experience issues related to food insecurity.

In order to create more supportive environments in Eastern Shelburne County for these students and their families, various forces and factors, and social organizations within these school communities and our society must be provided with opportunities to learn about the reality of food insecurity and recognize how the ways in which they impart ruling or promote food-related ideals impact those who struggle with food insecurity.

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## CHAPTER 1: INTRODUCTION

### 1.1. Introduction

Food insecurity (FI) has been defined as “*the limited or uncertain availability of nutritionally adequate and safe food or the limited or uncertain ability to acquire acceptable foods in socially acceptable ways*” (pg. 1, as cited in Anderson SA, 1990) (1). Since 2004, the annual Canadian Community Health Survey conducted by Statistics Canada has included a component called the Household Food Security Survey Module that gathers details to assist with the understanding of the prevalence, distribution, and severity of household FI (2). Since 2005, some Canadian provinces, including Nova Scotia, have consistently participated in the measurement of FI (3). According to data from 2012, 12.6% of the Canadian households experienced marginal, moderate, or severe FI (3). For the province of Nova Scotia (NS), the prevalence of marginal, moderate, or severe household FI has steadily increased from 16.1% 2005 to 17.5% in 2012 (3). It has also been documented that among Canadian households with children under the age of 18, FI affected 16% of children in 2011 and 15.6% of children in 2012 (2,3). Furthermore, FI affected 21.2% of children under the age of 18 who lived in food insecure households in NS in 2012. On a national level, for households led by a female lone parent, 35.1% were affected by FI in 2011 and 34.3% in 2012 (2,3). While the overall rate of FI among households led by a female lone parent represents a decrease, the rate of moderate household FI has actually increased from 15.4% in 2011 to 18.7% in 2012 while marginal and severe household FI appear to have decreased during this time (2,3).

In addition to the prevalence of household FI in NS, participatory food costing research has provided insight into the affordability of a nutritious diet for selected household types across the province of NS since 2002. More specifically, participatory food costing research has determined that from 2002 to 2010 specific household types who relied on income assistance

(IA) did not have sufficient funds available at the end of the month after all fixed/essential monthly expenses were paid to purchase a basic nutritious diet for themselves and/or their family (4). In addition, the monthly deficits that all of these households would have experienced in 2002 would have increased even further in 2010 (4). Participatory food costing research has also shown that between 2002 and 2012 these same household types who earn minimum wage (with the exception of a lone man working full time for minimum wage) would have inadequate funds left remaining at the end of the month after all essential monthly expenses were paid to purchase a basic nutritious diet (5). Even with increases to the minimum wage in NS, they too experienced a monthly deficit between 2002 and 2012 (5). Ultimately, the result of having a monthly deficit means there is no money left over for activities, educational expenses, unexpected costs, or the purchase of a nutritious diet (5).

Furthermore, significant research has shown a strong positive relationship between poverty and FI, and the documented consequences that this relationship has on health status, more specifically for children, their development, and their school performance (6). In addition, because food access is directly related to income, households with low levels of income including those on IA are less likely to purchase fruits, vegetables and milk products (6,7,8). For children living in these households, this translates into low consumption of fruits, vegetables, milk, and high amounts of calorically dense food, a pattern that has been shown to contribute to poor outcomes related to long-term weight status (9).

In 2001-2002, research findings from NS determined that childhood obesity rates were on the rise with 37% of males in grades three and seven and 32.9% in grade 11 at risk for becoming overweight (10). Additionally, 44.6% of females in grade three, 39.9% of females in grade seven and 25% of females in grade 11 were also found to be at risk for overweight (10). One decade

later in Canada, close to one third of five to 17 year olds are being classified as overweight or obese (11). In the province of NS, one in three children and youth are overweight or obese, rates of chronic disease are among some of the highest in the country, and rates of unhealthy eating, sedentary behavior and inactivity are elevated (12). To expand upon research findings about the status of overweight and obesity among NS youth, dietary intake research conducted in 2003 as part of the Children's Lifestyle And School-performance Study (CLASS) I<sup>1</sup> (13) determined that 42.3% of fifth grade students in NS did not meet the minimum number of dietary serving recommendations for milk products, 49.9% failed to consume the minimum dietary serving recommendations for vegetables and fruit, 54.4% did not meet the minimum dietary serving recommendations for grain products and 73.7% of students did not consume enough meat and alternatives as per *Canada's Food Guide to Health Eating* (14). Additionally, in 2005-2006 the Physical Activity Level and Dietary Intake of Children and Youth (PACY) II<sup>2</sup> study determined that overweight children were likely from families who earned low levels of income (15,16). Furthermore, children from higher income families consumed more servings from all food groups except meat and alternatives when compared to children from lower income families (16).

These findings highlight the relationship between poverty and FI and its consequences on the health status of children. To address them, NS has exhibited leadership within Canada by developing initiatives to support healthy living including the Healthy Eating Nova Scotia (HENS) strategy, Nova Scotia Health Promoting Schools (NSHPS) and the Food and Nutrition Policy for Nova Scotia Public Schools (FNP). These initiatives aim to increase access to and

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<sup>1</sup>CLASS I is a province-wide research project that took place in 2003 to examine the relationships between health, nutrition, physical activity, mental health and school performance of over 5000 grade five students and their parents in 282 schools in Nova Scotia. CLASS II data collection occurred in 2011 with the support of 272 schools and over 5500 grade five students from across Nova Scotia. CLASS II aims to understand how changes from CLASS I have influenced children's health and school performance based on information similar to that of CLASS I (13).

<sup>2</sup>The PACY-2 study aims to monitor provincial and regional trends in physical activity and body mass index (BMI) of students in grades three, seven and 11 and the dietary intake and behaviours of students in grades seven and 11 (15).

enjoyment of health promoting, safe and affordable food, and create school environments that not only encourage children to eat well and exercise but promote positive social, spiritual and mental health to enhance children's learning abilities (17,18). These initiatives also recognize that vulnerable living situations like poverty can influence the ability of people to make healthy food choices, a growing concern in NS (6).

While the aforementioned initiatives recognize the need to support and educate children, educators, parents, and communities with respect to healthy eating and active living strategies, they may be unrealistic solutions for population groups affected by poverty or household FI as they fail to acknowledge the unmet food needs of food insecure children (19). For impoverished students and families this means that healthy eating and active living strategies may not always be applicable within the household due to low-income or unemployment (20). While children's feeding programs have been associated with the alleviation of hunger, they also aim to improve learning outcomes, model good nutrition, and relieve family stress yet in some respects have been shown to create dependency, stigmatization, and exclusion (21).

In NS, breakfast and/or lunch programs exist within schools to provide opportunities for students to enhance nutritional intake (18). However, qualitative research undertaken in Atlantic Canada (i.e., New Brunswick, Nova Scotia and Newfoundland and Labrador) has suggested that breakfast and lunch programs may lead to stigmatization from people who perceive program recipients as lacking social skills and/or being greedy as well as lacking proper manners (22). In addition to stigmatization, these feeding programs were reported to contribute to the creation of dependent program users, which essentially leads to disempowerment among recipients (20,22). Essentially, consequences such as stigmatization and dependence tend to take over the role of family, meaning that parents might end up being excluded from program participation and

planning and that children may end up relying on the school for food as opposed to their families (21,22). Additionally, there are limited data available that describe the effects that NS school feeding programs have in the home and community environments outside of the school setting, especially in light of NS nutrition and health initiatives (20).

Recently, qualitative research was conducted as part of the CLASS II research study. This included a series of interviews with school principals, teachers, and parents from across NS to more thoroughly understand factors preventing and facilitating school implementation of NSHPS (23). While findings from these interviews revealed many facilitators and barriers to implementing NSHPS, there was consensus among many participants that FI, especially in rural NS, was a concern that requires further thought and consideration (23). Taking these findings into account, the goal of this research project is to understand the ways in which rural NS school communities including families, principals, community service providers (i.e., staff of a health centre, church, garden etc.), and policy/decision makers are addressing FI and/or exploring ways to address FI in order to create healthy and supportive food environments for students and families who may experience this reality.

## **1.2. Rationale**

As previous research findings and existing initiatives have highlighted, the problem of childhood overweight and obesity in combination with poor dietary habits and their relationship to low-income living situations and FI makes it difficult to establish and maintain long-term, sustainable health behaviours, even with preexisting health and nutrition initiatives in place. Moreover, recent findings from CLASS II research and the Community University Research Alliance: Activating Change Together for Community Food Security (CURA: ACT for CFS) project have revealed that living circumstances such as low-income, FI and residing in rural NS

may not necessarily allow for the adoption of a healthy lifestyle for children and families, regardless of what they learn from their environment. With the launch of many other nutrition and health-based initiatives aimed at the creation of supportive environments for Nova Scotians between 2007 and 2012, (Appendix A) this research project is timely.

Certainly, the school is a valuable place for students to learn and develop, but there are some social barriers to education that schools cannot always address like poverty, child abuse, language barriers, substance abuse and differing ability levels among students (24). A criticism of the Health Promoting Schools (HPS)/Comprehensive School Health (CSH) model is the failure to address health determinants such as poverty, school size, relationships, school climate, neighbourhood, and family involvement that may not necessarily result in behavior change among students and their families; valuable considerations for this research (24). Furthermore, it should also be noted that implementation of the FNP and the NSHPS model varies from school to school (23), which is an important consideration to keep in mind when approaching this research.

When thinking about nutrition and health-based initiatives that exist within NS and within NS elementary schools as well as the realities and health outcomes for those living in poverty, there is an increased need to learn more about the supports that vulnerable students and families are using and/or require to easily access food and use nutrition and health-related information. Consulting with populations who experience FI and school community members who support them may enhance the understanding about of the types of information and supports/services available to them, how they are used, and how they could be improved upon (12).

### **1.3. Problem Statement**

Since 2005 NS has heavily invested in the development of supportive health-related policies, programs, and supports for children and their families. Even with the development of such initiatives, FI and childhood overweight/obesity persist as health concerns within NS that require further investigation, especially in rural areas due to issues surrounding the accessibility and affordability of healthy foods and low incomes. Additionally, while there are multiple health-related initiatives within NS, there appears to be much disconnect between them. Despite striving to achieve similar goals and outline similar priorities these initiatives rarely describe the ways in which they collaborate to achieve similar health outcomes.

Thus, it is necessary to further contribute to this knowledge and understand how FI and childhood overweight/obesity are related to individual, household, school, and community health, especially within rural NS communities. There is also a need to understand how health-related initiatives reach and/or influence vulnerable students and families and whether they help or hinder their experiences related to FI. Aside from breakfast programs, little is known about what rural NS public schools and the surrounding school community are doing independently or collaboratively to support students and families who experience issues related to FI both within and beyond the school setting. Learning about FI from the perspectives of parents of students who may be vulnerable to FI, school staff members, staff members/volunteers from community-based organizations, and policy/decision-makers could help to understand what supports are required to assist rural populations in overcoming this issue.

### **1.4. Research Question**

How can rural NS school communities support elementary school students and their families to achieve food security?

## **1.5. Research Objectives**

In order to answer this research question, the following objectives were created:

1. Explicate the food related social relations/ideologies (e.g., food accessibility, food affordability, use of community based food supports) of students and families experiencing FI in rural NS school communities by conducting individual interviews with parents of students who may be vulnerable to FI.
2. Explicate how social organizations within the school community (e.g., elementary schools and community based organizations) influence the daily actions of students and families experiencing FI in rural NS by interviewing elementary school principals and teachers and community service providers.
3. Analyze school and community based nutrition and health documentation for ideological messages that aim to govern the daily lives of students and families experiencing FI in rural NS.
4. Clarify how nutrition and health-related initiatives guide the decisions and actions made by social organizations to address FI and create supportive health environments by conducting individual interviews with policy/decision-makers.
5. Map the social relations/ideologies that exist within rural NS school communities to shape students' and families' lived experiences with respect to FI.

## **CHAPTER 2: BACKGROUND & SIGNIFICANCE**

### **2.1. Introduction**

The background and significance presented in this chapter will highlight the issue of food insecurity (FI) in both Canada, Nova Scotia (NS), and rural communities of NS. It also provides an overview of some of the nutrition and health-related initiatives currently taking place in NS that strive to promote health and nutrition across the province and address issues related to FI. Recent NS-based research gives valuable insights into thoughts about the relationship between poverty, FI and school food programs in Nova Scotia Health Promoting Schools (NSHPS), and what is needed to create community food security (CFS) across NS. Still, there remains a need to discover how school communities in rural areas of NS are addressing issues related to FI. As such, this thesis set out to develop an understanding of how school communities are addressing issues related to FI through conversations with parents of vulnerable students, school staff members, staff members/volunteers from community-based organizations, and policy/decision-makers.

### **2.2. Health Promotion Settings**

The World Health Organization defines health promotion as “*the process of enabling people to increase control over, and to improve, their health*” (24). This definition extends beyond the individual and includes interventions at social and environmental level (24). To establish and sustain impact, health promotion strategies should strive to achieve specific goals that produce change in individuals and groups in the social setting in which they develop and consider action on multiple levels (national, regional, community and individual) by using multiple approaches (physical, emotional, mental and spiritual) (24,25). An example of a social setting where health promotion frequently occurs is the home; where meaning and environmental

cues occur, health behaviours are learned and maintained, and children learn how to interact with their environment and make dietary and physical activity decisions (25). Ultimately, health promotion programs should focus on the functionality of the family unit to best determine how individuals and families interact with their surroundings (25).

As children develop, family influence decreases, allowing health promotion programs to occur outside of the family setting in places like the school or workplace (25). These sites are often selected as they may influence children to bring home new health related knowledge and skills (25). To date, findings related to improving weight status of overweight children through health promotion and behavioural change programs have revealed that when children and their parents are involved in such programs together, children tend to have an increased ability to reduce and maintain their weight status (25). With regard to parental involvement, connections between the school and the home can provide parents with supportive knowledge and resources to assist them in establishing and maintaining healthy childhood behaviours (25).

Beyond the household setting lies the school setting; a popular health promotion setting due to the amount of time children spend here with influential individuals like teachers and adults who exhibit leadership and reinforce healthy behaviours through learning, socializing, eating, and activity (25). Promoting health within the school setting should involve students and staff and focus on a variety of components aimed at promoting health and reducing risk including health and physical education, health and nutrition services, staff health promotion, counseling, and parental engagement (25).

In addition to these components of health promotion the physical environment of a school (e.g., display of health-related messages, nutritional content of food served) and the social environment (e.g., student organizations that work on health issues, encouraging healthy

behaviours) can also impact student health (25). Existing within the province of NS are many health initiatives that recognize and value the importance of health promotion, specifically for children and youth within the elementary school setting. Additionally, these initiatives consider many determinants of healthy eating including low-income circumstances and/or food insecure living circumstances and their relationship to health status. The following section provides a more detailed description of these determinants of healthy eating in relation to food insecurity FI.

### **2.3. Determinants of Healthy Eating in Canada**

When studying FI, it is essential to consider the many factors within our environment that determine decisions regarding food and healthy eating; the eating practices and behaviours that are consistent with improving, maintaining and/or enhancing health (26). For Canadian youth, unhealthy eating habits formed and made during childhood have the potential to interfere with growth and development and continue into adolescence and adulthood (26). The combination of poor dietary quality and decreased physical activity can increase the chances of becoming overweight and developing chronic disease (26).

In order to understand how to create, promote and support healthy eating among food insecure populations a greater understanding of the individual (i.e., sex, age, food preferences knowledge, attitudes and skill level) and collective (i.e., economic, social and physical environments) determinants of health is warranted as well as the relationships between them and how they influence healthy eating behaviours (26,27). Understanding these individual and collective factors can assist researchers to advocate for population health policies that strive to create supportive environments for improving healthy eating and active living (27).

The individual determinants of eating behaviours are those structured by physiology, food preferences, knowledge, perceptions, attitudes, and psychology (26). From a physiological

standpoint, age tends to influence health status and food related behaviours meaning that for children, dietary quality and breakfast consumption tend to decline with age and snacking patterns increase as children move from low level grades to higher level grades (26,27).

Perceptions of food or the way we understand it and view it aligns with personal beliefs and culture as well as our psychological state; our mood, personality, body image, and self-esteem are factors that determine the food choices people make (27). Unfortunately, external barriers like vending machines and fast food outlets exist within our society and usually provide unhealthy choices for all ages (26). For children, these barriers may not be understood because nutritional knowledge is commonly limited at a young age, resulting in a narrow understanding of the relationship between food choice, physical activity, and health (26). With age and development, children begin to understand this relationship in greater depth, which is why it is important to not only educate them about the importance of making healthy choices but also create supportive environments to do so (26).

Moving beyond individual health determinants, are the collective determinants that shape our decisions surrounding food; these can be broken down to environmental determinants (i.e., economic, social and physical) and political determinants, which will be outlined below (27). The economic determinants encompass income and/or socio-economic status (i.e., a relative measurement of people and communities correlated with determinants of health, risk factors for crime and other causes for social issues) (28), food prices, education, and employment. The economic environment determines food-related decisions and is the place where food is marketed and sold for profit at a price which largely impacts food choice, meaning that when household income is restricted, as it may be for families living in poverty, the most affordable food choices are those high in sugar and fat (26,27). In Canada, food price is an important factor

when making food choices and income the largest barrier for healthy eating (27). Unfortunately, for those on welfare or earning minimum wage, this amount of money is not sufficient to consume a healthy diet or to fully participate in the food system as a consumer (27). Moreover, the educational status of parents has also been researched and has been found to be associated with lower dietary quality (i.e., high fat and low micronutrient intake) among children (26). Research findings have also concluded that maternal employment status is negatively associated with frequency of family meals and dietary quality (26).

In addition to economic determinants of healthy eating are the social determinants; daily experiences shaped by social, cultural, familial, marketing/media, and symbolic factors that represent caring, community, and a sense of belonging (26,27). These factors influence food access and determine the ways in which food is available to us (26). While the family environment sets the context for children's eating behaviours, these behaviours can also be influenced by eating disorders, quantity of food available and provisioning and distribution (27). Familial factors like food exposure, food availability, parenting, parental modeling, meal structure, family meals, and family socialization all have influences on dietary choice (26). An example of this includes the positive association between the availability of fruit and vegetables in the home and their consumption (26). Family meals also have a positive influence on dietary quality for children and it is well known that the nutritional and health knowledge of parents can affect the nutritional quality of foods that are purchased and accessed for the entire family unit (26). Our social environment also includes a multitude of food advertisements targeted towards children and youth through the media and physical settings like the school, which play a role in the dietary decisions that individuals and families make (26).

Lastly is the political environment, the policies that guide our dietary choices (27). Health

and nutrition-related policies often strive to promote healthy eating, provide dietary guidance, and create standards and programs at a national level (27). Policies can also be targeted towards food supply, the prevention of food and water contamination, the agricultural industry, income support for low socio-economic status groups, and food advertising (27).

Ultimately, it must be recognized that many of these determinants of healthy eating factor into the dietary decisions people make, which, in turn are dependent upon knowledge, income, time, and cooking skills; resources not always available to people living in poverty or those who may be food insecure (17). Keeping this in mind, the following sections will provide some background about the issue of FI within the province of NS and beyond.

#### **2.4. Individual, Household, and Community Food Security**

The complex issue of FI occurs at individual, household, community, and national levels (1). Food security exists *“when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”* (pg. 1) (29). Described in more depth, FI is the *“limited, inadequate, or insecure access of individuals and households to sufficient, safe, nutritious, personally acceptable food both in quality and quantity to meet their dietary requirements for a healthy and productive life”* (pg. 2) (30).

For low-income Canadians, financial resources are the primary barrier to food access and one of many factors that determine food consumption patterns, food accessibility, health status, and the overall lifespan (30,31). Not only is low-income status and FI related this relationship can be consequential for health status, most specifically for children, their development and their school performance (6). As food access is directly related to income, households with low levels of income or those on Income Assistance (IA) are less likely to purchase fruits, vegetables and

milk products, and consume the recommended number of daily servings of fruits and vegetables (7,8). For children living in food insecure households who may be experiencing hunger, this translates into inadequate consumption of fruits, vegetables and milk, and high amounts of calorically dense foods, a pattern that has been shown to contribute to poor outcomes related to long-term weight status (10).

Food insecurity and hunger research findings have revealed that for women and children, experiences of hunger fall into two dimensions; individual and household, both of which are consistent with the understanding of FI (32,33). Research findings have also concluded that indirect measurements of hunger include income, unemployment, food assistance program use, dietary intake, and health and nutritional status (32). Additionally, behaviours associated with hunger often include obtaining food from abnormal sources, changing shopping patterns, altering meal composition, decreasing food intake, going without food, or running out of food (32). Below, Table 1 outlines the individual and household components of FI and their dietary manifestations (32,33).

**Table 1: Components and Dietary Manifestations of Individual and Household Food Insecurity (32,33)**

Components	Dietary Manifestations	
	<i>Individual</i>	<i>Household</i>
Quantitative (Quantity)	Insufficient intake	Food depletion
Qualitative (Quality)	Inadequate diet/nutritional inadequacy	Unsuitable food
Psychological	Feelings of food deprivation and lack of food choice	Food anxiety
Social	Disrupted eating patterns	Unacceptable means of acquiring food

Related to individual and household FI is CFS, which exists “*when all community residents obtain a safe, personally acceptable, nutritious diet through a sustainable food system that maximizes healthy choices, community self-reliance and community access for everyone*”

(pg. 2, as cited from The Community Nutritionists Council of British Columbia, 2004) (34).

Community food security is important in achieving food security among Canadians and requires long-term planning, comprehensive approaches, and the involvement of multiple stakeholders and community members (34). Moreover, CFS aims to address FI for all community members regardless of income by: developing sustainable and diverse food systems, meeting food and nutrition needs for everyone, promoting safe and nutritious food, building community self-reliance and revitalization, strengthening local and regional food systems, advocating for increased social equity so individuals and families can afford a nutritious diet, changing policies to support CFS goals, and building capacity for people to create change (34).

Community food security recognizes that hunger and individual and household FI in Canada are linked to poor health outcomes such as obesity, which is complicated by the fact that nutritionally inadequate foods are less expensive than healthy foods (34). Additionally, the consumption of a nutritionally inadequate diet can be made worse when affordable and nutritious foods are inaccessible within a community (34). This is often the case for low-income Canadians as they frequently obtain food from food outlets like convenience stores because affordable grocery stores tend to be located in higher-class neighbourhoods that cannot be easily accessed due to limited accessibility and/or affordability (34).

To achieve CFS and work towards the creation of supportive environments researchers and policy makers must understand the lived experiences of food insecure individuals by involving them in capacity building efforts, networking opportunities, and partnerships (34). Doing so may enable researchers and policy makers to not only strengthen the Canadian food system but also learn about existing relationships between FI, nutrition and health (34). Through the participation of families, school staff (i.e., school principals or teachers), community service

providers, and policy makers this research could lead to an increased understanding of how CFS may be achieved in rural NS. More specifically, such research efforts may have the potential to assist researchers in learning about how food and nutrition needs are being promoted and met and the policy changes that may be required to advocate for affordable and nutritious diets for all Canadians.

## **2.5. The Relationship Between Health and Food Insecurity in Nova Scotia**

There has been a large body of research conducted across the province of NS that has provided context about the significance of the issues of childhood overweight and obesity, physical inactivity, and inadequate childhood dietary consumption patterns. Some of this research has also attempted to learn about how such issues are connected to FI.

According to recent dietary intake findings from the Physical Activity Levels and Dietary Intake of Children and Youth (PACY) II study over 80% of boys and girls failed to meet the recommended number of daily servings for vegetables and fruit (35). There were also a large proportion of males and females in grades seven and 11 that exhibited low dietary fibre intake (35). In addition, the research concluded that 52% of males and 55% of females consumed chocolate and candy on a weekly basis (35). Although this research did not examine reasons for dietary consumption patterns Wadsworth et al. believed these intake patterns may indicate some degree of FI as food items like vegetables and fruit as well as grain products are more expensive than energy-dense foods (35). Furthermore, the PACY II study examined the role of household income and adherence to *Canada's Food Guide to Health Eating* among overweight children in NS. Researchers found that more overweight students in grades three, seven, and 11 fell into the two lowest income quartiles<sup>3</sup> when compared to the two highest income quartiles (16). The

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<sup>3</sup> Income quartiles in ascending order: <\$30,000, \$30,000 to \$49,999, \$50,000 to \$79,999, and ≥\$80,000 (35).

consumption of grain products, milk products, and vegetables and fruit were higher for children in the highest income quartile (16). With respect to grain product consumption among seventh grade students, the lowest income quartile consumed significantly fewer servings compared to the two highest income quartiles (16).

Over the past few years, there have been many research projects that have either been conducted or are currently in progress that are concerned with health and FI. The Keeping Pace surveillance study (formally PACY in NS) was carried out in 2009-2010 and dietary intake findings concluded the majority of grade seven and 11 girls and boys failed to meet the recommended daily servings from *Eating Well with Canada's Food Guide* for all food groups except meat and alternatives (15). Across most food groups, significantly more girls than boys failed to meet the recommended daily servings as recommended by *Canada's Food Guide to Health Eating* (15). Researchers concluded that four to six food servings were coming from outside the four main food groups including foods high in sugar, fat and salt (15). This study also found that females in grades seven and 11 reported experiencing FI more frequently than boys with the largest percentage from girls in grade 11 (15). The food security data collected and measured in this study was deemed to be an important factor in determining food consumption patterns (15).

More recently, research undertakings in NS include the Children's Lifestyle And School performance Study (CLASS) II and the Community University Research Alliance: Activating Change Together for Community Food Security (CURA: ACT for CFS); each of which further explored FI. Additional initiatives that exist within NS include *Strive for Five at School! A Guide to Promoting Fruits and Vegetables* (36), *Goodness in Many Ways* (37), *Schools Plus* (38), *Thrive! A plan for a Healthier Nova Scotia* (12), and *Nourish* (39) (Appendix A). Essentially, all

of these initiatives are concerned with the improvement of individual and community health status within NS. The subsequent sections of this proposal will guide the reader through a series of previously named NS nutrition and health-related initiatives as well as more recent research projects, both complete and current, that are concerned with nutrition, health, and FI in NS.

## **2.6. Nova Scotia Nutrition and Health-Related Initiatives**

### **2.6.1. Healthy Eating Nova Scotia Strategy**

In 2005, the Department of Health and Wellness in NS released Healthy Eating Nova Scotia (HENS) strategy that aims to address nutrition-related health issues and recognizes that optimal nutrition status is required for health and well being (8). Healthy Eating Nova Scotia focuses on breastfeeding, children and youth, food security, and fruit and vegetable consumption, but only children and youth and food security will be explored in this paper.

The focus on children and youth aims to: improve eating patterns as outlined in *Canada's Food Guide to Health Eating*; increase availability and affordability of healthy foods in child care and youth environments; increase food and nutrition knowledge among students, parents and teachers and; encourage the development of healthy eating practices early in life among children, parents and caregivers (8). Evidence regarding children and youth reveals that parents and the family environment are important factors in shaping a child's eating habits (8). Moreover, this strategy acknowledges that NSHPS have the ability to improve eating habits, increase physical activity and potentially reduce childhood obesity (8).

With regard to food security HENS aims to increase the proportion of Nova Scotians who have access to nutritious foods and increase availability of nutritious and locally produced foods (8). Unfortunately, for families living in poverty household FI can be a significant issue limiting a parent's ability to contribute to the development of good eating habits (8). This is especially

true for Aboriginals, minorities, new immigrants, and single-parent families (8). Furthermore, lack of financial resources and transportation may be significant factors that limit the affordability and/or accessibility of nutritious food making it difficult to lead a healthy lifestyle (8,40). Thus, limited food quantity and/or the inability to consume desirable foods due to high cost often results in poor nutritional status and increased rates of chronic disease and obesity, particularly for children (8,40). In order to meet the directives set out by HENS and initiate the promotion of school health (i.e., health curriculum, environment, food programs, health services, and healthy eating and active living strategies) for children and youth, the province of NS began providing funding to support the development and implementation of the NSHPS initiative in 2005 (41). More details about this initiative can be found in the next section.

### **2.6.2. Nova Scotia Health Promoting Schools**

The goal of the NSHPS initiative is to promote health as a part of daily life and provide programs and services to schools that can contribute to good health among students, staff, parents, health providers, and the community (18). Interventions included within NSHPS address physical activity, nutrition, addictions, and mental and sexual health, which can assist children to achieve healthy lives, academic success, and productive relationships (18).

Used interchangeably with the term Health Promoting Schools (HPS) is Comprehensive School Health (CSH); a framework that supports improvement in students' educational outcomes, while addressing school health in a planned, integrated, and holistic way (42). The HPS/CSH framework addresses: social and physical environment, teaching and learning, healthy school policy, and partnerships and services (42). The implementation of HPS differs from school to school depending on socio-economic status, religion, leadership, enrollment, language, physical school structure, and community support (43). Furthermore, the HPS/CSH framework

recognizes the influential role of the school in promoting student health and behaviours (42).

Examples of Canadian HPS/CSH models are the Annapolis Valley Health Promoting Schools in NS and the Alberta Project Promoting active Living and healthy Eating (APPLE) schools in Alberta; both of which strive to make the healthy choice the easy choice by promoting positive physical and social environments in the school (44). The difference with the APPLE schools model is that each school employs a full-time School Health Facilitator who: works with school staff, engages stakeholders within the school community to determine specific needs and barriers in each school, provides peer support, keeps track of frequency and variety of activities, and engages in health promoting activities within the schools that support healthy eating and active living strategies (43). The School Health Facilitator also helps schools and communities recognize who is not actively participating in healthy eating and active living activities (i.e., not bringing lunch to school or not participating in school activities) so beneficial experiences can be provided to all school members (44). It is also important to identify that NSHPS offer healthy eating and active living strategies that are accessible and available to all students regardless of socio-economic status, which encourages participation and allows all children to reap health benefits. Despite this, there is a lack of published research available explaining how children experiencing FI in NS, specifically in rural areas, apply what they learn in the NSHPS setting to the home environment and what supports are required to live a healthy, active life.

Overall, the creation of this strategy and implementation of NSHPS have been large steps towards the improvement of child and youth health across NS. The result of such work in addition to NS health and nutrition research has led to the development of other policies and initiatives that support Nova Scotians to eat well and be active (12). These initiatives recognize the importance of understanding the determinants of healthy eating, health promotion and

education for students, educators, parents and communities, and the actions required to create healthy and supportive environments and promote health. Even if these factors are recognized and understood, these initiatives may fail to provide long-term solutions for population groups affected by poverty or household FI within NS. An example of such a policy is the Food and Nutrition Policy for Nova Scotia Public Schools (FNP), which will be outlined below.

### **2.6.3. Food and Nutrition Policy for Nova Scotia Public Schools**

The FNP was implemented in 2006 with the goal to set standards concerning foods and beverages served and sold in NS public schools (17). The policy promotes nutrition education, provides supportive environments to make healthy choices, and encourages the development of partnerships within the community (17). Nutrition education in combination with health promoting behaviours and environments can be effective in providing students with opportunities to apply their classroom knowledge to their daily lives (17). This policy compliments other efforts that support healthy eating behaviours, particularly those occurring at the household and community levels and benefits students, their families, school staff, and school volunteers (17).

The FNP recognizes that health, nutrition, and learning are all interconnected and that healthy, well-nourished students learn and perform better in school (45). As children spend the majority of their childhood at home followed by school, it is important that the school environment offers children the opportunity to make healthy food choices and develop lifelong healthy habits (45). Not only can healthy eating practices improve academic performance, they can also help to prevent the development of chronic diseases such as stroke, obesity, type 2 diabetes, hypertension and certain types of cancer (17). This information is particularly important to consider as children, youth, and adults in NS have been shown to have poor health and

increasing rates of obesity, which over time can lead to the development of chronic diseases (17). Within the FNP exist twelve directives (Appendix B), one of which specifically addresses students who may be vulnerable (i.e., those suffer from poverty, food allergies or medical conditions) (46). For these students, the policy ensures that parents are aware that: breakfast, lunch and snack programs are offered at the school for minimal or no cost for all students; food programs are non-stigmatized; school staff and volunteers are aware of food allergies; schools comply with food and beverage policies and; guidelines are available to support these children (46). Furthermore, for school children living in poverty, the ability to consume and make healthy food choices is not always an option (17).

Beginning in 2006-2007, NS public schools were given three years to implement this policy and ensure that the school community understood all of the policy directives (46). Furthermore, additional supports and recommendations for the annual implementation of each directive were also outlined by the policy (46). While provinces such as Prince Edward Island (47) and Ontario (48) have conducted evaluations surrounding the implementation of school nutrition policies, more specifically from the perspectives of students and parents, a formal evaluation of the FNP has yet to be conducted in the province of NS but is currently underway. Having established a better understanding of NS health and nutrition initiatives the next section of this proposal will paint a picture of FI in NS.

## **2.7. Food Insecurity in Canada and Nova Scotia**

### **2.7.1. Prevalence and Characteristics of Food Insecurity**

According to Tarasuk, Mitchell & Dachner, in 2011 1.6 million Canadian households experienced some level of FI. In 2012, this figure rose to 1.7 million (2,3). Overall, in most areas of the country, FI stayed at or above the levels of FI experienced in preceding years (3). Food

insecurity varies by province and territory as well as by household characteristics. For example, in 2012 FI was more prevalent among households with children under 18 years of age with 16.5% of children being affected: a decrease from 17% in 2011 (2,3). Moreover, families led by lone female parents are most vulnerable to FI (2,3). Finally, FI affected 65% of households who relied on social assistance and 37% of households who relied on Employment Insurance (EI) or Workers Compensation (2) in 2011. These rates rose to 70% and 38.4% respectively in 2012 (3).

Data reflecting the prevalence of total (marginal, moderate, and severe) household FI in NS from 2005-2012 reveal the following rates of FI: 16.1% in 2005, and 14.4% in 2007, and 13.5% in 2008 (3). In 2009, this rate climbed to 15.9% and then steadily increased to 17.5% in 2012 (3). Furthermore, Tarasuk, Mitchell & Dachner also determined that in 2012, 69.3% of households reliant on social assistance were food insecure (3). Earlier research findings concluded that NS has the highest child poverty rate of all Atlantic provinces (49) and that in food insecure households children have high consumption patterns of energy dense foods, a contributor to long-term weight status (9). American research findings have also revealed that children from low-income, food-insufficient homes have significantly higher prevalence of overweight when compared to high-income, food sufficient children between kindergarten and the third grade (50). Moreover, children who suffered from persistent FI had greater gains in Body Mass Index and weight compared to persistently food-secure children (50).

Significant to NS, Simen-Kapeu & Veugelers found that among grade five students in 22 Canadian schools (Alberta and NS) in 2008, 36.1% were overweight and 13% were obese (51). Of those who participated, children from low-income families were more likely to be overweight compared to children from high-income families (51). This study also determined that parents with high levels of education and income provided more support and encouragement to their

children to eat healthy and become active (51). Furthermore, similar research also found that children who grow up in deprived neighbourhoods are more likely to be overweight, have poor diet quality, and be inactive (51).

With respect to the study of food program participation in the United States, researchers determined that child participation in the Food Stamp Program, Special Supplemental Nutrition Program for Women, Infants and Children, and the National Student Lunch Program (NSLP) could increase nutrient consumption (52). One American study found that among females from food insecure households, participation in food assistance programs decreased the odds of becoming at risk for overweight (52).

Comprehending FI, its complexities, and the types of initiatives that take FI into consideration or attempt to address it would not be complete without reviewing findings about rural and urban FI.

### **2.7.2. Exploring Rural and Urban Food Insecurity**

While still a growing area of research, it is important to highlight the characteristics of poverty and household FI in rural and urban areas across Canada. According to data from the 2011 Canadian Community Health Survey, prevalence of household FI was reported to be lower in rural areas compared to urban areas (based on population size and density) (2). According to food bank usage statistics from HungerCount 2014, food banks in towns with a population of less 10,000 provided food to 110,754 individuals in March 2014 (53). This figure represents 13% of the national total, which is 1.6% higher than the previous year (53). In rural communities, poverty is widespread, there is less fresh produce available and the cost of food is higher in grocery stores (54). In urban communities, one in 10 residents experience limited or inadequate access to food as food outlets are located outside of the city, making it difficult for those living in

low-income communities to access healthy food (54). In Canada, people living in poverty are typically sole earners, women, rural dwellers, and people with disabilities (55). Common challenges faced by Canada's rural poor are basic transportation needs, shortened life expectancy and poor health, low educational achievement, increased unemployment rates, and for women, difficulty finding employment (55). According to provincial demographic data, 60-75% of the NS population resides in rural areas, which are considered to be those that exist outside of the Halifax Regional Municipality (i.e., Halifax, Bedford, and Dartmouth) (56). When looking at statistics representative of the provincial profile of NS, Nova Scotia Community Counts shows that as of 2011, 17.4% of the population in private households in NS were considered to be low-income compared to 10.3% in 2006 (57). Looking more specifically at Shelburne County, Nova Scotia Community Counts data from reveals that a total of 20.4% of the population in private households had low-income status in 2011 (58). For the school aged population, living in low-income circumstances regardless of rural or urban residence can potentially hinder school readiness, decrease academic achievement, and increase the likelihood of living in low-income conditions later in life, especially for children of lone parent families (56).

Regardless of residence in a rural or urban area, for families living in poverty household FI means there is not always enough food to eat and/or families are unable to consume the type, quantity or variety of food desired because it is simply unaffordable (8,40). For lone parent families with one or more children under the age of 13 the risk of FI increases due to declining income (31). Typically, FI is associated with flexibility of food expenses in comparison to other household expenditures (i.e., rent, utilities etc.) (31). These household expenses often take precedence over food expenses, resulting in meal skipping, food coupon use, delay of bill payments, consumption of less expensive food, and the use of food banks – sites that provide

approximately one week's worth of food for individuals and families to take home and prepare free of charge – and community kitchens (31,59,60). As FI worsens and resources become limited, food selection and consumption become compromised and individuals and families begin to cut back food quantity (31). Furthermore, it is well known that food insecure mothers compromise their own nutritional intake, both quality and quantity, in order to protect their children from experiencing feelings associated with hunger (31).

From the details gathered so far it is apparent that FI is a complex issue facing many Canadians. Additionally, it is evident how elements like NS nutrition and health-related initiatives, childhood overweight and obesity status, and FI in rural and urban areas are connected to one another as well as school health. Having addressed these elements, the following section will discuss current health and FI findings from NS including the CLASS II, participatory food costing, the CURA: ACT for CFS project.

## **2.8. Current Health and Food Insecurity Research in Nova Scotia**

### **2.8.1. Children's Lifestyle And School performance Study II**

Within the province of NS, the CLASS II<sup>4</sup> (13) was conducted in more than 270 NS elementary schools in 2011. A valuable aspect of this study included the collection of socio-economic and household food security data from parents of children who participated in the study. This information was gathered by asking survey questions about: an adults level of education; a family's neighbourhood (i.e., location, safety, traffic, criminal activity, existence of sport and recreational programs, ease of access to fresh fruits and vegetables); household characteristics (i.e., number of people living in the home, eating habits); household food situation over the past 12 months (i.e., how often food lasted, dealing with not having enough money to

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<sup>4</sup> Examined outcomes that the Food and Nutrition Policy for NS Public Schools and NSHPS have had on school practices, friendships, self-esteem, dietary consumption, activity, body weight and height, geographical residence, health status and socio-demographic data through the administration of a survey to both fifth grade students and their parents (13).

purchase more food, affordability and balance of meals) and; frequency of adults cutting meal size or skipping meals due to lack of finances for food and current household income (13).

The preliminary CLASS II findings were used to guide a qualitative study whereby interviews were conducted with participants (i.e., school principals, teachers and parents) from across NS to understand the factors that are preventing and facilitating school implementation of NSHPS (23). Many participants identified that within the NSHPS model school food programs have strengths and weaknesses in relation to supporting vulnerable students and their families (i.e., children from low-income homes), especially those living in rural areas of NS due to limited affordability and/or accessibility of healthy foods (23).

When discussing the issue of FI and the idea of supporting vulnerable students and their families, principals, teachers and parents shared their thoughts about the relationship between poverty, FI and school food programs. Participants shared that public schools currently provide food supports for vulnerable students and their families through the provision of universal school breakfast programs that offer free food and encourage all students to participate. In addition, schools often have free snacks and/or lunch available for those children that may have forgotten their own at home or do not come to school with any food at all (23). While these supports were perceived as helpful participants commented that having a subsidized lunch program would ensure that all children have the opportunity to consume both breakfast and lunch during school hours (23).

The majority of participants recognized that families living in poverty likely experience challenges affording healthy foods for their household. Participants noted that quite often, children from low-income families were being sent to school with inexpensive and highly processed foods high in sugar, which is inconsistent with the school's attempt to promote the

consumption of healthy food (23). In addition, because of this relationship and because school life and home life are separate, participants postulated that low-income families are likely not following school food policy guidelines that are promoted within the school to the home environment that not all families can afford healthy food and that the cost of food is a flexible expense, allowing low-income individuals to purchase unhealthy, inexpensive food (23).

Only in some schools did participants who were involved with school activities believe there was generally a lack of volunteer participation by low-income parents in comparison to parents with higher levels of income (23). The consensus drawn from all interviews was that when it comes to supporting vulnerable students and their families, current strengths of school food programs include their open and non-stigmatized nature and the opportunity for all students, regardless of their living circumstances, to eat a healthy breakfast everyday (23).

While school food programs provide supports for vulnerable students, designated NSHPS also encounter challenges when trying to provide vulnerable students with healthy food. Participants expressed that it is challenging to keep food prices low and difficult to obtain funding to sponsor a school lunch program; a solution that would be helpful for all vulnerable students (23). Some schools experience difficulty supporting vulnerable families who are very proud and/or private about their living circumstances. Moreover, participants recognized the increased need to support rural food insecure families in non-stigmatized and creative ways (i.e., providing supports that would be accepted open and freely) (23). Based on what the participants knew of their school and community setting and the school food programs that currently exist, there was an impression that some vulnerable students could be missed (23).

When considering the strengths and challenges associated with supporting vulnerable students and their families it is helpful to develop suggestions for improvement as stated by

participants. One suggestion was as schools move forward as NSHPS, they should consider that while low-income parents may require additional education, support and programs surrounding healthy eating outside of the school setting, it may be difficult to reach this audience; an area that requires further brainstorming (23). Other recommendations for improvement included school sponsored or subsidized lunch programs for vulnerable students as well as government support at the school level for healthy lunches and/or healthy school initiatives (23).

More recently, quantitative findings collected from the CLASS II were used to determine whether or not children from households experiencing moderate to severe FI had poorer dietary quality, higher body weights, and poorer psychosocial factors than students from households with high food security or marginal FI status (61). This study determined that children living in households with moderate to severe FI had poorer dietary quality, higher body mass index, and poorer psychosocial outcomes than students in households with high food security or marginal FI. Moderate or severe FI appeared to be connected to higher energy intakes and decreased likelihood of meeting consumption of the recommended amount of vegetables, fruit, and milk products (61).

It is evident from this research that although FI issues occur in elementary schools across NS the NSHPS model provides opportunities for all children to participate in the school breakfast program in a non-stigmatized way (23). Moreover, the issue of supporting food insecure students and families requires further investigation in order to strengthen existing programs and aid in the creation of new programs and supports.

### **2.8.2. Participatory Food Costing Research in Nova Scotia**

While food costing research is conducted across Canada, NS is the only province that uses a participatory food costing model (62). This means that people who experience FI and

those who possess the ability to impact the issue play key roles in food costing research (63,64). Since 2002, participatory food costing across the province of NS has involved use the National Nutritious Food Basket (NNFB)<sup>5</sup> or adapted versions to determine the cost and affordability of a basic nutritious diet (6). This process helps with monitoring income-related FI as it compares the cost of a basic nutritious diet with the average income for a variety of age and gender groups (6). This information in combination with power, telephone, childcare, and transportation expenses can then be used to create affordability scenarios<sup>6</sup>, which, when combined with food costing data, provide evidence to inform policy and program change and to strengthen food security across NS (6). These household affordability scenarios include: a reference family of four (two parents, two children), a lone female parent and three children, two parents and three children, a lone pregnant woman, a lone man, and a lone senior woman (6). In 2012, the scenario representing two parents and three children was not included.

Participatory food costing research conducted across NS has determined that between 2002 and 2012, the average monthly cost of the NNFB for a reference household of four has increased from \$572.90 to \$850.50, a difference of \$277.00 (64). Moreover, NS food costing research has determined that the average cost of the NNFB for this same reference household size varies across the province by District Health Authority. In fact, in the South West Health District Health Authority, the average monthly cost of the NNFB has increased from \$757.58 in June 2010 to \$825.77 in June 2012 (64). Since 2002, the average monthly cost of the NNFB has also been shown to cost more in rural areas of NS compared to urban areas. For example, in June

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<sup>5</sup> List of 67 foods used to calculate the cost of a basic diet for 20 different age and gender groups (6).

<sup>6</sup> The cost of a basic nutritious diet for NS families and individuals in combination with the cost of basic living expenses (6). Affordability scenarios exclude educational expenses, reading materials, out of pocket health care expenses, restaurant purchases, nutrition supplements, household maintenance costs, physical or recreational activities or costs related to special diets or chronic disease (6).

2010 the cost of the monthly NNFB was an average of \$25.77 more expensive in rural areas of NS than urban areas (6). In 2012, this difference rose to \$37.15 (64).

