Experiences of Food Insecurity Among Older Women in Rural Nova Scotia

by

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Dedication

This thesis is dedicated to my late grandmother, Ruth Marian Redmond, who cared passionately about food, education, social justice, women's equity, and the province of Nova Scotia.

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Abstract

Older, rural-dwelling women in Canada are at risk of food insecurity, given their longer life spans and vulnerability to poverty; however, there is little research exploring their experiences. Nova Scotia is of interest as it has high rates of food insecurity, a rapidly aging population, and is a largely rural region. This study explored how older women (age 65 and above) in rural Nova Scotia (who had used a food bank within five years of the study) experienced food insecurity. Semi-structured interviews were conducted with seven participants, and data were analyzed using thematic coding and analysis. Barriers to food security were identified, as were strategies for persevering through food insecurity. The women demonstrated resilience, but many of their strategies for surviving food insecurity were necessitated by inequitable policies (e.g., inadequate public pensions). Findings from this study may contribute to literature and policies on reducing food insecurity for older, rural women.

List of Abbreviations Used

BIG	Basic Income Guarantee
CCSDH	Canadian Commission on the Social Determinants of Health
CPP	Canada Public Pension
CSDH	Commission on the Social Determinants of Health (United Nations)
CLSA	Canadian Longitudinal Study on Aging
FAO	Food and Agriculture Organization of the United Nations
FoodARC	Food Action Research Centre
GIS	Guaranteed Income Support
OAS	Old Age Security
RRSP	Registered Retirement Savings Plan
SDOH	Social Determinants of Health
TCPS2	Tri-Council Policy Statement
UN	United Nations
WFP	World Food Programme
WHO	World Health Organization

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Chapter 1: Introduction

Older, rural-dwelling women in Canada are at risk of food insecurity, and yet their experiences are not well-documented or understood. Recently, Tarasuk, Mitchell and Dachner (2014) found that 13.3% of food insecure households in Canada reported their primary source of income as being a "senior's income" (p. 13). Although comparable provincial data are not available, the number of Nova Scotians using food banks whose primary income came from a pension (e.g., Old Age Security) increased from 8.5% in 2015 (Food Banks Canada, 2015) to 12.4% in 2016 (Food Banks Canada, 2016). Notably, as of 2016, Nova Scotia has a rapidly aging population (Statistics Canada, 2016a), and is tied with New Brunswick for the highest proportion of older adults in Canada, with 19.9% of the province's population aged 65 years and older (Statistics Canada, 2016b).

Importantly, older women worldwide have longer lifespans than men, and thus comprise a larger percentage of the older adult population (Statistics Canada, 2016a; United Nations, 2015), but research on the food insecurity of older women specifically is currently limited. A recent study examined the food security of older women in urban areas of Nova Scotia (Green-Lapierre et al., 2012), but this study did not include rural experiences, which is an important consideration, given that rural-dwelling is known to differ from urban-dwelling, and the two contexts are not necessarily comparable in terms of their effects on health outcomes (Wanless, Mitchell & Wister, 2010). The differences in potential health outcomes may suggest differences in related phenomena, including food insecurity. The present study explored important and understudied insights into the intersections between food security, older adulthood, rurality, and gender in Canada.

Background

The concept of food security was defined at the World Food Summit in 1996 as a state of being which exists "when all people, at all times, have physical, social, and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (updated in 2001 to include social access as well as physical and economic) (Food and Agriculture Organization of the United Nations, 2002, n.p.; FAO, 2003, p. 29). The inclusion of food preferences is important, as it recognizes that foods must be socioculturally (e.g., religiously, ethically) appropriate in order to be truly accessible (Pinstrup-Andersen, 2009; Stringer, 2016). Food security depends on food availability (i.e., adequate amounts of food made available through regional production or by import), food access (i.e., the possession of sufficient resources and commodities to acquire food, such as economic and political capital), and food utilization (i.e., the means and knowledge to store and prepare healthy food, and the nutritional quality of the foods being consumed) (FAO, 2006; World Food Programme, 2017). Finally, all three of these components must remain stable over time, protected from environmental or economic changes that could affect availability and/or access to food (FAO, 2006; Stringer, 2016).

In contrast to food security, food *in*security occurs when "physical, social and economic access to sufficient, safe and nutritious food" is not possible (FAO, 2003, p. 29). Furthermore, food insecurity can be present when nutritious food needs to be acquired in ways that are socially or culturally unacceptable (e.g., using food charity, stealing) (National Research Council, 2006), or when constraints such as physical limitations (e.g., people with disabilities) prevent access to food that might be otherwise

accessible (Lee & Frongillo, 2001a, 2001b). Food insecurity can be either chronic or transitory. Chronic food insecurity is often related to a persistent lack of resources needed to acquire food such as poverty, and transitory food insecurity occurs when environmental incidents, such as extreme weather events, affect food production and availability (FAO, 2008). Food insecurity exists worldwide (FAO, 2015), including in affluent countries such as Canada where food banks—although intended to be a temporary solution—may be one way of reducing food insecurity (Bazerghi, McKay & Dunn, 2016).The risk of food insecurity may be increasing for older, rural-dwelling adults in Canada, as suggested by an increase in rural food bank use (Food Banks Canada, 2016) and Canada's aging population (Statistics Canada, 2016a). Notably, rural populations have a higher proportion of older adults (15%) than urban populations (13%) (Dandy & Bollman, 2008). -

Older adults (adults aged 65 years and older) are susceptible to nutritional risk (i.e., suboptimal nutrition intake and dietary habits) due to a variety of factors including complex dietary needs, mobility impairments affecting food shopping and cooking, and financial constraints limiting their ability to buy food (Ramage-Morin & Garriguet, 2013). Notably, older adults' nutritional risk has been identified as a growing problem worldwide (Visvanathan, 2003). They may also be vulnerable to poor health outcomes that are related to nutritional risk, including chronic disease (Krondl, Coleman & Lau, 2008). Food security is essential to achieving proper nutrition, but older adults may face unique barriers to food access, including limited physical mobility (Brewer et al., 2010) and the dietary restrictions of chronic diseases (Shatenstein, 2008). Furthermore, income is the primary determinant of household food insecurity status (Chen & Che, 2001), and

many older adults who rely on public pensions for their income may find it difficult to afford healthy or even adequate food (Green, Williams, Johnson & Blum, 2008; MacDonald, Andrews & Brown, 2010; Williams et al., 2012). Older women are especially vulnerable to food insecurity, as their incomes tend to be among the lowest in Canada (Townson, 2009). Public pensions are the most common source of income for older women (Milan & Vezina, 2011), but may not provide adequate economic support, especially for older women in rural areas (Barnwell, 2006). Public pensions in Canada required participation in the formal workforce, and contributions are determined by wages, leaving rural women—who are more likely to have tenuous connections (e.g., part-time, low-paid, precarious work) to the formal paid workforce due to struggling rural economies—at risk in older adulthood (Barnwell, 2006).

Research Questions and Purpose

Older, rural-dwelling women are susceptible to food insecurity; however, there is a dearth of research identifying the specific barriers they face to food security and the strategies they use to navigate these barriers. This is also true for published literature exploring the relationship between health and food insecurity for older adults, although connections between food insecurity and poor health outcomes in general have been established. More research is needed to determine how the relationship between health and food insecurity manifest in older adulthood. The present study sought to engage older, rural-dwelling women not just as a population vulnerable to food insecurity, but also as individuals capable of self-determination. The research was conducted in the province of Nova Scotia, as its residents experience high rates of household food

insecurity as compared to other Canadian provinces. The study's inquiry was guided by three research questions:

1) How are rural-dwelling women, aged 65 and above, who are food bank users in Nova Scotia experiencing food insecurity?
2) How do these women believe that food insecurity impacts their health and well-being?
3) Have older women's strategies for acquiring food (e.g., cooking, growing, purchasing) changed over their lifecourse, and have their past experiences influenced their present relationship with food?

Study Significance and Context

This study examined the issue of food insecurity in the Atlantic Canadian province of Nova Scotia, where food insecurity is prevalent. In 2015, Statistics Canada estimated Nova Scotia's rate of household food insecurity to be 11.9%, compared to the Canadian national rate of 8%. Currently, Nova Scotia's rate was the highest provincial rate, but was lower than the three territories which have rates of 36.7% (Nunavut), 13.7% (Northwest Territories) and 12.4% (Yukon) (Roshanafshar & Hawkins, 2015). Tarasuk, Mitchell and Dachner (2014) argue that these rates are underestimates of household food insecurity in Canada due to the exclusion of children under 12 years of age, and households which are marginally food insecure (as opposed to moderately and severely food insecure). Tarasuk et al.'s calculations using Canadian Community Health Survey data from 2014 indicate that the national rate at this time was approximately 12.0% and that Nova Scotia's rate of household food insecurity remained the highest of the provinces (excluding the three territories) at 15.4% (Tarasuk et al., 2014). The regions where the study reported on here

took place—Pictou, Antigonish, and Guysborough counties—are located in eastern Nova Scotia. They are situated roughly 158 kilometres from the capital city of Halifax. Collectively, they have a population of 70,674 across 8,347 square kilometres, with an average population density of 11.6 persons per square kilometre (Statistics Canada, 2017a), which defines the region as rural (Minister of Industry, 2001).

The Pictou-Antigonish-Guysborough region was chosen for multiple reasons: the District Health Authorities in Pictou and in Guysborough-Antigonish reported the second and third highest food costs ($878.21 and $882.28 spent on food per month, respectively) in the province, after Cape Breton (FoodARC, 2013). These high costs suggest the possibility of food insecurity, which may be due in part to the higher percentage of the population below the after-tax low-income measure in rural Nova Scotia than in the urban areas (Statistics Canada, 2016c). Furthermore, the Antigonish, Guysborough, and Pictou counties all had higher percentages of their population above the age of 65 as of 2016 (20.62%, 31.08%, and 22.66% respectively) as compared to the Halifax Regional Municipality (15.65%) (Statistics Canada, 2017b). Notably, in all three counties included in this study, the proportion of low-income older adult households (average of 21.9% across three counties) was higher than the proportion of total low-income households (average of 18.2% across three counties). The situation in the Halifax Regional Municipality is the inverse, with a higher proportion of total low-income households (14.8%) than of low-income seniors (12.0%) (Statistics Canada, 2017a). Finally, the Pictou-Antigonish-Guysborough region is within a reasonable distance of the researcher's home and work in Halifax, and permitted reasonable travel for the purposes of research, such as recruitment and data collection.

Study Design and Methods

This study used a qualitative exploratory research design. Qualitative research is ideal for exploring new or poorly understood phenomena because of its focus on individuals' subjective interpretations of phenomena, rather than testing established theories, as is more common in quantitative research and fields of study (Creswell, 2014). The present study sought to better understand the experiences of a specific population that, as far as is known, has not yet been researched: older, rural-dwelling women in Nova Scotia who are experiencing food insecurity. Seven participants were recruited through purposive sampling, and they were interviewed using individual semi-structured interviews which were subsequently transcribed for analysis.

The study used Nvivo software to organize the data and the data were analyzed using thematic analysis. Thematic analysis is a systematic process by which qualitative data are organized, reviewed, and examined first for codes (i.e., labels identifying concepts in the data) and then for themes (i.e., common traits of the data that can be linked together) (Braun & Clarke, 2006; Nowell, Norris, White & Moules, 2017). These themes informed an analysis of the research population's perceptions and experiences of food insecurity, particularly as they related to key themes.

Implications for Health Promotion

Health promotion enables "people to increase control over, and to improve, their health" focusing on "a wide range of social and environmental interventions" (WHO, 2018, n.p.). Understanding and addressing food insecurity is a critical component of health promotion, as it can result in health issues such as cardiovascular disease (Ford, 2013), osteoporosis (Lyles, Schafer & Seligman, 2014), and various chronic diseases

(McIntyre & Tarasuk, 2002). Household food insecurity can be affected by various social and environmental phenomena including changes in technology, economics, demographics, and climate (Bras, 2014), leaving it open to the possibility of being impacted by health promotion interventions.

