Housed and Still Hungry: Barriers to Food Security for Single Adults with Mental Illness and/or Problematic Substance Use Living in Supported Housing on Vancouver Island

by

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in the Social Dimensions of Health Program

Supervisory Committee

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The purpose of this research is to examine the barriers to food security for single adults with mental illness and/or problematic substance use living in supported housing on Vancouver Island. The objectives are: (a) to examine the difference in the level of food security for tenants of supported housing neighbourhoods located in urban versus a rural community; (b) to examine the barriers to food access experienced by the tenants; and (c) to examine which barriers have the greatest effect on the tenants. Using an explanatory case study design, I employ a community-based research method with a social justice perspective as the framework. I have used an explanatory matrix to illustrate the tenant identified barriers to food security and the social structures that affect these barriers. As well, I have made recommendations for integrating food security services and programs into supported housing projects. I have argued that food security is a matter of public health and an integrative approach is needed. I am suggesting a shift on a larger policy scale, to promote the health and well-being of tenants in supported housing. An adequate holistic perspective with an integrated, long-term strategy linking all the determinants of health would result in health-in-all policies. This strategy could reduce the existing health inequities that the tenants in supported housing experience.

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Acknowledgments

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I could not have completed this work without the encouragement and support from family and friends. This especially includes my housemate with her editorial skills, who spent hours and hours reading and rereading each chapter. My sister, niece and BFF in Saskatchewan were continuously encouraging and supportive. Thanks to my employer who allowed me the time off and never underestimated the enormity of the task completing this degree. Numerous friends have provided support and guidance and my dogs were always ready for a walk and talk.

Dedication

Participants are the core of any community-based research project, and I am most grateful for the time, enthusiasm and stories from everyone who talked to me about food security and supported housing. Most importantly, I acknowledge, the people who have experienced health disparities.

I dedicate this work to the tenants of the supported housing projects who willingly welcomed me into their lives, community and homes. I also dedicate this work to my very special “aunt”. Although she passed away during this process and I can no longer talk to her whenever I want, I can still hear her saying “you go, girl”.

Chapter One – Study Focus

Introduction

This work provides insight into the barriers to food security for people living in supported housing by exploring the lived experience of tenants residing in an urban and a rural setting on Vancouver Island, British Columbia. The Food and Agricultural Organization of the United Nations states that food security "*exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life"* (Food Security Statistics, 1996, p.1). In British Columbia supported housing is defined as "*housing that integrates long-term housing units with on-site support services that are available to residents of the housing project*" (Ministry of Community and Rural Development and Ministry of Housing and Social Development, 2010). Understanding the living conditions and identifying the barriers that impede food security will help to determine ways to improve food security for supported housing tenants. A key aim of this work is to create a framework for integrating food programs and services into supported housing to contribute to the ultimate goal of health and well-being of the tenants.

In order to achieve these outcomes, I used an explanatory case study approach to examine food security in two supported housing projects[1]. Robert Yin (1994) describes explanatory case study as a means by which research questions related to complex service and clinical systems can be answered. The use of an explanatory case study enabled me to investigate food security for tenants living in supported housing as well as the multiple facets of individual tenant food security. This study examined how the barriers to food security affected the tenants and the coping strategies they use to access food. This allowed me to identify strategies for programs and services that the study participants identified as being valuable to them with the potential for implementation by other housing providers.

In this chapter, I will argue that a variety of food programs and services need to be integrated into supported housing projects. I will outline the different concepts of food security at the national, provincial and regional levels. I further argue that food security is a public health issue requiring a health equity lens with a social justice perspective. I also discuss the different types of social housing in Canada and British Columbia, and how the

[1]*Within a housing context the term "project" is used. Within a health context the term "site" is used. The term project will be used throughout this dissertation.*

nutritional needs of individuals living in supportive housing are compromised by food insecurity. By discussing the intersection of food security and supportive housing requirements for individuals with mental health and/or problematic substance use, I present my argument that the integration of food security programs and services into supported housing is beneficial for the overall well-being for these individuals.

Individual and Community Food Security

Food Security

The term "food security" originated in international development literature in the 1960s and 1970s. Early definitions focused almost exclusively on the ability of a region or nation to assure an adequate food supply for its current and projected population. More recent definitions have focused on a broader range of issues, including such concepts as food safety and food preferences.

Food security has become a topic of interest to policy makers, practitioners and academics. This interest is due in part because the consequences of food insecurity can affect almost every facet of society.. Today the definitions of food security are numerous and varied and I argue a sufficiently large number of terms have been used in discussions of food security which can cause difficulties in identifying what, exactly is being discussed or measured. Some of the difficulties are due partly to the multi-disciplinary and multi-sectoral nature of food security. Many different academic disciplines, as well as numerous national and international governmental and non-profit agencies are engaged in food security. Each discipline has brought its own jargon to define food security and these overlapping concepts within the context of food security can be confusing. I have tried to make a distinction between the terms of food security, food insecurity, nutrition insecurity, under nutrition and hunger.

In the past, food insufficiency, or an "*inadequate amount of food intake due to a lack of money or resources* (Briefel & Woteki, 1992, p. 246) was sometimes used as synonym of hunger, causing the term *"hunger"* to be *"conflated with food security*" (Mason, 2002, p. 1119). The terms nutrition insecurity, undernourishment and undernutrition are sometimes used interchangeably with food insecurity but I argue the terms are not the same. The FAO defines nutrition security as

"a situation that exists when secure access to an appropriately nutritious

> *diet is coupled with a sanitary environment, adequate health services and care, in order to ensure a healthy and active life for all household members*" (Rome:FAO, 2012).

Undernourishment is a term that the FAO uses to describe a condition "*where caloric intake is below the minimum dietary energy requirement; it is considered to be an extreme form of food insecurity*" (Rome: FAO, 2012). Undernutrition is defined by the FAO as "*resulting from undernourishment, poor absorption and/or poor biological use of nutrients consumed*". The 1996 World Food Summit stated that food security

> "at *the individual, household, national, regional and global levels exists when all people at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life*" (FAO, 1996).

Therefore, throughout this study the FAO definition was used. This definition incorporates the different components of food security as discussed above, as well as, the idea that the ability to acquire socially and culturally acceptable foods and to do so in acceptable ways is also important. This definition also focuses on a broader range of issues, including such concepts as food safety, food preferences, affordability and utilization of food

I consider individual and community food security as two different concepts and it is important to differentiate these concepts.

<u>Community Food Security</u>

The Food and Agricultural Organization of the United Nations states that food security "*exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life"* (Food Security Statistics, 1996, p. 1). This definition recognizes that food security goes beyond the question of supply, encompassing issues of affordability and utilization of food. The concept of community food security was first used in BC in the Community Nutritionists Council paper "Making the Connection: (CNCBC, 2004). The representatives who wrote the paper were concerned that the use of the term food security was associated only with household and individual food insufficiency. Therefore, they created the following definition for community food security. "*Community food security refers to the capacity of a community to provide food security for its members*" (CNCBC, 2004). This document was developed to advocate for the inclusion of food security into BC core programs

in public health. As a result of this report, in BC, the Food Security Core Programs and the Community Food Action Initiative was adopted. These initiatives were led by either Public Health departments or other provincial ministries and adopted the following definition:

> "*community food security exists when all citizens obtain a safe, personally acceptable, nutritious diet through a sustainable food system that maximizes healthy choices, community self-reliance and equal access for everyone* ".
> (BC MoH, 2005).

Individual Food Security

For the purposes of this study, I will use the term "food security" to describe the ability of an individual to access nutritious food. Individual food security is a complex issue as it includes food affordability as well as, issues of access and availability of healthy food. Individuals are considered food insecure if they "*lack the physical, economic or cultural access to the food they require for productive, health and active lifestyles*" (WHO,1986, p 2) Individual food security includes food affordability as well as, issues of access and availability of healthy food. Individuals are considered food insecure if they "*lack the physical, economic or cultural access to the food they require for productive, health and active lifestyles.*" (WHO,1986, p 2) Food insecurity at an individual level can also be defined as *"the inability to acquire or consume an adequate diet quality or a sufficient quantity of food in socially acceptable ways, or the uncertainty that one will be able to do so*" (Davis & Tarasuk, 1994, p 51).

Individual food security is a complex issue as it includes food affordability as well as issues of access and availability of healthy food. Food security at an individual level can be defined as *"the inability to acquire or consume an adequate diet quality or a sufficient quantity of food in socially acceptable ways."(Tarasuk & Davis, 1998, p.73).* Individuals are considered food insecure if they "*lack the physical, economic or cultural access to the food they require for productive, healthy and active lifestyles.*" (WHO,1986, p 2) This definition recognizes that food insecurity involves more than just a lack of income: food insecurity involves accessibility and availability.

Food security at an individual level is more than simply a lack of income. The importance of contextual factors such as income management, food access, food availability and coping strategies also needs to be identified. Food insecurity for individuals living in social housing can be due to several factors, including geographic barriers to food resources (e.g.,

lack of access to public transport, no money for transport); healthy food being too expensive in the stores that are accessible; and poor quality or limited healthy choices in local stores.

Individuals experiencing a lack of food security are more likely to report poor or fair self-rated health, poor functional health, restricted activity, and multiple chronic conditions (Che & Chen, 2001; Vozoris & Tarasuk, 2003).Compromised nutrition can affect an individual's health and quality of life. For example, low-income Canadians have a higher rate of obesity (Riches et al., 2004); food insecure adults have been shown to be 2.5 times more likely to suffer from heart disease and 1.6 times more likely to have high blood pressure (Vozoria and Tarasuk, 2003); food-insecure individuals with diabetes have costly and life-threatening complications (Nelson, et al., 2001). There is also the potential risk of undiagnosed micronutrient deficiencies that individuals receiving charitable food with little or no nutritional value may experience. Food Banks Canada determined that 43% of households receiving food are composed of single, unattached individuals. This group has grown from 30% of households helped in 2001 to almost 50% in 2014. (HungerCount, 2014). Poorly nourished individuals are "*usually less resistant to infections, tend to heal more slowly, have more diseases and longer hospital stays and incur higher health care costs".* (Che and Chen, 2000, p. 19). *The role of diet in preventing and treating physical health disorders is understood and accepted, for example coronary heart disease and type 2 diab*etes." (Bottomley & McKeown, 2008, p. 48)

Food Security as a Public Health Issue

Food security is public health concern as many chronic diseases are diet-related and have a higher prevalence in food insecure populations. At the community level, the consequences of poor nutrition are felt mainly by the health care system. Canada has recognized food security as a social determinant of health and accepted the following the World Health Organization statement:

> *"A good diet and adequate food supply are central for promoting health and well-being. A shortage of food and lack of variety cause malnutrition and deficiency disease. Excess intake (also a form of malnutrition) contributes to cardiovascular disease, diabetes, cancer, degenerative eye diseases, obesity and dental problems. Food poverty exists side by side with food plenty. The important public health issue is the availability and cost of healthy and nutritious food. Access to good, affordable food makes more difference to what people eat than health education.* (Marmot & Wilkinson, 2003, p 26)

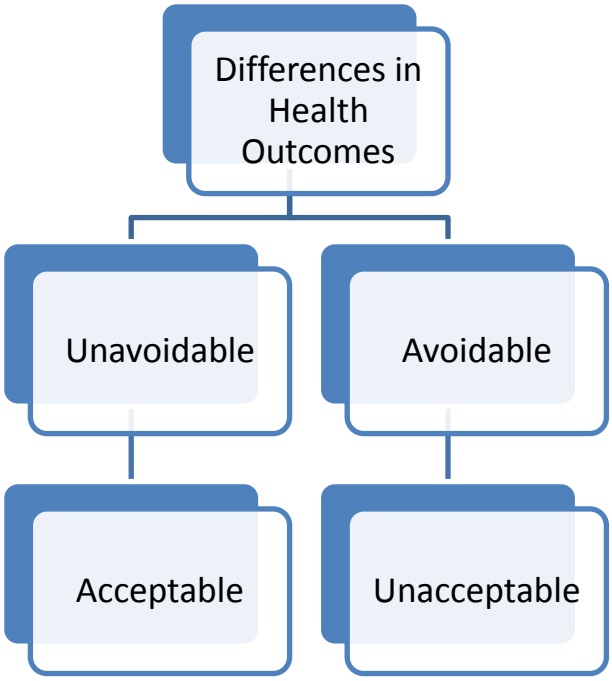
There is little consensus about the meaning of the terms “health disparities”, “health inequalities”, “health inequities” and “health equity”. Internationally the terms are often used in multiple and conflicting ways. In the U.K for example, inequalities are often understood to be the same as inequities, while in the United States the term health disparities is used almost exclusively.

Whitehead and Dahlgren suggest that inequities in health can be identified on the basis of three distinguishing features. First, “*health inequities concern systematic differences in health status between different socioeconomic groups*”. Second, “*inequities are a product of social processes and are socioeconomic groups.”* Third, “*inequities are the consequence of unjust social arrangements or social structures that perpetuate these differences*”. (Whitehead and Dahlgren, 2006, p. 2). The concept of health equity is an ethical principle consistent with and closely related to human rights principles. According to human rights principles, all people should be valued and equally possess certain rights. Health equity has many aspects, and needs to be seen as a multidimensional concept. It includes concerns about the achievement of health and the capability to achieve good health, not just the distribution of health care. It also includes the fairness of processes and must attach importance to non-discrimination in the delivery of health services. An adequate engagement with health equity also requires that the considerations of health be integrated with broader issues of social justice and overall equity.

I have used a visual concept designed by Dr. C. James Frankish to show the distinction of health inequalities from health inequities. Frankish states that “*inequality is a descriptive assessment which provides a description of a difference between individuals or group, for example, race, health, income, education”*. Some of these differences are biological and “unavoidable”, for example, genetics, or sex; while others are “avoidable” in that they are “socially constructed, for example arising out of policies, programs, laws, customs, traditions, morals or other sociocultural practices. He also states that “*inequities are differences in health status, the determinants of health and quality of life that exist between individuals or groups and that arise out of policies, programs, laws, customs, traditions, morals or other sociocultural practice*”. Therefore, in turn, societies act (or fail to act) in a manner which indicates that some inequities are essentially deemed “acceptable”, for example not worthy of societal intervention or change; while others are treated as “unacceptable”, for example, they receive some form of

societal attention in the form of policies, programs or laws because they are seen as unnecessary, unfair or unjust.

Figure One: Distinguishing Health Inequalities from Inequities



Designed by Dr. C. James Frankish, October 2013

Social Justice Perspective

Health equity has many aspects, and needs to be seen as a multidimensional concept. It includes concerns about the achievement of health and the capability to achieve good health, not just the distribution of health care. It also includes the fairness of processes and must attach importance to non-discrimination in the delivery of health access. An adequate engagement with health equity also requires that the considerations of health be integrated with broader issues of social justice and overall equity.

Subsidized housing providers have recognized the need for safe and healthy food and the combination of housing and food security can promote the health and well-being of tenants. Tenants living in supported housing are members of a vulnerable population group with potentially high rates of food insecurity (Patterson, et al., 2008; Miewald, 2009; Tweedie, 2009). As a tenant support worker in a supported housing project, it is my opinion that social justice is not only a matter of how an individual tenant fares, it is also about how the tenant group fares relative to one another when systematic disadvantages are linked to their group membership..

In my pursuit of a theory of justice, it became evident that a number of different theories share some common presumptions about what it is to be a human being. They all made use of common human features that figure in the reasoning underlying their respective approaches. However, many of the theoretical perspectives I reviewed were premised on distributive justice as the means to achieve health equity. For me, the test of the importance of a theory of justice was how well it could provide a basis for action that could address food insecurity for tenants in supported housing. Most theories of distributive justice focus primarily on the distribution of material goods and are very limiting as theoretical frameworks for addressing the root causes of food insecurity for tenants. Social justice, reconceptualized and interpreted through a critical, feminist lens as described by It is Marion Young, provided an alternative social justice framework. Her critical reinterpretations of social justice led me to insights that illuminated structural differences that contribute to the food insecurity of tenants in supported housing. Her approach provided me with a means to formulate a framework to integrate food security into supported housing. Framing the issue of food security in relation to health equity turns the spotlight on polices that have the potential to influence health. Using a social justice perspective entails creating policies that address the determinants of health and therefore, the determinants of inequalities in health. Health in health for tenants in supported housing implies that:

> '*Ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential, if it can be avoided (WHO, 2006).*

I argue that the concept of health equality is an ethical principle consistent with and closely related to human rights principles. According to human rights principles, all people should be valued and possess equally certain rights. I further argue, that the violation of healthy equity cannot be judged merely by looking at inequality in health. Iris Marion Young's theory of justice can provide human rights protection for tenants in supported housing who are powerless and dependent on others to address their complex vulnerabilities. Inequalities in health systematically put individuals with a mental illness and/or problematic substance use into further disadvantage with respect to their health. Equalizing opportunities for tenants to be healthy is grounded in the human rights concept of non-discrimination.

Iris Marion Young's social justice theory is also rooted in a belief in an individual's capabilities or capacities to reach a state of well-being throughout their lifetime. Any conception of a social justice perspective can provide an understanding of the context that is relevant to the lives of tenants in supported housing. The advantage of a social justice lens is that it provides an awareness of the factors that affect the tenant's capacity or potential. Understanding the inequalities in health that tenants in supported housing encounter can lead to policies that aim to reduce these inequalities.

I argue that food security and health equity are public health issues due to the impact of food insecurity on population health. With respect to public health services, I also argue that a social justice approach to tackling health is needed. Equity will therefore be concerned with creating equal opportunities' for tenants in supported housing to achieve food security. A social justice perspective will lead housing policy makers to work towards addressing the conditions that produce food insecurity for the tenants. By situating the focus on the well-being of tenants and also on groups with a mental illness and/or problematic substance use, policy makers will be able to view the common good for tenants in supported housing "as an aggregative end, and end that has value because of the sum of the contributions made to the well-being Rather than focusing on the distribution of resources, a theory of social justice will enable policy makers to view the common good for the tenants. "*as an aggregative end, an end that has value because of the sum of the contributions made to the well-being of its individual members"* (Faden & Powers, 2011).

I further argue that social justice is doing what is best for a person or group based on their needs and fundamental principle that human beings have inalienable rights. Iris Marion Young argued that social justice implies that because certain conditions that increase risk to a person compromises their capacity to self-advocate and limits their access to life with equality, actions of policy makers should be non-malevolent and ultimately beneficial to them. Social justice and human rights principle are necessary conditions for each other and therefore fundamentally complementary. Indeed, I argue that some of the most important policy issues in the promotion of health are deeply dependent on the overall allocation of resources to health, rather than only on distributive arrangements within health care.

Tenants in supported housing require population health interventions to create health equity. A population health approach that uses both food security and housing as

interventions strategies aimed at reducing barriers could create health equity for the tenants. The use of a social justice perspective, combined with a population health approach, will provide a framework for the development of polices to overcome some of the barriers tenants face in achieving food security.

Impacts of Food Insecurity for Individuals with Mental Illness and/or Problematic Substance Use

Many authors also consider individuals living with a mental issues and problematic substance use as members of a vulnerable population. Flaskerud and Winslow (1998, pg. 69) describe vulnerable populations as *"social groups who experience limited resources and a consequently high relative risk for morbidity and premature mortality".* In other words, vulnerable populations are people for whom poor physical, psychological or social health has or is likely to become a reality. Vulnerability can result from financial circumstances, place of residence, health, age, functional or development status and personal characteristics such as race, ethnicity or gender. Individuals with mental illness and/or problematic substance use who live in resource-poor neighbourhoods experience a disadvantage which is attributable to contextual factors which are beyond their individual control. Holmes et al. showed that a growing body of research demonstrates that:

> "*health disparities constitute a highly complex problem domain that both exists and operates on many different levels. Many disparities that affect an individual's opportunity to pursue a healthy life occur above and beyond individual-level characteristics, resources and behaviors. Larger societal factors, such as poverty, can also influence the risk of disease through mechanisms other than health behaviors".* (Holmes et al., 2008, p S183)

The impacts of food security on health can be further complicated for individuals with mental health and/or problematic substance use requiring supportive housing. The issues of nutrition and mental illness and/or problematic substance use can be approached from two different perspectives - (a) poor nutrition can affect mental health in terms of development or exacerbation of mental health symptoms and (b) people with a mental illness and/or problematic substance use may be more likely to neglect nutrition as a direct result of their illness. "*Poor nutrition, obesity and malnutrition have all been associated with mental health service users*" (National Institute for Mental Health in England/Mentality, 2004). Bottomley and

McKeown studied the mental health symptoms that can contribute to a lower nutritional intake for people with mental illness. Their findings are presented in Table One.

Table One: Mental Health Factors Affecting Nutritional Intake

Factor	Effect on nutritional Intake
Positive psychotic symptoms	Delusions about food and visual hallucinations
Social withdrawal	Embarrassed to eat in front of others, not wanting to go out shopping
Overactivity in mania and anxiety	Unable to sit long enough to eat, eating "on the spot" and increased energy output
Memory impairment	Forgetting to eat – or forgetting that meal has been eaten – and overeating
Lack of motivation or poor energy levels	Not going shopping or feeling like preparing foods or cooking and poor food hygiene
Low income	Not having enough money to spend on nourishing food
Physical changes	Possible swallowing difficulties, problems feeding self and conditions requiring specialist diets
Medication	Increased appetite and weight gain are side effects of some antipsychotic medication. Some drugs cause diarrhea and vomiting, while others may contribute to constipation. Dry mouth is often present
Depression	Poor appetite and poor motivation to cook, eat and drink. Comfort eating
Social exclusion	Lack of access to health promotion and/or support, specialist assessments and other services such as dentists

Bottomly & McKeown, 2008

Studies have also shown that antipsychotic medications have burdensome side effects such as weight gain, weight loss, a risk for the development of diabetes mellitus and/or the metabolic syndrome. (Citrome, et al., 2005; Colton and Manderscheild, 2006; Osborn, 2001), as well as effects on appetite. Weight gain is one of the more common "*side effects of some forms of psychotropic medication, and is commonly a factor in non-adherence to medication regiment*" (Taylor et al., 2005).

Some studies show unexpectedly high rates of depression, and anxiety disorders in groups of clinically obese people (Dong et al., 2004; Tuthill et al., 2006; Petry et al., 2008). Osborn (2001) examined the physical health of psychiatric patients, especially those with schizophrenia or depression and provided some explanations for the inequities in their health status. He reported the following summary points:

- *Psychiatric patients experience increased morbidity and mortality associated with a range of physical conditions;*
- *Cardiovascular disease is associated with both schizophrenia and depression;*
- *Depression is a strong predictor of future myocardial infarction and of poor prognosis after infarction;*
- *Lifestyle, psychotropic medication and inadequate physical health care all contribute to the poor physical health of people with mental illness;*
- *Primary and secondary health prevention is often neglected in patients with mental illness; and*
- *Programs to improve the physical health of psychiatric patients are essential and have been shown to be effective* (Osborn, 2001, p 329)

Colton and Manderscheild compared the mortality of public mental health clients in eight states in the US. They concluded that:

a) *Public mental health clients had a higher relative risk of death;*
b) *Deceased public mental health clients had died at much younger ages and lost decades of potential life;*
c) *Clients with major mental illness diagnoses died at younger ages and lost more years of life*
d) *Most mental health clients died of natural causes including heart disease, cancer and cerebrovascular, respiratory and lung diseases* (Colton & Manderscheild, 2006).

Mortality rates are used as "*global measures of a population's health status and as indicators for public health efforts and medical treatment"* (McCarrick et al., 1986). The latest available statistics from Vital Statistics British Columbia showed the number of deaths in the five year period from 2006-2010 was 33,472 which is a rate of 6.53 per 1,000 population(Table E: Summary Statistics by Health Authority, 2011). Elevated mortality rates among individuals with mental illness have been reported in various studies (Babigian and Odoroff, 1969; Felker et al., 1996; Dembling et al., 1999; Hwang, 2001) and causes of death, comorbidites and medical problems of individuals living with mental illness also have been assessed (Kamara et al., 1998; Lambert et al., 2003; McCarrick et al., 1986; Sokal et al., 2004). All of these studies highlighted the high rates of chronic medical problems among people with chronic mental illness. Some of these studies illustrated that poor people with mental illness and/or problematic substance use are at high risk for poor nutrition further demonstrating the need for the integration of food programs and services into supported housing projects for this population.

The tenants who participated in this study are experiencing mental illness and/or problematic substance use, live on low incomes and experience food insecurity. As well, these tenants have all experienced instability in their housing and some have had.

Health Equity and Food Security in British Columbia

Part of the recent changes to the provincial Health Act included a core functions framework that was meant to guide public health renewal and "*includes a cross cutting health equity lens to ensure the needs of specific populations are met*" (BC Ministry of Health, 2005, p 2). Achieving health equity requires that "*everyone can reach their full health potential and that social position or other socially contrasted conditions should not place anyone at a disadvantage"* (Whitehead and Dahlgren, 2006). Health equity includes concerns about the achievement of health and the capability to achieve good health, not just the distribution of health care. Adequate engagement with health equity also requires that the considerations of health be integrated with broader issues of social justice and overall equity. Health equity is "*an important consideration in planning and implementation across all BC core programs"* (BC Ministry of Health, 2005).

I argue that the application of an inequities lens to food security is implicit in BC because the food security MCPP states that, "*health equity concepts are embedded into the program, since unfair or unjust access to quality and culturally appropriate food is the basis of food insecurity*" (Food Security Working Group, 2006). One of the purposes of public health renewal is to promote, protect, improve and restore health and reduce health inequities. The economic impacts of health have become increasingly apparent and as health is influenced by a wide array of socioeconomic factors, there need to be *"concentrated efforts to not only improve the health of the population as a whole but to reduce the size of the gaps in health across social and economic groups"* (Braverman and Grusking, 2003, p. 257).

Food security is one of the Health Improvement Programs being undertaken by the Ministry of Health (MOH). The MOH adopted Bellows and Hamm's definition of community food security

> "*as a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice*" (Bellows & Hamm, 2001, p 37).

The Food Security Core Program in British Columbia is one element in an overall public health improvement strategy developed by the MOH in collaboration with provincial health authorities and experts in the field of public health.

The Framework for Core Functions in Public Health was developed in 2005 and had a focus on inequalities. A Guiding Framework for Public Health was introduced in 2013, with a focus on:

> "supporting better health for all British Columbians while promoting improved health equity across all population groups . . . and requires more than just focusing on the most disadvantaged groups. Initiatives and strategies need to be universal but with added scale or intensity for those experiencing short term or long term vulnerability".(BC Ministry of Health, 2013)

Public Health Food Security Initiative in British Columbia

In British Columbia changes to public health services began with the revision of the provincial Health Act, and the development of a core public health functions framework. Starting in 2005, the development of the core public health functions was *a* participatory, collaborative process involving public health practitioners throughout the province (BC Ministry of Health, 2005a; Seed, 2011). There are four main components of the framework: a) core programs representing the minimal level of public health services expected of the health authorities; b) public health strategies to be used in each core program, such as health promotion, health provision, prevention and surveillance; c) a population and an equity lens to ensure the needs of specific populations are met; and d) system capacity elements that provide the support and foundation for the other components in the framework (BC Ministry of Health, 2005b). The BC Health Authorities (HAs) organize and deliver the core programs according to their community context with the support of the Ministry of Health (MoH) through program evidence review and model core program papers (MCPP). Each HA used the MCPP to tailor their programs to the local context, with the knowledge that the best available evidence was the basis of the program. Food is addressed in three separate program areas: a) nutrition is a component of the healthy living program, b) food safety is an environmental health program and c) food security is one of the health improvement programs. The focus of this research study on the barriers to food security for tenants in supported housing is nutrition and food security in a supported housing setting.

Food security programs and services are conceptualized along a continuum, moving from short-term relief, through transitional stages, to the development of redesigned systems with the potential to achieve food security. Transitional strategies are measures that encompass community development and intersectoral collaboration to support community resources and projects, including farmers' markets, community gardens, community kitchens, food co-ops, food vending machines and community bulk buying clubs such as good food boxes. New approaches to food security are being developed through emerging government policy and regulations, regional and municipal food policies, workplace and school food policies, and sectoral strategies, as well as government and/or private sector investment. The goal of these new approaches is to increase access to safe, healthy food for the community.

Reorienting the food system in British Columbia has included increasing the number of programs or initiatives that link local and regional food producers and consumers; expanding urban agriculture, establishing healthy food strategies and standards, and also developing ways to better support the most vulnerable in society. The provincial programs and initiatives are the a) Community Food Action Initiative (CFAI); b) Farmer Market Nutrition Coupon Program; c) Food Skills for Families; d) Food Systems in Remote First Nations and; e) Produce Availability in Remote Communities.

The Provincial Health Services Authority is mandated with the surveillance, monitoring and evaluation of policies, programs and trends of the Food Security Core Program. They developed a core set of indictors for this program using an iterative, collaborative process. Six indicators in four categories were selected based on the availability and reliability of the existing data and the indicator's ability to provide information on four categories. The four categories and six indicators were:

"Category 1: Organizational Commitment to Food security

Indicator A1: Presence of food policy that supports food security, within Health Authorities.

Category 2: Community Capacity

Indicator A2: Proportion of communities that have ongoing food actions supported through the Community Action Initiative

Category 3: Personal and Household Food Security

Indicator A3: Annual cost of a nutritious food basket in BC, as a proportion of family income

Indicator A4: Prevalence of nutrition-related health conditions

Indicator A5: Proportion of the BC population that eats fruits and vegetable five or more times per day

Indicator A6: Proportion of the BC population that always had enough of the foods they wanted to eat in the last 12 months
Category 4: Local Food Production and Access
No Indicator qualified for this category, due to lack of readily available data sources".
(PHSA, 2010)

Food Security Core Program

The Food Security Model Core Program consists of four main components: a) a comprehensive food policy framework; b) an array of food security programs and services; c) public awareness initiatives; and d) surveillance, monitoring and evaluation of food security programs. BC is the only Canadian province that has food security as a core public health program on its own and in which community food security is prominent. This new focus required each provincial Health Authority to create a food security coordinator position or to incorporate food security program responsibilities into a pre-existing position. The Provincial Health Services Authority (PHSA) is the coordinator for joint food security activities among all regional health authorities. They "*guide the development of evaluation indicators for the Community Food Action Initiative, which is a funding mechanism for community-based food security programs and are the communication hub for networking across the health authorities on all core functions programs"* (Drasic et al. 2010, p. 4).

Island Health Authority Food Security Initiatives

The food security core program in the Vancouver Island Health Authority, now known as Island Health Authority (IHA) is centralized. The "*food security coordinator is responsible for developing a strategic plan, an internal food policy, and increasing capacity and access to information for community members*" (Vancouver Island Health Authority, Report, 2007). Under Category 2: Community Capacity – Indicator 2 Table Two shows the results for the Island Health Authority.

Table Two: Vancouver Island Health Authority – Community Capacity

Activities Supported in 2008	Count
Food Forum	11
Needs Assessment	10
Action Plan	8
Policy Councils	0
Food Charters	3
Info Event/Workshop Single Session	132
Info Event/Workshop Multiple Session	25

Food Bank	3
Soup Kitchen	1
Food Gleaning	6
Community Gardens	10
Community Kitchens	4
Farmers Markets	2
Food Co-ops	1
Miscellaneous Other Activities*	8

Activities under Miscellaneous Other include the development of networks and on-going research into food security and homelessness

The only single adults recognized as members of vulnerable populations in the Framework for Core Functions in Public Health are single senior males and females. The majority of tenants in supported housing are not seniors and as a result, they are not recognized as vulnerable to food insecurity. This means that the provincial programs and services are not available to them. I argue that individuals living with a mental illness and/or problematic substance use who are living in supported housing that is classified as transitional are members of the vulnerable groups for food insecurity. Only the CFAI and Farmer's Market Coupon programs are available in the communities where this research study into the barriers to food security was conducted. Thus, I will describe both of these initiatives below.

Community Food Action Initiative

In 2008-2009 the Island Health Authority implemented a strategy in partnership with five community agencies that were involved in food security planning within their jurisdictions. These agencies are referred to as IHA Food Security Hubs and exist in the Capital Region, the Cowichan Valley, the Nanaimo region and the Comox Valley. A community non-profit organization in the urban community receives supportive funding to develop and support local food security initiatives. Their main focus is children, youth and families, so no services are available to the urban participants in my study.

There is no agency in the rural community that is involved with the CFAI initiative and therefore, no services are available to the rural participants in my study.

Farmer's Market Nutrition Coupon Program

The Farmer's Market Nutrition Coupon Program is a collaboration between IH and the BC Association of Farmer's Markets which provides lower-income seniors and families with increased access to locally grown produce and food products. A Farmer's Market Association operates a year round market and is a member of the Nutrition coupon program in the rural

community. To receive coupons, participants must be a low income senior or family and participate in skill building programs offered by the association, thus none of the programs are available to the participants of my study.

I argue that community food security programs do not alleviate hunger and improve access to nutritious foods for single adults living with a mental illness or problematic substance use. The Provincial Food Initiative policies and programs are generally targeted only to single senior adults that they consider vulnerable, recognizing that people with lower socio-economic status are most vulnerable to a lack of food and food-related resources. However, single adults living with a mental illness and/or
problematic substance use who are impacted by a lack of resources and unavailability of healthy food are not classified as vulnerable to food insecurity. The Human Early Learning Partnership suggests the use of "*proportionate universality, defined as programs, services and polices that are universal, but with a scale and intensity that is proportionate to the level of disadvantage*" (2011, p 1). They suggest that the "*principle of proportionate universality is a way to create and maintain a platform of universal services that would eliminate barriers to access that affect populations with the highest need".* This approach also recognizes the *"social gradient in health and the strong relation between a person's social- economic status and their health*" (Wilkinson, 1986).