In June 2010, a reference family of four would spend an average of \$770.65 per month to purchase a NNFB. When monthly costs for basic fixed expenses (e.g., shelter, power, telephone), other expenses (e.g., transportation, childcare, clothing etc.), and food are subtracted from the annual median total income (\$69,910), \$1,791.75 would remain for all other monthly living expenses (6). In June 2012, this same family size would spend an average of \$850.59 per month on the purchase of a NNFB (64). Once basic fixed expenses, other expenses, and food are subtracted from the annual median total income (\$72,350), \$1,536.99 would remain for all other living expenses (64). With basic fixed expenses, other expenses, and the cost of the NNFB all being equal, the same family size with one adult working full time and one adult working part time earning above minimum wage would have \$1,047.01 left for remaining expenses in 2010 and \$819.46 left in 2012 (6,64). In the affordability scenario with one adult working full time and one adult working part time – both earned minimum wage – a monthly deficit of -\$84.01 remained in 2010 and -\$303.69 in 2012 (6,64). Finally, this same family size receiving IA experienced a deficit of -\$440.25 on 2010 and -\$758.33 in 2012 (6,64).

Another affordability scenario represents a lone female parent with three children under the age of 12. For this family size and composition, the monthly cost of the NNFB was \$660.84 in 2010 and \$776.15 in 2012 (6,64). For a lone female-led household earning minimum wage and paying for basic monthly fixed expenses, other expenses, and a NNFB, a monthly deficit of -\$448.40 remained in 2010 and -\$823.03 in 2012. Furthermore, between 2002 and 2010 IA rates for selected household types (e.g., reference family of four, a lone mother with three children, and a lone male) were not sufficient enough to purchase a basic nutritious diet (4). The result of

having a monthly deficit means there is no money left over for activities, educational expenses or unexpected costs (6). Certainly, these scenarios further clarify the reality of FI in NS, including what it means for those living in rural and urban communities.

### **2.8.3. Community University Research Alliance: Activating Change Together for Community Food Security**

Another research project recently completed in NS is the CURA: ACT for CFS project. This project employed participatory action research methodology – a process of working collaboratively with those most involved or impacted by an issue – and several different types of research methods, including participatory community food security assessments, to better understand the components of, and factors contributing to, CFS in NS (65,66).

The CURA: ACT for CFS project measured and analyzed a variety of indicators within four NS case communities; Northeastern Kings County, Pictou County, Eastern Shelburne County and Spryfield (Halifax). These indicators were developed in consultation with the communities involved through a participatory process whereby researchers and community members worked together to determine the indicators most important to measure with respect to CFS (66). The indicators related to different areas of CFS including: formal local food production, opportunities and barriers to sell locally, availability of a range of food outlets, physical accessibility to food, participation of diverse community groups in food related activities, supports for community development and cooperation in the food system, programs that support food education and skills, conditions that support breastfeeding, supports for populations vulnerable to FI, and examination of income and poverty rates (66). Between 2012 and 2014, community-based researchers gathered quantitative and qualitative data representing over 200 people's experiences, stories, and connections to CFS across the four case communities (66). The participatory community food security assessments revealed that the following themes

should be considered when working towards a CFS in NS: systems that sustain local food in our communities; physical access to healthy food in our communities; FI as experienced by individuals and families in our communities; food and communities: identity, coming together and community self-reliance; conditions that support breastfeeding; and unique places with important perspectives on CFS (66).

These two NS-based research projects have certainly provided further insight into the perceptions and experiences associated with FI in NS, including how individuals and families participate in or support food-related activities. However, further inquiry into the programs and services that currently exist or could be further developed within the school community to support food education and skill development (i.e., nutrition, health, production, gardening, food preparation, cooking, and budgeting) is needed (34).

## **2.9. Community and School Interventions for Food Insecurity**

This next section will describe school and community level nutrition interventions targeted at low-income, food insecure populations within Canada and the United States as well as their outcomes to date. Such programs are believed to play a valuable role in enhancing food access yet fail to address the unmet food needs of food insecure children (19).

In Canada, a community level study examined food security circumstances, participation in community-based food programs, and responses to food shortages among low-income families living in high-poverty Toronto neighbourhoods (19). One third of families with school-aged children participated in food programs either at a school or community agency where snack programs were frequently utilized (19). The majority of children attended these programs regularly and families paid a fee for their child to participate (19). In the end, this study found that neither food banks nor children's feeding programs affected food security status (19).

At the school level in the United States, is the NSLP; a government-funded school feeding program that provides free or low-cost nutritious lunches to children from financially disadvantaged families (67,68). Multivariate regression analysis research determined the typical school lunch participant to be young, black, male, and a rural resident with parents who have low levels of education and family income (67). Research conducted on the NSLP found that of 2,908 children age six to 19 years, 70% participated in the school lunch program (67). Of this 70%, 90% came from low-income families and 81% received free or reduced price lunches (67). Furthermore, minority children from low-income families with a mother who had low levels of education were significantly more likely to eat a school lunch (67).

Another program that exists within the United States is the Expanded Food and Nutrition Education Program (EFNEP). This program uses experiential learning to improve the health of low-income families by educating them about how to: make cost-effective and nutritious food choices; prepare and store food; manage a food budget; change nutrition-related behaviors; and prevent food-borne illness (68,69). The EFNEP has the ability to teach families about the skills needed to meet nutritional needs and improve confidence in managing food situations (68). In addition to EFNEP is the Supplemental Nutrition Assistance Program (formerly called Food Stamp Nutrition Education) that educates participants about how to make appropriate dietary choices (69). Typically, quantitative research methods like the 24-hour dietary recall and self-reported food behavior surveys are used to evaluate the EFNEP (69). This type of data is measured at the time of participant enrollment and again when the participant completes the program; allowing for documentation of behavior change related to food and nutrient intake as well as food related behaviours (69). Some researchers have used focus groups to examine participants' perceptions and experiences of the EFNEP while some have used open ended, face-

to-face interviews (70).

Hoover, Martin & Litchfield determined that participants enrolled in the program to gain more information about healthy eating, recipes, and family well being. Participants reported that many different aspects of the program helped with self-determination, happiness, and making lifestyle choices (69). Moreover, those who graduated from the program attributed their success to wanting to learn more, the flexible nature of the program, and the educator (69). A common barrier to EFNEP or Food Stamp Nutrition Education participation was time while a barrier to graduating was lack of childcare and flexibility (69). Additional qualitative findings about the EFNEP revealed that participants experienced increased self-esteem, allowing them to take greater control over their nutritional and health status (70). In addition, positive non-nutritional benefits have been determined such as health, family, and work changes (70).

In 2000, a research study was conducted to examine benefits that female EFNEP participants gained with regard to food practices, food budgeting, nutritional knowledge, and nutrient intake at program entry, program graduation, and one year after completing the program (70). This prospective study design used open ended, face-to-face interviews to examine socio-demographic and nutritional information as well as food program participation (70). Ten of 12 food practices including food preparation, food budgeting, and food safety improved significantly between entry and graduation and persisted until the one-year follow up mark (70). Additionally, nutritional knowledge increased considerably from entry to graduation, and food practices were sustained up until the one-year follow up period (70). Participants stated that their interest in eating and health practices improved through the program, they became more interested in their child's nutritional needs, and they perceived that their health status was better after participating in the EFNEP (70). Furthermore, program participants started eating more

fruit, vegetables and grains, and learned how to read food labels and stretch their food budget (70). Ultimately, education gained through this program increased self-esteem, allowing participants to take greater control over their nutritional and health status (70).

The existence of such programs and their accompanying outcomes certainly reveal the value and importance of creating supportive environments for vulnerable population groups. As such, the following piece will examine similar programs and outcomes specific to NS.

## **2.10. Creating Supportive Environments in Nova Scotia**

In addition to nutrition and health-related initiatives and recent research undertakings within the province of NS there are additional initiatives in existence (Appendix A) that are aimed at the creation of supportive environments for all Nova Scotians. These initiatives recognize that low-income circumstances are a risk factor for children that require careful monitoring (71). They also recognize that while individuals need to engage in physical activity and healthy eating practices, our social and physical environments suggest otherwise (12). By encouraging people to “eat less and move more” our environment must include both accessible and affordable health options as well as health messages that are easy to understand (12). As such, environmental considerations must align with policies aimed at improving socio-economic conditions like FI and consider that not all individuals have the time, money, or accessibility to health opportunities (12). To date, these considerations have resulted in healthy eating policies in schools, recreational facilities, and public spaces so that healthy choices are available where we live, learn, work, and play (12). Unfortunately, these initiatives do not include specific actions towards reducing the number of children living in low-income families. Moreover, minimal information exists about the how low-income or food insecure families apply practices learned in the school or community to their home environment.

These initiatives encourage collaboration among departments and agencies to support children and youth in working with community partners on health promotion projects that support good health; sexual health, healthy eating, and health inequities (72). It is also believed that collaborative efforts can support vulnerable populations, create sustainable funding opportunities, and create a food literacy plan for NS through community gardens, open farm programs, community-supported agriculture, cooking classes, and collective kitchens (12). Ultimately, these initiatives are relevant to school health and the study of FI within NS and provide insight into suggested supports that may be needed by vulnerable students and families in order to overcome issues surrounding FI.

## **CHAPTER 3: PARADIGM, METHODOLOGY & THEORETICAL FRAMEWORK**

The upcoming sections in this chapter will introduce the research paradigm, methodology, and theoretical framework that were used to explore an overarching research question. Approaching this research using a critical research paradigm, tenets of Institutional Ethnography (IE), and Bronfenbrenner's Ecological Model informed understanding the issue of food insecurity (FI) within two elementary school communities in Eastern Shelburne County (ESC), Nova Scotia (NS). It should be noted here that the reason why only tenets of IE were used in this study is because the recruitment process proceeded quite rapidly. As such, the researcher did not have time to completely transcribe and analyze each interview and applicable documentation before moving along to the next interview.

### **3.1. Research Paradigm**

This research question was explored using a critical paradigm, which strives to examine societal structures and power relations as well as their role in promoting inequality and disabling people while also promoting reflection and action on what is right (73). This paradigm attempts to describe underlying structures that influence FI through observation and through gathering information about lived experiences and their causes (73). The goals of the critical paradigm include the exploration of power relations, oppression, and the relationships between dominant and subaltern social worlds such as those of policy/decision makers and those of vulnerable populations experiencing FI (73). Ultimately, the critical paradigm assisted with comprehending how nutrition and health-related initiatives impact the food-related decisions/behaviours made by individuals and families experiencing FI in rural NS (74,75).

### **3.2. Research Methodology**

Institutional Ethnography (IE) was selected as the methodology of choice for exploring the phenomenon of FI because of its critical nature and its previous use in the study of health care, education, home, and community life (76). This methodology is concerned with discovering beyond any one individuals' experience, including that of the researcher, to determine how people's activities are coordinated (77). Institutional Ethnography begins by listening to and observing experiences of tension or disjuncture (i.e., the difference between what is experienced and what is officially known about an experience) in two sites of interest; the setting in which people experience their own reality and the boundaries that exist outside of daily experiences – the translocal – to understand activities and conditions of daily life (75,79). It is through listening and observation that a researcher can then begin to identify social relations – people's decisions and actions (75). Examples of social relations include food purchasing, eating, shopping behaviours, and paying for purchases; things that people do unknowingly, yet are coordinated beyond their experience (75). The relationship between social relations is what comprises a social organization, the institutions of daily life including government, health care, education/academia, professionals, and media that govern our daily lives and shape the organization of knowledge and power (75,79). Institutional Ethnography is also comprised of what Smith describes as ruling, or the socially-organized exercise of power that shapes people's actions and their lives and is almost always associated with texts (75). Typically, texts and documents are actively created and used by social organizations to exercise power and connect individuals across time and space to organize daily actions (78). Sometimes, ruling relations such as nutrition and health-related initiatives have good intentions for supporting students and families to improve health but may in fact be oppressive for those who are food insecure (75).

Employing IE provided the opportunity to learn about individual and familial experiences of FI as well as the social relations like food affordability and availability, physical food accessibility, and the use of community-based supports/services that are embodied in people's daily lives. Moreover, this methodology is also concerned with learning from individuals who work within social organizations (i.e., elementary schools and school community) that exist outside of the boundary of personal experiences as they operate under or create ruling relations such as nutrition and health-related initiatives that shape people's values, decisions, and daily lives. Following this process assisted with establishing connections between all of these elements of IE in order to explicate experiences of FI in rural NS.

Furthermore, IE is concerned with empowerment. This refers to the collaborative sharing of power that ensures vulnerable people who are considered different from the norm have the same opportunities as others (79). For those who are food insecure, the ability to feel empowered to make healthy lifestyle decisions may be hindered by limited food affordability and accessibility (79).

It is important to keep in mind that when using IE, the process is rarely planned out in advance because the sequence of the interviews remains unknown until they are underway (75). The qualitative information gathered in the early stages of the project enables further research questions to emerge about the issue at hand, resulting in the discovery of various social relations that exist within social organizations like the school or community (78). Rather than focusing on the generalization of research findings, IE strives to describe social processes that produce generalizing effects such as similarities of experiences within a specific institution (76).

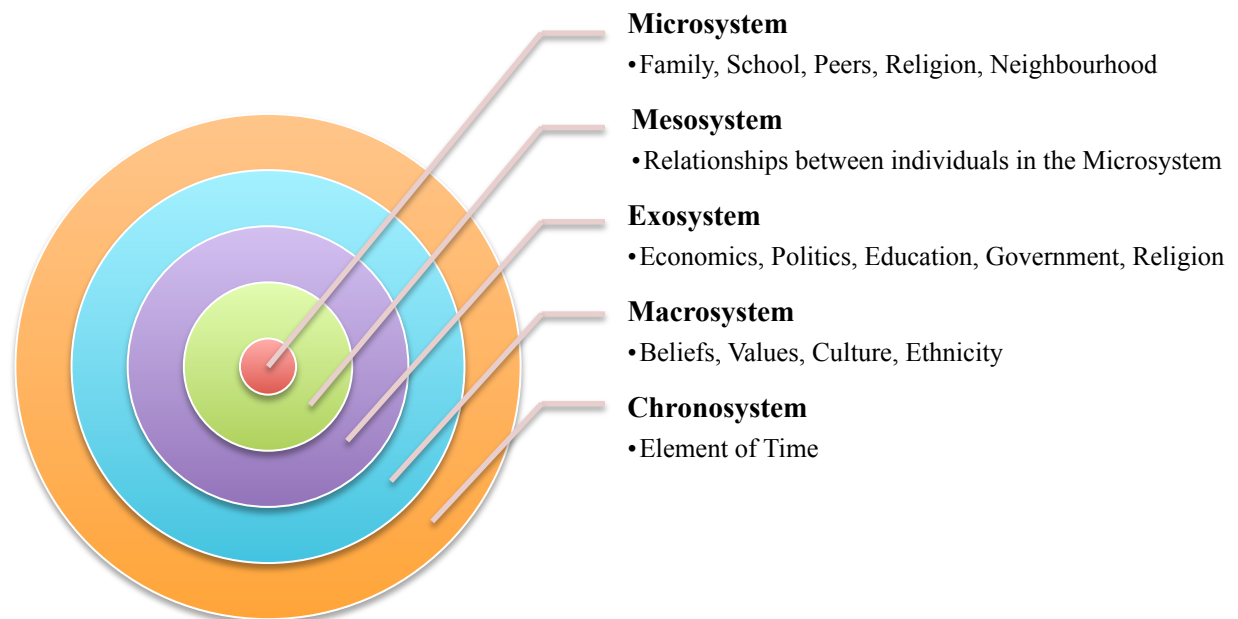
The most common forms of data collection used in IE are interviews, focus groups, participant observation, the researchers own personal reflections and observations, and document

review (75,76). As such, a combination of these methods was utilized along with Bronfenbrenner's Ecological Model in order to frame this project and more importantly, provide critical insight into the lived experiences and perceptions of FI.

### 3.3. Theoretical Framework

Bronfenbrenner's Ecological Model, shown in Figure 1, proposes that human development (i.e., the multidisciplinary study of how people change and remain the same over time) is dependent upon complex and interactive processes that exist between an individual and their environment, which is made up of the microsystem (family and friends that influence an individual), mesosystem (connections between structures and relationships in the microsystem like neighbourhoods and schools), exosystem (positive or negative forces like government or policy involved with system interaction), macrosystem (values, laws, and ideologies), and chronosystem (environmental changes over time) (80,81).

**Figure 1: Bronfenbrenner's Ecological Model (80,81)**



Bronfenbrenner’s Ecological Model allowed for the study of school health, health promotion, and FI as it relates to students and their subsystems (25). Subsystems include family, peers, school, community services, policies, culture, and the surrounding physical and social environments; sites where people live, work, and play (25). This model allowed for the exploration of perspectives and experiences of individuals at each system as well as the relationships that exist between systems for the analysis of factors that have different influences on an individual’s development. More specifically, it provided an opportunity to understand how students and families who experience FI make food-related decisions/behaviours in light of individual and collective determinants of healthy eating, nutrition and health-related initiatives, and events and/or relationships occurring at or between the systems of the model.

Moreover, using Bronfenbrenner’s Ecological Model and IE to study FI within the school and community allowed for qualitative inquiry to begin at the microsystem, which resulted in the generation of new research questions and further investigation at the mesosystem and exosystem levels. Below, Table 2 represents the relationship between Bronfenbrenner’s Ecological Model and IE.

**Table 2: Relationship Between Theoretical Framework and Research Methodology<sup>7</sup>**

<b>Bronfenbrenner’s Ecological Model</b>	<b>IE</b>
<i>Individual</i>	Students who attend a rural NS elementary school
<i>Microsystem</i>	Experiences of individuals and families who live the reality of FI
<i>Mesosystem</i>	The relationship between students and families who experience FI and peers, school staff and the school community
<i>Exosystem</i>	Social organizations and policies that guide health and nutrition behaviours through ruling relations
<i>Macrosystem</i>	Social relations/ideologies like values, beliefs and practices that are embodied in people’s daily lives

<sup>7</sup> IE stands for Institutional Ethnography, NS stands for Nova Scotia, FI stands for food insecurity

It was expected that individuals positioned within the microsystem would have varying degrees of relationships with people, places, and programs within their school community (i.e., the mesosystem) but based on the review of existing literature, would not rely solely on the school to provide education and support for overcoming FI. Moreover, it was anticipated that forces and factors positioned within the exosystem, including nutrition and health-related initiatives, would aim to provide all students with opportunities to learn about health in a holistic way but not entirely address the issue of FI. This was suspected to make it difficult to understand the role that elementary schools play for vulnerable students and families and how they benefit from such frameworks. At the macrosystem, it was expected that parents, school staff members, staff members/volunteers from community-based organizations, and policy/decision makers would place value upon school-based nutrition and health-related initiatives. It was also anticipated that such initiatives would be valued differently by all participants depending on personal values, beliefs, and ethnicity but that suggestions to develop future initiatives that align closely with their value and belief systems would be voiced. The next section outlines the specific research methods that were used to examine these relationships.

## **CHAPTER 4: RESEARCH METHODS**

The data used in this research included individual interviews, document review, and a reflection of the researcher's experiences and observations. These three methods, along with the tenets of Institutional Ethnography (IE) helped to draw upon an IE approach in order to develop an understanding of how school communities in Eastern Shelburne County (ESC), Nova Scotia (NS) are addressing issues related to food insecurity (FI). More specifically, these methods assisted with collecting information about the daily lives of those who live the reality of FI as well as the perceptions and experiences of individuals who are situated translocally, meaning they exist outside of the lived experience of FI yet play a role in supporting students and families who experience challenges with accessing and affording food (74,82).

Purposive sampling, the deliberative selection of particular settings, persons, events, or institutions to gather information from specific sources was used to select the county of interest and the two elementary school communities where the interviews were conducted (83). Purposive sampling allowed for the exploration of the daily experiences of families with children vulnerable to FI and how their experiences are connected to and shaped by the school, community, and ruling relations, a practice consistent with an IE study (76). Additionally, this approach allowed the sample to evolve on its own, another characteristic of carrying out a study using IE (83). Ultimately, exploring different viewpoints and experiences from a variety of individuals within these two school communities enabled me to explore the suggested research aims and answer the central research question.

### **4.1. Recruitment Strategy**

These two towns within ESC were purposefully selected for participation in this study because of their rural geographical location within NS and because of their involvement as a case

community in the Community University Research Alliance: Activating Change Together for Community Food Security (CURA: ACT for CFS) project. More specifically, two elementary schools were purposefully selected as the primary sites of analysis. Prior to recruiting participants from these two elementary school communities the researcher obtained permission from the Tri-County Regional School Board (Appendix C) as well as each elementary school principal. This involved providing each party with a Study Information Sheet (Appendix D) that described the research goal, objectives, and research process, as well as a Letter of Request to Conduct Research (Appendix E).

As previously stated, purposive sampling was used to guide participant recruitment. Using this approach helped to trace points of connection among individuals working in different parts of an institutional complex to understand the institutional processes that shape FI (76). The goal of this recruitment strategy was to recruit at least two participants from each system within Bronfenbrenner's Ecological Model, with a goal of recruiting 10-12 participants. However, due to the emergent nature of IE, it was difficult to know exactly how many participants would be recruited from entry point and beyond.

For the purpose of this study, a parent participant was defined as a parent of an elementary school student who self identified as experiencing low-income or issues related to FI (i.e., challenges with accessing and/or affording food). School community participants included school staff members familiar with the challenges faced by students experiencing issues related to FI, staff members/volunteers from a community-based organization who may or may not be connected with the elementary school of interest but provides support to low-income families, and policy/decision makers who contribute to the development of initiatives aimed at the promotion of child and/or family health, nutrition, and/or school nutrition policies.

The purpose of the initial interview phase was to recruit at least two parent participants in order to gather information about the lived experiences of FI and thus, develop the microsystem. It was anticipated that these interviews would provide valuable information and allow for entry into the mesosystem, at which point the researcher could discuss these same issues with a minimum of two school staff members or staff members/volunteers from community-based organizations who may be closely connected to parents of vulnerable elementary school students. This would allow for an analysis of the school and the community settings and the role each plays in addressing FI, either independently or in collaboration with others in the mesosystem. While the researcher could not predict the direction of potential interview sources it was expected that the individuals who existed at the mesosystem would be able to provide guidance or recommendations for potential participants involved with the exosystem, preferably policy/decision makers involved with the government, education, and/or or health-related initiatives. It was projected that these policy/decision makers would be able to provide an in-depth glimpse about how the school community is working towards improving health and overcoming barriers for those who experience poverty and/or FI.

The first step involved in carrying out this recruitment process included collaborating with members of the ESC case community about this research study. It was anticipated that because the case community members were already involved in the CURA: ACT for CFS project that they may have connections or relationships with potential recruiters in ESC (i.e., school staff members and/or staff members/volunteers from community-based organizations) familiar with the challenges faced by students and families who experience issues related to FI outlined in the recruitment criteria. As this was the case, the researcher connected with several elementary school staff members and staff members/volunteers from community-based organizations within

each school community in June 2013 to inform them about this research study and provide them with a Study Information Sheet (Appendix D) and request their assistance with recruitment of parent participants. During these encounters, each recruiter who agreed to assist with recruitment was provided with a recruitment poster (Appendix F) to advertise or distribute in a way they felt would be reach the target population.

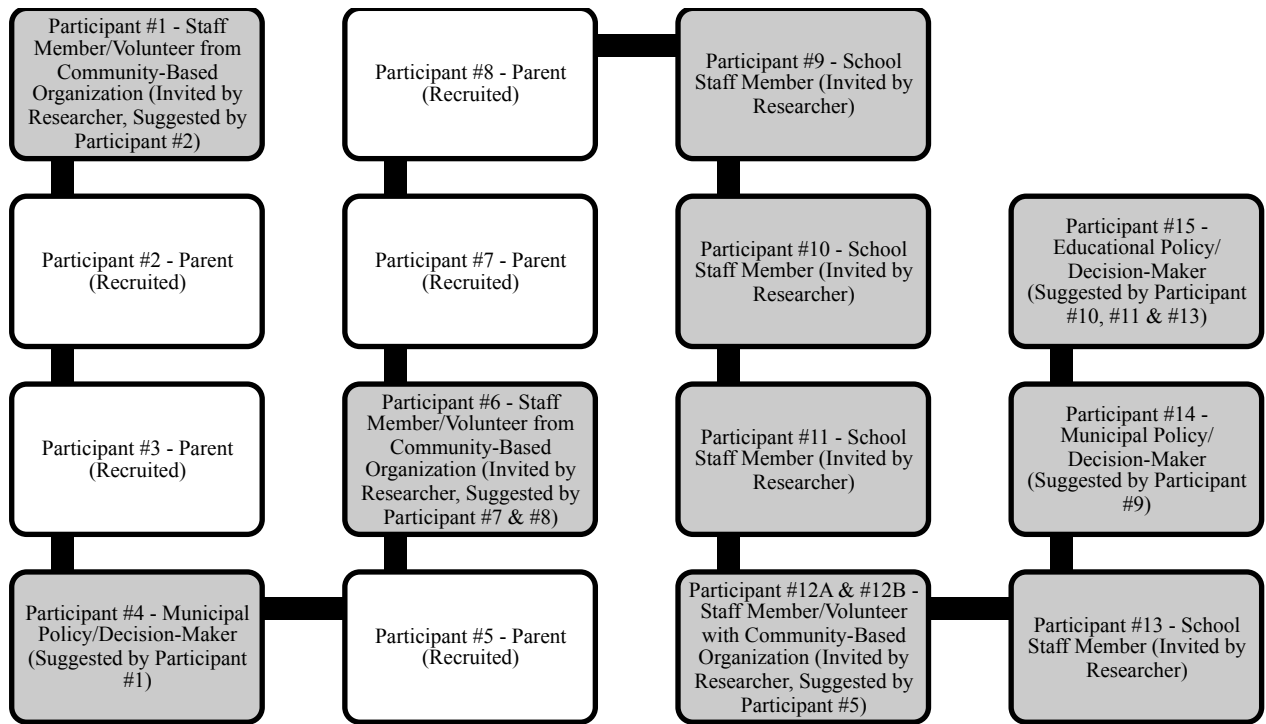
## **4.2. Recruitment Results**

Between the months of June 2013 and early August 2013, not one single parent participant was recruited for this study. With guidance from my thesis committee, it was suggested that I invite five potential participants most closely connected with students and families who may experience issues related to FI to participate in this study. Of the five potential participants who were invited to participate in an individual interview, four agreed and one declined. Two of these individuals were staff members/volunteers with community-based organizations, one from each town, and the other two individuals were school staff members from the elementary school #1 (ES1) community.

Once the first two interviews were scheduled, I was encouraged to spend one week in ESC in order to become immersed in the culture of ESC and be available to conduct emerging interviews. In keeping with the tenets of IE, each participant was asked for suggestions as to who else within their school community (excluding parents of students who may experience FI) could be contacted and invited to participate in this research project. As the recruitment process evolved rather quickly from the time the initial interview was complete, it was not possible for me to engage in a true IE study. For example, it was not possible for each interview to be analyzed in its entirety prior to proceeding to the next interview that emerged. As this study involved participation by both recruitment and invitation, the following timeline, Figure 2, has

been created to best represent this process, including details surrounding which participants were recruited, invited by myself, or suggested by research participants. Between late August 2013 and early October 2013, 15 interviews were conducted with 16 participants (one interview included two participants). Please note that the grey boxes represent school community participants and the white boxes represent parent participants.

**Figure 2: Timeline of Recruitment Process**



Once recruited, the primary researcher reviewed the Information and Informed Consent Package (Appendix G) with the participant, including the availability of a List of Counselling Services (Appendix H), and obtained all necessary signatures prior to beginning data collection and data analysis.

### 4.3. Data Collection

As previously described, developing a deeper understanding of how elementary schools are supporting students and their families who are experiencing FI was explored using individual

semi-structured interviews, document review, and a reflection of the my own experiences and observations. These methods assisted me in gathering descriptions about what participants do in their daily lives in relation to FI (76). In addition, the descriptions that participants provided to helped to identify and explicate how and why FI works the way it does, specifically the ruling relations and work processes that exist within the school institution that shape the experiences of students and families who experience issues related to FI (76). I conducted each interview in person in a space suggested by the participant. All interviews were audio-recorded and the length of the interviews ranged from 41 to 99 minutes. Conducting interviews helped to build an understanding of how activities related to FI are carried out by individuals and influenced by social organizations, and forces and factors that exist within the various systems of Bronfenbrenner's Ecological Model (75).

A semi-structured, open-ended interview guide was developed and used for conducting 15 interviews with the 16 participants, one for each type of participant (Appendix I). The development of a captivating interview guide enabled me to establish an understanding of FI as it relates to personal experiences, social organizations, forces and factors, and ruling relations (82,84). The benefit of such a guide is that it allowed me to follow the questions as well as conversations that may have run off course (84). Additionally, this type of interview guide helped with the collection of credible and dependable qualitative data (84). It is important to keep in mind that having a standard set of questions for each interview may not be beneficial when using the IE because each set of interview questions will change based on what is learned from the previous interview (76). The answers obtained from questions used for the initial set of interviews assisted in the development of further questioning in the interviews that followed.

Moreover, interview questions were guided by experiential learning theory, which aims to understand the role of personal experiences in the learning process by framing questions in the following manner: What do you see happening? Why do you think it has happened? What have you learned from your experiences and what can you do about it now? (85). This approach seemed suitable for this research project as it allowed participants to reflect on FI, more specifically what is happening within the elementary school community to support students and families experiencing FI, what can be learned from these experiences, and how supports can be altered or improved upon with or between the systems of Bronfenbrenner's Ecological Model to better support this population group.

During each interview, participants were asked about types of nutrition or health-related documents (i.e., paper-based or web-based resources) that exist within the school community and what types of information or messages they send about food, nutrition, and/or health. If the participant had access to a copy of a specific type of document that they mentioned, they were asked to provide it in order to assist with the document review. If the participant did not have a copy of a specific document, they suggested ways in which it could be obtained. Upon completing all interviews, I had obtained the following documents: the Food and Nutrition Policy for Nova Scotia Public Schools (FNP), including guidelines and directives, and food and beverage standards, *Eating Well with Canada's Food Guide*, eight monthly lunch menus from ES1, one monthly lunch menu from elementary school #2 (ES2), a welcome newsletter from each school, a breakfast program advertisement from ES2, and 12 one-page Home Play resources from ES1.

The review of each of these documents was conducted as part of this research because it assisted with understanding the connections between personal accounts and experiences as well

as ruling elements related to the promotion of nutrition and health within the school community and the role they play in shaping FI in ESC (75). This review process took place after the analysis of all interviews. Moreover, my own personal reflections and observations were audio-recorded and transcribed during the initial stages of recruitment in June 2013 and during data collection. The benefit of using these multiple data sources is that it ensures credibility through triangulation and assists in the development of a rich understanding of FI within the context of the school community, more specifically the research setting and participants (74).

Each interview was audio-recorded, transcribed verbatim, and imported into MAXQDA 11 qualitative data analysis software. The same process was used for my own personal reflections and observations. Furthermore, resources collected for the document review were scanned and imported into MAXQDA 11 for investigative purposes.

#### **4.4. Data Analysis**

The analysis of the qualitative data was approached using thematic analysis, which is commonly used in ethnographic studies to identify and describe themes and relationships that emerge from patterns of living and/or behaviours; the central goal of this research (86).

To conduct thematic analysis, I used the interpretive process of coding, more specifically open, axial, and selective coding to analyze qualitative data (87). Coding the data in this manner allowed for the comparison of events, actions, and interactions (87). Open coding breaks down data into events/actions/interactions for comparison and assigns them a label in order to create categories and subcategories within that label (87). This process was carried out in each of the 15 interviews collected. The benefit of open coding is that it stimulates the generation and comparison of questions such as what, where, when, how much, etc. (87,88). Axial coding occurred when I was able to make connections between categories and its subcategories at which

time some categories are further developed and some are newly developed (87,88). This process allowed for the development of broad categories that assisted with the streamlining the open coding process. Lastly, selective coding occurred when all categories were combined around the central phenomenon of FI (87). This process involved the organization of the codes created during axial coding to be placed into one four categories that represented the five systems of Bronfenbrenner's Ecological Model.

The early analysis of the qualitative data is advantageous when using IE as it allows for the reformulation of research questions prior to moving forward with the remaining interviews (87). As previously stated, this was not entirely possible as recruitment and data collection proceeded quite quickly and steadily. Additionally, I ensured that constant comparative analysis was conducted. This included the ongoing assessment of incidents throughout the duration of the data analysis (87). Analyzing data in this manner captured experiences of individuals and families who experience FI in addition to the experiences of individuals who support them as guided by the ruling relations of various social organizations (75). Capturing these experiences assisted me in mapping social relations across many settings in order to organize and coordinate experiences of the knower and the known (75).

During the process of data analysis, I created memos to keep track of activities, research questions, conceptual labels, subcategories, categories, and any new hypothesis that emerged (87). As stated, the computer-based qualitative data analysis software program MAXQDA 11 was used to organize, code, and categorize all qualitative data collected. The advantage of using MAXQDA 11 was that interview transcripts, documents, and personal reflections could all be imported and analyzed for patterns and explanations relating to FI. In keeping with the tenets of IE, I first coded the parent participant interviews in order to analyze the lived experiences of FI.

Following this, I then coded the interviews that were conducted with school staff members, staff members/volunteers from community-based organizations, and finally, the policy/decision makers in order to examine the translocal experiences that relate to FI.

#### **4.5. Establishing Trustworthiness**

The realistic and descriptive nature of qualitative research does not allow for validity and reliability to be used in the same way they would be in a quantitative research project. Due to this, trustworthiness has been deemed a suitable way of describing the validity and reliability of qualitative work (87). Trustworthiness encompasses the following criteria: credibility, transferability, dependability and confirmability (89).

Credibility aims to address the similarity of research findings in relation to reality or the truth of what is captured by participants and is largely dependent upon the researcher and their ability to ask questions that capture lived experiences as accurately as possible (89-91). In this study, triangulation and member checking were used to capture reality and establish truth. Employing triangulation involved the use of multiple data sources such as interviews, document review, and the collection of my own personal reflections and observations. Triangulating the data allowed me to address a broad range of issues about FI within the context of the school community and add depth to the research findings (92). Triangulation also allowed me to compare and contrast what participants said about addressing FI based on the differing viewpoints they held about the topic (92). Furthermore, credibility involves member checking, which is the verification of collected data with the participants who provided the information (93). After all interviews were audio-recorded and transcribed, school community participants were provided with the opportunity to review a one-page summary of their interview and correct and/or expand upon their reports if necessary (90). The decision to exclude parent participants

from member checking was made in the event that they had challenges with literacy or Internet access. Of the 11 school community participants who were provided with the opportunity to review their one-page summary, seven accepted, two declined, and two did not respond within the timeline provided. For the seven participants who accepted, six completed the process and did not request any modifications. One participant did not respond within the timeline provided.

Another element of trustworthiness is transferability, the goal of which is to incorporate research findings into similar contexts that exist in the real world and gather a rich description of both settings and participants (90). In this study, transferability was addressed by clearly stating the study's inclusion/exclusion criteria, providing a rich description of participants, the semi-structured interview guide, and the use of multiple research methods to gather descriptive data.

Dependability is accomplished by using similar research methods within a research project (91). In this study, this was accomplished by conducting individual, semi-structured, open-ended interviews with all participants, each of which asked a very similar set of questions (91). Furthermore, being able to explain the steps of the research study in detail from the point of design to evaluation will help future researchers to carry out the similar research and establish good research practices, another characteristic of dependability (91).

The last criterion for trustworthiness is confirmability, whereby a researcher engages in reflexivity throughout the research process. Reflexivity involved the recognition of my worldview and beliefs and how that influenced my approach to the research question and my methodological decisions (91,93). Keeping an audit-trail (i.e., a record of sequential research decisions, reasons for decisions, and information gathered during the research process) during recruitment, data collection, and data analysis as well as writing a personal reflection of my research experience and observations assisted me to establish confirmability (91). Finally, during

the data analysis process, transcripts, one-page interview summaries, and coding decisions were shared and reviewed with all members of the thesis committee for agreement and verification.

#### **4.6. Ethical Considerations**

Prior to beginning this study, a research proposal in addition to two ethics applications and required information and consent forms were submitted to the Mount Saint Vincent University Research Ethics Board and the South West Nova District Health Authority Research Ethics Board for review. Upon approval, ethics certificates were obtained and renewed as needed throughout the duration of this thesis (Appendix J). These information and consent forms addressed physical, mental and social harm as well as privacy, confidentiality, and anonymity.

##### **4.6.1 Physical, Mental and Social Harm**

I did not anticipate that any participant involved in this research study would be exposed to physical harm but recognized the potential for mental or social harm due to the sensitive nature of FI. More specifically, participants could have experienced emotional distress when sharing and reflecting upon their individual or family experiences with FI. As such, I was prepared to provide participants with a List of Counselling Services (Appendix H) available in ESC if requested. This did not occur at any point during this study.

##### **4.6.2 Privacy, Confidentiality and Anonymity**

To ensure privacy during the recruitment process, the personal contact information of potential participants was not requested by the recruiters. A Recruitment Poster (Appendix F) containing my primary contact information was provided to recruiters who expressed interest in gathering participants for this study. Interested participants were encouraged to contact me in order to participate in this research study. Privacy was also established by conducting individual

interviews in a private space within ESC in a location of the participant's choice. Moreover, I was present for each individual interview and also made written notes during each interview.

To establish confidentiality all personal information and data collected from participants was stored in a secure and locked space at Mount Saint Vincent University where it is only accessible by the members of the research team. In an attempt to establish anonymity, participants' identities were not linked to their responses and participants' names were not used in any research reporting. Instead, participants were assigned a pseudonym as to not reveal their true identity. This is important as FI can be sensitive to discuss and participants may not want their identity linked to their experiences. Electronic and paper materials/copies of data will be securely stored and maintained by the one of the Co-Supervisors for five to seven years after the end date of the project or five years after the publication of the thesis, whichever comes first.

#### **4.6.3. Information & Informed Consent**

Prior to involvement in this study, recruited participants were provided with an Information and Informed Consent Package (Appendix G) that included all study information as well as the required informed consent paperwork. This information package outlined the purpose of the study, proposed research methods, participant inclusion criteria, voluntary participation, duration of study, risks and benefits of participation, reimbursement, confidentiality, results sharing, and the right to ask questions and/or withdraw from the study. I reviewed the details of this information package with each recruited participant, provided them with the opportunity to ask questions about the research study, and then confirmed their understanding of this research study. If each recruited participant understood the research study and agreed to participate, they were then required to sign an informed consent form prior to initiating each interview.

## **4.7. Summary**

This research sought to understand the ways in which rural NS elementary schools, community-based organizations, and ruling forces and factors within society are connected and how they support vulnerable elementary school students and their families to achieve food security. Bronfenbrenner's Ecological Model in combination with tenets of IE, assisted with learning about FI in ESC within the context of the school community, more specifically within town #1 (T1), town #2 (T2), ES1, and ES2 from the perspectives of parents of vulnerable elementary school students, school staff members, staff members/volunteers from community-based organizations, and policy/decision makers who work within government and education. As the upcoming chapters will reveal, this approach provided insight into the relationships between these perspectives and how multiple social organizations as well as forces and factors shape issues connected to FI. It is my hope that these findings may be relevant for the development of policies and programs aimed at improving access to healthy food, addressing obstacles associated with food accessibility and affordability within rural NS communities, and creating supportive environments for those who are experiencing FI.

## **CHAPTER 5: FINDINGS**

The findings below are organized according to Bronfenbrenner's Ecological Model, starting with the experiences of food insecurity (FI) as shared by parent participants. This is followed by the school community participants' experiences working with and/or supporting families who experience issues related to FI and their perceptions, observations, and opinions related to this experience. The exploration of these stories assisted with the identification and description of social organizations within the school community, including their programs and policies, and various forces and factors that play a role in shaping the experience of FI. The final section of this chapter critically examined these findings to explicate the social relations of FI as well as the relationships that exist within and between the various systems of Bronfenbrenner's Ecological Model to better understand how school communities are supporting students and families who may experience FI and how they could be more supportive of this reality within Eastern Shelburne County (ESC).

### **5.1 Community Context**

Eastern Shelburne County is a small, tight-knit community located along the South Western shore of Nova Scotia (NS) (66). The two school communities that were examined in this study are located in two towns within ESC, located approximately 30 kilometers from one another. According to Census data, town #1 (T1) has a population of 1,919 while town #2 (T2) has a population of 3,336 (95,96). Moreover, characteristics of this county include its fishing industry, social support networks, and self-reliance, especially when access to food and grocery stores is difficult (66). Additionally, ESC is home to one small independent grocery store (GS1) located in T1 and one large grocery store (GS2) located in T2. For residents of T1, driving to

GS2 take approximately 25-30 minutes. Furthermore, ESC does not have current infrastructure in place that supports a municipal transportation system.

Elementary school #1 (ES1) is located in T1 and elementary school #2 (ES2) is located in T2. Both ES1 and ES2 are not designated as Nova Scotia Health Promoting Schools (NSHPS) within the Tri-County Regional School Board, but each school does operate a universal breakfast program and a lunch program. Each school offers two daily lunch options that are designed to follow the Food and Nutrition Policy for Nova Scotia Public Schools (FNP). Each elementary school prefers that meals be paid for on a daily basis, and not on credit. What is unique about ES1 is that it shares the same property as its neighbouring high school that has a greenhouse where vegetables and flowers are grown for school community events (97). This greenhouse provides year round learning and growing opportunities and is available for use by students, staff, and the community (97, 98). Furthermore, ES1 and its neighbouring high school are the first two schools in NS to be designated a United Nations Educational, Scientific and Cultural Organization Associated Schools Project Network<sup>8</sup> (99).

## **5.2. Microsystem: Experiencing Issues Related to Food Insecurity in Rural Nova Scotia**

### **5.2.1. The Lived Experience: Parent Participants**

I began each interview by asking each of the five parents to share any information they wished about themselves and their family, as represented in Table 3. Afterwards, parents were asked to describe their family's experiences with food, more specifically, accessing and/or affording food in ESC. All parent participants were mothers, some married and others lone mothers, and most were unemployed, receiving income from financial assistance programs.

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<sup>8</sup> The UNESCO Associated Schools Project Network works to support international understanding, peace, intercultural dialogue, sustainable development and quality education (99).

**Table 3: Personal Profiles of Parent Participants**

<b>Name of Parent Participant (Pseudonyms Used)</b>	<b>Marital Status</b>	<b>Number of Children Who Attend Local Elementary School</b>	<b>Employment Status &amp; Source of Personal Income</b>	<b>Income Source(s)</b>	<b>Access to Personal Transportation</b>
Jody	Common Law	2	Unemployed	Employment Insurance	Yes
Mona	Married	2	Self-Employed	Employment	Yes
Dawn	Lone Mother	1	Unemployed	Not Shared by Participant	No
Amy	Lone Mother	1	Unemployed	Income Assistance, Child Tax Credit	Yes
Nora	Lone Mother	1	Unemployed	Not Shared by Participant	No

***5.2.1.1. Food Affordability***

All parents described the cost of purchasing healthy, nutritious food for their families and their experiences affording food. Jody and Amy described their efforts to balance both food expenses and household expenses such as vehicle payments, power bills, fuel/oil, television, Internet, and telephone bills. Participants described how some of these household expenses are more important than others (e.g., car payment versus bill payments), some cannot be avoided or missed (telephone bills), and some are either not paid in order to pay for groceries or are weighed against grocery purchases.

*I only usually go big grocery shopping, like this week I went big grocery shopping 'cause it was child tax so I drove here and we spent close to \$500 on groceries. And that'll last me probably two weeks. If I stretch. If I stretch it. And that was because I had a, a bulk of money, I was going to just not pay some bills and just get a bunch of groceries. [Jody]*

*But say we have to have a phone for welfare to contact us or anybody to contact us so there's another few dollars, say 50 bucks nowadays I guess or more depending if we want more off of it and um, just your basics. I was lucky, I got Internet from next door, I pay her \$20 a month, she unlocked---she gave me the thing and I pay \$7.99 for my kids to have Netflix. You know, like, I, honestly it's, it is tough... [Amy]*

At times, household expenses are juggled against food expenses or shared with neighbours in an effort to reduce costs (e.g., Internet). Nora shared that the struggle to balance food expenses and household expenses sometimes results in using the food bank, especially with children to feed.

*Like if I, I went to the food bank like, 'cause with me it's only me here and I only get a certain amount of money and I'm living in a two bedroom house, I'm paying \$500 a month and I have to come up with my own oil. So it's either pay your power this month or buy...I always buy my food but it's always, you got to weigh it out which one you're going to pay first and that. When your food gets low and that and it's like you have to go to the food bank. When you got two kids (unclear). I use the food bank quite a bit. [Nora]*

For Jody, utilizing GS1 in T1 is beneficial because in her experience the owner allows her and others who struggle with issues related to FI to keep a tab and pay it off monthly. Due to the distance between her home in T1 and GS2 Jody either spends her money on transportation to get to the grocery store or on higher priced food at GS1, which is within walking distance from her home. Typically, less frequent trips to GS2 translate into bulk grocery purchases that last about two weeks if “stretched”. For Jody, stretching food dollars is associated with purchasing family packs of certain food items in order to make bulk amounts of recipes that can be stored or frozen and used for leftover meals. For Mona taking advantage of sales or “buy one, get one” opportunities at the grocery store when available is how she stretches her food dollars.