The connections between health promotion and food security can be best understood through the social determinants of health (SDOH), which are "the conditions in which people are born, grow, live, work and age, […] shaped by the distribution of money, power and resources at global, national and local levels" (World Health Organization, 2018). The SDOH operate at multiple levels, informing health disparities both between and within nations (Marmot, 2007), and the health of Canadian residents is heavily influenced by social factors such as food security (Mikkonen & Raphael, 2010). Several key determinants of health are of particular concern for older adults, including geographic location (e.g., urban versus rural dwelling)—which determines proximity to health services and the support and assistance of younger family members—and gender, as older females tend to have longer lifespans and lower incomes than older males (Chenier, 2002). A report from the Canadian Library of Parliament (Chenier, 2002) notes that increased risk of disease and changing social needs in older adulthood mean that determinants of health affect older adults in specific ways. This study explored the impacts of several SDOH (e.g., income, gender, rurality) on food security and related health outcomes.

Social determinants of health such as food security, geography, and gender are often the root causes of poor health outcomes (Marmot, 2007); therefore, these determinants must be well-understood in relation to food insecurity if they are to inform effective

health promotion, including efforts to promote food security and related health outcomes. Health promotion research seeking to understand the determinants of chronic diseases (e.g., food insecurity) is important in Nova Scotia, as the province ranks seventh out of the thirteen provinces and territories for poor health outcomes. The lower rank is primarily due to a high prevalence of chronic diseases such as cancer and diabetes (Conference Board of Canada, 2015). Chronic disease accounts for approximately 65% of indirect health care costs in Canada (Mirolla, 2004), so it is important to understand the root causes of chronic illnesses in the interests of improving health and reducing health care spending. This study explored experiences of food insecurity using a SDOH lens to acknowledge that food insecurity is not simply an individual problem, but rather, it is created and shaped by socio-economic conditions.

Key Terms

Food (In)security. As per the definitions described earlier in this chapter, this study considered food security to comprise the availability of food; the physical, social, and economic access to food (FAO, 2002). Food insecurity was considered to be the absence or inadequacy of any component of food security. The study focused on household food security, which is defined as limited access to food based on a lack of financial resources at the level of the household unit (Dieticians of Canada, 2016). As such, the economic components of food security were of primary concern. The study also considered household experiences in the context of the community, however, it did not seek to understand how communities as a whole experienced food insecurity—the study focused on a specific group within a community. Throughout the thesis, both the terms food

security and food insecurity are used, with food security referring to an ideal status to be achieved, and food insecurity referring to a state of being in the past or present.

Rural. The towns in the regions of interest for this study are considered to be rural based on the Government of Canada's definition, which delineates rural communities as being outside commuting zones of larger urban zones (populations of more than 10,000) (Minister of Industry, 2001). The study also considered sociocultural definitions of 'rural' in data analysis, seeking to identify the role that intangible rurality could play in older women's experience of food insecurity. These sociocultural definitions can be defined by groups and individuals (Halfacree, 1993), and may be delineated based on shared behaviours and values (Keating & Phillips, 2008) or even a "feeling" or "state of mind" (Ramsey, Annis & Everett, 2002, p. 197).

Older Adult. This study refers to adults over the age of 65 as 'older adults,' in accordance with the terminology used by the Nova Scotia Department of Seniors (2017) in their most recent report on aging. Although the term 'older adult' is used by the researcher, study participants and some literature informing the study used related terms such as 'senior' to refer to the same population. Older adults are defined as those aged 65 years and above, as this marks the age when Canadians can collect public pension payouts (Government of Canada, 2016b). Pensions are of interest to this research, as food security is related to income (Chen & Che, 2001), and food banks in Nova Scotia have indicated an increase in users whose primary income is their pension (Food Banks Canada, 2016).

Summary

This chapter has provided an overview of the present study. It has reviewed the concept of food security within the context of Canada and Nova Scotia, focusing on experiences in rural areas. It has discussed the significance of food security for the health of older adults, indicated the vulnerability of older women, and established the need for more research exploring older women's food security in rural Canada. The chapter has also introduced the methods which were used in this project, explaining the application of qualitative research in general. It briefly described the study participants: older, rural-dwelling women living in Nova Scotia who use food banks. Finally, the chapter has defined key terms for this study. The following chapter will further explore the literature about rural food insecurity and its connections to older women's health in greater detail.

Chapter 2: Literature Review

Introduction

The following chapter explores the experiences of food insecurity among older, rural women in Canada. This exploration is based on an understanding of food security which acknowledges the important impacts of socioeconomic factors such as household income and social relationships. Both food security and older adulthood are complex phenomena, but their interrelationships merit a deeper investigation, especially when considered alongside additional factors such as gender and rurality. This chapter seeks to define and discuss each of these concepts in further detail.

Food (In)security

The concept of food security was developed during global incidences of famine and hunger in the 1970s, and it was officially defined for the first time at the UN World Food Summit in 1974, with the most recent refinement of the definition occurring in 2001 (FAO, 2003). The Food and Agriculture Organization of the United Nations (2003) understands food security to exist 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" (p. 25). Gibson (2012) explores and further defines some of these concepts, noting that 'food security' as a field of study is approached differently by agriculturalists, who are interested in factors such as land management and crop yield, sociologists, who are interested in sociocultural factors that determine access to food (e.g., poverty and changing dietary habits), and politicians and economists, who are interested in the domestic and international strategies for acquiring food for a given population. An in-depth exploration of physical, social, and economic

access to food is beyond the scope of this study, and so it will focus on social aspects of the phenomenon, considering microeconomic factors therein (e.g., household incomes).

Food insecurity and health. Food insecurity is linked to poor health, as it is associated with nutrient deficiencies (Kirkpatrick & Tarasuk, 2008) and increased mortality rates (Gundersen, Tarasuk, Cheng, de Oliveira & Kurdyak, 2018). Connections between food insecurity and health are complex and multifaceted, spanning both chronic and infectious diseases (Majowicz et al., 2016). Food insecurity's link to poor health can be demonstrated through an analysis of health care costs (e.g., inpatient hospital stays, emergency department visits, home health care services, prescription drugs), which were shown to rise with increases in rates of household food insecurity (Tarasuk et al., 2015). Household food insecurity is also associated with higher health care expenditures at the household level (e.g., medications), possibly due to the need to spend household incomes on these costs, rather than food (Berkowitz, Seligman & Choudry, 2013; Bhargava, Lee, Jain, Johnson & Brown, 2012).

A complete review of all connections between food security and health outcomes is beyond the scope of this study but, most commonly, the literature on household food security and health has investigated links to the incidence of chronic diseases and adverse mental health outcomes. Food insecurity has been linked to numerous chronic diseases (McIntyre & Tarasuk, 2002), such as cardiovascular disease (Ford, 2013), osteoporosis (Lyles et al., 2014), and diabetes (Gucciardi, Vogt, Demelo & Stewart, 2009) due to its impacts on nutritional intake. Tevie and Shaya (2018) drew connections between food insecurity and poor mental health outcomes among younger people in the United States of America, finding that even low levels of food insecurity could lead to adverse mental

health in this population. Compton (2014) suggests that the stress and mental effort that accompany the process of finding and affording adequate food under the conditions of low income can contribute to adverse psychiatric outcomes such as depression. Muldoon, Duff, Fielden, and Anema (2013) found that mental illness was highly prevalent in their population of food insecure Canadians, although their study did not comment on more specific populations of Canadians (e.g., women, older adults).

The literature described above explored the impacts of food insecurity on health, but other literature has pointed to the inverse: the effects of poor health on food insecurity. For example, Tarasuk et al. (2013) found that chronic physical and mental health conditions among adults increased vulnerability to household food insecurity. Galesloot, McIntyre, Fenton, and Tyminski (2012) found that persons diagnosed with diabetes faced barriers to food security such as disrupted eating patterns and reduced food intake related to the disease. Olabiyi and McIntyre (2014) also found that chronic disease predicted food insecurity.

It is important to note that the relationships between food security and health do not necessarily exist within a dichotomy of food security impacting health, and health impacting food security. The links between the two phenomena are complex and multidirectional, as can be demonstrated by the relationships between food insecurity and HIV (Weiser et al., 2011). Although the present study does not address this health issue, it has been well-researched and examined in relation to food security. HIV-positive people are known to have higher likelihoods of food insecurity than those who are not infected (Cox et al., 2017; Normén et al., 2005; Weiser et al., 2009), and Weiser et al. (2011) found that this connection was facilitated through factors such as nutritional

deficiencies and poor mental health outcomes caused by food insecurity leading to increased HIV morbidity. Food insecurity was also found to lead to engagement in risky sexual practices as a way of acquiring food. The complexity of this relationships suggests that food security and health are connected through multiple pathways, but there is a need for more research into the nature of these pathways (Weisner et al., 2011). Limited literature could be found examining these pathways among specific populations and in specific contexts. The following sections of this literature review outline the levels at which food insecurity can exist and explores some of the specific populations of interest.

Level of food insecurity. Food insecurity can exist at national/regional, community, and individual levels (Gibson, 2012; Leroy, Ruel, Frongillo, Harris, & Ballard, 2015). At a national or regional level, food insecurity is impacted by food availability related to environmental incidents (e.g., drought, flooding) (Devereux, 2007; Schmidhuber & Tubiello, 2007), and food resources available within a given nation or region (e.g., imports and exports) (Asche et al., 2015; Swinnen & Squicciarini, 2012). A review of all literature investigating national and regional experiences of food insecurity is beyond the scope of this study, but on a global scale, the FAO (2015) recommends that nations or regions experiencing national food insecurity support small scale family farmers to promote economic prosperity and agricultural growth. However, such national-level solutions are not necessarily appropriate for reducing food insecurity at the household and community levels, where factors such as household income play a significant role in determining food access (Dieticians of Canada, 2016).

This study will focus on food insecurity at the levels of the household. Household food insecurity is defined as limited access to food based on a lack of financial resources

at the level of the household unit (Dieticians of Canada, 2016). Household food insecurity exists at three levels of intensity: marginal, moderate, and severe. It is marginal among those who worry about not having enough food and limiting selection for financial reasons, moderate when food quantity or quality is compromised for financial reasons, and severe among those forced to go without food for any length of time, ranging from missed meals to days without food (Tarasuk et al., 2014).

Although the current study focuses on income and other economic barriers to food security at the household level, it also accounts for community-level factors as they are relevant to individual experiences at the household level. Community food security (CFS) exists when "all community residents obtain a safe, personally acceptable, nutritious diet through a sustainable food system that maximizes healthy choices, community self-reliance and equal access for everyone" (Hamm & Bellows, 2003, p.10). Dieticians of Canada (2007) recognizes CFS as both a "process" and "outcome" (p.1) that is important to the overall food security of all Canadians households. Importantly, both community food accessibility and household capacity to acquire food can be influenced by national or regional factors such as the strength of the economy and the area's food production. The Canadian national context for food insecurity is described in the following section.

Food (in)security in Canada. As discussed in Chapter 1, there are regional disparities in rates of food insecurity throughout Canada. Northern regions are most at risk of food insecurity (Roshanafshar & Hawkins, 2015), and thus they must not be neglected in conversations about food insecurity in Canada. It is important not to ignore many of the nation's most vulnerable, as these regions are largely populated by Canada's First Peoples, with up to 90% of northern residents identifying as Indigenous (Indigenous

and Norther Affairs Canada & Health Canada, 2016). Importantly, Indigenous experiences and understandings of both health (Adelson, 2005) and food security (Schuster, Wein, Dickson & Chan, 2011) are not necessarily aligned with those of other Canadians, and these populations may face different barriers and challenges to achieving food security than would other Canadian populations.

The unique food insecurity experiences among diverse Indigenous populations in Canada emphasize the fact that food insecurity is not experienced in the same way throughout the country. Food security is experienced differently by different populations, and in a region as large as Canada, this makes it important to understand food security within specific contexts, bound by geography. Cultural and material losses related to food production and consumption have been felt in Atlantic Canada, such as the collapse of the North Atlantic cod fishery (Mason, 2002). Different responses to food insecurity may differ based on circumstances, such as geography and environment. For example, in Canada, the factors determining food access appear to differ between urban and rural areas (Minister of Health, 2013), suggesting the need for different strategies responding to different regions.