The complex needs of individuals with a mental illness and /or problematic substance use involves a variety of services which yield high costs for public health. Some authors have assessed the reduced costs of public health services when these individuals are living in supportive housing. (Basu et al., 2012;Fuehrien, et al., 2015; Feuhrlein, et al., 2013; Holtgrave et al., 2012). I argue that an understanding of the benefits of housing on the health of individuals with a mental illness and/or problematic substance use can lead to policy changes for integrating food services and programs into supportive housing projects. These policy changes will greatly reduce the expenditure of public health dollars and increase the overall health and well-being of this population.

Housing as a Public Health Issue

To achieve the goals of this study, an understanding of the role of housing on the health of tenants is necessary. This understanding will provide information in order to develop a

framework for integrating food security programs and services within supported housing projects.

Housing has been found to be one of the most basic requirements for a healthy life. Dunn's study of a population health approach to housing showed that "*stabilization of an individual's housing situation can have a cascade effect, extending into other areas of life …" (*Dunn, 2002, p 44). Socioeconomic factors embedded in everyday life are widely acknowledged to be important determinants of health and "*housing is a critical nexus for the operation of a wide range of socio-economic factors that fundamentally shape the character of everyday life for people across the socioeconomic spectrum"*. (Dunn et al. 2006, p. S11). Individuals with mental illness and/or problematic substance use experience unique housing difficulties and these difficulties are a critical component in the ways in which socio-economic factors shape health. Dunn (2002) viewed housing as having both significant material and meaningful dimensions. Material dimensions include the "*physical integrity of the home and the resident's exposure to physical, biological and chemical hazards in the home: (Dunn, 2002, p. iii*). Meaningful dimensions of housing draw on environmental psychology, social support and health

> "*Housing serves an important role as a place of refuge . . . people's homes are on of the few places in everyday life where they are socially and legally sanctioned to exercise complete control. One's home is a critical setting for social interaction and the centre of an individuals' social network"*
> (Dunn, 2002, p.iv)

Housing costs are a crucial material factor because rent can represent the largest monthly expenditure that individuals face; therefore there is a strong economic rationale for providing subsidized housing for individuals who have experienced homelessness.

Subsidized Housing in British Columbia

The British Columbia Housing Management Commission (BC Housing) is the provincial crown agency that develops, manages and administers all subsidized housing options in the province. All social housing in BC includes some form of subsidization and is directly managed by BC Housing or operated by non-profit societies and co-operative housing providers. BC Housing (2006) defines subsidized housing as all types of housing whereby the provincial government provides some type of subsidy or rent assistance.

The housing need in British Columbia is being addressed by the government's housing strategy but, as of 2008, there were "*11,000 households on the wait list for subsidized units with BC Housing*" (BC Housing). Subsidized housing has also been shown to improve the health of single adults living with mental illness and/or problematic substance use by freeing up resources for nutritious food, reducing stress and providing stability for people with chronic illness. (Lubell et al., 2007).

A report issued by Simon Fraser University's Centre for Applied Research in Mental Health and Addiction estimates that 130,000 British Columbians have a mental illness and/or addiction and 26,500 of these people are inadequately housed. (Patterson et al., 2008). These studies all investigated the health savings realized by providing stable, subsidized housing to people with mental illness and/or problematic substance use. These studies also provided strong evidence of the impact on housing and health.

Supported Housing

The literature that was reviewed in preparation for the design of this study suggested that providing supported housing may result in an overall cost reduction in public health services. (Brown et al. 1991;Frankish et al. 2005; Hope, 2005; Hwang et al. 2003;Kirsh et al. 2009; Kyle and Dunn, 2008; Mcdonald et al.2009; Middelboe et al.1999; Nelson et al.2003; Nelson et al.1998; Research Alliance for Canadian Homelessness, Housing and Health, 2010; Rog, 2004; Rog and Randolph, 2002; Shaw, 2004; Swarbrick, 2009; Tabol et al.2009; Walker and Seasons, 2002). One body of research compared providing housing alone with those programs which provided supports such as on-site staffing and integrated mental health and addiction services, and established the financial benefits of this approach to housing (Hope, 2005, p.40)

The relationship between housing and health is complex, and numerous studies have investigated the many aspects of housing for single adults living with a mental illness and/or problematic substance use (Carter & Polevychuk, 2004; Jones, 2008). Several reports and studies have established wide-spread consensus on the type of housing needed for chronically ill individuals.(Kirsh et al., 2009; Kyle and Dunn, 2008; Mcdonald et al. 2009; Research Alliance for Canadian Homelessness, Housing and Health, 2010; Swarbrick, 2009).These studies suggest that providing supported housing may result in an overall cost avoidance of public health services. Additionally, housing with supports can "*increase housing stability,*

decrease homelessness and decrease the frequency and duration of hospitalizations" (Patterson et al.2008, p.10). A contributing factor to the development of a supported housing approach by provincial governments was the recognition of an increase in homelessness as a result of deinstitutionalization for people with living with mental illness. The supported housing model was developed to help residents successfully live in the community with local supports provided by community mental health.

There is a lack of clarity with regard to the terms "supported housing" or "supportive housing". While some studies use the terms interchangeably, many others use the terms to refer to different approaches to providing housing support. In British Columbia supported housing is defined as "*housing that integrates long-term housing units with on-site support services that are available to residents of the housing project". (*Ministry of Community and Rural Development and Ministry of Housing and Social Development). This is the definition I used for this study.

Supported housing tenants may be more likely to be food insecure due to other factors besides poverty. In many supportive housing projects food security considerations were not included in the planning. For example, some units have no fridge, stove or even a hotplate and often there are no insect and rodent proof storage facilities.

Food security and housing have now been recognized in Canada as social determinants of health. There has been little research that links housing and food security to overall health. There is abundant research however, to suggest that housing positively influences health status and a few studies have found a correlation between food insecurity and unstable housing (Basu, A, et.al. 2012; Blanch, A.K. et al. 1998; Brown, M.A. et al. 1991; Dunn, J.R. (2002; Dunn, J. R. et al. ;Hwang, S.W. et al.,2003). Linking food security to housing will help to identify those individuals who are at greater at nutritional risk. This study will explore the dynamics that are presently occurring in Canada and British Columbia in regards to supported housing. Part of the literature review for this study was searching the history of social housing in Canada and British Columbia. In order to determine the strengths and gaps in the research, a review of the literature focusing on tenants in supported housing in relation to food security was also conducted.

Issues, Problems and Challenges Related to Food Security for People in Supported Housing

The Health and Housing in Transition (HHiT) Study found that "*people who are vulnerably housed face the same severe health problems as people who are homeless*", including physical and mental health issues. (Homeless Hub Report #2, p 1) They also reported that 1 in 3 people who don't have a healthy place to live have trouble getting enough to eat including:

> *1 in 3 (33%) reported having trouble getting enough to eat*
> *1 in 4 (27%) reported not being able to get good quality food*
> *1 in 5 (22%) reported their diet is not nutritious*
> *Of the 36% who have been advised to follow special diets, only 38% actually follow them.* (Homeless Hub Report #2, p 2)

The HHiT study's definition of a healthy place to live includes more than just a roof over one's head, *"to support health, housing must be decent, stable and appropriate to its residents' needs"* (Homeless Hub #2, p 6). I classified the tenants who participated in this study of the barriers to food security as vulnerably housed because both housing projects are considered "transitional housing projects". Canada Mortgage and Housing Corporation conceptualize transitional housing as an:

> "intermediate step between emergency crisis shelter and permanent housing. It is more long-term, service-intensive and private, yet remains time-limited. It is meant to provide a safe, supportive environment where residents can overcome trauma, begin to address the issues that led to homelessness or kept them homeless, and begin to rebuild their support network" (CMHC Research Highlight, February 2004), p 2).

I argue that individuals living in supported housing that is transitional are not adequately housed and although they have a roof over their head they still may not be able to access the food needed for a healthy diet. Improving food security for these tenants involves a continuum involving providing emergency food on the one end, to providing programing for food skills building, as well as access to healthy food within the housing community at the other end.

In summary, research and current monitoring provides an understanding of the associated health impacts at the individual level. I argue that individual food security is also an important public health issue as it aims to address matters that impact both the general population and vulnerable groups. I further argue that without consistent economic access to sufficient amounts of nutritious food, healthy eating cannot be achieved by single adult tenants

living in supported housing. Access to food resources to provide a regular healthy diet can be a key component of managing mental illness and/ or chronic illness. Furthermore, the studies that were reviewed showed that a regular healthy diet can be a key component of managing mental illness and/or problematic substance use and is an important aspect of any healthy lifestyle. Therefore, as food security and housing have been recognized as determinants of health in Canada, individuals with a mental illness and/or problematic substance use need to have equal access to safe, affordable housing and options for a healthy diet.

Theoretical Framework and Research Methodology

This study was conducted to determine the barriers faced in achieving food security for people living in supported housing projects in an urban and a rural community on Vancouver Island. These barriers were identified using a constructivist theoretical framework applied to case study sites. I interpreted the case study data using a constructivist paradigm which states that truth is relative, that it is dependent on one's perspective and is built upon the premise of social construction or reality. The belief is that "*reality is subjective and multiple and can only be seen by the participants in the study*" (Creswell, 2007, p.21). I used a case study design informed by a constructivist perspective to answer questions about barriers to food security for tenants living in supported housing. Yin (2009) described how case studies can be used to either, "*a) predict similar results or b) predict contrasting results but for predictable reasons"* (p. 130). According to Yin "*each case should serve a specific purpose within the overall scope of inquiry*: (Yin, 1994, p.45). The phenomenon under study was the barriers to food security for the tenants of the housing projects and the resources available in their community context. The case study included two housing projects which were chosen because of their differing locations. The objectives were: (a) to examine the difference in the level of food security for participants located in an urban versus a rural location; (b) to examine the barriers to food access experienced by the participants; and (c) to examine the impact these barriers have on the participants. Each housing project was considered a case so I was able to (a) explore differences within and between cases; (b) analyze data within each setting and across settings; and (c) examine the similarities and differences between the cases. Case study research is "a *qualitative approach in which the investigator explores multiple bounded systems (cases) through detailed, in-depth data collection involving multiple sources of information*" (Creswell, 2007, p.73). Using a case study design, as described by Yin (1994) I

employed focus groups, community mapping and one-on-one interviews to achieve the purpose and objectives.

Conclusion

Tenants in supported housing have been isolated and ostracized from expressing their political voice due to the ideological strategy that views them as “others”. Allowing tenants in supported housing to voice their concerns, identify barriers that they experience and strive towards overcoming them will allow them to become equal partners in any social interactions. If we truly are a country who believes in human rights for all citizens, then we must adopt social justice theories that allow equal access to all citizens, regardless of their personal circumstances. This will require housing operators to broaden their scope of the meaning of social interaction and housing providers will need to determine the levels of food insecurity for tenants and create interventions to raise the levels of food security. One of the ways to support these interventions is by having food security principles integrated into social housing policies. These policies will provide the opportunity for realistic interventions that can reduce the barriers that tenants in supported housing face.

Dissertation Overview

In this chapter of the dissertation, I provided background information on initiatives in public health service and housing, my rationale for the use of a social justice perspective underpinning a community-based research approach and introduced the research problem, purpose and objectives. In chapter 2, I will outline the literature on food security and housing, describe the context of food security in supported housing and provide an overview of social housing in Canada. In chapter 3, you will find the detailed theoretical framework for this study, the methodological approach of explanatory case study, and data collection details. I present the research findings in Chapter 4. In Chapter 5, the discussion highlights the themes from the findings and presents the recommendations for the integration of food services and programs within supported housing projects. The research questions are answered and limitations and recommendations for future research are presented.

Chapter 2 – Literature Review

Introduction

In this chapter, I outline the literature on food security and provide an overview of social and supported housing in Canada and British Columbia. I focus on the history of social housing in Canada to provide a context for studying food security among tenants in the two supported housing projects. I start the chapter with a discussion of the approach used to the literature review and the several searches that were done. I then provide the working definitions of key terms and concepts that were used in this research. Reviewing the literature highlighted a clear gap in information and the need for the research on the integration of food services and programs within supported housing.

In order to determine the strengths and gaps in the research, a review of the literature focusing on tenants in supported housing in relation to food security was conducted. A literature review is an important component of any research study as it can provide the background for the topic and give justification for the research study. A literature review can also have the purpose of demonstrating the underlying assumptions behind the proposed research question and identify any research gaps that the proposed study can fill.

The ultimate purpose of this investigation is to provide accurate information about the barriers faced by tenants living in social housing. This information will be beneficial in order to develop coherent policies to improve food security for the tenants. This study will also produce new information for use in the coordinated planning and evaluation of housing and food security by providing practical policy advice to decision makers to improve the food security, social capital and health of the residents of social housing.

Personal Perspectives

Before undertaking a literature search, it was important to me to understand how my working experience has affected my personal perspectives and ideology. I have worked in the non-profit human service field for fifty years in a variety of settings. My early career involved working with children, youth and families. For the past eighteen years, my work has been with individuals with mental health and addiction concerns as well as physical disabilities wo live in supported housing. Until a year ago, my primary role was to provide the support they needed. Presentl7, I manage an 82 unit low-income supportive seniors' housing project.

On behalf of the non-profit organization that I work for, I have played an active role in many issues related to the issue of supported, affordable housing in my community, such as consulting and lobbying various levels of government, participating in public forums and liaising with a variety of interested community groups.

During my last eighteen years, in particular, I have had questions about the food insecurity of the tenants in the various housing projects I have worked in. Like most people, once stable housing is found a tenants' health was next most affected by their access to nutritious food. After asking many questions of the many different tenants over many years regarding food security issues I had a lot of informal information and a lot of questions. Also, all the projects I have worked on have been in an urban setting and I was interested to know if there were differences for people in rural settings from those of urban tenants. I undertook a doctoral program to be able to research and find answers to these questions using an academic approach.

Methods Used to Conduct the Literature Search

An initial literature search was completed, using major social sciences, health, and humanities databases, including the Humanities Index, JSTOR, Social Sciences Index and ERIC. Keywords used in the searches included the following: food security; food insecurity; social housing; supported housing; formerly homeless and chronically ill, single adults and social justice. A second literature search sought out examples of literature from government, advocacy and service websites. I included grey literature because many important sources of information are found in reports from governments and community agencies, which are not included in the peer-reviewed academic literature. Grey material was identified through extensive Google searches using the search terms identified above Papers and key reference documents were consulted including reports by the Provincial Health Services Authority, the Health Officers Council of BC; the Dietitians of Canada; and Food Banks Canada. In addition, federal agency websites such as Health Canada, Human Resources and Development Canada, Statistics Canada and the National Collaborating Center for Determinants of Health were searched. Canadian literature was the target but papers from international sources were also included for comparison and to provide additional information. For example the Food and Agricultural Organization of the United Nations website provided definitions and information on food security.

Books were also identified by a search of the University of Victoria library system References suggested by the reviews of the original papers were also included. A final search of the University of Victoria library database was conducted using the above noted key words for thesis and dissertation abstracts.

All the literature was reviewed to identify emerging themes and identify any gaps in the current research literature.

In the following section I will describe the literature I reviewed on social and supported housing in Canada; British Columbia housing policy; chronic illness and food security; income related food security and the integration of food security programs and services into supported housing.

Social Housing in Canada

The history of social housing which led to the development of supported housing in Canada provides a political and economic context within which the two supported housing projects are situated. In the next section I will review both federal and provincial housing policy in Canada.

Federal Housing Policy

The literature, I reviewed for this study, showed that it is virtually impossible to lead a healthy life without a place to call home. Housing is a multi-faceted concept that includes the physical structure and design of a house, the social and "*psychological features associated with a home; and additionally the physical, social and civic characteristics of neighbourhoods" (Moloughney, 2004, p. 1).* Carter & Polevychok (2004) provided a link between housing and other social policy initiatives, illustrating the role that housing plays plays as "*a stabilizing factor linked to overall quality of life*" (Carter and Polevychuk, 2004, p.. 31). Figure Two shows the link between housing and other determinants of health.

Figure Two: Connection Between Housing and Other Social Determinants of Health

- Adapted from Carter and Polevychok, 2004

This figure illustrates "*that home is a base that is integral to people's emotional, cultural, social and economic health"* (Carter and Polevychok, 2004, p.1). Socioeconomic factors embedded in everyday life are widely acknowledged to be important determinants of health, and housing is "*a critical nexus for the operation of a wide range of socio-economic factors that fundamentally shape the character of everyday life for people across the socioeconomic spectrum* (Dunn et al. 2006, p.S11).

Housing policy in Canada has undergone many changes in recent decades. Beginning in 1945, Canada had a relatively well-developed series of income-support housing programs designed to meet the needs of returning veterans and those less advantaged through a number of income-support housing programs. In1993, the federal government withdrew from financing social housing with the responsibility for housing falling to the provinces (Carter & Polevychok, 2004; Vreeland, 2007). There has not been a stand-alone housing ministry in Canada since the 1990s and different cabinet ministers have had housing as a responsibility stated in their job titles. I argue that this lack of policy direction set the conditions for a lack of affordable housing to emerge in Canada, resulting in more people living in expensive or inadequate housing. The growth in demand for core housing is far outstripping the growth in

supply and the number of people in need continues to escalate. For example, statistics from 2006 show that almost "*13% of Canadian households live in inadequate, unsuitable or unaffordable accommodations – either housing that is in need of major repairs, too small given family size or unaffordable given income levels".* (HRSDC, 2012, Chapter 1, p. 1). Similarly, 5.3% of tenants spend more than 50% of their income on rent and are consequently at a very high risk of becoming homeless. Canada Mortgage and Housing Corporation define "core" housing need: as:

> "*households that live in housing that is inadequate, unsuitable or unaffordable. Adequate housing is housing that is not in need of major repair. Suitable housing is housing that is not crowded, meaning that the number of bedrooms meet the National Occupancy Standard. Affordable Housing means that housing costs no more that 30% of household Income.*
> (CMHS, 2009, Table 15)

When the federal government reduced its involvement in administering housing programs and encouraged partnerships with third-sector organizations. The lack of a nationally directed housing policy created a new model of housing. This model became known as "social housing". Creating a greater reliance on the private sector to provide market housing that is not supported by government funding. In the social housing model the government enters into a partnership with a non-profit organization as the principal means to develop and administer affordable housing. The majority of these housing units are geared to families with low and moderate incomes, and housing providers receive a subsidy from the provincial government. The new partnership arrangement created two distinct housing models – co-operatives and non-profits. Non-profit housing organizations or societies are owned and administered by groups such as churches, services clubs, seniors organizations, unions and ethno-cultural groups and some municipal governments or their designates. Co-operatives are privately owned and managed by the residents of the co-operative. I argue that the government's intention for this change was to encourage the involvement of the private sector to fund the expense for social housing.

In 2001, the Affordable Housing Initiative (AHI) was introduced by the federal government to improve the provision of social housing in Canada. The AHI was rolled out in two phases. The goal of the first phase was to create new rental housing and renovate existing housing stock. I argue that the first phase of AHI led to fragmented implementation of social housing projects across Canada, as there is a significant degree of divergence in the

kind of housing being built and the target populations receiving priority for housing supports. Phase Two of the AHI provided additional funding for housing targeted to low-income households in communities where there was a significant need for affordable housing. While a number of seniors housing projects, under Phase Two, have been built since 2004, other objectives in social housing have received less attention. This has resulted in Canadian cities witnessing a housing crisis due to the unaffordability and shortage of rental accommodations ultimately resulting in increasing numbers of homeless people (Gaetz, s. et al., 2013). As of 2007, HSRDC reported that "*an estimated 300,000 people in Canada live in homeless shelters or on the streets"* (HRSDC, 2012, Highlights).

Research has also shown that lack of adequate, affordable housing is a key factor in the growth of homelessness (Brown et al., 1991; Dunn, 2002; Frankish et al., 2005; Guirguis et al., 2014; Pauly et al., 2012; Canadian Homelessness, Housing, and Health Research Alliance, 2010). Additionally, the rise of homelessness has also been "*linked to the declining supply of mental health facilities*" (CIHI, 2007, p. 9). Since the 1970s, "*deinstitutionalization has been the main focus of mental health policies in provinces across Canada*" (Kirby and Keon 2006, p. 74). The main objective of deinstitutionalization has been to move people with persistent mental illness from psychiatric institutions into the community. Unfortunately, without a directive to develop community services to replace institutional ones, "*a substantial number of people live in extreme poverty and are either homeless or at constant risk of becoming homeless*" (Kirby and Keon, 2006, p. 78).

A contributing factor in the development of a supported housing approach by provincial governments was the recognition of homelessness as a significant social problem, particularly for people with a mental illness. In order to prevent and reduce homelessness in Canada, the Homelessness Partnering Strategy (HPS) was initiated in April 2009 by the federal government to allow community organizations, provinces, and territories to focus on providing transitional housing for the homeless *(*HRSDC, 2011). The supported housing model was developed to help residents successfully live in the community with local supports provided by community mental health workers. The original intention of this housing model, known as "transitional housing" was for individuals to live in housing units until they were ready to live independently in market housing. However, without clear criteria for boosting the supply of long-term, permanent housing, people who are in need of such housing will continue to be vulnerable to

homelessness. Funding for this type of housing must come from either provincial ministries or non-governmental organizations and the coordination and funding necessary for these supports does not always exist, or is not adequate to meet the need, resulting in a gap in support services. Additionally, people are living in transitional housing for longer periods of time than originally intended because there is no community housing for them to transition into.

Supported Housing in Canada

Housing is considered a determinant of health in Canada and there is a growing body of evidence that housing circumstances affect the physical and mental health of individuals (Dunn, 2002; Mikkonen& Raphael, 2010; Moloughney, 2004; Patterson et al., 2008; PHAC, 2003 Service Canada, 2010). There are many studies on housing for people with mental illness and problematic substance use in relation to health and well-being (Bottomley & McKeown, 2008; Colton & Manderschield, 2006; Citrome et al., 2005; DeHart et al., 2011, Drewnowski, 2004; Hwang et al., 2011; Kyle & Dunn, 2008; Osborn, 2000; Siefert et al., 2004; Vreeland, 2007). All of these studies concluded that the combination of housing and support is a valuable and cost-effective approach to assist people to improve their residential stability. According to Hwang, et al.(2011, p.1088) "r*esidential stability can be maintained at high rates among individuals who are homeless or vulnerably housed, even if poor physical and mental health status and substance use issues are present*".

A number of studies on housing for people with mental illness and problematic substance use clearly show that stable housing has a major effect on an individual's health and well-being. Starting in the 1980s and 1990s, there was increased literature that focused on the "homeless mentally ill" (Brown et al. 1991; Middelboe et al. 1990; Nelson et al. 1998). Research began to focus on various housing models with considerable attention to housing plus supports. Comparisons of the models that provided housing alone with those providing supports were explored (Hwang et al. 2003; Nelson et al. 2003; Rog, 2004). Later studies of the cost effectiveness of supported housing established the financial wisdom of those approaches in comparison to community health service use costs. (Frankish et al. 2005; Hope, 2005; Tabol et al. 2009). A multitude of reports and studies over the past twenty years have established widespread consensus on the type of housing needed for chronically ill individuals.(Kirsh et al., 2009; Kyle and Dunn, 2008; Mcdonald et al. 2009; Research Alliance for Canadian Homelessness, Housing and Health, 2010; Swarbrick, 2009). All these studies

suggest that providing supported housing may result in an overall cost avoidance of public health services. Additionally, housing with supports can "*increase housing stability, decrease homelessness and decrease the frequency and duration of hospitalizations*" (Patterson et al.2008, p.10). According to the Canadian Policy Research Network in its report Housing is Good Social Policy the cost of not providing appropriate housing far exceeds the cost of doing so. A study by Lubell et al suggested that:

> *affordable housing improves health outcomes by : freeing up resources for nutritious food and other essentials, reducing stress, exposure to allergens, neurotoxins and other dangers, and providing stability enabling patients with chronic diseases to access and maintain the level of care they need" (Lubell, 2007, p 1-3).*

BC Housing Policy

The British Columbia Housing Management Commission (BC Housing) is the provincial crown agency that develops, manages and administers all subsidized housing options in the province. All social housing in BC includes some form of subsidization and is directly managed by BC Housing or operated by non-profit societies and co-operative housing providers. BC Housing (2006) defines subsidized housing as all types of housing whereby the provincial government provides some type of subsidy or rent assistance.

In 2004, the Premier's Task Force on Homelessness, Mental Health and Addictions brought together representatives from the provincial and municipal governments to help people with addictions and mental illnesses move from temporary shelters to long-term, stable housing. This Task Force led to the creation of the Provincial Homelessness Initiative (PHI) with the mandate "*to establish a framework for an integrated comprehensive program to tackle the challenges of mental illness, homelessness and addiction in communities*" (BC Housing, Policy Statement). The PHI has resulted in a shift in social housing policy to a model which provides funding for housing for people who are homeless, but resulted in no other social housing being built in the province since 2004.

The province developed Housing Matters BC as "*a comprehensive strategy for reducing homelessness and ensuring British Columbians have access to safe and affordable housing"* (BC Housing, 2009, p.4.). The six strategies are: a) the homeless have access to stable housing with integrated support services, b) BC's most vulnerable citizens receive priority for assistance, c) aboriginal housing need is addressed, d) low-income households have improved

access to affordable rental housing, e) homeownership is supported as an avenue to self-sufficiency, and f) BC's housing and building regulatory system is safe, stable and efficient. Although these six strategies address the full housing continuum, the main focus is on ensuring those most in need of help have improved access to housing and supports, resulting in funding only for "Transitional" housing. I argue that without providing funding for permanent subsidized housing, the transitional housing model does not allow for individuals who have become stable to have access to affordable community rental housing.

The Federal government's *Homeless Partnering Strategy (*HPS*),* Phase 1 (1999-2001) provided $1.3 million to Vancouver Island projects and Phase 2 (2003-2006) provided another $1.72 million but the federal HPS funding can only be delivered to homelessness projects in line with the priorities identified by Community Advisory Boards (CABs). In the urban community selected for this study, the CAB will only recommend proposals for funding that are based on the priorities established in the Community Plan to Reduce Homelessness. In March 2007, the urban community CAB held a strategic planning session to identify funding priorities through the HPS and this group determined that HPI funds would most impact the situation if used to provide:

- safe, affordable, transitional, supportive and rental housing for homeless/at-risk men, women and their families
- support programs that assist people in finding and maintaining housing
- culturally appropriate supportive emergency shelter and support services for Aboriginal youth

The provincial *Homelessness Intervention Project* (HIP) was launched in 2009 in British Columbia to reduce homelessness and began with five communities. The Provincial Homeless Initiative (PHI) is part of BC's HIP and resulted in a shift to a Housing First model to provide stabilization for people with barriers to housing. All of the new housing projects were classified as low-barrier, transitional housing, and although people had a bed to sleep in, I argue that the lack of planning for long-term permanent housing options resulted in people being inadequately housed.

Housing First Model

The Housing First approach was first popularized by Sam Tsemberis and Pathways to Housing in New York in the 1990s. Housing first is a "*recovery-oriented approach to ending homelessness that centers on quickly moving people experiencing homelessness into*

independent and permanent housing and then providing additional supports and services as needed" (Homeless Hub, 2015). The five core principles of the Housing first Model are: a) immediate access to permanent housing with no housing readiness requirements; b) consumer choice and self-determination; c) recovery orientation; d) individualized and client-driven support; and e) social and community integration. While the Housing first model has been adopted in British Columbia there is considerable variation in how the model has been applied. I argue that while the core principles have been applied there is not a clear understanding of the philosophy of the Pathways model that prioritized the use of scatter-site housing, which involves renting units in independent private rental markets. As a philosophy, Housing First would be the guiding principle for an organization or community to prioritize getting people into permanent housing with supports to follow. Housing first involves three kinds of support: a) housing supports to help people obtain and maintain their housing; b) clinical supports including a range of supports designed to enhance the health, mental health and social care of the client; and c) complementary support to help individuals to improve their quality of life, integration into the community and potentially achieve self-sufficiency. I argue that the pressure for communities to adopt a Housing First Model, involving only transitional housing units does not fit with the core principles of the Housing First Model. The result of this change in housing policy has resulted in people now living in "transitional housing" for a longer period of time than was originally envisioned because they are unable to find a market rental accommodation that is affordable on a fixed income. There is a housing storage in Canada and partnerships have not been developed with private landlords, nor has the use of rent supplements to increase affordability in the private market been established. I argue that the use of rent supplements is a key to ensuring that people are able to move out of transitional housing into market housing. I further argue that linking food security services and programs would be a necessary component of a housing first model.

The rural supported housing project, chosen for this study, is an example of a housing first project. The project was the result of a partnership between the province, Island Health Authority (IHA) and a non-profit community organization. The province provided a capital grant through the Provincial Homelessness Initiative (PHI) for the purchase and renovation of an old apartment building. IHA provides ongoing operational funding and the non-profit society provides the support services that include an on-site support worker, referrals to mental health

and addiction services and other community-based programs and advocacy. Although this project is considered a housing first project it is also considered as “transitional” housing. I argue that because some tenants have lived in the units for more than five years, because they are unable to find other affordable accommodation in the community, this project is neither a housing first nor a transitional model of housing.

The literature, I reviewed for this study, showed that it is virtually impossible to lead a healthy life without a place to call home. In British Columbia, it appears the philosophy is to get people into transitional housing with support provided by an outside integrated system of service delivery. Therefore a key principle of Housing First, which is consumer choice and self-determination, is missing.

Chronic Illness and Food Insecurity

The intent of this literature review was to provide information on the connection between housing, food security and health. Understanding the connection may reinforce the need for the integration of food services and programs within supported housing. The issues investigated in this review are nutrition, chronic illness and supported housing and health.

A total of 100 peer-reviewed articles and government reports were reviewed, 39 on food security, chronic illness and nutrition; 18 on income related food insecurity; 37 on supported housing and health; and 6 on integrating food security into supported housing. Through the literature review characteristics of food security were identified and categorized into four themes: i) chronic illness and food insecurity, ii) income related food security, iii) supported housing and health, and iv) food security integrated into supported housing.

A major theme was the empirical evidence of the linkage between food insecurity, nutrition and health (Bocskei and Ostry, 2010; Health Canada, 2009; James et al. 1997; Kirkpatrick and Tarasuk, 2007; Maxwell, 1996; Oliver et al. 2000; Renzaho and Mellor, 2010; Vozoris and Tarasuk, 2003). There are a number of plausible biological mechanisms whereby food insecurity and inadequate nutrition lead to poor health. Malnutrition exacerbates disease, increases disability, decreases resistance to infection, and extends hospital stays. Some reports suggest that stress and anxiety, which accompany food insecurity, induce high blood pressure and produce hormonal imbalances and these, together with additional factors, can stimulate weight gain, obesity and insulin insensitivity (Stuff, et. al. 2004). Once diagnosed, the management of some illnesses require a diet low in salt and high in vegetables, fruit and whole

grains. The insufficient consumption of fruits and vegetables can put these individuals at an even greater risk for negative health outcomes.Poorly nourished individuals are "*usually less resistant to infections, tend to heal more slowly, have more diseases and longer hospital stays and incur higher health care costs".* (Che and Chen, 2000, p.11).

The literature I reviewed showed that food insecurity is associated with nutritionally deficient diets, which are low in fruits and vegetables (Block et al. 2000) as well as diets high in fats and calories. (Dietitians of Canada 2005; Power 2005; Kendall et al. 1996; Dietz, 1995). Some studies showed that individuals experiencing food insecurity are more likely to report poor or fair self-rated health, poor functional health, restricted activity and multiple chronic conditions (Che & Chen, 2001; Vozoris & Tarasuk, 2003. For example, Davis and Tarasuk conducted a study in Toronto that concluded that household food insecurity was associated with the consumption of poorer quality diets. Specifically, "*participants self-reported a systematically lower nutrient intake and consumption of fewer servings of milk products, fruits and vegetables, and in some cases, meat and meat alternatives*" (Davis and Tarasuk, 1994, p 55).

Most of these studies examined the impact of food insecurity on health and provided strong evidence of the links between food insecurity and a range of health outcomes, and provided an understanding of the associated health impacts of food insecurity for tenants living in supported housing. Therefore, I will now provide some findings from these studies in regard to obesity; diabetes, and special considerations for individuals living with a mental illness and/or problematic substance use, including the use of tobacco and alcohol.

Obesity

A possible mechanism to explain the association of food insecurity with obesity is that foods that are inexpensive and easily accessible tend to have a higher calorie count and low nutritional value. (Parker, et al., 2010). The Public Health Services Association reported that food insecurity is associated with being overweight and obese ((PHSA, 2010). Through the years of my employment, I have observed, that individuals living in supported housing tend to buy cheaper, calorically dense foods or low nutritional value. For the tenants, they foods may seem attractive because they are inexpensive, convenient, have long shelf lives and are more readily available in comparison to healthier foods. One explanation for these poor quality diets was presented by Drewnowski and Specter, who hypothesized that *"there is an inverse*

*relation between high calorie foods composed of refined grains, added sugar, or fats, which are highly palatable, and the low cost-option" (*Drewnowski and Specter 2004, p.6). As well, tenants in supported housing often face periods when food is easily accessible and times when food is scarce. Some research has shown food-insecure people are more likely to binge eat or choose higher calorie foods when food is available (Kendall, et al 1996: Dietz 1995).

Additionally having a diagnosed mental illness can contribute to the risk of obesity for a number of reasons including *" apathy and reduced motivation to address weight gain; psychotropic medications side effects; a diet that is higher in fat and lower in fiber; reliance on snacks and convenience foods; and a lack of regular exercise*". (Osburn 2001, p. 331).