*But, like I said before, when you only have 30 dollars in your pocket, which is common place we'll go up to the store which is two minute walk and pick up enough stuff or that 30 bucks for that day instead of spending half of that money to get, 'cause the gas is so expensive to get to [name of GS2]. [Jody]*

*I mean, chicken breasts, a package is like, \$26 at [name of GS2]. That's insane. That's like gold you know, so. So when it's buy one, get one free I'm like, stocking up you know and so it [purchasing healthy, nutritious food] definitely has its challenges. [Mona]*

For Mona, her experience with FI becomes better or worse with seasonal fluctuations in household income, which often determine what types of food items she packs in her children's lunches. Times of low income result in purchasing cheaper food while times of high income result in more thoughtful and "balanced" food purchases. Having access to personal transportation means that Mona makes frequent trips to T2 and grocery shops at GS2 quite often, which enables her to take advantage of sales. Nonetheless, she was concerned about the high expense associated with constantly eating well, especially when her family income is limited.

*I try to you know, be conscious of when I'm packing the kids lunch, that it's you know, not all junk you know 'cause some, sometimes when we were really, really low it had to be what was the cheapest. It had to be what I wouldn't really want to send but I had no choice you know but um, but when income is good then I'm obviously more thoughtful and more like, okay you know, a Cheese String and an apple and you know try and make it more balanced. [Mona]*

For Amy, the process of grocery shopping at GS2 is overwhelming, upsetting, and aggravating due to the fact that as a lone mother on Income Assistance (IA) she can only grocery shop when she gets paid. This limits her ability to take advantage of sales and results in her "going overboard" with grocery spending. Ultimately, Amy finds it easier to send her child to school with money daily to purchase lunch at school; it enables her to know what her child is eating, not fret about what food to send her child to school with, and avoid hiding lunch food items from her children at home.

*The [name of GS2] part of it is just, it's overwhelming. 'Cause you get in there [name of GS2] and...like, it's kind of upsetting sometimes you know 'cause you get in there [name of GS2] and you're like, oh...we [IA recipients] only get money on a certain day, we don't get it on...we don't get paid every week or something like that right. I can't go to work because I have two kids and I can't find a sitter that is even worth it for me to go for a minimum paid job. I walk out of there [a minimum wage paid job], my paycheque is going to my sitter. What is the point of me even working it? So we [IA recipients] kind of cope when we have kids in that way and then for us to go up there [name of GS2], we get paid a certain time of the month and then there...we get what sale is there. We can't go do, 'oh my God there was like, buy one get one free sale on this, this week, alright!'. It's not my pay week. You know what I'm saying?. It's just kind of like, it's really aggravating so I go overboard. I find my grocery habits have always been not the best for like, that budget kind of spending ordeal. [Amy]*

Mothers discussed affording food, namely healthy food, as a challenge for themselves and their families. While they voiced their desire to purchase healthy foods, their limited income or dependence on financial assistance programs such as Employment Insurance (EI) was associated with making limited or unhealthy food choices that do not allow for the maintenance of optimal health. Parent participants also described other factors influencing their ability to afford food. These included the inability to access large food outlets outside of town, having transportation but not always the money to afford gas, the ability to access large grocery stores outside of town where the cost of groceries are cheaper, the inability to purchase healthy food items due to their cost, having multiple children with different dietary preferences, and having a child with a food allergy.

*Um, but like I said, if you go through a really rough period and you...you've got to...my husband, when he was waiting for EI, I know Kraft Dinner was on sale one day and I said, 'looks like a Kraft Dinner kind of month' and we just laughed and this old lady behind us said, 'us too' and, and, 'cause seniors you know, they're not getting much at all and so we just all kind of laughed it off but it was serious there for a little while you know. That's, that's what it was and it's, and that's not healthy, that's not healthy you know, at all and that's what some people are dealing with only it's on a long-term basis you know. [Mona]*

*But I've been a single mother the whole time so...it's pretty rough too when it comes to food and all this other stuff, it's, it's quite expensive. [Nora]*

#### 5.2.1.1.1. Special Dietary Requirements

Mothers also shared how the special dietary requirements of one or more family members influence food-purchasing patterns. Special dietary requirements encompass the purchase of foods needed to accompany medication, promote weight loss, and comply with food allergies. For Jody, food items high in protein and healthy fats have to be purchased for one of her children in order to accompany medication. These dietary requirements are associated with higher food expenses, especially for a large family on one income. Typically, these types of food items are purchased in order to meet children's dietary needs and preferences while parents consume leftover food items. Sometimes, multiple types of the same food item are purchased to meet the needs of all family members (e.g., milk).

*We're, we're [husband and herself] very family oriented so we buy what they need and whatever is left we eat. So if there's only one container of cream cheese and [name of second eldest child] wants her bagel with cream cheese and there's none left then I just don't eat it or if there's a little bit left and I think okay, she might need that for her next bagel then it stays. We don't pick and choose anything special for ourselves. [Jody]*

Mona admitted that her own food allergies limit her consumption of healthy food items that can be purchased in bulk. Although she cannot consume these items she still purchases them for her children. Mona also has a child who struggles with body weight issues and explained how she cannot afford the dietary recommendations provided by her physician.

*So you have to really think about it and um, actually my daughter has a little bit of a weight issue, my youngest, and uh, she's gone to the Pediatrician and he's saying, 'well, what, you know, tell me what she's eating?' and so I'll give him the gist of it and he's like, 'well, instead of this you could have this' and I'm like, you know, a bag of whatever for a dollar versus a bag of oranges for \$6.99 and all the kids will want to just eat them immediately. It's not, oh I want one and I'll wait until tomorrow to have another you know, it's immediately and I said, 'I can't afford that'. On a Pediatrician salary I could afford that but with my husband working what he works and me working what I work it's just not enough to afford every single well-balanced thing. [Mona]*

Lastly, Dawn described the limitations of having a child with a severe food allergy and having limited access to and choice of food outlets in her community.

*And as for food, I've had a lot of problems with food because [name of youngest child] has had lots of allergies. So when he was first born um, he was only on a rice diet. There was no cereals, there was, it was all just rice and he still has, he still has allergies um, which is eggs and peanuts which is very serious to him; he has an Epi-pen so, so yeah. So we have to be careful with food and at one point it was very expensive. When you've got allergies, to only buy certain foods and that's a...and there wasn't very many foods to, there wasn't big choice for foods that I was able to buy for him. When you've just got one store. You can only choose from what's there. You've got no health store or anything like that which, you know in [name of outlying town, #3] they have that health store so I did make a trip out there to go and get some things and that was really handy, if it was closer I would. [Dawn]*

#### **5.2.1.2. Physical Food Accessibility**

Parents also described how their family physically accesses food within their community. While access to personal transportation has greatly improved access to food for Jody, Mona and Amy, albeit for Jody and Mona this has only occurred fairly recently, for others lack of transportation was a significant problem. Prior to having access to personal transportation, Jody would shop at GS1 in T1 where she believes the cost of food is double what it would be at a large grocery store whereas Mona relied on family or friends in order to get to and from the grocery store. Dawn shared that not driving makes accessing food a problem because in addition to using a taxi she also has to bring her children with her or arrange for childcare. Ultimately, this results in her primarily purchasing her food from GS2. Accessing food from outlying grocery stores would be helpful but transportation costs, distance, and bringing along children can be challenging. Additionally, Amy considered herself lucky to have a vehicle and does not have a problem accessing food unless she does not have the money for gas to operate her vehicle. When money for gas is not available, using a taxi service helps her to access groceries. Lastly, Nora noted that the prices of food at GS2 are “unbelievable” and that she usually gets a ride to from a friend to grocery stores further outside of town where the cost of food is cheaper. Most

participants did say that, at times, they rely on relatives or friends for assistance in order to access food.

*Uh, I don't drive. So actually getting to my food is kind...a big problem 'cause it has to be a taxi and then I have to take these guys [two youngest children] with me or find someone to watch them but that's very rarely because they don't really stay with many people. Um, yeah, so I don't really have too much choice because getting a taxi...unless someone is going out of town and I can catch a drive with them to go out to um, [name of grocery store #3 in town #3] or [name of grocery store #4 in town #3] or anything else I'm limited or stuck with [name of GS2]. Yeah, that's the only place that I get to go. Which, which I would love to be able to go out to [name of grocery store #4 in town #3] and, but sadly I can't afford to get out to [name of grocery store #4 in town #3] and [name of grocery store #3 in town #3] and, but [name of town #3] in half hour. [Dawn]*

Many parent participants talked about their experience accessing food from GS2. Mona shared that the only food outlet available in T1 is GS1 that primarily helps with “filling the gaps”. Some mothers occasionally grocery shop in another town located a 45-minute drive away. Typically, grocery shopping farther away from home is associated with “stocking up” on specific food items or taking advantage of sales in order to make the trip worthwhile.

*Um, well the, the only thing available in town is the [name of GS1] for, to buy food and so if you're going to you know, go grocery shopping, 'cause that's [GS1] really just to fill in the gaps if you need a, a loaf of bread or a carton of milk. Um, so you'll go grocery shopping at either, you have one choice in [name of town #2] and that's [name of GS2] and if you want to go the 45 minute trip to [name of grocery store #3 in town #3] or [name of grocery store #4 in town #3] it's kind of a, you know, you got to stock up to make it worthwhile otherwise it's really not worth the trip right? And it really has to be a, good sales and good deals too or else it's not worth it. [Mona]*

Dawn mentioned that not having access to transportation limits her ability to shop at grocery stores other than GS2, which is within walking distance from her home.

*Um, yeah, so I don't really have too much choice because getting a taxi...unless someone is going out of town and I can catch a drive with them to go out to um, [name of grocery store #3 in town #3] or [name of grocery store #4 in town #3] or anything else I'm limited or stuck with [name of GS2]. Yeah, that's, that's the only place that I get to go. [Dawn]*

Jody and Mona shared experiences about accessing food and food purchasing practices during times when their families did and did not have access to personal transportation. They also described how having access to personal transportation has changed the way they access food as well as their food purchasing practices. For Jody, not having access to personal transportation meant purchasing food at GS1 where food costs are believed to be double that of those at GS2. Not having a vehicle in this rural area – or the income available to pay for gas for those with personal transportation – may limit where food can be purchased and at times may result in asking friends for money or food, or using the food bank.

*Um, well like I said about the car, as of last August, a year ago, we didn't have a ve--- properly running vehicle so we had to shop in our local um, [name of GS1], which is almost double the price for food. So the food was more expensive but I didn't have the ability to get anywhere that would be cheaper and I didn't have like, money, gas money to get, 'cause gas is so expensive. So, and with me being, for the last umpteen years being laid off or working or you know, not having a lot of money we've had to rely on friends for money or food, I've been to the food bank numerous times. [Jody]*

As these mothers have shared, not having the ability to drive or not having access to personal or public transportation was and is problematic as it can result in paying for a taxi to get to and/or from the grocery store, getting a ride to a grocery store outside of town when the option is available, or being limited to grocery shop at only one grocery store.

*You know, my husband was out west for a few months and I was stuck with the three kids, I was just stuck, I was, I did not like it. And so once I could get my license, I had to. [Mona]*

Parents also described the limited selection of food outlets available within their community and whether or not they felt restricted by the food outlets they are able to access. Participants from ES2 described how when they do not have access to personal transportation, funds for a taxi, or family/friends they typically purchase groceries from GS2, which is the only large food outlet in their community; however, these mothers believed that the cost of food at

GS2 is more expensive than in large grocery stores outside the county. While specialty food outlets exist in outlying communities they are far away and require personal transportation and/or income for transportation in order to be accessed.

*So you've got you know, unless you drive um, but even then still finding time to get out of town and I have to rely on other people; I can't afford to go get a taxi out of town and back again so I would have to ask and I don't like asking people, 'can you take me here? Can you bring me back?' They're busy at work, they're, so that's, that's the hard part. I do have to stick to, to one thing. [Dawn]*

**5.2.2. The Translocal Experience: School Community Participants**

When interviewing the 11 school community participants (e.g., school staff members, staff members/volunteers from community-based organizations, and policy/decision makers), I began each interview by informally asking each participant to share any information they wished about themselves and their role within the school community. This information is represented in Table 4.

**Table 4: Personal Profiles of School Community Participants**

Name of School Community Participant (Pseudonyms Used)	Role in School Community
<b>Ron</b>	Staff Member/Volunteer from Community-Based Organization
<b>Carl</b>	Staff Member/Volunteer from Community-Based Organization
<b>Mike</b>	School Staff Member
<b>Barb</b>	School Staff Member
<b>Carol</b>	School Staff Member (Foodservice)
<b>Fran, Rita</b>	Staff Member/Volunteer from Community-Based Organization (Breakfast Program Volunteers)
<b>Julie</b>	School Staff Member (Foodservice)
<b>Kira</b>	Policy/Decision Maker
<b>Sue</b>	Policy/Decision Maker
<b>Tara</b>	Policy/Decision Maker

The perceptions that school community participants shared about the lived experience of FI and the ways they provide support to students and families who experience this reality largely

stemmed from their involvement with school food programs, teaching and foodservice, community outreach, and policy/decision-making at the school board and/or municipal level.

The upcoming sections will delve into these perceptions and experiences.

#### ***5.2.2.1. School Food Programs***

Fran and Rita, volunteers with ES2's breakfast program, talked about their ability to recognize which children are coming from homes where FI may be a challenge based on their observations about the quantity of food consumed by students at school. School staff members also talked about "looking out" for vulnerable students by encouraging them to use free school food programs. As expressed by many school community participants, including Tara, school staff members typically share the same goal with respect to school food programs, i.e., to ensure children are fed.

*...my experience would be working with the breakfast program. Uh, the kids that come in there, you can usually tell which kids are from the insecurity families I guess or community because they're the ones that come up and they tend to eat more in the mornings versus the kids I guess that have breakfast at home and things like that. [Rita]*

*So you know, they, they [school staff members] do take care of students that are not able to purchase a lunch or don't come to school with a lunch or a snack and so they never let a child go hungry. [Tara]*

#### ***5.2.2.3. School Staff Members***

Many of the experiences shared by staff members from these elementary schools relate to teaching students about health and nutrition. However, according to Barb, she and her students do not discuss the lack of food at home. She also added that teachers are known to bring their own food items to school to give to students who may not have enough food to eat at school.

*We've, I've never really had that conversation with the kids before about you know, having a lack of food at home but just even where we are [geographic location of T1] we've definitely talked about um, you know, if you live in [name of T1] it's a half hour to the grocery store unless you buy something at the market in town which means it's gonna be more expensive so you know, we've done exercises where we've kind of pretended, okay the you know, the causeway has just been taken out so how long could we live on, on the island of [name of T1]? [Barb]*

It is through these interactions with students through school food programs that school community participants make observations about food quantity and food quality. The topic of food quantity largely emerged from the school staff participants and included participants' knowledge or observations about the quantity of food that students who may experience issues related to FI bring to school for snack or meals. While some of these findings stemmed from personal observation, both Julie and Carol have had encounters with students who have voiced issues about their limited food quantity. Additionally, teachers will inform school foodservice staff members about students who complain of headaches or who bring small amounts of food to school. As previously stated, school staff members shared that they make every effort possible to ensure students do not go hungry. Participants also shared their concerns about food quality with respect to the types of food items that students who may experience issues related to FI are bringing to school for consumption (e.g., processed, inexpensive food items).

*...I've, I've had encounters with children that has come in and just plainly told us that they haven't had the, a meal to bring to school and, and uh, we just go in and get them a meal and we talk to the principal and let him know what's going on and sometimes we even have the parents call and say, 'we just can't afford to feed our children today, is there any way you guys can help out?' and I mean, we don't turn anyone away, like, we always try to, whether it's just a piece of bread with butter on it, they have something in their belly and, and especially in the mornings when the breakfast program is not offered um, we have little things set aside that uh, people have donated or um, given to us for those occasions and we just offer it to them and come and have a sit down and quick bite to eat and then get on to class and, just don't want to see anybody go without. It's very heart breaking and to, to know that it is in this community and to try to find other ways to get the meals to them. [Julie]*

*Yeah and we try um, try to keep an eye on some kids um, when they're down at lunch time just particularly what they have in their lunch boxes. Like, kids who aren't buying and you see some come in, kids come in with maybe a bag of chips or a bag of popcorn or not a terrible lot in their lunch boxes you know. I mean it's not, it's not a sandwich, it's not a lunch. You know what I mean? Like, to send a child with, or those stackables [Lunchables]. Those lunchmeats, I do not like those. [Carol]*

#### **5.2.2.4. Community Outreach**

Ron and Carl are involved in community outreach efforts that stem from their involvement with their local church. This work consists of types of supports/services available to community members who may not have access to such supports/services elsewhere in the school community. Community outreach activities related to food include providing food assistance, budgeting assistance, and financial assistance to families who may experience issues related to FI. At the community level, food assistance is provided by way of food banks and gift certificates to GS2 while at the school level food assistance consists of ensuring a child's lunch is covered/paid. Providing budgeting assistance is also a common occurrence for Carl and helps those in need to learn how to create and manage a budget for their household expenses. Providing individuals with budgeting support also allows Carl to see how much money vulnerable families have to work with when it comes to food expenditures. Carl also shared that not only do budgetary discussions lead to the provision of financial assistance to help with household expenses, they often ignite deeper conversations about social behaviours that occur alongside of challenges of FI.

*And then when you show that [expenses collected during budgeting discussions] often times, often times what will end up happening is you'll have a much deeper conversation as to why somebody is using pot, why somebody is drinking that much which is always, it's always beneficial and whereas you know, in that particular case I couldn't help out with \$1200 worth of, worth of uh, uh, for his power bill, we were able to provide X amount of dollars for, for groceries for him and his kid. Um so sometimes it [having budgetary discussions] works, sometimes it's, I think it's falling on deaf ears but it is what it is. [Carl]*

Ron and Carl each shared that through their involvement in food-related outreach efforts they have been able to recognize that some families may experience challenges beyond just food accessibility. It was Ron's belief that in addition to food assistance, these families often require supports such as food knowledge and skills, access to transportation, and adequate living conditions. Additionally, Ron acknowledged that FI is characterized by the responsibility of locating and purchasing food for family members, which can be particularly hard at the end of the month, especially for mothers. As added by Carl, sometimes struggles with FI result in parents keeping their children home from school.

*Um, now there's, again, working with families, individuals, um, transportation is big and then learning how to cook what's in there um, usually what we give them, if we give them a big bag of rice um, you know, some of them, okay how do I you know, cook rice, especially if it's not Minute Maid, you know? The instant stuff there's no problem with but making a meal um, cooking a turkey for instance some people don't know how to cook a turkey. And so there's, there's, need to be some education into food preparation um, for the most part most of them are okay but you get into some of these uh, areas which are usually young adults with small kids and uh, so I'd say transportation, food preparation and just nutrition. [Ron]*

*There's one lady at our church who, on numerous occasions, have kept her child home because she didn't have a lunch to send with him. So she keeps him home because she doesn't have, she can't provide, not provide a lunch or she can't provide the lunch that fits inside the parameters that the school is, is mandating. [Carl]*

#### **5.2.2.5. School Board and/or Municipal Policy/Decision Makers**

The policy/decision makers who participated in this research do not work directly with students and families who may experience issues related to FI but instead work within the exosystem in various roles including education and/or the municipal government. Through these roles, participants work closely with other school board members, the nutrition and health policies, student advisory council, municipal politics, community research, and community sustainability.

Tara, who works closely with the FNP and Nova Scotia Health Promoting Schools (NSHPS), shared her experiences working with elementary schools to implement these initiatives. She is aware of the struggles schools have faced with the implementation of such initiatives as well as some of their drawbacks, including the absence of a formal evaluation.

*After coming into this position, and the food policy started um, really in the 2006 school year was the first implementation piece and so I came into this position in 2010 so four years after its initial roll out we found that schools were still very much struggling and the schools that um, had started the implementation process and followed that time frame that was initially targeted found themselves on the upswing [...]. Um, for the schools that didn't and were just really starting to implement when I came in to this position and started monitoring the pr---the um, the program they were seeing a bigger dip because at that point in time the economy in Southwest Nova Scotia was taking a pretty large hit [...] so schools that had just started really implementing the policy then were having huge deficits. [...]. So those schools really struggled and are continuing to struggle in providing um, healthy, nutritious foods to the students and actually seeing that um, the rationale and the purpose behind it. They're really struggling to come on board at all. Not only just with following the policy but understanding the philosophy behind it. And so that has been a huge struggle... [Tara]*

As a school board member, Sue shared some of the limitations associated with this role, especially in relation to supporting with families who may experience issues related to FI. While Sue admitted that she has not had impact on food-related issues as a municipal politician, she has attended sessions about local food security within her community.

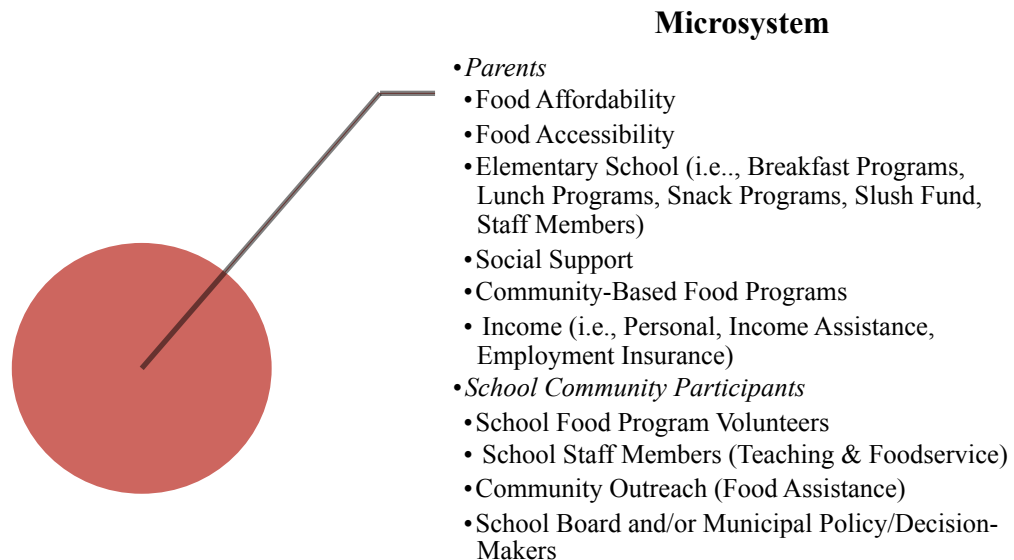
*... but right now that information [information about food insecurity] is not feeding up through the school, to the school board. I've been on the school board now since last November and I don't ever recall individual schools being discussed as you know, I do know that there are some schools that are in lower income areas that may have you know, some food issues but it really doesn't come up to the board level. [Sue]*

For Kira, being involved with both municipal politics and the student advisory council at ES1 enables her to learn about the school community as well as share what she learns from the student advisory council with other municipal politicians. Kira has also worked with sustainability efforts in T1 that have focused on the availability of and access to local food.

*It's [role as municipal politician] usually reporting and commenting on what's happening in the school. So it's, it, it's trying to stay abreast of what's happening but as of yet the uh, the, the SAC [Student Advisory Committee] um, tries very hard to make sure that we, we, we always focus on things local and on making sure that, that people are aware of what's going on within the school. Um, it's hard to get, it's hard to get parents involved. We've got some great core parents um, but, like people's time. People are stressed to the max and particularly in a rural area like this where employment is such a challenge so people are struggling. When people are struggling to keep their head above water it's hard to see anything else. [Kira]*

Below, Figure 3 provides a visual representation of the people, places, programs, and supports/services that make up the microsystem environment of the participants' school community and serves to summarize the aforementioned findings. In the upcoming sections, this figure will be expanded upon in order to represent the remaining systems of Bronfenbrenner's Ecological Model as uncovered by this research. Please note that the chronosystem has been eliminated from these findings as very limited data fell into this system.

**Figure 3: Mapping Microsystem Factors Related to the Experience of Food Insecurity**



### **5.3. Mesosystem: Relationships and Partnerships that Exist within the School Community**

All participants were asked about types of supports/services (i.e., people, programs, and places) that exist within the school community for students and families who may experience issues related to FI and their perceived influence or impact for these students and families. Participants described formal supports, informal supports, resources, and the lack of infrastructure or supports within the school community, and for some parents their personal experiences associated with using these supports/services.

#### **5.3.1. Formal Supports/Services**

Formal supports/services named and described by participants consisted of funded and/or long-term programs or services that exist within the school community to assist or influence students and families who might experience issues related to FI. Supports/services identified fell into either the elementary school setting or the community setting. There was also some discussion about the lack of support available for students and families.

##### ***5.3.1.1. Elementary School***

With respect to the elementary school setting, parents named and described two available supports for students and families who might experience issues related to FI: the school breakfast program and the school lunch program. While school community participants echoed these supports, an additional school-based support included school “slush funds”. Expanding upon school-based supports, participants were also asked to elaborate upon why they did or did not view elementary schools as supportive environments for assisting with the experience of FI.

#### 5.3.1.1.1. Elementary School Breakfast Programs

Both parents and school community participants cited the free, universal breakfast program as a food-related support available at elementary schools for students and families who may experience issues related to FI. Parents primarily described their family's experience using their local school breakfast program and why they/their children decided to use it. School community participants provided insight into the operational practices of each program, how they are funded, types of food items offered, as well as the benefits and challenges and limitations of breakfast programs.

As shared by parents, supportive elements of breakfast programs include the types of food offered (e.g., scrambled eggs, yogurt tubes, muffins, pretzels etc.) and how the programs operate (e.g., days of operation, inclusive nature, opportunity for children to socialize during breakfast). Parents who currently use the program explained their reasons for doing so. For Jody, it was “a no brainer” and for Mona, she “never gave it a second thought”; her children told her it was available and they think it is “awesome”. Dawn decided to use the breakfast program simply because her daughter came home and talked about it. Additionally, it was Mona's belief that the program is nice to have for times when her children are not hungry for breakfast at home.

*Well the breakfast program is just a no brainer because when you walk in your kids are just - even though they've eaten they're, their friends are going in to have something and they're like, 'wow, I didn't have yogurt tubes at home this morning. I'm going to go grab one!'. And a lot of stuff are offered that like, say in the morning I only had cereal and they had to, they had to have cereal they get there and they go, 'wow, I didn't, Mom didn't have any oranges to give us this morning, I'm going to go get a couple slices of oranges'. [Jody]*

*[name of middle child], she came home and spoke about it and uh, suppose some mornings she, she won't use it because she's had enough breakfast at home and uh, she doesn't need to go but say some mornings she does so she'll, she'll go. [Dawn]*

According to school community participants, each elementary school operates their breakfast program out of school classrooms or the cafeteria where students are supervised by school staff and/or cafeteria staff. At ES1, the school cook, the school secretary, and the school staff operate the breakfast program while at ES2 community and school volunteers do this work. At the time of data collection, ES1 operated their breakfast program daily while Julie shared that ES2 strategically operated three days per week with plans to operate four days per week. Both of these breakfast programs were developed as teachers and parents identified them as a need within the school community. Another commonality shared by each of these breakfast programs is their inclusive nature. With respect to funding, these breakfast programs receive financial support from community health boards, local residents, organizations or businesses (e.g., hospital), the school board, and/or contracted foodservice companies.

*And there's, there's the weekend. Like, they're not in school. So are they getting anything or...? And that's another thing, we changed the breakfast program, it was Tuesday's...Tuesday's, Thursday's and Friday's and this year we opened it up from Monday's, Thursday's, and Friday's that way first thing Monday morning they're gettin' something in their bellies just in case they haven't had it on the weekend 'cause I mean, we're not there with them on the weekend and same as Friday, we're givin' them that um, program in the morning so at least we'll know that they had one full meal before they go for the long weekend. So, 'cause I mean there's two full days that they may not be having anything. [Julie]*

*And uh, and since I came into the role we've established a breakfast program that, to try to, to reach some of those kids that um, and it's open to everybody, it's um, you know, we haven't placed any sort of parameters on who can participate; it's, we encouraged everybody whether you've come to school having already eaten a breakfast or not to come in and hang out and, and uh, it's mostly easy kind of breakfast items. It's muffins and, and yogurt and fruit and juice and milk and that kind of stuff that we're offering. Um, but yeah, we encourage staff and students to, to come in and um, take part in the breakfast club. [Mike]*

School community participants also contributed their thoughts about the benefits of elementary school breakfast programs. For Kira, the breakfast program at ES1 is vital for some families, especially those struggling with low-income. Carl views breakfast programs as positive

and supportive for parents experiencing mental health challenges who may not have the ability to purchase enough food or send their children to school having consumed breakfast. Breakfast programs are viewed as important for a family's budget, a support to help a family get by, and a method to promote messages about the importance of consuming breakfast. According to Rita, ES2's breakfast program is a huge support; the number of students using the program has increased over the years and teachers have noticed behavioural improvements in students as a result of consuming breakfast. Additionally, she believes the breakfast program to be meaningful for the children's self-esteem. Other benefits of breakfast programs are their offering of healthy food items and positive educational outcomes.

*It [school breakfast program], it's vital. It's absolutely vital for some families. Um, it's really hard in [name of town #1]. There are some families that are surviving on, on way below the poverty line and so those programs are really important and it, not only is it important in a family's budget and helping a family to get by we all know about the importance of uh, of a good breakfast in, in, in uh, in helping children be, be better students, but it's also sharing a lot of information with them about you know, what is a good breakfast? What is a good hot meal? [Kira]*

*Oh I think it's a positive thing. I think people are seeing it as a positive. Um, it's certainly needed. I mean if I don't, if I only have enough food to send you to...if I only have enough food to give you a sandwich at lunch you might be going to school without breakfast. Uh, again, if you look at emotional and mental health, chances are if the family's suffering--- in a state of depression or darkness or whatever you want to call it, um, chances are there's not a whole lot of restrictions on the child's life, that they might be staying up 'til 10 or 11 o'clock at night, getting up five minutes before the bus comes. Just the reality of it. So the breakfast program is, it's pretty, good. I think it's a, I think it's a great thing. [Carl]*

The breakfast programs, while viewed positively by participants, did have some challenges and limitations, the two main ones being stigmatization and lack of awareness about the breakfast program for ES2, although logistics of the school bus schedule at ES1 was the key challenge for this school. The bus schedule results in students arriving to school late, which means they do not have the same opportunity as other students to access the breakfast program.

Lastly, Barb felt that while the breakfast program at ES1 is great, it is more of a “Band-Aid” solution for students and families.

*When we first started the numbers were down because the kids that needed it weren't receiving them because they were singled out as coming in, well their family can't afford it so...but then we made it clear to everybody that it was open to all 300 kids of the school and everyone was welcome. At first it was a stigma. Some parents were like, very upset that we were actually doing it and telling their kids they weren't allowed to use the program. [...]. And then like, you would run into parents in the community and say you know, 'what's the breakfast program?' you know, 'I tell my kids not go because they've already had breakfast'. [...]. Like, what a thing to say. Telling your kid you can't go. So we cleared the, like, it's been running, this is the third year now it's been running. [Rita]*

#### 5.3.1.1.2. Elementary School Lunch Programs

In addition to elementary school breakfast programs, elementary school lunch programs are viewed as a type of support available for students and families experiencing issues related to FI. Parents predominantly shared details about their family's experience using school lunch programs, reasons for using the program, as well as their benefits, and challenges and limitations. School community participants shared details about the operational practices of school lunch programs, how they are funded, their benefits, and challenges and limitations.

Most mothers named school lunch programs as available supports available for students and families. For the mothers who used their local school lunch program, they did so because of its convenience, food variety, and food quality. Mothers who do not use or infrequently use school lunch programs do so because of its high cost or because their child/children have fussy eating habits.

*And the, the one for lunch, the lunchtime one it's just, I mean the price I know is crappy, well it's not crappy 'cause it, you're paying for your food or whatever but the variety is fantastic. I mean I couldn't even, I couldn't cook them a meal at lunchtime like a chicken dinner with, with all the trimmings and the dessert and you know, it's just, it's just a good deal and I just know my kids are getting nutrition. [Jody]*

*To tell you the God honest truth all last year I paid for her lunches pretty much all year. To me, it was just easier. I knew what was sitting right there in front of her. If there wasn't that moment that I didn't have something, I didn't fret on it and I knew what she was getting for that meal and um, it would, just made things pretty much easier on like, \$3.50 for a meal a day is what it is and um, I would have went out and probably spent that anyway at [name of GS2]. [Amy]*

Many of the reasons that parent participants provided as to why school lunch programs are beneficial were also the same reasons parents gave as to why they use such programs. The two primary reasons being food quality and convenience. School community participants believed school lunch programs are beneficial because of their ability to ensure children are fed, assist with a family's budget, allow children to achieve positive learning outcomes, and provide lunch at a reasonable and attainable price.

*I would say they have to play a very important role, especially with the kids. I mean they're here half to three quarters of the day. You know, this is where they're at um, and I mean years ago it was, the, it was always a major issue that they said they can't learn on an empty tummy so if we know we can get at least one, if not two meals into their bellies everyday hopefully it's helping their outcome. So to me it's very important. [Carol]*

Furthermore, the primary barrier of school lunch programs is their cost. Multiple parents viewed the cost of school lunch programs as expensive, especially when multiple children are attending school. Evidence of this can be seen below in Nora's comment. Moreover, Mona believed that packing her children's lunches can be done for less money than the cost of a school lunch. According to Carol, a foodservice staff member at ES2, the price of the school lunch program is not believed to be affordable for families who experience income challenges.

*'Cause my kids, really, if they could eat at school they would. But it's just like, I can't afford \$3.50 to \$4.00 for a meal and then when [name of son]'s in the high school and it's almost the same it's like, that's a lot of money to cover the run of the week for two kids. So just imagine having three. [Nora]*

*And then we're charg---we charge \$3.50 a day for meals. [...]. Yeah, that gives them their meal, their uh, glass of milk and a dessert. Um, we didn't have to raise it this year, we did, we paired out fairly good last year um, we, I had to pinch and pinch and wherever we could find sales and deals and (laughter) um, so this year we were able to keep it at \$3.50, we didn't have to raise the lunch cost which is good um, because I know like I say, you hate to because you know there is families out there that, especially if they've got two and three kids. I mean, I know what it's like for myself for two kids, it's \$7 a day because my kids eat here every day. [Carol]*

As shared by school community participants, ES1 and ES2 each operate a daily, fee-based school lunch program. At ES1, one school cook prepares lunch meals for both the elementary and high school students. At ES2, a minimum of two foodservice staff members prepares lunch meals for students. Including the cost of milk (\$0.35<sup>9</sup>), ES1 charges \$3.35 for hot lunch/sandwich and ES2 charges \$3.50. With respect to usage at ES1, it was estimated that 30-40% of the students who attend the elementary school use the lunch program. Furthermore, both elementary school lunch programs are intended to operate based on what they earn through lunch sales, which, according to Carol, has its limitations, including lack of financial support from the school and the community, inability to provide enhanced food quantity and quality, and the inability to provide vulnerable students with food during times of need.

*The breakfast program is, yeah, it, and it's, it's is very important to have the healthy lunches, the healthy breakfast's um, but per say in terms of financial support from the community or the schools, we don't get it. The cafeteria. Breakfast program is run on grants. Um, in terms of cafeteria, we uh, basically survive on what we make. We get no funding from the school or the school board. Um, we're told what we're to serve and how we're supposed to serve it but nobody helps us to pay for it. [Carol]*

#### 5.3.1.1.3. School Slush Fund

As learned from a few of the school community participants, each school has a slush fund which holds extra money occasionally used to assist students with purchasing a snack or a meal at school. According to participants from ES2, the slush fund is a support that can be used by the

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<sup>9</sup> This cost of milk has increased to \$0.40/250 mL as of January 2015 (100)

cafeteria to cover the cost of a snack or meal until parents can provide reimbursement. Unfortunately, not all students and parents who have taken advantage of the slush fund reimbursed the school, which has resulted in financial losses for the cafeteria. As a result, Carol shared that ES2 has had to “crack down” on paying for students’ meals and snacks. According to Nora, her children have used ES2’s slush fund in the past. However, she did point out that ES2 did not notify her of her children’s tab until the end of the school year.

*(sigh) my kids. This is my son; they went there and racked up over \$100 worth of food. And you would think after \$50 and that that somebody would call you and say, ‘well you know, your kids are just buying snacks constant, constant, constant’. Nope, they wouldn’t. After school was over and said, told me \$100. Mostly, and I don’t under--- yeah. A hundred dollars. And I’m like, ‘how can you let some, a kid keep coming in and say yeah, my Mom says she’ll keep paying you?’ Like, to rack up and it didn’t matter if it was healthy foods or not good foods. [...]. And I always wrote notes if I was going to send money in to them. Nope, they just kept racking it up and racking it up. And now that they can’t do, they don’t do that anymore ‘cause there was a lot of people doing it but I can see why ‘cause some of the food, it’s expensive. It shouldn’t cost that much for kids to eat. [Nora]*

#### 5.3.1.1.4. Schools as Supportive Environments

After learning about school-based supports/services available to students and families, participants were asked whether or not they regarded the school as a supportive place, more specifically for students and families who may experience issues related to FI. They were then asked to describe why they did or did not feel this way. The key reasons as to why the school is viewed as a supportive environment include school food programs and school staff.

According to mothers, school breakfast and lunch programs are supportive because they provide healthy snacks and meals for students at no cost or low cost. From the perspective of a school staff member, it is Mike’s belief is that the cost of a single lunch at ES1 is priced reasonably and should be attainable for most families. Additionally, Sue and Mike noted that schools offer and subsidize the cost of milk.

*... is a bit expensive [school lunch program at ES1]. But it is good as far as, like, especially the breakfast one because I know that a lot of people cannot probably afford to have every...like, fruit and different things that they want to feed their kids so it's nice that that's there, that they can at least know that their kid is getting a serving once a day right? So, that's nice. Um, as far as the lunch program, I guess I never thought of it as being supportive but uh, you know, I'm sure it is really good for some people who, especially like, when both parents are full-time working then it probably seems kind of cheap to them to you know, give, just hand their kid the money for the...especially if they don't have a lot of kids too. So, I'm sure it is very good you know, I appreciate that it's there, it's an option right. [Mona]*

Although school food programs are viewed as supportive and necessary, some school community participants believed that they create dependency among users and fail to address the root causes of FI. The quote below reflects these beliefs as shared by Tara.

*You know, we're losing those connections with people where people took care of others and, and so it's become another thing that the school has taken on um, you never want to see a child go hungry, I understand the philosophy behind the breakfast programs and I support it but at the same time I really struggle around that piece, okay but what is the root cause behind us having to have that breakfast program? Yes, I understand that we need it but if we took care of this, this, and this, would we need to have this program? [...]. And so, are they necessary? Yes. We need to have them because our students are in need. Um, but do they address any of the real issues as to why we, we need these programs? Absolutely not. It's just putting the Band-Aid on, it's not fixing the problem. We don't, you know, we're not getting to the root cause. So what we're going to see is dependency and what we're going to see is people not being able, able to self-sustain. [Tara]*

According to a couple of parents and school community participants, school staff members are considered to be supportive of students and families who may experience issues related to FI. This is because they know students and their families as well as their socio-economic situations, they support students who are unable to purchase lunch by providing them with a lunch ticket or purchasing lunch for them, they keep an eye on what students are eating, and they support school food programs.

*Well, I know they're very in tune with the kids. And they're very in tune with us parents, especially me where I'm hands-on and I'm there every morning dropping my kids off. There's teachers and there's, especially their secretary she knows where I'm at. Like, if I'm down on my luck or, and she will just give me a nudge or you know, just, 'I know where you're at'. 'Give the food bank a call'. You know, 'How are you doing'? They're just, they're just very kind and they just want to know how you're doing, like it's not very, they don't just, like this, they look you in the eye and, 'the kids are doing great'... [Jody]*

#### 5.3.1.1.5. Schools as Unsupportive Environments

In addition to schools being supportive environments for those who experience issues related to FI, there are some aspects that are viewed as unsupportive for those living this reality. A couple of parents and school community participants identified that microwaves are unavailable at their elementary school for student use. For Amy, this prevents her from sending a warm meal or a leftover meal to school with her child. Carl believed that not having microwaves available for student use is a barrier to parents of students who experience issues related to FI as it prevents them from sending their children to school with leftover food items. Additional reasons shared by parents consisted of a perceived lack of food/health support for families and the cost of the school lunch program. Furthermore, Carol added that while staff from ES2 and the local school board support ES2's school food programs, the lack of financial support from the school board limits the provision of healthy meals to students.

*Yeah, 'cause when they send home their notes with, 'we need \$5 for this or we need \$5 for that', a lot of times um, I'm sure that some people just don't have it. You know? And it might seem like a little sad but it's a lot when you're, when you're really struggling. I've been there like, before, like my husband was unemployed for six months at one point and looking for work everywhere until he got this job and that was really, really hard and I didn't feel that I could go to the school and say, 'you know, I'm having this hard time'. Like, there was no, nothing that made me say that they would give a darn you know, or, or do anything, yeah, so. So, yeah, so I've been there before, you know? [Mona]*

*I guess it, simply because there is no financial support from the school or school board. I mean, the school is behind us a hundred percent...and of what we serve and it's the school board who has brought in a consultant to tell us what we have to serve and that's great that she's putting in place those guidelines but in terms of what those types of food cost nowadays there's no support on that end of it. They want the kids to have the healthy meals and they want the kids to have the breakfast programs but nobody's helping us pay for it. [Carol]*

### **5.3.1.2. Community Based Supports/Services**

Participants also named and described formal supports, services, and programs/initiatives that exist within the community to support students and families who may experience issues related to FI. The most commonly named supports/services being the food bank, after school programs, and charity-based supports. Furthermore, some participants talked about the lack of supports/services within their school community.

#### *5.3.1.2.1. Charitable Food Assistance Programs*

For the purpose of this research project, charitable food assistance programs refer to food banks and their associated programming. Both T1 and T2 have a food bank that operates one day per month by a group of community volunteers. The food bank in T2 is registered with Feed Nova Scotia and also receives community donations while the food bank in T1 is non-registered (i.e., operates purely off of community donations). According to one of the school community participants, food baskets typically consist of items such as bread, soups, cereal, milk, juice, and peanut butter; approximately a three-day supply of food. Regardless of whether or not parents use a food bank, it was named as a support for students and families who may experience issues related to FI.

Parents who use or have used their local food bank were asked about their reasons for doing so. In addition, they were asked about their experience using the food bank. Characteristics associated with using the food bank include the quality and/or quantity of food and non-food

items as well as the emotional/psychological impacts. Furthermore, one mother who had not used her local food bank shared her perceptions about what it might be like to use it.

For mothers who use or have used their local food bank, reasons for doing so include being “down on our luck” and needing help to ensure their families are fed. A couple of mothers admitted that they try to cope before using the food bank or only use it when they really need help. For Amy, knowing that the food bank is available is “great”.

*The reason I chose the food bank was because we were just, seems like every once in a while we're really down on our luck [...]. [Jody]*

*I, I really, really, really cope before I need to go there [food bank] to tell you the God honest truth, I've been there maybe twice since March. Knowing that it's there and that it is available is great. [Amy]*

*Interviewer: Yeah. And so by use---so using the food bank um, what made you decide to use it? Was it the whole juggling of like, bills and food?*

*Nora: That I really needed help with it [challenges with FI]. That I had to use it like, I only go there if I really need to. I won't take something unless I really need it. I won't take from others if I don't need it.*

Moving ahead to the experience associated with using the food bank, a few mothers shared details about the quality and/or quantity of both food and non-food items they have received from their local food bank. Jody and Nora described the receipt of packaged, canned, and processed food items. In addition, Nora shared that she sometimes receives expired food items from the food bank in T2. She also told me that a family of four receives 35 food items per month and occasionally some free non-food items, if available. She has not, however, received any nutrition/health-related information (e.g., recipes).

*Um, we get a lot of pastas and a lot of like, spaghetti sauces and cereal. Um, you don't usually get bread, you don't usually get any fruits or vegetables, maybe canned. You don't get milk. You know what I mean? You get, like a canned milk, mm hmm. Yeah, like the staples. You don't get eggs. That kind of stuff, you get a lot of shelf stuff; Kraft Dinner and stuff and I mean, God bless Kraft Dinner, it's, it's wonderful but I don't like to feed it to my kids that often. [Jody]*

*But I just find with the food bank and that that they're not bringing in up to date stuff. It's out dated. And I don't understand why because that Feeds and Needs [Feed Nova Scotia] comes to [name of town #4] with the big truck and brings certain things. Like, they have vegetables down [name of town #4] or your potatoes – all that. Uh, you get a 4L jug of milk. Up here...you don't even get that and it's like the difference in the town, it's, you don't get much. Like your vegetables, you hardly get any vegetables at the food bank if you really need it but you get your eggs and your cheese and your butter but you're not getting the main, like, your, most of your vegetables. [Nora]*

As highlighted by Amy and Jody, using the food bank can be accompanied by certain emotional/psychological outcomes. For Amy, using the food bank in the past was associated with embarrassment (i.e., seeing people you know) and self-judgement. For Jody, using the food bank is associated with protecting her children, avoiding feelings of guilt, and putting pride before anything else. For Dawn, even though she has not used the food bank in T2, she shared her perceptions about what it may be like to use the food bank.