Food (in)security in Nova Scotia. Of all Canadian provinces, Nova Scotia's rate of food insecurity is currently the highest (excluding the three territories of Yukon, Northwest Territories, and Nunavut) in the country at 11.9% (Roshanafshar & Hawkins, 2015), making it an important point of investigation in provincial health research. According to the *Thought About Food Report* on food insecurity in the province (Policy Working Group of the Nova Scotia Participatory Food Security Projects, 2006), the state of food insecurity in Nova Scotia can likely be attributed to two interconnected factors:

gaps and issues within the local food supply system, and deficits in the provincial economy that contribute to low household incomes. For example, similar to Newfoundland and Labrador (Mason, 2002), the collapse of the cod fishery in Nova Scotia also saw the loss of both a local food source, and of the province's economic foundation (Office of the Auditor General of Canada, 2001).

The decline of local food systems in Nova Scotia is also discussed by Statistics Canada (2004), who report a decline in the number of farms in the province, and in Canada's Food Report Card, where the Conference Board of Canada (2016) identified industry prosperity (e.g., farm size, per capita food manufacturing sales) as a problematic component of food security in Nova Scotia, ranking the province seventh out of ten for food industry performance. Recently, Andrée, Langille, Clement, Williams and Norgang (2016) described the structural constraints and enablers to food security in the province and highlighted the potential for food security solutions in the province's agricultural and fisheries sectors, but note the lack of government and consumer support for food production activities, such as farming. Relatedly, they also report that the provincial food retail sector is biased toward inexpensive, internationally-produced food items, reducing Nova Scotia's food self-sufficiency, as well as the limited capacity for political and economic systems to affect food security outcomes due to increasing neoliberalization (i.e., the decrease of state support for citizens and their activities), and the subsequent reduction of state involvement in food production and distribution.

Feed Nova Scotia (2017) and Andrée et al. (2016) name limited industry and employment as a primary culprit of food insecurity in the province, in addition to the high costs of living and low household incomes. In examining household food security

specifically, the Conference Board of Canada (Vallée, Maclaine, Lalonde, & Grant, 2017) ranked Nova Scotia seventh out of ten provinces, identifying household debt as a key factor in the low score, alongside the worry, hunger, and weight loss resulting from food insecurity. Also, as noted earlier, there has been a recent provincial increase (2015 to 2016) in the number of food bank users whose primary income has come from a pension (Hunger Count, 2015; Hunger Count, 2016). Importantly, Nova Scotia's population is rapidly aging (Statistics Canada, 2016a), and, in this context, understanding the issues of food insecurity and population aging is one important way to improve population health.

Rural food insecurity. In Canada, 18.9% of the country's residents live in rural areas (Statistics Canada, 2011), and therefore it is important to consider rural food insecurity. Rural household food insecurity is impacted by and impacts a variety of factors linked to health and income. For rural families in the United States of America, Hanson and Olsen (2012) found that poor health due to limited access to health care services and supports predicted higher rates of food insecurity. In Canada, rural residents are reported as having poorer health than their urban counterparts (Mitura & Bollman, 2003), and this health outcome may be linked to lower socioeconomic status in rural areas (Des Meules et al., 2006). Notably, poorer health is a known outcome of food insecurity, and low socioeconomic status is a known determinant of health (Chen & Che, 2001).

Food bank usage has been applied as a measure of the presence of household food insecurity (Loopstra & Tarasuk, 2015). Currently, Canadian usage is lower in rural than urban areas (Tarasuk et al., 2014), but there is limited knowledge of the factors affecting rural food bank use. Importantly, rural food bank users tend to have some differences

from urban users, including older average age (Food Banks Canada, 2016), suggesting that it may be difficult to make an exact comparison between the two populations. Andrée et al. (2016) found that participants in their study of food insecurity in Nova Scotia believed that rural poverty influenced food insecurity differently from urban poverty, stating that rural poverty is less visible (e.g., fewer people on the streets), and that rural regions have poorer access to the resources needed for activities such as fundraising and school food programs. The realities of rural food access demand specific strategies to address food insecurity. The following section explores a variety of strategies to addressing food security in different contexts.

Addressing food insecurity. Responses to food insecurity differ depending on the level of food insecurity being addressed. While the full breadth of these responses is beyond the scope of this study, it will consider relevant approaches at the national, community and household levels in a Canadian context. Community strategies might include the development of community programs, such as a subsidized meal program in Australia (Allen et al., 2014), or food outreach to underserved regions in Canada, including mobile markets and programs run through small-scale food retailers (Mah et al., 2016). Programs could also include community gardens; however, these have been found to be inaccessible to low-income populations, or simply ineffective in reducing food insecurity (Kirkpatrick & Tarasuk, 2009; Loopstra & Tarasuk, 2014). Community programs were also found to be more or less successful depending on existing capacity for them within the community of their implementation (Provincial Health Services Authority, 2006).

Responses to individual or household food insecurity often come from the food insecure individuals or households themselves, for example, the increased allocation of household incomes to basic needs (e.g., food, housing) rather than discretionary spending (Fafard-St Germain & Tarasuk, 2018). Some literature has discussed the importance of individual food-related skills, including cooking and gardening (Chenhall, 2010; Hamelin, Mercier & Bedard, 2010; Howard & Edge, 2013). However, Huisken, Orr and Tarasuk (2016) recently studied the ability of individual skill and knowledge to reduce food insecurity and found that food acquisition and preparation behaviours in food insecure households did not always differ from those who were food secure. They suggest that the enhancement of skills such as gardening, budgeting and food shopping, and cooking in the home would not improve food security in Canadian households. Buck-McFayden (2015) had similar findings in a specifically rural context.

A common response to food insecurity that draws on both community programming and individual food acquisition is the use of a food bank. Food banks have been established as a response to poverty-related hunger in numerous Western countries, including European nations such as the United Kingdom (Lambie-Mumford, 2013), the Netherlands (Neter, Dijkstra, Visser, & Brouwer, 2014), and Finland (Salonen, 2014). In North America, they originated as an emergency welfare response to economic recession in the 1980s, first developing in the United States of America, and later in Canada (Riches, 2002). In Canada, food banks address food insecurity by acting as a temporary means of accessing food in times of need (Bazerghi et al., 2016). Importantly, food banks are not an adequate or permanent solution to food insecurity. The food collected at food banks can be of poor nutritional quality, due in part to a lack of perishable foods (Irwin,

Ng, Rush, Nguyen & He, 2007; Simmet, 2016). Furthermore, food bank use itself can be restrictive, as visits to food banks may be limited to a certain number per user, per month (Bazerghi et al., 2016; Williams et al., 2012). Tarasuk et al. (2014) note that some Canadian food banks may employ policies limiting food bank use in order to conserve their food donations and maintain an adequate supply to serve all users in need. Tarasuk and Eakin (2002) found that food bank donation in Canada had become a symbolic gesture for food secure citizens, who were disconnected from the experiences and needs of actual food bank clients.

Despite a wide variety of strategies to address food insecurity, few appear to address long-term, root causes of the issue. Recently, some authors have argued for the implementation of a Basic Income Guarantee (BIG) as a way of eliminating household food insecurity. A basic guaranteed income can take various forms, but the Basic Income Earth Network (BIEN) (n.d., n.p.) defines it as a "periodic cash payment unconditionally delivered to all on an individual basis, without means-test or work requirement." In a report for the Northern Policy Institute, Tarasuk (2017) notes that the universality of the basic income is important for an issue such as food security, in which the only common factor among those experiencing it is inadequate incomes. The arguments for the basic income guarantee include the reduction of food insecurity among social assistance recipients who may have benefited from the province's poverty reduction strategy (Loopstra, Dachner & Tarasuk, 2015).

Rather than commit to an income guarantee program, Canada has developed individual welfare programs which have been altered or added to depending on the political climate surrounding austerity, with welfare cutbacks being especially prolific

during the 1980s recession (Smith-Carrier & Green, 2017). Included in these welfare programs is the Old Age Security Pension and Guaranteed Income Supplement (GIS), which are forms of basic income called a 'demogrant', where the income guarantee has some restrictions based on demographics such as age (Basic Income Canada Network, n.d.). These programs have been deemed to successfully reduce poverty among older adults in Canada (Conference Board of Canada, n.d.) and may provide a safety net that reduces the likelihood of household food insecurity for older Canadians (PROOF, 2018). McIntyre et al. (2016) also discuss the possibility that older adults in Canada appear to be more food secure due to the national public pension programs that can support their household incomes. However, 12.3% of food insecure households in Canada reported a "senior's income" as their primary household income (Tarasuk et al., 2014) suggesting that even those who are eligible for these public pensions can experience food insecurity. The following section discusses how older adults experience food insecurity and the relationship between older adults' incomes and food insecurity.

Older Adults' Food Security and Nutrition

Nutritional risk has been shown to be a concern among older Canadians (MacLellan & Van Til, 1998; Ramage-Morin & Garriguet, 2013; Shatenstein et al., 2003). With an aging population (Statistics Canada, 2015), Canada will need to acknowledge the unique circumstances and challenges of older adults, including that of food insecurity. The detrimental effects of poor nutrient intake may be especially concerning among older adults, who are susceptible to nutritional risk (Ramage-Morin & Garriguet, 2013) and related poor health outcomes, including chronic disease (Krondl et al., 2008). Senior populations may experience barriers to food access not encountered by other

demographics, including limited physical mobility (Brewer et al., 2010), the dietary restrictions of chronic diseases (Shatenstein, 2008), and inadequate financial support from public pensions (MacDonald et al., 2010).

Experiences of food insecurity are bound by context, and this is also true for older adulthood, which is experienced differently by different people (Province of Nova Scotia, 2017). There is limited literature on older adults' food insecurity, but the existing literature identifies several different barriers limiting older adults' access to food. A study of food security among older adults in rural Texas found that respondents who identified as women, African American, low-income households, and/or having low social capital were more likely to also report food insecurity (Dean, Sharkey & Johnson, 2011). In Canadian literature, Krondl et al. (2008) discuss the need for nutrition services and education to be tailored to the needs of specific groups comprising Canada's older population, such as those living in low-income, newcomers to Canada, and rural-dwellers. This sentiment is echoed by Manafo et al. (2013) who found that language barriers interfered in the efficacy of community food interventions for older adults whose first language is not the majority language (in this case, English), and suggest that nutritional education in other languages may be beneficial. But despite acknowledging the differences in the way older adults experience food insecurity, the Canadian literature has not adequately addressed the issue from a number of key perspectives, including both older adults living outside urban areas, and older women.

Another important consideration in the food security of older adults is the role of social relationships and connections to the community in determining food access. Dean, Sharkey & Johnson (2011) and Keller, Dwyer, Senson, Edwards and Edward (2008)

found that socializing and informal assistance affected older adults' food security, as well as the degree to which their environment enabled interaction with their community (i.e., transportation, availability of food retailers). In Canadian studies, similar measures of food security, such as income, were described as a barrier to food access in studies based on community-dwellers (i.e., those who do not live in care facilities) (Green et al, 2008; Green-Lapierre et al., 2012; McIntyre et al., 2016). Krondl et al. (2008) note that socialization and transportation are especially important to rural-dwelling older adults. However, these measures of food access were variable based on older adults' level of dependency for food-related activities.

Some literature examining the food security of older adults explored those who are living in care facilities or are housebound (Keller, 2005; Keller & MacKenzie, 2003; Lengyel, Smith, Whiting & Zello, 2004; Vahabi & Schindel, 2014), but this research explores food security and nutrition for older adults who are entirely dependent on others for all food acquisition and preparation, and possibly even consumption. The present study investigates the experiences of older adults who are able to live independently and are responsible for their own food; however, even the literature describing those living in the community notes that there are challenges faced in meeting nutritional needs in older adulthood. Bocock, Keller and Brauer (2008) reported that older adults often felt a decrease in capacity and ability over time (e.g., increasingly complex dietary needs, reduced social function), and that these changes put older adults at a heightened risk of food insecurity. Notably, Bocock et al. did not consider factors such as income, which may also impact older adults who live in the community and are thus responsible for buying all of their own food.