A study by Citrome et al. reported the following key points:

a) *The seriously mentally ill patient may fundamentally be at higher risk for metabolic problems;*
b) *second-generation antipsychotic medications have been associated with an increase in weight gain;*
c) *second-generation antipsychotic agents have a more favorable weight-gain profi*le. (Citrome et al., 2005, p 714)

. *Diabetes*

Food insecurity has been identified as a barrier to successful diabetes self-management. (Seligman et al., 2010). Parker, et al., 2010 provided an explanation for the association between food insecurity and the metabolic syndrome, stating it may be that individuals living in food insecure households do not necessarily experience food shortage at all times. Stuff et al reported that food insecurity has been identified as a barrier to successful diabetes self-management because inadequate nutrition. *"can stimulate weight gain, obesity and insulin insensitivity*". (Stuff et al. et al.,2000, p.2333). A US review found that food insecure people with diabetes were 40 per cent more likely to have poor glycemic control and almost twice as likely to have hypo glycaemia (Seligman et al., 2010). Food insecure people with diabetes have also reported skipping their medication in order to have enough money for food, or going hungry to afford medication (Seligman, 2010). A Canadian study found that people with diabetes who were food insecure were more likely to have unhealthy behaviours (e.g. poor diet, physical inactivity and smoking); psychological stress, and poorer physical health (Gucciardi et al., 2009). Some research has shown food-insecure people are more likely to binge eat or choose higher calorie foods when food is available (Kendall, et al 1996) (Dietz

,1995). Some housing providers and advocates for the poor have hypothesized that the structure of the BC government income assistance program may create a “food insecurity cycle” This is a four week cycle where individuals receive a monthly assistance cheque in week one they overeat that week, followed by three weeks of food insecurity. During the three week cycle, individuals often reduce food intake or substitute inexpensive, calorie high carbohydrates for healthier foods. Increased consumption of these inexpensive food alternatives put individuals at greater risk for negative health outcomes.

Mental Illness and/or Problematic Substance Use

Food insecurity can be particularly problematic for individuals living with a mental illness or problematic substance use. These individuals tend to suffer from micro and macronutrient deficiencies which contribute to higher rates of morbidity and mortality.

Persons with a serious mental illness or problematic substance use are more likely to have other medical conditions. For example, some individuals may suffer the consequences from the over-consumption of calories and fat, which can result in diseases such as diabetes and hypertension. Antipsychotic drugs have been associated with the development of obesity and metabolic disturbances (Correll, et al.,2006 Davis and Rosenbloom 2006, Seligam et al., 2010)). There is a relationship between bipolar disorder and eating disorders, which may result in under nutrition. The co-occurrence of bipolar disorder with eating disorders is important psychiatric co morbidity (McElroy, et al., 2005). Research conducted by Seligam et al, showed that prolonged use of medication to treat psychiatric disorders can be a risk factor for physical illness, in particular diabetes (Seligam . et al, 2010). Hamelin and Hamel found that people who were food insecure had a higher risk of suffering from depression or an emotional disorder (Hamelin and Hamel, 2009). Heavy alcohol and other problematic substance users have distorted eating behavior that predisposes them to eating disorders. Many people with heavy alcohol use are malnourished since alcohol and its metabolism prevents the body from properly absorbing, digesting and using nutrients (Virmani, et al., 2006).

The issues of nutrition and mental illness and/or problematic substance use can be approached from two different perspectives - (a) nutrition can affect mental health in terms of development or exacerbation of mental health symptoms and (b) people with a mental illness and/or problematic substance use may be more likely to neglect nutrition as a direct result of

their situation. The inability to secure adequate amounts of food among adults with a “poor to fair” self-rated health status has been shown to be associated with physical limitations, poorer functional health and depression (Holben, et al., 2004). Some studies have shown that there is a relationship between bipolar disorder and eating disorders, which may result in under nutrition (McElroy, et al.,2005). The use of substances can weaken the immune system and some individuals can have distorted eating behaviors because of anorexia or changes in dietary patterns which can affect the quality or types of food consumed (*S*okal, et. al., 2004). Some studies have shown that chronic food restriction increases the systemic self-administration of non-prescription drugs (Cabeza De Vaca and Carr, 1998).

Tobacco and Alcohol

My observations from daily one-on-one interactions with tenants in a variety of supported housing settings indicated that tobacco and alcohol are examples of substances that the tenants use on a regular basis for recreational purposes. Numerous researchers have studied the health risks associated with tobacco and alcohol use.(Kalman et al., 2010;Bagnard et al., 2001; Talamiuni et al., 1998;Pelicchi et al., 2006; Castellsague et al., 1990; Zheng et al., 2004; Hurt et al., 1996; Gariballa & Forster, 2009; Palaniappan et al., 2001; Subar et al., 1990; Parker et al., 2012El-Guebaly, et al., 2002; Olivier at al., 2007; Lawn & Pols, 2002; Taylor et al., 2009). Research has also shown that people living with mental illness and/or problematic substance use are expected to die on average twenty-five years earlier than the general population (Colton & Manderschied, 2006; Parks et al, 2006; Rehm & Room, 2001; Single et al., 2002; McCarrick et al., 1986; Vreeland, 2007

Periodontal Disease

Saini et al., correlated studies done on the impact of drugs such as alcohol, tobacco and street drugs on periodontal health. Periodontal disease is characterized by *“inflammation of tooth supporting tissues and the main etiological agent is dental plaque”* (Saini et al., 2013, p 588). The use of substances can have consequences on oral health such as movement disorder; twisted mouth; large carious lesions; acidic erosion of enamel; increased risk for oral cancer, as well as decayed and missing teeth. Some people had a high rate of “*plaque accumulation and calculus deposits resulting from oral hygiene neglect and lack of dental care*” (Molendijk et al., 1996). Another factor associated with the development of periodontitis is nutritional impairment. People with problematic substance use have an erratic and irregular

eating pattern which leads to "*gingival and periodontal diseases, causing reduced body mass index, and mid-arm muscle circumference"* (Harris et al., 1996). A later study by Harris et al. (1997) found that 21% of people with heavy alcohol use alcoholics were malnourished. These studies have shown that problematic substance use has an impact on substance users neglect their oral hygiene, nutrition and systemic health which are directly related to dental and periodontal diseases.

Summary of Chronic Illness and Food Insecurity

The relationship between food insecurity and chronic health issues provides evidence of the importance of nutrition to prevent and reduce the consequences of chronic health issues. Tenants in supported housing are members of food insecure households who are at an increased risk for poor nutritional status and negative health outcomes. Access to food resources to provide a regular healthy diet can be a key component of managing mental illness and/or problematic substance use and is an important aspect of any healthy lifestyle**.** Research on locations where there is widespread implementation of multi-strategy, integrated nutrition interventions have shown that risk factors have been dramatically reduced. (Klesges et al. 2001;Seligman, et. al.2007; Seligman et al. 2010).

Many authors argued that food insecurity should be considered an essential part of traditional dietary assessments and is a matter of public health concern worthy of monitoring in its own right (Bottomley and McKeown, 2008; Citrome et al. 2005; Gucciardi et al. 2009). Food security is a critical part of any treatment plan for chronically ill, single adults, living in supported housing.

Income- Related Food Insecurity

The second major theme within the literature was evidence on income-related food insecurity (French, 2003; Ostry, 2010; Power, 2005; Statistics Canada, 2010; Vozoris et al. 2002). The evidence suggests that low income is the single greatest predictor of food insecurity and resource deprivation. Resource deprivation is a lack of financial and/or social resources and is the most important influence on the duration and severity of food insecurity. Research has also shown that income greatly impacts food accessessibility, which in turn influences food consumption, especially of nutritious food required to keep healthy (Vozoris et al., 2002; Riches, 1986; Kirkpatrick & Tarasuk, 2007; Williams, et al., 2006; Tarasuk & McIntrye, 1980; Kirkpatrick & Tarasuk, 2007). Individuals who have limitied physical and

economic access to safe, nutritious and personally acceptable food are defined as food insecure. People in low-income groups most vulnerable to food insecurity include those receiving social assistance and people with mental illness and/or problematic substance use. The association between poverty and food insecurity has been well documented and many researchers have noted that individuals relying on government income assistance and living in social housing are not protected from the experience of food insecurity. (Che and Chen, 2000; Davis and Tarasuk, 994). For example, according to Statistics Canada (2010) people in households relying on social assistance were at much greater risk of experiencing food insecurity than those in households depending on other income sources.

Food insecurity tends to follow a predictable sequence from worrying about not having enough money to buy food, to compromising the quality, and then to reducing the quantity of food. Thus, food insecurity is comprised of a sequence of events, "*where the individual must manage periods of food shortage by relying upon charitable organizations or going without food*". (Hamelin et al. 2002, p. 10). In managing food insecurity each individual will experience different components of food insecurity at different times and in varying degrees. Some housing providers and advocates for the poor have hypothesized that the structure of the BC government income assistance program may create a "food insecurity cycle". This is a four week cycle where individuals receive a monthly assistance cheque in week one, they overeat that week, followed by two weeks of food insecurity, ending with a week with little or no food. During the three week cycle, individuals often reduce food intake or substitute inexpensive, calorie high carbohydrates for healthier foods. Wolfe et al. (1998, p.341) described this cycle as a "*pathway of progressive severity rather than a dichotomy between being food secure and food insecurity*". When lack of food is due to irregularity and insecurity of income," *the resulting coping strategies are ad hoc during the periods of food shortage rather than consistent and stable".* (Tarasuk and Davis, 1996, p.53). The price for vegetables and fruits relative to fats and sweets suggests that the ability to adopt more healthful diets may be limited by low income, even though low calorie foods are associated with better health outcomes. Studies have shown that the diets of the poor are " *low in dairy products and produce, high in saturated fats and lacking in micronutrients essential for health*". (Dietitians of Canada, BC Region, 2012; Power, 2005).

Low income households have a much higher rate of food insecurity (Cook, 2008) and the prevalence of food insecurity rises to almost 50% in the lowest income groups (Health Canada, 2007).Measures of household food insecurity are measures of the manifestations of acute financial insecurity on diet (Cook, 2008).The only national monitoring of food insecurity in Canada occurs on health surveys. There have been advances in the development of direct indicators to measure household food insecurity at a population level. In 1991, the National Health Information Council recommended that ongoing surveys of population health be conducted. This recommendation was based on the consideration of economic pressures on the health care systems and the requirement for information with which to improve the health status of the population in Canada. Commencing in 1992, Statistics Canada received funding for the development of a National Population Health Survey (Statistics Canada, 2010). The Canadian Community Health Survey (CCHS) initiative began in 2000. Its main goal was the provision of population-level information on health determinants, health status and health system utilization. Food and nutrition-related modules, including food insecurity and fruit and vegetable consumption have been included in the content of CCHS. In 2004, nutrition was the topic of the specific health focus on the CCHS – Cycle 2.2, Nutrition Survey. This survey provided information, at the national and provincial levels, on such topics as food intake, food groups, eating patterns and household food insecurity. Using information from the CCHS annual component and the CCHS 2.2, Nutrition, a number of resources that report on the nutrition health and well-being of Canadians have been developed.

One example of these resources is the National Food Basket (NFB). In 2008, Health Canada developed a revised NFB to estimate the cost of a basic nutritious diet for a variety of individuals and family groups. The Dietitians of Canada, BC Region noted in their annual 2012 cost survey of the Food Basket that "f*ood costs have risen significantly over the past decade"* (Dietitians of Canada, 2012). However, the National Food Basket (NFB) likely underestimates the cost of a basic nutritious diet consistent with recently updated nutrition requirements (Health Canada Report) and does not take into account special dietary needs, cultural preferences or include the cost of take-out or pre-packaged foods. Nor is the cost of food preparation supplies included. All of these factors can be barriers to food security for tenants in supported housing.

Another example of the resources available is the Market Basket Measure (MBM). The MBM was designed to complement the existing Statistics Canada measures of income and provides a more transparent measure of the amount of disposable income required for the purchase of a basket of goods and services. The basket of goods consists of food, shelter, clothing, footwear, transportation and other common expenses such as personal care, household needs, furniture, basic telephone service, school supplies and modest levels of reading material, recreation and entertainment. However, the lack of detail regarding single adults makes it difficult to examine the barriers to food security for this population. Furthermore, most studies determine food costs annually, but the amounts spent on food can fluctuate throughout the year for some individuals and in rural communities, seasonal variations in food availability can affect food expenditures. For low income individuals, maintaining a nutritious diet can be a significant challenge. The rate of food insecurity that has been measured in Canada is a marker of the dietary compromises that low-income tenants in supported housing have to make every day.

Although there is a clear linkage between income levels and food security, with the prevalence of food insecurity rising to almost 50% in the lowest income group (Health Canada, 2012) and some 8.4% of British Columbians have moderate or severe food insecurity (Health Canada, 2012); unlike recommended allowances for housing, at this time there is no established upper limit beyond which households are considered to be spending too much on food. People living on fixed, low income spend proportionately more on a nutritious food basket (PSHA, 2010, p. 26). As well, people living in transitional housing may also face additional barriers to food security as they have limited facilities to store, prepare and cook food and fewer opportunities to purchase food. They may also have difficulty accessing safe food or the resources to handle food safely. (Ministry of Health, 2013). The literature in this area clearly indicates that poverty is at the heart of the issue of food insecurity and access to food. Research has consistently illustrated that for food insecure Canadians *“the most important barrier to healthy eating is adequate income” (Power,1995, p, S39).*

Community charitable agencies are responding to food insecurity by offering a range of food and meal programs, including food banks and soup kitchens. Food Banks Canada’s *Hunger Count 2014* reported that 70% of households in Canada that receive social assistance are food insecure. Single adult use of food banks in Canada has doubled since 2001 and 50%

of these individuals live on social assistance benefits. Yet, while charitable food providers play an essential role in providing food, they have now become overly dependent on sourcing poor-quality, donated foods which hinders their ability to meet clients' daily nutritional health requirements. Recently, studies have raised concerns about the effectiveness of charitable responses to hunger (Riches 2002; Statistics Canada, 2009). Some of the early writings on food security in Canada cited the presence of food banks as evidence of the problem of hunger but they do not address the issue of food security. The assistance provided by food banks is largely contingent upon the quality and quantity of donations from the public and from producers, processors and retailers. Thus, as Teron and Tarasuk (1999, p. 382) suggest the "*supply-driven nature of food banks raises many questions about the quality and quantity of food available*". There are a number of studies that have found that individuals relying on charitable food (e.g. food banks and free meals) are often not adequately nourished (Irwin et al.2007, Davis et al., 2008; Tse and Tarasuk, 2008)). These studies all determined that the dietary intake of food from food banks and charitable meals are below the average requirements suggested by dietitians. Tarasuk and Loopstra identified factors that may explain the reason why not everyone who is food insecure will access a food bank. Some of these factors that are relevant to the tenant participants in this study are:

> ``*Some people make the choice not to use a food bank for reasons that include a belief that their circumstances are not bad enough to warrant asking for help, the stigma associated with food bank use, and the feeling that the food that would be received would not meet personal needs and preferences;*
> *Some people face barriers to access. These barriers may be related to distance or lack of transportation, or food bank policies (hours of service, intake procedures)*``. (Tarasuk & Loppstra, 2012)

Additionally, the occasionally unsavory atmosphere, regulations and food quality discourage those most in need from using these types of facilities (Dachner & Tarasuk, 2002, abstract) and therefore, are not alleviating hunger and malnutrition among all who require food assistance. Finally, the nutritional balance of available foods tends to be weighted towards starches and lacking in fruits and vegetables ((Victorian Order of Nurses). Tarasuk & Beaton reported the limited capacity of ad hoc, charitable food programs to respond to problems of household food insecurity which arise in the context of severe and chronic poverty" (1999,

abstract). Tarasuk & Eakin (2003) in their study of food banks in Ontario came to the conclusion that:

> "Food giving was essentially a symbolic gesture, with the distribution of food assistance dissociated from client's needs and unmet needs rendered invisible. We conclude that, structurally, food banks lack the capacity to respond to the food needs of those who seek assistance, moreover, the invisibility of unmet need in food banks provides little impetus for either community groups or government to seek solutions to this problem" (Tarasuk & Eakin, 2003, Abstract).

I argue that for the most part, these organizations cannot be expected to reliably supply their clients with sufficient calories, let alone nutritious, balanced meals. Food banks and the like can only distribute what they can obtain, and reliable systems to collect and distribute food to those who need it, when they need it, where they need it, are not in place. They are stop gap measures to address problems that stem from broader social policies, but are not solutions to food insecurity.

Summary of Income Related Food Insecurity

Most of the reviewed literature for this study showed that low income was the best indicator of food insecurity. Although poverty reduction appears to be the key tool in addressing food insecurity, poverty rates and indicators of food insecurity are not synonymous. Poverty rates do not measure the level of food insecurity or the dietary adequacy of the food purchased. The justifiable focus on poverty has eclipsed other associated or independent barriers related to food insecurity. There are a number of other barriers that can restrict food security that are not captured by income statistics. Changes in the costs of other essentials or in subsidies for these essentials are not reflected in income statistics, but hunger rates are likely to rise if these essentials become more expensive. Poverty rates also tell nothing about non-income related coping strategies, availability, access and appropriate use and storage of food. Therefore the use of the definition of food insecurity, "*the inability to obtain sufficient, nutritious, personally acceptable food through normal channels or the uncertainty that one will be able to do so" (*Davis and Tarasuk, 1994, p.51) was used in this research study. This definition provided the context to examine barriers, other than low-income and poverty rates for tenants living in supported housing.

Integrating Food Security and Housing

There has been little research that links housing, food security and health but some evidence based research has supported the link between health and housing. The benefits of addressing food insecurity for social housing providers, tenants and their communities are evident from various perspectives, but especially from an approach focused on health. For the population living in social housing, there is an obvious need to address the food security issue for the tenants. Social housing tenancy does not guarantee food security and some research shows that even among households in subsidized housing, food spending falls below the cost of a basic nutritious diet. The tenants who participated in this study live on fixed incomes and may be at particular risk for food insecurity and associated ill health.

There is also currently little research about the relationship between food security and supportive housing among individuals with mental illness and/or problematic substance use. While there has been research on the food security status of the homeless populations (Fodor, 2010; Friendly, 2008; Miewald, 2009**;** Moffatt, 2008), less has been written about individuals living in supported housing. The body of literature on the integration of food security into supported housing is emergent and still relatively small. No comprehensive strategy for integrating food security services and programs into supported housing exists in BC. Understanding the living conditions and identifying the gaps and barriers that impede food security will provide information to determine if ways can be found to improve food security for the tenants in supported housing.

There is some research evidence of the positive impact of meal provision for vulnerable populations (Miewald, 2009; Kimmet, 2013) and supported housing providers in BC have recognized the need for safe and healthy food for their tenants. In supported housing, some tenants need a direct connection to nutritious, prepared meals. Some housing providers have realized the need to provide food on-site where people are living. While the upfront costs would be higher, the tradeoffs are more stable and successful tenancies along with a" *reduction of overall public expenses with considerable savings in emergency and health services"*. (Vancouver Coastal Health, 2008, p. 3). Some housing providers are now becoming involved in food provision strategies for their tenants. Some of these strategies include:

- in-room cooking facilities – where personal cooking equipment is provided

- communal cooking facilities – which can either be unstaffed and simply open or organized by staff members with tenant participation
- in-house cafeterias – where tenants have reliable access to at least one nutritious meal a day
- delivered meal programs – either by the housing provider or other agencies which provide fresh or frozen meals at least once per week

These strategies have been implemented because of the belief that making healthy choices the easy choice in supported housing is crucial to improving the tenant's health No critical evaluations of these strategies have been completed to date but a report by Christana Miewald for Vancouver Coast Health showed that providing food to tenants that is healthy, safe and accessed with dignity will directly contribute to more successful and stable tenancies, tenant's health and well-being and overall population health (Miewald, 2009).

Conditions Necessary to Support Integration of Food Security into Supported Housing

There is no single or right way to achieve successful food security within supported housing because the needs of the housing providers are as diverse as the tenants they serve. Food insecurity for tenants in social housing can be due to several factors, including geographic barriers to food resources (e.g., lack of access to public transport, no money for transport); healthy food being too expensive in the stores that are accessible; poor quality and/or limited healthy choices in local stores. A growing number of authors indicate that an individual's health and behaviours are affected by their social and physical surroundings (Coveney and O'Dwyer, 2009;Horowitz et al. 2004;Morland et al. 2002;Wilson et al. 2004;Zick et al. 2009). Studies on building location risk factors for healthy eating have examined the quality, availability and prices of healthy food in different food retailers and the proximity to, density, and number of retail outlets including convenience stores, grocery stores, supermarkets and restaurants within a given region.

I argue that given the close relationship between food and health, any factors that interfere with people's access to healthy food could greatly impact their health. The consequences of poor access can be seen most starkly in remote communities where healthy food is costly and variety is poor. Rural community stores carry very little fresh food because of freight costs, infrequent deliveries, lack of cold storage and lack of management expertise. In urban settings, access to healthy foods is largely determined by people's proximity to supermarkets and shopping centres. Living close to supermarkets can be just as problematic if

access to public transportation is not available, or is inconvenient, irregular or uncomfortable. People experiencing the greatest difficulties in food shopping could be considered to be at the greatest nutritional risk. Without access to supermarkets, which offer a wide variety of foods at lower prices, tenants in supported housing may not have equal access to a variety of healthy food choices.

There has been some research on the relationship between poor diet and low nutritional status among people living in poor neighbourhoods.(Weich et al., 2001). These main issues include the following:

a)Transportation – access to affordable and nutritious food can result from the absence of reliable transportation options in both rural and lower income urban neighbourhoods underserved by public transportation (Holden et al., 2004, 2p 239).

b)Food deserts – socially distressed neighbourhoods with low average household incomes, a lack of transportation and lack of access to healthier food. More and more large-format supermarkets are erected on suburban lands, and smaller grocery stores in older central-city neighbourhoods seem to be rapidly disappearing leaving potential food deserts in their wake. These communities often experience both obesity and poverty. (Larsen & Gilliland, 2008). "*A focus on access to (un)healthy foods has been informed by recent debates about so-called "food deserts*" (Cummins and Macintyre, 2002, p.436). They defined food deserts to be areas where cheap and varied food is only accessible to those with private transport or are able to pay the costs of public transport if this is available. People who live in food deserts often have no option but to rely on smaller stores where prices are higher and the quality and variety of fresh food is more limited.

c) Food Swamps – are described as areas which have an overabundance of high-energy, low nutrient foods provided by mainly fast food outlets. A 2012 study found that in lower income urban neighbourhoods, there are nearly twice as many fast food restaurants and convenience stores, and more than three times as many corner stores per square mile (Lee, 2012, p 10)

Some housing providers in BC are looking at other strategies as a way to provide healthy food choices for their tenants. Some of these strategies include edible landscaping; on-site gardening; involvement with local community garden organizations and buying clubs.

a) *Edible Landscaping*

Edible landscaping would provide the tenants with a free and potentially abundant source of healthy, fresh produce. Salcone and the Sacramento Hunger Commission (2005, p.20) provided a definition of edible landscaping as the utilization of food-producing plants, trees and vines in place of traditional landscaping. Charley (2013, p. 16) stated that there many benefits to edible landscaping "*such as an effective management tool for tenants and a more sustainable use of land"*. Edible landscaping for the supported housing projects involved in this study, as well as other provincial supported housing projects, could focus on food security and nutrition, as well as, community development and beautification. The Sacramento Hunger Commission concluded that:

> *"it is a constant struggle to consume the recommended 5-9 servings of fruits and vegetables every day, particularly for low-income individuals who lack access to healthy foods, nutrition education and resources to purchase fresh foods on a regular basis. Edible landscaping has the potential to change a community. It can make people healthier by giving them free access to nutritious food and nutrition education. It can make people happier by giving them a more active role in their surroundings and by building closer relationships with their neighbours"*
> (Salone, 2005, p.23).

b) On-site Gardening and Community Gardens

Coupled with nutrition education, on-site or community gardening has the ability to improve the diets and the health of the tenants, by providing the opportunity to grow the foods they know and enjoy. Gardening can provide opportunities for creativity, self- expression, social interaction and improved self-esteem. A study by Wang and Glicksman (2014,) showed the benefits of gardening for older adults in low-income housing. Gardening also has the capacity to affect nutrition of the tenants (Sommerfield et al, 2011; Wang and Glickman, 2014; Wakerfield et al., 2007). One study that looked at the nutritional benefits of gardening (Sommerfield et al. 2011) found that gardeners were more likely to consume vegetables than non-gardeners. Wang and Glickman (2014) also found gardening may increase a sense of community and well-being. Wakefield et al. (2007, p. 92) described gardening as "a*n activity that produces sustainable results, increases the value of the activity, reduces costs and seems to be the preference to store bought produce, as noted by other researchers"* An abundance of produce can be shared with other tenants and tenants can help one another with the tending

of the garden. Lehning and Austin (2010, p.54) noted that gardening may contribute *to "creating an infrastructure to support an individual's ability to live in the community, which provides a proactive, preventive approach to long-term care institutionalization*."

A community garden essentially involves a piece of land or space, a rooftop for example, where people come together to share a role in the maintenance and operation of the garden. There are many different types of community gardens. For example, the plots could be individually assigned to tenants for their own personal use or the whole garden could be collectively cultivated for a broader purpose. There is always an element of sharing and cooperation through collective tools, the encouragement of gardener involvement in broader decision-making processes, or gardeners helping in the upkeep of common areas in the garden.

Numerous studies have shown the benefits of community gardens – from increased access to and consumption of healthy, affordable food, to improved neighbourhood security and safety. In Thomson's (2012) survey of Metro Vancouver Housing tenants, 69% of those who used a community garden said it increased their access to healthy food and 79% noted a positive impact on their diet. Toronto Community Housing has found that, besides increasing tenant nutrition, its community gardens are also a gateway for tenant involvement in other programs that increase their well-being.

Some cities in BC have adopted the philosophy of a Grow-A-Row-Share-A-Row program. These programs are a partnership between the city and a local food bank. The Grow-A-Row program started in Winnipeg, Manitoba in 1986. This program encourages community gardeners to plant an extra row in their gardens and donate the produce to the local food bank.

c) *Buying Clubs*

There are three common types of bulk buying programs: Good Food Boxes, Food Co-operatives and Bulk Buying Clubs. A bulk buying club is usually a group of people, in supported housing this group would be tenants, with similar food preferences who come together to buy food in bulk. Traditionally, all participants of a bulk buying club are involved in the planning, shopping, sorting and delivering of food. These clubs enable individuals to work with a group of people to get more with their food dollars. All bulk buying clubs have the same underlying purpose: to provide nutritious food at a lower cost for a group of people.

The philosophy behind a Good Food Box program is to improve access and affordability of fresh produce. The primary focus is to purchase food that is in season and is grown as close to home as possible. An external evaluation of Foodshare Toronto's Good Food Box program and an assessment of the Good Food Box program in Saskatoon (Brownlee and Cammer, 2004, p. 10) found that "*the program is effective at helping people consume a more nutritious diet".* Although the Good Food Box program is based on universal access to food, the specific needs of tenants in supported housing would require an understanding of what food would appeal to them and being able to promote the benefits of the program.

An on-site store is a smaller, more affordable alternative to grocery stores or a farmer's market. It can provide more variety and be more affordable for some tenants than a buying club. Tenants can buy what they want in the quantity they need. The stores can provide a sense of place and be an effective way to build social capital. Each store reflects the community and is a vibrant gathering place where neighbours meet and share information. The Good Food Market program in Toronto holds a market once a month at social housing sites and reported that 79% of their customers come back for each and every market. Indications of the impact of this program also include 46% said they got to know more of their neighbours; and, 98% felt` that the market improved their neighbourhood.

An in-house store could help improve food security for the tenants by increasing physical and economic access to adequate amounts of healthy foods. The underlying purpose is to provide nutritious food at a lower cost for the tenants. According to Charley (2012, p. 26) "*in-house food stores will utilize the benefits of bulk buying to increase the intake of quality, healthy, affordable food"*. Tenants could also pool their resources to purchase bulk food at reduced prices. The clubs can also have a community-building value that provides additional benefits for promoting long-term food security

The tangible benefits from receiving vegetables and having access to food that the tenants would normally not purchase are relevant for promoting food programs and services within supported housing.

Gaps in Research on Food Security Integrated into Supported Housing

Viewing food insecurity through a housing lens necessitates the inclusion of food insecurity measures in routine supported housing surveys. Food security among people with mental illness or problematic substance use is more complex than simply a lack of access. The

majority of the research studies regarding food insecurity in Canada focused primarily on low-income families, the elderly, women and children. There is little research regarding the experiences of people who receive Person with Disability (PWD) provincial income assistance with respect to attaining adequate food security.

While a connection to poor health is well established in the literature, there is comparatively less research on the psychological and social implication of food insecurity, especially for tenants in supported housing. Some of the gaps identified by this literature review are:

- Lack of information and research on the frequency, duration and severity of food insecurity for tenants of supported housing
- Little information on the health implications of chronic mild food insecurity versus the cyclical forms of food insecurity
- How accurately household food measures reflect the actual experiences for single adults

There is no data associating the availability and access of food items with consumption of those items. There is little published information in British Columbia documenting people's experiences of food access outside of Vancouver and very little literature on contrasting the diets of rural and urban single adults.

Summary

I conducted this literature review in preparation for conducting a case study and further analysis on the integration of food security into supported housing. The purpose of the study is to identify barriers for food security for tenants in supported housing and make practical recommendations to overcome these barriers. Health and human wellness are now often used interchangeably and there has been considerable augmentation of the indicators of wellness and health. There is now an ability to use more positive indicators such as food security and housing to ensure population wellness.

The body of research to which I am contributing involves a focused attention on providing food security for tenants of supported housing. The role of food security programs in supported housing to promote better physical, mental and social health among tenants can be considered as a vital key to reducing health inequality issues in BC.

Chapter Three – Study Design

Chapter Overview

In this chapter, I describe the case study methodology used in designing this study. The case study methodology included an overarching participatory approach, combined with a social justice perspective for data collection and the use of an explanatory case study design to analysis the data. Each housing project was considered a single case and results from the two sites were compared to determine the barriers to food security that the tenants reported. The Managers of each housing project were also interviewed to determine what they saw as the barriers to food security and if they had suggestions to improve access to healthy food for their tenants. Community service providers that the participants identified, in each location were also interviewed to determine if they were aware of barriers to food security for the clients they serve. Identification of the barriers and an explanation of the effect of these barriers on the well-being of the tenants was the ultimate aim of the study.

In this chapter, I describe the basis of a constructivism paradigm and the combination of a social justice perspective with community-based participatory research as my epistemology, provide a description of the methodology I used and elaborate on the research design, including the methods of data collection and analyzation. I conclude the chapter with a narrative explanation of the barriers by iteratively comparing the data to the study's propositions, conceptual framework and research questions

Methodology

The literature that I reviewed for this study recognized that there is some confusion about the terms "method" and "methodology". These two terms are often used interchangeably and clarifying the difference was important in the study design. Methodology is concerned with the process of gathering knowledge about what exists in the world and according to Appleton and King (1997, p. 15) "*it is a broad term used to encompass aims, concepts, strategies and methods to gain knowledge about a particular phenomenon under study."* Method is a term used to describe the techniques for data collection and analysis. Crotty (1982, pg. 3-4) presented a framework with four basic elements that includes these terms which are necessary in any research process. These elements are: a) the techniques or procedures used to gather and analyze data; b) the strategy behind the choice and the linking of the choice and methods to the desired outcomes; c) the philosophical stance that provides a context for the

process and; d) the theory of knowledge embedded in the theoretical perspective and thereby in the methodology. The four elements I used in my research design were:

a) the methods of focus groups, community mapping, one-on-one interviews and service provider interviews;

b) the methodology of participatory community research;

c) the theoretical perspective of social justice

d) the epistemology of constructivism.

Constructivism Paradigm

This explanatory case study was designed with a constructivist paradigm. This paradigm "*recognizes the importance of the subjective human creation of meaning, but doesn't reject outright some notion of objectivity. Pluralism, not relativism*, *is stressed with* a *focus on the circular dynamic tension of subject and object*" (Crabtree & Miller 1999). Constructivism is built upon the premise of a social construction of reality and the close collaboration between the researcher and the participant. Participants were able to tell their stores and through these stories "*the participants are able to describe their views of reality and this enables the researcher to better understand the participant's actions*" (Lather, 1992, p. 90).

Constructivism, presented by Guba and Lincoln (1994); Stringer (1996) and Schwandt (1994), seeks to undertake research in natural settings and is built upon the premise of a social construction of reality. Guba and Lincoln (1994, p191) define a paradigm as a *"basic belief system or world view that guides the investigator".* I agree with Lather and argue that tenants give meaning to their reality and events through a complex of social interactions and constructivism recognizes ``*the complex interplay that helps to form, develop and alter an individual`s constructions of any phenomena* "(Denzin and Guba, 2005, p.197).

Appleton and King (1997, p.16) presented a framework of the steps for researchers to undertake a constructivist inquiry. Their constructivism methodical steps were: a) issues of ethics; b) issues of access to natural setting; c) researcher as an instrument; d) qualitative methods; e) inductive analysis; f) interpretation of findings and; g) presentation of findings to other similar groups. My intention was to understand the effects of the barriers to food security so it was important for me to understand my own ideology. My personal beliefs affect the knowledge that was gathered in this study so below I illustrate how my study was consistent with a constructivism paradigm using the framework developed by Appleton and King.