*Amy: Yeah. But I felt the whole time that it was like, 'Amy you don't need this'. 'You're sitting out there, you've got a flat screen TV and you have, you got a chesterfield and you have a truck, a car at the whatchamacallit'. Like, what are people going to drive by and say, 'oh Amy is in to the food bank. What is she in the food bank for?' Like, blah, blah, blah, blah, blah. But people don't know my situation of where I was and where I am now. The truck out there, I paid for it. I was just lucky that he kept the loan in his name and I pay his loan. I'm giving him the credit. Aren't I lucky? Wow! [sarcastic tone] You know what I mean? Just to keep the truck to get my kids to daycare when it's raining you know. [name of youngest child] goes to daycare three days a week so I'm just lucky that way but that's always running through your head when you're in there.*

*Interviewer: That was running through your mind when you were there.*

*Amy: Yeah you know what I mean, like, 'Amy here you are with a half decent vehicle sitting out in the middle of, you know, sitting in here. There's more people that need this other than you do'. That's what's running through your head, you're like, there's people that could use this other than you right now', but you know what, I do need it right now so then you kind of snap out of it...*

*...and as a mother I gave birth to those kids and I'm, I'm supposed to protect them so I guess my pride has to go away. So when I know that they're hungry, even if they don't say they're hungry, I feel guilty so I'm going to make sure they have something. [Jody]*

*To be honest I never really used it or heard of it until recently and um, so then I was encouraged to go and use it um, but I still haven't gone to go and...[...]. I still haven't got to use it because it, it's just kind of difficult really as well where I don't drive and I have a young child and you have to, you have to go and wait in line and there's not really much...trying to keep a child occupied in line while you're waiting and there is other people. But apparently you can wait for like, up to an hour or so. So to keep, that and then with the travelling, so once I've got my items or whatever then I'd have to walk back home. [...]. And then travelling and taking it back so it's just as easy for me (unclear) just to do my grocery shopping once a week, get my taxi and get home. [Dawn]*

As well as describing the operational practices of food banks and the types of food items they distribute, school community participants provided details about the food and nutrition programming offered by the food bank in T2 and the sense of dependency created by food banks. Multiple school community participants from T2 described a food and nutrition program that is operated by their local food bank and offered to food bank patrons living on a low income. Over the course of eight weeks the program provides attendees with the knowledge, skills, and tools necessary to create a variety of slow cooker recipes. At the end of the program, participants are provided with a recipe book and a slow cooker for use at home.

*Um, speaking of that there was actually, through the food bank, they launched an initiative last year here in the church hall where they um, they had cooking classes so they went to the Chamber of Commerce and the Chamber of Commerce uh, provided 10 uh, slow cookers. Yeah and so the Chamber of Commerce provided the slow cookers and the attendee---the participants, after they completed it were, they took the slow cookers home, they were theirs. And, but every week they came in and they prepared a meal and the ingredients were all provided either through the food bank or through other, other organizations in town helped. Uh, it built a wonderful sense of community um, the people that were coming really enjoyed each other's company, which was, and I think that was something we weren't counting on but they also learned how to cook healthy meals. [...]. So they've done two sessions so far and they're, they're looking at a third session this year. [Carl]*

Even though the food bank is viewed as a support for students and families who may experience issues related to FI, Carl, Ron, and Sue shared their knowledge and beliefs about the sense of dependency created by food banks. As observed by Carl, multiple generations in T2 use the food bank as a source of sustenance, which he believes has contributed to a loss of food-

related skills. Moreover, he believed that food bank patrons view the food bank as an entitlement, i.e., a service they count on to feed themselves and their families. As such, he held the belief the food bank has not helped to improve the lives of low-income families. As for Ron, he believed that many people are given “stuff” time and time again and do not want to work for it; a characteristic of dependency created in part by the food bank. While Sue is frustrated by the existence of food banks and the dependency they create she questioned what else people are to do when they do not have food.

*...and we always see people walking past and there's multiple generations who are now using the food bank as a source of, as a source of uh, sustenance. Um, grandparents, parents and, and they're bring their children with them. Um, the way social assistance works is that, you know, I've seen cases here where they pay the person's rent for them. If they can't handle their bills they'll pay their bills for them too. So if we're, if we're doing all those kinds of things for somebody it makes perfect sense that we're losing the skills to do things like cooking as well. We're losing the skills – or maybe we never had the skills – to, to budget or to whatnot. It makes perfect sense that if all I ever seen Mom do was open a can of Chunky soup then that's all I'm ever going to do. [Carl]*

*Again, I'm not trying to be, I'm not, it sounds like I'm being heavy handed; I'm not. I think our food banks are desperately needed but one of the things that we, I think, really thinking our food bank here we have to look at is the fact that we have people who have been visiting once a month since 2005. So have we helped? Probably. Have we improved their lives? No. We have not. This didn't improve any---this did not improve anybody's life. [Carl]*

*Oh my God yes, of course I have. The food banks have created dependency but what else are people going to do? You know, and (sigh) I don't know. I don't know what I'm trying to say but you know, people say well, you know, 'why, you know, why are people going to the food bank?' You know, or 'why should we be donating to the food bank?' Those people, you know, there are people who say they, 'those people should have jobs and that' and then we shouldn't have food banks but where the churches used to look after the poor in their community its now transferred to the food bank. I don't, like, it frustrates me that there's food banks. It frustrates me that there are people who don't have enough food to eat but on the other hand I'm very proud when I see people supporting the food banks because I like to believe in the you know, there's, there's a value system out there or there's morals out there. [Sue]*

### ***5.3.1.3. After School Programs and Charity-Based Support***

After school programs are available in each school community and known to provide students and families with financial assistance, snacks and meals, clothing, a safe space, and opportunities for physical activity and homework support. According to Carl, his congregation, as well as others in the area, offer a range of food-related supports for those in need including meal services to community members, vouchers or gift certificates to local grocery stores, and community meals and food boxes for those in need during the holidays.

*We also um, uh, uh gosh, um, we feed people, we have a couple of different service, we have a service called [name of church service] which happens once a month where we actually have a meal together. Um, and the ladies of our, it's called the [name of church service providers] provide, provide those meals and so we'll have about 40 people come to that service once a month. And uh, and we'll eat together um. [...]. They come and they're taken care of and then we have fun, we actually play games and do crafts and, and eat lots and, and we do a little bit of a worship service and sing and um, uh, gosh, I, a lot of it though is you know, like I said with that outreach thing, just in building those relationships probably the most, the most we do is listen, just listen to people's issues and stuff. [Carl]*

Though multiple supports and services were identified and described by participants, one school community participant commented on the lack of infrastructure within T1. As shared by Mike, T1 does not have collective/community kitchens or a local community centre where food-related programs, activities, or events take place. He is aware of a community room available at GS2 in T2 that offers nutrition and health classes/workshops but believes groups of students and parents from T1 might miss out on such opportunities.

*I know [name of GS2] has those community kitchen spaces. The problem with [name of T2], anything that's offered in [name of T2] you're, you're missing a whole group of kids, or group of parents in [name of T1] that, for different reasons wouldn't travel to. [Mike]*

### **5.3.2. Informal Supports/Services**

Participants also identified and described informal supports/services available within their school community. These supports/services are either grassroots in nature or not formally

funded yet address issues related to FI. Supports/services named by parents consisted of social support and the ability to keep a food tab at GS1 or at ES2.

### **5.3.2.1. Social Support**

A few mothers referred to times when they have relied on family or friends to access and/or afford food. In addition to asking family or friends for help accessing food outlets, parents sometimes accept financial support from family or friends to purchase food. One mother did say that she occasionally provides her friends with money, food, or transportation if needed.

*Well if I have to go to, say to, [name of spouse]'s mother, his parents and I'll just say, 'listen, I'm down on my luck, can I borrow a couple bucks?' or I'll go to my [relative] and say you know, 'I'm down on my luck, you got any extra anything?' [Jody]*

*Sometimes I walk or, but my friend [name of friend], we travel around together quite a bit so she takes me anywheres I need to go... [Nora]*

*Like, [name of friend]'s the one that come to me and asks, 'Amy, can I borrow money?'. 'Cause that's how I am. I'm in low rental. My rent is only half of what hers is so that gives me \$250 extra a month compared to what she has. Um, so if I manage my money I'm like, 'yes, yes [name of friend], I'll lend you money (unclear)'. [Amy]*

Jody named GS1 in T1 as a support as the owner allows her, as well as others, to keep a tab of purchases until they are able to pay them off.

*I'm lucky 'cause our [name of GS1], he's a very amazing man and he knows that I have X [number] kids and I have a hard time getting the foods that I need so he was (sigh) nice enough that he let me open a tab there. So like, every month you pay it off. I try to pay mine off every two weeks and limit, limit what's in there but that way if my kids, I'm like, 'yeah, get a piece of fruit' oh shoot, no fruit, I'll run up and grab a bag of apples, a bag of oranges, bananas or something and I just say, 'mark it down on my bill'. It is handy. I know he does it for quite a few people. [Jody]*

### **5.3.3. Partnerships/Relationships that Exist Within the School Community**

Participants were then asked to identify and describe existing partnerships/relationships within the school community that aim to support students and families who may experience FI.

The types of existing partnerships/relationships fell into one of two categories: school-community, or community-community.

### ***5.3.3.1. School-Community***

School-community partnerships/relationships are those that exist between the elementary schools and community-based organizations or elementary schools and community members within the school community. According to both parents and school community participants, this type of partnership/relationship exists between elementary schools and food banks as well as the local grocery store. There are also partnerships/relationships between elementary schools and after school programs and community-based organizations.

Regarding the partnership/relationship between elementary schools and food banks, two parents from T1, one of whom was Mona, shared that ES1 typically encourages students to bring a food bank donation to school events such as dances in exchange for decreased admission cost. In addition, two school community participants recognized that these two elementary schools collect donations for their local community food bank.

*I know that sometimes if they have like, a special event for the elementary school students, rather than charge admission they'll say, 'bring a donation for the food bank' right. So they must, in some capacity, work with them to try and raise some food. [Mona]*

*...a lot of people, I mean the food bank is a community food bank: all the churches send goods and, and, and funds. People from all over the community uh, help them, help them out. So I mean in that sense there's definitely cooperation. The schools definitely send food this way. They have drives. But whether or not we're doing anything in the reverse, nothing that I can think of. [Carl]*

Unique to ES2 is its partnership/relationship with GS2. Nora and Dawn revealed the ways in which GS2 either supports school food programs at ES2 or communicates information about food and nutrition events that take place within the community.

*Now uh, sometimes uh, the school and [name of GS2], in the community room they have different uh, activities or even have things that the kids can make, even food. It's like, they'll have like, for Thanksgiving they'll do something for the kids. So those two interact. [Nora]*

According to Rita and Fran, having GS2 sponsor the breakfast program at ES2 translates into allowing some of its employees to volunteer at the program and the provision of some free food items for the program.

*I make all the muffins. They [GS2] supply all the ingredients for the muffins. They pay for me to come and be one of the coordinators and, and be a part, and she works for [name of GS2] too, and be a part. [Fran]*

As shared by numerous school community participants, each elementary school also has a partnership/relationship with their local after school program, which is a place where elementary and high school students can go after school to have a healthy snack and participate in physical activities or arts/crafts.

*There's an after school program (ASP) at [name of ASP in T2]. [...]. Okay. [name of ASP in T2] is um, it's a place for kids to go after school and it's open to both high school and elementary and I do know that they run some nutrition programs. They do have access to funds and in the past they've had someone come in after school and make healthy snacks, teach the kids how to make healthy snacks, so I know that happens at [name of ASP in T2]. Now in [name of T1] behind the high school there's a place called, I think it's called the [name of ASP in T1] which is a part of [name of ASP in T2] and I think they prob---I am guessing that they probably do the same thing. [...]. The director of [name of ASP in T2], which would oversee the [name of ASP in T1], would be [name of after school program director] and I think that they you know, they probably are very aware of, of the food. [Sue]*

Lastly, a few school community participants described partnerships/relationships that exist between elementary schools and churches, local community events, and the municipality. For example, through his church congregation, Carl has worked with local high school teachers who have expressed a desire to help students and families in need. Mike shared that in T1, ES1 has hosted annual community Christmas dinners and community suppers. Finally, Ron sees the benefit of having a member of Town Council on ES1's Student Advisory Committee.

*Um, now I'm not, I know the high school here, I've actually worked with them on a couple of different projects that individual teachers have gotten together and said, you know, 'we know one student or one family who is going through some tough times. Would you be willing to, would you be willing to deliver um, a box of, a basket of food for us? Um, would you be willing to deliver a basket of food for us and not, and not tell them where it came from?'. An anonymous thing. But they've done it with food, they've done it with uh, clothing, they've done it with all...toys at Christmas. [Carl]*

*[...] I think there's always improvement that can be made. I think the school and the community has stepped forward, like, I'm on the SAC [referring to Student Advisory Committee] committee on the school as well and so we have one member from the council. SAC is Student Advisory Board. For the high school I guess it's for high school and elementary so I'm on that as a parent but we do have one of the members of the um, Council, Town Council on it so that has been a real improvement now that they can see, okay, some of the needs of not only the school but to maintain the school. [Ron]*

#### **5.3.3.2. Community-Community**

Examples of community-community partnerships/relationships that address issues related to FI are those that exist between community members and community-based organizations, between community-based organizations, and between community members. As highlighted by most parents and school community participants, the primary way by which community members and community-based organizations work together to address issues related to FI is through food bank donations. It was identified that GS2, local churches, and local businesses all provide donations to local food banks. I also learned that in both T1 and T2, a local church loans the food bank a physical space from which they operate. As added by Carl, local churches often work together to and spread their resources to a wide range of people within the school community who are in need of food-related support.

*Yeah, we base it out of the [name of local church in T1]. They've got a room that we have and uh, we give them a little bit of something each year to help with the cost of the electricity and stuff like that but they've been excellent. And so what we've tried to do is got all the clergy from town uh, kind of support it and um, so I've just happened to be the one heading it up. And uh, so but yeah it's been really good to see that way. [Ron]*

*Even with the churches – most of the churches are on board and, and for example, if I help somebody out I will say to the other churches, I've...with the other person's permission, I will say I have just helped out such and such with X amount of dollars from [name of GSI] so that we all know that we're not trying to help the same person out and we can spread our resources over a wider range of people in the community. But we still have some churches who refuse to participate in that. [Carl]*

Some school community participants described their community or county as a place where friends, family, and residents have close relationships that allow them to easily ask one another for help or support when needed. For example, Tara viewed small communities as places where great things can happen through collaboration and the development of strong relationships. In T1, a strong community identity and the way the community comes together to provide support to one another was identified as supportive.

*You know, I think one of the things that I've been thinking about lately is how incredibly lucky we are to be in an area that is so small because great things can happen when you collaborate and create those strong relationships versus a larger urban area where you may not know your neighbour. [Tara]*

*Yeah it seems like whatever, whatever goes on in the town, it seems like everybody tries to sort of pull in as many people as they can no matter what it is that's happening, so there's kind of that whole entire community support on some level. [Barb]*

Despite this tightknit nature, Ron believed that in small communities like T1, residents in need often keep their problems to themselves and avoid asking for help, especially in relation to food. At times, this has resulted in residents wanting to assist those less fortunate in anonymous ways. It also makes it hard to get people in need to use supports like the food bank.

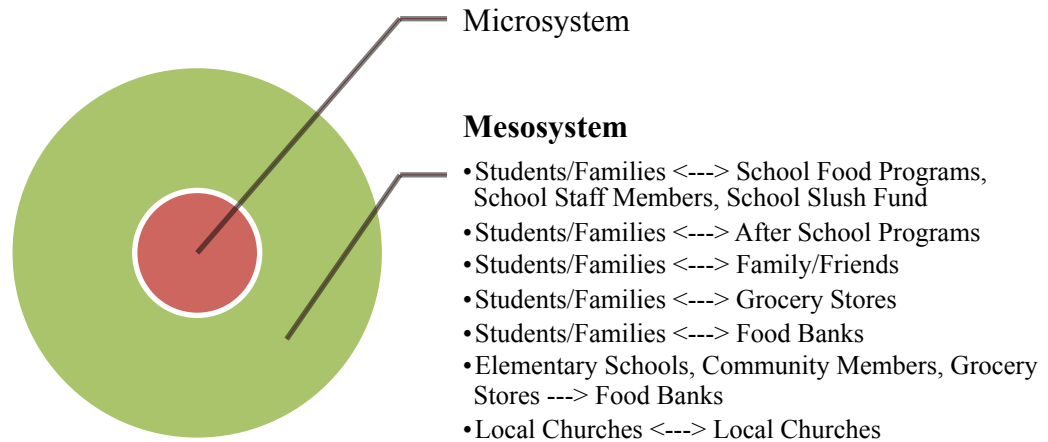
*Ron: But it, we find it very hard to get people to come in. Even though the food is accessible, it's there, we find it hard for people to come.*

*Interviewer: Okay. And do you think that goes back to what you were saying before about just people not wanting to come forward and...?*

*Ron: Yeah because it's, it's uh, they see it as more of a shame type, and it's not because they need it and the community is really willing to give but it's just that stigma that's out there.*

Below, Figure 4 represents the mesosystem, the connections and relationships between participants and the people, places, programs, and supports/services that exist within their microsystem and work to support the experience related to FI. Note that the bi-directional arrows in the figure below denoted by “←→” represent connections or relationships between factors.

**Figure 4: Mapping Mesosystem Factors Related to the Experience of Food Insecurity**



## 5.4. Exosystem: Forces that Guide Food-Related Behaviours

### 5.4.1. Availability of Nutrition and/or Health-Related Information

In addition to discussing types of supports/services available within the school community, participants were also asked about the availability of nutrition/health-related information within their school community. As described by participants, nutrition/health-related information is largely available from elementary schools, high schools, and the community (i.e., individuals, family members, and community-based organizations). In addition to describing types of nutrition/health-related information, parents described how they use such information within their household. Similarly, school community participants contributed their thoughts about how such information shapes food-related decisions/behaviours made by students and families, especially those experiencing issues related to FI. These stories were further supported

by the completion of the document review. Moreover, some participants recognized a general lack of availability of nutrition/health-related messages within the school community and provided suggestions as to how this can be improved.

#### ***5.4.1.1. Elementary School***

It is clear from the preceding sections that nutrition/health-related information was commonly available within the elementary school setting through documents and curriculum. To a lesser extent, nutrition/health-related information is available through human resources, specifically a school board health consultant who informs and educates schools and school staff members about implementing and managing health initiatives such as the FNP.

##### *5.4.1.1.1. Documents*

The documents collected in this study consisted of paper-based or web-based resources either created or distributed by elementary schools for use by students and their families. The documents named and/or described by participants included *Eating Well with Canada's Food Guide*, school newsletters, school lunch menus, a breakfast program poster (ES2 only), and Home Play sheets/physical activity communications.

According to most parents who I interviewed, students receive a copy of *Eating Well with Canada's Food Guide* from their elementary school via curriculum. As for school community participants, Rita shared that food guides are posted in the school cafeteria at ES2 and also distributed to students during class time. Ron shared that students learn about the food guide at ES1 but do not seem to have opportunities within the school day to apply this knowledge.

*Mona: I know like, the kids, they do different, and I did it too when I was a kid, they, you know, have the food groups and you know and what goes...*

*Interviewer: Mm hmm, the food guide and stuff?*

*Mona: Yep, the food guide, that's it, thank you, the food guide um, information and you know, they're [referring to elementary school staff/system] trying to drill it into their heads about whole grains and all that...*

*Ron: Basically when they're have uh, [name of child #1] and [name of child #2] have already gone through the food um, you know, like vegetables and meats and all that. Food guide. The rainbow. They've done that. So um, but as far information on health of food, no, they just know you know, what's a vegetable and stuff like that.*

*Interviewer: Yeah, but it's not necessarily like they're talking about what you can do with those things?*

*Ron: Right. Yeah. The skills, I don't think it's been in there. That I know of. I mean what they bring home from, from work is basically just homework. Studying about types of food and you know, you have your breads and fats and all that stuff.*

In addition to the food guide, several participants cited school newsletters as paper-based resources that provide students and families with nutrition/health-related information. At the beginning of each school year ES1 and ES2 provide new and returning students and families with a welcome newsletter. As gained from the interviews and my document review, school newsletters contain information about dietary restrictions and school food programs (i.e., lunch program, breakfast program, and recess snack program).

As gained from some of the parents and school community participants, ES1 and ES2 use school newsletters to inform students and parents within the school community about dietary restrictions, meaning food items that students are not permitted to bring to school (e.g., chewing gum, soda pop, any food product that contains either traces of peanuts, sesame seeds, tree nuts, and/or fish or shellfish). These food items are not permitted because of their minimal nutritional value according to the FNP or because they are known to cause allergic reactions for some students. Only for special functions or celebratory events are foods and beverages of minimal nutritional value permitted. However, according to Tara, some elementary schools within the school board request specific foods for celebratory events in an attempt to decrease sugar

consumption and respect food allergies or sensitivities. As for Carl, he expressed understanding as to why elementary schools like ES2 abide by dietary restrictions, yet observed that the school does not provide suggestions for sending alternative items. Ultimately, he does not consider a list of rules that simply outline dietary restrictions to be informative and helpful of how he can support his children's eating habits. He also believed that for parents who may experience issues related to FI, these dietary restrictions contribute to feelings of parental failure. As for Amy, information about dietary restrictions disseminated from ES2 allows her to recognize which foods cannot be sent to school with her child.

*Um, but again those restrictions, those policies, all that stuff that comes out, yes, I get, I get the reasoning behind it but to me it can often look like just another way that I'm going to fail as a parent. Like, for some of the people that I work with it's just another thing that gets in the way of me providing for my child because I can't provide the way they're asking. [Carl]*

*We keep that knowledge with us and they will send out a brochure and we keep adding to it you know, like. Like, when [name of middle child] first started it was no peanut butter okay, that was, well she's going into grade two, um, there was no peanut butter. But then I thought I heard of somebody, I won't send it anyway um, was fish or tuna or something. [Amy]*

As I learned primarily from school community participants, information about school breakfast programs, recess snack programs, and school lunch programs is also communicated to students and parents through each school newsletter. In ES2's newsletter, students and parents receive information about the breakfast program and its operational schedule. This same newsletter also advertises that recess snacks are available for students to purchase, if desired, and sends home a separate menu of snack options. Furthermore, each newsletter advertises and describes its school lunch program (i.e., operational practices, cost). As both of these programs operate in a not-for-profit manner, students are not allowed to purchase lunch on credit. Along

with information about school lunch programs, the ES2 school newsletter makes it known that microwaves are not available for student use.

In addition to monthly school newsletters, monthly school lunch menus are also circulated to students and parents. At ES2 a breakfast program advertisement is disseminated to the school community. This one-page poster is sent home to parents of students and includes information about its operational practices (i.e., days/times of the program, universal nature), images of healthy food items, a space for parents to express their interest in volunteering, and contact information.

Specific to ES1 is the distribution of Home Play sheets, which are one-page, double-sided, resources that provide nutrition/health-related information and activities for both students and their families. Mike regularly distributes these sheets through physical education classes that he instructs at ES1. I was provided with 12 Home Play sheets, each of which includes different age-appropriate information related to nutrition and health. With respect to food and nutrition, these Home Play sheets include information and messages about recipes, healthy and balanced dietary recommendations, recommendations for eating out at a restaurant, healthy breakfast and snack ideas, energy balance, and the importance of nutrients.

#### *5.4.1.1.2. Curriculum*

Parents and school community participants shared that nutrition/health-related information is also embedded within elementary school curriculum through health, physical education, and science classes as well as school greenhouses/gardens and grocery store tours. For Jody, the knowledge that her children gain at school is verbally passed along to her, which educates her about nutrition and health. Moreover, Mona shared that she is aware that her children have health class, which provides them with opportunities to learn about nutrition and

health. According to Mike, teachers are expected to address specific nutrition/health-related learning outcomes. He also said that some teachers strongly gravitate towards such topics due to their own personal interests and thus, find ways to address nutrition/health-related learning outcomes. While such information is taught to students, sometimes health curriculum does not address how to eat well on a budget or communicate nutrition and health information to parents of students.

*Like, I mean, they don't have it in paper but they learn it in class. So when they learn it hands on they then again come home and pass it on to me verbally. I learned that we should have fruits and vegetables this many times and we should have more green vegetables and this vegetable so they actually you know, educate me. [Jody]*

*I don't know that enough information is, is going home you know, about ways that they [families] can uh, still provide nutritious food for the kids affordably or ways you know, I don't know that they, I don't, you know, I know it's discussed in you know, throughout the health curriculum at all grade levels um, you know, it's talked about in the science curriculum and the upper elementary um, when they start talking about different syst--- body systems. Um, and certainly we touch on it in phys ed as well but I don't know that...that we do a great job of, of getting that information up you know. [Mike]*

While Barb and Mike shared that some teachers from ES1 used the high school greenhouse located next door to ES1 as a teaching tool, the school garden at ES2 had only been operating for one year at the time this data was collected and participants were unsure about exactly how it operated and how students and families used it.

*So the greenhouse is there and everybody in, at the school here knows that the greenhouse is there and that it's been up and running but there's only a pocket, a handful of teachers that you know, take, take the kids up and plant stuff for that reason of kids not really understanding where food comes from and that's something that the teach--- teacher and PSA in the room are, have an interest in and so they've you know, found the outcomes that, that that applies to you know, that they, or how they can use that in their class and that's something that they, that they do. [Mike]*

*The garden, it was just done last year. So, but over the summer there was no one in here tending the garden so a lot of weeds grew up and you, I mean, you need to pull the weeds 'cause they're taking all the nutrition from the soil so, so I guess it just got neglected a little bit and hopefully like, maybe like I said, last year was the first year they've done it so maybe this year will be different and maybe we can harvest it in September to have for the cafeteria. [Julie]*

At ES2, students have the opportunity to tour of the local grocery store as part of a school field trip.

*I know my, both of my children are in this school and they went on a, a tour of [name of GS2] and um, my kids came home saying, 'Mommy, Mommy, we tried all this kinds of food, can we go get some?' and I'm like, 'sure, let's go'. So we went to the grocery store and they took me all around to where they went and um, we picked up what they had and what they really enjoyed the most because I have two fussy eaters so I'm like, yes, great, if you will, some of it was very costly um, it was. I don't know if...I mean, I'm not in a great financial state but I was able to afford it and it was, it was, they liked it and it was all healthy and it was nice and it was different. We all tried it at home and their Dad liked it and so I mean, there's still some things that we buy so I wouldn't have bought that stuff if my kids hadn't of went on this tour of [name of GS2] so I mean, it was great to have that tour and so I, it was nice for [name of GS2] to do it with the school and to do that [...]. [Julie]*

#### **5.4.1.2. Community-Based Messages/Information**

In addition to school-based nutrition/health-related messages, people, places, or community-based organizations are also sources of nutrition/health-related messages for the public. According to Jody, she teaches her children about nutrition/health based on her own knowledge and education. Jody also believed the owner of GS1 in T1 to be knowledgeable about the nutritional content of the products sold in the store. Additional nutrition/health-related messages are communicated through cooking/baking classes at GS2, the farmers' market in T1, a nutrition program offered by the food bank in T2, and information sessions hosted by the family resource centre in T2.

*They [elementary school staff] do a lot, they teach them a lot about the Canada Food Guide and how many servings of things they need where certain like, proteins are good for your bones and I always install that carrots are good for your eyes, I'm not really sure but, as a kid I was told that so I pass that on to my kids too. 'Eat your carrots, they're good for your eyes'. Um, fish, I always tell them that, eat, eat fish, even though in a fishing village you don't get a whole lot of it, when we get it, eat it, it's good for your brain. That's our big thing, it's good for your brain, that kind of stuff, and they bring that home from school. [Jody]*

*I think probably the uh, the, just the introduction of more local produce in uh, in our Friday markets – which was started by two individuals in the town. Okay, they just got together and it's on town property but they uh, you know, they're running the whole deal. And, and really at no profit to themselves and, and it's having a great impact so, so that's a community way of getting things done it's by, by just uh, making more local and fresh produce available. [Kira]*

#### **5.4.1.3. Lack of Availability of Nutrition/Health-Related Information**

While many participants talked about types of nutrition/health-related information available to students and families within their school community, some also observed or perceived a lack of such information. When talking to parents, Mona claimed that ES1 does not send students home with recipes for use at home. In addition, her children very rarely come home from school requesting to try food items or meals they have consumed at school. A couple of other parents could not think of any information or messages that have been sent home from school with their child/children or were simply unaware as to whether or not food or recipes are discussed in school. As for school community participants, Carl could not recall a time when parents have invited to ES2 to talk about healthy living or healthy eating. In addition, he does not view information about dietary restrictions as helpful as they do not support how children should eat. Additionally, some participants believed that nutrition/health-related information is targeted towards students within the school setting but not beyond to families or the household.

*Mona: My kids have never [come home from school with recipes] They have never. Um, but yeah, my kids have never come home and said anything like that.*

*Interviewer: Like, this is what we learned. Can we eat this? Can we do that? Can we make that?*

*Mona: No. No. Um, maybe, maybe, maybe on a field trip. I seem to remember them making apple sauce.*

*That's a good question and I think that might be an area that, that um...an area that could be improved on. I don't know that enough information is, is going home you know, about ways that they can uh, still provide nutritious food for the kids affordably or ways you know, I don't know that they, I don't, you know, I know it's discussed in you know, throughout the health curriculum at all grade levels um, you know, it's talked about in the science curriculum and the upper elementary um, when they start talking about different syst---body systems. Um, and certainly we touch on it in phys ed as well but I don't know that ...that we do a great job of, of getting that information up you know. That it goes past the kids to the parents. [Mike]*

Through my interview with Mike and my review of the ES1 school newsletter, I learned that parents do not receive information about the FNP guidelines, yet they are referenced in the school newsletter. Julie echoed this and shared that parents of students at ES2 do not receive any information about the FNP guidelines. According to Carol, this lack of information results in parents not recognizing why certain food items are not served or sold at the elementary school.

*Like, some parents, when you get the opportunity to speak with some parents you know, they'll say, 'well how come you don't serve this anymore?' and I'll say, 'well I'm not allowed' and they're like, 'what do you mean?' Um, so when you get the opportunity to actually talk to some of them to explain what types of guidelines that we're trying to follow - what restrictions that we have on the foods that we serve - um, some of them are quite surprised because they don't realize. [Carol]*

#### **5.4.2. Factors That Influence Food-Related Decisions/Behaviours**

In addition to learning about types of nutrition/health-related information available within school communities, participants described many forces and factors embedded within the exosystem – some of which are representative of various levels of government – that play a role in influencing food-related decisions/behaviours among those who experience FI in ESC. The following sections will describe these forces and factors in more detail.

#### ***5.4.2.1. Nutrition and Health-Related Initiatives***

The elementary school board and its nutrition and health-related initiatives are believed to impact students and families and their experiences with FI within the context of the school community. The two nutrition and health-related initiatives discussed by participants included the FNP and NSHPS. With regard to the FNP, participants shared positive and negative thoughts and observations about the FNP, how its guidelines are followed by elementary schools, and challenges associated with using the FNP in the home.

As we will see shortly, most mothers viewed the FNP in a negative manner for a variety of reasons; however, despite these negative thoughts and observations, Mona voiced her belief that overall, it is a good thing that the FNP provides healthy choices for students. Positive aspects of the FNP as shared by school community participants included that elementary school cafeterias do a good job providing nutritious foods to students at no cost or for a reasonable price, and that it limits both exposure and availability of junk food. Moreover, school community participants expressed hope that the FNP and its related information and messages have a positive influence on the nutrition and health decisions made by students.

*Well, I think it's a good thing but I mean, it's good that they have, that they're trying to make those changes because there's just way too much unhealthy food anyway, like, period. [...]. Um, so I think it's a good thing that they have that. I don't think it's [FNP] really a barrier. [Mona]*

*Um, you know, I think uh, I think...you know, we do a good job of, like I said, for one meal a day we're going to make sure that it's a healthy, nutritious meal. You know, we can't, we, we, we provide the meal you know, and then there's, the other piece is we can't make the kids eat what's provided too and I think it's, I think they do pretty well with it and, and [name of school cook] you know, encourages them to you know, they, they get to choose the dessert option and so, so in that way I, you know, the, there, they're experiencing healthy items. I hope that they are developing a, a liking for it that they're going home and asking you know, for apples 'cause now they've, they like eating apples. [Mike]*

As previously mentioned, most mothers expressed negativity towards the FNP for various reasons. For instance, Jody “hates” the FNP and considers its guidelines neither feasible nor realistic for some families living in T1. She shared that the FNP guidelines are more feasible for affluent populations, such as those living in other areas of the province who have the ability to purchase healthy, nutritious food. Moreover, she believed that FNP guidelines should differ across communities and take into consideration the economic status of a community prior to implementation. Carl, a school community participant, held similar beliefs: that the FNP fails to address the many cultures and income levels of NS, suits middle to high-income families in specific areas of the province who are professional, educated and healthy, and creates feelings of inequality for vulnerable students and families. Moreover, Tara, a policy/decision maker, expressed that more background research should have been completed prior to the implementation of the FNP as this may have contributed to more success with its implementation.

*I hate it. I hate it. [...]. I think it's a barrier. I mean I can understand, don't pack pop but they have specific stuff that you can't have. I know, no nuts, right on. But nutritional lunches. There's people out there that can't do as nutritional as others. I may have to pack a granola bar with chocolate on it or I may have to pack them cookies 'cause it's something, some substance in their belly that day. I can't go out and get artichoke... hearts or whatever. You know what I mean? Like, it's just not realistic in town. It's just not realistic. [Jody]*

*So along with what you were saying just now about, so the child goes home, 'I see all these happy kids, I see all these happy families eating this wonderful food but I've never had a kiwi. They're telling me kiwi are really good for me', so what does that tell me about myself? It tells me, I'm less than the people that I'm seeing. It tells me that I'm less because we're eating packaged dinners um, because I, I don't have, we don't eat all that stuff in our house. 'Now, Mom I'm learning that this is a healthy environment but our environment doesn't look like that'. Therefore I am less than what this is. Now, it may cause somebody to step up and go, 'you know what, I'm not going to be less, I'm going to be equal and therefore I'm going to do more'. And it may more than likely cause them to say, 'well, I'll just accept my lot in life'. [Carl]*

*You know, and schools, what I, what I find is that when policies like this are created more background research needs to go into what is this actually going to look like and what is this going to mean for the people involved? Schools can't run a deficit. [...]. But when the policy came out that was all left up to individual school boards to do without supporting the school boards and, and making this happen so it has been a real struggle. And there, there have been some real successes with the policy but I don't think um, there are as many successes as there could have been if, if things were really thought through. [Tara]*

With respect to dietary restrictions at ES2, more specifically food allergies, Nora shared that she finds the FNP challenging because some of the food items her child enjoys are not permitted at school. As shared by Carl, while dietary restrictions are provided to students and families, ES2 does not provide alternative food recommendations in place of these restrictions. Moreover, he believed that rules governing dietary restrictions are not beneficial for the entire school population.

*Now, like, [name of youngest child] she likes peanut butter, she likes eggs, and it's hard when your kids like that but you can't have it at the school because of allergies. [Nora]*

*But right across the board we're saying no to tuna fish. Whereas the child may be in one classroom. So we put it right across the board so we don't have to ask again. It's, it's uh, it's painting something with a black or a white and, and it's not doing us any good. Um, but again those restrictions, those policies, all that stuff that comes out, yes, I get, I get the reasoning behind it but to me it can often look like just another way that I'm going to fail as a parent. [Carl]*

When speaking with elementary school staff members, some shared that the FNP provides elementary schools and its staff members with the necessary information and tools to provide healthy snack and meal options and teach students about healthy eating. The hope is that the availability of such information and education translates into making healthy choices, yet the reality is that students continue to make unhealthy food choices, especially outside of the school setting. For Mike, he is not sure if the FNP has had a big influence on what students and families are doing with nutrition and health-related information within the household. For Sue, a

policy/decision maker, the FNP and related initiatives are important but do not appear to reach parents and educate them about how to improve nutrition and health beyond the school setting.

*I know that the nutrition policy – not necessarily here but other places – have sort of crippled, in a way, the school because that was a large source of, of money for the school to use for whatever the case is. Um, and because the policy is so...strict um, it's really restricted what they're able to offer you know, snack wise you know, and I'm not saying that I believe that pop machines should be in the school but I know that those are huge moneymakers for the school. And like I said and, and it's not really – from what I saw at the high---seen at the high school - it's not affecting their, their decision making like, they're not, they haven't changed to not want the pop; they're just, they've just found a different [...], yeah. So are you really affecting how they, the decisions that they're making or how they view those items? They're still, and whether that's an economic issue because they can get so much for so little and it's terrible for them. I just felt like there should be a different way to, to do that 'cause that's ultimately what you want is you want them to make you know, healthy choices. [Mike]*

Specific to the issue of FI, Barb admitted that its touchiness is a barrier, making it hard to obtain information about what students and families are eating within their household. In addition, she believed it is hard to convince parents that it is worthwhile to spend money on eating healthy when they do not have the income to do so.

*I think the touchiness of the issue is definitely a barrier. It's, it's, it's hard to get information, like you said, you know, about what people are eating at home and, and trying to convince parents that it is worthwhile to spend that money or if they don't have the money... [Barb]*

Lastly, Tara informed me that lack of funding and support for rural elementary schools within this school board has limited the opportunity to provide students with good nutrition.

*So, but not having put funding in place or supports in place for those outlying schools to have the same opportunity to provide their students with good nutrition as other schools so really not well thought through which is surprising because Nova Scotia is a rural province. You know, most of us do not live in HRM. You know, so it, it really wasn't, that implementation piece, how this is going to look for our schools and our communities, I don't think was really well thought out and, and as a result schools, families, communities, have struggled with it. [Tara]*

Mothers also talked about how elementary schools follow FNP guidelines and how this may influence the types of food items they send to school with their children. With respect to the

ways in which elementary schools are following FNP guidelines, they refrain from accepting home-made food items for elementary school breakfast programs, inform parents when allergy-causing food items have been sent to school, and send home written communication about food allergies and non-permissible food items. The implementation of the FNP also resulted in the removal of chip vending machines, the introduction of water and juice vending machines, the transition to whole-wheat food items, and the encouragement to send children to school with healthy choices. With respect to celebratory events at ES1, parents are encouraged to provide their child with a healthy snack to share with the class, yet this advice not always followed by all parents.

*And also, for like, Valentine's Day or Easter or those things they'll always say, 'please send in a healthy snack'. [...]. Um, right now they, right (unclear) they've said oh, send in a healthy snack and everybody goes ha-ha, cupcakes. [...]. Every time that they'll...it'll say something like, 'the grade three is celebrating Christmas...[...] and please send in a healthy snack. I will provide the drinks'. Uh, and so she'll bring...like, if the teacher, the girl, whatever she'll supply the drink and it might be a fruit juice, it might be water, it might be whatever but you, the parent, are encouraged to send in the healthy snack and...[...]. One parent...probably...I know that some people will buy a bag of chips or a bag of pretzels and send that in and then somebody else like myself, I might make cookies because I was a little girl, I remember how exciting it was for your Christmas party, class party. I can't imagine nibbling on apples you know, for your class party right? [Mona]*

While the intention of the FNP is to guide what types of food items are served and sold within the school setting, parents provided insight into some of the real and perceived challenges associated with transferring FNP guidelines from the elementary school setting into the household setting. While Jody expressed understanding about why the consumption of certain food items is discouraged by ES1 she believed that messages associated with packing nutritional lunches is something not all parents have the ability to provide. She believed that the FNP is “too rigid” and “lumps you in” as if it is trying to “put a square peg in a round hole”. As a result, she experiences feelings of low self-esteem because the recommended food items are not always

items she packs in her children's lunches. In addition, she explained that the existence of the FNP means increasing her grocery budget and taking the FNP into consideration when grocery shopping. Mona also finds herself thinking about the FNP in the back of her mind when grocery shopping and finds it hard to constantly send her children to school with desirable food items, especially when household finances are limited. Finally, Nora admitted that she finds it challenging to purchase food items that her children are exposed to at school, primarily due to affordability.

*It's too rigid and lumps you in a, they're trying to put a square peg in a round hole kind of deal. They want you to do this. It makes you feel like you have low self-esteem 'cause I, none of that stuff I pack in my lunches. [Jody]*

*It's like, yeah, like, the kids have uh, I don't know exactly all what they have but [name of eldest child] comes homes and says, 'oh well we can have that. 'Well no, we're not allowed to have that 'cause we can't afford it'. [Nora]*

Another initiative discussed by some of the school community participants was NSHPS. These are elementary schools formally designated as such by their school board after completing a needs assessment. Once designated a NSHPS, a school receives funding and community-based supports that enable them to meet individualized goals and objectives. As shared by Tara, NSHPS initiatives can include the creation of gardens/greenhouses, gardening workshops, encouraging teachers to promote the FNP and incorporate it into health curriculum, disseminating *Strive for Five* recipes, providing healthy snacks to students and parents, and educating parents about nutritional, health, and physical literacy. While 10 elementary schools within the Tri-County Regional School Board are NSHPS, many non-NSHPS take on health promoting initiatives and activities. As shared by Sue, there are no known differences between how NSHPS and non-NSHPS address issues related to FI.

*They receive funding, they receive other you know, um, community based supports because we create a comm---a school community um, committee so at each school then we look at okay, who's within our school community that um, would help us achieve our health promoting goals? And so it opens up a whole new door of access to people with different resources and skills within their own community that can help them continue to build. Um, but most school administrators don't really have the time necessarily to create and cultivate and nurture those relationships um, where you know, the Health Promoting Schools umbrella, when we come in and help with that um, we help do the initial legwork to, to make those relationships happen and then once we feel that schools are sustainable then you know, we, we step away and, and work with another school that may be coming up or may be struggling. But we do recognize that there are schools that are not involved in the initiative that are doing great things around health promotion. They're just not necessarily involved with, with us on a formal (unclear). [Tara]*

#### **5.4.2.2. School Curriculum & Cut Backs**

While students learn about health, nutrition, and nurturing a healthy body through elementary school curriculum, more advanced knowledge and skill opportunities exist at the high school level through courses like family studies, food sciences, home economics (or equivalent), and gardening. However, most of these courses are optional.

*And I think there is, there is, they [elementary school staff and students], they do very basic, they do you know, healthy body is part of the curriculum in the elementary schools and I do know, when you talk about food security and that, and global geography which is you know, a fantastic program, I do know that in the global geography curriculum they talk about food security and accessing food and you know, so at the age of 17 or 18 when they become you know, they've, hopefully they're becoming more critical thinkers they're you know, they're more aware of, of the food issues. [Sue]*

Some school community participants talked about reductions to staff members or the exclusion of courses within the school board at both elementary and high school levels.

Participants expressed the need for life skills based programming like family studies, home economics, and food science, yet recognized these courses have been cut from the high school.

*It's already existing in um, in different curriculums and, but I think there is a huge need for life skills based programming within our schools. You know, and not, not necessarily to take away from any of the academic programming but when students leave us after grade 12, after 13 years of education they should be leaving us with, with life skills so that life skills that um, are further supported by practice at home you know, so that we take them so far but their experiences at home over 13 years should also help them prepare for the real world. And so when we hear that courses like family studies and food um, food and science courses and home ec, those kinds of courses are being cut um, I, I think it is a concern and you know, things need to be age appropriate. [Tara]*

*Um, and then as far as um, and you know, when I taught home economics like, I really focused on healthy food choices and it disheartens me that there's not trained home economists, family studies teachers in the schools now. There's not one in [name of county]. In fact, the local high school no longer teaches family studies which breaks my heart [...]. [Sue]*

#### **5.4.2.3. Gaps in Education and School Programming**

Finally, in talking about the educational system some participants recognized gaps in relation to how issues related to FI are being raised or addressed. Some of these current gaps include non-existent programs in certain geographical areas (i.e., SchoolsPlus) and lack of communication between elementary schools and the school board. In some cases, school board members are not even aware of supports/services offered by specific schools.

*Um, and as a board member um, our role is restricted in terms of our conversation with principals. [...]. I'm not permitted to interfere with the day to day running of the school. [...] - um, if I asked either [name of school principal from ES1] you know, or [name of school principal from ES2] I'm sure they you know, they would not take offense to me coming in and asking... [...], uh, they would never see me as being interfering if I came in and asked these questions but I have never had an opportunity to ask these questions so maybe I will ask these questions but right now that information is not feeding up through the school, to the school board. I've been on the school board now since last [month] and I don't ever recall individual schools being discussed as you know, I do know that there are some schools that are in lower income areas that may have you know, some food issues but it really doesn't come up to the board level. [Sue]*

#### **5.4.2.4. Financial Assistance Programs**

According to a few participants, financial assistance programs, also commonly voiced as social assistance, including IA, EI, and low-income housing are supports that families or people in need can use if they experience issues related to FI. However, these supports have varying

degrees of influence on nutrition, health, food security, and the daily lives of students and families who experience FI. For example, Amy acknowledged that she has utilized social services to assist her with finding low-income housing and registering for IA. From the perspective of two school community participants, social assistance contributes to loss of food skills and does not provide enough financial support to its users.

*I wanted, I found out about low rental and - which is a service, apparently look, they help you out - I said, 'I don't care where you're at, all I know is my house is going and I have nowhere to go. I can barely...' you know, he wasn't paying, I was getting welfare, I wasn't getting no child tax credit like I am right now and it was just, I, I can't do it, I need low rental. So they [referring to support received from social assistance] kind of, I, I believe they kind of pushed me forward to kind of get me out and then. [Amy]*

*Um, the way social assistance works is that, you know, I've seen cases here where they pay the person's rent for them. If they can't handle their bills they'll pay their bills for them too. So if we're [referring to social assistance], if we're doing all those kinds of things for somebody it makes perfect sense that we're losing the skills to do things like cooking as well. [Carl]*

*And if you said to a, a young mother, stay at home mother who's got you know, three kids up at [name of ES2] and she's a single Mom and you know, I mean what we pay for community you know, what they get per month for assistance is pretty bad. [Sue]*

#### **5.4.2.5. Lack of Public Transportation**

In the section above entitled physical accessibility to food, the mothers who participated in this study shed light upon how they access food and the forms of transportation they use in order to do so. Interviews with school community participants and my time spent in ESC provided insights on how public and personal transportation influence food-related decisions/behaviours among families experiencing issues related to FI. With regard to transportation, ESC does not have a public transportation system, only a small shuttle service and taxi services. Additionally, I learned that some families have limited or total lack of access to their own personal transportation.