Only one study (Keller, Dwyer, Edwards, Senson & Edwards, 2007) was found investigating the roles and perceptions of community services working to promote older adults' food security. Keller et al. (2007) reported that there are a variety of community service providers who assist older Canadians in supporting food security, including assistance with cooking, transportation, nutrition education, and helping to coordinate services such as healthcare and income assistance. Although the service providers offered extensive and varied supports, their efforts appeared to be limited to individual and community impacts, rather than addressing root causes and determinants of food insecurity. Also, the study did not explore rural experiences, which may reflect more limited access to services. More research is needed to understand how older adults dwelling in Canadian rural communities are interacting with food and the factors affecting their food security. This is particularly true for the underlying causes, such as income, which is known to be the primary determinant of food insecurity in Canada (Chen & Che, 2001).

Economic support in older adulthood. Income is the primary determinant of household food security (Chen & Che, 2001), making it important to understand older adults' sources of income. There are multiple forms of economic support for older adults in Canada. The Registered Retirement Savings Plan (RRSP) is regulated by the Canada Revenue Agency, but is planned and funded by individual citizens (Canada Revenue Agency, 2016). Conversely, the Canada Pension Plan (CPP) and Old Age Security (OAS) make use of public funds to varying degrees and provide income supplements to Canadians aged 65 and above. Applying Ginn, Street and Arber's (2001) categorization of public pension sources to the Canadian public pensions system, the CPP might be

understood as a state pension based on individual entitlement (with entitlements as a dependent reflected in the CPP subcategory of the survivor's pension), and OAS might be understood as a state pension based on need-tested benefits.

CPP. Broadly, the CPP is intended to act as a partial replacement of earnings for Canadians[1] in the case of retirement, disability, or death of a family member (Government of Canada, 2016b). The CPP comes in six different forms, but this thesis focuses on those which pertain to older adults, specifically the retirement pension and the post-retirement benefit. The report may also refer to the survivor's pension, which is received by a surviving spouse of a deceased CPP contributor, as well as the death benefit, which is paid to or on behalf of the estate of a deceased CPP contributor. Individuals are eligible to apply for the CPP retirement pension if they are aged 65 years and above,[2] and have made at least one contribution to the CPP while working in Canada.

OAS. Unlike the CPP, OAS is available to all Canadian seniors, regardless of employment history, and thus funds are drawn from general government revenues. It is delivered monthly as taxable income in amounts of up to $578.53 to Canadians aged 65 years and above with annual incomes of under $119,615 (Government of Canada, 2016c). Eligible recipients with low incomes can apply for the Guaranteed Income Supplement (GIS), which is received as non-taxable income. GIS payouts are determined by both annual income and marital status, with the larger payouts ($864.09 per month) being given to single, widowed, or divorced pensioners, as well as pensioners whose spouses do not receive an OAS pension. Many older adults eligible for the GIS (including

[1] The province of Quebec is covered by the Quebec Pension Plan, which provides similar benefits to the CPP.
[2] Applications can be made at age 60, but these early pensions can be reduced by up to 36%.

Indigenous persons, immigrants, and homeless persons) do not collect it due to barriers such as a lack of language proficiency, literacy, lack of fixed address, and lack of awareness (Human Resources and Skills Development Canada, 2010). Women are also less likely than men to collect the GIS (National Advisory Council on Aging, 2005), although the reasons why are unclear. Given these gaps in knowledge, more research is needed to explore women's relationships with pension incomes in Canada.

Gendered considerations. Canadian women of all ages living on their own (i.e., single) are among the country's poorest and least food secure residents (Matheson & McIntyre, 2012; Townson et al., 2009). Canadian literature suggests that economic disparities are responsible for women's food insecurity, and that increased economic resources can lead to improved nutritional status (McIntyre, Tarasuk & Li, 2007; Tarasuk, 2001). Furthermore, widowhood is also known to affect older women's incomes, as their incomes often decrease immediately following the death of a male spouse, regardless of income level prior to the spousal death (Li, 2009).

The evidence described above suggests that older women's circumstances merit special consideration in discussions of older adults' incomes, and by extension, their food security. Limited literature was found on the connections between food insecurity and poverty amongst older women in Canada. McIntyre et al. (2016) report that gender was not significantly associated with poverty levels for single older adults in Canada receiving OAS, however Green et al. (2008) report both male and female single-member households as being food insecure. More research is thus needed to understand the relationships between gender, income, and food security among older Canadians.

Older Women in Canada

Globally, women on average have a longer life expectancy than men, a fact which is especially true of developed nations, where women's life expectancies are 6.5% higher than men's (United Nations, 2015). In Canada, women begin to outlive men around the age of 65, and continue to do so well into older adulthood. As of 2015, women comprised 7,100 of the 8,100 centenarians in Canada, and the female proportional advantage is expected to be maintained in the coming decades (Hudon & Milan, 2015; Statistics Canada, 2016a). Despite the fact that women outlive men, women's aging tends to be perceived as a process which detracts from their social value (namely their physical appearance) more so than men (Hatch, 2005; Hurd, 2000). The higher proportion of women among older adults in Canada suggests the need to consider the experiences of older adulthood from a female perspective.

Economic challenges for older women in Canada. There is evidence suggesting that older women (generally those living on their own) have among the lowest incomes in Canada (Milan & Vezina, 2011; Townson, 2009), which implies that they may be highly vulnerable to food insecurity given that income is the number one determinant of household food security status. For example, older women in Canada living on their own have among the lowest incomes in the country, a phenomenon which is rooted in women's inequitable compensation in the paid labour force (Townson, 2009). Public pensions (i.e., those not reliant on or less reliant on retirement income accrued via paid employment) are the most commonly used source of income for senior women (Milan & Vezina, 2011). Notably, public pensions are only meant to provide a minimum level of

income (Employment and Social Development Canada, 2017), thus leaving older women at a disadvantage.

Much of a Canadian's economic support in older adulthood (e.g., the CPP) is based on their income while they were a member of the workforce. Thus, women, who were lower wage-earners or non-wage-earners in their earlier adulthood have less access to retirement financial support. That said, women's participation in the labour force is increasing (Employment and Social Development Canada, 2017; Marshall, 2006), and this increase might be expected to narrow the disparity between men's and women's incomes throughout their lives. However, this assumption does not account for women's higher burden of unpaid work (e.g., childcare) (Milan, Keown, & Urquijo, 2015), nor does it consider the systemic discrimination against women in the workforce (Townson, 2009), both of which can affect the public and private retirement savings due to fewer hours worked and lower compensation for paid work. This exclusion of female workers is expressed in the lack of gender pay equity (Statistics Canada, 2016d), poor accommodation of women's responsibilities as caregivers, and higher numbers of women engaging in precarious or part-time work as compared to men (Kodar, 2004). This is especially true for rural women, who are often limited to low-wage or minimum wage jobs (e.g., clerical work) in traditionally male rural industries such as agriculture and forestry (Standing Senate Committee on Agriculture and Forestry, 2006). The result is a smaller accumulation of retirement savings and limited access to pensions provided by an employer. In the case of public pensions, a lack of formal employment means barred access to the CPP, and even time off work (e.g., maternity leave) means lost opportunity to make CPP contributions (Young, 2011).

The issues of women's labour and employment are nearly inextricable from issues of women's marital status. As of 2003, the GIS was insufficient to allow unattached seniors to live above the low-income cut-off (Minister of Public Works and Government Services Canada, 2005). Data collected on the incomes of widows in Canada showed an immediate decline in household income after the death of a male spouse at all income levels, and this often led older women to permanently fall into a low-income bracket, with losses in every source of income, including pensions and OAS (Li, 2004). If women are reliant on combined household pension payouts or income thresholds, the pension rights of any low-income senior woman married to a partner earning an income above a payout cut-off would be ineligible for her own payout (Gazsco, 2005), thus removing her financial independence.

Older Women's Food Security

Unmarried, female-led households in Canada experience higher levels of food insecurity than do their male counterparts (Matheson & McIntyre, 2014), but there is very little literature explicitly discussing the relationship between older adulthood, womanhood, and food insecurity. Keller and MacKenzie (2005) report that community-dwelling women with some dependency were found to be at higher nutritional risk than were men in the same circumstances. DeWolfe and Millan (2003) found that older women had low nutritional intake from all four food groups identified in the Canada Food Guide (grains, dairy, meats, and fruits and vegetables), whereas men only had low intakes of dairy.

Social roles were presented in the Canadian literature as a component of both men and women's food intake. In their discussion of widowhood, Vesnaver et al. (2015) noted

that gendered expectations of women's relationships to food had impacted widows' food behaviours, as they often felt that they had to either begin to or continue to produce food for others upon the death of their spouse (assumed to be male). This belief was generally rooted in gendered expectations of the woman's role as the cook and provider of food for the family, always putting the nutritional needs of the family before their own. Keller and Mackenzie's (2003) finding that older men were less vulnerable to nutritional risk was associated with factors such as living with others and/or having others available to prepare meals. Assuming that men are often residing with women, women can be credited with contributing to men's food security. This assumption is supported by research documenting women's higher burden of unpaid labour, including work in the home (Milan, Keown & Urquijo, 2015).

The Nova Scotian context. The Food Action Research Centre (FoodARC) (2013) in Halifax describes the economic component of older women's food insecurity in Nova Scotia. Using participatory budgeting, they determined that a lone senior woman receiving a GIS payout would be left with only $154.02 for food after paying for other monthly expenses, and a similar woman not receiving GIS would be left with a negative balance of $-226.11. The FoodARC goes on to note that the Canadian government has priced this population's healthy diet at $222.04 per month, indicating the likelihood of food insecurity of older women in the province. As previously discussed, certain populations (e.g., Indigenous peoples) are also less likely to collect GIS (Human Resources and Skills Development Canada, 2010), which places them at an even higher risk of food insecurity.

Williams et al. (2012) outline the food insecurity experiences of a wide variety of Nova Scotian women. They report that this population is poorly supported, and faces a struggle to afford nutritious food, a lack of support from organizations and institutions meant to assist them (e.g., food banks, income assistance), a sense of being judged for living in poverty, and continued stress related to finding enough food in addition to paying other bills. For example, food banks may have policies restricting the number of times an individual may use their services, and income assistance may be inadequate to cover essential costs such as housing. Their study does not immediately address the experiences of older women, but recommends that more research is needed into the food security of this population.

Green-Lapierre et al. (2012) provide an overview of the Nova Scotian experience of food security for older women specifically, identifying seven key themes impacting their experience of food security including: their world view (i.e., their perception of their own food insecurity; e.g., the belief that they were neither poor nor food insecure now compared to their past experiences), income adequacy, transportation related factors, health/health problems, community program use, availability of family and friends, and personal food management strategies. Several of these themes (such as transportation and health) were not noted among Williams et al.'s (2012) sample, suggesting that older women in the province may experience food insecurity differently from younger women. Notably, Green-Lapierre et al.'s (2012) study was limited to the experiences of urban women, thus these findings may not reflect rural realities.

Implications of rurality. In their investigation of the differences between the social determinants of health for urban and rural-dwelling older women, Wanless et al. (2010)

discuss the need for rurality to be interpreted as a determinant of health in and of itself. The authors suggest that rural and urban contexts cannot be easily compared due to the confounding factors of rural life, possibly including different economic demands, access to services, and transportation needs (Wanless et al., 2010). Keating, Swindle & Fletcher (2011) note that literature describing the barriers of aging in rural Canada has failed to examine the specific experiences of women in this context; however, there is literature discussing the experiences of both food insecurity and health for this population.