Figure 3: Constructivism Methodical Steps

Personal intuitive experience	Informed and guided the inquiry process
Issues of ethics	Adherence and approval by the Ethics Board of the University of Victoria, which protected privacy, confidentiality and prevented coercion. (See Appendix A) The less formal ethical issues of power and the difference between me and the participants was also addressed.
Issues of access to natural setting	Access maintained through discussion and engagement with all tenants in the supported housing project. Support provided by staff of the housing project
Researcher as instrument	I was able to be flexible, proactive and responsive to the demands of the tenants through the inquiry process. Being an instrument in the research was a way of working with the participants that recognized my role as the key in the data collection and analysis.
Qualitative methods	Flexible strategies including one-on-one tenant interviews, focus groups, community mapping exercises, and interviews with community service providers
Inductive analysis	I frequently did comparative analysis during and following data collection using pattern matching and triangulation
Interpretation of findings	Was achieved through extensive familiarity and consideration of the study data
Presentation of findings to other similar groups	Results will be presented to the general public, community non-profit societies and representatives from the government

Adapted from Appleton and King, 1997

Social Justice Perspective

My decision to use a CBR approach arose both out of a desire to be involved in research with a social justice perspective and my interest in exploring alternative approaches to knowledge production. My decision to use the principles of community-based research allowed me to use a social justice lens while conducting the study. Combining principles of community-based research with a social justice framework provided me with the ability to ensure that the study stayed focused on the topic of health equity and could be conducted in

ways that enhanced an understanding of the participants lived experiences with food security. Drawing on the theory of social justice presented by Iris Marion Young in her book Responsibility for Justice (2011) justice allowed me an enhanced understanding of the inequalities that are relevant to the lives of tenants in a supported housing setting.

Community-Based Research Methodology

The term “community-based research” (CBR) can be used as a generic descriptor for a range of approaches that involve community members in at least some or all the stages of the research process. The endorsement of community-based research methodologies by social science and health researchers stemmed from advocacy by front-line health practitioners (Isreael et al., 1998; Sclove et al., 1998; Minkler & Wallerstein, 2008). These practitioners believed in a participatory model of research intended to empower community members to describe and make decisions about their own health and well-being. Minkler & Wallerstein, 2008) recognized the “*authoritative knowledge that people have about their own lives and their own health*”(p. 231) which could then form the knowledge base for collaborative research. My understanding of the work of (Minkler & Wallerstein, 2008) and (Irsreal et al. ,1998) is that in CBR, collaboration means that researchers and community members will be involved in some, or all the processes of defining the research question, choosing the research methods, doing the research, analyzing the data, constructing the report and using the research for social action. In this case study, I acknowledged that the tenants in the buildings were the “community” and they were the research “stakeholders” with whose help the study was designed. I also acknowledged the tenants residing in the buildings as the “community experts” and their “local” community knowledge provided valuable suggestions about the research. As part of the CBR aspects of this study, the tenants residing in the buildings helped to design the research questions.

Consistent with a constructivist paradigm, a fundamental characteristic of community-based research is the emphasis on participation. I argue that community-based research draws upon constructivist and critical theoretical perspectives that address some of the criticisms of positivist science. Israel, Schulz, Parker and Becker (1998) identified three alternative inquiry paradigms, post-positivism, critical theory and constructivism. The latter two paradigms are particularly applicable for community-based research. From the critical theory perspective; *“a reality exists that is influenced by social, political, economic, cultural, ethnic and*

*gender factors that crystallize over time; the researcher and the participant are interactively linked; findings are mediated by values; and the transactional nature of research necessitates a dialogue between the investigator and participants in the inquiry" (*Israel et al., 1998, p.175*)* "*there exist multiple, socially constructed realities that are influenced by social, cultural and historical contexts, the inquirer and participant are connected in such a way that the findings are inseparable from their relationship and the methods used emphasize a continual dialectic of iteration, analysis, assessment, reiteration and reanalysis".*(Israel, et al.,1998, p. 176). Therefore, community-based research acknowledges the political nature of knowledge partnerships and accepts that researchers inevitably influence the process and even the outcomes of the research.

I used the definition of community-based research presented by the US-based Loka Institute which is "*CBR is a form of research that is conducted by, for, or with the participation of community members "(*Sclove, Scammell, and Holland, B.,1998, p. ii). A critical feature of the Loka conceptualism of CBR is its inclusiveness whereby I became a partner in the production of the study working within the community of the supported housing projects.

Community-Based Participatory Research

This study was designed with an overarching participatory approach, specifically using a case study research design. This participatory approach was developed from the principles of community-based participatory research for health as presented by Israel, Eng, Schulz and Parker in 1998. The authors presented these principles with the "*recognition that the extent to which any research endeavor can achieve one or any combination of these principles will vary depending on the context, purpose and participants involved in the process*".(Israel et al., 1998, p. 6) They also stated that "*although each principle is presented as a distinct item, CBPR is an integration of these principles*". The authors further suggested that these principles could be used as "*guidelines by all those interested in this approach"*. (Israel et al., 1998, p.7)

Critics of community-based research argue that ideals of participation too frequently elude student academic researchers. As a PhD student, I needed to describe a process of evaluating community-based research to assess the extent to which ideals of participation and community empowerment could be attained, especially in a supportive housing setting. I needed the support of the non-profit housing providers to attract tenants but I also needed to

resist the involvement of employees or board members of that organization in the initial decision-making process. I adapted the principles of community-based research into a more participatory approach to ensure that this study was conducted in ways that enhanced an understanding of the tenants lived experiences.

Explanatory Case Study

I drew upon an explanatory case study as the design for this research. There are three foundational writers on case study methodology – Merriam (1998), Stake (1995) and Yin (1984) – who all agree on the fundamentals of case study. These fundamentals include defining the case as a bounded system or unit with identifiable boundaries and using multiple sources and methods of data collection, including interviews. I primarily used the work of Yin (1984, 2003) to guide me because, according to Yin, researchers use case study design when events occur in a real life context. The phenomenon under study was the barriers to food security for the tenants of the housing projects and the resources available in their community context. According to Yin "*each case should serve a specific purpose within the overall scope of inquiry" (*Yin, 1994, p. 45*),* and to explain a phenomenon is *"to stipulate a presumed set of casual links about it, or "how" or "why" something happened. (*Yin, 1994, p. 14). This case study included two housing projects chosen because of their differing locations. I predicated that each housing project would offer different perspectives on food security. An explanatory case study approach is appropriate for tenants in supportive housing because the intent was to illustrate the different perspectives on the barriers to food security experienced by the tenants.

The case study design involved the identification of the barriers to food security within a bounded system, in this study; the bounded system is the setting of the participants' housing projects. The case selected for study "*has boundaries and . . . also has interrelated parts that form a whole*" (Creswell, 2007, p. 74). Case study research is "*a qualitative approach in which the investigator explores multiple bounded systems (cases), through detailed, in-depth data collection involving multiple sources of information"* (Creswell, 2007, p. 75). Therefore, each housing project will be considered a case to:

- explore differences within and between cases;
- analyze within each setting and across settings.
- examine several cases to understand the similarities and differences between the cases

The intent in a case study is to illustrate the different perspectives on the issue. Yin (2009) describes how cases studies can be used to either, "(*a) predict similar results or (b) predict contrasting results but for predictable reasons*" (Yin, 2009, p. 40). It is predicted that each housing project will offer different perspectives on food security. The intent of using a case study is to gain insight and understanding of the barriers to food security faced by the tenants and how these barriers are influenced by their context. The advantage of using multiple sources of evidence is the development of "*converging lines of inquiry, a process of triangulation and corroboration" (*Yin, 2009, p. 91*)*. Once the data has been triangulated, the facts of the case study will have been supported by more than a single source of evidence.

Description of the Cases

A case study approach as described by Robert Yin (2009) was chosen for this study. This explanatory case study was designed to explore the barriers to achieving food security faced by tenants living in supported housing using a constructivist paradigm. In this study, two supported housing projects were included and chosen because of their differing locations on Vancouver Island British Columbia. I used the former terms of urban and rural communities from Statistics Canada. During the course of this study, Statistics Canada changed the terminology from urban and rural to population centres. The housing project in the urban community is now classified as a medium population centre with a population of between 30, 000 and 90, 000. The housing project in the rural community is now classified as a small population centre with a population of between 1, 000 and 29.999. Both housing projects were built through funding from the Provincial Homelessness Initiative. I will begin by describing each of the cases chosen for this study followed by an analysis of the data and presentation of the findings for each case before comparing across the two cases.

The increase in the number of homeless single adults in British Columbia has led to the availability of capital funding for the two supported housing projects selected for this study. According to a policy statement from the British Columbia Housing and Mortgage Corporation (BC Housing) entitled Housing Matters BC (2006, p 8) "*Single person households in British Columbia will face the most challenges finding suitable and affordable housing - 16 percent or 223,7000 households are in core housing need, paying more than 30 percent of their gross household income on housing*". Reports from various community and provincial organization (SPARC BC, 2003;; BC Housing;2006; Malaspina University College, 2007; Canadian Mental

Health Association, 2007; Vancouver Island Health Authority, 2007) in both communities stated concerns that the segments of the community most vulnerable to becoming homeless are low income single people, especially those with a mental illness and/or problematic substance use. Both of the supported housing projects selected for this study were funded under the Provincial Homelessness Initiative. The urban housing project was one of five proposals submitted under a Memorandum of Understanding (MOU) to the Provincial Homelessness Imitative Program (PHI). The city provided the land, BC Housing provided the capital costs and the Social Planning Department of the city selected the housing operator. The rural housing project was a community driven initiative and the community committee selected the housing operator. BC Housing provided the capital costs and has an on-going operating agreement with the non-profit housing provider.

Theoretical Propositions

This explanatory case study was designed to explore the barriers to achieving food security faced by tenants living in supported housing. Yin (2009, p. 54) called hypotheses "theoretical propositions" which he believed "*are the specifics or details within the scope of the study and are not necessarily mentioned in research questions*". My propositions for this study were:

- Access and availability of food resources has a positive influence on the dietary choices of tenants in supported housing.
- Tenants in supported housing in rural communities have more barriers to food security than tenants living in supported housing in urban communities.

I designed this study around these propositions while keeping the focus on providing the opportunity for the tenants to describe their lived experiences of the barriers to achieving food security. The ultimate purpose of the study was to examine the differences and/or similarities in the barriers for tenants located in an urban versus a rural community as well as to examine which barriers have the greatest effect on the tenants.

Research Design

Maintaining mental health, community and quality of life in supportive housing projects is an increasing challenge for those who have, throughout their lives, experienced multiple incidents of stigmatization and discrimination. This is a challenging task that calls upon both intersectoral and interdisciplinary research and therefore the use of a community-based

research approach can be the most appropriate, and has the most potential, to reduce discrimination and stigmatization.

Recruitment

Recruitment for this study was done in both locations with ongoing support from the housing staff. An information poster was designed (Appendix B), displayed on notice boards in each location and distributed to each unit, inviting tenants to attend an information session to learn more about the study. Two information sessions were held at each location, one in the afternoon and one in the evening, to discuss the study and why their participation was important. I provided a verbal and written description (Appendix B) of the study objectives and procedures. My contact information was given to each tenant attending and I gave permission for them to contact me to answer any questions they had. I ensured that the attendees understood the purpose of the research, what would be expected of the participants and the risks and benefits of their participation. All questions asked by the tenants were answered at this meeting and I reinforced that their participation was voluntary and that no personal information would be disclosed.

Partnerships

My decision to use a CBR approach arose both out of a desire to be involved in research with a social justice perspective and my interest in exploring alternative approaches to knowledge production. To develop meaningful partnerships, the difference between the tenants and me needed to be acknowledged and addressed. I was from outside the community and different from the tenants in terms of class, ethnicity, culture, and a more privileged economic background. Entering into a CBR process meant that I brought a potential power imbalance in terms of educational achievement therefore I had to be aware of my own power and my role in the study. This study would benefit me in regards to the completion of a PhD program as well as providing evidence-based information for the integration of food programs and services into supported housing throughout the province. At the same time, I had to be aware of the constraints I was experiencing by being in an academic institution. I chose to downplay my status as a PhD student and instead portray myself as someone with research skills who had an understanding of supported housing and community resources and a strong desire to know the tenant lived experiences with food insecurity.

Minkler & Wallerstein (2008) theory on using a CBR approach provides a link between research and solutions because "*the focus was not on developing new knowledge within a discipline but on creating new knowledge for use in an interdisciplinary approach*" (2008, p. 376). CBR "*aims to make real changes to the community through practical solutions drawn from the results of the research. In order for research to effect change within communities, there needs to be a way to connect research to solutions*" (Minkler & Wallerstein, 2008, p.365). The collaborative process between the participants and me validated the knowledge that the tenants have and this process allowed them to assist in determining acceptable and appropriate solutions. The practical solutions provided by the tenants show the links between the barriers in the tenant's environment and the potential to challenge those barriers. The tenants may not be able to overcome the structural limitations and oppression in their community, but they can certainly challenge it.

One of the ways that community-based research can be enhanced in a supportive housing project is enabling tenants to become partners in the research. My primary responsibility became not to delegate power to the tenants but to enhance the quality of the dialogical process. In this study the tenants were stakeholders who were involved in the research process by influencing crucial decisions regarding the research questions.

Participatory Approaches

Traditionally, academic researchers have not included vulnerable community members, such as people with a mental illness and/or problematic substance use, who also require supported housing. Researchers carried out research projects that were influenced by academic agendas. As Robinson pointed out "*too much academic research is focused on advancing knowledge within the discipline itself, and too little is focused on advancing "social knowledge" or on how to find practical solutions to social problems*"(Robinson, 2006, p. 99).. Though some researchers conducting traditionally social science research believe that the information they produce will lead to change, generally change is only incremental (Greenwood and Levin,1998), and it may not be change that benefits vulnerable populations. I argue that in order for research to affect change within communities there needs to be a mechanism to connect the research to action and CBR establishes this link between research and action by creating opportunities for vulnerable populations to better their own realities. Therefore, the participatory approaches I used were the establishment of tenant advisory

committees; different levels of tenant participation and informed consent. A description of each approach follows:

Tenant Advisory Committees

Establishing a tenant advisory committee, in each project, was one of the ways I implemented a participatory approach to this study. Tenants were asked to sit on the committee in an advisory role to provide comments and advice on the construction of the interview and focus group questions. This increased their participation in the study and provided me with direction, advice and feedback. The implementation of a tenant advisory committee recognized the important role that tenant's knowledge played in the study. This provided opportunities for tenants to draw on their experience – lived or observed – within their community and offer valuable insights.

At the end of each study information session, attendees were asked if they wanted to form a tenant advisory committee for their building. The advisory committee would have the role of designing the focus group and interview questions and provide input on the themes that emerged. Three tenants in the urban community and four tenants in the rural community formed the tenant advisory committees. Two meetings were held with each committee and I provided a sample of the questions for both the focus groups and one-on-one interviews. I designed these sample questions using examples from other studies that had been done, particularly the work of Miewald (2009) in the downtown eastside of Vancouver. The committee reviewed each question and I provided my rationale for including the question. Through the discussion about each question, with tenants making comments and suggestions, a final set of questions for the focus groups and one-on-one interviews was created. Once the focus groups and one-on-one interview data was transcribed, a third meeting was held with the advisory committees for their input on the emerging themes. The themes were accepted by the committee members as being relevant to their circumstances.

<u>Tenant Participation</u>

One of the most complex issues in community-based research is the notion of the participant. What is the correct terminology to use and who is the participant? Are they consumers, tenants, residents, people who receive health care services or just community members? There is no agreement in the literature on the use of the terms. Many authors (Abram et al.2009, Jackson, 2002; Green and Mercer, 2001) have drawn attention to this

terminology problem. The debate has been fuelled by the fact that this is not just an argument about words, but about ways of seeing and portraying people and their relationships with systems. Commonly used words to describe a person who receives health care include patient, client, consumer, user, and service user. Commonly used words to describe a person living in supported housing include tenant, resident, and client. These descriptors convey different meanings to people according to different circumstances. As the terms usually refer to roles, rather than discrete types of people, individuals may have many overlapping roles.

Tenants in supportive housing projects in British Columbia are classified as consumers of health care services. Traditionally the term “consumer” has been associated with a market approach to health care, with an emphasis on personal choice, while “user” is more closely linked to citizenship and issues of empowerment. The consumer movement has reclaimed this word and argued that its meaning is now a wide one, encompassing all those people who use, are affected by, or who are entitled or compelled to use health care services. It is not limited to those actually using a service, nor does it relate only to those members of a community who are formally regarded as holding citizenship or those who pay taxes. In the broadest sense, a consumer can be defined simply as a receiver or a potential receiver of health care. The terminology applied to receivers of health care may be influenced by the agenda of the person or organization using the term. Boote, Telford and Cooper (2002) stated that “*consumer involvement in research relates to an active relationship between consumers and researchers. Such involvement is thought to lead to research of greater quality and clinical relevance due to the unique perspective that consumers can bring to a research project*”(Boote, et al., 2002, p. 115).

The publication of Arnstein’s Ladder (1969) marked the presentation of a seminal work for community-based research. The Ladder discussed citizen participation by defining it and separating forms of citizen participation into a series of “rungs” or categories. Arnstein’s Ladder has implications for community-based research because it is a helpful tool for understanding the various degrees of citizen involvement. The different levels of citizen participation recognized by Frankish, et. al., (2002) can also have implications for tenant participation. They identified different processes of citizen participation, including self-help groups, coalitions, committees, forums and focus groups. They also showed that citizen participation is closely tied to a host of economic, social and political factors and there is a need for a clear reference

as to what form participation will take or how the participation will be implemented to avoid any confusion.

Informed Consent

Informed voluntary consent was very valuable for me, as some people still associate a mental illness with the inability to provide informed consent. The purpose of informed consent is to ensure that potential participants are aware of the risks and benefits of participating in the research, so that they can make an informed decision before taking part in the study. Although informed consent has been subjected to a great deal of ethical and legal analysis, significant disagreements continue to exist regarding the ability of individuals with a mental illness and/or problematic substance use to provide informed consent. The diagnosis of a mental illness is not synonymous with incapacity or with loss of autonomy in decision-making. The tenants in supported housing who have a mental illness manage their own affairs and are sufficiently competent to retain decisional autonomy. Moser et al., (2006) provided convincing evidence that "*a large percentage of individuals with psychiatric illnesses are able to make informed decisions regarding participation in research and that those individuals who initially lack this capacity may benefit significantly from enhanced consent procedures" (Moser, et al., 2006, p. 116).* A diagnosis of chronic paranoid schizophrenia, for example, does not necessarily equate with incompetency. The key issue is whether the tenants in supported housing can receive information in a way which allows them to reach the level of competency required.

According to Hewlett (1996) four elements must be present for consent to be morally acceptable: (*1) competence; (2) sufficient and unbiased information; (3) understanding of that information; and (4) voluntariness* (Hewlett, 1996, p, p. 233*).* A person is competent if and only if that person can make reasonable decisions based on rational reasons. The manner in which information is provided will also influence adequacy of understanding. For people living in supported housing this can be done by using appropriate terminology, encouraging questions and ascertaining what the tenant understands. Hewlett also noted that for consent to research to be adequately voluntary two factors must be fulfilled: 1) *the absence of controlling influences; and 2) the ability to choose either one of at least two options* (Hewlett, 1996, p. 235*).* For people living in supported housing, I ensured that the tenants did not feel pressured into being involved by emphasizing the voluntary nature of the research and reinforcing that their tenancy will not be in jeopardy if they do not participate.

At the beginning of each focus group, the study's objectives and procedures were outlined and each item on the consent form was discussed with the opportunity for any questions or concerns to be addressed. The same procedure was conducted at the beginning of each one-on-one interview. Providing all of the participants with all the necessary information, in a variety of ways, ensured that the tenants could make a fully informed decision about their participation. The consent form for interviews and focus groups is in Appendix C.

Stigma

Negotiating research partnerships in a context in which the tenants have experienced stigmatization requires a complex and continually negotiated reciprocity between the research partners. Salmon, Browne and Pederson (2010) found that there was "*little practical guidance in addressing the complexities or specificities encountered during research partnerships involving marginalized individuals and academics conducting community-based research*". *Moving from contemplation to planning requires not only the will but also the capacity to participate in a more active and committed way*" (Salmon, et al. p. 237). There are many different terms to describe people with mental illness. Each one reflects a particular perspective and there is no consensus about a single preferred descriptor. Stigma probably plays a role even in this issue and I needed to be extra cautious about how I described the mental health problems of the participants. The terms chosen were carefully considered and I tried to respectfully recognize the differences.

Mental illness and/or problematic substance use continues to be a sensitive topic among researchers. Prejudice and discrimination have long affected the lives of individuals living with a mental illness and/or problematic substance use. The Canadian Mental Health Association fact sheet states that "*Stigma refers to negative attitudes or beliefs that are held about people who are perceived as different. Stigma is multi-faceted and resides in many places*". The CMHA Fact Sheet states that" *Discrimination is the behavior resulting from stigma. Discrimination refers to actions taken to exclude others because of their perceived differences, but it can also be manifest in overt acts of hostility and aggression*". In society-at-large, mental illness is not well understood and the media often reinforce negative public stereotypes. Individuals with mental illness may also experience "self-stigma", viewing themselves with embarrassment or self-loathing as a result of internalizing the negative perceptions around them.

Empowerment.

CBR seeks to empower community members by acknowledging and valuing their local knowledge. In defining empowerment, Perkins and Zimmerman stated that:

> "*empowerment is an intentional ongoing process centered in the local community, involving mutual respect, critical reflection, caring and group participation, through which people lacking an equal share of valued resources' gain greater access to and control over these resources".(*Perkins & Zimmerman, 1995, p.2)

I found that it was through the combination of assisting tenants in seeking information and allowing for the possibility of empowerment that the potential for change in the community was realized. The tenants became more aware of the barriers to food security that they faced and were able to articulate the practical coping strategies they could use in their own community.

Supported Housing Target Population

I focused this study on the tenants in supported housing projects because of the complexity and interconnectedness of barriers they experience in achieving food security. Single adults who meet the provincial[1] or federal[2] criteria for a designation as a "person with a disability" were the participant sample in this study. The tenant participants receive income assistance, which means they live on a fixed, monthly, and low-income. As well, all of the participants in this study have a diagnosed mental illness and/or problematic substance use. The mental illnesses that the participants live with range from actively psychotic schizophrenia to nonpsychotic and minimally symptomatic schizophrenia, borderline personality disorder, bipolar disorders and all stages of depression. Problematic substance use refers to more than just a person's physical or psychological dependence on street drugs; it also includes psychoactive substances such as tobacco, alcohol and certain medications.

[1]BC provincial definition of a person with a disability is a "person with a physical or mental impairment who is significantly restricted in his or her ability to perform daily living activities, either continuously or periodically for extended periods and, as a result of these restrictions, requires assistance with daily living activities". (BC Ministry of Social Development and Innovation).

[2] The federal government uses the accepted definition by the World Health Organization of "a disability is an umbrella term, covering impairments, activity limitations and participation restrictions. An "impairment" is a problem in body function or structure; an "activity limitation" is a difficulty encountered by an individual in executing a task or action"; while a "participation restriction" is a problem experienced by an individual in involvement in life situations" (Human Resources and Development Canada.)

Single adults living with mental illness and or problematic substance use are considered to be in the low income-household food insecurity category. Income-related household food insecurity describes a situation where ``*an individual . . . worries they won`t be able to afford enough food, eat suboptimal food because they can`t afford better, or skip meals because they are unable to purchase enough*``(Tarasuk et al., 2014). The Food Banks of Canada HungerCount 2014 found that in British Columbia, 30% of individuals assisted by food banks receive disability-related income support, 52% of these individuals are single and 7% live in social housing. Hungercount 2014 also found that 70% of households in Canada that receive social assistance are food insecure. Single adult use of food banks in Canada has doubled since 2001 and 50% of those individuals live in social housing.

Data Collection

Using a case study approach, this study was conducted in two selected BC Housing sites, one in an urban community and one in a rural community. Fieldwork, consisting of focus groups, community mapping and semi-structured one-on-one interviews, was conducted to document and analyze the barriers that tenants in the supported housing projects encounter to achieve food security. All fieldwork was conducted within the framework of the University of Victoria's ethical guidelines. The guidelines I used for this study were: a) confidentiality; b) informed voluntary consent; and c) right to refuse or withdraw at any time.

Consistent with case study methodology, I used multiple data sources, known as data triangulation, to strengthen the credibility of this study. Triangulation in research has been defined as "*the combination of two or more theories, data sources, methods, or investigators in one study of a single phenomenon*" (Denzin and Lincoln, 2005, p.454). Fielding and Fielding (1986)expanded on this definition by noting "*the important feature of triangulation is not the simple combination of different kinds of data, but the attempt to relate them*" (Fielding & Fielding, 1986, p. 13). Ultimately, participatory research is about knowledge creation and the value of community expert experiences. From Cornwall's (2008) point of view, it makes more sense to think in terms of "*optimum participation: getting the balance between depth and inclusion right for the purpose at hand*" (Cornwall, 2008, p. 278).. The multiple data sources I used were focus groups, community mapping and one-on-one interviews.

Data Collection Methods

Focus Groups

Focus groups are a qualitative research data collection method which I selected for use in the supported housing settings to ascertain the perspectives and experiences of tenant's food security. Using this method was a way to empower those tenants who have been marginalized and allow their lived experiences to be shared. Focus groups can also encourage participation from people who are reluctant to be interviewed on their own or who feel they have nothing to say. The use of focus groups in the context of community-based research places an *"emphasis on participation and action linked to research*" (Israel et al. 1998, p.147).

Focus groups had their beginnings in sociology and psychology. Robert Merton and Paul Lazarsfield were the first to use focus groups, or what they called focused interviews at Columbia University. Merton (1987) describes the technique as "*a set of procedures for the collection and analysis of qualitative data that may help us gain an enlarged sociological and psychological understanding in whatsoever sphere of human experience*" (Merton, 1987, p. 565). Morgan (1996) defines a focus group "*as a research technique that collects data through group interaction on a topic determined by the researcher" (Morgan, 1996, p. 130)..* This definition provides three major components of focus group research: 1) a method devoted to data collection, 2) interaction as a source of data, and 3) the active role of the researcher in creating group discussion for data collection.

A positive feature of this collection method is that it allows participants to hear and consider other options. Developing this emphasis on interaction was important to me because as Kitzinger (1995) wrote "*the idea behind the focus group method is that group processes can help people to explore and clarify their views in ways that would be less easily accessible in a one to one interview*". (Kitzinger, 1995, p., 299). Another important feature of a focus group is its "*ability to give voice to marginalized groups*" (Joseph et al,1984, p.1298). Some authors have argued that the value of focus groups goes well beyond listening to others, since they can serve as either a basis for empowering "clients" (Magill, 1993; Race et al. 1994) or as a tool in action and participatory research. (Hugentobler et al. 1992; Padilla, 1993).

The first phase of the data collection involved focus groups and was carried out over the course of an afternoon and evening in both locations. Two focus groups, one in the afternoon and one in the evening, were conducted with tenants in each of the two housing projects. The

urban housing project has a total of thirty tenants, out of this total; twelve participated in the two focus groups. The rural housing project has a total of forty-two tenants and out of this total nineteen participated in the two focus groups. The focus groups were a mix of males and females with the highest participation of females in the urban project. The focus groups were organized in a venue where the tenants normally meet because I assumed that they would probably feel more at ease in familiar surroundings. The focus groups were designed to collect information to identify barriers to food security for the tenants in each site and, as a result, no demographic information was collected.

The focus group method was designed to engage the tenants in a deeper understanding of the barriers to food security and to assist me in identifying the emerging themes. The topic of food security does not lend itself to observational techniques and can be a very sensitive issue for some tenants. Charles Basch (1987 p. 415) points out how important it is for the facilitator to "*create a non-threatening supportive climate that encourages all participants to share views . . . and interjecting probing comments, . . . without interfering with the dialogue*"

Focus groups were also selected for this study because I felt that they do not discriminate against people who cannot read or write well and are a method of data collection that are respectful and non-condescending. It was my responsibility to create and sustain an atmosphere that promoted meaningful interaction, a human sensitivity, a willingness to listen, and a respect for opposing views. Many of the tenants lacked the experience of sharing their ideas in a group so I used directed facilitation to encourage quieter tenants to contribute while restraining the dominant ones. Efforts were made throughout the study to report the views and opinions of the tenants as accurately as possible but it must be acknowledged that my role in the study inevitably influenced the nature of the data collected and its interpretation.

One of the challenges of using focus groups was that confidentiality for the tenants was difficult to ensure as other members of the "community" were present and taking part in the discussion. I felt that the advantages of using focus groups outweighed the risks of the lack of confidentiality. The advantages I saw included:

- the combined group effect produced a wider range of information, insights and ideas,
- some of the comments stimulated new ideas,
- the tenants' own thoughts about food security were used to create new knowledge

The focus group sessions were audio taped and I transcribed the sessions for analysis. Recording the sessions enabled me to be more attentive to the facilitation of the discussion and I could use active listening skills instead of trying to take notes. The focus groups were arranged shortly after the study information session because I believe that this method was a good introduction of the trust building process between the tenants and myself. A staff member of the housing project arranged the time(s) and was present as an observer with tenant permission. It was my responsibility to make all the tenants feel safe and to facilitate the discussion.

I asked semi-structured questions (Appendix D and E), as determined by me with the participation of members of the tenant advisory committees, focusing on the barriers to accessing food resources and the coping strategies used by the individual tenants. This flexible format permitted the tenants to reveal how they experience and think about food security. This method also facilitated the expression of criticism, which was important for those tenants who are often reluctant to give negative feedback or may feel that any problems they have result from their own inadequacies. The focus group questions asked tenants about their experiences and opinions regarding housing and food security. Some of the tenants found certain questions difficult because they invited tenants to reflect on their abilities to access food and highlighted areas of inadequacy in their community

It was important to me to acknowledge and thank each participant in the focus group but I wanted something concrete and more personal than just a gift card. I decided to give each participant a basket containing food items from the four food groups of the Canada Food Guide. (Appendix J). Each basket contained a placemat and the necessary ingredients to make one complete meal. I chose this method as a way to thank the tenants because the focus of the study was on food security.

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Community Mapping

Simple location maps of food resources can quickly display the barriers to food security for tenants of supported housing. Maps can further illustrate accessibility issues through the display of bus routes and the computation of distance and travel time. Constructing maps of neighbourhoods allowed the participants to identify the location of resources in their neighbourhood and which resources other participants use. Amsden and VanWynsberghs (2005) stated that community mapping is based on "*validating the knowledge and experience of participants*"(Amsden & VanWynsbergh, 2005, p. 358).. This exercise was able to visually display the community—specific barriers and provide critical information for housing providers and policy-makers. This exercise enabled me to become aware of the social structures and charitable organizations that the tenants access in each community. The final maps offered a visual representation of the tenant's knowledge of community resources and produced a picture of community strengths and weaknesses as the tenants see them.

The second phase of the data collection was a community mapping exercise. . All of the participants from the focus groups took part in this activity. A large map of the city was used and the tenants, placed coloured push pins on the map representing where they access food. I led a discussion on why tenants chose particular locations and what they felt was missing in their neighbourhood. This community mapping of neighbourhood food resources was conducted to gain an overview of the resources in the area, as perceived by the tenants and provided a visual representation of the resources. Through this activity, information on tenant perceptions about the barriers to food security in the community was garnered.

This exercise was audio recorded and later transcribed in order to develop an understanding of each neighbourhood's food environment from the multiple perspectives. (See Appendix F and G). This exercise enabled me to become aware of the social structures and charitable organizations that the tenants access in each community.

Community Food Service Providers One-on-One Interviews

The transcripts of the discussion that ensued during the community mapping exercises were reviewed to determine the names of the community and charitable service providers in each community that were mentioned by the participants. I contacted each provider by telephone to arrange a meeting to explain the purpose of this study and ask if they would agree to be interviewed. The community service providers were asked questions about their organizational structure, sources of funding and the criteria for receiving services. They were also asked to identify any barriers to food security for their clients and to share their suggestions to reduce those barriers that had identified.

One-on-One Interviews

An interview is a qualitative research method designed to provide details of the participants' perspective because the person being interviewed is considered the expert. Interviews act as a way for participants to express meaning about their personal experience. Elliot Eisner states that "*conducting a good interview, in some way, is like participating in a good conversation: listening intently and asking questions that focus on concrete examples and feelings rather than abstract speculations …"* (Eisner, 1991, p. 183).

The third phase of data collection involved one-to-one personal interviews with the tenants who agreed to participate in the study. At the beginning of each interview, I spent five to ten minutes having a general conversation and reviewing the purpose of the interview. This helped to establish a trusting atmosphere which encouraged the participant to talk about his or her experience and I used a number of interview techniques such as probing, reflective listening and silence. On average the interviews lasted thirty to forty minutes and concluded when the tenant indicated that there was nothing further to add. Typically the closing comments acknowledged their comfort and appreciation at being able to openly share, discuss and reflect on their experiences of food security with an interested and engaged listener.

In this study, the interview questions were designed by me, with the participation of the members of the Tenant Advisory Committee (See Appendix E and F). I provided a sample

set of questions to the committee which I had designed using examples from other studies that I had researched in the literature review.

the Committee reviewed each question and through the discussion the final questions were created. The questions were based on the assumption that the tenant's perspectives are meaningful and that the tenants are the experts. I felt that the main advantage of using a one-on-one interview was that I would be able to ensure more confidentiality for the tenants than was available in the focus groups.

All tenants in each project were asked at the information session if they wanted to participate in a one-on-one interview. A notice was also given to each tenant informing them of the times and dates scheduled for interviews and inviting them to participate. The housing staff created a schedule for the interviews according to the times requested by the tenants. Interviews were conducted with the tenant either in their apartments or a private location which was comfortable to them. The goal of the interview was to elicit the lived experience regarding the barriers to food security that they have encountered. The interview data was audio-recorded and transcription of the raw data, by me, included word-for-word quotations of the responses. This data was then used in the analysis to determine the main themes which I then examined to determine if the original predications were accurate

Tenants were asked to sign a consent form agreeing to the interviews and acknowledging that the interview would be audio taped. Some of the questions were of a more personal nature and therefore participants might have felt uncomfortable answering them. It was my responsibility to provide safety, trust and respect for the tenant and the information shared. It also meant establishing a safe and comfortable environment for sharing the tenant's personal experiences and attitudes as they actually occurred. Some of the ways in which I did this were by providing a list of support services available and/or offering to have a support person sit in on the interview. Each tenant was given a food basket containing food items to make a spaghetti dinner as a way to thank them for their participation. (See Appendix H and I for the contents of the food baskets).