*Um, so that's a big thing [farmers' market in T1]. Just for something to ha---be happening right in [name of T1] 'cause there are a lot of people that, that just don't have vehicles here so they're kind of at the mercy of you know, whenever a friend happens to be going or...and there's no public transportation you know, there's no taxi, there's no bus so um, yeah, if you live here and you don't have a car and you don't have a lot of money it's, it's hard, you know, it's hard to do. [Barb]*

#### **5.4.2.6. Land Use**

On the topic of land use, Carl described the development of low-income housing in outlying areas of T2. Typically, the occupants of such developments are on social assistance and may not have their own vehicle. On the topic of the location of and proximity to food outlets, Tara explained that other rural elementary schools within this school board do not have a grocery store within their town, which makes it challenging to regularly access and offer fresh food items for students. As a result, some of these school food programs have ceased to operate.

*Yeah, because not every schoo---you know, we're not all made equal. We don't have equal access to, if all of us had equal access to food sources and we're living in either communities that were all affluent or communities that were all economically um, hurting and then we could have, we'd have a similar baseline but we don't. You know, we have schools that have absolutely no um, access to fresh fruits and vegetables within you know, an hours drive so for us for example, when we, at [name of elementary school within school board district], it's an hour for them to go to a grocery store via a ferry. So for them it's really, really challenging and as a result they've shut down their, their lunch program, they no longer offer food at school. Minus breakfast program. And you know, and that's what we're starting to see. We're starting to see schools no longer provide um, a healthy nutritious meal for their students because they don't have access [...]. [Tara]*

From Julie's perspective, some communities and elementary schools only have access to one grocery outlet where the prices of food are not always desirable. In some cases, these grocery outlets offer nutrition and health-related learning opportunities for community members. As shared by Mike, these educational opportunities are most often hosted in T2, which is a limitation for individuals or families without access to transportation who live in T1.

*Yeah, but I like that, I like that idea, yeah, of those sorts of workshops and it, the problem is that um, you know, even when the municipality puts on um, work, workshops - they'll do photography or they'll offer, and it's all just community members stepping forward to present you know, saying I'm going to do a class on yoga or whatever - those all seem to be held you know, in [name of T2] and so it's um...you know, and maybe I'm wrong, maybe, I live in [name of T2] so I hear more about what's happening there perhaps than I hear what's happening in [name of T1]. Um, but I don't think there's any of that kind of stuff happening. [Mike]*

#### **5.4.2.7. State of the Economy**

A number of participants described the economic state of their community and/or the county, including income levels, employment challenges, seasonal work, reliance EI, and the dwindling community. Mona believed that unless people in T1 have decent employment then most people likely know what challenging times are like. According to Mike, T1 is an economically disadvantaged area consisting of many single income and lone parent families. Adding to this is the substantial reliance on the fishing industry and lack of local employment opportunities – also applicable to T2 – that can result in the separation of families. It is the belief that such characteristics contribute to increased use of elementary school breakfast programs and feelings of stress, which is believed to be a factor that can make it difficult to involve parents in school-based initiatives.

*So if, if families were more economically secure, if families had better access to economical foods that are healthy and nutritious, if families were able to stay together versus, especially in our area now, and we've seen a huge increase in the use of our breakfast programs um, with one parent being in the province and another parent being somewhere else and coming home once every three months or once every three weeks or whatever. So since we've seen that division um, I have noticed over the past four years that I've been here, a huge increase in the number of children using our breakfast programs. [Tara]*

*Um, it's hard to get, it's hard to get parents involved. We've got some great core parents um, but, like people's time. People are stressed to the max and particularly in a rural area like this where employment is such a challenge so people are struggling. When people are struggling to keep their head above water it's hard to see anything else. [Kira]*

#### **5.4.2.8. Accessing and Affording Local Food**

With respect to the local food system, Carol observed that residents in T2 do not live in close proximity to produce stands in comparison to other areas of the province. Thus, when fresh produce does arrive to T2 it is expensive. Barb viewed the local farmers' market in T1 as a great opportunity to expose community residents to local food and provide them with opportunities to purchase local food, especially when access to transportation is limited. Sue considered farmers' markets a great idea but believed food prices at the farmers' market in T2 to be high in comparison to grocery stores and that they cater to certain socio-economic classes.

*Um, there's also something else that just started last year, it's called the [name of T1] Market in the Park...[...]. Um, so that's a big thing. Just for something to ha---be happening right in [name of T1] 'cause there are a lot of people that, that just don't have vehicles here so they're kind of at the mercy of you know, whenever a friend happens to be going or...and there's no public transportation you know, there's no taxi, there's no bus so um, yeah, if you live here and you don't have a car and you don't have a lot of money it's, it's hard, you know, it's hard to do. [Barb]*

*And you know, and when we talk about fresh fruits and that we do have, we do have a farmers' market in [name of T1] and there's a farmers' market in [name of T2] and I think they're probably both going to be closing up over the winter months but the food's expensive there. [...] I probably would pay the \$2.50 'cause you know, I'm in a different you know, I, I do okay, I do have a good pension but for the, for a lot of people in this community and the [name of T1] community, money's not as easily come to so they're not going to go there. You know, I think the food market is a wonderful idea but I think it, it caters to a certain, I hate to use the word class but a cert---a certain clientele. [Sue]*

#### **5.4.2.9. Advertisement and Cost of Unhealthy Food**

Multiple school community participants also talked about the advertisement and cost of unhealthy food. Kira believed that the advertisement of non-nutritious foods makes it easy for consumers to compromise when it comes to making food choices. Additionally, Carl, Ron, and Tara observed unhealthy food items to be inexpensive in comparison to healthy food items and easily accessible and available when compare to healthy food items.

*But also at home you can only do what you can do and unfortunately the way our uh, our society and the way our food system is set up it's way cheaper to, to compromise when it comes to food choices than to, than to buy a lot of you know, really nutritional food. [...]. So unfortunately because of what we've become accustomed to, to seeing and, and, and purchasing you know, things are marketed in, in an amazing way you know, with great colour and the right location, everything, and people are going to choose the things that they know [...]. [Kira]*

*You know, unless you live in rural Nova Scotia. And there's still no place to go. You know, and so [name of T1] for example, you know, there's really no place for those high school students to go that um, that would be even some place reasonable. You know, and, and [name of T2] the same. [Tara]*

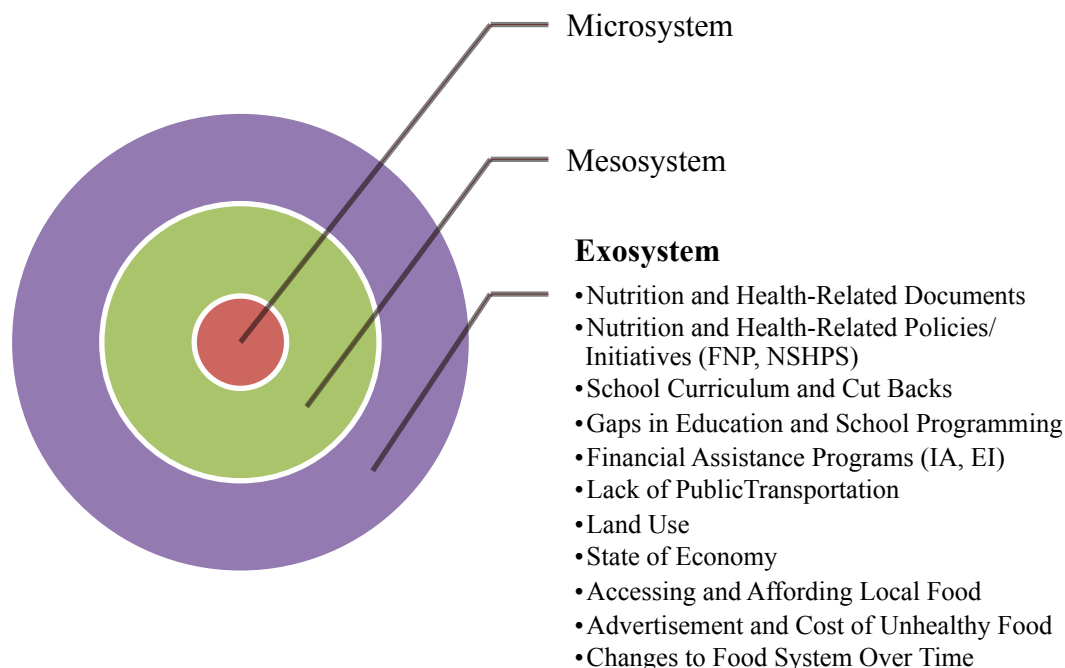
#### **5.4.2.10. Changes to the Food System Over Time**

Sue talked about the large increase in the number of food items available to consumers now in comparison to years ago; 5,000-7,000 then versus tens of thousands of items now. She has also observed increased conversation about the price and cost of food and how specialty grocery stores pose cost barriers to specific socio-economic classes within our society.

*Well let's talk about barriers! Friday night I went to [name of specialty grocery store in HRM] simply to pick up some um, German noodles for spaetzle and you know, my husband and I walked around there and I'm just, I was just amazed. I've been there before but we had a little bit of time and we looked at the prices and we looked at where the food was coming from and you know, and people talk about, 'oh you know, [name of specialty grocery store in HRM]'. Well, the ordinary middle class person could not shop there. I mean, \$4.99 for 2 kg of sugar, yes please you know, please people, don't buy that. You know, you get it cheaper somewhere else. [Sue]*

The following figure, Figure 5, builds upon Figure 3 and Figure 4 by moving outside the microsystem and mesosystem and into the exosystem where various forces and factors exist within each of these school communities and play a role in the experience of FI.

**Figure 5: Mapping Exosystem Factors Related to the Experience of Food Insecurity**



### **5.5. Between the Exosystem and the Microsystem: How Texts and Ideological Messages Shape Food-Related Decisions/Behaviours of Students and Families Experiencing Food Insecurity**

Certainly, a variety of documents that include nutrition and health-related messages exist within the elementary school sector. Typically these messages are communicated through school newsletters, school lunch menus, advertisements, and resources sent home with students from some of their classes. Based on what parents knew about the availability of nutrition/health-related information within their school community, they were asked to describe how they use this information within their household. Similarly, school community participants explained how they believed this information shapes food-related decisions/behaviours made by students and families who may experience issues related to FI.

For Jody, if her children come home from school interested in a specific kind of food she tries to ensure it is available for her children to consume. She also shared that her children have come home from school with seeds for tomato plants that she has attempted to grow and care for

at home. Mona's children have come home from school with copies of *Eating Well with Canada's Food Guide*, which she posted on her fridge at one point for her family to use as a way to gauge their food consumption patterns. Amy also posted a copy of the food guide on her fridge but did not expand upon whether she had used it to make food-related decisions. Moreover, information the school sends home about food allergies is used to ensure her child does not attend school with restricted food items. Lastly, Dawn enrolled in a local community-based food program where she was able to use the cooking appliance and recipes she received from the program to make different meals at home for her family.

*If it's something they're very interested in, like if [name of second eldest child] is very interested in the fact that green vegetables are better than you know, yellow vegetables or something then I'll try to make sure, try to make sure I have more of that vegetable available and point it out to her that I have it. [Jody]*

*Yep. I've used them, yep [recipes and small kitchen appliance from community nutrition program]. Some of them I, the children don't like. Um, it just depends what was in it. One of them might like one and the other one doesn't like it. So I just mix and match them whatever they like. [Dawn]*

Some school community participants held the belief that no matter what is taught at school that family background, nutrition and health knowledge, exposure to food advertising, proximity to the nearest grocery store, access to transportation, food preferences, and ease of availability of unhealthy and inexpensive are all factors that play a role in the food-related decisions/behaviours made by students and families. Furthermore, most school community participants expressed positive views towards the FNP in regard to what is taking place within the school during school hours and recognized that the intention of the FNP is to focus on food items served and sold within the elementary school setting. However, most school community participants shared that they are not aware how the FNP is being translated into the household or believed it is not intended to be translated into this setting. Carl provided an upsetting example of

a parent who, on numerous occasions, has kept their child home from school due to their inability to provide a school lunch that abides by the parameters the school is mandating.

*I know the policy itself, the food and nutrition policy anyway um, is a good policy and I like the idea that, okay well if kids, if parents can't afford to feed their kids healthy food, at least when they come to school you know, we, if they only get one healthy meal a day and it's the school that's providing it then you know, then so be it and uh, it's almost like all we can do is just sort of hope that the kids kind of buy in to the idea of eating healthy and, an recognize the connection between their health you know, the food they eat and, and their health and you know, and as they start to get their own jobs and make their own money we can just you know, kind of teach them to budget for, for certain things and, and hope that they start to make you know, those right decisions 'cause I, I don't know how, I mean, if you can't afford the food then you can't afford the food. Like I don't, I don't, you know, what do you do if you've got four kids and uh, you know, they all play sports which means you've got to pay for that and yeah, it's just uh, it's kind of like a vicious cycle really. [Barb]*

*I don't know that it's you know, when, when they're going home I don't know that it's necessarily being transferred home. Like, I don't know that they're going home and having those conversations about, like you said, about how, even though that food is good um, I don't know that they're going home. I think that's a little bit almost pie in the sky or it's, and it might be overreaching of what the nutrition policy really is and you know, I'm not well versed in the nutrition policy but I guess my feeling would be is, is that we're just controlling, we're not really worried about what's happening outside of the home with the nutrition policy, we're just worried about what's happening inside for those five hours that, that we have the kids here and making sure that it, that there are alternatives. [Mike]*

With respect to school food programs, Tara believed that many schools are usually not purchasing high-end food items but instead making food items that could potentially be feasible for some families to make on their own at home. On this same topic, Mike believed the price of school lunches at ES1 to be reasonable and attainable. Furthermore, some school community participants from ES2 thought food items offered at elementary school breakfast programs to be accessible to anybody on any income while others recognized that it costs more money to eat healthy than it does to eat unhealthy, even when trying to shop on a budget.

*What we provide for the breakfast program is access to anybody on any income 'cause it's just Cheerios, it's just yogurt, it's just uh, fresh fruit. That part, those things they can access. The breakfast, like, for us always is very attainable for anybody... [Rita]*

*As far as some of the things we have had, yes, they could probably be able to, 'cause I mean the breakfast program is run off of donations and with grants and stuff as well so we can't spend a fortune on all this food either so um, yes, they probably would be able to afford it at home but are they likely to buy it? I don't know if they would. It would be nice. [Julie]*

## **5.6. Macrosystem: Values, Beliefs, and Ideologies Embodied in People's Daily Lives**

Embedded within each interview were the values, beliefs, and ideologies held by the participants. These elements of the macrosystem appeared to be embodied in the daily lives of participants and to an extent, governed their food-related thoughts and decisions/behaviours. The upcoming sections will provide further details about these values, beliefs, and ideologies.

### **5.6.1. Personal and Societal Nutrition/Health Values**

A couple of parents shared details about factors that are important to themselves and their family, including nutrition, food, food preferences, and health. For Mona, she loves healthy food but cannot always afford to purchase it. She also believed in teaching children about the importance of eating certain food items in moderation, like treats, especially in relation to celebratory events at school. For Mona, she would not like to see treats replaced with healthy snacks on occasions like Valentine's Day or Easter. Both Mona and Jody recognized that food items like Kraft Dinner, Mr. Noodles, and potato chips, while inexpensive, are not sustainable for maintaining good health and can contribute to weight problems and obesity.

*But I know myself personally, I love salads, I love chicken breasts, I love fruits and vegetables but if I don't have it right there to work with – the money that is, I mean, chicken breasts, a package is like, \$26 at [name of GS2]. That's insane. That's like gold you know, so. So when it's buy one, get one free I'm like, stocking up you know and so it definitely has its challenges. [Mona]*

*With my oldest daughter, the stuff that she really likes, I mean, it's cheaper stuff, like if she just for a snack wanted chips, but it's not filling so she's hung--- still hungry. It's not as filling and where she's a bigger girl I can't let her eat all the high fat food...because she'll become obese and it's dangerous. [Jody]*

Multiple school community participants also expressed nutrition/health values for students, including the desire for students to make healthy choices and for children not to go hungry as well as addressing basic needs ahead of academic success.

*Ultimately what you want is you want them to make you know, healthy choices. [Mike]*

*They [elementary school staff] would never want to see a child go hungry. [Julie]*

*You know, we care about our students and it goes over and above um, their academics because we know that if we don't take care of their basic needs first it doesn't matter what we do in the academic classroom because it's not going to stick. [Tara]*

On a societal level, Sue believed that the school board and Department of Education does not place enough value on food and health when compared to other subject areas. With respect to food security in T1, Kira believed it is an issue on the horizon and a topic people are aware of but not as high a priority when compared to mental health, emergency planning, and climate change.

*...Department of Health is talking about the fact that we have obese kids and we have people who are living you know, on fast foods or convenience foods or looking you know, for ways to you know, have quick meals when we should be teaching them you know, teaching them you know, if you, you buy a pound of meat what you can, how you can extend that. Like, I used to love doing the meat extenders and teach them how to use food so that, that really upsets me is that the Department of Education has not placed a high enough value on food. They place the value on physical activity, they've gone that way, but they haven't put it on, in home economics you know, it should be there. So I guess that, I find that very, very frustrating. Really frustrating. [Sue]*

*And it's, I think it's [food security] not a priority because they, they don't want it to be a priority. Sometimes there are just bigger things and, and you know, how do we, if we have, in the past five years we've had um, hurricane Bill and another one and our access to the island is breached because of a storm surge right. Now we don't have to worry about food, we have to worry about fire protection, we have to worry about, how do we get people on and off the island of [name of T1] to, to get to health care? Um, how do we keep people warm and, and, and, and fed if most people are dependent upon electricity? These are you know, how do we, how do we make sure we have roads so that we can get on and off and so that we can have um, it can support the level of commerce that we have here and the trucks, I mean it's just there are such huge issues that sometimes things just fall by the wayside. [Kira]*

### **5.6.2. Individual/Family Pride**

Jody talked about the sense of individual/family pride that exists within her community as well as feelings of shame that residents experience when reaching out to others for help, especially when they do not have food for their children. She also believed that community members in need either do not ask others for help or hide their problems due to feelings of embarrassment or fear of feeling like a bad parent. Furthermore, she shared her own personal experiences with getting over her pride in order to care for, protect, and feed her children.

*There's a lot of shame in our town. I don't know about [name of T2] but I know in our town there's a lot of shame when you don't have food for your kids, you don't have enough to pack their lunch. A lot of people just don't ask for the help 'cause they're embarrassed, a) are they going to call social services and take my kids? b) you know, that's a big thing for a lot of— they don't want to admit that, not that they're a bad parent 'cause you're not a bad parent, that they've fallen on hard times so poverty it goes you know, in the closet 'cause nobody knows. 'Cause you---a lot of people are embarrassed to ask, ask a friend you know, go to the food bank. It's just, and it's sad. [Jody]*

*You have to get over yourself because you look at those kids and you can tell in their faces they're hungry. And, and the embarrassment, I can't send my kids to school with nothing in their lunch bags. Right? I, I can't have their bellies growling when they go to bed; that sucks. [Jody]*

### **5.6.3. The Expense of Healthy Food**

Mona shared her beliefs about the expense associated with purchasing healthy food items for herself and her family. She also believed having more money could equate to an increased ability to buy healthy food items. For Nora, she believed that healthy food items should be available at the food bank as some people experience challenges with affording such items at GS2. As for school community participants, Julie and Rita both believed that it is expensive to eat healthy.

*But with my husband working what he works and me working what I work it's just not enough to afford every single well-balanced thing. Like, I'm trying to lose weight right now and all the healthy stuff is so outrageous that it's, I don't know, it's crazy. In price, it's just extremely high. I mean, I went to [name of GS2] last night with a friend, I grabbed some stuff for salads and I think I spent 20 bucks and if I don't eat it immediately it's going to rot and, yeah it's, it's kind of tough. [Mona]*

*So if you can't afford going to [name of GS2] you should be able to go to the food bank and almost get something similar and nutrition for you but like I say, it's, some people just find it hard to go to [name of GS2] and you know, get broccoli or cauliflower or apples and all this other stuff. [Nora]*

#### **5.6.4. Lack of Discussion about Food**

Both Dawn and Amy observed a lack of conversation about food and food-related issues within T2. Dawn did not realize how many people have food allergies or food issues until becoming involved in conversations with others about food. Amy observed that conversations about others needing help with food or just help in general are not often discussed.

*And you don't realize how many people have allergies and stuff like that, not until you talk to other people and they, 'oh yeah, by the way, yeah we have food issues in our home' or whatever but it's, food is never really spoken about very loudly I don't think. [Dawn]*

*I'm sitting here, I'm sitting here and I'm like, like, I can picture my best friend down the road and you know, actually I've never sat down within this year and actually asked her [referring to having conversations about needing help with food] so what you're doing is kind of awesome 'cause you get the inside of something that maybe I should have asked a while ago. [Amy]*

#### **5.6.5. Judgements**

Participants shared examples of both judgement and self-judgement with respect to nutrition, health, issues related to FI, and household food management. Mona believed that teachers from ES1 make a good salary and a good living in comparison to a fisherman and as a result, do not appreciate what families on a low-income are dealing with.

*I mean, they're supportive in a way but I really don't think a lot of the par---the teachers probably grasp the fact that I mean, 'cause they're on teacher salary and if their husband, wife, which a lot of them are teachers too or are whatever else they're making a really good living whereas there's months at a time that the fisherman won't have any real amount of money right? And uh, so they probably don't fully appreciate what other people are dealing with. [Mona]*

With respect to the FNP, Jody understands why certain foods are discouraged from being sent to school with children and questions why a mother would even send those types of foods to school. Both mothers exhibited some self-judgement about food items they send to school with their children.

*I can see limiting...don't send uh, a chocolate bar, a pop and a bag of candy. No, that's just stupid, what mother would do that anyway? That's dumb. But don't knock the fact that I sent you know, carrot sticks and small bag of chips that I bagged up in a baggie. Right. Or Oreo cookies or. [Jody]*

*So when it's bad and you're sitting there, thinking 'oh my goodness, I wonder if the teachers are judging me?'. Like, with what I'm sending, you know what I mean? Like, I wonder if they think, 'oh she just send her kids with crap' or something but if they saw what you have to work with they would understand I think why it is the way it is and you can't make a kid eat what they don't want either [...]. [Mona]*

With regard to issues related to FI, Carol shared that while she is not familiar with everyone in her community, she can see some students struggling with FI. As for Julie, she is sure there are families within the school community who are in need but perhaps nervous or embarrassed to let ES2 know.

*For some fam--- 'cause like I say, now the, the one group of children that I said there's two boys and there's a little girl that started in primary this year and I know that, I don't, like I say, I don't know, I'm not familiar with everybody in the community 'cause I didn't grow up here but I just, you can see it in the kids that there's, there's struggles there. [Carol]*

Additionally, some school community participants shared their beliefs about how others manage food for their household. Carol shared that some parents who can afford to feed their children do not feel their children should attend the school breakfast program. Moreover, she

believed that some parents send their children to the breakfast program in order to use their money elsewhere. In contrast to this, Sue believed that parents would not rely solely on an elementary school breakfast program to feed their children every morning.

*There's probably some people would say if they figure they could get away with sending their kids to school with a free breakfast and the money they would have spent on breakfast at home would be misappropriated somewhere else right? Um, but you can't monitor that. You can't tell people how to spend their money. [Carol]*

*You know, I don't think there's anyone who would say, 'oh I'm not going to give you breakfast this morning 'cause you can get it free at the school'. I, I, in my heart of hearts, I, no matter what your circumstance are, but as a parent I can't imagine parents saying, 'I'm not feeding you, you go off, you go to the elementary school and they'll give you breakfast'. [Sue]*

A couple of school community participants expressed their beliefs and judgements about how families on social assistance/IA spend or reallocate their money. For Sue, she simply believed that the allowance of money that a single mother on social assistance receives is “pretty bad”.

*Like, I mean I know I, like, families that have social assistance, welfare um, they always seem to have for themselves before the children I find. Like, there's, there's children out there that could use more but yet we see the families in the community, we're a small town, so we see them other than here at the school and we see them goin' with cell phones and we see them goin' to the liquor store and buying their tobacco products and, and then we see their children with nothing in their lunch box so it's very hurtful to see that and so it would be nice to, if uh, the welfare or social assistance could, I don't know, maybe give vouchers to the school for these children. [Julie]*

*Some of these parents with the money that they're getting, I don't feel they're spending it appropriately. Um, my feelings are, and this may be a little direct, but if you can afford to have your cell phone, your computer, your Internet, your cigarettes, whatever, you can afford to feed your kids...but you don't always see that. [Carol]*

#### **5.6.6. Knowledge/Education about Nutrition and Health**

Several school community participants contributed their thoughts and beliefs about the nutrition and health knowledge held by people within their community and how this impacts

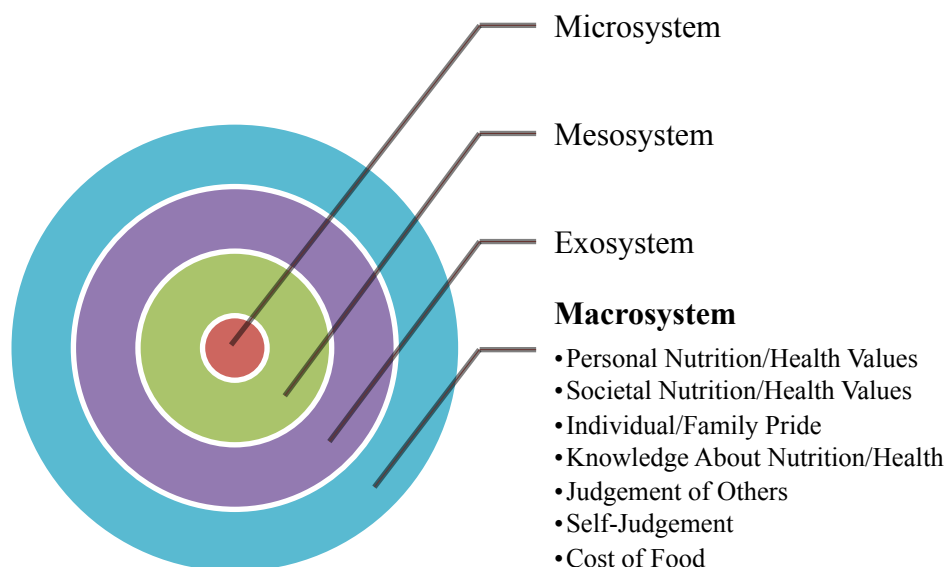
health and food-related decisions/behaviors, especially for families experiencing challenges with food affordability and food accessibility.

*However, however, I think a lot of people that are in the situation where they don't have a lot of funds, don't have a lot of education about nutrition and don't know the guidelines and what to follow and what not to follow and how to even read a label and what the label means right. So that kind of stuff is the, where the education needs to be is for the parents to, yeah. [Fran]*

*...alright, you can do amazing things really inexpensively but a lot of, a lot of people have lost the, the knowledge and have lost the time and have lost the ability to prepare a lot of these meals which are, which are slower and, and much more nutritious and actually cost less. So unfortunately because of what we've become accustomed to, to seeing and, and, and purchasing you know, things are marketed in, in an amazing way you know, with great colour and the right location, everything, and people are going to choose the things that they know so... [Kira]*

The next and final figure of this chapter displays the addition of the macrosystem. The elements of this system represented below in Figure 6 highlight the values, beliefs, and ideologies held by participants with respect to the experience of FI in ESC. The chronosystem has not been represented in this chapter as limited examples applied to the element of time with respect to the experience of FI.

**Figure 6: Mapping Macrosystem Factors Related to the Experience of Food Insecurity**



## **5.7. Future Recommendations for the Creation of Supportive Health Environments**

I finalized each interview by inviting all participants to share their vision for an ideal world, i.e., what can be added, changed, removed, or created in order for the elementary school and/or community to support students and families who may experience issues related to FI. This question encouraged participants to think about the “what can you do about it now?” component of the experiential learning theory that was used as the foundation of my interview guide. Furthermore, participants were asked what their vision would mean for themselves, their families, their community, and/or their role within the school community. The ideas shared by participants are presented according to their alignment with Bronfenbrenner’s Ecological Model.

### **5.7.1. Microsystem**

Two policy/decision makers shared their beliefs about what families could be doing to be more supportive of their family’s nutrition and health needs. Tara questioned where the responsibility of school ends and the household begins and recognized that the school cannot always be relied upon to determine how to support students and families. It was Sue’s belief that students’ ability to access free food from school negates parental responsibility and that parents need to be held accountable to their families by learning about food. These findings in particular highlight the socio-political context of FI, meaning that larger systems and political forces within society heavily regulate such a phenomenon. These systems and political forces often exist beyond the boundary of the individual, yet exert a certain element of control over food-related decisions/behaviours, some of which are perceived to create dependent members of society. This broad socio-political context raised by these policy/decision makers is certainly an important consideration when thinking about the issue of FI; however, it is a topic beyond the scope of this thesis.

*It's really hard because you want, you got to you know, where does school end you know, when does the responsibility end as an educator um, and where does responsibility begin as a parent or guardian? [...]. Yeah. And sometimes I, you know, there is something still needs to be around that family intimacy and that the family's ability to, to work together or to figure out how, how are we going to make this happen? You know, and it, it can't always be um, left up to the school to identify those needs or to identify um, the resources and the, and the help that might, or supports that might be needed. You know, um, it's not to say that we can't be supportive and caring but where does, where's the cut off line you know, for that? [Tara]*

*Yeah. Well I, I, I, it can't be done singularly and I think you know, you, you said it when you said you know, these parents' kids are accessing this free food that negates their responsibility. Well, I think they need to be held accountable. And either held accountable by learning more about food or by teaching about food. [Sue]*

### **5.7.2. Mesosystem**

In addition to learning about the many supports/services and partnerships/relationships that exist within the school community, some participants recommended how these elements can be changed or improved upon. Suggestions fell into one of two settings: the elementary school or community.

#### ***5.7.2.1. Elementary School***

Participants who viewed the elementary school setting as non-supportive were asked to provide recommendations as to how the school environment could be improved upon.

Recommendations were directed towards school food programs, opportunities for nutrition education, use of microwaves, and increased financial support. Additional recommendations included programs for families in need, continuation of school food programs, the continuation of grocery store tours for students, and having the school become the hub of the community.

##### ***5.7.2.1.1. School Food Programs***

Participant recommendations aimed at improving school lunch programs included a multiple child discount, an occasional free lunch day, fundraisers to provide free meals or meal

items for all children, and for ES2, to ensure the free, universal breakfast program operates daily.

For Tara, she would like to see these programs continue.

*Um, well I mean, I guess the why [elementary schools are supportive] is because they do offer the breakfast program and the why not [referring to why elementary schools are not supportive] would be because I think it's unrealistic for the price when you have multiple children. Like, if there was some sort of multiple children discount, that'd be cool. You know, like, say one lunch was \$3.50 but if you're getting two it's \$5 or something like that. You know what I mean? Like, because like, there's several families that do have four or five children that will be eventually, all through the, and it's a lot of money. You... 'cause if one wants it, they all want it [...]. [Mona]*

*So I'm thinking that they should expand it and have it every day for the kids even to make sure that they have a good breakfast if they didn't get it at home for parents that couldn't afford it or. So I think that would be good. [Nora]*

#### 5.7.2.1.2. Use of Microwaves

A few participants suggested having microwaves available at ES1 and ES2 for student use. This was viewed as a way that the school community could be more supportive of students and families, especially those who experience issues related to FI.

*It's hard because there's no microwave at the school allowed to be used in, like, each classroom, would be awesome if they could have a microwave because homemade soup or something homemade that they could heat up. I mean, that would be kind of great and a lot of us parents, we've talked about it before, we were like, let's buy a microwave and ask yeah, like, for each, each room but they're saying no, it's too time consuming and...but not every single kid, every single day is going to bring soup or is going to bring something homemade. But it would be nice because I mean, there's days that I've made um, rice and vegetables right, and it's healthy and it's good and it's whole grain and my kids would love to take a container of that to school but it's not very good cold. And you can't heat it up. So things like that would be...that would be a big help. [Mona]*

#### 5.7.2.1.3. Opportunities for Nutrition Education

Some participants viewed the elementary school setting as a valuable place to provide students with knowledge and skills related to food and nutrition. It was suggested that the provision of such knowledge and skills occur through school curriculum or school-based extracurricular programs, gardening/greenhouse programs, and grocery store tours.

A few participants believed that school curriculum or school-based extracurricular programs involving parents (i.e., cooking classes, food preparation) could be valuable learning opportunities. Nora viewed school gardening opportunities in T2 as a way to educate students of all ages about growing food while Dawn believed it could be good to see home economics incorporated into school curriculum in order to teach children how to cook. Moreover, Jody suggested a cooking/nutrition class for students and families in T1 outside of school hours.

*But if they brought, even had a community garden and bring in some of these vegetables. [...]. Like, at the school they got a big enough property. All they got to do is take a section of the property and then I think somebody can volunteer and till up the ground and whatever and like, even grade primaries have their own little thing and go each class. Like, I mean it don't have to be a big, big spot but right up to grade six... and everybody have a different like, uh, primaries would have like, beans or and then grade two's or three's has something different and then bring it all together. I think it would be good. [Nora]*

*Like a mother-daughter or a father-daughter, father-son you know, in the afternoon or probably evenings, a couple, maybe an evening a week or something, it would be great. 'Cause you'd be bonding and you'd be learning about food and building a relationship with both parent and food. [...]. As a teaching apparatus a teacher probably would be best [for teaching nutrition classes] 'cause I can't say that I would be able to do it because of my, I don't know about the patience if I could and funding, I don't know how you'd get funding. If it could be a teacher who is slash a parent and have parent volunteers to pick the menu for that week like, (unclear) them basic biscuits you know what I mean? Like, nothing big like a soufflé or anything crazy like that but something down home that we will use. [...]. Something they can make on their own. [Jody]*

Opportunities for nutrition education at school were viewed by Jody as a way to not only help her children to develop a better understanding about food and health but also how to better respect the environment, their food, and their bodies. Furthermore, Kira, Tara, and Sue believed that integrating food and nutrition education and skills into school curriculum could not only reach all students equally but encourage healthy choices, prepare students for the real world, and potentially make FI less of an issue for students as they grow up.

*I think it'd be a better understanding, especially for my kids that are growing up in this day and age, I think they would come to respect the environment better, respect their food better, respect their bodies better. They would know more about food and how it relates to you and how it, you can eat certain things that will boost your energy naturally without coffee, you know. [...]. I think it would be more of a, a solid base for them. 'Cause I mean food is just, it's a major and if my kids could learn how to cook for themselves, what's better for themselves, when they have children they'll, they'll remember and they will teach their child or their children that, where's the best place to shop, what to look for you know, if your pear is this colour this is not a good colour and you know, what's good and what's not good and it's okay to have a balance. Don't be all uptight about veggie, veggie, veggie, fruit, fruit, fruit. You can balance it out, it makes them a well-rounded person I think in the long run. 'Cause if you install good morals in them they carry good morals. It's all learned, I mean they're all just sponges, they just learn. And if you install the good stuff, they carry good stuff. But it's all negative, negative, negative, like don't say that you're hungry, don't ever tell people you're hungry or they'll install it in their children and those children and so forth. [Jody]*

*It's already existing in um, in different curriculums and, but I think there is a huge need for life skills based programming within our schools. You know, and not, not necessarily to take away from any of the academic programming but when students leave us after grade 12, after 13 years of education they should be leaving us with, with life skills so that life skills that um, are further supported by practice at home you know, so that we take them so far but their experiences at home over 13 years should also help them prepare for the real world. And so when we hear that courses like family studies and food um, food and science courses and home ec, those kinds of courses are being cut um, I, I think it is a concern and you know, things need to be age appropriate. [Tara]*

A couple of participants believed that providing parents of students with nutrition/health-related information on an ongoing basis through appropriate communication channels may be beneficial. From Mona's perspective, having ES1 send home healthy meal/snack recommendations or recipes could help parents to grasp a better understanding of what food items to send to school with their children. Similarly, Sue encouraged elementary schools to distribute healthy recipes in conjunction with their lunch menus or have the schools/school board post nutrition and health information on their websites.

*Uh, when the elementary school, [name of ES2] sends out a menu and maybe on the back they could have a couple of you know, simple recipes put there you know, here's a way to use you know, one pound of chicken breast, a can of spaghetti sauce and a package of noodles and these spices and you could you know, make yourself a little chicken lasagna or something. You know, maybe if the schools would send out some healthy recipes maybe. [Sue]*

In addition to school curriculum and school-based extracurricular programs, Tara thought of elementary school gardens/greenhouses as great opportunities to educate students and families about food as well as connect them with their food. Julie thought of the school garden at ES2 as a way to produce food for its school food programs or for distribution to students or the local food bank. Furthermore, Barb would like to see teachers from ES1 use the neighbouring high school greenhouse for teaching opportunities.

*I'd like to see you know, student teachers taking students out there you know, even as like, an outdoor classroom setting: somewhere where they just go and just so that it becomes an everyday for thing for them to be surrounded by plants you know, that they can eat and uh, you know and appreciate the work that goes into that, to that so when they leave here you know, they take that same, all those skills of being patient and working really hard and you know, experimenting and things like that, they take it to whatever life they happen to kind of set up for themselves so. [Barb]*

#### *5.7.2.1.4. Increased Financial Support*

According to Carol, increasing total financial support for school food programs at ES2 could allow schools to provide meals of better quality and quantity, support children in need through initiatives like school slush funds, and support equipment needs and repairs.

*Um, well I guess in terms of wishing that there was more support in that issue um, there again, I don't want to have to single out kids. What I'd like to be able to do is keep the meals, to have, even to be subsidized by, whether if it's the school board, whether if it's the government or someone um, to help us you know, if it's support to help buy these foods that we have to serve um, so that we could provide even, (sigh), even more of the bigger meals. [Carol]*

#### 5.7.2.1.5. Additional Recommendations

Some additional recommendations provided by participants included school food programs for families in need, the continuation of grocery store tours for students, and having the school be the centre of the community.

*But um, if they, if there was some kind of program set up for those parents that could, could come in and say, 'listen, I need help' and like, I, I would like to see more of that. I mean, I know we'll feed them but it's not an actual program set up for them to come in. Like, if the program was set up maybe more people would want to use it I guess is what I'm trying to say. [...]. If we had a lunch program. I mean, I, they have told us that there is moneys there if, if need be but I mean, we have been stuck before and haven't received our funds that we should have but if there was a program set up and we knew X amount of dollars, we can basically pick out the children just by seeing what comes in their lunch kit. Like, if we had a program set up and we seen that person had popcorn we could say, 'okay, how 'bout you go in the lineup and get a tray and help yourself to some lunch'. [Julie]*

*You know, and really you know, having the school board, whatever, you know, whether you're talking the elected board, the school board staff um, teaching staff, schools themselves, really be integral parts of communities and become the hub of communities again because at one point in time they were. You know, it was the only large building in the community so everything happened there [...]. We've really gotten away from that with the technology advancements, with you know, like I said, families living apart um, you know, it, community doesn't look the same anymore and so the, and the structures that once supported families in the communities don't look the same anymore. [...]. And so you know, how can the school help play a role in, in establishing and building relationships for students and families where um, you know, it's not just about food security, it's about security? [...]. So if schools in the, were able to help provide a space, provide um, resources and knowledge to help communities come back together I think would be really, really great. [Tara]*

#### 5.7.2.2. Community Setting

Aside from the elementary school setting, participants also provided recommendations as to how the community setting could be changed or improved in order to support students and families who may experience issues related to FI. Similar to the school setting, some participants believed that opportunities for nutrition education could take place at the community level. Other suggestions revolved around charitable food assistance programs, community gardens, a central support hub, increasing human capacity, and infrastructure.

#### 5.7.2.2.1. Opportunities for Nutrition Education

A few participants believed that food and nutrition education and skill development opportunities could occur at the community level for adults or parents of students who may experience issues related to FI. These opportunities are viewed as valuable because they could provide adults with education about food, nutrition, healthy choices, label reading, grocery shopping, growing/preparing food, child development, and how to experience healthy alternatives in affordable ways. Ultimately, participants expressed a desire for nutrition/health messages to be delivered by health experts (e.g., health promoters, dietitians).

*You know, more classes, even for parents with, about nutrition would be great. How to work on a limited budget 'cause there is not rich people in [name of T1]. You have limited means and how to like, instead of having just the Kraft Dinner, throw some tuna and some peas in it you know, just to have, add stuff to get some nutrition out of it. [Jody]*

*...if we could find a way to, to bring the community in to see you know, or to experience healthy alternatives or to, to come in and bring, bring the community in just to talk to them about how they can um, affordably do that at home and the importance of it um, and their child's development. Aside from the you know, that sort of you know, lack of information or flow of information addressing that issue. [Mike]*

#### 5.7.2.2.2. Charitable Food Assistance Programs

With respect to food banks, a couple of parents suggested having the food bank open more than one day per month in order to provide additional food support to its patrons. Nora in particular expressed a desire for better quality food items available at the food bank.

*But like I said, at the food bank would be my main, the main concern 'cause like I said, there's a lot of families that can't afford that and go out, there and you only can go to the food bank once a month and it's, it's hard like, if you need something in the middle of the month and you already went the first of the month like, you should be able to go back and just, 'well I need certain things. Could you help me out?' but you can't. [Nora]*

*Like, they're not, there's...bring more fruits, vegetables and stuff in. Like, you don't see hardly any gardens anymore. Like I was saying, if they bring more vegetables and stuff that's good for you maybe so many people wouldn't be eating bad. [Nora]*

#### 5.7.2.2.3. Community Gardening Activities/Programs

Some participants also expressed the need for more community gardening activities/programs that could be utilized by all community members to learn about food, learn how to grown food, and easily access fresh produce. It was Ron's belief that providing students with opportunities to learn how to garden may even eliminate their need to use a food bank in the future. Additionally, expanding school gardens/greenhouses was viewed as a way to provide community residents with education and opportunities related to local food production and consumption and increase a family's accessibility to fresh produce.

*I think that that would help people...you know, a lot of people in the summer, like, I know some of my friends, personally, they are wives of fishermen and they don't work outside of the home because they're raising their kids and stuff and if they want to buy vegetables it's, it's killing them right now, they just can't and some of them do have gardens of their own but if you're not a green thumb person like myself you just don't do it and then so if uh, it was there to... 'cause you harvest up like, all the cucumbers, all the pumpkins, all the whatever...people would definitely use it you know and that would make difference for sure. [Mona]*

*...I think it's, it's a good, it's a worth, work ethic which our young people today don't have and I think if we're ever going to get something like this going there's got to be another work ethic 'cause it takes work to do a garden. And a lot of people have to be given stuff over and over again, they don't want to work for it. And that's a deterrent of, I mean, that's one of the faults of a food bank because it's just giving. But other people can't but if our young people can get a work ethic they'll never need a food bank. [Ron]*

#### 5.7.2.2.4. Need for a Central Support Hub

Ron expressed the desire for a central space or service, such as a citizen contact centre, that could connect residents to services and information that may assist them with food-related issues. He believed the existence of such a hub could increase his and others' awareness of supports/services in the community and ultimately make his job easier.

*What we're lacking is that one hub, if all community, school and those in need could come to. There's not a hub. [...]. Yeah. Anything so that the communication is coming in one area and so okay, the school says, okay, I see this need is coming, we've done as much as we can, the community comes in and says, oh okay, where's the need? And then the people that are needy know that hey, if I could call this number and say you know, I'm in need. What's out there? [...]. What, ideally it would be like, an office in uh, Town Hall that, a community centre that the school could call. The, I mean, let's face it, it's going to take the leadership of the town, the council uh, to set up, you know, even if it's a phone that they could call in and say okay, here's a need, okay, let's call the food bank. Here's a need somebody needs. Uh, maybe it's clothing or whatever but okay, well let's call this in. But there's not really a hub. [Ron]*

#### 5.7.2.2.5. Increasing Human Capacity

A couple of school community participants suggested how gaps associated with existing supports/services within the school community could be addressed. The main suggestion was to increase staff and volunteer capacity within community-based organizations or services.

*...I'd put somebody at the end of those phone lines. I can't tell you how many times I've sat with somebody who said, 'yeah I called that number and nobody ever got back to me'. [Carl]*

*Uh, again, volunteers uh, it's hard to get volunteers. And, and we're talking about an older community in [name of T1] and it's just an older, and it's getting older. And we're not getting any new blood 'cause there's no jobs. And so I think one of the things that's going to be difficult is to make that gap and connect, yeah. [Ron]*

#### 5.7.2.2.6. Infrastructure

Finally, Mike talked about the lack of places or spaces available within T1 that community members can easily utilize for health and food-related activities. The rumoured development of a community centre in T1 would potentially house a kitchen that could be used by ES1.

*There's talk about um, um, somebody building sort of a community centre next to us here, new ball field, new um, which is going to have a large, full kitchen area. Uh, I don't know how, I don't know how much truth there is behind, I don't know. I just have heard that; that it's um, there's somebody that, that has a lot of money that's from the area and wants to do something. Um, and so it's part of that is to, to build a facility there that supposedly our, we'll be able to access as our kitchen for the school. Um, so, so maybe down the line there will be something. But you're right, as of right now I don't know except for um, you know, the high school here. [Mike]*

### ***5.7.2.3. Partnerships/Relationships***

Participants provided a number of recommendations for initiating or enhancing partnerships/relationships within the school community in order to address issues related to FI. Suggestions included collaboration between community members/community-based organizations and elementary schools, community-based organizations/agencies, elementary schools and households, and elementary schools and government. Furthermore, small communities such as the two involved in this research are viewed as places where great things can happen through collaboration and the creation of strong partnerships.