Buck-McFayden (2015) describes similar barriers to food insecurity among rural women (age not specified) in Canada, for example, transportation was a problem, since the remote nature of rural areas necessitated the use of a car for transport, and women unable to afford a car or gas found it difficult to collect groceries. Similar to these experiences of food insecurity, the health issues faced by senior women in rural Nova Scotia are also heavily determined by a lack of access to appropriate services (Arbuthnot, Dawson & Hansen-Kethcum, 2007). Women reported having a variety of health concerns and were worried about having adequate access to health services, naming transportation as a major challenge in rural-dwelling. They also reported concern for their ability to stay connected, and to find support for activities such as housekeeping when needed, suggesting that social supports and networks were important to access resources and services (Arbuthnot et al., 2007).

The relationship between access and social support was also a key finding for Quandt, McDonald, Arcury, Bell, and Vitolins (2000), who described the nutritional well-being of older widows in the rural United States. Many of these women found that social networks became limited after their spouse died, making it difficult to acquire food (e.g.,

transportation to the grocery store). Although not specific to women, Bacsu et al.'s (2013) study of older adults in rural Canada found that social relationships were important for older adults' well-being in terms of friendship but also reciprocity, such as the exchange of favours. Strong social supports were not only important for the exchange of services, but also to foster a sense of resilience (Leipert, 2005), and older women developed a reduced sense of independence and self-efficacy if they could not access these crucial social supports (e.g., robust social networks) (Chafey, Shannon & Sullivan, 1998). For all older adults, this independence could be jeopardized by health problems, especially those that impacted physical mobility, such as walking (Bacsu et al., 2013).

Many of the barriers to good health outcomes and food security for rural women are similar to the barriers to food insecurity reported by Green-Lapierre et al. (2012) from their urban sample of food insecure older women in the province. For example, Buck-McFayden also discussed budgeting and paying half-bills as a strategy for managing food insecurity. However, at present, there is limited literature describing the difference between urban and rural experiences for women in North America, particularly for older women. The key difference between the two bodies of literature appears to be the use of growing food as a strategy to address food insecurity. For example, food preservation (e.g., canning) was an important for the women in Quandt et al.'s (2000) study, and their nutritional health could suffer if canning was no longer possible (e.g., poorer health in older age made it too difficult). Buck-McFayden (2015) also found that rural women of all ages used growing, canning, and preserving, but added hunting and fishing as additional strategies.

Examining household food strategies, it is important to consider changes over time, as food-related practices can evolve through various life stages (Devine, 2005). For example, research reflecting the experiences of the current cohort of older adults in Canada (roughly age 65 and above) suggests that the austerity of the Great Depression and the Second World War may inform the food-related practices of individuals throughout their lifecourse (Green et al., 2008; King, Orpin, Woodroffe & Boyer, 2017). Therefore, in considering older adults' food-related practices and strategies for navigating food insecurity, prior influences on present practices and strategies may be important to understand, in addition the impacts of rurality.

More research is needed to determine whether there are differences between rural and urban experiences of food insecurity for older adults, and particularly women. Women are more likely to be food insecure than men in Canada (Matheson & McIntyre, 2014), and this is also true for rural older women in the United States of America (Dean et al., 2011), but we know very little about how womanhood, older adulthood, and rurality interact with one another. It is particularly important to investigate these questions in Nova Scotia, where rates of food insecurity and the percentage of older adults over 65 years of age, and who are living in rural areas, are high.

Conclusion

More literature is needed to understand possible connections between the factors affecting rural food insecurity, and the factors affecting rural older women's health and well-being. The phenomena may be related, but there is not yet sufficient evidence to draw definitive conclusions in a current, Canadian context. Rural food insecurity itself is poorly understood (Lebel et al., 2016), however, Buck-McFayden's (2015) work on food

insecure rural mothers describes their challenges as being similar to those affecting women's rural health in general: lack of economic opportunity and transportation reduced access to food retailers and services, but the social supports of rural communities provided help when needed. Older adulthood is especially important to understand in the context of rural food security, as rural food bank users in Canada tend to be older than their urban counterparts (Food Banks Canada, 2016). Food security is a complex phenomenon, influenced by a wide variety of factors which must be better understood individually and in their interactions. Thus, the triple jeopardy of older adulthood, female gender, and rurality as it relates to food and nutrition merits further investigation.

Chapter 3: Methodology and Methods

This study explored the food security of older women in rural Nova Scotia who use food banks, examining this experience across the lifecourse, and determining whether strategies for accessing food have changed over time. It also sought to understand the connections between food insecurity, and the health and well-being of older women. These concepts were explored using three research questions:

1. How are rural-dwelling women, aged 65 and above, who are food bank users in Nova Scotia experiencing food insecurity?
2. How do these women believe that food insecurity impacts upon their health and well-being?
3. Have older women's strategies for acquiring food (e.g., cooking, growing, purchasing) changed over their lifecourse, and have their past experiences influenced their present relationship with food?

The research sought to explore experiences of accessing food among older, rural-dwelling women using food banks. The study incorporated relevant theoretical approaches to aging and employed a research design appropriate to capturing the individual strategies for acquiring food of this population. This chapter will review relevant theoretical frameworks, followed by a description of the application of the theoretical frameworks to the research process. The study's methods will also be presented.

Methodology

Qualitative research. Qualitative research is well-suited to investigations which are exploratory (i.e., investigation of new or poorly-understood phenomena), and seek to inductively inquire into a given phenomenon, emphasizing individual meaning, and the complexities inherent in social contexts (Creswell, 2014). Qualitative research is best situated in the constructivist worldview, which understands individuals to have subjective interpretations of the world in which they exist (Creswell, 2014). Researchers working within the constructivist paradigm are tasked with analyzing others' interpretations of their worlds, attempting to understand the contexts in which people live and work, and the interactions that occur within these contexts (Creswell, 2013). Qualitative research is useful in the context of rural research, as rural areas may yield smaller sample sizes in smaller communities (Rural Health Information Hub, 2017). The qualitative research undertaken in this study is situated within a transformative worldview, which seeks to understand inequities experienced by marginalized populations, the systemic powers and programs facilitating their oppression, and their strategies for resistance to and subversion of their marginalization (Mertens, 2010). This approach to qualitative research seeks to not only understand how individuals perceive their lived experiences, but to use these understandings in spurring social action and change (Creswell, 2014).

Thematic analysis. This study used thematic analysis as a part of its inquiry into the three research questions. Thematic analysis is "a method for identifying, analysing and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79). Braun and Clarke (2006) propose a six-step method for thematic analysis: becoming familiar with the data, systematically generating initial codes, determining thematic links between codes,

reviewing the themes in relation to their coded data, defining and naming themes, and finally, reporting the findings. These steps have been further refined by Nowell et al. (2017), who suggest that these stages can be an iterative process wherein the different stages of the analysis process can be revisited and reconfigured as data is further examined and more deeply understood.

Study Frameworks

Theories of aging. There are a wide variety of theories on how aging and older adulthood interact with health. When this study was initially conceived, it drew on two complimentary theories—lifecourse theory and resilient aging—to understand experiences of food insecurity in older adulthood. The first theory (lifecourse) attempts to explain how people arrive at their present circumstances, and the second theory (resilience) describes the how individuals have responded to events and experiences across the lifecourse. Although both theories were considered throughout the processes of data collection and analysis, it became evident that only the theory of resilient aging could be reasonably applied to the analysis of the study's findings. The researcher determined that the lifecourse theory required more extensive data collection than was possible for this study and the theory was subsequently dropped from data analysis. The reasons for this decision are further discussed in Chapter 5. The following section provides a brief description of the two theoretical perspectives offers an initial explanation of how they informed the study. Further detail on how these frameworks were applied to the research can be found in the 'Methods' section found later in this chapter.

Lifecourse theory. A lifecourse approach to health and aging considers the effects of accumulated experiences (in the form of specific events, or of situations or circumstances) over a person's life and how they have culminated in older age (Stowe & Cooney, 2014). Experiences and conditions in early childhood can continue to impact upon health and well-being throughout the lifecourse through three types of effects: latency effects, which determine health outcomes regardless of circumstances or interventions in later life, pathway effects, which may not immediately impact upon health but could do so later in life by shaping circumstances early on, and cumulative effects, which reflect circumstances that can lead to increasingly worse health with continued exposure (Mikkonen & Raphael, 2010; Stowe & Cooney, 2014).

The lifecourse can be divided into different life periods, where each period in a person's lifespan will affect their trajectory into the next period(s): childhood circumstances, transitions to adulthood, and adult circumstances (Benzeval, Dilnot, Judge & Taylor, 2001). Some have argued that the lifecourses of individuals can differ from one another to such an extent that it is impossible to divide the human lifespan into a set of standardized life periods (Kohli & Kohli, 2007). Other indicators of life periods might be marked by transitions through the system of wage-labour (i.e., pre-work, work, retirement from work), however, this demarcation may not apply to all lifecourse trajectories (Gilleard & Higgs, 2016). For example, the system of wage labour represented by these periods was populated almost exclusively by men, and does not consider transition points that may relate to female involvement in wage labour (e.g., maternity leave, or other pauses in paid employment related to family obligations) (Widmer & Ritschard, 2009).

Resilient aging and resilience. Lifecourse models can explore the process of aging, but there are also a wide variety of theories available to interpret the 'result' of this process in older adulthood. Quéniart and Charpentier (2012) comment on the growth of positive social constructions of aging, where older adults are understood to be active and socially involved. They argue that this depiction still coexists with previous incarnations of seniors as less able and engaged than younger persons. This study was framed by the concept of resilient aging, which has been associated with other aging theories such as successful, positive, or optimal aging outcomes (Aldwin & Igarashi, 2015). Gattuso (2003) describes resilience in older adulthood as the skill to manage hardship, which is the cumulative result of having faced hardship across the lifecourse, and Bauman, Adams and Waldo (2001) explain it as an accumulated set of possible responses to adversity or change. Lerner et al. (2012) note that resilience is the product of an interaction between an individual and their context (i.e., environment, surroundings, circumstances), and similarly, Wild, Wiles, and Allen (2013) propose a model for resilient aging which recognizes that resilience in older age is produced via interaction with these contexts to the benefit or detriment of the individual.

The study of resilient aging is related to the concept and study of 'resilience' more broadly. In a recent review and concept analysis, Windle (2010) determined that resilience is thought to be the use of resources or assets (either personal or environmental) which renders a person capable of "effectively negotiating, adapting to, or managing significant sources of stress or trauma" (p. 163). There has been some research into resilience among older adults, and resilience has been associated with improved psychosocial functioning in older adulthood (Lamond et al., 2008). Older

adults have been found to better adapt to and demonstrate greater flexibility within changed circumstances than were younger adults. This was related to the knowledge and experience that older adults had gained over time, which, for example, allowed them to more effectively organize their time, energy and resources (Baltes, Lindenberger, & Staudinger, 2006). Resilience among older adults can be affected by both individual personality characteristics and access to social supports (Ong, Bergeman, & Boker, 2009), although social relationships are less important for rural older adults and tend to be associated more with friends than family (possibly due to young adult children moving to urban areas, away from their rural-dwelling older parents) (Wells, 2009).

The scientific study of resilience emerged from interest in the responses to adversity among children believed to be predisposed to psychopathology (i.e., mental disorders) later in life (Smith & Hayslip, 2012) and the literature has often focused on the presence and development of resilience in children, with less attention paid to the concept among older adults (Smith & Hollinger-Smith, 2015; Windle, 2010, 2012). This may be related to an interest in resilience as something which is developed in childhood as a form of protection for future adversity (Rutter, 1999; Windle, 2012), suggesting that resilience is not likely to be further developed in older adulthood, thus leading to less interest in studying resilience in older populations.

Research on resilience among older women is especially limited, despite the fact that women have been shown to be more resilient than men and older women have been shown to be more resilient than younger women (Hahn, Cichy, Almeida & Haley, 2011; Netuveli, Wiggins, Montgomery, Hildon, & Blane, 2007). Older women's experience with difficult experiences in their pasts—both of a personal (e.g., family) and social (e.g.,

sociopolitical upheaval) nature—helped them develop resilience (McLeod et al., 2016). Kinsel (2005, p.35) found that older women's resilience was significantly impacted by their relationships with others (e.g., support from family and friends, making connections with others) as well as a sense of "hardiness" and self-efficacy. Notably, the combination of aging and female gender is believed to create a "double jeopardy" for older women, but this belief ignores the capacity for women as individuals to effect change in their own lives (Krekula, 2007). This interpretation leaves room for resilience as a potent factor in determining psychosocial outcomes for older women.