The one-on-one interviews asked the tenants about their food security status, food access practices and dietary choices. Some tenants were uncomfortable revealing health problems or concerns and felt uncomfortable answering questions about their personal habits. I was able to minimize the discomfort of those tenants because I have an understanding of,

and the ability to relate to, the tenant's situation. My training and work experience emphasizes empathic non-judgmental techniques of interaction.

At the start of each interview, I reassured the tenant that the answers to the questions would be completely confidential. Any personal information collected during the interviews was only for demographic purposes and none of the information disclosed would be shared with anybody outside of the scope of the study. Each tenant participating in a one-on-one interview was informed that he or she was free to not answer questions and need simply indicate this wish and the question would be omitted. The tenant was also told that he or she could withdraw from the study at any time with no repercussions of any kind. Interview questions were provided to the tenants in advance and although they were offered to have a support person of their choosing to sit with them throughout the interview, no one chose this option. The tenant was also informed, before the start of the interview, that if they became upset the following options would be offered: a break; the chance to stop and reschedule; or the opportunity to stop their involvement entirely and once again no one chose these options. The goal of the interviews was to elicit the lived experience regarding the barriers to food security that the participants encountered. Table Three provides the demographics of the one-on-one inter participants in both cases.

Table Three: Demographics of One-on-One Interviewees

Gender	**Year of Birth**	**Primary Disability**	**First Language**	**Primary source of Income**
F[1,2]	1951	Intellectual and Mental Health	English	Provincial PWD
M[1,2]	1949	Physical	English	CPP
M[1]	1959	Physical	English	Insurance company
M[1]	1956	Mental health	English	Regular Income assistance
M[1,2]	1948	Physical	English	Old age security
M[1]	1973	Recovery – alcohol	Haida	PWD/Band
M[1]	1975	Mental health/substance use	English	PWD
F[1]	1967	Mental Health	English	PWD
M[1]	1966	Physical	English	PWD

M[1]	1972	Physical	English	Regular Income Assistance
M	1972	Problematic substance Use [3]	English	PWD
M	1956	Physical/depression	English	PWD
F[1,2]	1962	Physical and Mental Health	English	Regular Income assistance
M	1955	Physical	English	CPP disability
F[1,2]	1950	Problematic substance use	Haida	Old age security
F[1,2]	1970	Physical and mental health	Haida	PWD
M[1]	1956	Physical	English	CPP
M	1962	Problematic substance use	English	Regular income assistance
M[1]	1969	Mental Health	English	WCB medical
M[1,2]	1941	Mental Health	French	Old age security./CPP/work pension
M	1958	Physical[4]	English	PWD/busking

[1]*Attended focus group*
[2]*Member of Advisory Committee*
[3] *Problematic substance use is a result of an addiction to prescribed pain medication for a physical job-related injury*
[4] *Broken back resulting from a physical assault*

Housing Mangers One-on-One Interviews

The managers of both housing projects were interviewed to gain information about the facility and the programs and services that are in place in the building.
They were asked if they knew of any barriers that the tenants have to food security and if they had any suggestions to enable access to food security for their tenants. Both managers stated housing conditions have a significant effect on tenant food security and both recognized the need for safe and healthy food for their tenants.

Data Transcription

I transcribed all of the data collected before I started to analyze it. The process of transcribing the tape-recorded interviews, focus groups and community mapping discussions into an electronic computer file began within 48 hours of completing the interviews, focus groups and community mapping exercises. I compared the transcripts with the audiotapes for

accuracy. In addition to the electronic files, a hard copy of each transcript was maintained to provide protection in the event of computer problems. Each participant was given a number code, for example U1(Urban) ,R1(Rural), UHP1(Urban Housing Provider);RHP 1 (Rural Housing Provider); UCSP 1 (Urban Community Service Provider); RCSP1(Rural Community Service Provider) and all identifying information was omitted from the transcripts. The audio-tapes and printed transcripts were also numerically coded to facilitate cross-referencing and were stored in a locked filing cabinet in my office.

I chose not to use any identifying information when discussing the results and no names were used. When reporting the study results in presentations and written publications, the names of the specific organization will never be used and care will be taken to disguise the identity of the individual. If anonymity cannot be ensured for particular questions, those responses will not be made public.

Data Analysis

Efforts were made throughout the study to report the views and opinions of the participants as accurately as possible but it must be acknowledged that my role in the study inevitably influenced both the nature of the data collected and its interpretation. In an effort to better understand my possible biases, I felt it was important for me to examine how my thinking about food security could influence the study results. As part of my graduate program I undertook an exploration of the literature on food security and housing. I did further reading on theories and methodologies of qualitative research. I also wrote three candidacy papers on the topics from a critical perspective. This enabled me to develop a comprehensive understanding of the concept of food security and housing. I made a conscious attempt to maintain a capacity for openness because I believe that embedded in the idea of understanding is the importance of being aware of one's own prejudices. Therefore before starting the data collection, I made a list of my personal biases and beliefs.

Figure 4: List of Personal Prejudices

Understanding of participants – Informed consent is possible
Nature of the wider community – Knowledge of a continuum of food security is low
Welfare State – orientation of need based on a charity model - constructed upon an individualized view of wellness
Personal Stance – personal lived experience of the tenants is valuable

Case Study Data Analysis Cycle

This explanatory study was designed based on the case study method described by Robert Yin (2009). I chose this method because I felt it would be the best way to provide the data in the tenants own voices and reduce some of my personal biases. Robert Yin updated his methods in 2011 and presented a five phased data analyzing cycle. The first phase – *Compiling* - begins by sorting the data collected. The second phase – *Dissembling* – breaks down the compiled data into smaller fragments. The third phase identifies substantive themes and reorganizes the data into the themes and is considered a – *Reassembling* – process. The fourth phase involves using the reassembled material to create a new narrative and is considered one of – *Interpreting* – the reassembled data. The final phase is considered – *Concluding* - drawing conclusions from the entire study. Below I will describe how I interrupted the phases and how I followed them in my data analysis.

Phase One – Compiling

According to Yin, compiling means "*putting the amassed field notes in some order. The finished compilation might be considered a database*" (Yin, 2011, p.178). As part of the first phase of the data analysis cycle, I listened to all the tape recordings to familiarize myself with the data and reread the transcripts to start to assimilate the information and create a database. Yin (2014, pg. 123 – 124) stated that "*the case study database will be a separate and orderly compilation of the all the data. The main function of the database is to preserve the collected data in a retrievable form*". Before I was able to use the database, I checked the logic, consistency and accuracy of the entries by answering the following questions: (a) what are the distinctive features of the responses; (b) how the collected data relates to my original theoretical propositions and; (c) were there new insights that emerged. I put all this information on to separate index cards for each data collection source. I then organized the index cards under the main topic areas and this information was entered into an excel spreadsheet and became my compiling database.

Phase Two – Disasssembling

According to Yin, disassemble was preferred term for the second phase of data analysis. He stated that:

> "*Some texts and methodologies refer to "fracturing the" data. This usage was resisted because of the connotation from the everyday meaning for "fracturing" – that the result may be harmful to the data, or the data may be broken in some*

> *undesirable way. Scholars have also referred to the disassembling processes as "data reduction" (because, for instance, many words in an original recording are being coded into a shorter version). This second term was also resisted because disassembling data may not always result in reducing the data nor should data reduction be the overarching goal for the disassembling process" (Yin,2011. P186).*

I chose not to code portions of the data because *"coding routines can produce their own distractions – for example, having to attend to the mechanics of the coding process rather than struggling to think about the data*" (Yin, 2011, pg. 188). As a result, I took the three precautions of constant comparisons, trying to be alert to negative instances, developing rival explanations and continually posing questions about the data. I will describe these three precautions, as outlined by Yin (2011) below:

Constant Comparisons – Constant comparisons involve looking for similarities and dissimilarities in the data items and questioning why these items are similar or dissimilar. Part of this process is also questioning why the items as being regarded as similar or dissimilar and include negative instances and rival thinking.

Negative Instances – involves uncovering items on the surface that might have seemed similar but on closer examination appear to be misfits. Uncovering items that on the surface might have seemed similar but on closer examination appeared not to be are considered negative instances. For example, I interviewed two community service providers in two communities that belong to the same national organization. I was trying to determine if the organization provided the same services regardless of where they were located. The data showed that the two organizations deliver very different services and I couldn't ignore the negative instance. I needed to understand more about the negative instance.

Rival thinking – involves searching for alternative explanations for my initial observations. For example, I asked participants to share their personal experiences with food security and realized that most of them did not use the services that were available to them. My initial thinking during the reassembling phase was that the participants were resistant to using the services. I had to examine the data carefully for any rival explanations before I could conclude that resistance was the main explanation.

Posing Questions

My disassembling process involved creating index cards identifying the relevant items and different topics. I reviewed each topic to identify any other themes. All this information was entered into the database matrix. I created an explanatory matrix as described by Miles, Huberman and Saldana (2014) who wrote a practical methods sourcebook for qualitative data. "*An explanatory effects matrix is a broad brushstroke chart that serves as a step to answer why certain outcomes were achieved and what caused them" (*Miles et al., 2014 p. 140). They placed a strong emphasis on data displays as "*an organized, compressed assembly of information that allows conclusion drawing and action*" (Miles, et al., 2014, pg. 12). I decided that an explanatory matrix would help to clarify, in conceptual terms, the barriers to food security that emerged.

Phase Three – Reassembling

During the reassembling phase, I reviewed the data to search for patterns and how these patterns related to the original hypotheses at the outset of the study. Part of this process was trying to answer some of the following questions: do the emerging patterns make sense? Are they changing my thinking? How the patterns are related to the theoretical concepts I prosed? During this reassembling phase, I realized that what I would retrieve from the database would involve making choices based on my own judgments. I also realized that I was considering lack of income as the largest barrier to food security for tenants. I had to ask myself whether this emerging theme really was the largest barrier.

To help answer these questions I created an explanatory matrix as described by Miles, Huberman and Saldana (2014) who wrote a practical methods sourcebook for qualitative data. "*An explanatory effects matrix is a broad brushstroke chart that serves as a step to answer why certain outcomes were achieved and what caused them" (*Miles et al., 2014 p. 140). They place a strong emphasis on data displays as "*an organized, compressed assembly of information that allows conclusion drawing and action*" (Miles, et al., 2014, pg. 12). I decided that an explanatory matrix would help to clarify, in conceptual terms, the barriers to food security that emerged. The matrix is a table of rows and columns, the rows represented the individual participant responses, the columns represent the interview questions and cells represent the actual data. The completed matrix permitted me to examine the data to start to

draw conclusions. The disassembled data was now reassembled in a conceptual form that was relevant to this study.

Phase Four - Interpreting

The fourth phase of the data analysis – *interpreting* – involved a comprehensive explanation of the data. As Yin (2011, p. 216) states "*the whole interpretation is decimated to explaining how or why events came about*". During this phase I considered the completeness of my data – did it have a beginning, middle and end – and the fairness of my interpretation – does my interpretation fairly represent my data.

Yin described three modes of interpreting data: description; description plus a call for action; and explanation. I chose explanation because I wanted to be able to explain the barriers to food security for tenants in supported housing. The goal of this study was to explain how and why barriers to food security came about in each community.

The data collected provided me with the ability to make comparisons between the tenant's experiences with access to food resources in both communities. During the data analysis of the one-on-one interviews, I combined data from each housing setting to understand how the barriers affected the tenants. I then built a narrative explanation of the barriers by iteratively comparing the data to the study's propositions, conceptual framework and research questions. The goal of the data analysis was to establish inferences about the case and link the data to my propositions.

Phase Five – Concluding

Yin stated that *"all completed empirical studies should have one or more conclusions and therefore, drawing conclusions still may be considered as part of a study' analysis"* (20111, p, 220). This fifth analytic phase permitted me to challenge the conventional stereotypes of people with mental illness and/or problematic substance use. I was also able to provide information about the need for the integration of food security programs and services into supported housing.

Approaches to Rigor

There are different criteria used to access the rigor of case study research (Lincoln & Guba, 1985: Miles & Huberman, 2014; Stake, 2006; Yin,2009). Yin (2011) described four tactics consisting of construct validity; internal validity; external validity and reliability. He stated that a *"valid study is one that has properly collected and interpreted its data, so that the*

conclusions accurately reflect and represent the real world that was studied" (Yin, 2011, p. 78) I chose to incorporate Yin's tactics and use the framework proposed by Lincoln and Guba (1985), consisting of credibility, dependability, confirmability and transferability. In the following section I will describe the four approaches I used to ensure the validity of the study.

Credibility

Credibility refers to the value and believability of the findings and involves two processes; conducting the research in a believable manner and being able to demonstrate credibility. Yin (2009) refers to credibility as internal validity and described this tactic as *"seeking to establish a causal relationship, whereby certain conditions are believed to lead to other conclusions*" (Yin, 2009, p. 40). I used three strategies in my approach to credibility. The first strategy was triangulation of the data. I did this by converging the data from the different sources that included interviews, focus groups, and the literature review; the audio recordings of the interviews and focus groups. I was able to get corroborating evidence to support my propositions from the three independent measures. The second strategy was participant checking. I did this by allowing the participants to read the transcription of their interviews to ensure that the answers were accurately recorded. I did this before I analyzed the data because I wanted the participants to respond to their own words and not to recognize themselves or their particular experiences in the synthesized findings.

The third strategy was using an external debriefing process. The three members of my advisory committee reviewed the data to verify whether or not the findings were credible.

Dependability

Dependability refers to whether the process of the study and the data is consistent, reasonably stable over time and across research methods. Yin (2009) refers to dependability as reliability and described this tactic as "*demonstrating that the operations of the study can be repeated with similar results*" (Yin, 2009, p. 40). I addressed the issues of quality and integrity by constantly considering the following:

- Were the research questions clear and was the study design congruent with them
- Was my role and status explicitly described
- Was the data collected from multiple sources?
- Were the findings meaningful across data sources?

I also maintained a dairy to record my thoughts about the decisions made throughout the study. My thoughts and ideas documented during the data collection helped me in the development of the final themes and sub themes.

Confirmability

I addressed the issues of neutrality and unacknowledged researcher biases by considering the following points:

- The study's methods and procedures were described explicitly and in detail
- It is possible to the follow the sequence of how data was collected, processed and displayed
- The findings are explicitly linked
- There is a record of the study's methods and procedures
- I have been explicit and self-aware about personal assumptions, values and biases
- Competing or rival conclusions have been considered
- The data has been retained and is available for reanalysis by others.

Transferability

Transferability refers to whether or not particular findings can be transferred to another similar context or situation, while still preserving the meanings and inferences from the completed study Yin (2009) refers to transferability as external validity and describes this tactic as "*defining the domain to which a study's findings can be generalized*" (Yin, 2009, p. 40). In order to determine if the conclusions from this study were transferable to other contexts I considered the following points:

- The characteristics of the sample of participants, settings, processes were fully described to permit comparisons with other samples
- The findings specifice sany limits on sample selection
- The processes and outcomes are applicable in comparable settings
- The findings are congruent with prior theory
- The findings include enough description for readers to assess the potential transferability and appropriateness for other settings

Summary of the Study Design

This study was informed by constructivism using an explanatory case study method, employing adapted principles of community-based research with a social justice focus. A constructivism research paradigm is, by and large, informed by a variety of separate but related philosopical stances of critical theory (Kaplan, 2003: Klein & Trues, 1996,; Ngwenyama & Lee, 1997) and social justice (Rawls,1999, Sen,2009, Young, 1990). A participatory

approach provided a framework to explore the experiences of food security for tenants in supportive housing.

I argue that research is only useful to a community if it is accurate and provides information that is an honest representation of the issues being studied. Studying the barriers to food security identified by the tenants in supportive housing can point policy makers and the community toward more effective alternatives to current strategies.
(Frankish et al., 2002). Traditional social science research has predominantly relied on the specialized skills of the researcher to collect, analyze and interpret other people's realities. This has served to limit who is qualified to conduct research and has perpetuated a process where those outside of the community decide what should be researched and how it should be carried out. Adapting the principles of community-based research led to a more participatory study. This participatory approach was an effective strategy for generating knowledge that had high relevance for the participants while also contributing to the general scientific knowledge base of health (Frankish, et al.,2002: Wallerstein & Duran, 2006; Cargo & Mercer, 2008). Although this approach was sensitive to the needs and concerns of the participants it did not abandon accepted research practices but acknowledged the participant's expertise (Flaskerud &Winslow, 1998). As well, this approach has the potential for bridging gaps between research and practice, addressing social and environmental justice and enabling people to gain control over the determinants of their own health (Wallerstein & Duran, 2010; Wallerstein, et al., 2011).

I further argue that participatory research also challenges the norms of society by supporting research initiatives among marginalized individuals. Community-based research can be a valuable tool for marginalized community members and can be a rewarding way of carrying out research especially in a supportive housing setting with marginalized individuals. There are tangible benefits to the community involved both directly, through the achievement of social change, and indirectly, in terms of community engagement in addressing sources of marginalization and increasing potential to achieve social change. Salmon, et al (2010) urged researchers to remain cautious "*in the intention to build capacity through research partnerships and to avoid complicity in rendering community needs invisible by calling it research to take up the slack for underfunding of community organizing and development*". The success of a community-based research project may be determined as much by the empowerment

achieved among individual stakeholders as the actual research outcomes. Rather than looking at research as the panacea for achieving empowerment, a CBR approach can look toward using strategies that enhance the skills that community members use on a daily basis (Israel et al.,1998; Wallenstein and Minkler,2006).Community-based research is founded on the belief that engaging lay community members in the research process will contribute to the empowerment of individuals and in turn, facilitate community mobilization to overcome opposition (Charles & DeMaio, 1993). While the ultimate goal of community-based research is to shape communities in positive, healthy ways, communities themselves also have the potential to shape community-based research Green & Mercer, 2001; Hills & Mullett, 2000). There are tangible benefits to the community involved both directly, through the achievement of social change, and indirectly, in terms of community engagement in addressing sources of marginalization and increasing potential to achieve social change.

By using a case study design as described by Yin (2014) for this study, I was able not only to address the research questions and objectives, but added important information on the barriers to food security for the tenants. The methods used to collect and analysis the data in this study are congruent with an explanatory case study methodology.

Chapter Four – Study Findings

Introduction

In this chapter, I will integrate the findings from each data source by site for the two communities and present the participant identified barriers to food security. Each identified barrier illustrating the findings about food security in supported housing is presented with relevant data, as well as a description of the available food resources in each community. I will provide a description of the barriers identified for each housing project and then a comparison of the results from the two cases. By determining the relationship between the various locations and kinds of food services available to tenants in their neighbourhoods, I will present strategies for practice, policy and research that could benefit the nutritional status of the tenant living in supported housing.

Before I present the comparison of the two cases, I will explain two additional themes that emerged from the analysis of the data. The themes of hunger and the use of charitable food programs were interconnected with each barrier and are worthy of further explanation.

Hunger

All of the participants both implicitly and explicitly reflected that hunger is part of their daily experience. These reflections illustrate the context of the shared experience of the participants, reinforcing that food insecurity and hunger is a problem for tenants living in supported housing. It would not be possible to discuss food security for tenants in supported housing without consideration of how the effects of past and present hunger have impacted the tenants. When asked how hunger has affected them, the participants were forthcoming with their answers even though this was a very personal question and lead to relating of very unpleasant experiences. When asked what does being hungry mean to you, all the participants, said *"uncomfortable*" and gave examples of how hunger has affected other parts of their lives. Hunger can be associated with a number of different and important points. For example, hunger can be associated with not being able to take care of yourself or your family

> "*Hungry means not being able to take of yourself – not living up to expectations"*
> "*I had to give my daughter up – she was taken by the Ministry– because I didn't have any money to buy food and we were starving".*

Hunger can also impact people's self-esteem, leading to feelings of depression, lack of belonging and defeatism:

"I felt beaten down, *tired and depressed*"
"Because I don't have any money, I don't belong anywhere:
I can't do anything, I can't even get out of bed".

When asked about their experiences of being hungry, participants expressed a range of feelings from "powerlessness*"* and "loss of pride" to physical effects of "pain*"* and "illness*"*. For example one participant said: "*My belly shrinks and I have pains in my gut"*. Another participant talked about food being a trigger for past negative associations: "*If I didn't bring in enough money, I didn't get any food".*

Some participants talked about physical pain and one participant has a medical condition and can only digest certain food. For example one participant explained how their past drug use has caused physical disabilities which makes swallowing difficult. One participant has no teeth and cannot afford to purchase dentures so chewing is difficult.

Responses from the community service providers also reflected a growing concern about hunger. They all stated that they are aware that their clients have past and present experiences with hunger. As two community providers said:

"The number of hungry people is growing every day"
"These people come from everywhere"

For low income individuals, having enough to eat everyday can be a significant challenge. Participants in both communities stated that a lack of income meant having to make the choice to access charitable food resources. This choice can result in insufficient quantities of food or food which may not have a high nutritional value, making it almost impossible for the participants to maintain a healthy diet.

Use of Charitable Food Services

Community charitable agencies are responding to the increasing number of people who are hungry offering a range of food and meal programs, including food banks and soup kitchens. One of the questions asked of the participants was about their feelings of about having to get free food. The answers clearly indicated that using charitable food resources was not a pleasant experience. Among the responses given when asked how they felt about using these resources were:

"*Isolating, I feel like no one wants to know me when I come here*";
"*Shame and embarrassment, everyone can see me standing in line*
and I think they are judging me. There's something wrong with me because

I have to get free food".
"*Uncomfortable. I have to admit that I don't have any food and I have to rely on charity.*

One of the questions asked of the participants was about their feelings of about having to get free food. Among the responses given were:

"I had to swallow my pride;
I used to be a giver not a taker;
I always made donations to charity and now I have to use it."

Additionally, "*the occasionally unsavory atmosphere, regulations and food quality discourage those most in need from using these types of facilities*". (Dachner & Tarasuk, 2002, abstract) and therefore, are not alleviating hunger and malnutrition among all who require food assistance. For example, one participated said that:

"I avoid the soup kitchen and the food bank because I am afraid to go here. I got pushed when I was standing in line and once when I had a stroke I fell down so I can't be pushed because I don't want to fall down'.

These answers clearly indicated that using charitable food resources was not a pleasant experience. It can be a difficult experience to receive charity and one that impacts self-esteem as demonstrated by the comments above.

In the following section, I will provide a description of the urban community, followed by an explanation of the major barriers that arose from analysis of the data. I will then provide a description of the rural community, followed by an explanation of the major themes that arose from analyzing the data. I will close the section with a cross-case comparison of the major themes that emerged from each data collection source.

Case 1 - Urban Community Support Housing Project

Description of Urban Community

The urban community was incorporated in 1967 and since that time the population has almost doubled. In 2013, the community had a population of 86,000 and current growth projections from British Columbia Non-Profit Housing Association (2014) estimate that the community will experience an average annual growth rate of 1.4% over the next 25 years. (BCNPHA Rental Index Report, p. 5). BCNPHA also projects that the rental housing demand will increase from 274 to 291 households annually over the next ten years. (p. 6).

The urban community is considered a major centre and transportation hub on Vancouver Island. As a hub city, the community benefits from its central geographic location and accessibility. But the city also struggles with the challenges associated with being a major centre, such as housing affordability, low vacancy rates and a visible homelessness population. According to City Spaces Consulting (2008), who developed an action plan in response to homelessness, the residents have a lower employment rates and greater reliance on government assistance compared to the rest of BC's residents and the median household incomes are lower compared to BC households. The community households earn 23% less income on average that BC households and single parent families and single person households receive the least income on average.

Economic growth and rising real estate prices have resulted in low vacancy rates and increased pressure on affordable rental units. City Spaces Consulting (2008) determined that the rental apartment stock is declining of an average of 57 units per year and vacancy rates have been consistently under 2% since 2003.

Rooming houses and secondary suites contribute to the low-income rental housing stock. There are between 90 and 150 buildings considered rooming houses in the community. City spaces Consulting (2008) reported concerns about high occupancy numbers and fire and safety standards have resulted in a heightened awareness around these houses and a number of them are being inspected. Secondary suites offer an affordable rental alternative and are recognized as a permitted use in all areas of the city. But many existing suites are illegal and require significant upgrades to comply with current bylaw requirements.

The Working Group on Homelessness conducted four homelessness counts (April 2005, November 2005, July 2006 and September 2007), While the numbers varied from count to count (300 in June 2006, and 173 in September 2007) recent estimates from the Homeless Hub (2011 Report for the urban community) estimated that the number of individuals living on the streets in the urban community is between 137-567 individuals. Estimates done by the Vancouver Island Health Authority (VIHA) in 2007 using local homeless count statistics and clinician client loads suggest that approximately 300 individuals are without a home. The Mental Health and Addictions Services' (NMHAS) Downtown Crisis Team nurses estimate that most (96%) of the 256 clients on their current caseload have a problem with substance use and concurrent mental illness. Many of the remaining individuals are impacted by significant

cognitive impairments that limit their employability and many of the total population are functionally illiterate

The Homeless Hub also estimated that the apartment vacancy rate in the urban community is 6.3% and the average monthly rent for a 1 bedroom apartment is $660. As of 2010 they estimated that the number of individuals accessing social assistance benefits in the urban community was 4,662 (Homeless Hub, 2011 Report). Based on these projections and the identified number of individuals who are homeless a report from community's Working Group on Homelessness in 2007 determined the current housing stock will not be able to match future demand. The authors of the report also stated the following trends are likely in the community:

- Housing affordability will continue to be an issue as housing costs are rising faster than income
- Affordable rental housing stock is in short supply
- The rise in construction costs will continue to exert cost pressures
- Low vacancy rates will continue to make it more profitable for owners to sell rather than rent
- Rising employment levels will continue to mean more demand for rental suites
- Considerable numbers of people, lacking sufficient income to access affordable and appropriate housing will remain in core housing need
- Increasing homelessness will continue to put pressure on facilities and services

As a result of this report, in late 2008, the City and BC Housing entered into a Memorandum of Understanding (MOU) for the development of new units of supported housing for the community's homeless population. The MOU set out the parameters for the design, approval, and preconstruction work, and also outlined the housing priorities, eligible tenants and selection of a non-profit housing society operator. The service provider was required to work collaboratively with BC Housing to develop and define the building and operational programs, with funding provided by BC Housing for rent subsidy and/or a contract with the Health Authority for 24 hours a day and 7 days a week housing staffing. The staffing role would include connecting the tenants to services but not the provision of direct services to the tenants. A new city-owned site for a supported housing project was opened in 2012. The project contains twenty-four self-contained studio apartments, three wheelchair accessible apartments and three one-bedroom apartments. All the units have a fridge, stove, microwave and cupboards for food storage.

The criterion for admission to this housing program is a referral from community agencies for people at high risk for homelessness. A monthly triage committee composed of staff from the housing project and representatives from Island Health authority (IHA) determine admission to the housing project. All the tenants are formerly homeless men and women with an identified mental illness and/or problematic substance use. All of the tenants receive some form of income assistance, either from the federal or provincial government, resulting in fixed, low, monthly incomes with very little disposable cash. Most of the tenants also have specific chronic health issues, such as diabetes, where proper nutrition is a need for managing the illness. The housing project is operated by a local branch of a national non-profit organization. The national and provincial parent organizations provide the parameters for operations but the local branch has the autonomy to make local program delivery decisions. The society has twelve staff, five full-time, three permanent part-time and four casuals who provide 24/7 staff support. They have an operating agreement with BC Housing for building maintenance and staffing and other program costs because of the "low-barrier" classification. The building also has a communal cooking area and a community garden plot. At this point in time the only programming, other than housing, is special event meals, such as Thanksgiving and Christmas and food donations from two local coffee shops, on a weekly basis, the local chapter of Community Kitchens provided one cooking class but participation was very low and the organization's lack of funding prevented any future programs from being offered. A rehab worker from IHA Mental Health and Addictions has provided three six-week basic cooking programs which are now being offered by the in-house staff.

Presentation of Urban Community Findings

Three A Barriers

An analysis review of all the data sources for the urban community resulted in the production of three broad themes which I am calling the "Three A" barriers to food security comprising of a lack of: 1) Affordability of food, 2) Access to food and 3) Availability of nutritionally adequate food.

Barrier One – Affordability of Food

All participants agreed that food in their neighbourhood was expensive and it was difficult for them to go shopping in their neighbourhood. When asked what they usually eat for breakfast, lunch and dinner only two participants said they try to eat a balanced meal. The

other participants said they eat whatever is on sale that week or whatever they are given from charitable locations. Six participants said they only eat one meal a day. Breakfast was the meal most often skipped and if eaten, consisted of toast and cereal. Sandwiches and soup were the most common choices for lunch, Kraft dinner and spaghetti were frequent choices for dinner. Four participants mentioned eating fresh fruit only during the week that income assistance cheques are issued. Those participants who did eat meat at least once a week said they ate low-cost sandwich cuts or items that could be fried, such as bologna. If vegetables were eaten they were potatoes and carrots because of their low cost and easy accessibility.

Ten of the twenty-two participants said they do not have enough money to eat three meals a day. These participants indicated that they do not eat anything for the whole day at least one day per week. For example, one of the participants interviewed said:

> "*No money, no food, so I go hungry that day. Sometimes I don't have money for a week, so I don't eat every day that week. I have to scrounge or try and get free food".*

All the participants said what makes it hard for them to eat enough every day is lack of money. The lack of money to purchase food was mentioned whenever the participants were asked what food they usually buy. All participants said that where they shop depends on the money they have and they decide what to eat that day based on what food is on sale at the store. For example, one participant said: *"I can only buy food when it's on special. Most good food is expensive, so I can never buy it".* When I asked them what they meant by good food, they replied *"fresh fruit, fresher and different vegetables and maybe a steak".* They also all agreed that the time of the month when it was most difficult to access food was the week before their provincial income assistance cheques are issued. One participant say they purchase food for the whole month on the week their cheque is issued "*I only go shopping once a month and I have to buy stuff that will last that long*" .The lack of income also meant that they could not afford to purchase fresh fruit or vegetables at the grocery stores, which results in them trying to find marked down, older produce. For example one participant said:

> :*"I don't have enough money to buy fruit or vegetables every time I go shopping, so I might buy a bag of oranges to eat right away and a bag of apples for the rest of the month if they are on sale".*

The lack of income resulted in the participants having to make choices to purchase overripe, fruit or vegetables or being limited to basic produce such as potatoes, carrots and apples. The lack of money also meant any meat purchases were lower quality cuts or meat ends available in the deli sections. The participants, receiving monthly income assistance have periods where they eat better in the first week of cheque issue and then need to use charitable food resources for the rest of the month. As one participant said:

> "*I can go to the high-price grocery store when my cheque comes, otherwise I go to the cheaper store , and then the food bank once a week and finally the soup kitchen until my next cheque comes*".

The above comment shows a cyclical pattern in their ability to afford food and maintain a nutritious diet.

All the community service providers, as well as the house manager, identified lack of income as a barrier to food security for the clients they serve. As one service provider said: *"You know that the bowl of soup maybe all they are going to eat that day*". When asked how they think that the lack of income affects the people they serve, the responses all indicated that food was the item most people went without. For example, one community service provider said: "*Food is the first to go; they eat less when their money is running out".* All community service providers mentioned the growing number of people asccssing their services and they all stated the recognized need for safe and healthy food. However, the lack of on-going financial support from either BC Housing or IHA to the community service providers has put a strain on the limited resources available to them. One community service provider interviewed said: "*The amount of money we get isn't enough to provide everyone with food".* The providers also talked about the need for increased funding to provide food programs and the need for partnerships with other organizations as a way to increase food security for their clients.

<u>Barrier Two - Lack of Access to Food</u>

The complexity of transportation or accessing food resources was the second major barrier identified by participants in the urban housing project. Transportation requires financial resources and includes the lack of means, for example no vehicle, or no access to rides, as well as the difficulty of using public transit. Using public transit involves knowing the bus schedules which can change periodically and as one participant said:

> *" They keep changing the times and the numbers of the buses; sometimes they even change the routes*".

Using public transit also limits an individuals ability to purchase bulk items. For example one participant said:"*Trying to lug 10 lbs of potatoes home on the bus is hard".* As a result, using public transit can result in needing to spend half a day shopping, as well as, public transportation still requires exact bus fare. People who receive income assistance are entitled for reimbursement once a bus pass has been purchased but this requires budgeting once a year to cover the initial cost.

Reliable and regular transportation to the food bank and/or low-priced grocery stores was mentioned by all the interview participants as a concern. Two community service providers stated:

> *"I know they have walked here, they don't have bus fare"*
> *"They arrive soaking wet because they have been walking in the rain and you know that by the time they have walked home the bag of food will be soaking wet"*

Limited access to public transit or not having the exact change for bus fare means the participants must walk to access food, regardless of the weather, with limited guarantee that the food items will still be useable once they return home.