According to Ron and Barb, school gardening/greenhouse initiatives could be great opportunities to connect community members/community-based organizations with elementary schools in order to teach students about gardening. In addition, Barb believed it could be great to connect and network with other elementary schools in the area that have a garden/greenhouse. Some participants viewed school gardening/greenhouse initiatives as ways to donate to the local food bank or raise money for seeds or greenhouse expansion. Additional suggestions included increasing food bank donations through the elementary school by always having a donation box available and having elementary schools involve parents in nutrition/health-related initiatives.

*Um, yeah I'd love to see you know, parents and other community members coming in and kind of sharing with the students what they do in their gardens at home. Or, or inviting students to come to their you know, their place and, and say you know, this is, this is how I grow my potatoes or this is, this is what I do to get rid of aphids or you know, just kind of that, the same way gardeners tend to communicate with other gardeners. If, if we could have it that the you know, that contact was always with the school yeah. [Barb]*

*I think it would be good if we could like, raise money to buy seeds or to expand our greenhouse and the food get, whatever we grew if we could grow a bunch of vegetables, carrots and whatnot and give that to the, back to our food bank for like, people like me that would go to the food bank, you could have fresh carrots or lettuce or you know, anything. [Jody]*

With respect to collaboration between community-based organizations/agencies, Sue expressed the desire to see community-based organizations/agencies collaborate with one another in order to better support the community. She also suggested a stronger interagency approach to FI and the incorporation of food security into the SchoolsPlus program. Furthermore, Kira felt strongly about community celebrations as catalyst for change; the idea that community celebrations or even events held at the school could be used to inform community members about nutrition and health as well as create change.

*Um, but I think there has to be a interagency approach to the whole thing. I don't think it can just be school board. I think you need, you need uh, community services. You might even need you know, depart---well, you definitely need Department of Health, which would be the community um, health boards and I know the community health boards offers grants and I know grants may go to different schools for the breakfast program but I you know, I see food security as not just something that schools - although that's the aspect you're coming from - I think it has to be an interagency thing. [Sue]*

*I think if we can get community involvement I mean, the school can be a catalyst for, for learning for everybody in the community and if we have celebrations, if we have um, uh, for the, [name of T1] had a revitalization event and uh, what we did is we had uh, we had exhibits in the fire hall and it was all about sustainability, the (unclear) and stuff like that - if we could involve the community in more celebrations okay, that are around the learning that you can get from food right, what are alternate uses? How can we use...is using food as an energy a viable way to, to, to create, you know, is it, is it, is it a sensible way to use something that can be grown to feed people? Right? How do we, how do we preserve these things? How do we, how do we help to augment the uh, a family's income by preserving right? These are...so I think, I think um, involving the community in celebrating and using the knowledge that's out there is a great way to get the community involved. [Kira]*

One of Julie's recommendations for ES2 involved open communication lines between parents and the elementary school. She viewed this as a way to address issues related to FI, avoid embarrassment associated with using school food programs, and avoid singling children out in front of other students.

*...but it would be nice to have the information out there to let people know that there is a progr---like, that if we could get a program together, I mean, I know we do have a little bit of cash I guess that if someone absolutely needed it they would come get it. But I mean, maybe there is that person out there that really needs it but doesn't want to come to the school and ask for it or um, they just never made it to the grocery store this week, they didn't have any transportation to get to the grocery store [...]. So yeah, so if they, if they didn't have their money then...like, just say okay, um, maybe you go to class and maybe [name of school principal at ES2] or, or some other staff member can call home instead of having that child singled out in front of the other children. Mark them down for lunch and then see what the issue was at home with the parent. [Julie]*

Lastly, Carol expressed her vision for social assistance programs to allot a specific amount of money to elementary schools for the purpose of providing vulnerable students with lunch.

*I would love, I would love to have...uh, not access but to be able to talk to some of these people. Um, or even have some of them approach me if, if, if they want to um...if there's any way that we could set up some sort of a system for like, these kids that are struggling like, let's just say for instance maybe with social assistance if there's families that are on social assistance, if they would provide some lunch moneys for these kids, these families that they know that are struggling to have like, these kids X amount of dollars, they have a reserve fund, if they come in, they don't have much for lun---or you know, if they don't have a lunch. [Carol]*

### **5.7.3. Exosystem**

At the exosystem level, participants provided recommendations about changes or improvements that could be made to a variety of forces and factors that, in some instances, fall under government control. These included subsidized school lunch programs, increasing awareness about the FNP, and school curriculum, transportation and land use, decreased government involvement/intervention, the political landscape surrounding food and health, and limitations to creating supportive environments.

#### ***5.7.3.1. Subsidized School Lunch Programs***

Several participants recommended the establishment of government subsidized school lunch programs within the elementary school setting. This was viewed as a way to provide all

students with the opportunity to consume a healthy lunch on a daily basis and elementary schools with funding for better quality meals. Nora suggested subsidizing school lunch meals, particularly when you have multiple children attending school. Furthermore, Amy believed such programs might enable her to spend the money she would normally spend on school lunch on other food items and “provide better”. For Mona, having a free hot lunch offered by the school would be extremely helpful and decrease levels of stress, especially when seasonal employees are waiting for their EI.

*‘Cause my kids, really, if they could eat at school they would. But it’s just like, I can’t afford \$3.50 to \$4.00 for a meal and then when [name of eldest child]’s in the high school and it’s almost the same it’s like, that’s a lot of money to cover the run of the week for two kids. So just imagine having three. [Nora]*

*Um, but yeah, I don’t really know of much else that really they could do rather than maybe, they know that we’re all a fishing community, they know that so if, if they could possibly think of something to do on the times... ‘cause almost every family that’s a fishing community um, they’re going to be going through the low times around the same time because fishing stops or lobster stops so everybody is kind of, switches gears to the EI waiting period and then how sucky EI is because it’s just not enough to live off of right? And when that happens, if the school knows that that transition is coming maybe there either could be some sort of relief I guess in some way. [...]. But if there...I guess it would all depend on funding probably and like, if, if there is a big enough need and people, you know, if the school got a grant let’s say and for those couple of, like, a month that, if they offer the, a free hot lunch or something during that time then I’m sure that would be a huge big deal to some people you know, ‘cause you have um, sometimes two to six weeks for EI...and let’s say that there was something like that in place anyway for, and all’s you had to do was provide you’re on the waiting time and they’re going to take care of that or something you know. That’d be awesome. [Mona]*

Mike believed that subsidized school lunch programs could be the simplest way of ensuring that students consume at least one healthy meal each day. Julie agreed and believed it would be nice if social assistance could provide financial support for vulnerable students to eat meals at school. Moreover, Carol believed that financial support from the school board or government would assist school in offering bigger and better meals for students. As shared by Mike, a change such as this could have a positive impact on his role within the school

community by decreasing the number of incidents he has to deal with as well as improving a students' ability to focus on classroom tasks.

*Um, well I guess in terms of wishing that there was more support in that issue um, there again, I don't want to have to single out kids. What I'd like to be able to do is keep the meals, to have, even to be subsidized by, whether if it's the school board, whether if it's the government or someone um, to help us you know, if it's support to help buy these foods that we have to serve um, so that we could provide even, (sigh), even more of the bigger meals. Like, I mean the kids do love like, a mashed potato meal. Um, we used to do a chicken drumstick with mashed potatoes just for instance but uh, the chicken drumsticks are very expensive to buy and all you can put on a plate is one little, little tiny chicken drumstick per kid plus their potatoes and their vegetables but in all due seriousness, they're not getting a whole heck of a lot off one of those little, a little tiny drumstick, it's, they're not much bigger than a chicken wing really. Um, like, just say for instance [name of NS dairy company] subsidizes our milk so uh, the milk is kept affordable for us to provide it for the kids. [Carol]*

*We may have to ramp up the fundraising efforts um, which is you know, one of my responsibilities here. Um, I don't, no, I wouldn't see it changing. You know, I think that, I think we know the link between diet and, and behavior and so I, you know, I would presume that you know, that it would decrease the number of incident[s] that I'm dealing with if kids are well fed and um, you know, I would presume that it would improve um, their, their ability to stay focused and on task in the classroom so you know, that all of those things would, I would see an improvement, which I guess sort of affects my job. You know, if kids aren't doing well then I have to take steps to figure out why they're not doing well. Um, so yeah. So I guess in a roundabout way that that would, could influence my day to day life here but um, but yeah. [Mike]*

#### **5.7.3.2. Increasing Awareness about the Food and Nutrition Policy for Nova Scotia Public Schools**

An additional suggestion for elementary schools included increasing awareness about the FNP. Carol provided some insight into the conversations she has had with some parents about FNP guidelines. Based on these conversations, she observed that not all parents realize what the FNP guidelines are or why they are in place. As a result, she believed it would be helpful to provide parents with FNP guidelines.

*Like, some parents, when you get the opportunity to speak with some parents you know, they'll say, 'well how come you don't serve this anymore?' and I'll say, 'well I'm not allowed' and they're like, 'what do you mean?'. Um, so when you get the opportunity to actually talk to some of them to explain what types of guidelines that we're trying to follow - what restrictions that we have on the foods that we serve - um, some of them are quite surprised because they don't realize. I think it would be very helpful if a little mini version of these [...]. Um, if that was sent home to parents to explain a little more about what we're serving and why so they'd have more of an idea [...]. [Carol]*

#### **5.7.3.3. Supporting School Curriculum**

Finally, Sue highlighted the importance of ensuring elementary school teachers are supported by the Department of Education to deliver quality health curriculum to students.

Building on this, Kira suggested that experts such as dietitians and farmers could be more heavily involved with teaching students and staff about nutrition and health.

*If, if there could be a you know, in a perfect world, if there was a group of, of food related specialists or, or a food related specialist who could, whose job was to go to all the different schools in the province and spend like, two days a year or if we had a number of people, if we had, if we had some, like, if we had a biologist, if we had a farmer, if we had a dietitian, if we had you know, any of these people and they came, so if you have, if you have a specialist come in two days a year and spend two full days with the school it will make a difference but not a huge difference right. If you have five people that come in one day a year that would have a huge impact because it's, it's going to happen at different points during the year, they're going to come in and they're going to give you the things you need when you need it and you know? So, so how do we get support, how do we realistically say what can schools actually do? And if schools are doing as much as they can because of budget and because of staffing then how do we support them right? [Kira]*

#### **5.7.3.4. Transportation and Land Use**

When talking about transportation and land use, Dawn imagined that having the ability to access any mode of transportation could enable her to grocery shop in outlying communities, which would increase food choice and enable her to save money.

*Interviewer: And what about the transportation, if that was something that was...?  
Dawn: That would be easy because I would be able to have more choice of food and price. So that would help me not only with just what they eat but in uh, price of food, it would help me out to be able to save money as well. [...]. Because in [name of town #3] you've got the [name of grocery store #3] and you've got [name of grocery store #5] so at least you've got, you could go into [name of grocery store #3], pick what was on sale, what you need there then go to [name of grocery store #5] and pick what was on sale there. So you have got more choice and then as I say also the health food store and they've got that there so they do have more choice.*

#### **5.7.3.5. Less Government Involvement/Intervention**

Carl viewed government involvement/intervention as heavy-handed. He believed that not all government officials or experts live in these communities in the same ways their residents do and thus, the enforcement of policies like the FNP creates ideals according to government and ignores community culture and demographics.

*Enough of the heavy-handed stuff. Yes, it's wonderful that the province wants to put some kind of restrictions and policies in place: awesome. But don't be so heavy handed that you're, you're ignoring cultural significant cultural differences in communities. We have, you know, us here in [name of T2], very English. Drive 20 minutes down the road, it's Acadian. Uh, we're not the same. Our diets aren't the same. [Carl]*

#### **5.7.3.6. Political Landscape Surrounding Food and Health**

A couple of participants provided valuable insight into the current political landscape of the community/county. They also highlighted the importance of creating political connections and awareness and conducting research prior to political action. Unfortunately, attempts to create political action are sometimes difficult in small communities.

Tara highlighted the importance of interagency approaches and raising awareness for policy/decision makers about the overlap of current policies. She also described disconnect between school and community-based initiatives and the struggle this creates for those implementing these initiatives on the ground level.

*When you look at Thrive! and you look at what they suggest in Thrive! it is one government agency that hasn't talked to other government agencies to see what the policies and the regulations and the laws are that may actually support or inhibit that policy, or that philosophy paper of being put into practice. So what are school board policies around active transportation? You know, what are um, what are policies around uh, safety guidelines for physical activity? What are the policy guidelines around community use of schools? You know, all of those things, they sound great in that document but the, that document didn't delve further into okay, can these things actually happen? You know, in the document it talks about um, you know, providing more opportunity for health and wellness for Nova Scotians. Well what do they mean by that really? [Tara]*

*You know, so who's going to implement Thrive! in the different boards or, or the, the school pieces to Thrive! in the different boards? You know, and so, and it doesn't matter if that's around nutrition and food security or if it's around physical activity or if it's around other health promotion initiatives. When there are no longer people that can be identified as the go to person, how do these things happen? And so you know, it, it just, it's really, really hard and it's hard for us here at this level. It's even harder for the people at the school-based level. You know, because their resources are even more limited so. [Tara]*

Tara suggested that conducting research prior to action is needed to ensure for the smooth implementing of nutrition and health policies and initiatives.

*That's that whole philosophy behind it. They needed to do a little more research before they actually put out these various policies. What do they look like? What are some of the pitfalls? You know, what are going to be some of the barriers that are going to prevent us from actually fully implementing it and how do we smooth out that road first so that people don't feel like they're being set up for failure? A policy can be really well written, it can be linguistically beautiful, but it is only as good as it is implemented. And so you know, you could have a great policy in a binder but that's all you have is a great policy in a binder. [Tara]*

#### **5.7.3.7. Limitations to Creating Supportive Environments**

Finally, as noted by Kira, sometimes there are challenges that accompany attempts to create positive political action and supportive environments in small communities.

*It, it's frustrating because when we're talking about policy change and my influence as, as somebody that can change policy, it's very, very small which is unfortunate. Um, the [name of T1] has, has such a small tax base as a town to, to deliver the services that it does that how do you...you know, if you've only got a certain number of people and you've only got a certain amount, amount of money right, and you only have a certain amount of hours right, to do things it, it's frustrating somehow, how slow change happens or how, how change can be, can be shut down right before it even starts right. So if, if you're, if you're talking about policy change at the municipal level right it's, how do you convince at least half the members on council or half plus one that this is something that's, that's necessary? And then how do you find the, like, how does, what, what part can the town play and, and how do you finance these things right? [Kira]*

#### **5.7.4. Summary**

The findings presented in this chapter began by providing valuable insight into the lived experience of FI for students and families who reside in these two school communities of ESC. This was followed by the experiences of those who interact with or support families who struggle with issues related to FI. Combined, these stories shared by mothers and school community participants provided valuable insight into the various types of social organizations, and forces and factors that exist within the school community as well as how they support students and families who experience issues related to FI. Additional details that emerged throughout the course of each interview were the values, beliefs, and ideologies about nutrition, health, and food security that were held by each participant. Talking about social organizations and various forces and factors in detail is what shed light upon their ruling elements, including the types of documents used to carry ideological messages about nutrition and health across the settings of Bronfenbrenner's Ecological Model. Organizing and analyzing the findings in this way allowed for the explication of social relations related to FI – the food-related decisions/behaviours that parents of students who experience issues related to FI make on a daily basis. This process also assisted with mapping these social relations, including the social organizations, forces and factors, and values, beliefs and ideologies from which they originate. Ultimately, choosing to organize the findings in this way and explicate the social relations of FI

is what truly enabled me to understand how and why FI works within these two school communities of ESC and how a variety of exosystem forces and factors within each school community influence the food-related decisions/behaviours made by students and families.

## CHAPTER 6: DISCUSSION

The purpose of this study was to explain how rural Nova Scotia (NS) school communities such as those located in Eastern Shelburne County (ESC) can support elementary school students and their families to achieve food security. To my knowledge, this is the first study of its kind that gathered the perspectives of parents of students who may experience food insecurity (FI), school staff members, staff members/volunteers from community-based organizations, and policy/decision makers at the municipal and school board levels in order to develop a deeper understanding of how rural NS school communities are addressing issues related to FI.

In this chapter I will discuss the most interesting and significant findings obtained from this study and situate them within the context of relevant published literature. More specifically, I will focus on the everyday experiences, actions, and interactions connected with FI in these two school communities of ESC as shared by the mothers involved in this study. I will then build upon the first-hand experiences of mothers by highlighting the translocal experiences, actions, and interactions associated with FI, i.e., those of school community participants who exist outside of the boundaries of these families. It is outside of these boundaries where elementary schools, charitable food assistance programs, grocery stores, and government use ruling, through policies and texts, to govern and shape the experience associated with FI for these students and families. To conclude, I will provide a visual representation of the social relations and social organizations within ESC as they relate to the experience of FI.

Drawing upon the tenets of Institutional Ethnography (IE) to guide data collection and analysis and Bronfenbrenner's Ecological Model as an analytical tool to examine the many layers in the students' environment influencing their FI, this chapter will address my overarching research question: how can rural NS school communities support elementary school students and

their families to achieve food security? Moreover, in order to organize the discussion, I explore three questions that align with the original five research objectives:

- 1) What types of people, places, or programs are students and families who may experience issues related to FI using or interacting with in rural NS?
- 2) How do social organizations within the school community use ruling, including nutrition and health-related documents, to influence and govern the daily actions of students and families experiencing FI in rural NS?
- 3) How and why are students' and families' lived experiences with respect to FI shaped by social relations/ideologies that exist within rural NS school communities?

### **6.1. What types of people, places, or programs are students and families who may experience issues related to food insecurity using or interacting with in Eastern Shelburne County?**

In Chapter 5, parents and school community participants identified and described their experiences with and observations about various types of people, places, programs, and forces and factors that exist within their school community to support vulnerable students and families. These experiences and observations provide insight into the social relations and social organizations that make up the microsystem of the school community as well as the explication of social relations that exist between participants and social organizations, or between social organizations, i.e., the mesosystem. The upcoming sections highlight the social relations, social organizations, and forces and factors that relate to the experience of FI and as well as how they influence and coordinate FI.

### **6.1.1. Social Relations Associated with Food Insecurity: Food Affordability & Food Availability**

The five mothers who participated in this thesis research experienced low household income, lone parenting, unemployment and/or reliance on Income Assistance (IA) or Employment Insurance (EI), as well as challenges with food affordability, food availability, and physical food accessibility. School community participants situated outside of this lived experience recognized that many families residing in town #1 (T1) and town #2 (T2) are led by lone parents who struggle with low-income, physical food accessibility, limited food knowledge and skills, and securing employment. These characteristics of FI within the context of the school community in ESC appear to be representative of the experience of FI that has been documented by other research studies across Canada and NS (2,3,30,101,102-104,105).

Many parents in this study voiced that they value healthy food and would like to purchase healthy food for themselves and their family but admitted their limited income and the high expense associated with the ability to purchase healthy food prevents them from doing so. Moreover, one mother shared that fluctuating household income results in periods of increased income that translate into more balanced food purchases and periods of decreased income that translate into purchasing less healthy foods. This characteristic is consistent with the notion of temporality: the recognition that FI is not just static but closely linked to household patterns of financial resource constraints (30). In my study, this notion of temporality is closely tied to seasonal employment, which appears to be a characteristic rooted in ESC due to the presence of its fishing industry.

My findings that mothers use a variety of coping strategies, including stretching food dollars, using food banks, relying on family/friends, putting children's needs first, and balancing food and non-food expenses to help manage FI in their households are also consistent with other

research findings that have studied this reality in both rural and urban settings (32,66,102-105). This suggests that coping strategies utilized by mothers involved in my study living in rural NS are similar to those of others who experience FI across the country, what Tarasuk describes as both a deviation from social norms and a managed process (30).

Three of the mothers interviewed identified challenges with accessing and affording specific “special” food items for one of their children. These food items are noted to be expensive, not readily available at nearby grocery retailers, or only available at specialty food stores located outside of town. These challenges with accessing and affording food items for special dietary concerns are comparable to those who live in low-income, urban communities in both Nova Scotia and New York (66,107). Combined, the findings from my study and those of others suggest that challenges with accessing and affording food for special diets or special dietary requirements may not necessarily depend on whether or not an individual and their family live in a rural or urban location but more on the number of food outlets available in a community and how easily they can be accessed.

#### **6.1.2. Social Relations Associated with Food Insecurity: Physical Food Accessibility**

Alongside challenges with food affordability and availability, these five mothers recognized and described the benefits of personal transportation for accessing food but also the challenges with physical food accessibility in absence of personal or public transportation and the lengthy distances one has to travel in order to access food within their rural community in ESC. The scarcity of grocery stores in ESC with many residents needing to drive 15 minutes or more to get to the nearest grocery store has been described in another recent study (66). As shared by some of the mothers in my study, having access to personal transportation – either your own or through a family member/friend – not only assisted with accessing food, it enabled

the purchase food in outlying communities where the cost is believed to be less expensive than it is in ESC. These findings about physical food accessibility are consistent with those of other studies that have examined the lived experience of FI in rural areas (102,104,108,109). In 2004, the Atlantic Health Promotion Research Centre reported that the availability and cost of food in rural areas across NS was complicated by transportation issues in getting to and from the grocery store or accessing larger grocery stores with increased variety and lower prices (108). Since this time it has been well documented that for low-income women and their families living in rural NS, the lack of availability and higher cost of nutritious food in small towns as well as the lack of public transportation and/or a family vehicle, especially in rural areas, can make obtaining nutritious food a struggle (104,106,109). The limitations of these studies are that they did not capture experiences of FI for women not engaged in the Canadian Prenatal Nutrition Program or Community Action Programming for Children within NS. The benefit of my thesis research is that it has captured the experiences of FI for women and their families who reside in rural areas of NS and who are not engaged in such programming. Furthermore, Calhoun reported that owning a vehicle or relying on others for transportation needs is a vital element of life in a rural area of Eastern Ontario (102). The women in my study who owned or had access to transportation expressed similar views to the participants in Calhoun's study in that they believed owning a vehicle allows for flexibility to travel outside of their community to purchase better quality, lower cost food items (102).

Overall, my findings corroborate other research on the experience of FI in rural communities that not having access to personal or public transportation in rural areas of NS can make it challenging for people who experience FI to access the food items that people want and need. Based on these challenges, it was no surprise that some parents and school community

participants suggested the implementation of a formal public transportation system in ESC. While the recent announcement of Canada's Economic Action Plan 2015 includes a Public Transit Fund, the purpose of this fund appears to be more strongly aimed at large Canadian cities and lacks clarity as to how rural communities will be impacted, if at all (110).

### **6.1.3. Social Relations Associated with Food Insecurity: Use of Food-Related Supports/Services**

The challenges of food affordability, availability, and physical food accessibility experienced by the mothers in this study were mitigated by the existence of a variety of food-related supports/services within these ESC school communities. Supports/services included elementary school food programs, food banks, financial assistance programs, and social support networks. Moreover, school community participants identified some of these same supports/services as well as a food education and skills program that operates out of the food bank in T2. The recognition of these types of supports/services are consistent with findings obtained from Activating Change Together for Community Food Security (ACT for CFS) in which community members across NS, including ESC, identified charitable food assistance programs, family/friends, breakfast and lunch programs, schools, educational programs, and federal and provincial programs, among others, as places where people in their community could go to get support when needed (66). Unfortunately, experiences of humiliation, embarrassment, judgement, stress, lack of dignity, and feelings of powerlessness emerged when people talked about their ability to obtain healthy, nutritious food from supports such as food banks (66). More specifically, food banks were determined to be either good or bad based on poor food quality, food safety concerns, limits placed around food quantity, anonymity, and the ability to choose what food items you want and need (66). In combination with the findings reported by ACT for CFS my findings suggest community members residing in ESC as well as other areas of NS are

familiar with similar types of supports that are available to support vulnerable students and families who may experience FI as well as their inherent limitations (66). What follows are the food-related social relations that mothers and their child/children engage in or are observed to engage in through social organizations like elementary schools, charitable food assistance programs (e.g., food banks), social support networks, and government programs in addition to their supportive or unsupportive aspects.

### ***6.1.3.2. Elementary School Food Programs***

Within elementary schools, the most popular supports/services named and used by mothers and their child/children are breakfast and lunch programs. Each mother admitted that the breakfast program offered by their elementary school is utilized by their child/children either occasionally or regularly. Additionally, most mothers viewed these breakfast programs positively and believed such programs are supportive in coping with their experiences with FI. The findings from participants that breakfast programs are positive and valuable for families experiencing FI are comparable to those of Swanson, Olson, Miller & Lawrence who used a mixed methods approach to examine food security in relation to the use of formal and informal supports among 326 rural low-income families in the United States (111). Their qualitative findings revealed that regardless of a family's food security status, school feeding programs are viewed as valuable supports by most families, are well accepted and useful, have limited stigma attached, and are easy to access (111). Similar to the findings of this thesis, the work of Swanson, Olson, Miller & Lawrence found that school feeding programs are just one of many types of support that contribute to the experience of FI (111).

Many school community participants viewed breakfast programs as necessary and vital supports for vulnerable students and families. These beliefs are similar to those of community

members across NS who, through participation in focus groups, surveys, and PhotoVoice as part of a recent community food security (CFS) project, identified school breakfast and lunch programs as one of many places where those who experience FI can go for food-related support (66). Nonetheless, a couple of school community participants who held these beliefs also recognized that these programs are only “Band-Aid” solutions as they fail to address the root causes of FI, do not receive sustainable funding, and create dependency among users.

Interestingly, these beliefs reflect the work of McIntyre, Travers & Dayle who initially explored the operation of nine children’s feeding programs across Atlantic Canada (i.e., Nova Scotia, New Brunswick, and Newfoundland) by conducting day-to-day observations and interviews with recipients and operators (22). Through critical interpretation McIntyre, Travers & Dayle concluded that these children’s feeding programs were observed to be complex social systems that adopt a family substitution role, direct stigmatization at recipients, express hidden curriculum, educate children about socially appropriate behaviours, and transfer sociocultural messages, which may serve to maintain dependency among program users, reproduce inequities as opposed to reducing them, and to some extent, actually fail to feed hungry children (22).

Using the same data, McIntyre, Raine & Dayle later concluded that such programs develop along a path of institutionalization (112). Dayle, McIntyre & Raine-Travers subsequently highlighted how school feeding programs may serve as dragnets – *“the process of increasingly expanding institutional control over people who are perceived to be in need to special protection”* (pg. 1784) – that reproduce inequities and create dependency among users (20). The final study that emerged from this data set examined language that reflected the perception of “wonderfulness” in relation to these nine children’s feeding programs (21). Williams, McIntyre, Dayle & Raine found that all recipients and operators perceived the nine children’s feeding programs as “great”

or “wonderful” because they enhanced family coping, provided good food and nutrition, allowed for socialization, friendships and good behavior among children, and volunteerism (21). The authors of this latter study also suggested that being “wonderful” by design also engages families, institutions, volunteers, and government agencies in working towards solving the problem of child hunger as opposed to challenging it (21) and that ultimately, it is this perception of “wonderfulness” that may disguise the unintended consequences of these programs initially reported by McIntyre, Travers & Dayle (22).

The findings from parents and school community participants about elementary school breakfast programs involved in this thesis indicated that such programs are perceived as valuable food-related supports that exist within the school community to assist vulnerable students and families they are also recognized; however, for some school community participants who held these perceptions, they also recognized the critical drawbacks to these same programs. These perceptions certainly reveal a disjuncture between how these supports are valued and the critical reality of the ways in which they operate. These findings also point to the importance of recognizing the institutionalization and dragnets function of such programs as reported by other research studies (20,21,22,112,113).

Elementary school lunch programs are also available supports, yet not always viewed by parent participants as supportive in nature. While the supportive aspects of school lunch programs described by mothers included good nutritional quality and quantity and ease of use, the primary barrier for most mothers is the cost of purchasing a single school lunch. In a recent study that explored secondary-school student perspectives about the implementation of the Ontario School Food and Beverage Policy, the high cost of food for sale in school cafeterias was reported to be a barrier to nutritious food and a factor that led some students to purchase food

outside of the school setting (48). In contrast to fee-based school lunch programs in Canada, countries like the United States and England operate federally assisted school lunch programs in state-funded (England), public and non-profit private (United States), and residential child care institutions (United States) where low-cost or free lunches are offered to all students on a daily basis (114,115). In each of these countries, parents or caregivers who meet specific eligibility criteria (i.e., receive financial support from the government, earn an income below a certain percentage of the poverty level) are entitled to free school meals (114,115). In Canada, the Coalition for Healthy School Food is currently working towards the establishment of a national, universal, cost-shared healthy school food program (116). Not only does this finding about the cost of school lunch as a barrier add to existing literature surrounding the perceptions about the cost of food sold at schools, it highlights cost as a disabling factor of school lunch programs in rural NS as experienced by vulnerable families.

### ***6.1.3.2. Elementary School Staff Members***

According to one mother and most school community participants who are also parents, school staff members at elementary school #1 (ES1) and elementary school #2 (ES2) are viewed as supportive components of the elementary school setting because they care about the well being of students, treat both students and families with respect, and ensure students' nutritional needs are met. As for the ways in which school staff members believe they are supportive of vulnerable students and families, they admit to looking out for specific students who may experience FI, encouraging students to use free school food programs, and at times, providing students with snacks or money to purchase lunch if needed. Because school staff members/volunteers in particular described evidence of low-income living circumstances through the poor nutritional quality and quantity of food that vulnerable students bring to school,

this may suggest why we see school staff members/volunteers providing students with encouragement and/or support to ensure they are nourished. To some extent, these supportive factors resemble the ideologies of family substitution and the community of caring that has been reported to be associated with children's feeding programs in Atlantic Canada (22); however, the findings from this thesis about the supportive nature of school staff members did not seem to indicate that school food program providers are interfering with parents' wishes surrounding use of school food programs or promoting parental exclusion as reported by Dayle, McIntyre & Raine-Travers and Raine, McIntyre & Dayle (20,113). Certainly, school staff members do appear to play a role in supporting vulnerable students but it is unclear from this thesis whether or not this caring component promotes parental exclusion and legitimizes caring (113) and if it is stronger in rural schools versus urban schools as participants were not probed for details surrounding these details and parents did not talk about voluntary involvement with school food programs. As such, future research may be necessary in order to capture details surrounding parental inclusion and exclusion in regard to school food programs in communities like this.

#### ***6.1.3.3. Charitable Food Assistance Programs***

While most participants view food banks as an available support, mothers and school community participants involved in this study noted some challenges with their operational practices, including limited hours of operation, minimal food quantity, poor food quality, and feeling of embarrassment and self-judgement. These challenges are representative of those reported in other NS-based studies that have examined the experience of FI (66,104,109). Some mothers believed that their local food bank could be improved upon by increasing their hours of operation and providing enhanced quality and quantity of food. School community participants also recognized food banks as available and necessary supports within their community that

provide food to families experiencing FI. However, school community participants who work closely with food banks recognized that this form of assistance has the ability to create dependency among patrons, contribute to a loss of food-related knowledge and skills, and ultimately not improve the lives of patrons, presenting a contradiction within the complex issue of FI. While food banks are viewed as an important type of food-related support for those who experience FI in ESC, these findings are consistent with recent NS-based work (64,109,117) and suggest that food banks are not the solution to FI as they do not support families or individuals in their escape from poverty or provide a dignified method of accessing food.

#### ***6.1.3.4. Financial Assistance Programs***

The findings of this study also highlighted the social relation that exists between a family and government-operated financial assistance programs such as IA and EI. Though these sources of financial support are believed to assist mothers and their families with accessing and affording food and paying for non-food expenses, the reality among mothers and perception among some school community participants is that this amount of income is not enough to support the affordability of a nutritious diet. It is known from food costing research that the affordability of a basic nutritious diet in NS is out of reach for many low-income households and that IA rates are inadequate to support the affordability of a nutritious diet (4,64). Not only do my findings about the existence and use of financial assistance programs offered by the government reflect those of existing literature, they may point to additional challenges associated with the affordability of a nutritious diet such as physical access to food and the affordability of and accessibility to food items required for special dietary needs.

### ***6.1.3.5. Social Support Networks***

Social support networks are also a source of food-related support for families experiencing issues related to FI. Specifically, some mothers received this support in the form of money, food, or transportation from family/friends. For one mother with access to personal transportation but also issues related to FI, providing her close friends with money, food, or transportation to access food is how she supports others who know what it is like to experience FI first-hand. These findings are similar to those of Swanson, Olson, Miller & Lawrence who reported that food insecure families borrow money for food more frequently than food secure families (111). In a Canadian context, Calhoun used semi-structured interviews to explore household FI from perspective of 26 residents from urban and rural areas of Eastern Ontario (102). This study found that participants had mixed opinions about the availability and quality of their social support networks (102). Several participants in Calhoun's study reported receiving ongoing, positive social support from their social network through assistance with income, information about community resources, and emotional support (102). Furthermore, these participants made friendships with others in similar situations (102). This same study also determined that living in a rural setting appears to have social advantages regarded as positive resources for quality of life and management of FI (102). In conjunction with existing literature, my findings from mothers about their social support networks also indicate that social resources play a supportive role in accessing and affording food in rural communities.

My findings in relation to this section highlight the daily activities, actions, coping mechanisms, and supports/services associated with FI in ESC. While many of these findings overlap with existing research, they also provide new insights into the roles that school communities play in supporting students and families who experience FI. The next section

uncovers how social organizations within the school community influence FI and what they could be doing to improve upon the ways they support vulnerable students and families.

## **6.2 How do social organizations within the school community use ruling, including nutrition and health-related documents, to influence and govern the daily actions of students and families experiencing FI in rural NS?**

As the previous section highlighted, there many social organizations within ESC that attempt to support students and families who experience issues related to FI through programs, social interactions, and partnerships with other social organizations. This section will describe how ruling apparatuses and documents that promote nutrition and health-related ideals that are rooted within these two elementary school communities govern the food-related decisions/behaviours made by students and families who experience issues related to FI.

### **6.2.1. Elementary Schools: Food and Nutrition Policy for Nova Scotia Public Schools**

The findings of this research illustrate the ways in which the Food and Nutrition Policy for Nova Scotia Public Schools (FNP) is a prominent element of ruling that shapes the actions and lives of students and families experiencing FI in ESC. In this study, experiences with FI are most strongly influenced by five of the FNPs 12 directives – many of which overlap – including food and beverages served and sold in school, programming, pricing (cost of food and beverages), nutrition education, and students who may be vulnerable. The Nova Scotia Health Promoting Schools (NSHPS) initiative was also named as an initiative that also guides health and food-related decisions/behaviours made by elementary schools; however, neither of these two elementary schools were NSHPS at the time of data collection and NSHPS were not perceived to handle issues related to FI any differently from non-NSHPS. Since the FNP was discussed in-depth, the upcoming sections will uncover the ways in which its directives are perceived to be supportive and unsupportive of FI.

### ***6.2.1.1. Food and Beverages Served and Sold in School***

As voiced by some of the research participants, the school milk programs and the breakfast and lunch programs offered by these two elementary schools aim to ensure that all students have access to healthy, acceptable, and affordable foods during the school day (46). In this study, the most common way of serving and selling healthy and acceptable food and beverages to students occurs through elementary school breakfast and lunch programs, which were identified as food-related supports available within the school community. Findings of this study show that in addition to following the FNP's food and beverage standards, ruling elements associated with breakfast programs include operational schedules, logistics of school bus schedules, and funding. As the findings reveal, ES1 and ES2 each have their own operational schedules, with ES1 operating daily and ES2 strategically operating three days per week. Ultimately, this element of ruling establishes when students can use the breakfast program. At ES1, logistical issues with bus schedules result in some students who live outside of town arriving at school late and missing out on the opportunity to access the breakfast program. Certainly, the drawbacks associated with these two ruling elements are that they prevent students from being able to access school breakfast programs on a daily basis, or at all. Another ruling element associated with school breakfast programs is the way these programs are funded and supported by the school community. Receiving and seeking out financial support and volunteer assistance from people and organizations within the school community on an annual basis enables these elementary schools to operate their breakfast programs and provide students with free breakfast. The funding practices of these two programs are consistent with findings from McIntyre, Travers & Dayle who determined that the majority of feeding programs in Atlantic Canada nearly two decades ago received partial funding from city, provincial or federal sources,

charities, and other organization and individuals (22). These findings from my study about ruling elements of school breakfast programs suggest that operational schedules and logistics of bus schedules can play unsupportive and oppressive roles in the ways student and families, especially those who are vulnerable to FI, access and use school breakfast programs. Additionally, the lack of long-term financial support raises ongoing concern surrounding the sustainability of such programs and thus, their ability to continuously support vulnerable students and families.

Moreover, this research found ruling elements such as the cost of a single school lunch, program funding, and lack of availability and use of microwaves to be unsupportive factors associated with school lunch programs. Although one school community participant from ES1 thought of the cost of the school lunch program as reasonable and attainable, most mothers and some school community participants in this study viewed the cost as a barrier. This difference of opinion represents a disjuncture as the supportive nature of cost differs between the ruling perspective and the experiential perspective (78). For example, mothers and some school community participants viewed this cost as expensive and unrealistic for families experiencing FI and one school staff member believed this cost to be reasonable and attainable. In a recent published study that explored the implementation of the Ontario school food and beverage policy, Vine, Elliott & Raine determined from secondary school students that the high cost of policy-compliant food for sale in secondary school cafeterias acts as a local-level barrier to accessing and affording nutritious food, particularly in low-income neighbourhoods (48). Findings from mothers and school community participants show that T1 and T2 are considered to be communities of low socio-economic status where many residents cannot afford to buy the types of foods and beverages served and sold in schools (both within and outside of the school setting). These findings are consistent with those of Williams, McIntyre & Glanville who,

through studying accounts of milk insecurity experienced by low-income lone mothers in NS, found that school policies that define what a healthy food is and promote health curriculum rooted in *Eating Well with Canada's Food Guide* place burdens on low-income mothers to provide healthy foods to their families (106). Like the mothers in my study, the lone mothers in this 2010 study recognized the importance of good nutrition and agreed with the promotion of nutrition and health policies but did not have enough money to purchase the quality and quantity of food recommended by school policies and practices, in particular the purchase of milk (106). According to the FNP (46), the price of healthy foods and beverages should be accessible and affordable to the majority of students. In this thesis, one mother and one school community participant believed that not all elementary schools have the ability to follow FNP directives in the same way and as such, the FNP should be flexible depending on the socio-economic status (and culture) of a community. This exemplifies another disjuncture in that pricing/cost as a ruling directive is much different on paper when compared to the realities experienced by students and families who experience FI or low-income. In order to overcome this challenge and create more supportive environments, many mothers and school community participants in this thesis suggested the establishment of subsidized school lunch programs. These findings about price in the context of school lunch programs and combined with published literature surrounding the experience of FI in relation to school nutrition policies indicate that the high cost of healthy food is a ruling factor that does not support students and families who experience FI in ESC and raises the question of whether subsidized school lunch programs may be more supportive in addressing FI among rural elementary school children.

Another cost-related element of ruling embedded within school lunch programs is how they are funded and the role funding plays in the operation of such programs. Combined with the

fact that each school operates a fee-based lunch program is the lack of financial support these schools receive from the school, school board, and community to operate their lunch programs. As this study discovered from some school community participants involved in foodservice work, lack of financial support for school food programs is believed to limit a schools ability to provide enhanced food quality and quantity to students, which therefore, influences the types of foods and beverages available to students. Similar to the suggestion mentioned above that subsidized school lunch programs could be more supportive of families experiencing FI, several participants believed that receiving increased financial support from the government or having subsidized school lunch programs could enable school food program operators to provide increased quality and quantity of food to the student population. These suggestions about the funding of school lunch programs coupled with the existing literature about the drawbacks to children's feeding programs in Atlantic Canada (20-22, 112,113), raises concern about free, daily lunch programs becoming dragnets that create dependency among users and disempower those in need.

The final ruling component of elementary school lunch programs in ESC is the lack of availability and use of microwaves. As a few participants shared, the availability of microwaves for student use does not currently exist at either school. These findings indicate that by imparting rules restricting the use of microwaves, parents are passively encouraged to purchase cold lunch food items to send to school with their children, which is not always the most convenient or affordable option for families experiencing FI. As admitted by these same participants, having microwaves available for student use would make the school environment a more supportive place. As far as parents are aware, microwave use is not allowed due to time constraints. To my knowledge, there are no published studies that pertain to the benefits or barriers of having

microwaves available for student use within the elementary school setting. However, there appears to be some grey literature on this topic that is quite varied. For example, through Prince Edward Island Healthy Eating Alliance, “The School Healthy Eating Toolkit” encourages schools to provide microwaves in classrooms in an attempt to expand the range of food choices for students (118). Additionally, this toolkit includes guidelines for safe microwave use and states that it is a schools responsibility to ensure safety when using a microwave within the classroom (118). Other schools and school boards from Canada and the United States have prohibited or discontinued student use of microwaves in classrooms or cafeterias due to concerns about student safety (i.e., high temperatures, food safety, injury, etc.), long waiting times, and environmental strategies (119-121).

Although the lack of microwaves available for student use appears to be a barrier for families experiencing FI, future inquiry into the perceptions of school community participants may be needed from the NS Department of Health and Wellness or other NS-based research groups in order to determine if and how the availability and use of microwaves by students can be incorporated into the operation of school lunch programs.

#### ***6.2.1.2. Nutrition Education***

Another distinct element of ruling that stems from the FNP is the nutrition education directive, which focuses on health education curriculum that strives to equip students with the knowledge, skills, and attitudes they need to adopt and maintain lifelong healthy eating patterns (46). These thesis findings show that mandatory nutrition education occurs within the classroom through health, science and physical education classes, and occasionally through other subject areas or activities outside of the classroom such as gardening and grocery store tours. As one school staff member shared, the delivery of nutrition education is also dependent upon the

teacher; it is common for teachers who are passionate about or interested in nutrition and health to incorporate health-related learning opportunities, including gardening, into their classroom as ways to address learning outcomes. However, because this is up to the discretion of the teacher, some students may be missing out on the opportunity to learn about nutrition and health and as such, are being left at an educational disadvantage. This could potentially limit their ability to apply nutrition and health-related knowledge learned in the classroom to their lifestyle practices.

The findings of this study also reveal that some students take food and nutrition knowledge/skills from the classroom setting into their household where they educate their parents about what they have learned or request specific food items for consumption, which at times results in the purchase of healthy food items. Additionally, both of the elementary schools involved in this research had access to a school garden, but equal opportunity for student use had not been established either due to very recent implementation of the garden or discretionary use by teachers. According to Carlsson & Williams, schools can play an important role in community food security (CFS) by teaching children about sustainable food systems through role modeling behaviours and healthy environments (122,123). Even small food gardens that are used for demonstration can be considered useful for food systems change because they have potential to raise awareness about CFS (122,123).

While students are provided with these learning opportunities, some participants recognized that the lack of life skills-based programming (e.g., home economics) prevents students from applying nutrition and health-related knowledge to practice and developing food-related skills. Ultimately, providing students with such an opportunity is something most participants would like to see incorporated in nutrition education. These results about nutrition education as a ruling element indicate that teaching students about nutrition and health as a

mandatory component of school curriculum may have some influence on the decisions families make outside of the elementary school setting.

### ***6.2.1.3. Supporting Students who may be Vulnerable***

The final element of ruling embedded within the FNP is the directive aimed at supporting students who may be vulnerable (i.e., those who experience poverty and/or life-threatening allergies). As evidenced by the findings in Chapter 5, the primary way in which ES1 and ES2 support students who may experience poverty is through free, universal breakfast programs, which enable students to access breakfast daily. Many participants are also aware of situations in which school staff members provide students with either money to purchase a school lunch or free food items when needed. Moreover, school “slush funds” help to ensure that on occasion, students are nourished during the school day. Unfortunately, the limited amount of money held in slush funds combined with a history of students and perception of parents abusing the support, more specifically at ES2, has resulted in more strict rules governing their use, which means school staff members have had to turn away students wanting to purchase lunch on credit. Finally, as many participants shared, the bottom line is that a school will do whatever it takes to ensure students are fed.

With regard to food allergies, these elementary schools communicate messages about the types of food allergies that affect their school’s population and the types of food items prohibited from being sent to school with students. Although mothers who participated in this study did not have a child or children who were affected by Celiac Disease (CD), a recent study found that for NS mothers with a child or children with CD, the school system was not perceived as a domain where CD was taken seriously, especially in relation to peanut allergies (124). The challenge that some participants recognize about food allergies is that prohibited food items are often those that

are easy to access and afford for families who experience issues related to FI (e.g., peanut butter). To complicate matters further, some participants shared that these schools do not provide recommendations as to which types of food items can be sent to school as alternatives to prohibited food items; a practice some mothers and school community participants believe would be helpful.

As indicated by these results, schools do appear to create supportive environments for students who experience food-related vulnerabilities through ruling elements like foods and beverages served and sold at school, school food programs, nutrition education, and supporting students who may be vulnerable. When considering these results, it does appear that the FNP holds many ruling elements that permeate through school food programs and school curriculum to not only attempt to create supportive environments for students and families but to govern the types of food-related decisions/behaviours students and families make surrounding nutrition and health. Though these ruling elements appear to have the best intentions on paper, the reality is that food and beverage standards, the cost of lunch programs, and the encouragement of healthy eating practices are not always entirely supportive for students and families who experience FI. This thesis has certainly contributed to the literature in that it has helped to fill a gap in describing the effects that NS school feeding programs and school nutrition policies have on the household setting, especially for those who experience FI in rural NS (20,23). These findings also provide confirmation that while the school is a valuable place for students to learn, issues such as low income and FI can be supported but not addressed entirely (24). Moving forward, it may be important for future research to gather perceptions from parents about school nutrition policies in order to determine how they are understood and how the messages that stem from such policies are used to make food-related decisions.