Although it suggests that individuals hold the capacity to overcome social hardships, resilience has been critiqued for its reliance on a neoliberal paradigm, in which individuals are expected to develop self-reliance in the absence of state support (Mckeown & Glenn, 2018). Interestingly, similar critiques have been applied to the concept of 'healthy aging', which is situated in the neoliberal expectation that individuals should take personal responsibility for achieving good health in older adulthood (Portacolone, 2011), as the need for an individual response to health-related challenges in older adulthood has become enshrined in Western cultural expectations (Murray, Pullman & Rogers, 2003; Pond, Stephens & Alpass, 2010).

Sen (1987) presents a possible response to this in the form of a 'capability' approach to resilience in older adulthood which does not demand the lack of illness or disease (or even the presence of health) and focuses instead on whether older adults are able to engage in the aspects of daily life which they deem to be of value (e.g., social interactions). Importantly, this approach insists that functioning be considered within the sociocultural context of the individual or group in question, so that functioning does not

look the same in all cases. In their research on Sen's concepts in relation to the older adult population of New Zealand, Stephens, Breheny and Mansvelt (2015) posit that when functioning was not achieved, there were identifiable barriers preventing older adults' participation in daily life, ranging from physical health to income or social support. This analysis repositions the notions of coping and resilience as being only partly within an individual's control, whereas contextual factors that are outside of the control of an individual may play an even greater role.

Resilience can also inform an understanding of food security in the sense that food insecurity is an adverse event requiring the development and application of adaptive coping mechanisms (Hadley and Crooks, 2012). That said, literature on resilience to food security has tended to focus on the national and regional levels, rather than on households or communities. Although these factors are important in informing individual or household experiences, the literature has not addressed these considerations, and has instead examined national or regional resilience against flooding (Smith & Lawrence, 2014; Smith, Lawrence, Macmahon, Muller & Brady, 2016), climate change in general (Warner & Afifi, 2014), or the development of resilient food systems more broadly (Toth, Rendall & Reitsma, 2016). Some literature has addressed resilience among people dwelling in rural communities, with Hegney et al. (2007) finding that rural dwellers in Australia associated resilience with the challenging practice of farming, but in a study of rural older adults, Wells (2010) found that rural residency was not associated with resilience. Wells (2009) also found that resilience was present among rural older adults, but noted that more research was needed to understand the relationship. More research is

needed to understand how the concept of resilience plays out within rural contexts, as well as the context of household food security.

Social determinants of health. The study was also framed within the context of the SDOH, which help to illustrate the connections between food insecurity and health. As previously discussed, the SDOH are factors affecting health outcomes which are determined by social, economic, and environmental conditions (WHO, 2018). There are numerous frameworks which have been created to explain how the SDOH and how they interact to impact health, for example, the Canadian Council on Social Determinants of Health (CCSDH) (2015) retrieved 36 individual frameworks through a systematic review. The CCSDH understood there to be three broad purposes for the frameworks, with some frameworks encompassing multiple purposes: explanatory (explaining particular determinants without addressing interconnections), interactive (exploring interrelationships between determinants without considering strategies for action or implementation), and action-oriented (addressing possible avenues for a policy, research, and practice).

This study uses the WHO Commission on Social Determinants of Health (CSDH) framework (Solar & Irwin, 2010) as a point of reference. This framework includes all three purposes defined by the CCSDH (2015), although it uses two separate figures to address both conceptual explanations and considerations for action. The first figure (Figure 1) presents the relationships between structural SDOH, such as socioeconomic and political context and position, intermediary SDOH, such as materials circumstances and biological factors, and impacts on health equity and well-being. The structural determinants are what lead to health inequities, which manifest as SDOH at the

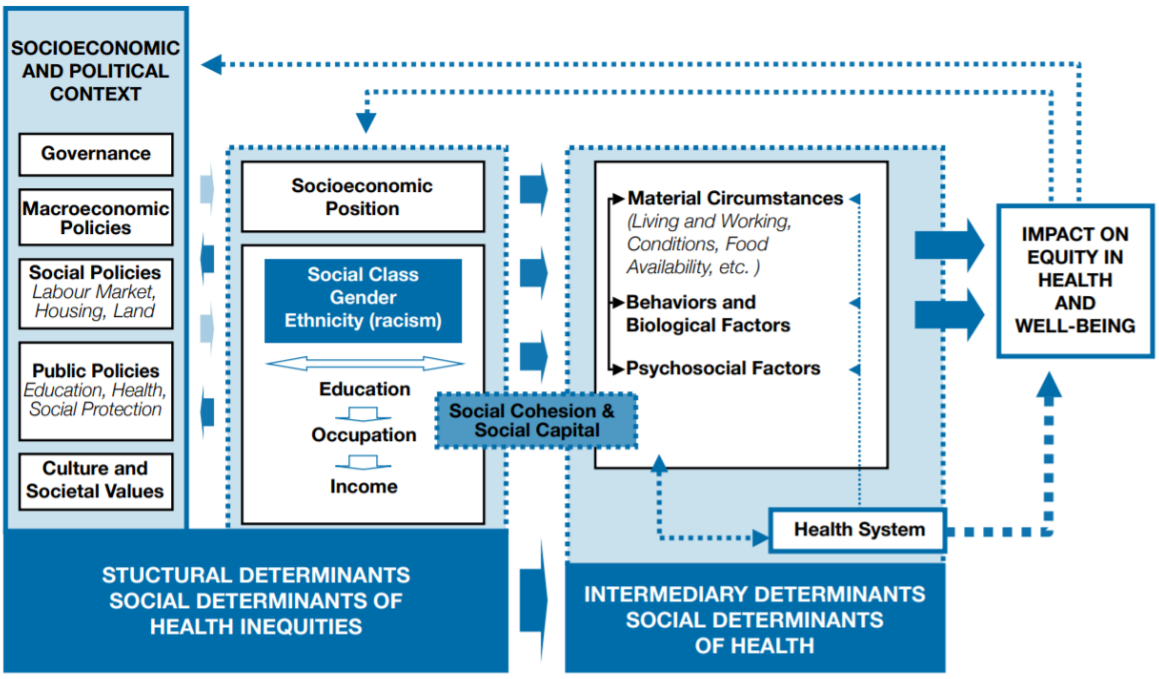

Figure 1 CSDH framework figure A (Solar & Irwin, 2010)

intermediary level, and result in poorer health outcomes. The second figure (Figure 2) illustrates opportunities for policy intervention to reduce health disparities at multiple levels. There are three guiding strategies recommended for policy actions across all levels: context-specific strategies appropriate to the sociopolitical environment, policies acting across all multiple sectors impacting health (e.g., healthcare, agriculture, education) and the social empowerment and participation of those affected by policy actions, ensuring that policies are appropriate and sustainable among their target population(s). Both components of the framework are grounded in the notion that power is at the root of all health inequity, and the redistribution of power.

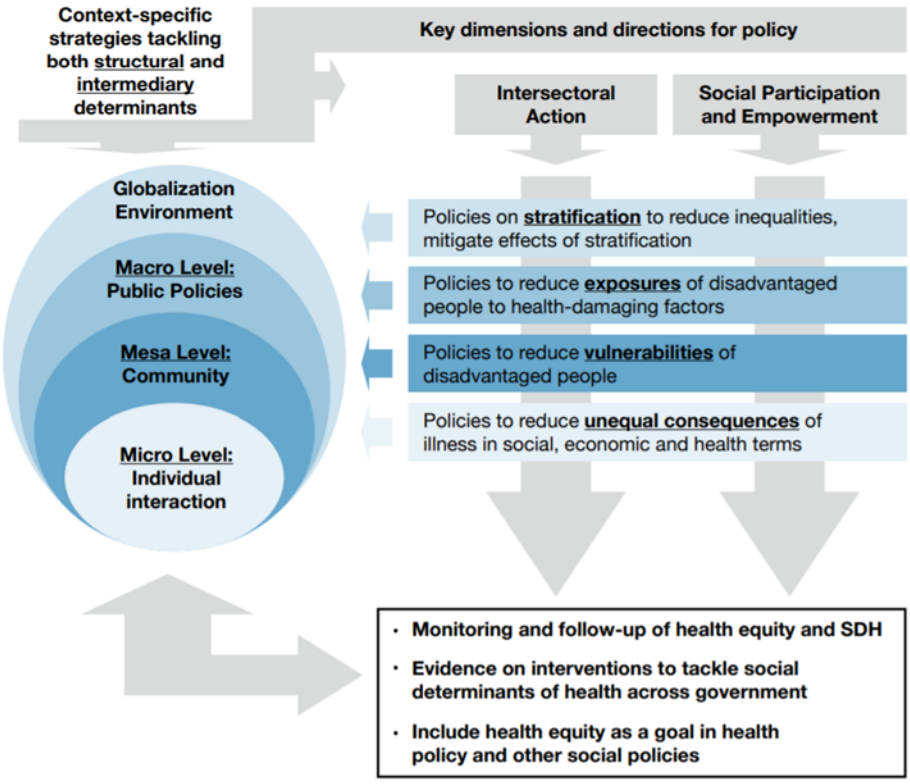

Figure 2 CSDH framework figure B (Solar & Irwin, 2010)

This framework is designed to conceptualize the ways in which health is shaped and influenced, however, it can also be applied to the concept of food security. Food security determines health outcomes by way of the same mechanisms that shape all health outcomes: structural determinants contextualizing intermediary determinants. Household food insecurity exists when the household in question cannot afford to buy food (Tarasuk et al. 2014), a state which is determined by socioeconomic status, itself determined by macro sociopolitical and economic factors. Thus, food security, like health, can be understood through the CCSDH framework, in which sociopolitical and economic contexts determine individual outcomes.

The CCSDH framework can also be applied to the concept of aging. Sadana, Blas, Budhwani, Koller and Paraje (2016) have adapted the Solar and Irwin (2010) CCSDH framework for the purpose of better conceptualizing how the SDOH interact with healthy aging (Figure 3). Sadana et al. (2016) understand aging within the context of Sen's

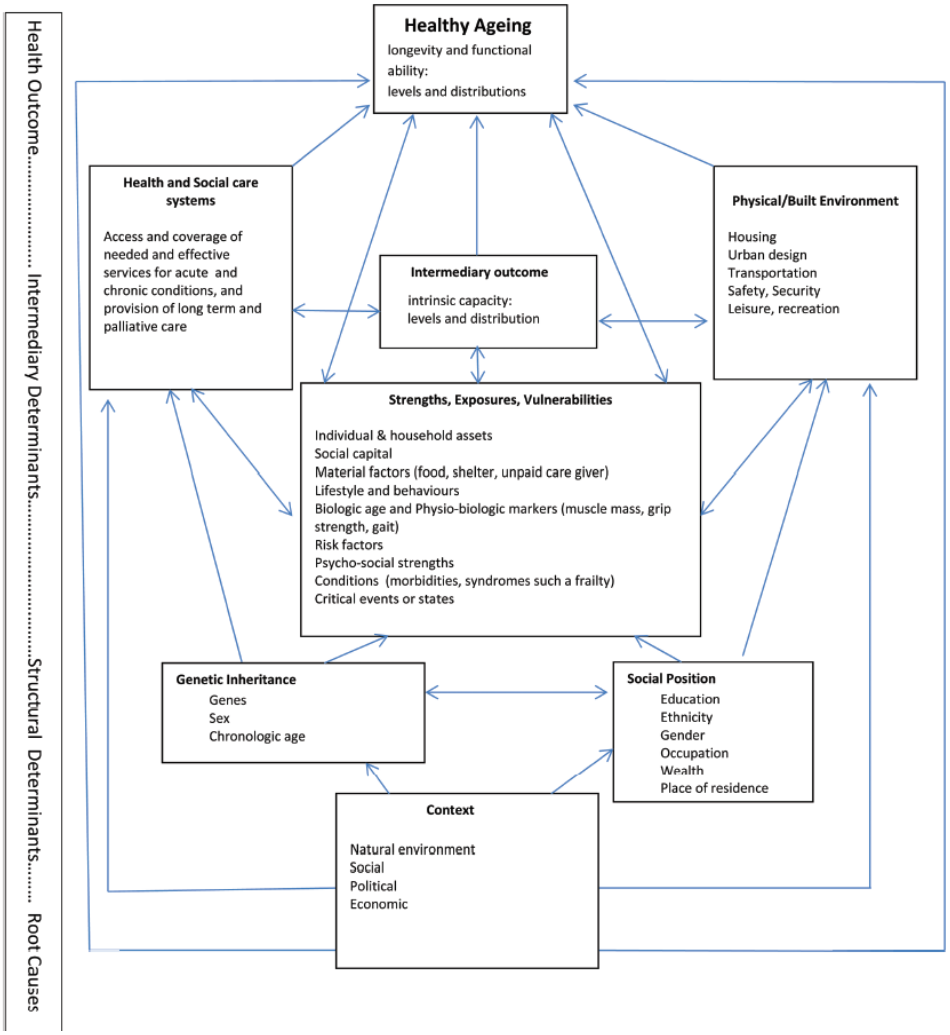

Figure 3 Factors that contribute to levels and distribution in older age (Sadana et al., 2016)

(1987) capability approach, wherein 'healthy' aging outcomes are simply longer lifespans, but rather, lifespans in which functional capacities are maintained. Therefore, the environmental context of the SDOH must be capable of accommodating changes in

functional capacity throughout the aging process in order to promote good health outcomes. The relationships between health determinants and outcomes are similarly structured, however, the Sadana et al. (2016) framework focuses on intermediary determinants and health outcomes which are specific to older adults, including the physical/built environment, and older adults' functional capacities therein.