Barrier Three - Lack of Availability of Nutritionally Adequate Food

Consistent with case study research, I developed propositions at the onset of the study. The lack of affordability and access to nutritional food at grocery stores described above were propositions I put forth initially. However, the participants concern about the quality of food available at low priced grocery stores or community charitable resources was not included in the initial propositions but emerged in the data. In the following section, I will provide information on the different issues surrounding the lack of availability of nutritional food in the urban community. These issues include: selling items after the best by date; providing items that are unknown; not being able to eat food from all four food groups; and the lack of resources for preparation and storage.

a) Best Before

Nine participants talked about the quality of the food available at the low priced grocery stores, as one participant said: *They sell stuff that is past the due date".* These participants talked about the poor quality of the food available at the food banks. For example, one participant said: "*They also have given me canned stuff with old best before dates".* Although

there is no evidence that best by dates are absolute, the participants all agreed that they didn't want to use food that was past due. Best before dates are guidelines and indicate safe and acceptable usage The provision of outdated foods highlights the lack of access to safe and acceptable sources of foods.

b) Unknown Items

Food banks rely heavily on community donated food items, as shown by containers to receive donated food placed in multiple locations in the community. Unfortunately these items can be a barrier if individuals do not know what the products are or do not know how to prepare them. One participant showed me a jar of peppercorns and stated: *"The food bank has stuff I have never heard of and don't know how to cook it.* If individuals are unable to use available food products, then the service being provided by food banks is not of benefit. .

c) Balanced Meals

The participants also talked about not being able to eat balanced meals because low priced and donated food items in every food group are not available. For example, participants were aware of Canada's Food Guide and although they try to eat balanced meals, they found it impossible to do so. As one participant said: *"I don't get balanced meals … I can't hit all four food groups going to food banks.* Lack of availability of nutritious food means that the participants are not able to maintain their health.

Two participants also mentioned that they do not eat balanced meals because they do not get enough food at the food bank, resulting in them spending more time accessing different locations, for example one participant in the urban community stated: *"I go to the different food bank outlets each week because I do not receive enough food at any one particular location".*

d) Lack of Resources for Preparation and Storage

One participant talked about the lack of storage space in their apartment, after showing me that there is no pantry and only two cupboards. There is also a very small countertop and the stove has only two burners.

Case 2 - Rural Community Supported Housing Project

Description of Rural Community

The rural community I selected for this study is located on the west coast of Vancouver Island and was incorporated in 1967. It is one of three incorporated areas in the Regional District. The forest and fishing industries have been the traditional economic backbone of the

community but these industries have faced significant economic hardships. In 2011, the population census was 17,782 (Statistics Canada, 2011) and BCNPHA estimates the population will grow slowly over the next 25 years with an average annual growth rate of 0.1%.(BCHPHA, 2014, p. 5). The community struggles with many serious issues, such as unemployment and poverty that have a negative impact on the wellness of individuals. According to Statistics Canada Census Counts, thirty years ago, the community had the highest per capita income in Canada. The latest research (BC Stats, 2012) indicates that the community now has a poverty rate around 25%. As of December 2012, 7.0 percent of the adult population between the ages of 19-64 were receiving regular income assistance. According to a report conducted by Malaspina University College's Department of Recreation and Tourist Management in 2007:

> "*domestic violence is a serious and rising concern; homelessness as well as new issues such as the sexual exploitation of children and youth are becoming more serious, too."*
> (People's Voice- A Local Government Satisfaction Survey,2007, p.4)

BC Stats (2006) indicates that the rural community consistently ranks among the most troubled in the province in relation to specific crime-related activities. The People's Voice Satisfaction Survey also determined that the community experiences:

> *Fractured, depleted community responses to social, economic and health issues and that these responses are almost completely intervention-oriented*
> *A lack of neighbourhood connectedness*
> *Tolerance of negative social values, including racism, and an acceptance or tolerance of negative behaviours including drug use, prostitution, alcoholism and crime; and*
> *A high number of individuals living on the margins, without adequate resources, support and capacity"* (Page 4).

The need for more social housing became evident around 2006 when the number of people spending the night on the streets or in sub-standard housing increased. This issue was the subject of regular news articles and letters to the local media, as well as public discussion. In June 2006, CMHA BC Division initiated a yearlong pilot Homeless Outreach Project in partnership with the then BC Ministry of Employment and Income Assistance. The rural community was one of eight locations around the province where CMHA divisions delivered the outreach services. The current outreach program began in 2007 and is funded by BC Housing's Homeless Outreach Program (HOP) program. Based on findings from this

outreach project, the City and the office of the MLA convened a stakeholders meeting in 2007. The first meeting was attended by representatives from all levels of government, government agencies, non-governmental service agencies and churches. An ad hoc group evolved with the priority of developing a plan to end homelessness. The Vancouver Island Health Authority (VIHA) provided funding to cover the cost of hiring a local consultant to develop a community plan to end homelessness. The community adopted the plan that was developed and an Advisory Committee consisting of First Nations elders and local agencies was also formed to adopt a supported housing strategy plan. This citizen-based initiative for the creation of a supported housing project led to advocacy from the local MLA, resulting in extensive lobbying of provincial government for capital funding to create a transitional housing project in the community. The renovation of an old motel was funded by BC Housing under the Provincial Homelessness Initiative and members of the stakeholder's coalition selected the housing provider.

Description of Rural Supported Housing Project

The rural housing project identified for this research is a supportive housing project that consists of forty-two bachelor units for adults who are facing homelessness, mental health issues and/or problematic substance use. The units have a small fridge, a two-burner stovetop and two small cupboards for food storage. The units do not have an oven or microwaves but there is a community freezer available in a common room. No food programs or services are offered but there is an in-house canteen where tenants can purchase food items that the staff have bought in bulk and repackaged into smaller portions. Most of the items available are staples such as coffee, tea and sugar. There are plans to expand the items to include smaller packages of dried pasta, cereal and rice.

The development was the result of a partnership between the province, Island Health Authority (IHA) and a non-profit community organization. The province provided a capital grant through the Provincial Homelessness Initiative (PHI) for the purchase and renovation of an old apartment building. IHA provides ongoing operational funding and the non-profit society provides the support services that include an on-site support worker, referrals to mental health and addiction services and other community-based programs and advocacy. This project is considered "transitional" housing under the criteria of the PHI but some tenants have lived in the units for more than five years, because they are unable to find other affordable

accommodation. The housing project has two full time paid staff and eight paid casual workers to provide 24 hour staffing. A wait list is maintained with individuals referred to the project only by any community organizations including probation services and the hospital. A panel of staff from the housing project, community outreach workers and the local shelter society staff conduct interviews when there is a vacancy. This panel makes the final decisions in regards to who will fill the vacancy and which community agencies will be able to provide support to the new tenant.

Presentation of Rural Community Findings

Three A Barriers - Rural Community

Similar to a review of the urban community, an analysis of the data collected for the rural community revolved around barriers related to lack of money, lack of transportation and the poor quality of food available. These three A barriers were exactly the same as for the urban community and therefore, my proposition that tenants in rural communities would have more barriers to food security was proven false. The barriers were the same in both communities but in the rural community the lack of transportation and available resources was more pronounced.

Barrier One – Affordability of Food

All the participants stated that they did not have enough to eat every day. For example one participant said: "*It's always about money; I never have any, so I never have any food".* Seventeen said that not having enough money is what makes it difficult. They also all agreed that the time of the month when it is most difficult to buy food was the week before provincial or federal cheque issue day. A lack of income also meant having to make choices to purchase overripe, fruit or vegetables or being limited to basic produce such as potatoes, carrots and apples. Eight (61%) of the participants use grocery store coupons that are available in the local newspaper once a week. Although these coupons do offer food items at a discount price, the participants mentioned the effort that is required to obtain these lower priced food. For example as some participants said:

> *"I spend about two hours going through the coupons and making my grocery list"*
> *"Sometimes I have to go to three or four different stores to use the coupons"*
> "*I use store coupons to get food, it's the only I can afford to buy food"*
> *"I always shop on a Thursday because the grocery store flyers come in*

the Wednesday newspaper"

The use of store coupons does not guarantee that the user will be able to purchase nutritious food or food of their choice.

When asked what they usually eat for breakfast, lunch and dinner, all the participants said they eat whatever is on sale that week or whatever they are given from charitable locations. Six participants said they only eat one meal a day, one participant said: "*I make one meal and eat it until it is gone; sometimes it lasts till the next day*".

Breakfast was the meal most often skipped and the choices for breakfast included oatmeal, or tea and toast. Sandwiches were the most common choices for lunch, and pasta was the choice for dinner. Any meat that the participants ate consisted of low-cost meat ends or items that could be fried, such as bologna or lower-priced bacon. Fox example one participant said: *"the butcher at the store will give me free bologna because he thinks I have a cat".* The vegetables most often mentioned were potatoes and carrots because there were cheaper and lasted longer. Four participants said they eat the produce from the garden plot on the property when it is available in the summer and wished the garden could be expanded.

All the community service providers identified lack of income as an issue. For example one participant interviewed said: *"That is the reason we provide services. Somebody has to feed them*" When asked how they think that lack of income affects the people they serve, the responses all indicated that food was what most people went without.

<u>Barrier Two - Lack of Access to Food</u>

All the rural community participants stated that obtaining food was difficult for them, mostly because of lack of reliable transportation. Reliable and regular transportation to the food bank and/or low-priced grocery stores was a suggestion given by every service provider as a strategy to reduce tenant food insecurity. As two providers said:

> *"I wish we could give them bus fare or buy bus tickets for them but it's not in our mandate"*
> *"They are already hungry and cold when they come and you know they have to walk back home in the rain"*

No participants in this study have vehicles, so they must walk, ride a bike or use public transit to access food resources. Thus, the difficulty of using public transit emerged as a theme. There is no public transportation on Sundays or holidays, limited service on Saturdays

and day time routes are time consuming. Access to some grocery stores requires transferring from one bus to another, which provides the ability to only carry one or two small bags of food. The participants also need to use the bus to go to the soup kitchen and/or food bank. However, nine participants said they are unable to use public transportation because they live with anxiety or paranoia. These mental illnesses cause them to experience stress in public situations and using public transit can heighten their feelings of stress. Two participants related experiences of being treated unjustly by bus drivers because of all the bags of groceries they were carrying. They both stated they have been asked to "*hurry up and get on. You are holding others up*", or they have been told that they cannot get on the bus because they have too much "stuff" They also talked about experiences with other passengers on the bus, believing they were being looked down upon or rude comments being made to them. For example, one participant said*: "I am afraid of the other people on the bus. I always think they are going to laugh at me or hurt me*".

For those people with physical disabilities, who require mobility aids, public transit is not always an option as not every bus is equipped to handle mobility devices. For example one participant said: "*I use a scooter and can't use the bus because there is no bus that will take a scooter".* Limited access to public transit or not having the exact change for bus fare means the participants must walk to access food, regardless of the weather, with limited guarantee that the food items will still be useable once they return home.

Barrier Three - Lack of Availability of Nutritionally Adequate Food

For low income individuals, maintaining a nutritious diet can be a significant challenge. A lack of income means having to make choices where to purchase food, what food the individual can afford to purchase and when food can be purchased. All the participants said they could not afford to purchase fresh fruit or vegetables at the grocery stores, which results in them trying to find marked down, older produce. A lack of income also means having to make the choice to access charitable food resources which can result in obtaining food which was described as mostly junk (doughnuts, cookies and cakes). Accessing food from charitable locations also means not being able to choose preferred foods or obtaining food for a balanced diet.

There is only one soup kitchen in the rural community that provides lunch five days per week. The lunch is served at noon Monday to Friday and service ends at 12:30. The soup

kitchen is 4 kms from the housing project and the bus service is a 15 minute ride with one transfer and then a walk of 3 blocks. Four participants said they won't go anymore after an incident of food poisoning, so they do not have access to programs in their community.

A branch of a national organization operates a community food bank and provides one hamper per month, 2 emergency hampers and 1 Christmas hamper per year., bread and potatoes are available at this location every Tuesday and Thursday.

Those participants that receive service for mental health issues can use a community service meal program that provides lunch five days a week, Monday to Friday and a dinner on Saturday nights. Only individuals with a mental health diagnosis and paid a yearly membership can access these meals. The meals must be eaten in the "clubhouse" setting and no take-home meal is available. This community resource does offer a frozen meal program, with three meals per week, once again for members only, but the monthly fee of forty dollars must be paid in advance. This resource is 5 kms from the housing project and requires a 20 minute bus ride with one transfer.

Comparison of the Two Case Studies

The three major barriers that emerged from the data analysis included lack of income, lack of transportation and concern about the quality of the food reinforced the predicated patterns that access and availability of food resources has a positive influence on the health of tenants in supported housing. My second proposition that the barriers would be different in the rural community was proven false, as there were no differences in the barriers that emerged between the urban and rural communities. The major barrier was the interconnection between not enough money and not enough to eat every day. Although the barriers were the same in both cases, how the tenants coped with the barriers and what resources were available to them was different. In the following section I will describe the three A barriers and how the participants coped with these identified barriers.

<u>Affordability of Food</u>

The lack of income mentioned by the participants involves more than just a lack of money to purchase food. Research (Bellows& Hamm, 2003; Cassady, et al., 2007; Dachner & Tarasuk, 1992;Davis et al., 2008; Tsand, et al., 2011) has provided evidence on income-related food insecurity and this evidence suggests that low income is the single greatest predictor of food insecurity. People in low-income groups most vulnerable to food insecurity

include those receiving social assistance and people with mental illness and/or problematic substance use. The association between poverty and food insecurity has also been well documented (Tarasuk & Davis, 1996; Vozoris et al., 2002; Wall et al., 2006; Williams et al., 2006) and researchers have noted that individuals relying on government income assistance and living in social housing are not protected from the experience of food insecurity. For example, according to Statistics Canada (2010) people in households relying on social assistance were at much greater risk of experiencing food insecurity than those in households depending on other income sources.

For low income individuals, maintaining a nutritious diet can be a significant challenge. Food insecurity tends to follow a predictable sequence from worrying about not having enough money to buy food, to compromising the quality, and then to reducing the quantity of food. A lack of income means having to make choices where to purchase food, what food the individual can afford to be purchase and when food can be purchased. All the participants in both communities said they could not afford to purchase fresh fruit or vegetables at the grocery stores, which results in them trying to find marked down, older produce, any meat purchases were lower quality cuts or meat ends. Participants in both communities determine where they will purchase food based on coupons and specials at the grocery store.

Although there is a clear linkage between income levels and food security, people living in transitional housing may also face additional barriers to food security as they have limited facilities to store, prepare and cook food and fewer opportunities to purchase food. As one participated said:

> "*The fridge is too small to store my stuff, so I don't buy produce, even if I could afford it. I don't have an oven so I can't make a roast or casseroles, it would be cheaper if I could".*

As well, some individuals do not have the basic skills of menu planning or food budgeting. For example some participants said:

> *"I don't like cooking and never know what to buy with the money I have, so I just end up cooking the same old meals that I get tired of"."*
> *I haven't used the oven since I moved in, I use the stuff from the food bank and heat it on the stove".*

In both housing projects there is a garden program and all participants talked about how expanding the garden would decrease their concern over the quality of food available to them.

For example, one participant described food from the garden as being better than what was available in stores. *"They were the best potatoes I ever tasted".* The housing project in the urban community was purpose built so a large garden area is available for the tenants to operate a community garden on site. The rural housing project was a renovation so there is very little gardening space available for the tenants.

Access to Food

No study participants have vehicles so they must walk, ride a bike or use public transit to access food resources. While tenants receiving person with disability income assistance are eligible for a yearly transit bus pass, this requires having budgeted for the cash lay out and waiting for the reimbursement. One participant in the rural community, talked about how she was always losing her bus pass and the issue of a replacement pass is not covered by income assistance. If an individual does not have a bus pass, they must have the exact fare for the daily use of public transit. For example once participant said:

> *"No stores around the bus stop will give you change unless you buy something. I had a driver kick me off the bus because I didn't have exact change."*

As a result of needing exact change, some participants in both communities mentioned that paying extra money to buy from the convenience store was still easier for them because of the time and effort required to shop from low-priced grocery stores. For example one participant in the rural community said:

> *" I need to get a carton of milk. At the convenience store it cost $3.00. At the grocery store it cost $1.79. If I want to go to the grocery store, I have to find the bus, I have to walk to catch the bus, wait for the bus to come, sit on the bus, get the milk, wait for the next bus, pay another bus fare, come home and have the milk. It's easier to get the more expensive milk.*

The soup kitchen and food bank in the rural community is not within walking distance of the housing project so the participants need to use public transit. As well, in the rural community there is no public transportation on Sundays or holidays, limited service on Saturdays and daytime routes are time consuming. Access to some grocery stores, in both communities, requires transferring from one bus to another, which does not provide the ability to carry more than one or two small bags of food. Although some grocery stores are situated

within walking distance to the urban housing project, the participants are still not able to carry more than one or two small bags of food.

I created a table to visually display the food resources used by the participants of both communities in the community mapping exercise. This table shows the difference in food resources in the two communities.

Table Four: Food Resources Used by Participants

	Urban community	**Rural community**
Number of grocery stores	4	5
Number of soup kitchens	1 – breakfast and bagged lunch	1 – lunch 5 days/wk
Number of food banks	1 organization – 9 satellite locations	1
Number of dollar stores that sell food products	9	3
Drug stores that sell food products	3	1
Community Food Action Initiative (CFAI)	Not available to single adults	Not available in community
Farmer's Market Coupon Program	Not available in community	Not available to single adults

This table demonstrates that there are limited resources for accessing food for the tenants of the housing projects and the food resources available to tenants in the rural community are very limited. This table also shows that although there are provincial initiatives regarding food security, not all of these are available to single adults and therefore to the tenants of the supported housing projects. These findings reinforced my hypothesis that if no provincial initiatives or programs are in place and local charities are not capable of responding to local need, then the barriers will not be reduced for the tenants.

Using the community maps and the transcripts from the focus groups and one-on-one interviews, I calculated the distances from the housing projects to the various food resources in each community. I also took public transit in each community and recorded the time that was required to access each food resource. I used the Canadian Marketing Institute glossary of terms, with the following definitions:

Convenience store – foodservice includes those items that are sold for immediate consumption.

Deep discount Drug Store – food accounts for 20% of store sales

Food Stores – retail stores engaged in selling food for home preparation and consumption.
Food/Drug Combo – combination of superstore and drug store under a single roof, with common checkouts. These stores also have a pharmacy
Super Warehouse – high volume, hybrid format of a superstore and a warehouse store
Supermarket Foodservice – includes sales of fully prepared foods/beverages products usually for immediate consumption sold through in-store delis and food bars and from restaurants located within the supermarket.
Warehouse Store – low margin grocery store offering reduce variety, lower service levels, minimal décor and a streamlined merchandising presentation along with aggressive pricing.
Table Five shows the distance and travel times for participants to access these different types of food resources.

Table Five: Distances and Time Required to Access Food Resources

	Urban		**Rural**	
	Distance	**Time and Number of transfers by bus**	**Distance**	**Time and Number of transfers by bus**
Warehouse Store	.5 km	Walk 3 blocks	5 km	20 mins No transfer
Food/Drug Combo	12 km	55 mins 2 transfers	4 km	25 mins 2 transfers
Convenience Storee	2 km	25 mins	3 km	25 mins 2 transfers
Foodcentre	2 km	10 mins No transfer	4 km	15 mins 1 transfer
Dollar Store	1 km	10 mins No transfer	4 km	30 mins 1 transfer
Supercentre	14 km	55 mins 2 transfers	4 km	30 min 1 transfer
Food Bank	3 km	10 mins No transfer	5 km	15 mins 1 transfer Walk 5 blocks
Soup kitchen	.5 km	Walk 4 blocks	4 km	15 mins 1 transfer and then walk 3 blocks
Farmer's Market Coupon Program	Not available		6 km	25 mins 2 transfers Walk 10 blocks

This table illustrates that even if individuals have the ability in theory to get food at several different places, this can be hampered by long walks and a lack of transportation. The limiting conditions of fatigue and a lack of energy from not eating well and the need to put extreme efforts into getting what may be poor food can be a factor in a cycle leading to increasingly poor health.

I also created a table using the participant information in regards to the amount of money they spend each week on food and where they purchase or receive food. Comparing where the participants obtain their food and the amount of money spent on food will enable the community housing and charitable providers to better understand the relationship between the cost of food and the ability to maintain a healthy diet.

Table Six: Amount and Location of Food Resources

Participant	**Amount spend per month**	**Percentage spend at grocery store**	**Percentage received from other locations**
U1	$40	0%	Drug store – 25% Dollar Store – 75%
U2	Over $80	75%	Dollar store – 25%
U3	$40	50%	Soup kitchen – 25% Food Bank – 25%
U4	$80	50%	Dollar store – 50%
U5	Over $80	25%	Convenience store – 50% Food bank – 25%
U6	$40	75%	Food bank – 25%
U7	$0	0%	Dumpster – 25% Food bank – 50% Steal – 25%
U8	Over $80	100%	
U9	$40	25%	Soup kitchen – 75%
R1	$40	25%	Meal programs – 50% Clubhouse – 25%
R2	Over $80	75%	Garden – 25%
R3	$40	25%	Dollar Store – 50% Convenience store – 25%
R4	Over $80	100%	
R5	$40	75%	Food bank – 25%

R6	$40	50%	Food bank – 25% Dumpster – 25%
R7	Over $0	75%	Food bank – 25%
R8	$40	100%	
R9	Over $80	50%	Dollar store – 25% Foraging – 25%
R10	$80	25%	Charity – 25%
R11	$40	75%	Dollar store – 25%
R12	$200	100%	

This table indicates that the participants spend most of their income on food purchased at a grocery store. Community charitable resources were the second highest location for receiving food and only two of the participants do not use grocery stores. This table also indicates that the participants in the rural community purchase the majority of their food from discount grocery stores or the dollar store. This table does not reflect that the amounts spent on food can fluctuate throughout the year for some individuals and in rural communities, seasonal variations in food availability can affect food expenditures. As one participant in the rural community said:

> *"Its harder in the winter because no food is available from the garden or in the bush and the fresh stuff at the store is really expensive".*

Lack of Availability of Nutritionally Adequate Food

All participants, in both communities, talked about the poor quality of food available at both the food banks and soup kitchens. The participant's concern about the quality of food available was not one of my propositions; therefore the connection between the availability of nutritious food and the lack of quality of available food emerged as a barrier from the data in the process of my research.

There are a number of studies that have found that individuals relying on charitable food are often not adequately nourished (Bocskie & Ostry, 2010;Irwin et al., 2007;Riches, 2002; Tarasuk & Beaton, 1999; Tarasuk & Eakin, 2003; Teron & Tarasuk, 1999; Tse & Tarasuk, 2008). These studies all determined that the dietary intake of food from food banks and charitable meals are below the average requirements suggested by dietitians because the balance of foods available can be overloaded on starches and lacking fruits and vegetables.

Four participants, in the rural community, said they would not go to the soup kitchen anymore after an incident of food poisoning. Another participant in the rural community has a medical condition which prevents them from eating certain foods. These are important considerations because there is only one soup kitchen in the rural community and the participants are at an even greater risk of hunger and nutritional insecurity. All the participants, in both communities, said they could not afford to purchase fresh fruit or vegetables at the grocery stores, which results in them trying to find marked down, older produce, or making food purchases at discount grocery stores. A participant, from the urban community, showed me a block of cheese they had purchased from a discount corner grocery store which had been wrapped with good cheese but the inside block was rotten. As well, people living in supported housing may also face additional barriers to food security as they have limited facilities to store, prepare and cook food and fewer opportunities to purchase food. As one participated said:

> "*The fridge is too small to store my stuff, so I don't buy produce, even if I could afford it. I don't have an oven so I can't make a roast or casseroles, it would be cheaper if I could".*

They may also have "*difficulty accessing safe food or the resources to handle food safely*" (Ministry of Health, 2013). As well, some individuals do not have the basic skills of menu planning or food budgeting. For example some participants said:

> *"I don't like cooking and never know what to buy with the money I have, so I just end up cooking the same old meals that I get tired of"."*
> *I haven't used the oven since I moved in, I use the stuff from the food bank and heat it on the stove".*

Conclusion from Data Analysis

Examination of the data showed that access and availability of food resources has an influence on the dietary choices of tenants in supported housing. My original proposition was that access and availability would have a positive influence on the tenant's dietary choices. However the relationship between the barriers to food resources did not provide a positive influence on the tenants dietary choices, These barriers resulted in tenants having to make unhealthy food choices which negatively impacted their overall health. I also proposed that tenants in supported housing in rural communities have more barriers to food security than

tenants living in supported housing in urban communities. This proposition was also proved false. The Three A barriers were the same in both communities.

I argue that the identified barriers of lack of money, the amount of money the participants spend on food, difficulty in shopping in their neighbourhood and the quality of the food they received from charitable locations reinforces the need for the integration of food services and programs into supported housing projects. I further argue that the problem of food security is intertwined with resource constraints. Making the health needs of tenants in supported housing a public health concern can help to create more effective strategies to reduce the health inequalities that tenants face, allowing them to more fully achieve their health potential which would consequently improve their quality of life.

Consistent with the principles of community-based participatory research, a meeting was held at each housing project to provide the tenants with the results from this study. Tenants freely expressed their agreement with the results and made suggestions for future research. As well, tenants in the urban housing project expressed willingness to help to implement some of the strategies in their project. I was invited to present my findings at a meeting of the homelessness working group in the rural community. I asked the members of the advisory to attend and a committee has been formed of community members, tenants of the housing project and me to develop ways to implement some of the strategies suggested by this study.

Summary

In this section, I have summarized the main findings from each method I used in this study and identified the Thee A barriers of lack of transportation, lack of income and the lack of quality food available to the participants. An analysis of the data from both cases determined that the provincial food security initiatives program is not available to all people in the province. These food security initiatives are focused on providing opportunities for access to and knowledge of quality food that contribute to health outcomes. However, these programs are targeted interventions directed toward disadvantaged groups, but exclude single adults with mental health and/or problematic substance use as members of a disadvantaged group.

The explanation building for this study reflected the theoretically significant propositions of a social justice perspective. The population health model that is used in British Columbia is an example of a social justice perspective. This perspective contrasts with a medical model

that calls for people to change their individual behavior, when the tenants of supportive housing projects most often experience a lack of access to services and products to maintain their health. Health Canada has recognized both food security and housing as social determinants of health and the need for better intervention services for these two determinants was reinforced by this study. It is well established that safe affordable housing and food security can promote the health and well-being of tenants living in supported housing.

This study produced new information to use for integrating food security programs and services into supported housing projects. Other housing operators could develop a food security assessment for each of their neighbourhoods to establish a baseline measurement of food security for their tenants. This study also showed the gaps in the available food services in supported housing, reinforcing the need for the integration of food security services into the supported housing programs. As well, this study showed the need for coordination among agencies to reduce the barriers to food security. Canada has recognized both food security and housing as social determinants of health and the need for better intervention services for these two determinants was reinforced by this study. Therefore, recognizing the need for safe and healthy food and the combination of housing and food security can promote the health and well-being of tenants. Making the health needs of tenants in supported housing a public health concern can help to create more effective strategies to reduce the health inequalities that tenants face, allowing them to more fully achieve their health potential which would consequently improve their quality of life.

Core public health programs incorporated into supported housing programs could reduce the gaps in the health equity of the tenants and therefore increase the tenant's well-being. Shifting the focus of health promotion onto the well-being of tenants, rather than illness treating could help to overcome some of the barriers these tenants face in achieving food security.

Chapter Five – Discussion and Strategies

This explanatory case study examined the barriers to food security for single adults with mental illness and/or problematic substance use living in supported housing on Vancouver Island. I argue that the role of food security programs and services in supported housing to promote better physical, mental and social health among tenants needs to be considered as a vital key to reducing health inequality issues in BC. Both food security and housing are social determinants of health and the need for better integration of these two determinants is reinforced by this study. The economic impacts of health has become increasingly apparent and, as health is influenced by a wide array of biologically determined factors, there needs to be *"concentrated efforts to not only improve the health of the population as a whole but to reduce the size of the gaps in health across social and economic groups*" (Braveman and Grusking, 2003, p. 253). Therefore, making food security for the tenants in supported housing a public health concern can help to create more effective strategies to reduce the health inequalities that tenants face. Any strategies for the integration of food security programs and services into supported housing will allow tenants to more fully achieve their health potential which would consequently improve their quality of life. Core public health programs with a food security focus incorporated into supported housing programs could reduce the gaps in the health equity of the tenants and therefore increase the tenant's well-being. Use of the social determinants of health to improve the well-being of tenants, rather than treating illness, could help to overcome some of the barriers these tenants face in achieving food security.

The results of this study show that the barriers to food security among tenants of supported housing constitute a critical gap along the health and housing continuum. Therefore, recognizing the need for safe and healthy food and the combination of housing and food security can promote the health and well-being of tenants.

Contribution to Knowledge Base

It is clear that much of what I have identified in this study is not new. In Canada, household food insecurity is associated with heightened nutritional vulnerability, as well as compromises to individual health and well-being. The adverse effects of food insecurity, including physical and mental health issues have been well researched and documented and the barriers to food security identified by the participants in this study did indicate that integrating food security programs and resources into housing operations may help support

tenants to lead healthier lives. The outcome of such initiatives would benefit both tenants and housing providers. The outcomes for tenants would be better physical and mental health; decreased behavioural issues; increased social inclusion in the building and broader community, and strengthened capacity to focus on other aspects of their lives. The outcomes for supported housing providers include healthier tenants, improved building security and safety, a healthier and more stable housing environment, fewer rent arrears, and reduced staff time devoted to intervening in conflicts. I argue that comprehensive approaches that include nutritional choices, education in food preparation and purchasing, as well as, an emphasis on the social aspects of food are important. These comprehensive approaches can provide guidance for strategies that the supported housing sector, on its own, and/or in partnership with other sectors, in responding to the food security needs of tenants.

I am suggesting a change to how we view and understand food security and housing, and recommending a shift on a larger scale; to change structural conditions to promote health and reduce health inequities for tenants living in supported housing. In the following section, I highlight strategic directions at a core program level in practice, at a structural level for policy, and suggest future research for addressing the barriers to food security for tenants in supported housing.

Strategic Directions at a Program Level for Practice

Consistent with literature reviewed for this study, this study showed that tenants living in supported housing often face both periods when income and food are easily accessible and times when income and food is scarce. As well, the results from this study did indicate that, the participant food insecurity tends to follow a predictable sequence from worrying about not having enough money to buy food, to compromising the quality of food they eat, and then reducing the quantity of food they eat. I argue that the identified barriers of lack of money, the amount of money the participants spend on food, difficulty in shopping in their neighbourhood and the quality of the food they received from charitable locations reinforces the need for the integration of food services and programs into supported housing projects.

The lack of income mentioned by the participants involves more than just a lack of money to purchase food. Research has provided evidence on income-related food insecurity. This evidence suggests that living on a low income is the single greatest predictor of food insecurity and resource deprivation. Resource deprivation is a lack of financial and/or social

resources and can be an influence on the duration and severity of food insecurity. Research has also shown that income greatly impacts food accessibility, which in turn influences food consumption, especially of nutritious food required to keep healthy. Individuals who have limited physical and economic access to safe, nutritious and personally acceptable food are defined as being food insecure. People in low-income groups most vulnerable to food insecurity include those receiving social assistance and people with mental illness and/or problematic substance use. The association between poverty and food insecurity has also been well documented and many researchers have noted that individuals relying on government income assistance and living in social housing are not protected from the experience of food insecurity. For example, according to Statistics Canada (2010) people in households relying on social assistance were at much greater risk of experiencing food insecurity than those in households depending on other income sources.

Although poverty reduction appears to be the key tool in addressing food insecurity, poverty rates and indicators of food insecurity are not synonymous. Poverty rates do not measure the level of food insecurity or the dietary adequacy of the food purchased. The justifiable focus on poverty has eclipsed other associated or independent barriers related to food insecurity. There are a number of other barriers that can restrict food security that are not captured by income statistics. Changes in the costs of other essentials or in subsidies for these essentials are not reflected in income statistics, but hunger rates are likely to rise if these essentials become more expensive. Poverty rates also tell nothing about non-income related coping strategies, availability, access and appropriate use and storage of food. Furthermore, most studies determine food costs annually, but the amounts spent on food can fluctuate throughout the year for some individuals and in rural communities, seasonal variations in food availability can affect food expenditures.

Food insecurity tends to follow a predictable sequence from worrying about not having enough money to buy food, to compromising the quality, and then to reducing the quantity of food. Thus, food insecurity is comprised of a sequence of events and i managing food insecurity each individual will experience different components of food insecurity at different times and in varying degrees. The price for vegetables and fruits relative to fats and sweets suggests that the ability to adopt more healthful diets may be limited by low income, even though low calorie foods are associated with better health outcomes.

Although there is a clear linkage between income levels and food security, unlike recommended allowances for housing, at this time there is no established upper limit beyond which households are considered to be spending too much on food. People living on fixed, low income spend proportionately more on a nutritious food basket with the prevalence of food insecurity rising to almost 50 % in the lowest income group and some 8.4% of British Columbians have moderate or severe food insecurity. As well, people living in supported housing may also face additional barriers to food security as they have limited facilities to store, prepare and cook food and fewer opportunities to purchase food. Further, some individuals do not have the basic skills of menu planning or food budgeting. The literature in this area clearly indicates that poverty is at the heart of the issue of food insecurity

For low income individuals, maintaining a nutritious diet can be a significant challenge. A lack of income means having to make choices where to purchase food, what food the individual can afford to purchase and when food can be purchased. All the participants in both communities said they could not afford to purchase fresh fruit or vegetables at the grocery stores and participants in both communities determine where they will purchase food based on coupons and specials at the grocery store.

A lack of income also means having to make the choice to access charitable food resources which can result in insufficient quantities of food or food which was described by some participants as mostly junk (doughnuts, cookies and fruit cakes). Accessing food from charitable locations also means not being able to choose preferred foods.

Use of Charitable Food Resources

Food Banks Canada's *Hunger Count 2015* reported that half of the provinces in Canada have experienced increases in food bank use. They also reported that 18% of households receive disability-related income supports and 46% of households accessing food banks are on provincial social assistance benefits. Of these numbers 20% of those on social assistance live in social housing and 46% of households are composed of single individuals, " *a group that continues to grow, having gradually increased from just 30% of the total in 2001*" (Hunger Count 2015, p. 02). In British Columbia 59% of food banks reported an increase in the last year, with a 2.8% increase overall. Of this increase 33.1% of people's source of income is social assistance and 31.7% receive disability-related income assistance. A further 53.6% are single people and 13.3% of these people live in social housing.