### **6.2.2. Charitable Food Assistance Programs**

As captured in Chapter 5, food banks serving the school communities examined in ESC operate one day per month for a short duration of time. In contrast, Tarasuk et al. recently examined factors that facilitate and limit food bank operations in five Canadian cities as well as their potential to meet food needs (117). Through surveying 340 agencies that gave out bags of groceries, 78.5% of these agencies had regular weekly hours of operation, with most only open one or two days per week (117). Taken together, these details may point to differences in operational practices of food banks in both rural and urban areas.

The findings of this thesis show that for mothers who used the food bank, the quantity of food offered by each food bank was limited while the quality of food was highly processed and sometimes damaged or expired. It was noted in this study and others (117,125) to be largely dependent upon the community or corporate donations, which patrons do not have any control over. These experiences with food bank use, specifically those related the quality and quantity of food provided, are consistent with what Shaw recently found when researching the everyday “rural living” experiences of women involved with Kids Action Program in NS (104). Additionally, when studying the relationship between food banks and household FI in Toronto, Tarasuk & Loopstra found that for families who had used a food bank in the past 12 months (but not in the past 30 days from the time of data collection), one of the reasons for non-use included poor quality and quantity of food (125).

Additionally, in a recent report by ACT for CFS, research participants from across four NS communities who may be at risk of experiencing FI and who are service providers talked about the experience of FI (66). While the use of food banks included both positive and negative

experiences, the challenges identified by most participants included poor food quality, limited and inadequate food quantity, and food safety concerns (66).

Findings of this thesis also revealed that another element of support specific to the food bank in T2 is the food education and skills program that it offers to its patrons. According to one mother, this program provided her with the opportunity to make and collect a variety of slow-cooker recipes, which she now uses in her home to feed her family. In the context of this study, the ruling elements of food banks outlined above do appear to play a role in determining how frequently mothers use food banks and how the support they receive from the food bank, whether in the form of food, education, or both, enables them to provide for their family.

### **6.2.3. Grocery Stores**

Like food banks, the grocery stores in these two towns also impart ruling through their location, prices, educational opportunities, and the ability to keep a tab of food purchases. Qualitative research undertaken by both MacAulay and Shaw also determined that the location of grocery stores as well as their prices plays a role in influencing experiences with FI (103,104). For women involved with Kids Action Program in the Annapolis Valley Region of NS, Shaw found that a characteristic of the rural, isolated areas in which participants live is the limited concentration of resources, including supermarkets (104). Lack of access to supermarkets, combined with limited or total lack of access to personal or public transportation, makes it especially challenging and sometimes expensive to access food (104). These results share similarities with other studies that have found rural settings are often low-resourced environments with limited availability and accessibility to food and community-based services (102,108). In ESC, the limited number of food outlets (66) combined with their reportedly high prices mean mothers who participated in this research are heavily bound by the types of food

items and prices offered, thus dictating the ways in which mothers access and afford food for themselves and their family. In contrast to the findings of this thesis, MacAulay reported in 2005 that for mothers experiencing FI in the Halifax Regional Municipality, the price of food at grocery stores, both sale prices and regular prices, influenced where mothers shopped (103). Taken together, these findings indicate that for residents living in rural areas of NS, experiences with accessing and affording food may be more strongly influenced by the location of grocery stores versus the prices they offer.

Moreover, although the large grocery store in T2, grocery store #2 (GS2), offers cooking classes and health/nutrition workshops, limited access to personal and public transportation limits a family's ability to utilize such opportunities. Furthermore, we learned from one policy/decision maker of another disjuncture, which is that in very rural, outlying areas of NS, limited numbers of formal grocery stores have ceased the operation of some school lunch programs, leaving students without the opportunity to access a nutritious lunch. Finally, one mother admitted that the ability to keep a tab of food purchases at the small independent grocery store, grocery store #1 (GS1), in T1 allows her to access food for her family and pay off her tab when she has the funds available. While this is a service she considers supportive, it could be considered yet another example of the temporality associated with FI (30). In light of these findings, food banks and grocery stores within the community appear to uphold ruling forces that both positively and negatively influence food-related decisions/behaviours associated with FI in rural NS, especially in relation to food affordability, food availability, and physical food accessibility.

#### **6.2.4. Financial Assistance Programs**

The final elements of ruling revealed in the findings of this study stem from IA and EI. As shared by the mothers involved in my research, the financial support provided by IA and EI are certainly helpful but are ultimately not sufficient in supporting a family to afford their basic living expenses, let alone a healthy, balanced diet; another disjuncture related to FI. In Canada, policies and programs that are part of the country's welfare system, including IA and EI, are often referred to as a social safety net. According to Rideout, Riches, Ostry, Buckingham & MacRae the deterioration of Canada's social safety net has meant that people at risk for FI have become more vulnerable (126). Additionally, low rates of IA and EI are insufficient in providing its recipients with the income they need to access and afford adequate food (126). For many participants involved in this thesis, both of these types of government support play an important role in the experience of FI. Furthermore, receiving a predetermined amount of money through IA once per month plays a large role in when one can grocery shop, what food items can be purchased, and the types of sales that be taken advantage of. When discussing transportation and geography in another rural area of NS, Shaw also learned that grocery shopping is carefully planned around the receipt of an IA cheque (104).

Research that has studied the affordability of a nutritious diet for IA recipients in NS between 2002 and 2010 determined that households relying on IA, specifically household types such as a family of four, a lone mother with three children, and a lone male aged 31-49, were consistently unable to purchase a nutritionally adequate diet after accounting for basic monthly expenses (4). Even with increases to IA rates that occurred in NS during this time, costs associated with basic needs have increased more quickly, which means that for households who rely on IA, the affordability of a nutritious diet is unattainable (4). More specifically, for a

reference household of four with two adults on IA and two children, and for a lone mother with three children – the household scenarios most applicable to this thesis – IA was not sufficient to purchase a nutritious diet for all family members. The reference family of four would have experienced a potential monthly deficit of -\$116.55 in 2002 and -\$473.57 in 2010 (4). Furthermore, a lone mother with three children would have experienced a potential monthly deficit of -\$112.01 in 2002 and -\$391.93 in 2010. Combined with this, it is known from participatory food costing research that the cost of the National Nutritious Food Basket (NNFB) for a reference household of four has increased from \$572.90 in 2002 to \$850.59 in 2012 (64). Additionally, the average cost of the NNFB for this same household size varies across NS with the cost being higher in rural areas than urban areas (64). Although my findings that government IA and EI rates are believed to be insufficient for affording nutritious food are not new or surprising they provide further understanding about the challenges associated with the affordability of a nutritious diet in ESC, more specifically in relation to seasonal employment.

#### **6.2.5. Availability and Use of Nutrition and Health-Related Documents**

Participants also identified and described types of nutrition and health-related documents that exist primarily within the elementary school setting, the types of ideological messages they hold, and how they influence the experience associated with FI. According to Campbell & Gregor, “*the capacity to rule depends upon carrying messages across sites, coordinating someone’s actions here with someone else’s there, for instance*” (pg. 33) (75). Typically, messages that hold ideas and meaning are communicated using texts or documents, which determine many of our actions (75). As Campbell & Gregor note, texts are “*activated by the people who handle and use them*” (pg. 148-151, as cited by Smith 1999) (75). The activation of a text “*dictates a work process that constitutes a ruling relation*” (pg. 34), otherwise known a text-

mediate ruling relations (75). What follows is an explanation of how the activation of specific nutrition and health-related documents reflective of FNP directives impact food-related decisions/behaviours made by students and families who experience FI (75).

As the results uncover, the FNP – a policy document that exists within the exosystem – and its written food and beverage standards are commonly activated by school administrators and foodservice staff members within the mesosystem in order to provide students with healthy, nutritious food items, promote the consumption of healthy foods, and encourage healthy eating habits among students. Unfortunately, some school community participants in this study perceived that because food and beverage standards in particular are not distributed to students and families, parents do not always understand why schools serve and sell the food items they do. In a recent study that explored parent and student perceptions of barriers and facilitating factors influencing the implementation of school nutrition policies in Prince Edward Island elementary schools, inadequate communication with parents and students about the policy and menu changes was identified as one of the four barriers to effective implementation (47). This study found that the majority of parents indicated they are not aware of the nutrition policy. For those aware of the policy, they did not display an understanding of its content (47). Ultimately, this lack of effective communication is concerning as the support from students and parents is necessary to the successful implementation of school nutrition policies (47). Not only are these two sets of results indicative of a disjuncture between the ruling nature of nutrition and health-related initiatives and daily food-related decisions/behaviours, they help to explain the varied perceptions of the FNP as held by the participants involved in my study. Furthermore, some of the participants involved in my study suggested that students and parents be provided with existing documents that reflect the FNPs food and beverages standards in order to assist them

with understanding its guidelines and rationale. As MacLellan, Holland, Taylor, McKenna & Hernandez learned, user-friendly materials about healthy eating were inadequate in informing and engaging parents (47). Taken together, my findings about the lack of information disseminated to parents about the food and beverages standards combined with those of MacLellan, Holland, Taylor, McKenna & Hernandez (47) may suggest that further inquiry is needed in order to determine how to educate parents about school nutrition policies, engage them in healthy practices, and most importantly, determine whether or not they can even achieve recommendations that stem from the FNP.

For students and parents, nutrition and health-related messages and ideas entrenched within the FNP through nutrition education curriculum, food and beverage standards, and the overall promotion of nutrition and health and are carried from elementary schools into households through a variety of documents, most of which are paper-based resources. In a couple of instances, mothers and their families attempted use *Eating Well with Canada's Food Guide* within their household to learn about nutrition in order to make healthy food choices. While at the macrosystem level these mothers value nutrition and health it is clear that the challenges they face with food affordability, food availability, and physical food accessibility negatively influence their ability to make the healthy choices encouraged by these documents.

Other types of documents that communicate ideological messages about nutrition and health are school newsletters and monthly school lunch menus. Most notably, the use of school newsletters equips mothers with knowledge about the operational practices of school food programs and their associated costs, and the types of food items prohibited or discouraged from being sent to school with students. Furthermore, documents associated with school food programs are monthly school lunch menus and specific to ES2, a one-page advertisement for the

breakfast program. It is through the activation of these documents that mothers become aware of daily meal options (and their cost), and make decisions about whether or not to use school food programs and how frequently to do so. School newsletters also clearly emphasize they types allergy-causing food items are not to be sent to school with students (e.g., peanut butter, specific nuts, canned fish etc.) but fail to suggest alternatives, making it hard for parents to know what food items can be sent to school. Finally, specific to ES1's newsletter is the discouragement of minimum nutrition food items as outlined in the FNP. Interestingly, minimum nutrition food items are not defined in this newsletter, nor are they provided to students and families, which further supports the previously mentioned example of disjuncture about the lack of dissemination of food and beverage standards. At times, handouts about celebratory events (e.g., class parties) are distributed to not only notify parents about the event but to suggest that parents send their children to school with healthy food items. While this attempts to encourage the consumption of healthy food, it fails to provide specific examples of what a healthy food item is, which does not allow parents to fully activate this resource. Regardless of the healthy eating guidelines encouraged by elementary schools, parents still continue to send their children to celebratory school events with unhealthy food items. This translates into another example of disjuncture between the types of messages promoted by the school and the reality of the lived experience with FI as elementary schools are promoting ideological messages that not all students and parents follow, in part in part because many mothers value moderation and associate celebratory events with the consumption of unhealthy food items.

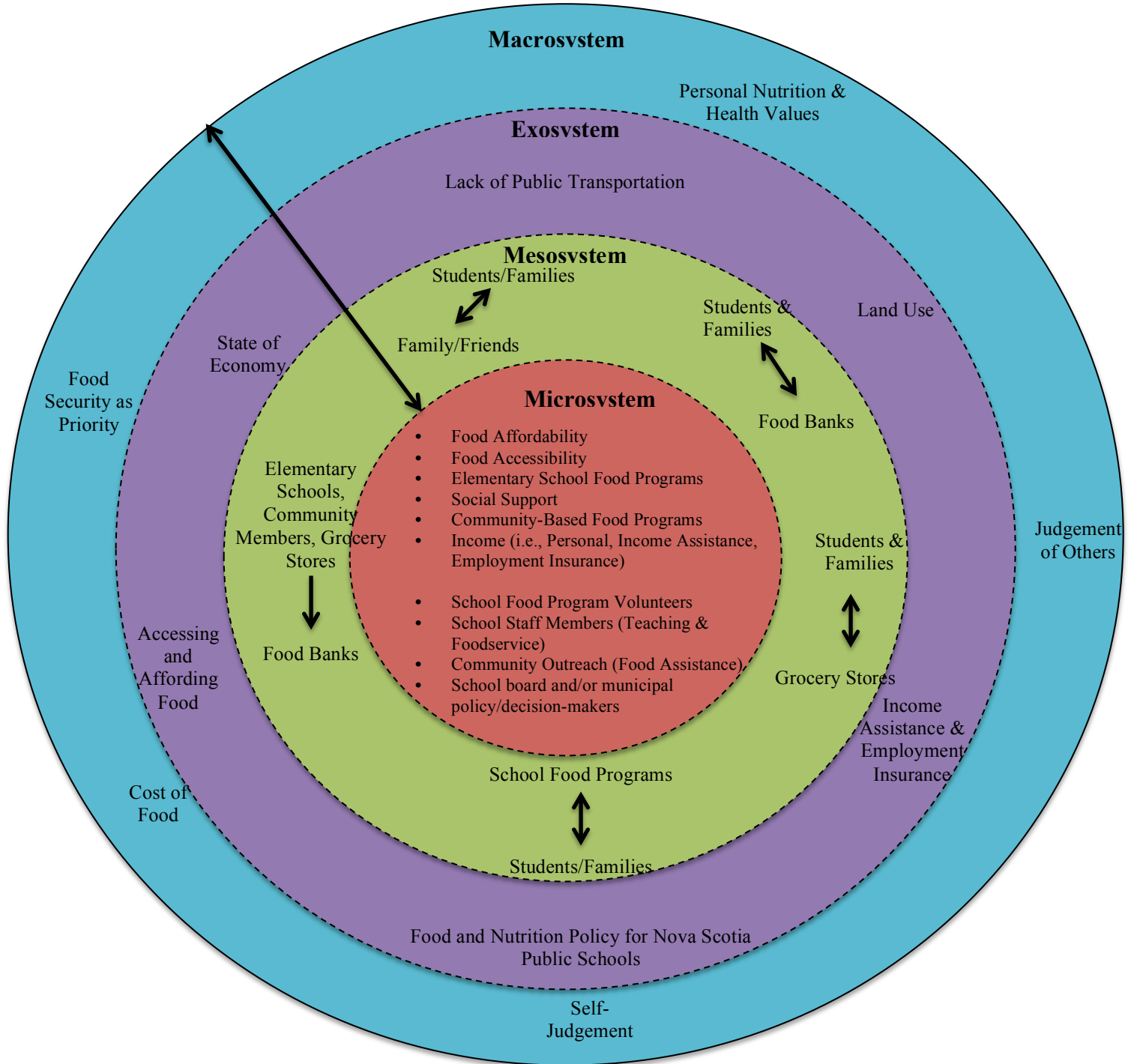
These results appear to suggest that documents – such as those outlined above – generated from the FNP and disseminated by elementary schools strive to promote a variety of ideological nutrition and health-related messages and ideas to school staff members, students,

and families. Particularly for students and families who may experience FI, the activation of these documents largely depends on personal values and beliefs as well as the food affordability.

### **6.3. Map the social relations/ideologies that exist within rural Nova Scotia school communities to shape students' and families' lived experiences with respect to food insecurity.**

As captured in Chapter 5, Figures 3 through 6 show that there are a multitude of social relations, social organizations, and forces and factors within ESC that play a role in addressing FI. Seeing that not all of them can be described in this report, I will draw upon those highlighted in the preceding sections of this chapter. The following figure, Figure 7 – organized according to Bronfenbrenner's Ecological Model – provides a visual representation of these social relations, social organizations, and forces and factors that exist within ESC. In the sections that follow I will summarize how they all work together to govern experiences associated with FI. In Figure 7, one-directional arrows denoted by “→” represent one-way relationships while the bi-directional arrows denoted by “↔” represent two-way or mutual relationships.

**Figure 7: Social Relations Shaping Experiences Related to Food Insecurity in Eastern Shelburne County**



It is evident from the preceding sections that the experiences and perceptions of research participants greatly assisted with the explication of social relations associated with FI among students and families in ESC. By first gathering the accounts of mothers, I was able to capture their experiences with FI, which included the actualities of the everyday (77). These accounts coupled with the translocal experiences and observations of school community participants highlight the social relations, social organizations, and forces and factors that exist within and beyond the boundaries of the mothers' experience that are present but not necessarily observable (75,77). Moreover, the types of ruling and text-mediated relations revealed in this study provide further insight into how mothers' understanding and food-related decisions/behaviours with respect to FI are coordinated (75).

By speaking with the five mothers involved in this research, I was able to capture information about the people, places, programs, and institutional processes that play a role in their daily experiences with FI. Moreover, speaking with school community participants enabled me to develop a deeper understanding of their perceptions of how the school community supports students and families through their day-to-day experiences working with students and families who may experience FI, as well as the people, places, programs, and institutional processes that shape FI. Social organizations such as elementary schools, charitable food assistance programs, grocery stores, social support networks, and financial assistance programs were most commonly identified by participants as playing a role in the experience associated with FI. By delving deeper into the specifics of each of these social organizations – their operational practices and supportive/unsupportive elements – I was able to expose relationships that exist between students/families and social organizations or between social organizations. The next section will describe how the establishment of these social relations enabled me to

develop the mesosystem and trace the connections, or lack thereof, between and across social organizations.

It is within the mesosystem where the primary social relations associated with FI reveal themselves. Explication of connections between participants and the social organizations that exist beyond the lived experience of FI provides insight into how FI works (75,76). To summarize, elementary schools, more specifically their breakfast and lunch programs, and their staff members support students and families who experience FI by providing free or low-cost meals to students. It was made clear by school community participants that these school food programs would not be able to operate and support students and families in need without the financial support from local community-based organizations or volunteer efforts of community members. Outside of the elementary school setting, students and families receive food-related support through charitable food assistance programs like food banks and in some instances, their associated food education and skills programs. Typically, these food banks rely on donations from community members, grocery stores, and elementary schools in order to operate and support those in need. Additionally, grocery stores act as the primary site where mothers purchase the food they want and need in order to feed their families. In addition to being the primary sites where food is accessed, grocery stores also play a role in supporting school food programs and local food banks. Furthermore, the social relation that exists between mothers and their family/friends reveals how these mothers' food-related needs are supported and how they support others who also experience FI.

Uncovering details about these social relations also assisted me in developing a deeper understanding of the institutional processes that take place within elementary schools, charitable food assistance programs, grocery stores, and financial assistance programs, i.e., the ruling

elements and text-mediated relations that play a role in the coordination of actions and behaviours. Seeing as documents are almost always associated with ruling (75), and that ruling typically stems from forces and factors within the exosystem, I was able to begin tracing connections from the mesosystem into the exosystem, which will be elaborated upon in the section below.

I began drawing connections between the mesosystem and the exosystem when participants started to describe their experiences with, and/or observations about, the FNP, IA and EI, lack of public transportation, land use, etc.; ruling elements primarily associated with various forms of government. Learning about the FNP enabled me to understand its role in organizing FI, more specifically through its directives aimed at food and beverage standards, programing, nutrition education, and support for vulnerable students. Moreover, it is through these directives that documents such as posters, resources, newsletters, lunch menus, and advertisements have been created in order to carry nutrition and health-related messages from the exosystem, across the mesosystem, and into the microsystem. It is the activation or use of these documents and the messages they carry within the microsystem that enables users (i.e., school staff members, parents, students) to engage in food-related decisions/behaviours. Unfortunately, the ideological messages promoted by these documents cannot always followed by families experiencing issues related to FI.

In addition to the field of education, various forces and factors that stem from government play a ruling role in relation to FI, more specifically through financial assistance programs like IA and EI. The predetermined amount of money allocated to these mothers through IA and EI permeates from the exosystem into the microsystem where it impacts experiences related to food affordability and physical food accessibility. Lastly, the lack of a

formal public transportation system appears to be a significant gap in ESC. As a public transportation system could potentially fall under the responsibility of municipal government, we can see how the lack of such a system plays a governing role in the lives of residents from ESC in that it prevents them from being able to easily and affordably access food within their community. The final section that follows will touch upon how societal values, beliefs, and ideologies positioned within the macrosystem infiltrate through the exo-, meso-, and microsystems.

It is beyond the exosystem within the macrosystem where the values, beliefs, and ideologies held by these research participants are located. It became clear through conducting my individual interviews that research participants held a variety of values, beliefs, and ideologies with respect to nutrition, health, and FI. Perhaps the most evident were the personal and societal values associated with nutrition and health. It was clear from some mothers that on a personal level, they value healthy, nutritious food but do not always have the income or ability to purchase these types of foods. This means they have to purchase foods and beverages that do not always align with their nutrition and health values. Moreover, these findings revealed that nutrition and health appear to be valued on a societal level. We would not see nutrition and health-related initiatives like the FNP activated within the elementary school setting if nutrition and health were not important to the government, more specifically the education system. The findings revealed an important disjuncture that exists when mothers cannot act upon the nutrition and health values held social organizations like the elementary school. Not only do mothers experience feeling of low-self esteem because they cannot provide their children with what the school is promoting, they also engage in self-judgement and worry about what others will think of them based on the food items they send to school with their children.

Finally, it was interesting to learn about where food security lies as a priority in ESC. Food security appears to be valued to an extent as it is incorporated into the FNP and some participants shared that the initiation of school food programs stemmed from an identified need to support students and families who may experience issues related to FI. However, these findings also suggest that food security does not appear to be a top priority within the macrosystem at this point in time because other issues hold more importance.

In summary, this map provides a visual representation of the social relations associated with FI in ESC. The identification of social organizations within one's microsystem allowed for the explication of social relations that occur within one's mesosystem. Moreover, the explication of social relations led to the discovery of how forces and factors positioned within the exosystem as well as macrosystem elements like values, beliefs, and ideologies play a role in governing the experience associated with FI.

#### **6.4. Limitations**

As with all research studies there are certainly some limitations that should be noted as they may have had some impact on the research findings. While I had collected qualitative research data prior to this thesis, including some related to the perceptions of FI, my skills are far from expert level. This was also my first experience collecting data about FI that included the experiences and stories from individuals who experience the issue first-hand. These details could have limited my ability to explore this topic in more depth. Ultimately, this was my first attempt at a taking on a project of this size and complexity, as well as using the chosen theoretical framework and methodology.

Another limitation of this research was that it was not a true IE study; rather it used tenets of IE. I did use research methods including individual interviews, document review and analysis,

and the collection of my own personal reflections and observations, which are all consistent with an IE study. However, the order in which the interviews proceeded, especially in the early stages of data collection, as well as the inability to analyze each interview before proceeding to the next were the ways in which this study strayed from a true IE. Furthermore, while I did not explore the chronosystem of Bronfenbrenner's Ecological Model due to the limited data that applied to this system I still recognize that changes over time may be important to consider in future research.

This study was also restricted to a small sample size. Of the 16 participants who were interviewed, five were parents, four were school staff members, four were staff members/volunteers from community-based organizations, and three were policy/decision makers. As opposed to producing generalizations, the findings that emerged from these interviews assisted with describing social processes that produce generalizing effects such as the similarities of the experience of FI within school communities in ESC (76). Reflecting back on the profile of the participants who were interviewed, it may have been beneficial to include individuals who have been involved with grassroots nutrition and health-related initiatives, members of municipal government involved with transportation and land use, and staff members/volunteers who work with the after school programs that operate in each school community. Moreover, seeing as ESC was a case community in the recent ACT for CFS research project there may have been an overall awareness about the topic of CFS present in this community; however, my interactions with participants did not reveal this was the case.

Moreover, the inclusion criteria for parent participants were not based on the Government of Canada's low income cut-offs; *"the income thresholds below which a family will likely devote a larger share of its income on the necessities of food, shelter, and clothing than the average*

*family*” (127) or measures of household food security included within the Household Food Security Survey Module. The five parent participants who were interviewed simply self-identified as experiencing challenges related to low-income and FI, including food affordability and physical food accessibility. However, the experiences shared by both mothers and school community participants do appear to reflect those of other studies where the low income cut-offs were used as inclusion criteria for participants or considered in the study of FI (102,105).

The final limitation of this study was its focus on only two rural elementary school communities. The social relations of FI in this particular area of NS may not necessarily reflect those of other rural school communities or other counties across the province of NS.

## **6.5. Personal Reflection**

The idea for this project was born out of my involvement as a research assistant with two research institutions: Applied Research Collaborations for Health (ARCH) headed by Dr. Sara Kirk and the Food Action Research Centre (FoodARC) headed by Dr. Patty Williams. I feel very fortunate to have been involved with each of these research institutions as they provided me with the opportunity to become involved in a variety of research projects, two of which sparked the idea for this thesis.

Working on this thesis has been filled with many successes and challenges, as well as many mixed emotions. I started this thesis feeling excited about the process but also slightly anxious about how I was going to recruit participants within the timeframe I was working towards. Luckily, the recruitment and data collection processes moved along quickly, and smoothly. Throughout the data collection process, there were many moments when I felt such strong emotional reactions in response to the stories shared by participants: I felt upset, confused, enlightened, guilty, excited, hopeful, and much more. There were moments when I caught myself

forming judgements about some of the stories that were shared by the participants. I often caught myself questioning why I was forming these judgements. It was during these moments when I took the time to stop, think about why I felt this way, and evaluate these judgements within the context of the community, its geographical location, its socio-economic status, and what I already knew about FI.

Furthermore, I do not think the data collection process would have moved along as smoothly as it did if I had not been encouraged to spend time in ESC during the data collection process. I truly feel that spending a week in ESC enabled me to immerse myself in life as an ESC resident, and become familiar with its geographical landscape and community characteristics. During this time, I was fortunate enough to have access to my own personal transportation, which was extremely helpful in traveling to and from interview sites and accessing food for myself. Admittedly, by the time I had reached the end of my week in ESC I recognized how challenging it must be to live in this area without access to personal or public transportation. There were also many moments during this week when I found myself struggling with feelings of guilt and sadness that stemmed from my reflection on the many privileges that exist in my life and how they compare to those of the research participants who struggle with FI.

Without a doubt, the most challenging and frustrating parts of this process were writing the findings and discussion chapters. It was an ongoing process to reduce the findings to a reasonable length while also highlighting the most important themes. It was when I reached the beginning of the discussion chapter that I felt extremely overwhelmed and lost. The volume and richness of my findings left me confused as to where to begin and how to accurately frame the findings in order to answer my objectives. With the ongoing assistance of my thesis committee I

was able to overcome this obstacle produce a discussion that highlighted the most significant and important research findings.

As I reflect upon my research experiences and this process in particular, I feel many emotions. I am thankful for the experiences and stories that were shared by the research participants, I am grateful for all of the support and guidance I have received throughout the duration of this thesis, I am happy to see this project come to fruition, and most of all, I am proud of the work I have accomplished. Not only has this experience enhanced my knowledge and understanding of FI, it has pushed me to think critically about the ideologies, forces and factors, and ruling elements, that play a role in governing the experience of FI within our society. It has also challenged me to think about the implications associated with the study of FI.

## **CHAPTER 7: CONCLUSION, IMPLICATIONS, AND FUTURE RESEARCH RECOMMENDATIONS**

### **7.1 Conclusion**

This study set out to explicate the social relations of food insecurity (FI) within two school communities in Eastern Shelburne County (ESC) in order to understand of how rural Nova Scotia (NS) school communities can support elementary school students and their families to achieve food security. The individual interviews conducted with parents of students vulnerable to FI, school staff members, staff members/volunteers from community-based organizations, and policy/decision makers shed light upon the lived experiences of FI among students and families who experience issues related to FI in ESC as well as what it is like to support students and families who experience FI.

Using Bronfenbrenner's Ecological Model as the theoretical framework allowed for the identification and organization of micro-, meso-, exo-, macro- and chronosystem factors related to the experience of FI. Framing the findings according to this model and using Institutional Ethnography (IE) as the methodology for analysis enabled the social relations, social organizations, forces and factors, values, beliefs and ideologies, and ruling elements that play a role in governing the experience of FI in ESC to be critiqued and organized according to the map represented in Figure 7 (pg. 189). Additionally, this process of mapping social relations, social organizations, forces and factors, and values, beliefs and ideologies provided the opportunity to identify gaps and disjunctures within and between four of the five systems that make up Bronfenbrenner's Ecological Model as they relate to the experience of FI among participants of this study. The content that follows will focus on how to support students and families within these two rural school communities to achieve food security.

The findings that emerged from this research suggest that rural residency, low-income,

and lack of access to personal and/or public transportation are the root issues that shape the social relations and coping strategies related to the experience of FI. The main social relations revealed through this thesis include food affordability, food availability, physical food accessibility, and the use of food-related supports (e.g., elementary school food programs, food banks, income assistance, employment insurance, and family/friends).

Moreover, the food-related supports discovered in this study are offered through social organizations such as elementary schools, charitable food assistance programs, social support networks, and government financial assistance programs through which students and families who experience issues related to FI are connected. The explication of FI revealed that these social organizations, and forces and factors are embedded within much larger systems of the school community, many of which stem from government. Furthermore, it is apparent from these findings that ruling elements entrenched within policies, social organizations, and documents play a powerful role in governing the food-related decisions/behaviours made by students and families who experience issues related to FI. For families involved in this study, many food-related decisions/behaviours cannot be made due to challenges with low-income circumstances and physical food accessibility.

These research findings suggest that many overlapping forces and factors lie at the heart of these social relations. Financial assistance programs including Income Assistance (IA) and Employment Insurance (EI) are types of supports available to families who experience issues related to FI. While these financial assistance programs provide recipients with predetermined and limited funds, these findings suggest that these amounts are not always helpful in their ability to access and afford nutritious food. Increasing rates of IA and EI in NS could be helpful in supporting recipients to more easily afford and access a nutritious diet (4, 64, 66). Many

participants in this study also suggested that the establishment of government subsidized school lunch programs would be of great assistance in ensuring all students, regardless of their socio-economic status, have daily access to a nutritious meal during the school week. Furthermore, these research findings indicate that challenges with physically accessing food within these two school communities are due to the absence of personal transportation and/or a formal public transportation system and community gardens. As suggested by several participants in this study and in ACT for CFS implementing a public transportation system and community gardens could potentially alleviate these challenges related to physical food accessibility (66).

When looking at the community setting, charitable food assistance programs and social support networks play an important role in supporting students and families who experience issues related to FI in this rural area of NS. For example, food banks, and in some instances their food education and skills-based programming are available within each of these school communities as supports that can be used and are used by low-income families. Nevertheless, entrenched within these food banks are ruling forces such as operational schedules, frequency of use, and the distribution of a limited quantity and quality of food. Two of the three mothers who used their local food bank suggested that increased hours of operation and the provision of food that is higher in quantity and quality could improve their experience with FI. It was also evident that outside of the food education and skills-based program offered through the food bank in town #2 (T2), very little opportunity exists for parents to learn about nutrition and health within their community. These findings suggest that community-based nutrition education classes similar to those of the Expanded Food and Nutrition Education Program (EFNEP) (69) could be beneficial in equipping community residents with the knowledge and skills necessary to take more control over their health, even on a limited budget. With respect to social support networks,

family members and friends, and local business owners often provide informal support to students and families in the form of money, transportation, food, and the ability to keep a tab for groceries until sufficient funds are available to return full payment. As suggested by Swanson, Olson, Miller & Lawrence these supports are just a few of many in the web of supports used by families experiencing FI in rural areas (111).

As for the education system, the two elementary schools involved in this research attempt to follow the Food and Nutrition Policy for Nova Scotia Public Schools (FNP). The FNP is the primary health-related ruling element within this system that strives to serve food items and beverages that meet specific standards, encourage the consumption of these foods and beverages, and promote healthy behaviours. Additionally, its many directives also govern the operation of school breakfast and lunch programs, the delivery of nutrition and health curriculum, and the support of students who may be vulnerable. Findings from this study highlight that many students and families, including those who experience challenges with accessing and affording food, use school breakfast and lunch programs. As with other food-related supports that have been mentioned previously, these school food programs also possess ruling elements, including the distribution of documents (e.g., school newsletters, school lunch menus, and breakfast program advertisements) that oversee the ways in which they function, the ideals they promote, and how they are used by students and families. Examples of ruling elements include their days of operation, the types of food and beverage items offered, and the cost of the food items sold, if applicable. As suggested by these research findings, offering breakfast programs on a daily basis and lunch programs at free or low cost would help families who experience FI to more readily access and afford healthy food for their children. With respect to the delivery of nutrition and health curricula, ruling takes place not only through the ideological nutrition and health-related

messages and practical experiences (e.g., gardening) offered to students but also through the dissemination of documents including *Eating Well with Canada's Food Guide*, one-page Home Play resources, and notifications that encourage healthy practices. However, the delivery of nutrition and health curricula at the elementary school level does not include home economics, equal opportunity to participate in gardening activities, the dissemination of FNP guidelines and directives to students and families, or the dissemination of recipes for use within the household. As for the support of students who may be vulnerable, this is done primarily through the free, universal breakfast program, school slush funds, and promotion of ruling messages that encourage an allergy-free environment for students with life-threatening allergies.

Overall, this study contributes to the literature on FI and school nutrition policies by providing a better understanding of the forces and factors, social organizations, and food-related supports that influence the social relations of FI that exist within these two elementary school communities of ESC. While many of these forces and factors, social organizations, and food-related supports strive to alleviate challenges with accessing food, affording food and managing FIS, the upcoming sections will provide further insight into how their ruling forces and documents can actually be unsupportive and what this means for policy, practice, measurement, and future research directions.

## **7.2 Implications for Policy**

The findings from this study reveal that financial assistance programs including IA and EI are types of financial supports used by participants in order to assist them with accessing and affording food. However, ruling elements including predetermined income amounts and frequency of distribution do not adequately support these families with the affordability of a healthy, nutritious diet. Similar to other studies that have examined the experience of FI and the

realities of living on IA and EI in NS (4,64,66), the findings from this research encourage that an increase in the rates of government financial assistance programs is necessary in order to allow for adequate income levels that enable individuals and families to access and afford a healthy, nutritious diet as well as meet their other basic needs. As for school communities, they could ensure that breakfast programs are offered on a daily basis and that lunch programs are offered for a reduced cost or for free in order to enable all students to have the opportunity to consume two healthy meals each day of the school week.

Many participants involved in this research expressed challenges with physically accessing food within this rural area of NS. Based on the experiences of physical food accessibility described by participants, this appears to be due to the combination of the county's geographical landscape, the limited number of food outlets available in ESC, and the absence of personal transportation and/or a formal public transportation system. Furthermore, not having access to personal or public transportation is a major barrier that limits one's ability to get to and from grocery outlets, especially those located in outlying communities where the cost of food is believed to be less expensive than it is within ESC. While Calhoun suggests that modifying the environment, including improving access to transportation, might have limited success in reducing barriers experienced by those who are food insecure (102), the findings about physical food accessibility that emerged from ACT for CFS (66) and this thesis provide further support for the consideration of or investment in a municipal public transportation system or community ride-sharing program.

In addition to financial assistance programs, participants identified food banks as a type of food-related support within each of these two school communities that help to support students and families who may experience issues related to FI. However, their ruling elements

are not always supportive. As the findings show, each food bank is only open one day per month for a limited number of hours, which governs when and how often mothers can use this support. In addition, mothers shared that the food items they receive are limited in quantity and poor in nutritional quality, sometimes being damaged or past their expiration date. The problem with this model is that while it provides emergency food relief, it does not enable mothers to make nutritious decisions and appears to further marginalize them in their experience with FI. As such, policies that prohibit the acceptance of damaged or expired food items as well as food items that are highly processed should be considered in order to ensure food bank patrons are receiving food items that are beneficial for good health.

For one mother involved in this study, using a food education and skills program offered by the food bank in T2 enabled her to learn how to prepare meals using a slow cooker and collect a variety of recipes that she could take home to use for food preparation. Other participants who were involved in this study also talked about the perceived benefits of this program. Given this perception as well as the expressed need for more community-based food and nutrition education and skills opportunities, offering more of these programs or programs similar to the EFNEP (69) in different areas of the county may enable other families to reap their benefits.

The findings from this research also highlight that elementary school breakfast programs are supports available within the school community that help students and families who experience FI with food affordability and physical food accessibility. Parents involved in this study shared that their children utilize these programs and believe these programs to be beneficial for assisting families with challenges related to FI; however, not offering these programs on a daily basis limits how frequently families who experience FI can use these programs. The findings from this study indicate that offering these programs on a daily basis

could ensure that all students, regardless of their food security status, have the ability to access and consume a healthy breakfast on each school day. Furthermore, although elementary school lunch programs were also viewed as an available support for assisting with the physical accessibility and affordability of food, many parents believed that the cost of a single school lunch is too expensive, especially for those with multiple children. Based on the recommendations from these participants and other studies (116,128), the implementation of a national government subsidized school lunch program would ensure that all students across Canada have the opportunity to access and consume a free or low-cost lunch meal each day of the school week. However, prior to implementing such a program, it is important to take into consideration the critical research findings that have emerged in relation to children's feeding programs (20-22,112,113).

Furthermore, participants also shared positive and negative perceptions about the FNP. Both parents and school community participants shared that information about the FNP and its purpose are not disseminated by elementary schools, which may explain why participants had such mixed reactions towards the policy. It was also apparent that ideological messages stemming from the FNP move from the school setting to the household setting where they do not always result in healthy food-related decisions/behaviours. As many parents admitted, the primary reason for this is their limited finances. The research findings indicate that increasing awareness about the FNP to all parents may assist in enhancing their understanding of its purpose within the elementary school setting; though, this may not be enough to provide support for those who experience with FI. A more realistic option may be to examine if and how the FNP considers the food-related needs of students and families experiencing this reality.

### **7.3 Implications for Practice**

Many different types of health professionals and individuals who have a stake in school and community health work in a variety of capacities whereby food security may be an important part of their portfolio. Moreover, this type of work often involves the planning, implementation and evaluation of community-based programming, the creation of supportive environments, and research. The findings that have been generated from this thesis could be used to increase awareness and understanding about FI in this rural area of NS, more specifically the forces and factors, and social organizations that influence food affordability, food availability, physical food accessibility, and the use of food-related supports. This could be especially valuable to health professionals working with initiatives like *Thrive!* that strive to create supportive health environments for Nova Scotians. It may also raise awareness about the importance of intersectoral collaboration in addressing issues related to FI. For health professionals and those who have a stake in school and community health within ESC or perhaps other rural areas of NS, this thesis along with the findings generated from ACT for CFS (66) may provide further insight into the forces and factors, social organizations, and social relations that are related to the experience of FI in this county as well as suggestions targeted towards their improvement.

### **7.4 Recommendations for Future Research**

This qualitative study has not only gathered details about the lived and perceived experience of FI within ESC, but how these experiences are influenced by forces and factors, and social organizations that exist within school communities. Gathering similar stories from parents and school community participants residing in other rural areas of NS would be helpful for comparing and contrasting experiences of FI. Furthermore, conducting a similar study in urban areas of the province may provide insight into how urban school communities are addressing

issues related to FI and if they are any different from those of rural school communities. Moreover, this research provides new contributions to the literature regarding the many perceptions about the FNP from both parents and school community participants who are aware of the challenges associated with FI. Gathering perceptions about this policy also led to conversations about what it means to students and families who experience issues related to FI. For example, many participants expressed both positive and negative beliefs about the FNP and the role it plays both inside and outside of the elementary school with respect to food-related decisions/behaviours. Conducting a formal, provincial evaluation of the FNP that includes the perceptions of students, parents, school community participants, and stakeholders could provide further insight into how the FNP is understood, ways the policy is or is not working, why this may be the case, and how it could be changed to be more inclusive in nature.

Without a doubt, these research findings contribute to existing literature about the experience of FI within NS. In an attempt to fill a gap in our understanding of how school communities are addressing issues related to FI, these findings have certainly captured new details about how students and families who experience issues related to FI are being supported by people, places, and programs within these two school communities of ESC. Moreover, these research findings suggest that the experience of FI within ESC cannot be improved upon unless forces and factors, and social organizations within our society recognize and change the ways in which they impart ruling and promote ideological messages to members of the school community.

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## APPENDICES

### Appendix A: Initiatives Aimed at the Creation of Supportive Environments in Nova Scotia

Initiative, Year & Developer	Goal and description
<p><i>Schools Plus (2007)</i> <i>Province of Nova Scotia</i></p>	<p>Goal: Coordinate programs and services by having professionals work with families and young people to create strong links as children develop and move through the school system (38).</p> <p>Description: Families get help through referrals for speech language pathology, child and youth mental health, parent and family support, crisis intervention, sexual health and child care (38).</p>
<p><i>Strive for Five at School! A Guide to Promoting Fruits and Vegetables (2010)</i> <i>Component of NSHPS</i></p>	<p>Goal: To have school communities and teams to work together and use to support fruit and vegetable consumption among students between grades primary and 12 in all NS schools (36).</p> <p>Description: Provide schools with guidance on how to make it easy for students to consume at least five servings of local fruit and vegetable products each day at school by preparing and promoting healthy recipes, promotional calendars, special events and health newsletters (36).</p>
<p><i>Goodness in Many Ways campaign (2010)</i> <i>Provincial Campaign</i></p>	<p>Goal: Increase the availability of fruit and vegetables in community, work, school and health care settings and increasing access to and affordability of fruit and vegetables for low-income populations (37).</p> <p>Description: Support individuals who currently do not consume the recommended daily number of servings of vegetables and fruit to do so by encouraging the consumption of fresh, frozen and canned produce within NS through cooking skills workshops (37).</p>
<p><i>Thrive! A plan for a healthier Nova Scotia (2012)</i> <i>Province of Nova Scotia</i></p>	<p>Goal: Equip people with skills and knowledge for lifelong health to enable them to make healthy choices no matter what circumstances they live in (12).</p> <p>Description: Provide opportunities to create supportive environments for Nova Scotians for healthy eating and physical activity (12). Increase confidence, food literacy (i.e., understand food and nutrition and basic food skills), engagement in free play for children, active child care, physical education and activity in the school environment and education regarding food skills in schools through community programming (12).</p>
<p><i>Nourish (2012)</i> <i>Nova Scotia community and government stakeholders</i></p>	<p>Goal: Promote and support the nutritional well being of children and youth in the province by building upon the school breakfast program (39).</p> <p>Description: Support a broad plan for child nourishment in addition to food literacy programs in school communities to create a healthy food environment for children and youth (39).</p>

## Appendix B: Directives of the Food and Nutrition Policy for Nova Scotia Public Schools

<b>Directive</b>	<b>Rationale</b>
<i>Food and Beverages Served and Sold in School</i>	Provide a variety of healthy and acceptable food and beverage options for students and staff. This reinforces nutrition curriculum and messages learned outside the school setting.
<i>Clean Drinking Water</i>	Water is essential and if not consumed in the right amount can lead to dehydration, which negatively effects brain function, alertness and energy levels. Water consumption also compliments intake of whole grains and fruits and vegetables.
<i>Programming</i>	Food programs help ensure all students have access to healthy and affordable foods at school.
<i>Pricing</i>	Cost influences choice, therefore school food and beverages should be served and sold for providing nutrition over revenue.
<i>Fundraising</i>	Complimentary to health of students and the community when healthy food and beverages or non-food options are selected. Choosing health foods and beverages for fundraising events supports messages taught at schools, home and in the community.
<i>Special Functions</i>	Healthy foods should be promoted when possible. Schools should be flexible in offering a wide variety of food and beverages for special functions and celebrations.
<i>Promotion and Advertising</i>	Partnerships between schools and businesses work best when designed to meet health and educational needs instead of commercial intentions.
<i>Food as a Reinforcer</i>	Children need to learn to eat when hungry and not continue to eat when they are full which to ensure they develop a healthy relationship with their body. Using food as a reinforcer teaches children to eat when they are not hungry. Alternatives to food reinforcement should be sought to create a healthy school environment.
<i>Students Who May be Vulnerable</i>	Poverty, life-threatening food allergies, and medical conditions requiring dietary consideration should be recognized.
<i>Portion Sizes</i>	The school should offer healthy portion sizes to support healthy behaviours.
<i>Food Safety</i>	Foods and beverages served and sold in the school should be handled and prepared safely to prevent food-borne illness. Safe handling includes hand washing to prevent the spread of food-borne illnesses.
<i>Nutrition Education</i>	This is the formal, hidden and parallel curriculum that influences positive eating patterns through education, school climate and support systems like schools, families and the community. All of these can impact learning and nutritional health.

(Adapted from Reference 46)

**Appendix C: Permission to Conduct Research (Tri-County Regional School Board)**



**Tri-County Regional School Board**  
Nova Scotia, Canada

**Students First**

June 4, 2013:

Kendra Read, MSc AHN (c), PDt

Dear Ms. Read:

This letter acknowledges your request and acts as formal approval for you to conduct the research as outlined in the attached document you submitted. Tri-County Regional School Board (TCRSB) staff has reviewed your requested research proposal and have found it to be an educational benefit for the purposes of extending our collective knowledge in the area of food insecurity.