This framework is useful for understanding the SDOH in the context of older adulthood, but it based in the Solar and Irwin (2010) framework, which provides a more detailed consideration of how power can affect health, and how opportunities for policy action can be identified. As such, the Sadana et al. (2016) framework will be used to examine the relationships between food insecurity, rurality, gender, and aging, as well as opportunities for intervention in policies relevant to resilient aging, but the CCSDH framework (Solar & Irwin, 2010) will be primarily used to conduct policy analysis, as it is relevant to all facets of the study.

Methods

Participants and recruitment. The study includes seven participants, which is often considered an appropriate number of participants, given that Guest, Bunce and Johnson (2006, p.67) suggest that qualitative researchers may wish to collect data from between six and twelve interviewees. In their investigation of urban-dwelling older women in Halifax, Nova Scotia, Green-Lapierre et al. (2012) recruited a total of eight women and found that they had reached data saturation at this number. The researcher for the present study felt that data saturation was achieved with seven participants, but would have sought more interviews with them if time and resources had permitted. There were no new themes identified in later interviews, but the themes that were present were not

always explored or described in-depth. The following section outlines the study's inclusion and exclusion criteria as well as procedures for participants' recruitment.

Inclusion/exclusion criteria. Inclusion criteria were: being 65 years of age or older at the time of the interview, having used a food bank at least once in the past five years, and living in Pictou-Antigonish-Guysborough counties at the time of the interview.Participants were required to be 65 years and older, as this marks the age when Canadians are able to collect public pension payouts (Government of Canada, 2016). For the purposes of the study, the rural area was defined as a single rural region delineated by Feed Nova Scotia: Pictou-Antigonish-Guysborough counties. The use of Feed Nova Scotia's regional designations facilitated the identification of food banks within a given area. Food bank use within the past five years was a requirement because this study was intended to examine recent experiences and explore the current situation. The five-year requirement also ensures that participants will be able to describe their experiences with food insecurity in older adulthood, as opposed to describing food insecurity only earlier in life (e.g., in their 40s, 50s or early 60s).

Food security is a complex phenomenon to measure, with a range of metrics available depending on the level of food insecurity in question (Barrett, 2010; Jones, Ngure, Pelto, & Young, 2013). Loopstra and Tarasuk (2015) claim that food bank use is not a good metric to measure food insecurity at the aggregate level in Canada, as usage statistics tend to over-represent the severity of food insecurity, and under-represent its prevalence. In making prior food bank use a requirement of study participation, the study was able to ensure that participants had experienced some level of food insecurity. Furthermore, the study sought to examine the lived experiences of a specific population that could be best

reached through community institutions, rather than capturing aggregate data on the prevalence of food bank usage or even food insecurity. Finally, some older adults may not self-identify as food insecure, despite meeting some criteria (Green-Lapierre, 2012), thus, the use of food banks operationalizes this concept. Importantly, this study also investigated the experience of food insecurity beyond the food bank use, including the use of other community resources, as well as household and personal experiences.

Recruitment. This study recruited participants through purposive sampling, defined as the selection of research participants based on specific criteria (Guest, Bunce, & Johnson, 2006). The assistance of gatekeepers was essential in identifying the study population and facilitating connections between the researcher and the study populations (Creswell, 2013, 2014). Additionally, the researcher used snowball recruitment methods, in which study participants were asked if they were willing to pass along the researcher's contact information and study details to others who might have been interested in and eligible to participate.

Participants were offered thanks for participation in the study. For in-person interviews, compensation included a $20 gift card to a local grocery store, and compensation for travel expenses at a maximum of $25 each. In the case of phone interviews, participants were offered two options for receiving gift cards: the first option was to receive a $20 gift card for a local grocery store via mail, posted immediately following the interview. The second option was to receive a $20 Amazon gift card, sent electronically via email, also sent immediately following the interview. Phone interviewees were not provided with travel compensation.

Recruitment was primarily conducted through multiple community organizations. Initial recruitment was conducted via local food banks, with the food bank staff serving as community gate keepers. This strategy enabled the project to contact women in rural areas who have used food bank services, and may thus be considered food insecure. There are seven food banks registered with Feed Nova Scotia in the Pictou-Antigonish-Guysborough region. All food banks were contacted with a request to assist in data collection (Appendix A, Appendix B), with the exception of the food bank located at a university, as its patrons are likely younger than the study's target population. They were provided with an information package about the study (Appendix C) and a form to sign indicating their willingness to assist in recruitment and support of the project overall (Appendix D). Each food bank was contacted individually, although they were all provided with identical recruitment materials all containing the same information: recruitment posters (Appendix E) and pamphlets (Appendix F). Of the six original food banks, four were able and willing to assist in recruitment. The fifth had been closed due to a lack of affordable space available to rent in the community, and the sixth did not respond to inquiries from the researcher.

Enlisting the help of local food banks facilitated connections between the researcher and the community. Food banks were able to actively assist in recruitment by sharing the study poster and pamphlet in their facilities. Fahrenwald, Way, Martin, & Specker (2013) recommend using local institutions to reach potential participants in rural research. Skinner et al. (2008) also suggest that rural older adults value organizations providing community services, and are likely to respect those involved in or associated with such places. In an investigation of rural mothers' experiences of food insecurity in Canada,

Buck-McFayden (2015) used a rural food bank as a means of recruitment and found it to be effective. Notably, this success may have been dependent upon the project's ethnographic methodology, which allowed recruitment to occur over the course of fieldwork spent working within the food bank. This study did not employ an ethnographic methodology, as the researcher did not spend an extended period of time in the community. Furthermore, in-person recruitment may have compromised participant confidentiality, where recruitment via email or phone permits potential participants to indicate their interest in private.

A wide variety of community resources and organizations also acted as partners in recruitment for the study by posting the recruitment poster in their facilities. After seeking institutional permission, the researcher posted the recruitment poster in local retail locations such as grocery stores and pharmacies. The poster was also posted in community organizations such as libraries, Royal Canadian Legion halls, and women's resource centres. Finally, the poster was shared with religious organizations such as local churches of various denominations, and the Catholica Women's League of Antigonish.

Data collection. Data were collected through semi-structured interviews, conducted during one session with each participant, with the researcher and participant alone. Sessions lasted between thirty minutes and one hour and twenty minutes. Participants were given the option to conduct their interviews either in-person in a public location (e.g., public library) or over the phone. The option of phone interviews was provided after multiple participants were unable to attend in-person interviews due to illness or injury that prevented them from leaving their homes, compounded by the challenges of rural transportation.

Interviews sought to elicit 'stories' from participants, in which they might describe their experiences, illustrated by specific events or occurrences. Interview questions considered participants' food-related practices (e.g., purchasing, growing, storing and preparing) both at the time of the interview, as well as earlier in their life spans. The interview guide (Appendix G) explores each research question in the context of different periods in participants' lives: childhood, younger adulthood, and older adulthood/present day. For this study, the use of loosely chronological, age-based markers to frame the lifecourse in the interview guide served to ensure that the researcher did not prescribe participants' lifecourses based on gendered experiences or cultural context. This study sought to have participants identify key transitions in their own lives, and thus the researcher did not pre-determine the nature of the transitions beyond rough age categories (e.g., childhood, younger adulthood). The lack of definition for age-based markers left the life periods open to participants' interpretations. Resilience theory and resilient aging also informed the interview guide and the data analysis. The interview guide included questions that explored not only how participants experienced barriers to food security, but also how they responded to these barriers and what had influenced these responses.

Informed consent. Participants were provided with a consent form to review, indicating their informed consent to participate in the data collection process (Appendix H). They were asked to give their consent to have their interviews recorded, and to have direct quotes included in documents reporting research results. Consent for interview recording and use of direct quotes was given separately from consent to participate in the interview, so as not to prevent any participants from taking part, regardless of whether or not they consented to having their direct quotes used. All participants gave their consent

for interview recording. They were given the option to have the interviewer take notes instead of recording, but all chose the recording.

The participant who chose an in-person interview was provided with the consent form prior to the interview and reviewed it with the researcher before signing. Participants who chose phone interviews were mailed a copy of the consent form prior to the interview. If the participant still wished to participate in the study after reviewing the consent form independently, the researcher set up a time to conduct a phone interview, at which point the researcher verbally reviewed the consent form with the participant on the telephone. Once the consent form had been reviewed, the participant could choose to give verbal consent while the researcher signed the signature page to record verbal consent. Verbal consent given over the phone is an acceptable practice according to Tri-Council Policy Statement (TCPS2), Article 3.12 (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, Social Sciences and Humanities Research Council of Canada, 2014, p. 46). The researcher provided a signature to record verbal consent for three points: to participate in the study, to have an audio recording or to take notes during the interview, and to use direct quotes from the participant. At this time, the researcher also recorded the participant's preference regarding the type of gift card received (i.e., from which grocery store the gift card should be purchased).

Data analysis. Audio recordings or hand-written notes from each interview were transcribed, and then entered into Nvivo Software to enable data management. Data were analyzed through the coding (i.e., systematic identification of stories and themed) of interview transcripts. Thematic analysis was used to generate common themes and sub-themes shared amongst each participant through a process similar to that which is

proposed by Braun and Clarke (2006) and Nowell et al. (2017). All transcripts were reviewed, then the data was coded using codes such as 'food bank use' and 'community support', and subthemes such as 'positive or negative experiences of food bank use' and 'family support' or friends support'. These codes were later grouped into thematic categories. Finally, the codes and themes were reviewed, discussed, and named in consultation with the thesis supervisors and committee members before undergoing final revisions. The revision of codes and themes was informed by resilience theory as a framework, which suggests that older women are more than simply victims of systems and circumstance, and are active participants in determining the course of their lives. Participants' interview transcripts were examined with this perspective in mind, and thematic codes derived from participants' statements supported this approach, including "surviving/I do okay" and "skills and knowledge." The SDOH framework also informed data analysis as a manner of identifying latent codes and themes related to health that may not have been clearly described as such. Social, economic, or environmental factors can affect health, but participants may not always directly connect these experiences to their health outcomes.