At the same time, charitable food providers have now become overly dependent on sourcing poor-quality, donated foods which hinders their ability to meet clients' daily nutritional health requirements. Recently, studies have raised concerns about the effectiveness of charitable responses to hunger. Some of the early writings on food security in Canada cited the presence of food banks as evidence of the problem of hunger but they do not address the issue of food security. The assistance provided by food banks is largely contingent upon the quality and quantity of donations from the public and from producers, processors and retailers. There are a number of studies that have found that individuals relying on charitable food (e.g. food banks and free meals) are often not adequately nourished. These studies all determined that the dietary intake of food from food banks and charitable meals are below the average requirements suggested by dietitians.

A study done by Loopstra & Tarasuk (2012) identified factors that may explain the reason why someone who is food insecure may not access a food bank. Some of these factors that are relevant to the tenant participants in this study are:

> *"Some people make the choice not to use a food bank for reasons that include a belief that their circumstances are not bad enough to warrant asking for help, the stigma associated with food bank use, and the feeling that the food that would be received would not meet personal needs and preferences;*
> *Some people face barriers to access. These barriers may be related to distance or lack of transportation, or food bank policies (hours of service, intake procedures)*`` (Loopstra & Tarasuk , p. 500)

They also came to the conclusion :

> "Food giving was essentially a symbolic gesture, with the distribution of food assistance dissociated from client's needs and unmet needs rendered invisible. We conclude that, structurally, food banks lack the capacity to respond to the food needs of those who seek assistance, moreover, the invisibility of unmet need in food banks provides little impetus for either community groups or government to seek solutions to this problem" (Tarasuk & Eakin, p. 497)

I argue that because community food resources are so dependent on charity or donated products, there is no guarantee of the stock levels or type of food distributed at any one location at a particular time. This makes community food resources unreliable as a food outlet for the tenants of supported housing, which depend on these resources for day to day food. I

further argue that for the most part, these organizations cannot be expected to reliably supply their tenants of supported housing with sufficient calories, let alone nutritious, balanced meals. Food banks and soup kitchens can only distribute what they can obtain, and reliable systems to collect and distribute food to those who need it, when they need it, where they need it, are not in place. As well, I argue that while food banks are adapting to changing times by providing services that go beyond the simple provision of food and provide an essential service in their communities, they are only a partial and imperfect solution to food insecurity. Community charitable food resources are stop gap measures to address problems that stem from broader social policies, but are not solutions, in and of themselves, to food insecurity for tenants in supported housing.

Integration of Food Security into Supported Housing

There has been little research that links housing, food security and health but some evidence based research has supported the link between health and housing. There is also currently little research about the relationship between food security and supportive housing among individuals with mental illness and/or problematic substance use. While there has been research on the food security status of the homeless populations (Fodor, 2010; Friendly, 2008; Miewald, 2009**;** Moffatt, 2008), less has been written about individuals living in supported housing. The body of literature on the integration of food security into supported housing is emergent and still relatively small. There is some research evidence of the positive impact of meal provision for vulnerable populations (Miewald, 2009; Kimmet, 2013) and supported housing providers in BC have recognized the need for safe and healthy food for their tenants. No comprehensive strategy for integrating food security services and programs into supported housing exists in BC.

As part of its food security mandate, outlined in the BC Ministry of Health's Core Public Health Model since 2009, Vancouver Coastal Health has partnered with a number of organizations to examine how to improve food security for specific populations, including people living in social housing. Over the years, one of the issues that have regularly been raised by housing providers is the need for a tool to guide initiatives aimed at improving food security in social housing. I was a member of a provincial advisory committee organized by Vancouver Coastal Health with the goal of strengthening awareness and encouraging action to systematically integrate food security into social housing. .The committee developed an action framework and

resource guide in 2013 (Food Security in Social Housing Action Framework and Resource Guide, Charley, 2013). The goal of the framework was to provide practices and information resources by providing a broad range of ideas that housing providers can use to strengthen the food security of their tenant. It is meant to be flexible and allow organizations to choose the options that fit best with their organization and tenants. The guide has six main sections that housing providers can expand upon and include: a) assessment and monitoring, b) research, c) built environment, d) social enterprise, e) partnerships and, f) food programs and resources.

This framework was guided by the vision that food security needs to be recognized as integral to the health and well-being of supported housing tenants. The guiding principles at the core of this framework, which can be considered as the foundation for decision-making for housing providers, are:

- Integration into the planning process and operations
- Collaboration with other government agencies, community organizations and businesses
- To be respectful of individual choice and needs
- To provide reliable and consistent programs and services

The Food Security Continuum, credited to the Community Nutrition Council of BC, is a useful framework for food provision in supported housing. This continuum describes the five various stages to construct a more secure, sustainable food security system. Based on the analyzed data from this study, I adapted this framework to provide some options to housing providers to assist in overcoming the barriers that were identified by the participants in this study. This adapted framework, as presented in Table Seven, will also provide direction, consistency, accountability and communicate the common understanding of the needs of tenants who live with a mental illness and/or problematic substance use.

Table Seven: A Framework of Options for Housing Providers

(1) Short-term Relief	(2) Community Capacity Building	(3) Food System Change
Meal Provision Gleaning Programs	On-site Gardening Community Gardens Community Kitchens	Development of Partnerships and Networks Modification of the Housing

	Buying Clubs Good Food Box	Food Environment

The adapted framework has some foundational components that would be common to all housing providers, such as articulating an organizational commitment to reducing food insecurity among the tenant population. Organizational commitment will require that food security efforts be systematic in order for them to effectively and sustainably improve the barriers to food security for tenants. Systematic means that food security is considered for each supported housing project and is planned for at an organizational level. Organizational commitment will require organizations to:

- Include food security in the organization's vision, mission and/or key strategic objectives and initiatives
- Dedicate resources and mechanisms to improve food security
- Have an articulated strategy for addressing food security

It is critical to note that there will be movement along the continuum as no one stage is superior to another and that all the stages must evolve concurrently. This recognizes that each individual has a different place along the food security continuum and therefore has different barriers, needs and possibilities for addressing these. Recognizing these differences means adopting a population-specific approach to food security. A comprehensive approach is essential because one size does not fit all. What works in one building may not work in another and what works for one tenant may not work for another. Therefore, specific programs may need to be customized to each building and a broad spectrum of resources needs to be offered to accommodate the individual tenants in each building. Adherence to these principles, with the recognition that food security exists along a continuum, will require that housing providers:

- have a food security standard which is flexible enough to allow for individual initiatives to come from the bottom up
- need a multi-pronged approach that makes connections between other food and non-food programs
- Allow the opportunity for food choice and autonomy
- Know that an individual tenant's place along the continuum and their nutritional requirements will change over time and make allowances for this
- Understand that meal delivery programs may be necessary in some buildings

All the participants in the study experienced some barriers to food security and one of the themes was the worry about the quality of food they eat. The other major themes were

lack of money and lack of transportation. Based on these identified barriers the three stages of this framework were designed to provide program and services suggestions for supported housing providers in the province. These programs and services include in-house food stores and good foods boxes; meal and educational programs; on-site gardening and community gardens; as well as, partnerships and edible landscaping.

Stage One - Short-term Relief

Meal Provision

In supported housing, some tenants need a direct connection to nutritious, prepared meals. One of the ways housing providers can make this connection is through meal provision and/or programs. There are several different ways in which meals can be provided by housing operators. Meals can be:

- delivered by an external organization
- made off-site by the staff and delivered to tenants of the building(s)
- made on-site by the staff and/or tenants

In-house cooking programs provide the tenants with practical skill development in the areas of nutritious meal planning, preparation and shopping resources offering a degree of food security. Such a program could be designed to address the unique needs of each tenant, being consistent with the individuals' cultural values and norms. All sessions could offer meal planning ideas for breakfast, lunch and dinner and provide skill building, as well recipe preparation using ingredients obtained at the food bank, soup kitchen and/or hampers, and discount grocery and department stores. The rationale for including this information is that often individuals have no control over the donated food that they may receive and have no knowledge how to prepare the food item. Such meal provision and education programs would incur costs to the housing providers as food costs are not included as a line item in most operating agreements with BC Housing. The importance of partnerships to cover food costs would be necessary to implement these programs.

Gleaning Programs

Gleaning Programs involve the collection of surplus produce from farms or individual producers. In both communities, there is access to farms and producers but transportation would need to be provided. Tenants could volunteer to collect and distribute the produce but seasonal limitations would have to be considered

Stage Two – Community Capacity Building

On-site Gardening

Gardening can provide opportunities for creativity, self-expression, social interaction and improving self-esteem. Gardening has the capacity to affect the nutrition of the tenants and may increase health in a way not otherwise affected. An abundance of produce can be shared with other tenants and tenants can help one another with the tending of the garden. A study by Wang and Glickman (2014) showed the benefits of gardening for older adults in low-income housing. Although the focus of their study was on older adults, there are many practical and similar benefits to gardening for individuals with mental illness and/or problematic substance use. The themes that emerged from Wang and Clickman's study that are similar for tenants living in supported housing are: a) mental health benefits, b) the end product, c) something to do, d) physical health; and e) helping each other out.

In both housing projects there is a garden program and all participants talked about how expanding the garden would decrease their concern over the quality of food available to them. The urban building was designed with a large garden plot that the tenants have expanded each year. In the rural community there is very limited space for gardening so not all tenants can become involved. A possible solution would be to support the tenants in becoming involved with community gardens.

Community Gardens

Community gardens can play an important role in the lives of the tenants. Some of the health benefits of community gardening relate to: the physical health of participants; better access to food" improved nutrition, increased physical activity and improved mental health As well, community networks and social support could be developed through the gardens. The gardens could be seen as a place where communication with people from other areas could begin, using food and shared experiences as a starting point for understanding. This could help bring the tenants out of isolation and serve as a starting point for broader discussions of community issues. The development of local social ties and an increased appreciation of local diversity have been mentioned in previous studies highlighting the importance of community gardens as a venue for community engagement.

Both communities support Community Gardens programs. There are five community gardens on park property in the urban community which was initiated under the City's

Volunteer in Parks Program (VIP). According to the City's Bylaws statement "*Community gardens create a safe and healthy recreational activity within our park system and on other city-owned land"* Groups applied for seed money through the VIP Granting Program, and they facilitated the initial setup of the garden. There are also eleven private community organizations that operate gardens in the City, three of which are within walking distance of the housing project.

In the rural community, Community Gardens are located in parks, vacant lots or along rail lines. They often include *"grow a row" programs so that good food can be donated to good causes"* (City Fact Sheet). In both communities, the community gardens are voluntary operations, with no fees to join and all needed equipment, including seeds are provided.

Community Kitchens

Bidwell (2009) did a review of literature on community kitchens in Canada. This review found good evidence that the kitchens increased the variety of food the participants had in their diets, particularly with the addition of vegetables to their usual menu of dried and canned goods. A more recent systematic review of the literature (Iacovou, et al., 2012) also found that the evidence suggests that community kitchens are an effective strategy to improve cooking skills, social interaction, nutritional intake and budgeting skills. Both these reviews of research literature also found good evidence for the social benefits of community kitchens, including friendship, mutual aid, increased self-esteem, reduced social isolation and help dealing with difficult circumstances.

Community kitchens could be organized in each housing project so tenants could prepare meals to be eaten together or taken home for later consumption. Community kitchens have the potential to adapt to the individual needs of the tenants in the project. Programs could range in focus from cooking skills and preparation to social aspects and support networks. These programs could be less stigmatizing than food banks and can offer social support networks and help reduce social isolation. Health promotion strategies can be included and targeted to the individual tenants to enhance social support networks, education and personal health practices. These programs would require a communal kitchen space, kitchen amenities, food safety and nutrition knowledge. For some housing project tenants, full-time staff coordination and flexible participation would be needed. This would allow

tenants to participate when they can and in whatever way they can. For some tenants that means cleaning up instead of cooking and some days it means just eating.

Food Buying Clubs

The underlying purpose of any bulk buying club is to provide nutritious food at a lower cost for the tenants. According to Carley (2012, p. 26) *In-house food stores will utilize the benefits of bulk buying to increase the intake of quality, healthy, and affordable food*." An in-house store could help improve food security for the tenants by increasing physical and economic access to adequate amounts of healthy foods. Tenants can pool resources to purchase bulk food at reduced prices and some staff involvement will be necessary. The clubs can also have a community-building value that provides additional benefits for promoting long-term food security.

The two housing projects that participated in this case study both have an in-house store. The one in the rural community, which is called a canteen, started off very small – just coffee supplies but has expanded and provides a variety of food products. Staff purchase items in bulk, repackage the items into individual servings to sell to the tenants.

Good Food Boxes

A Good Food Box is one example of the food distribution role that non-profit housing providers could undertake. The Good Food Box program in the urban community is operated by a non-profit organization and is available to anyone. Once a month, individuals pay $10.00 per box which can be picked-up or delivered. A non-profit organization in the rural community introduced the Good Food Box because they wanted to make it easier and more affordable for people to include fresh vegetables and fruits into their diets. Both organizations offer a "cooking out of the box" cooking program using the ingredients from the box. The cooking program is designed to teach people how to cook and plan nutritious, super-easy-to-make meals.

Although anecdotal evidence points to the nutritional and social benefits of food box programs, studies have yet to provide evidence of whether and how these food box programs contribute to improved nutritional status. A good food box program in a supported housing project could provide a variety of fresh produce at affordable prices to those who may be unable to access them because of cost or other barriers. Integrating good food box programs

into other nutrition-related, programming or activities within a supported housing project may improve the tenant's access to fresh fruit and vegetables.

Studies have shown that the populations that might be at a higher risk of low fruit and vegetable consumption are those with low incomes; those living in areas with poor food access, and the elderly. Research has also shown that the consumption of fruit and vegetables can be increased by combining direct access, through incentives or direct provision and education . A food box program may reduce overall nutrition insecurity by increasing the total amount of food available.

Brownlee and Cammer (2001) conducted a study to determine the accessibility of a good food box program. The results showed that participants believed that although the good food box program was a more economical means of purchasing healthy food, it was not the easiest method to obtain fresh fruit and vegetables. The program involved ordering and picking up food only on specific days and co-coordinating schedules and budgets often proved difficult. Tenants in supported housing may have the same concerns. Therefore more flexibility regarding ordering and pick up procedures, as well as some form of reminder system would be important. A good food box program would require initial coordination provided by the housing staff before they could become totally tenant operated. Staff will need to collect the money, probably on income assistance cheque day, do the shopping, with tenant help, and/or place the orders for the good food boxes. The long-term goal would be that a tenant committee would organize the ordering and distribution of the good food boxes. The primary goal of good food box program within a supported housing project would be to not only increase the tenant's access to fresh fruit and vegetables but to also provide them with an alternative to the charitable food system.

Stage Three – Food System Change

Development of Partnerships and Networks

A partnership is defined as a relationship where two or more parties, having common and compatible goals, agree to work together for a particular purpose. Partnerships with community agencies, other non-profit organizations and businesses in the community can help support food security initiatives for the tenants. Partner agencies can provide space, staff time, storage facilities, transportation, volunteers and food at discount prices. According to a report by Capps (2011) prepared for The Food Security Network of Newfoundland and Labrador

examples of partnerships that could increase the food security for the tenants of supported housing. The suggestions are:

- *Stores and distributors which can offer discounts or donations of food, materials and space*
- *Regional nutritionists and/or community rehabilitation workers can provide expert knowledge about healthy food and nutrition*
- *Churches, service clubs and non-profit organizations which can offer resources, guidance, donations, transportation and networking opportunities(p. 9)*

All of these partnership suggestions could be implemented with no added cost to the housing operators.

Modification of the Housing Food Environment - Edible Landscaping

Edible landscaping would provide the tenants with a free and potentially abundant source of healthy, fresh produce. Edible landscaping for the supported housing projects involved in this study could focus on food security, nutrition and gardening education and community development and beautification. In all supported housing projects, this would mean replacing plants that are strictly ornamental with plants that produce food. This could be done with long-term planning using replacement reserves under the operating agreements with BC Housing.

Strategies for Policy

The findings from this study have a number of implications for decision and policy makers that would contribute to reducing the barriers to food security for tenants in supported housing. The main implication for policy that I describe below is the need for an integrative approach to population health equity for tenants in supported housing. An integrated approach to population health is not a new idea; PHAC describes an integrated population health model that dates back to 1996. Simply put, it involves a comprehensive approach to all social determinants of health with health organizations analyzing possibilities and taking actions.

The dominant approach in health promotion has been to focus mainly on education and behavior change to influence healthy eating habits. This is often in the absence of any coherent policy framework that strives to make healthy choices easy or even possible. Lack of access to healthier affordable food is one side of an increasing problem of food insecurity that is of major importance in public health. The food security concept has changed into a community food security focus as an alternative to individualized and charity-based

approaches to hunger. Community food security in BC focuses on options such as farmer markets and community-supported agriculture without looking at the factors that generate health inequality. Both individual and community food security have been adopted as part of public health programs responding to the growing amount of food insecurity among marginalized populations. However, such public health initiatives measure success based on individual human health outcomes but neglect the root causes of poverty and income inequality. I argue that this individualizing approach shifts the responsibility for health provision away from the provincial government and onto community organizations or individuals. Food security has broad determinants and for public health to effectively take a leadership role in food security, it must address the broad determinants of health. I further argue that current public policy lacks a holistic perspective and in order to address food policy adequately, it is necessary to produce an integrated, long-term strategy that links all the determinants of health. The result would be a health-in-all-polices integrated approach.

Equity in health for tenants in supported housing implies that "*ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential, if it can be avoided"* (WHO, 2008, p11). Based on this definition, the aim of this framework is not to eliminate all health differences, but rather to reduce or eliminate those which result from factors which are considered to be both avoidable and unfair. The use of a social justice perspective allows for the concern that the social structural nature of health influences tenants living in supported housing. Using a social justice perspective entails creating programs and resources that "address *the determinants of health and the determinants of inequities . . . will need to reflect what is known about the multiple structural factors that create and perpetuate health inequities"* (Pauley, et al., 2009,p.126). Therefore, the focus of equity is on the social determinants and changing the social conditions, not just with creating equal opportunities for food security for each tenant.

BC Housing's Sustainability Policy came into effect in January 2010. It put forth sustainability "as *the activities we engage in which have local and global consequences on social, economic, and environmental systems*" (BC Housing, 2006, p.6). This policy incorporates a triple bottom line approach and is based on four sustainability principles: a) people are not subject to conditions that systemically undermined their capacity to meet their needs; b) nature is not subject to systematically increasing concentration of substances

extracted from the Earth's crust; c) nature is not subject to systematically increasing concentrations of substances produced by society and; d) nature is not subject to systematically increasing degradation by physical means. Although food security is not directly mentioned in the policy, I argue that the first principle of this sustainability policy falls, not only in this adapted framework's intentions but also in provincial food security goals. In many ways sustainability is at the core of BC Housing's mandate. BC Housing has stated on many occasions that social housing increases the stability and ability of individuals to better meet their basic needs by improving their physical, mental and financial well-being. Social housing contributes to the livability, health and diversity of communities

Strategies for Research

There is research to support the relationship between nutrition and health but there is a gap between what we know about food and how the impact of action on the social determinants and improvements in health. Story et al. (2008) presented an ecological framework for creating healthy eating environments. This ecological approach is useful to guide research and intervention efforts related to eating behaviors because of the emphasis on multilevel linkages, the relationships among the multiple factors that impact health and nutrition, and the focus on the connections between people and their environments. The ecological framework includes individual-level factors related to food choices, environmental factors related to eating behaviours, the social environment and the physical environment. Therefore, research is needed to explore the interactions among personal, social and environmental factors. Little is known about the mechanisms and causal pathways by which specific environmental influences might interact with individual factors to influence eating behaviours. As well, little research has been done on which aspects of the food environment are more influential than others. Connecting food security, consumption, economics, poverty and health would require a systems approach to identify common concerns and areas that overlap. Research that continues to build and disseminate the evidence for collaborative work in integrating food security within supported housing will help to inform the best practices to address this need.

It would also be important to include consistent questions on food insecurity in any future surveys, conducted by governments and/or organizations, in order to monitor trends. Ideally food costs would be included in a national nutrition survey, so that dietary and

economic variables can be linked. Comparing prices of healthier options within food groups, comparing food baskets and nutrition value of purchased foods in both urban and rural settings would provide more detailed information on food insecurity for tenants in supported housing.

Food insecurity measurements need to be multi-layered and indicators of food insecurity in the long run need to be included as components of the nutritional status of individuals. The relationship between food security and housing and indicators of health status for tenants needs further investigation. Future research is needed to include psychological health-related outcomes as well as the accessibility, affordability, appropriate use and storage and the availability of food.

Studies are also needed that directly explore the tenant's perceptions and behaviors in food shopping in a diversity of geographical and socio-economic environments. These studies will need to acknowledge the importance of a multi-disciplinary housing lens perspective. There is a need to comprehensively explore the relationships of food availability and individual dietary intake. This research will need to highlight the various, related aspects of food insecurity, linking the barriers to the important issues of dietary variety and health.

Research and evaluation is needed to better understand the food environments in BC and if, at the planning stage, the location of the project will have an impact on eating behaviours. This research could also include an examination of predictors and outcomes of food insecurity, especially in rural communities. There is a need for understanding how accurately food insecurity reflects the actual experiences of tenants in supported housing. Because housing and food intersect in a number of ways, there are a number of questions that remain to be answered such as:

- What is the current nutritional status of residents of supported housing projects throughout the province?
- What types of food provision might be beneficial for tenants given the current research on nutrition, health and behavior?
- How can healthy food be provided at a cost that housing providers can afford?
- What are the benefits of food provision to the health and food security of individuals?
- What are the actual life circumstances of the tenants and how do those circumstances interface and integrate between supported housing and food security?
- How can food security be more effectively integrated into supported housing projects?

Research that continues to build and disseminate the evidence for collaborative work in integrating food security into supported housing will help to inform the best practices to

address this need. Through the judicious use of indicators for reporting on food insecurity within supported housing, tenants' health, wellness, and quality of life can be brought to the attention of the general public and policy makers.

Given the close relationship between food and health, any factors that interfere with people's access to healthy food could impact greatly on their health. The economic impacts of health have become increasingly apparent and health promotion needs to be seen as a multidimensional concept. It encompasses the physical, mental and spiritual well-being of individuals. The concept of health promotion is relevant to contemporary social welfare discussions because it embraces the concepts of self-help, mutual aid, citizen participation, wellness and community. By situating the focus of health promotion on the well-being of tenants there can be *"concentrated efforts to not only improve the health of the population as a whole but to reduce the size of the gaps in health (care services) across social and economic groups*" (Braveman and Grusking, 2003, p. 256). Although many authors argued that food insecurity should be considered an essential part of public health concern, the individual participants in this study did not make that link. Housing providers will need to provide education and practical solutions to help their tenants understand the link between their nutrition and their health.

Overall, it is important to engage in research that will contribute to a shift in thinking and supports social justice and health equity regarding food security. That will require work on multiple levels, creating untraditional alliances and working with novel methodologies to expand the research in addressing determinants of health.

Challenges and Limitations of the Study

This study used adapted principles of community-based research with a social justice perspective. Although there were benefits for this approach, the implementation of this study design also presented challenges. The fit with the PhD requirements of the University and the design of the study necessitated adapting the principles of community-based research to achieve my desire to develop meaningful relationships between myself and the tenants, while still meeting the standards of the University. I also required the cooperation of the staff of the housing projects to provide for arranging meeting space and times. In the following section I will discuss the challenges and limitations I encountered while completing this study. These challenges were that I classify tenants living in supported housing as members of a vulnerable

population; and the stigmatization that the tenants have experienced. Some of the limitations of this study are implicit in the methods used and can be identified without difficulty while others are less obvious and therefore not so easily identified. The limitations of this study were: the participants are members of a vulnerable population; the participants have experienced stigmatization; my personal work expertise, and; the use of community mapping as a data collection method.

Tenants as Members of a Vulnerable Population

I classify tenants in supported housing as members of "vulnerable" or "marginalized" populations and believe that constructs of vulnerability are linked to the notions of health equity and unfair social structures. This vulnerability can result from financial circumstances, place of residence, health, age, functional or development status and personal characteristics such as race, ethnicity or gender. Individuals who have a mental illness and/or problematic substance use often experience isolation and a lack of opportunities to fulfill meaningful roles and activities in their communities. Tenants in supported housing are overrepresented among the poor and a lack of resources and opportunities can be a prevailing explanation for their poor health outcomes. I believe that the conceptualization of tenants in a supported housing setting fits with the framework described by Flaskerud and Winslow (1998). They proposed that resource availability, relative risk and health status are related:

> "*Resource availability is viewed as the availability of socioeconomic and environmental resources. Relative risk is considered to be the ratio of the risk of poor health among groups who do not receive resources and are exposed to risk factors compared with those groups who do receive resources and not exposed to these risk factor".*

Therefore the lack of resources that members of vulnerable populations face increases their relative risk and strongly influences their ability to avoid risks. My intention in designing a study with a social justice perspective was to provide the tenants in supported housing (vulnerable populations) an opportunity to participate as fully as they were capable of. Allowing the voices of people living with a mental illness and/or problematic substance use meant, in the words of Stephens (2010), "a *shift from a sole focus on concern for helping the poor to include a focus on understanding the basis of their poverty*". Identifying the barriers to food security that tenants face also meant identifying the social structures that contribute to these barriers.

I also consider single adults living in supported housing as members of a "hidden population" of vulnerable people as identified by Heckathorn (1997). He believed that hidden populations have two characteristics: *"1) no sampling frame exists so the size and boundaries of the population are unknown and; 2) there exists strong privacy concerns because membership involves stigmatization".* Benoit, et al., (2005) also believed that hidden populations share a third characteristic which is "members *are distrustful of non-members, do whatever they can to avoid revealing their identities and are likely to refuse to cooperate with outsiders or to give unreliable answers to questions about themselves".* It became my responsibility to build relationships and gain the trust of the tenants so that the members of this "hidden population" would be more likely to express their honest experiences. I chose a community-based research approach because I do not believe that people living with a mental illness and/or problematic substance use were too marginalized for the study to be successful. I chose a project in a rural community which involved extensive travelling. and I had to be flexible with my time in order to hold focus groups meetings and one-on-one interviews in the late afternoons or evenings when the majority of the tenants were available. I also had to question to what extent "pure" participation in the study was possible. Most of the tenants saw research as a valuable tool, but had had little experience being heard and therefore, their ability to get involved in all aspects of the process was limited. I had to make opportunities available for participation at many different times of the day and evening and I discovered that holding one focus group or one set of interviews did not provide a large enough percentage of tenant participation for statistical relevance.

Some tenants were comfortable attending a focus group and participating in one-on-one interviews. Some tenants only attended a focus group, some tenants only participated in a one-on-one interview and some tenants were not involved after attending the information session.

Stigmatization

Prejudice and discrimination have long affected the lives of individuals living with a mental illness and/or problematic substance use. The Canadian Mental Health Association refers to stigma as the "*negative attitudes or beliefs that are held about people who are perceived as "different"* and "discrimination *is the behavior resulting from stigma*". Mental illness is still not well understood and society-at-large continues to construct categories and

link these categories to stereotyped beliefs. My work experience has reinforced my belief that stigma is contingent on an individual's social location and the power imbalances between those who are the subject of the stigma and those who stigmatize. Achieving participation in a context in which the tenants have experienced stigmatization required an understanding of how stigma has been a key determinant in their life experiences. Link and Phelan(2001, p.367) provided a conceptualization that stigma exists when: a) people label and distinguish human differences; b) labeled people are linked to undesirable characteristic; c) labeled people are placed in distinct categories; d) labeled people experience status loss and discrimination and e)is based on access to resources. This conceptualization provided me with the opportunity to understand the linkages between stigma and the conditions under which stigma is related to the tenant's life real situations.

Furthermore, tenants in supported housing often internalize stigmatizing ideas and believe that they are less valued because of their mental illness. Gilmore and Sommerville (1994) stated that:

> "*individuals with mental illness may also experience "self-stigma", viewing themselves with embarrassment or self-loathing as a result of internalizing the negative perceptions around them. This self-stigma may also be a product of stigmatization within communities which produces "a kind of hierarchy among individuals already marginalized from mainstream society".*

Achieving participation in a context in which the tenants have experienced stigmatization required an understanding of how stigma has been a key determinant in their experiences.

Limitations

Single adults living in supported housing have been identified as members of a "hidden population" of vulnerable people and it was my responsibility to build relationships and gain the trust of the tenants so that the members of this "hidden population" would be more likely to express their honest experiences. I had to make opportunities available for participation at many different times of the day and evening

In this study, the sample of tenants who volunteered as participants was not very large and may have been uncharacteristic of the group they represented. While the purpose of the data collection was to give voice to the tenants in an attempt to understand their experiences of food security, the sample may have resulted in important themes not emerging or the

relationships between the themes remaining unclear. It is understood that the lived experiences for individuals differ according to time and context, however the study did foster an understanding of the phenomenon of food security. The findings do contribute to a body of knowledge that can provide new insights into integrating food security into supported housing.

A further limitation of this study concerns how my experiences over the past decades, in the field of housing might influence this research. I have articulated my pre-understanding through a self-reflective process that located me as a researcher in the discourse. This process of reflexivity necessitated the triangulation of intellectual ideas with personal experience and research findings to enable a rigorously reflective interpretation of data. I was ever mindful that the analysis of the data was limited by my own pre-understandings as well as my limited skills as a novice researcher.

The use of community mapping as a process of knowledge creation may be limited but at the same time, it is important to emphasize the value of this alternative approach. The integration of expressive representation involving tenants, despite the temptation to adopt traditional and familiar research tools like surveys into the data collection can enhance the lived experiences of the participants. By using this method, the participants could show that their contributions are legitimate and do constitute real research.

Finally, the overall approach and analysis of the data created additional limitations to generalization of any findings. These included, but were not limited to, lack of differentiation between male and female, no accounting for age, culture, and socio-economic status, and multiple roles of participants representing each of the participants.

Conclusion

Through this study I have provided a better understanding of how the barriers to food security affect health and well-being of tenants in supported housing. Incorporating food security into supported housing would be part of a comprehensive approach to improving the health of tenants with mental health and/or problematic substance use. The application of a social justice perspective for the development of programs and resources makes it possible to address inequalities in access to food as a matter of health and well-being. The concepts of social justice show a need to shift from the distribution of existing material resources to a focus on identifying and changing social structures. Once identified, these shifts can be the basis for enhanced action on the social determinants of health. Food security programs and services

with a social justice perspective will directly contribute to more successful and stable tenancies, tenant health and well-being, and overall population health.

Through the Ministry of Health, all BC Health Authorities have considered implementing strategies to reduce health inequities in their regions, including food security initiatives. Health equity in food security is related to values and principles concerned with ethically sound choices and these principles promote equity by not placing people in a situation of disadvantage that can affect their health. I argue the lack of availability and access to food resources are barriers to the food security of tenants living in supported housing and therefore these tenants are at a disadvantage. Public health still relies on individual or community progress and not on structural changes needed to improve food security. I argue that health inequity is the result of unjust structural conditions that put disadvantaged groups at an increased risk of ill health. The integration of food security programs and services into supported housing projects could be a way to promote social justice and improve health equity for tenants in supported housing. I further, argue that food security for tenants in supported housing is about more than the provision of food; food security is a matter of public health. This study has shown the need for the integration of food security services into the supported housing programs, as well as the need for coordination among agencies to reduce the barriers to food security.

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APPENDIX A
Ethics Approval

Office of Research Services
Administrative Services Building
PO Box 1700 STN CSC
Victoria British Columbia V8W 2Y2 Canada
Tel 250-472-4545, Fax 250-721-8960
Email ethics@uvic.ca Web www.research.uvic.ca

Certificate of Renewed Approval

PRINCIPAL INVESTIGATOR: Judy Walsh	ETHICS PROTOCOL NUMBER 12-050
UVic STATUS: PhD. Student	ORIGINAL APPROVAL DATE: 26-Mar-12
UVic DEPARTMENT: SOH	RENEWED ON: 07-Feb-13
SUPERVISOR: Dr. Bernie Pauly; Dr. Aleck Ostry	APPROVAL EXPIRY DATE: 25-Mar-14

PROJECT TITLE: Housed and Still Hungry: Food Security for Individuals Living in Supportive Housing on Vancouver Island

RESEARCH TEAM MEMBERS: None

CONDITIONS OF APPROVAL

This Certificate of Approval is valid for the above term provided there is no change in the protocol.

Modifications
To make any changes to the approved research procedures in your study, please submit a "Request for Modification" form. You must receive ethics approval before proceeding with your modified protocol.

Renewals
Your ethics approval must be current for the period during which you are recruiting participants or collecting data. To renew your protocol, please submit a "Request for Renewal" form before the expiry date on your certificate. You will be sent an emailed reminder prompting you to renew your protocol about six weeks before your expiry date.

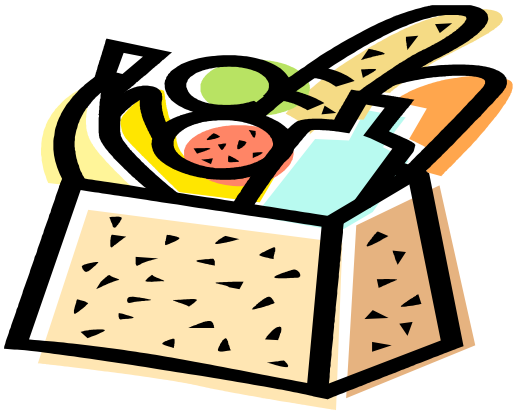
Certification

Project Closures
When you have completed all data collection activities and will have no further contact with participants, please notify the Human Research Ethics Board by submitting a "Notice of Project Completion" form.