Please coordinate your efforts through  Active Healthy Living Consultant, TCRSB,  
 or

Your efforts to lend a better understanding to this important issue are appreciated.

Respectfully Yours in Education,



Director of Programs and Student Services

attachment

**Subject: Request to Conduct Research with the Tri-County Regional School Board**

Good morning [redacted]

**My name is Kendra Read and I am a Profesional Dietitian and a graduate student at Mount Saint Vincent University within the Department of Applied Human Nutrition. Last week I sent a request to conduct research with the Tri-County Regional School Board to [redacted] and she informed me that she forwarded this research request along to you.**

**I am working under the supervision of Drs. Patty Williams and Sara Kirk with assistance from my committee members Jessie-Lee McIsaac (Langille) and Dr. Deborah Norris. My thesis research is focused on understanding how school communities in rural Nova Scotia are addressing issues related to food insecurity. The idea for this project emerged from my involvement with the Activating Change Together for Community Food Security project (FoodARC, Mount Saint Vincent University) and the Children's Lifestyle And School performance Study II. Ultimately, I hope this work will help to expand upon findings related to food insecurity that have been collected by these projects.**

**If you have any questions about any of the information that was forwarded along to you please feel free to contact me at any time.**

**I look forward to hearing from you,**

**Kendra Read, MSc AHN (c), PDt  
Graduate Research Assistant**

**Applied Research Collaborations for Health (Dalhousie University); Activating Change Together for  
Community Food Security (FoodARC, MSVU)**

**902.494.8809**

**[Kendra.Read@MSVU.ca](mailto:Kendra.Read@MSVU.ca)**

## Appendix D: Study Information Sheet

### Understanding How the School Community is Addressing Food Insecurity in Rural Nova Scotia

#### Research Team

Kendra Read, Primary Researcher, MSc AHN (c), Mount Saint Vincent University

[Kendra.Read@MSVU.ca](mailto:Kendra.Read@MSVU.ca)

(902) 494-8809

Co-Supervisor: Dr. Patricia Williams, PhD, Department of Applied Human Nutrition, Mount Saint Vincent University; Chair, FoodARC

[Patty.Williams@MSVU.ca](mailto:Patty.Williams@MSVU.ca)

(902) 457-6394

Co-Supervisor: Dr. Sara Kirk, PhD, School of Health and Human Performance (Applied Research Collaborations for Health, Dalhousie University; Adjunct Professor, Department of Applied Human Nutrition, Mount Saint Vincent University

[Sara.Kirk@Dal.ca](mailto:Sara.Kirk@Dal.ca)

#### What is this research about?

Food insecurity is the limited or uncertain availability of nutritionally adequate and safe food or the limited or uncertain ability to acquire acceptable foods in socially acceptable ways (1). Research has shown a strong positive relationship between poverty and food insecurity its health consequences, especially for children (2). Typically, food access is directly related to income and households with low income are unlikely to buy and eat healthy foods (3,4,5).

Experiencing low-income and food insecurity in rural areas of Nova Scotia may contribute to poor health outcomes and weight status, even with nutrition and health initiatives in place within schools and communities (6). Schools can be a valuable place for students to learn and develop, but there are some barriers to education that schools cannot always address, like poverty (7). Outside of the school breakfast program, little is known about what rural Nova Scotia elementary schools and the school community are doing to support students and families who may experience food insecurity.

#### What is the purpose of this research study?

This research could help to understand factors that shape the way students and families experience food insecurity in Nova Scotia. Learning about food insecurity from school community members (parents, school principals/teachers, community service providers and policy makers) will help me to understand what supports are required to assist rural populations in overcoming this issue. This research will attempt to answer the following question: how can rural Nova Scotia school communities support elementary school students and their families to achieve food security and optimal health status?

### **What will this research project involve?**

- 1) Individual, one-on-one interviews with school community members in Eastern Shelburne County. This will allow me to understand issues related to food insecurity and how they are shaped by society (8). Participants will include:
  - Parents of a student or students who may experience food insecurity; the student or students should attend either [REDACTED] or [REDACTED];
  - School principals and/or school teachers at these elementary schools;
  - Community service providers (e.g., employees of food banks, community kitchens, family resource centres etc.) in Eastern Shelburne County who provide food-related supports to families who may experience food insecurity; and
  - Policy makers who are involved in the development of health related policies.
- 2) Document analysis will be used to look at different school and community based texts (e.g., school health and nutrition policies and initiatives, school newsletters and e-mails, presentations, recipes, photographs or articles) (9). I will be looking at these documents for meaning in relation to the promotion of nutrition and health within the school and/or community and how these documents may shape food insecurity (9).
- 3) I will also be audio recording my own personal reflections and observations in order to further analyze my findings.

These methods may help me to gather descriptions about what participants do in their daily lives with respect to food insecurity to help understand how nutrition and health related initiatives shape the experiences of students and families who may experience food insecurity (10).

### **What are the risks and benefits of this research?**

Before I can collect any data, an ethics application will be submitted to the Mount Saint Vincent University Research Ethics Board and the South West District Health Authority for review. Once this process is complete, approval will be required by each elementary school principal. The ethics application will address the following areas:

#### Physical, Mental and Social Harm

I do not anticipate that participants will be experience any physical harm during this research study. Participants may experience emotional distress when discussing their individual or family experiences with food insecurity. Because of this, I will provide all participants with break periods during their interview (if needed) and a list of counseling services offered in their community (if needed).

#### Privacy, Confidentiality and Anonymity

As the first stage of this research will involve interviewing parents, each elementary school will be provided with a recruitment poster to distribute to all parents. Those parents who are interested in meeting the researcher for an interview will be encouraged to contact Kendra Read. Based on the suggestions of parent participants, Kendra Read will then contact potential

research participants from the school community and invite them to participate in this research study. All interviews will take place in a safe and private space (participant's home, workplace, private community space) that is most comfortable for the participant.

All personal information (e.g., name, address, phone number etc.) and data collected from participants will be stored in a secure and locked space at Mount Saint Vincent University where it is only accessible by Kendra Read. To establish anonymity a participant's name will not be connected to their response or used in any research reporting.

### Information & Informed Consent

Before participating in this study, potential participants will be provided with an information and informed consent package that includes all study information as well as the required informed consent paperwork. This package will outline the purpose of the study, the research methods, the duration of the study, risks and benefits of participation, reimbursement, confidentiality, results sharing, and the right to ask questions and/or withdraw from the study.

### **How will the research findings be shared?**

The results will be shared with: the university community through a formal thesis defense, all participants, the Eastern Shelburne County case community, Eastern Shelburne County and respective school communities, the ACT for CFS team, the Children's Lifestyle and School performance Study (CLASS) II team, the Nova Scotia Health Research Foundation and academics and researchers through publications. These results may be shared through a summary report, newsletter, informal community discussion, lunch and learn presentation, social media networks and websites.

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## Appendix E: Letter of Request to Conduct Research (School Board & School Principals)

Kendra Read  
2 Melody Drive, Mount Saint Vincent University  
166 Bedford Highway  
Halifax, NS B3M2J6  
[Kendra.Read@MSVU.ca](mailto:Kendra.Read@MSVU.ca)  
902.233.5979

Insert date here

██████████ Superintendent of Schools, Tri-County Regional School Board

*RE: Request for permission to study how school communities are addressing issues related to food insecurity within rural Nova Scotia*

Dear ██████████

Under the supervision of Dr. Patty Williams, Canada Research Chair in Food Security and Policy Change at Mount Saint Vincent University (MSVU), and Dr. Sara Kirk, Canada Research Chair in Health Services Research at Dalhousie University, I am proposing to study how the school community is addressing food insecurity in rural Nova Scotia. I would like to learn more about food related supports that exist or are needed, and/or barriers to accessing healthy food within the school community in Eastern Shelburne County. This could potentially help to understand the factors that shape the way students and families experience food insecurity. I am fortunate to have received a Graduate Scotia Scholarship from the Nova Scotia Health Research Foundation to fund this research.

I would like to focus my research study on ██████████ and ██████████. These two schools have been selected because of their rural geographical location within Eastern Shelburne County, one of four case communities involved in the Activating Change Together for Community Food Security (ACT for CFS)<sup>10</sup> project led by Dr. Patty Williams. These schools within Eastern Shelburne County have also been selected as recent preliminary research findings have showed that experiencing low-income and food insecurity in rural areas of Nova Scotia might not always lead to healthy lifestyle habits for children and families<sup>11</sup>.

I plan to obtain written consent from each school principal in order to gain entry into the

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<sup>10</sup> The ACT for CFS project aims to understand and create conditions that increase community food security in Nova Scotia.

<sup>11</sup> [In Press]. McIsaac JL, Read K, Kirk S, Williams P, Veugelers P. Barriers and facilitators to implementing health promoting schools in NS. Submission in progress. 2012.

elementary school of interest for recruitment purposes. I also hope to be able to spend two to three days volunteering in each elementary school in order to get to know the school staff and students as well as learn more about the school environment. Prior to starting participant recruitment I hope to be able to spend time in each elementary school in order to establish rapport with the school staff and students as well as learn more about the school community.

This research aims to involve multiple members of school community (parents of students who may experience food insecurity, school principal and/or school teachers, community service providers and policy makers) on a voluntary basis in one individual sixty-minute interview.

A certificate of ethical approval from Mount Saint Vincent University will be provided to you prior to starting this research project. In order to proceed with this research at each of the proposed elementary schools, I will require your permission in the form of a written letter.

Attached is a summary of my proposed research study. This summary includes background information about my research topic, my research question, the data collection methods, a description of research participants, an overview of ethical considerations and how I plan to share my research results.

Please feel free to contact me if you have any questions about this research study. You may also contact my local thesis Co-Supervisor, Dr. Patty Williams at [Patty.Williams@MSVU.ca](mailto:Patty.Williams@MSVU.ca) or 902-457-6394.

Thank you very much for your time and consideration.

Sincerely,

Kendra Read, MScAHN Candidate, PDt  
Department of Applied Human Nutrition, Mount Saint Vincent University  
Graduate Research Assistant, Applied Research Collaborations for Health & FoodARC

Kendra Read  
2 Melody Drive, Mount Saint Vincent University  
166 Bedford Highway  
Halifax, NS B3M2J6  
[Kendra.Read@MSVU.ca](mailto:Kendra.Read@MSVU.ca)  
902.233.5979

Insert date here

Mr. or Mrs., School Principal of (insert school name here)

*RE: Request for permission to study how school communities are addressing issues related to food insecurity within rural Nova Scotia at (insert elementary school name here)*

Dear (name of School Principal),

Under the supervision of Dr. Patty Williams, Canada Research Chair in Food Security and Policy Change at Mount Saint Vincent University (MSVU) and Dr. Sara Kirk, Canada Research Chair in Health Services Research at Dalhousie University, I am proposing to study how the school community is addressing food insecurity in rural Nova Scotia. I would like to learn more about food related supports that exist or are needed, and/or barriers to accessing healthy food within the school community in Eastern Shelburne County. This could potentially help to understand the factors that shape the way students and families experience food insecurity. I am fortunate to have received a Graduate Scotia Scholarship from the Nova Scotia Health Research Foundation to fund this research.

I would like to focus my research study on (insert school name here) because of its rural geographical location within Eastern Shelburne County, one of four case communities involved in the Activating Change Together for Community Food Security (ACT for CFS)<sup>12</sup> project led by Dr. Patty Williams. This school has also been selected as recent preliminary research findings have showed that experiencing low-income and food insecurity in rural areas of Nova Scotia might not always lead to healthy lifestyle habits for children and families<sup>13</sup>.

Prior to recruiting participants for this study I hope to be able to spend some time volunteering in your elementary school in order to establish rapport with the school staff and students as well as learn more about your school and the surrounding school community. This may involve the collection of my own personal reflections of the school community and nutrition and/or health related documents (e.g., newsletters, food menus, community notices, health policies etc.).

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<sup>12</sup> The ACT for CFS project aims to understand and create conditions that increase community food security in Nova Scotia.

<sup>13</sup> [In Press]. McIsaac JL, Read K, Kirk S, Williams P, Veugelers P. Barriers and facilitators to implementing health promoting schools in NS. Submission in progress. 2012.

This research aims to involve multiple members of school community (parents of students who may experience food insecurity, school principal and/or school teachers, community service providers and policy makers) on a voluntary basis in one individual sixty-minute interview.

A certificate of ethical approval from Mount Saint Vincent University and the South West District Health Authority will be provided to you prior to starting this research project. In order to proceed with this research, I will require your approval in the form of a written letter.

Attached is a summary of my proposed research study. This summary includes background information about my research topic, my research question, the data collection methods, a description of research participants, an overview of ethical considerations and how I plan to share my research results.

Please feel free to contact me if you have any questions about this research study. You may also contact my local thesis Co-Supervisor, Dr. Patty Williams at [Patty.Williams@MSVU.ca](mailto:Patty.Williams@MSVU.ca) or 902-457-6394.

Thank you very much for your time and consideration.

Sincerely,

Kendra Read, MScAHN Candidate, PDt  
Department of Applied Human Nutrition, Mount Saint Vincent University  
Graduate Research Assistant, Applied Research Collaborations for Health & FoodARC

## Appendix F: Recruitment Poster for Parent Participants



### Research Study Seeking to Interview Parents of Elementary School Students

**Study Title:** Understanding How School Communities are Addressing Issues Related to Food in Rural Nova Scotia

We are interested in speaking with you if:

- You are a parent living in Shelburne County
- Your child or children go to school at [REDACTED] or [REDACTED]; and
- You experience challenges with money, getting to the store to buy food or buying food for you and your family.

We would like to learn more about your experiences with food! We would also like to know more about how other people in the school community like school principals, school teachers and community workers support your experiences with food. Knowing this type of information may help the school community provide healthy food environments for you and your family.

**If you are interested in participating in this research study please contact:** Kendra Read at [Kendra.Read@MSVU.ca](mailto:Kendra.Read@MSVU.ca) or 902.494.8809 for more details.

#### Research Team

Co-Supervisor: Dr. Patricia Williams, PhD, Department of Applied Human Nutrition, Mount Saint Vincent University; Chair, FoodARC

Co-Supervisor: Dr. Sara Kirk, PhD, School of Health and Human Performance (Applied Research Collaborations for Health, Dalhousie University; Adjunct Professor, Department of Applied Human Nutrition, Mount Saint Vincent University)

## **Appendix G: Information & Informed Consent Packages**

### **Information and Informed Consent Package for Parents**

**Study Title** Understanding How School Communities are Addressing Issues Related to Food Insecurity in Rural Nova

#### **Why is this study being done?**

You are invited to take part in a research study that is being conducted by Kendra Read, a graduate student at Mount Saint Vincent University. She is trying to learn more about food-related supports that exist or are needed within the school community in Eastern Shelburne County. Kendra is also trying to understand barriers to accessing healthy food within rural Nova Scotia. Dr. Sara Kirk (Dalhousie University) and Dr. Patty Williams (Mount Saint Vincent University) are supervising this research study and the Nova Scotia Health Research Foundation has provided funding for this project.

#### **Why am I being asked to join this study?**

You have been invited to take part in this study because you are a parent of a student or students who go to school at [REDACTED] or [REDACTED] and you find it hard to access the food that you and your family needs and wants.

#### **What will happen if I take part in this study?**

You will be asked to take part in a one-hour interview in a private and safe space that is comfortable for you (your home, workplace, private community space etc.). If you agree to take part in the interview you will be audio-recorded (optional). If you choose not to take part, all of the services you currently receive at the elementary school and within your local community will stay the same.

#### **Are there risks to this study?**

No physical risks or discomforts are expected during this study. You might feel emotional discomfort during the interview when talking about your experiences with food. If this happens, the researcher can give you a break period during the interview and a list of counseling services if needed.

You may not experience a benefit right after your interview but the information you share will likely help the research team, school community and policy/decision makers to learn more about how the school community is addressing issues related to food insecurity in Eastern Shelburne County.

#### **Will this study cost me anything?**

A cash honorarium may be available to you to help cover travel and/or child care expenses. If you arrive at the interview location and agree to take part in the interview you will receive the appropriate honorarium. If you choose to withdraw from the research study after you have started your interview you will still receive the appropriate cash honorarium.

**What about my right to privacy?**

The data collected from this study will be kept in a private and locked space at Mount Saint Vincent University where it will only be accessed by the research team. Your name and personal information will not be connected to your responses or used in any research reporting. If you give the researcher permission to use one of your quotes a fake name or number will be used to identify you. The researcher will make every effort to protect your personal information but you should know that the researcher is obligated by law to disclose any information related to criminal activity to the appropriate authority.

**What if I want to quit this study?**

You do not have to share any information that you are not comfortable sharing. If you choose to withdraw from the study you may do so up until the point of analysis. You will have to inform the researcher if you are withdrawing completely or if you will allow us to use the information you have provided to that point.

**What happens at the end of the study?**

When the study is over, the final results will be shared with you and the other research participants, the research team, residents of Eastern Shelburne County, school community members in Eastern Shelburne County, policy/decision makers, academic audiences and the general public. These results may be shared through a summary report, newsletter, informal community discussion, lunch and learn presentation, social media networks and websites.

**Questions**

Kendra Read, Primary Researcher, MSc AHN (c), Mount Saint Vincent University

[Kendra.Read@MSVU.ca](mailto:Kendra.Read@MSVU.ca)

(902) 494-8809

Co-Supervisor: Dr. Patty Williams, PhD, PDt, Department of Applied Human Nutrition; Director, FoodARC, Mount Saint Vincent University

[Patty.Williams@MSVU.ca](mailto:Patty.Williams@MSVU.ca)

(902) 457-6394

Co-Supervisor: Dr. Sara Kirk, PhD, School of Health and Human Performance (Applied Research Collaborations for Health, Dalhousie University; Adjunct Professor, Department of Applied Human Nutrition, Mount Saint Vincent University

[Sara.Kirk@Dal.ca](mailto:Sara.Kirk@Dal.ca)

Brenda Gagné, Research Ethics Coordinator, Mount Saint Vincent University

[Brenda.gagne@msvu.ca](mailto:Brenda.gagne@msvu.ca)

(902) 457-6350

## Informed Consent Form

**Study Title:** Understanding How School Communities are Addressing Issues Related to Food Insecurity in Rural Nova Scotia

### **Part I: Participant Consent**

I \_\_\_\_\_ (please print your name) am 18 years of age or older and I have read about the study, or it has been read to me. I have had the opportunity to ask questions about the study and the researcher or research team has answered my questions. I understand that I am volunteering to participate in this study and that I can withdraw from the interview at any time.

**YES/NO**

I understand that this interview will take about one hour to complete and if I agree, it will be audio-recorded.

**YES/NO**

I understand that anonymous quotations from my interview may be used in the final research report unless I state otherwise.

**YES/NO**

Participant's signature: \_\_\_\_\_

Date: \_\_\_\_\_

I would like to receive a copy of the research results when the study is complete.

**YES/NO**

If yes, please provide your E-mail address or mailing address below:

\_\_\_\_\_  
\_\_\_\_\_

### **Part II: Researcher Acknowledgment**

I have presented this information package to the potential participant, and ensured, to the best of my ability, that the participant understood the information presented. I confirm that the participant was given the opportunity to ask questions about the study, and all questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Printed name of researcher: \_\_\_\_\_

Signature of researcher taking the consent: \_\_\_\_\_

Date: \_\_\_\_\_

## **Information and Informed Consent Package for School Staff Members**

**Study Title:** Understanding How School Communities are Addressing Issues Related to Food Insecurity in Rural Nova Scotia

### **Why is this study being done?**

You are invited to take part in a research study that is being conducted by Kendra Read, a graduate student at Mount Saint Vincent University. She is trying to learn more about food-related supports that exist or are needed within the school community in Eastern Shelburne County. Kendra is also trying to understand barriers to accessing healthy food within rural Nova Scotia. Dr. Sara Kirk (Dalhousie University) and Dr. Patty Williams (Mount Saint Vincent University) are supervising this research study and the Nova Scotia Health Research Foundation has provided funding for this project.

### **Why am I being asked to join this study?**

You have been invited to take part in this study because you are a school staff member (e.g., school principal, school teacher, school leader etc.) who works at either [REDACTED] or [REDACTED] who is familiar with the experiences and challenges faced by students and families who may experience food insecurity.

### **What will happen if I take part in this study?**

You will be asked to take part in a one-hour interview in a private and safe space that is comfortable for you (your home, workplace, private community space etc.). If you agree to take part in the interview you will be audio-recorded (optional). If you choose not to take part, all of the services you currently receive at your place of employment and within your local community will stay the same.

### **Are there risks to this study?**

No physical risks or discomforts are expected during this study. You might feel emotional discomfort during the interview when talking about your experiences with food. If this happens, the researcher can give you a break period during the interview and a list of counseling services if needed.

You may not experience a benefit right after your interview but the information you share will likely help the research team, school community and policy/decision makers to learn more about how the school community is addressing issues related to food insecurity in Eastern Shelburne County.

### **Honoraria**

An honorarium will not be provided to you for your participation in this research study. Your participation is entirely voluntary and interviews may be done at a time that is convenient for you, which includes both personal time and working hours.

**What about my right to privacy?**

The data collected from this study will be kept in a private and locked space at Mount Saint Vincent University where it will only be accessed by the research team. Your name and personal information will not be connected to your responses or used in any research reporting. If you give the researcher permission to use one of your quotes a fake name or number will be used to identify you. The researcher will make every effort to protect your personal information but you should know that the researcher is obligated by law to disclose any information related to criminal activity to the appropriate authority.

**What if I want to quit this study?**

You do not have to share any information that you are not comfortable sharing. If you choose to withdraw from the study you may do so up until the point of analysis. You will have to inform the researcher if you are withdrawing completely or if you will allow us to use the information you have provided to that point.

**What happens at the end of the study?**

When the study is over, the final results will be shared with you and the other research participants, the research team, residents of Eastern Shelburne County, school community members in Eastern Shelburne County, policy/decision makers, academic audiences and the general public. These results may be shared through a summary report, newsletter, informal community discussion, lunch and learn presentation, social media networks and websites.

**Questions**

Kendra Read, Primary Researcher, MSc AHN (c), Mount Saint Vincent University

[Kendra.Read@MSVU.ca](mailto:Kendra.Read@MSVU.ca)

(902) 494-8809

Co-Supervisor: Dr. Patty Williams, PhD, Pdt, Department of Applied Human Nutrition; Director, FoodARC, Mount Saint Vincent University

[Patty.Williams@MSVU.ca](mailto:Patty.Williams@MSVU.ca)

(902) 457-6394

Co-Supervisor: Dr. Sara Kirk, PhD, School of Health and Human Performance (Applied Research Collaborations for Health, Dalhousie University; Adjunct Professor, Department of Applied Human Nutrition, Mount Saint Vincent University

[Sara.Kirk@Dal.ca](mailto:Sara.Kirk@Dal.ca)

Brenda Gagné, Research Ethics Coordinator, Mount Saint Vincent University

[Brenda.gagne@msvu.ca](mailto:Brenda.gagne@msvu.ca)

(902) 457-6350

## Informed Consent Form

**Study Title:** Understanding How School Communities are Addressing Issues Related to Food Insecurity in Rural Nova Scotia

### **Part I: Participant Consent**

I \_\_\_\_\_ (please print your name) am 18 years of age or older and I have read about the study, or it has been read to me. I have had the opportunity to ask questions about the study and the researcher or research team has answered my questions. I understand that I am volunteering to participate in this study and that I can withdraw from the interview at any time.

**YES/NO**

I understand that this interview will take about one hour to complete and if I agree, it will be audio-recorded.

**YES/NO**

I understand that anonymous quotations from my interview may be used in the final research report unless I state otherwise.

**YES/NO**

Participant's signature: \_\_\_\_\_

Date: \_\_\_\_\_

I would like to receive a copy of the research results when the study is complete.

**YES/NO**

If yes, please provide your E-mail address or mailing address below:

\_\_\_\_\_  
\_\_\_\_\_

### **Part II: Researcher Acknowledgment**

I have presented this information package to the potential participant, and ensured, to the best of my ability, that the participant understood the information presented. I confirm that the participant was given the opportunity to ask questions about the study, and all questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Printed name of researcher: \_\_\_\_\_

Signature of researcher taking the consent: \_\_\_\_\_

Date: \_\_\_\_\_

## **Information and Informed Consent Package for Community Service Providers**

**Study Title:** Understanding How School Communities are Addressing Issues Related to Food Insecurity in Rural Nova Scotia

### **Why is this study being done?**

You are invited to take part in a research study that is being conducted by Kendra Read, a graduate student at Mount Saint Vincent University. She is trying to learn more about food-related supports that exist or are needed within the school community in Eastern Shelburne County. Kendra is also trying to understand barriers to accessing healthy food within rural Nova Scotia. Dr. Sara Kirk (Dalhousie University) and Dr. Patty Williams (Mount Saint Vincent University) are supervising this research study and the Nova Scotia Health Research Foundation has provided funding for this project.

### **Why am I being asked to join this study?**

You have been invited to take part in this study because you are a community service provider (e.g., employee of a food bank, community kitchen, family resource centre etc.) who provides food-related supports to students and families experiencing food insecurity within their school community and within Shelburne County.

### **What will happen if I take part in this study?**

You will be asked to take part in a one-hour interview in a private and safe space that is comfortable for you (your home, workplace, private community space etc.). If you agree to take part in the interview you will be audio-recorded (optional). If you choose not to take part, all of the services you currently receive at your place of employment and within your local community will stay the same.

### **Are there risks to this study?**

No physical risks or discomforts are expected during this study. You might feel emotional discomfort during the interview when talking about your experiences with food. If this happens, the researcher can give you a break period during the interview and a list of counseling services if needed.

You may not experience a benefit right after your interview but the information you share will likely help the research team, school community and policy/decision makers to learn more about how the school community is addressing issues related to food insecurity in Eastern Shelburne County.

### **Honoraria**

An honorarium will not be provided to you for your participation in this research study. Your participation is entirely voluntary and interviews may be done at a time that is convenient for you, which includes both personal time and working hours.

**What about my right to privacy?**

The data collected from this study will be kept in a private and locked space at Mount Saint Vincent University where it will only be accessed by the research team. Your name and personal information will not be connected to your responses or used in any research reporting. If you give the researcher permission to use one of your quotes a fake name or number will be used to identify you. The researcher will make every effort to protect your personal information but you should know that the researcher is obligated by law to disclose any information related to criminal activity to the appropriate authority.

**What if I want to quit this study?**

You do not have to share any information that you are not comfortable sharing. If you choose to withdraw from the study you may do so up until the point of analysis. You will have to inform the researcher if you are withdrawing completely or if you will allow us to use the information you have provided to that point.

**What happens at the end of the study?**

When the study is over, the final results will be shared with you and the other research participants, the research team, residents of Eastern Shelburne County, school community members in Eastern Shelburne County, policy/decision makers, academic audiences and the general public. These results may be shared through a summary report, newsletter, informal community discussion, lunch and learn presentation, social media networks and websites.

**Questions**

Kendra Read, Primary Researcher, MSc AHN (c), Mount Saint Vincent University

[Kendra.Read@MSVU.ca](mailto:Kendra.Read@MSVU.ca)

(902) 494-8809

Co-Supervisor: Dr. Patty Williams, PhD, PDt, Department of Applied Human Nutrition; Director, FoodARC, Mount Saint Vincent University

[Patty.Williams@MSVU.ca](mailto:Patty.Williams@MSVU.ca)

(902) 457-6394

Co-Supervisor: Dr. Sara Kirk, PhD, School of Health and Human Performance (Applied Research Collaborations for Health, Dalhousie University; Adjunct Professor, Department of Applied Human Nutrition, Mount Saint Vincent University

[Sara.Kirk@Dal.ca](mailto:Sara.Kirk@Dal.ca)

Brenda Gagné, Research Ethics Coordinator, Mount Saint Vincent University

[Brenda.gagne@msvu.ca](mailto:Brenda.gagne@msvu.ca)

(902) 457-6350

## Informed Consent Form

**Study Title:** Understanding How School Communities are Addressing Issues Related to Food Insecurity in Rural Nova Scotia

### **Part I: Participant Consent**

I \_\_\_\_\_ (please print your name) am 18 years of age or older and I have read about the study, or it has been read to me. I have had the opportunity to ask questions about the study and the researcher or research team has answered my questions. I understand that I am volunteering to participate in this study and that I can withdraw from the interview at any time.

**YES/NO**

I understand that this interview will take about one hour to complete and if I agree, it will be audio-recorded.

**YES/NO**

I understand that anonymous quotations from my interview may be used in the final research report unless I state otherwise.

**YES/NO**

Participant's signature: \_\_\_\_\_

Date: \_\_\_\_\_

I would like to receive a copy of the research results when the study is complete.

**YES/NO**

If yes, please provide your E-mail address or mailing address below:

\_\_\_\_\_  
\_\_\_\_\_

### **Part II: Researcher Acknowledgment**

I have presented this information package to the potential participant, and ensured, to the best of my ability, that the participant understood the information presented. I confirm that the participant was given the opportunity to ask questions about the study, and all questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Printed name of researcher: \_\_\_\_\_

Signature of researcher taking the consent: \_\_\_\_\_

Date: \_\_\_\_\_

## **Information and Informed Consent Package for Policy/Decision Makers**

**Study Title:** Understanding How School Communities are Addressing Issues Related to Food Insecurity in Rural Nova Scotia

### **Why is this study being done?**

You are invited to take part in a research study that is being conducted by Kendra Read, a graduate student at Mount Saint Vincent University. She is trying to learn more about food-related supports that exist or are needed within the school community in Eastern Shelburne County. Kendra is also trying to understand barriers to accessing healthy food within rural Nova Scotia. Dr. Sara Kirk (Dalhousie University) and Dr. Patty Williams (Mount Saint Vincent University) are supervising this research study and the Nova Scotia Health Research Foundation has provided funding for this project.

### **Why am I being asked to join this study?**

You have been invited to take part in this study because you are a policy/decision maker within the province of Nova Scotia who contributes to the development of health initiatives that are aimed at the promotion of health within the Tri-County Regional School Board, more specifically [REDACTED] and [REDACTED].

### **What will happen if I take part in this study?**

You will be asked to take part in a one-hour interview in a private and safe space that is comfortable for you (your home, workplace, private community space etc.). If you agree to take part in the interview you will be audio-recorded (optional). If you choose not to take part, all of the services you currently receive at your place of employment and within your local community will stay the same.

### **Are there risks to this study?**

No physical risks or discomforts are expected during this study. You might feel emotional discomfort during the interview when talking about your experiences with food. If this happens, the researcher can give you a break period during the interview and a list of counseling services if needed.

You may not experience a benefit right after your interview but the information you share will likely help the research team, school community and policy/decision makers to learn more about how the school community is addressing issues related to food insecurity in Eastern Shelburne County.

### **Honoraria**

An honorarium will not be provided to you for your participation in this research study. Your participation is entirely voluntary and interviews may be done at a time that is convenient for you, which includes both personal time and working hours.

**What about my right to privacy?**

The data collected from this study will be kept in a private and locked space at Mount Saint Vincent University where it will only be accessed by the research team. Your name and personal information will not be connected to your responses or used in any research reporting. If you give the researcher permission to use one of your quotes a fake name or number will be used to identify you. The researcher will make every effort to protect your personal information but you should know that the researcher is obligated by law to disclose any information related to criminal activity to the appropriate authority.

**What if I want to quit this study?**

You do not have to share any information that you are not comfortable sharing. If you choose to withdraw from the study you may do so up until the point of analysis. You will have to inform the researcher if you are withdrawing completely or if you will allow us to use the information you have provided to that point.

**What happens at the end of the study?**

When the study is over, the final results will be shared with you and the other research participants, the research team, residents of Eastern Shelburne County, school community members in Eastern Shelburne County, policy/decision makers, academic audiences and the general public. These results may be shared through a summary report, newsletter, informal community discussion, lunch and learn presentation, social media networks and websites.

**Questions**

Kendra Read, Primary Researcher, MSc AHN (c), Mount Saint Vincent University

[Kendra.Read@MSVU.ca](mailto:Kendra.Read@MSVU.ca)

(902) 494-8809

Co-Supervisor: Dr. Patty Williams, PhD, PDt, Department of Applied Human Nutrition; Director, FoodARC, Mount Saint Vincent University

[Patty.Williams@MSVU.ca](mailto:Patty.Williams@MSVU.ca)

(902) 457-6394

Co-Supervisor: Dr. Sara Kirk, PhD, School of Health and Human Performance (Applied Research Collaborations for Health, Dalhousie University; Adjunct Professor, Department of Applied Human Nutrition, Mount Saint Vincent University

[Sara.Kirk@Dal.ca](mailto:Sara.Kirk@Dal.ca)

Brenda Gagné, Research Ethics Coordinator, Mount Saint Vincent University

[Brenda.gagne@msvu.ca](mailto:Brenda.gagne@msvu.ca)

(902) 457-6350

## Informed Consent Form

**Study Title:** Understanding How School Communities are Addressing Issues Related to Food Insecurity in Rural Nova Scotia

### **Part I: Participant Consent**

I \_\_\_\_\_ (please print your name) am 18 years of age or older and I have read about the study, or it has been read to me. I have had the opportunity to ask questions about the study and the researcher or research team has answered my questions. I understand that I am volunteering to participate in this study and that I can withdraw from the interview at any time.

**YES/NO**

I understand that this interview will take about one hour to complete and if I agree, it will be audio-recorded.

**YES/NO**

I understand that anonymous quotations from my interview may be used in the final research report unless I state otherwise.

**YES/NO**

Participant's signature: \_\_\_\_\_

Date: \_\_\_\_\_

I would like to receive a copy of the research results when the study is complete.

**YES/NO**

If yes, please provide your E-mail address or mailing address below:

\_\_\_\_\_  
\_\_\_\_\_

### **Part II: Researcher Acknowledgment**

I have presented this information package to the potential participant, and ensured, to the best of my ability, that the participant understood the information presented. I confirm that the participant was given the opportunity to ask questions about the study, and all questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Printed name of researcher: \_\_\_\_\_

Signature of researcher taking the consent: \_\_\_\_\_

Date: \_\_\_\_\_

## Appendix H: List of Counselling Services

### **Mental Health Services**

Phone: (902) 875-4200

### **Help Line (Adults)**

Phone: 1-877-521-1188

### **Yarmouth Mental Health Centre**

60 Vancouver Street, Yarmouth, NS B5A 2P5

Phone: 902-742-4222

### **Shelburne Mental Health Centre**

2nd Floor, Roseway Hospital

PO Box 610 1606 Lake Road

Shelburne, NS B0T 1W0

Phone: 902-875-4200

### **Digby Mental Health Centre**

3rd Floor, Digby General Hospital

PO Box 820, 75 Warwick Street

Digby, NS B0V 1A0

Phone: (902) 245-4709

Fax: (902) 245-2145

### **Tri-County Women's Centre (Toll free phone number: 1-877-742-0085)**

Yarmouth Office

12 Cumberland Street

Yarmouth, NS B5A 3K3

Phone: (902) 742-0085

[tcwc@tricountywomenscentre.org](mailto:tcwc@tricountywomenscentre.org)

Shelburne Office

35 King Street

Shelburne, NS

Phone: (902) 875-4777

[patricia@tricountywomenscentre.org](mailto:patricia@tricountywomenscentre.org)

Digby Office

9 Water Street

Digby, NS

Phone: (902) 245-6866

[roberta@tricountywomenscentre.org](mailto:roberta@tricountywomenscentre.org)

**Shelburne Community Health Board *Helping Tree***

[http://www.swndha.nshealth.ca/pages/Helping\\_Tree\\_Shelburne.pdf](http://www.swndha.nshealth.ca/pages/Helping_Tree_Shelburne.pdf)

Researcher to provide handout if needed

## **Appendix I: Interview Guides for Research Participants**

### **Interview Guide for Parents of Students who may Experience Food insecurity**

1. Tell me about yourself and your family.
2. Tell me about your experiences with food (accessibility, affordability, choices etc.).

***What** role does your child's/children's school community play in supporting students and families who may experience food insecurity?*

3. What types of services exist in your community to support students and families who may experience food insecurity and what role do they play?
4. Do you or have you used these services? If so, what made you decide to use these services?
5. Do you see your child's/children's elementary school as a place that supports students and families who may experience issues related to food insecurity?

***Why** is the school community supportive or unsupportive of food insecurity?*

6. Why (or why not) do you see the elementary school as a supportive environment for students and families who may experience food insecurity?
7. Does the elementary school work with community service providers (employees of food banks, community kitchens, family resource centres etc.) to address food insecurity? If yes, how do they work together? If no, how do you envision them working together to address food insecurity?

***So what** have you learned about food and health as a result of the support(s) available in the school community?*

8. What type of nutrition or health related knowledge have you gained from community service providers and/or your child's/children's elementary school? (Examples include pamphlets or brochures sent home from school with students, presentations, recipes, food/health education, cooking classes etc.) How do you use this information in your home environment?
9. What type of nutrition or health related knowledge have you gained from community service providers and/or your child's/children's elementary school? (Examples include pamphlets or brochures sent home from school with students, presentations, recipes, food/health education, cooking classes etc.) How do you use this information in your home environment?

**Now what** can be done about supporting students and families who may experience food insecurity?

10. In an ideal world, how can the elementary school and/or community service providers support students and families who may experience food insecurity? (Probe: what can be initiated, changed or improved upon etc.?)

11. How would these changes affect you and your family?

## **Interview Guide for School Staff Members and Community Service Providers**

1. Tell me about your experiences working with students and families who may experience food insecurity (support provided, dietary choices, relationships with students and families).

**What** role does the school community play in supporting students and families who may experience food insecurity?

2. What types of services exist in this community to support students and families who may experience issues related to food insecurity and what role do they play?
3. Do you see your elementary school as a place that supports students and families who may be experiencing issues related to food insecurity?

**Why** is the school community supportive or unsupportive of food insecurity?

4. Why (or why not) do you see the elementary school as a supportive environment for students and families who may experience issues related to food insecurity?
5. How are community service providers and this school working together to address food insecurity?

**So what** have you learned about food and health as a result of the support(s) available in the school community?

6. What type of nutrition or health related information/education is available at this elementary school for students and families?
7. How do you feel that nutrition and health related policies and/or information available at this school shapes the food and health decisions made at home by students and families who may experience food insecurity?

**Now what** can be done about supporting students and families who may experience food insecurity?

8. In an ideal world, how can this school and/or community service providers support students and families who may experience food insecurity? (Probe: what needs to be started, changed, improved upon etc.?) What would this mean for your role within the school?

## Interview Guide for Policy Makers

1. Tell me about your experiences working with students, families, schools and policies that strive to improve nutrition and health of students in Nova Scotia.

**What** role does the school community play in supporting students and families who may experience food insecurity?

2. What types of initiatives exist within the school system/Tri-County Regional School Board and beyond to support students and families who may experience food insecurity and what role do they play?
3. Within the Tri-County Regional School Board, do you see [REDACTED] and [REDACTED] as places that support students and families who may experience food insecurity?

**Why** is the school community supportive or unsupportive of food insecurity?

4. Why (or why not) do you see these schools or either one of these schools as a supportive environment for students and families who may experience issues related to food insecurity?
5. Do schools within the Tri-County Regional School Board including [REDACTED] and [REDACTED] work with community service providers to address food insecurity? If yes, how do they work together? If no, how do you envision them working together to address food insecurity?

**So what** have you learned about food and health as a result of the support(s) available in the school community?

6. What type of nutrition or health related initiatives/policies are promoted by the Tri-County Regional School Board? What do students and families gain or learn from these initiatives/policies?
7. How do you feel that nutrition or health related initiatives/policies shape the decisions that students and families who may experience food insecurity make at home, more specifically those from these schools?

**Now what** can be done about supporting students and families who may experience food insecurity?

8. In an ideal world, how can Tri-County Regional School Board schools, more specifically the ones discussed today and/or community service providers support students and families who may experience food insecurity? (Probe: What needs to be started, changed, improved upon? What working relationships need to change?)
9. With the development of nutrition and health initiatives such as *Thrive!* and *Nourish*, what needs to be done to create more supportive environments for students and families who may experience food insecurity in this community?

## Appendix J: Ethics Certificates & Renewals



University Research Ethics Board


### UNIVERSITY RESEARCH ETHICS BOARD

#### Certificate of Research Ethics Clearance

**File #:** 2012-090  
**Title of project:** *Understanding how school communities are addressing issues related to food insecurity in rural Nova Scotia*  
**Researcher(s):** Kendra Read  
**Supervisor (if applicable):** Patty Williams  
**Co-Investigators:** n/a  
**Version :** 1

The University Research Ethics Board (UREB) has reviewed the above named proposal and confirms that it respects the *Tri-Council Policy Statement* as outlined in the *MSVU Policies and Procedures: Ethics Review of Research Involving Humans* regarding the ethics of research involving human participants.

This certificate of approval is valid one year from the date of issue. Renewals are available for up to four years in addition to the initial year and are contingent upon an annual submission to the UREB of a written request for renewal accompanied by a satisfactory annual ethics report thirty days prior to the expiry date as listed below. A final report is due on or before the expiry date. Researchers are reminded that any changes to approved protocol must be reviewed and approved by the UREB prior to their implementation.

 Dr. Daniel Séguin, Chair University Research Ethics Board (UREB)	<b>April 17, 2013</b> Effective Date <i>[Expires: April 16, 2014]</i>
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**South West Health**  
*Working Together for Better Health*  
Shelburne · Yarmouth · Digby

May 21, 2013

Kendra Read  
Department of Applied Human Nutrition  
Mount St. Vincent University  
Halifax NS

Dear Kendra:

RE: Research Proposal "Understanding how school communities are addressing issues related to food insecurity in rural Nova Scotia "

The Ethics Committee reviewed your above noted submission and I am pleased to inform you that you have been given final approval by the SWNDHA Ethics Committee.

We would be pleased to receive a progress report and any other reports that you may be able to provide to us, including a final report.

If there is anything further that we may assist you with, please do not hesitate to contact us.

Yours truly,

Cathy Blades, Chair  
Ethics Committee  
South West Nova District Authority

CB/lad

Via email: [read.kendra@gmail.com](mailto:read.kendra@gmail.com)

**South West Nova District Health Authority**  
60 Vancouver Street, Yarmouth, Nova Scotia, Canada B5A 2P5  
Phone: 902-742-3541 Fax: 902-742-0169  
[www.swndha.nhealth.ca](http://www.swndha.nhealth.ca)



University Research Ethics Board

### Certificate of Research Ethics Clearance [RENEWAL]

Effective Date	March 19, 2014	Expiry Date	April 16, 2015
File #:	2012-090		
Title of project:	<i>Understanding how school communities are addressing issues related to food insecurity in rural Nova Scotia</i>		
Researcher(s):	Kendra Read		
Supervisor (if applicable):	Patty Williams		
Co-Investigators:	n/a		
Version :	5		

The University Research Ethics Board (UREB) has reviewed the above named research proposal and confirms that it respects the Tri-Council Policy Statement: *Ethical Conduct for Research Involving Humans* and Mount Saint Vincent University's policies, procedures and guidelines regarding the ethics of research involving human participants. This certificate of research ethics clearance is valid for a period of one year from the date of issue.

Researchers are reminded of the following requirements:	
Changes to Protocol	Any changes to approved protocol must be reviewed <u>and</u> approved by the UREB prior to their implementation. Form: REB.FORM.002      Info: REB.SOP.113      Policy: REB.POL.003
Changes to Research Personnel	Any changes to approved persons with access to research data must be reported to the UREB immediately. Form: REB.FORM.002      Info: REB.SOP.113      Policy: REB.POL.003
Annual Renewal	Annual renewals are contingent upon an annual report submitted to the UREB prior to the expiry date as listed above. You may renew up to four times, at which point the file must be closed and a new application submitted for review. Form: REB.FORM.003      Info: REB.SOP.116      Policy: REB.POL.003
Final Report	A final report is due on or before the expiry date. Form: REB.FORM.004      Info: REB.SOP.116      Policy: REB.POL.003
Unanticipated Research Event	Researchers must inform the UREB immediately and submit a report to the UREB within seven (7) working days of the event. Form: REB.FORM.006      Info: REB.SOP.115      Policy: REB.POL.003
Adverse Research Event	Researchers must inform the UREB immediately and submit a report to the UREB within two (2) working days of the event. Form: REB.FORM.007      Info: REB.SOP.114      Policy: REB.POL.003

\*For more information: <http://www.msvu.ca/en/home/research/researchethics/policies/default.aspx>

Dr. Daniel Séguin, Chair  
University Research Ethics Board

166 Bedford Hwy Halifax Nova Scotia B3M 2J6 Canada  
Tel: 902 457 6350 • Fax: 902 457 2174  
[www.ca/researchethics](http://www.ca/researchethics)



May 14, 2014

Kendra Read  
Department of Applied Human Nutrition  
Mount St. Vincent University  
Halifax NS

Dear Ms. Read:

RE: Research Proposal "Understanding how school communities are addressing issues related to food insecurity in rural Nova Scotia"

I am pleased to inform you that your request for extension with respect to the above noted research proposal has been reviewed and given approval by the SWNDHA Ethics Committee.

Please forward your final report upon completion. This approval is effective for one year and request for extension should include progress reports.

If there is anything further that we may assist you with, please do not hesitate to contact us

Yours truly,

Cathy Blades, Chair  
Ethics Committee  
South West Nova District Authority

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Via email: [read.kendra@gmail.com](mailto:read.kendra@gmail.com)

**South West Nova District Health Authority**  
60 Vancouver Street, Yarmouth, Nova Scotia, Canada B5A 2P5  
Phone: 902-742-1541 Fax: 902-742-0369  
[www.swndha.nshealth.ca](http://www.swndha.nshealth.ca)