This certifies that the UVic Human Research Ethics Board has examined this research protocol and concluded that, in all respects, the proposed research meets the appropriate standards of

APPENDIX B
Recruitment Poster

FOOD SECURITY and SOCIAL HOUSING
Be part of an important FOOD AND HOUSING research study



Are you a tenant of the ( ) housing project?

Is having enough food to eat WHENVER YOU WANT a problem for you?

If you answered YES to either of these questions, you can be eligible to participate in a **RESEARCH STUDY ABOUT FOOD AND HOUSING**

The purpose of this research study is to determine the barriers to **HAVING ENOUGH FOOD.** Participation is strictly voluntary and participants will receive a thank you gift. All information collected will be confidential and no personal information will be used.

This study is being conducted by Judy Walsh, PhD Student in the Social Dimensions of Health Program at the University of Victoria.

Come to an information meeting on Wednesday, at 7:00 pm in the common room. Refreshments will be served

For more information contact Judy Walsh at 250-714-0170 or judy@nahs.ca

APPENDIX C
Research Study Information Sheet

You are invited to participate in a study entitled "Housed and Still Hungry: Barriers to Food Security for Individuals Living in Supported Housing on Vancouver Island" that is being conducted by Judy Walsh.

Judy Walsh is a Doctoral Student in the Social Dimensions of Health Program at the University of Victoria. As a graduate student, she is required to conduct research as part of the requirements for a degree in Philosophy. The researchis being conducted under the supervision of Dr. Aleck Ostry and Dr. Bernie Pauly. You may contact the supervisors :

Dr. Aleck Ostry	250-721-7336	ostry@uvic.ca
Dr. Bernie Pauly	250-721-6284	bpauly@uvic.ca

You may verify the ethical approval of this study, or raise any concerns you might have by contacting the Human Research Ethics Office at the University of Victoria (250-472-4545 or ethics@uvic.ca
You may contact Judy Walsh at any time at 250-714-0170 or judy@nahs.ca

The purpose of this research project is to explore the barriers individuals experience trying to have enough to eat everyday. The objectives of the project are:

- Examining the difference in the level of food security for tenants of social housing neighbourhoods located in urban versus rural communities.
- Examining the barriers to food security experienced by tenants
- Examining which barriers have the greatest effect on food security for tenants.

Research of this type is important because identifying the barriers that impede food security will determine if ways can be found to improve food security for the tenants in Nanaimo and Port Alberni, BC. The results will be of interest to other researchers and policy makers in housing, food security and health, as well as providers of social housing. The potential benefits of your participation in this research include being able to provide accurate information to develop coherent policies to improve food security. This research will also produce new tools and information for use in coordinated planning and evaluation of the connection between housing and food security.

You are being asked to participate in this study because the researcher believes that people living in social housing are at a particularly high risk of food insecurity. The researcher also believes that your insights into the barriers you face to achieving food security will be valuable to the study. If you agree to voluntarily participate in this research, your participation will include participation in a focus group and a private one-on-one interview. Audio tapes will be taken and a transcription made of the focus group. The focus group will be held in the common room of each building in the afternoons. Maintaining the confidentiality of participants in the focus group is important to the researcher but the researcher cannot guarantee that other members of the group will feel the same. Everything that is said in the focus group will be treated as confidential by the researcher and at the beginning and end of each group the researcher will emphasize that participants should respect each other's privacy and that once outside the focus group, they should not reveal the identities of other participants nor indicate who made specific comments during the discussion. You will not have to

state your name during the group. During the focus group you will be asked to indicate where you usually buy or obtain food. A large map of the city will be available and you will be asked to place different coloured push pins on the map which represent your access to food. For example, white push pins will indicate grocery stores, blue push pins will indicate food banks, red push pens soup kitchens, yellow push pins convenience stores, green push pins coffee shops, etc.

One-on-one interviews will be conducted at a time that is convenient to you and in a private location of your choosing. The interviews will require a maximum of one hour of your time and the focus groups will last 2 hours. Participation in the interview may cause some inconvenience to you and some potential for emotional discomfort. It is possible that you may find some of the interview questions somewhat difficult because they ask you to reflect on the barriers you face to achieving food security. You might feel uncomfortable revealing potentially negative information about yourself. To deal with these risks the following steps will be taken:

- A referral list of support services available to you will be provided
- You will be shown the interview questions in advance
- You may have a support person, of your choosing, to sit with you through the interview
- The interview will be conducted in a private location of your choosing
- If you become upset the following options will be available: a break will be offered; the chance to stop and reschedule for some other time; or the opportunity to stop the interview entirely
- The interviewer will offer to debrief you or to call someone of your choice and wait with you until that person arrives
- The interview is completely confidential and none of the information will be shared with others in the building or the organization.
- You are free to not answer any questions or to end the interview early.
- Identifying information will not be used when discussing the results and any stored data will have your name and other any identifying information eliminated.

As a way to thank you for any inconvenience related to your participation, you will be given a Nutritious Food Basket.

Your participation in this research is completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences. If you do withdraw from the study you will be asked to give your consent for the data that has already been collected to still be used and you will still receive the gift basket.

In terms of protecting your anonymity and the confidentiality of the data, all interviews will be conducted in a private location. When reporting results in presentations and written publications, the data will be presented without any identifying names or the names of specific organizations. If anonymity cannot be ensured for any particular questions, those responses will not be made public.

It is anticipated that the results of this study will be shared with others in the following ways:

- Thesis/dissertation/class presentation
- Published article or chapter in a book
- Presentations at scholarly meetings

- Other professional associations, for example the British Columbia Non-Profit Housing Association

All materials will be kept in a locked filing cabinet in the locked and alarmed office of Judy Walsh and access will be controlled by Judy Walsh. The computer will be password protected and will allow input only by Judy Walsh. Written materials from this study will be shredded and computerized data files will be deleted from the hard drive and back-up systems once Judy Walsh has completed her doctoral program.

APPENDIX D
Participant Informed Consent Form

Principle Investigator: Judy Walsh, PhD student, University of Victoria, Social Dimensions of Health Program

Study Eligibility

You have been invited to take part in this study because you are living in a social housing project in Nanaimo or Port Alberni and are 19 years of age or older. You are being asked to participate in this study because the researcher believes that people living in supported housing are at a particularly high risk of food insecurity. The researcher also believes that your insights into the barriers you face in achieving food security will be valuable to the study.

Study Procedures

During a one hour focus group, Judy Walsh will ask the members of the group to answer questions about food availability in your neighbourhood. Members of the group will also be asked to place a pin on a map showing where you purchase or receive food. Your participation in the focus group is in a voluntary basis and you are free to withdraw from it at any time without consequences.

Compensation

You will be given a Food Basket for your participation in the focus group. There will be no monetary costs to you for participation in the study.

Potential Benefits

There are no direct benefits to you for participating in the study but there may indirect benefits to the people who are living in supported housing as this project may lead to the creation of better programs and services for food security.

Potential Risks or Discomforts

Some of the questions are of a personal nature and you may feel uncomfortable or upset. You are not required to answer any questions if you feel don't feel comfortable and can leave the focus group at any time.

Confidentiality

All records will be kept confidential and, to the extent permitted by applicable laws and/or regulations, will not be made available to anyone not involved in carrying out the study. No personal of identifying information will be asked of you. Your name or other identifying information will not appear on any publications or reports produced by the study. All study materials will be kept in a locked filing cabinet in Judy Walsh's locked and alarmed office. All information linked to the study will be stored in a password-protected database and your consent form will be stored separately from your responses. No data will be sent by email or exported in any way. Study material will be kept for five years following the completion of the study and then will be destroyed. Any disk used for storage of electronic data will be erased and the disk reformatted.

Participant Consent and Signature Page

By signing below, you are agreeing to the following:

- I have read this consent form and I agree to take part in this research study
- I was given time and the opportunity to inquire about the study and all my questions were answered to my satisfaction
- I understand that my participation in the study is completely voluntary and that I may withdraw my participation at any time without penalty
- I understand that my name and other personal information will not be used in any public documents that result from this research
- I understand that I will receive compensation in the form of a Food Basket
- I understand that I may register any complaint with the Director of the Research Ethics Office at the University of Victoria.
- I understand that the principle investigator of this study is Judy Walsh and she is at the University of Victoria
- I may obtain copies of the results of study, upon its completion by contacting Judy Walsh

---

Name (Please print)

Signature of Participant

Name of person conducting focus group (Please print)

Signature of person conducting focus group

Date

A COPY OF THIS CONSENT WILL BE LEFT WITH YOU AND A COPY WILL BE TAKEN BY THE RESEARCHER

APPENDIX E
Urban Community Focus Group Questions

Do you get enough food to eat every day?

If not, what makes it hard for you to get enough food?

Is there a time of the month when it is difficult for you to get enough food?

Does where you shop for food depend on how much money you have?

Here are some places that I know where you can buy food. Which ones do you use?

	YES	NO
Co-op		
Country Grocer		
Dollarama		
Fairway Market		
London Drugs		
Mcdonald's		
Quality Foods		
Real Canadian Super Store		
Save-on-Foods		
Superette Foods		
7-11		
Shopper's Drug Mart		
Thrifty's		
Tim Horton's		
Walmart		

Here are some other places where people can get food. Do you use any of them?

	YES	NO
Loaves and Fishes		
New Hope Center		
7-10 Breakfast club		
Salvation Army		

How do you get to the store or other food locations?

	YES	NO
Bus		
Car		
Taxi		
Bike		
Walk		

How often do you shop for food?

	Number of respondents
Every day	
2 or 3 times a week	
Once per week	
Every other week	
Once per month	

Please indicate whether you agree, neither agree nor disagree, or disagree with each statement.

	Agree	**Neither agree Nor disagree**	**Disagree**
The quality of food to purchase in my neighbourhood is good			
The choice of food in my neighbourhood is good			
Food in my neighbourhood is expensive			
There is a good choice of grocery stores in my neighbourhood			
The quality of the grocery stores in my neighbourhood is good			
I do most of my grocery shopping in my neighbourhood			
It is difficult for me to go grocery shopping in my neighbourhood			

APPENDIX F
Rural Community Focus Group Questions

Do you get enough food to eat every day?

If not, what makes it hard for you to get enough food?

Is there a time of the month when it is difficult for you to get enough food?

Does where you shop for food depend on how much money you have?

Here are some places that I know where you can get food. Which ones do you use?

	YES	NO
Co-op		
A-1 Convenience Store		
Natural foods		
Market		
Buy-Low Foods		
Dollarama		
Extra Foods		
Fairway Market		
Mac's Convenience Store		
McDonald's		
Food Bank		
Farmer's Market		
Quality Foods		
Safeway		
7-11		
Shopper's Drug Mart		
Tom Horton's		

Where else do you get food?

How do you get to the store or other food locations?

	YES	NO
Bus		
Car		
Taxi		
Bike		
Walk		

Do you have some other way to get food?

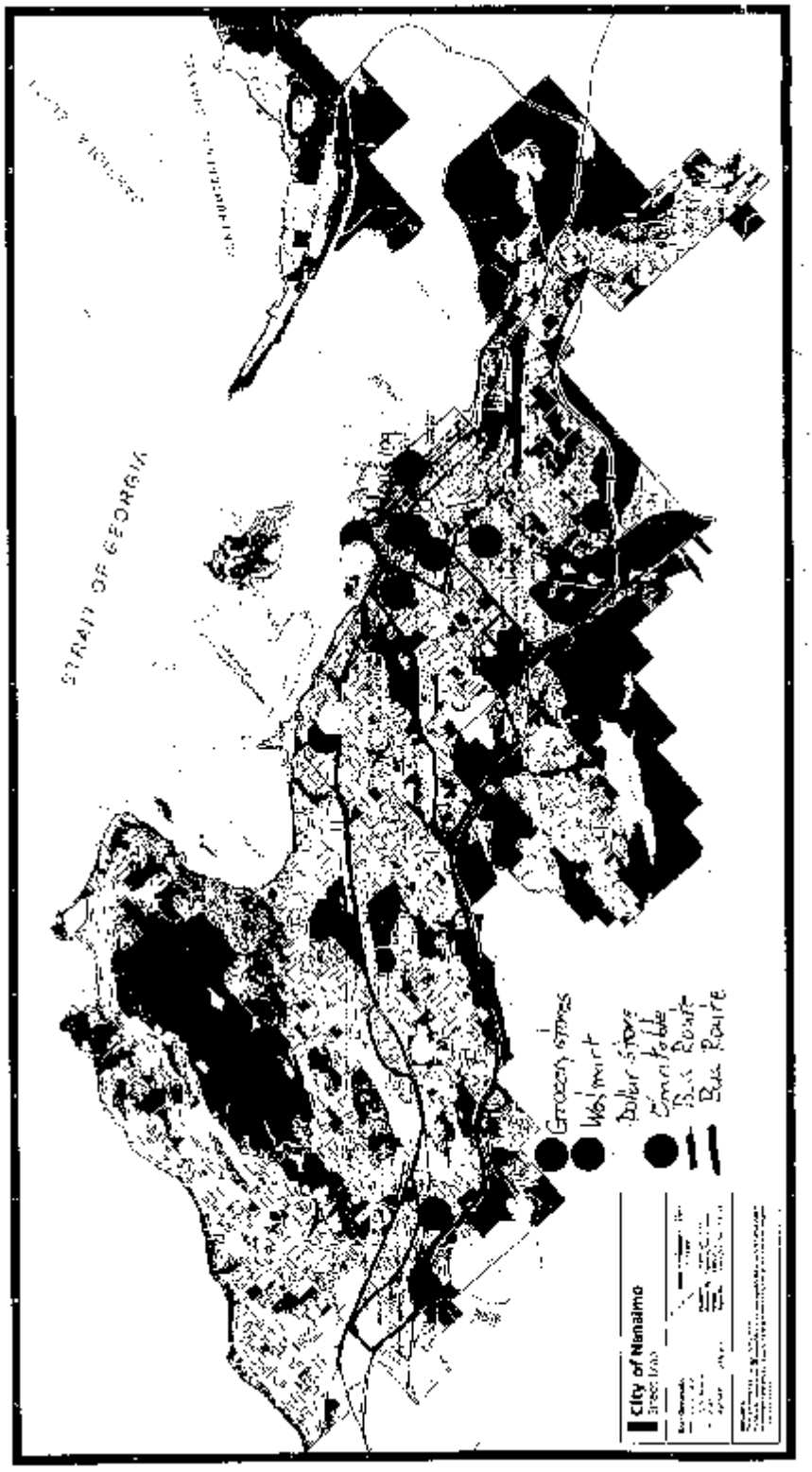
How often do you shop for food?

	Number of respondents
Every day	
2 or 3 times a week	
Once per week	
Every other week	
Once per month	

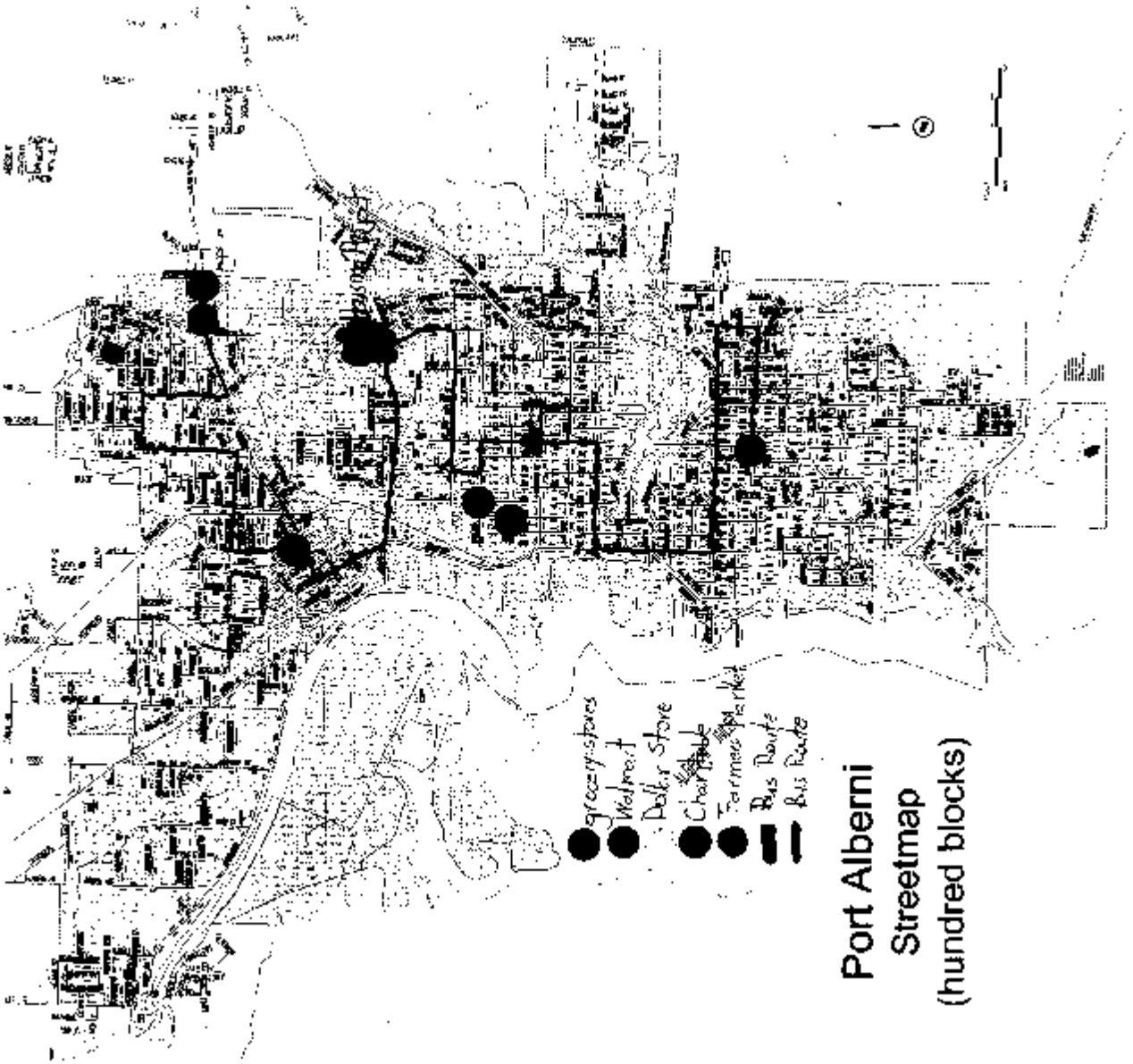
Please indicate whether you agree, neither agree nor disagree, or disagree with each statement.

	Agree	**Neither agree Nor disagree**	**Disagree**
The quality of food to purchase in my neighbourhood is good			
The choice of food in my neighbourhood is good			
Food in my neighbourhood is expensive			
There is a good choice of grocery stores in my neighbourhood			
The quality of the grocery stores in my neighbourhood is good			
I do most of my grocery shopping in my neighbourhood			
It is difficult for me to go grocery shopping in my neighbourhood			

APPENDIX G
URBAN COMMUNITY MAP



APPENDIX H
RURAL COMMUNITY MAP



APPENDIX I
One-on-One Tenant Interview Questions

What is your gender? ___ Male ___ Female

In what year were you born? 19___

What language do you speak most often in your home? _____

What is your primary source of income?

___ Person with a Disability Provincial Income Assistance
___ Canada Disability Pension
___ Combination of CPP and Income Assistance
___ combination of Canada Old Age Security and Canada Pension
___ Other

In general would you say your health is?

___ excellent ___ very good ___ good ___ fair ___ very poor

What is your disability condition?

___ Physical disability ___ Mental health disability

How does your disability prevent you from accessing food?

How would you describe your diet?

___ excellent ___ very good ___ good ___ fair ___ very poor

On average how much do you spend on food per week?

___ $0 - $10 ___ $11 - $20 ___ $20 ___ over $20

Here are some challenges that may prevent people from buying food. Which of these statements apply to you? (Check all that apply)

___ I cannot access a grocery store on a regular basis
___ I don't always have the money to buy food
___ I don't know what to buy or what is healthy
___ I don't know how to cook and/or prepare some foods
___ Other_____

Here are some challenges that may prevent people from accessing grocery stores on a regular basis. Which of these statements apply to you? (Check all that apply)

___ I do not have access to reliable transportation
___ I cannot use public transit
___ I cannot carry groceries home
___ I am not comfortable in large grocery stores
___ Other _____

Here are some strategies that people have used in order to buy food. Which of these statements apply to you? (Check all that apply)

___ I delay paying bills
___ I delay paying the rent
___ I sell or pawn personal possessions
___ I give up telephone, cable and/or internet service
___ I borrow money from a friend or relative
___ I borrow food from a friend or relative
___ I go to a friend's or a relative's for a meal
___ Other _____

In the last month, what percentage of meals did you prepare at home?

Meal	Percentage
Breakfast	
Lunch	
Dinner/supper	

Of the food you made at home last month, how much of it comes from these places?

	None (0%)	Some (25%)	Most (50%)	Almost all (75%)
Convenience Store				
Dollar Store				
Drug store with a food section				
Dumpster				
Food Bank				
Garden				
Grocery store				

Of the meals that you ate, that you did not prepare at home, what percentage of them came from these locations?

	None (0%)	Some (25&)	Most (50%)	Almost all (75%)
Fast food Restaurants				
Restaurants				
Pub				
Coffee Shop				

What percentage of your meals do you eat at charitable locations?

Meal	Percentage
Breakfast	
Lunch	
Dinner/supper	

What do you usually eat for:

Meal	
Breakfast	
Lunch	
Dinner/supper	

During the past month did you (Check all that apply),

	Often true	Sometimes true	Never true
Worry that your food would run out?			
Cut the size of your meals?			
Not eat for a whole day?			
Worry about the quality of your food?			

How would you rate your ability to access the quality of food you want from the place you live?

___ very difficult ___ somewhat difficult ___ easy ___ very easy

How would you rate your ability to access the quantity of food you want from the place where you live?

___ very difficult ___ somewhat difficult ___ easy ___ very easy

Is the food that is available in your neighbourhood useable for you?

___ Yes

___ No, which foods? _____

What makes it difficult for you? _____

What does hungry mean to you? _____

Tell me about your experiences about being hungry? _____

How has being hungry affected you? _____

What is it like for you to get free food? _____

How does having to get free food make you feel? _____

Any other comments?

APPENDIX J

Housing Providers Questions

Does the housing project that you operate have the following in the individual units?

	YES	NO
Refrigerator		
Freezer		
Stovetop		
Oven		
Microwave		
Hot Plate		
Food Storage		

Does the building that you operate have the following resources or programs?

	YES	NO	AVERAGE NUMBER OF PARTICIPANTS
Communal cooking facilities			
Community kitchen program			
Community meal program			
Delivered meal program			
Community garden plot			
Meal exchange program			

APPENDIX K
COMMUNITY SERVICE PROVIDERS INTERVIEW QUESTIONS

What is your organizational structure?

Do you have paid staff? How many?

What are your sources of income?

What services to you provide

- Daily
- Weekly
- Monthly

How many people access your services?

- Daily
- Weekly
- Monthly

What criteria and procedures do people follow to access your services?

Do you know of any barriers that the people who access your services have to food security?

Do you have any suggestions to enable access to food security in your community?

APPENDIX L

Food Baskets Contents

Focus Groups

3 chicken legs and thighs	3 apples	3 oranges
3 bananas	3 carrots	3 potatoes
Bag of rice	Box of crackers	Cheddar cheese
I Mr. Noodle	Jar homemade jam	2 onions
Can of tuna		

Tenant Interviews

Bag of spaghetti noodles	Jar of spaghetti sauce	2 cups hamburger
Box of crackers	Container of parmesan cheese	
3 oranges	3 apples	jar homemade jam

NOTE: Most items were purchased at the Dollarama

Database Matrices

One-on-One Tenant Interviews

	Spend on food/wk	Challenges To buying food	Challenges to access	Strategies	Meals prepared at home	Food comes from	Access quality food
U1	$0-$10	Don't have money Don't know how to cook	No reliable transportation Public transit a trigger	Borrow from friend Ask for food Steal food	2 dinners/ wk	Drug store – 25% Dollar Store – 75%	Somewhat difficult
U2	Over $20	Don't have money	Using public transit	Borrow from a friend	All	Dollar store – 25% Grocery store – 76%	Very easy
U3	$0-$10	Cannot access grocery store	No reliable transportation	Everything but steal	L - 2/wk D - 2/wk	Grocery store – 50% Soup kitchen – 25% Food Bank – 25%	Very difficult
U4	$11-$20	Cannot access grocery store Don't know how to cook	Not comfortable in large stores	Everything but steal	B - none L – 2/wk D – 2/wk	Dollar Store – 50% Grocery Store – 50%	Somewhat difficult
U5	Over $20	Don't have money	Carry not carry home	Borrow food and money	B – 90% L – 90% D – 90%	Convenience store – 50% Grocery store – 25% Food bank 25%	Somewhat difficult
U6	$11-	Don't have	Use buggy	Borrow	All	Grocery	Very

	$20	money Don't like cooking		money Steal		store – 75% Food bank – 25%	difficult
U7	$0-$10	Don't have money Cooking is a trigger	No reliable transportation Cannot use public transit	Go without	B – 90% L – 90% D – 90%	Dumpster – 25% Food Bank – 25% Steal – 25%	Easy
U8	Over $20	Don't have money Don't know how to prepare	No reliable transportation	Borrow Go without	All	Grocery store – 100%	Somewhat difficult
R9	$11-$20	Don't have money	Can't walk far Public transit difficult with physical disability	Go without	B – none L – sandwich from soup kitchen D – whatever I have	Soup kitchen – 75% Grocery store – 25%	Somewhat difficult
R1	$0- $10	No money No transportation	Use walker No comfortable on the bus		B – cereal L – Clubhouse D – frozen meals Soup	Meal programs – 50% Clubhouse – 25% Grocery store – 25%	Very easy
R2	Over $20	No money No transportation			All	Grocery store – 75% Garden – 25%	Very difficult
R3	$0 - $10	No money	Use scooter – can't use public transit	Borrow money Get food from family	B – cereal L – skip D – frozen meals	Dollar store – 50% Walmart – 25%	Very difficult
R4	Over $20	No money No	Physical disability	Go without	All	Grocery store –	Very difficult

		transportation	Depressive symptoms			100% Garden when available	
R5	$0 - $10	No money	Don't know how to cook	Borrow money	90%	Dumpster	Very difficult
R6		No money	Don't know what to buy	Steal	90%	Grocery store – 75% Food bank – 25%	Very difficult
R7	$11 - $20	No money	Cannot access store	Borrow money or food	10%	Dumpster – 25% Food bank – 25% Grocery store – 50%	Very difficult
R8	Over $20	No money			All	Food bank – 25% Grocery store – 75%	Somewhat difficult
R9	$0 - $10	No money No transport	Not comfortable in large stores Cannot use public transit	Borrow money Food from relatives	All	Grocery store – 100%	Very difficult
R10	Over $20	No money No transport	Spur of the moment based on energy		All	Grocery store – 50% Dollar store 25% Foraging – 25%	Somewhat difficult
R11	$11- $20	No money				Walmart, discount grocery store – 75% Charity – 25%	Somewhat difficult
R1	$11 -	No	No money		10%	Walmart –	Very

2	$20	transportation	No transportation			250% Dollar store – 25% Grocery store – 25%	difficult
R13	Shop once a month	Don't have money	Use a bicycle		75%	Food bank – 25% Discount grocery store – 75%	Somewhat difficult
	Access quantity of food	**Worry food will run out**	**Cut size of meals**	**Not eat for a day**	**Worry about quality**	**Usually eat for breakfast(b), lunch(l), Dinner (d)**	**Meals eaten at charitable locations**
U1	Somewhat difficult	Often true	Often true	Often true	Somewhat difficult	B – nothing L – nothing D - noodles	None
U2	Easy			By choice	Somewhat true	B – toast, porridge L – nothing D - balanced	None
N3	Very difficult	Often true				B – toast L- sandwich D – charitable meal	B – 6/wk Dinner – 5/wk
UU	Somewhat difficult	Often_true					B – 6/wk Lunch – 2/wk D – 2/wk
U5	Easy	Sometimes_true			Food_on sale	B – toast L – soup and sandwich	L – Tues and Thur

						D - balanced	
U6	Very difficult	Often true	Often true	Often true	Often true	Whatever is available or on sale	B – 6/wk
U7	Very difficult	Often true		Often true	Often true	B – cereal with water L – skip D – whatever is available	B – 6/wk
U8	Very difficult	Often true	Often true	Often true	Often true	B – toast L – sandwich D - pasta	None
U9	Very difficult	Often tore	Often true	Sometimes true	Sometimes true	B – soup kitchen L – sandwich D - whatever	B – 6/wk
R1	Very easy						90%
R2	Very difficult	Often true	Often true	Often true	Often true	B – eggs L – sandwich D - pasta	None
R3	Very difficult	Often true	Somewhat true	Somewhat true	Often true	B – fruit L – vegetables D – frozen meals	25%
R4	Very difficult	Often true	Often true	Often true	Often true	Try to eat balanced meals	None
R5	Very difficult	Often true	Sometimes true	Sometimes true	Often true	B – nothing L – sandwich D noodles	10%
R6	Very difficult		Sometimes true	Sometimes true	Often true	B – toast L – nothing	10%

						D - pasta	
R7	Very difficult	Sometimes true	Sometimes true	Sometimes true	Sometimes true	Whatever is available	90%
R8	Somewhat difficult					B – fruit L – sandwich D - pasta	None
R9	Very difficult	Often true	Often true	Often true	Often true	Whatever	None
R10	Somewhat difficult	Often true				Whatever is available, small amounts frequently	Can't eat the food there
R11	Somewhat difficult				Often true	Frozen meals program	Clubhouse whenever available
R12	Very difficult	Sometimes true	Sometimes true	Often true	Often true	Eat once a day	Soup kitchen – 5/wk
R13	Somewhat difficult		Sometimes true			Food bank – once/mo Make soup from starch, every once per day	Soup kitchen - 5/wk

Community Service Providers One-on-One Interviews

	Organizational Structure	**Paid Staff**	**Sources of Income**	**Services provided**	**Criteria/Procedures**
CSU1	Christian-based	3	National organization	1 hamper/mo	Must be a registered client
CSU2	Christian-based	12	National organization	Lunch and Dinner everyday	Purchase meal tickets in adva
CSN3	Non-profit	11/2	Donations Fund-raising	Breakfast and bagged lunch 5 days/wk Breakfast every	None

				Saturday	
CSU4	Non-profit	8	Provincial, and city funding Donations	1 hamper/wk	Provincial care card ID with address
CSU5	Non-profit	Volunteers	National organization Federal funding	Breakfast – 1 Saturday per month	None
CSR1	Christian-based	1	Donations	1 hamper per month	Provincial health care card Picture ID
CSR2	Non-profit – representatives from community churches	2	Grant-in-aid from the city Donations	Light breakfast and lunch 5 days/wk	None
CSR3	Non-profit	4	Provincial funding	1 meal/day	Any adult

Community Service Providers

	Barriers	**Suggestions**
CSU1	Lack of income Limited resources	More services in more areas of the city
CSU2	Lack of income Health problems	More gardening
CSU3	Lack of income Struggles with addiction	Expand frozen meal program
CSU4	Lack of income Stigma from resources	Create a buyer's club
CSU5	Lack of income Lack of knowledge	Food related workshops
CSR1	Lack of income Times of operation	Increased direct staffing for food provision
CSR2	Lack of income Lack of transportation	Use other organizations vehicle for transportation
CSR3	Lack of income Location of resources	Expand frozen meal program

Housing Providers Questions

Does the housing project that you operate have the following in the individual units?

	Urban	Rural
	YES No	**Yes No**
Refrigerator	√	√ - small
Freezer	√	√ - community freezer
Stovetop	√	√ - two burner
Oven	√	√
Microwave	√	√
Hot Plate	√	√
Food Storage	Cupboards	Cupboards

Does the building that you operate have the following resources or programs?

	Urban	**Rural**
	YES No	**Yes NO**
Communal cooking facilities	√	√
Community kitchen program	√ - government funding cut	√
Community meal program	√	√
Delivered meal program	√ - through outside service providers	√
Community garden plot	√	√
Meal exchange program	√	√

House Providers

	Urban	**Rural**
Barriers	Transit not always available or useable	No transportation
	Lack of income	Non-diagnosed mental illness prevents some individuals from meeting the criteria for services and programs
	Some people resent having to show their care card to receive service at the food bank.	No connection to services and therefore no support is available. Sometimes this is by choice but sometimes it is based on past

		behaviour.
Suggestions	More services in more areas of the city	Expand the frozen meal program to include everyone
	Food related workshops offered at a variety of locations and times.	Expand the canteen and include more healthy items
	Provide funding to make staffing position(s) for food services a priority	Expand the on-site garden and/or form partnerships with other community garden programs
	Use of community van for transportation	Use of service club or other agencies vehicles for transportation

Focus Group

	Number of participants	**Not enough to eat every day**	**What makes it hard**	**Time of the month**	**Does where shop depend on money**	**Quality of food to purchase is good**	**Choice of food is good**
UFG 1	12	5	No money	Week before cheque issue	12	4 - disagree	10 - disagree
UFG 2	10	5	No money No transportation	Week before cheque issue	10	5 - disagree	
RFG 1	10	8	No money Not enough from food bank	Week before cheque issue Second week of the month	Use coupons	Quality is bad if no money	8 - disagree
RFG 2	9	9	No money Addicted behaviour	Week before cheque issue Harder in the winter	Whatever is on sale	7 - disagree	8 - disagree

Focus Group

	Food is expensive	**Good choice of grocery stores**	**It is difficult to shop**
UFG1	All agree	2 – agree 4 - disagree	All agree
UFG2	All agree	4 - disagree	All agree
RFG1	All agree	5 - agree	All agree
RFG2	All agree	8 - agree	All agree