Ethical considerations. This study was approved by the Research Ethics Board at Dalhousie University in September 2017 (Appendix I). The primary ethical consideration of concern for this study is that of privacy and confidentiality. The TCPS2 Article 5 (2014) requires that researchers should safeguard participant information, ensuring that it is not misused or wrongfully disclosed. Furthermore, the nature of the study's subject matter is sensitive, as it identifies participants as having experienced food insecurity and possibly poverty, or at least financial need. Participants are clearly described as food

bank users throughout the research process, and thus any individual identified as a study participant is also immediately identified as a food bank user. Given the small population size of the towns located in the region of interest, it may be possible for other locals to identify participants based on the information provided to the researcher during data collection. Participants offered detailed narrative accounts of their personal lives, and, as others in the community are involved in these narratives, there may also be a danger that locals could identify participants and those described in participant stories.

The researcher took a number of different precautions to preserve confidentiality. During data collection, the in-person interview was held in a public area that was able to provide a private space that ensured confidentiality. The private space was located in places that respondents could access such as a public library. The space also had a door that could be closed, thus limiting the risk that the purpose and details of the meeting between the researcher and participant will be discernable by others. Participants' real names were not recorded in the interviews, either in audio recordings or in notes taken. Interviews were numbered, and a pseudonym was assigned to each interviewee. Any personal identifiers mentioned by participants in their interviews were not transcribed and were instead replaced by general identifiers (e.g., 'local store'). The study's raw data was only ever viewed and discussed in detail between the researcher and her thesis co-supervisors. In the thesis document and among the thesis committee members, the data will be discussed in aggregate, and references to individual responses will be limited.

All electronic data pertaining to the study (including the master list of participant interviews dates and compensation deliveries, audio recordings, transcribed interviews, and electronic notes on data analysis) are on two password-encrypted external hard

drives, and have been kept on these drives throughout the research process. The hard drives were only ever inserted into a password protected personal computer, and the information and data stored in the hard drives will only be accessible when it is plugged into this personal computer. During the research process, all paper copies of research documents (including paper interview notes, signed consent forms, and requests for study information forms with participant contact information) and both hard drives were stored in the locked cabinet in the researcher's home throughout data collection and analysis.

All electronic research materials (audio recordings and the electronic master list containing contact information) were deleted one week following the last interview. Once the thesis has been completed, the researcher will bring both hard drives (containing all de-identified interview transcriptions and all notes on data analysis) and all signed consent forms to the office of thesis co-supervisor Dr. Debbie Martin at the School of Health and Human Performance on the Dalhousie Campus, and will leave these materials in a locked cabinet there for five years. The request for study information forms will be destroyed after all copies of the thesis and/or lay reports have been mailed to participants, at which time they will be destroyed by either the researcher or Dr. Martin. All other paper has been shredded and disposed of securely.

Throughout the research process, the study also sought to limit or reframe the perception of older female food bank users, avoiding any reference to food bank use or older womanhood as a deficit or failing. Wherever possible, the study discusses the women's strengths and achievements in the face of challenges. Hooyman (1999) recommends a feminist approach to an analysis of older womanhood that would not only explore the structural inequities across women's lifespans, but would also highlight older

women's strengths, and recognize the continued potential for change and growth into older adulthood. By emphasizing the strengths and abilities of participants, the researcher endeavoured to celebrate their achievements, rather than displaying their struggles.

Researcher Reflexivity

To account for my contribution to the knowledge produced through this research process, I will reflect on my positionality. Randall, Prior, and Skarborn (2006) discovered that their individual styles of qualitative interviewing data among older adults could influence the stories they received from participants. The degree to which stories differed between the three data collectors could not be measured, but the researchers attempt to understand and identify their individual 'styles,' and the factors determining these styles. These factors included age and gender. As a young, urban-dwelling researcher, I am markedly different from the study population.

Despite my differences from study participants, I am familiar with older women living in rural communities in an Ontarian context. For the past several years, my family has lived in the small community of Sydenham. The town's population is approximately 3000, and it is situated roughly 30 minutes outside the mid-size city of Kingston, where I spent my childhood. In Sydenham, my family regularly attends one of the local churches, and my mother works at the community public library. The patrons of both the church and the library are often older women, and we consider many of them to be good friends. Skinner et al. (2008) also indicate that churches and local services clubs (e.g., the Lions Club) are frequently central to the lives of rural older adults, and thus I believe that my experiences in similar spaces were important to understanding the study population and

establishing appropriate recruitment strategies (e.g., approaching local churches and Royal Canadian Legion clubs).

There were also other experiences that I found helpful in relating to the Pictou-Antigonish-Guysborough county communities. My experience with rural culture (e.g., farming and gardening) was helpful in conducting this research by allowing me to find common ground with some participants. For example, my parents are also connected to the local farming community, as they grow the majority of the produce our family consumes, and our home is situated next to a dairy farm which sometimes uses our land to harvest hay. I also shared with some participants and some organizations assisting with recruitment that my great-grandmother was born in New Glasgow, Pictou County. I also participated in local cultural events related to my Scottish heritage (e.g., Highland dance competitions), which permitted me to meet community members. Establishing my connections to the local community may have helped to develop trust with the community. Furthermore, Fahrenwald et al. (2013) suggest that researchers working in rural communities will be more successful if they become involved in community events, such as local fairs.

Finally, I consider my time spent with my grandmother to be an important influence on this project. I spent a considerable amount of time with my grandmother throughout my childhood, and we had a very close relationship. She frequently discussed her own youth, and the foods she ate throughout decades of austerity during the Great Depression and the Second World War. She retained many of the food-related habits developed during this time, never wasting a crumb of food, and insisting on buying non-perishable items whenever possible.

Dissemination of Findings

The data collected as part of the research project will be disseminated in multiple formats, where possible: peer-reviewed publication, news report (through collaboration with Radio-Canada Acadie), and a lay report. The report will be provided to Feed Nova Scotia, as well as the food banks in the Pictou-Antigonish-Guysborough counties in the form of a condensed report containing information relevant to the activities of organizations working to address food insecurity. The report will also be shared with other organizations that may be interested in the findings from the perspective of seniors' policies, including the Canadian Association of Retired Persons (CARP) and women's resources centres, who may be interested in addressing the issues of pensions for low-income seniors. This is important, given that the study acknowledges that income is the root cause of food insecurity, and food banks themselves are not a sustainable solution. Finally, participants will receive a short report of the study findings. At the time of providing consent, participants were asked whether they wished to be provided with a copy of the full thesis manuscript, a report on thesis findings, or neither (Appendix J). These documents will be provided to them through their choice of either email, or mail delivery to an address they have listed, and will be sent to participants after the thesis has been successfully defended.

The findings shared with Feed Nova Scotia will emphasize the ways in which the organization and its associated food banks can support rural older women, highlighting both achievements and areas for improvement. The report will acknowledge any factors constraining the food banks' ability to meet users' needs (e.g., inadequate funding) and will constructively propose any suggested changes to food bank programming. The study

findings may help food bank services to better serve the needs of rural older women by identifying the potential barriers this population faces in acquiring healthy food. The research may also contribute to Feed Nova Scotia's work in food policy at the provincial and national levels by providing information on the lives of a demographic that is known to be at high risk for food insecurity, but is poorly represented in existing data. Given the current demand for food bank services in addressing food insecurity among the population of interest, it will be important to support their work.

Summary

This chapter has reviewed the methodology and methods informing the present study, and described the manner in which theories and methods have been applied to the research at hand. It has described how theories of aging—particularly resilience theory—and the SDOH have framed the study, as well as reviewing the SDOH frameworks relevant to understanding the present research. All processes and procedures for data analysis and collection were detailed, and other methodological considerations such as ethics and dissemination of findings have also been discussed. The following chapter presents the themes captured through this research.

Chapter 4: Findings

Introduction

This chapter tells the story (and stor*ies*) of seven older women (between the ages of approximately 65 and 75) who live in Pictou or Antigonish counties and had used food banks within five years of the study's data collection (2017-2018). They are referred to using the following pseudonyms: Maureen, Diane, Lynn, Sheila, Clara, Ellen, and Harriet. The women come from diverse backgrounds (e.g., some were born on farms, some in towns; some were born in Nova Scotia, some were not), but all experienced household food insecurity in older adulthood. The chapter describes their narrative by first discussing the barriers they face to food security and then outlining how they have persevered through and despite these barriers. Ultimately, the narrative tells a story of women who are resilient in the face of unjust food and socioeconomic systems.

Barriers to Food Security

The inclusion criteria of the study meant that all of the women who participated were experiencing some degree of difficulty in acquiring food, but they were not asked to specify exactly *what* made it difficult. Universally, the women identified concerns related to the high cost of living in relation to their incomes, which were inadequate to cover their essential expenses (including both food and other items). Other factors such as health and transportation also contributed to food insecurity, but these issues were often still rooted in high costs of health and transportation service as compared to the women's inadequate incomes.

Income. Low incomes from pensions played a role in limiting the economic availability of food. Participants were not asked to disclose details of their income, but all

reported receiving the OAS pension, which is only available to those within a lower income bracket. All participants had held paid employment in Canada in younger adulthood (for example, in the retail, caregiving, tourism, industrial, and public service sectors), which meant that they also qualified for the CPP. Nearly all of the women reported that the inadequacy of their incomes (derived primarily from public pensions) contributed to food insecurity, as they were left with too little money to meet all of their essential costs. Diane suggested that economic stability is simply unattainable given her inadequate public pension income, and rising costs of living:

> I'm sure there's a lot more could be done. There is a lot more could be done. I mean, for example, like, you know, ok like the OAS that I'm on. I mean, what's a dollar and dollar fifty and that stuff you know? What's a little dollar here, and a little dollar there? And every time that it's added, annually, when they do my rent up, my rent goes up anyhow.

Similarly, Harriet expressed frustration that the cost of essential expenses appeared to be rising at a faster rate than the income she received:

> I'm dealing with a lot of medication. I mean, I go on drugs on the Pharmacare and then [the cost of] Pharmacare went up. I don't know why my income is still the same – you know what I mean?

The women did not directly relate the sufficiency of their pensions with the need to use a food bank, but some did discuss the impact of their economic circumstances. Lynn noted that she had had to start using the food bank because her "finances [were] down, way down," and she strongly believed that the OAS pension was inadequate "with the economy going up and the food is so high?" Clara also reported that she began using the food bank because of economic difficulties. After leaving a career in the public service

she faced economic uncertainty and eventually came to rely on an income from Social Services:

> I was [at a call centre] for eight years and then they closed the building down! So then I went on EI. And when that ran out, I went on Social Services. I had no choice. Jobs are not that plentiful here in [rural Nova Scotia].

One participant reported a slightly different relationship between their pension income and continued food bank use after receiving the pension. Sheila suggests that the OAS pension helped her improve her economic circumstances to a point where using the food bank was not worth the associated hassle and other costs became more manageable:

> Sheila: But since I got my Old Age [Security], I don't bother [going to the food bank].
>
> Interviewer: Oh, okay. So, when was the last time you used the food bank?
>
> S: Oh, before I turned 65. Five years ago or whatever. […] I found myself – and I don't know if you wanna know this – I found that it was just me, and you only get a small order. And it wasn't very much. […] I lived in the Senior's [provincial public housing] for a while because I wasn't getting much money. I was – I was um –I was in there because you don't get much money when you're on welfare in other words. […] And [the pension] gave me a chance, too. I left the Senior's [public housing]. I was on Old Age [Security], so I left and moved into my own place.

But despite her choice to not use the food bank, Sheila did report that she still needed to use other strategies to manage food insecurity, including making extra money to supplement her pension income and careful budgeting for her expenses. Furthermore, part of her choice to stop using the food bank was rooted in the inadequacy of the food she received there, and not simply the receipt of pension income.

For all of the women, income in older adulthood was a concern. They came from diverse backgrounds, as some had lived with low incomes earlier in life, and some had not, but as older women relying on public pensions, their incomes appear to be inadequate. However, income was not the only factor affecting food security. As the next sections describe, additional factors such as the cost of living, access to transportation, and health challenges also impacted the women's food security. Although these factors were connected to income, they also affected food security independently, and thus they warrant more focused discussion.

Cost of living. All of the women reported a high cost of living. Low incomes determined the affordability of essentials such as food, housing, and medication, but the cost of each expense determined the adequacy of the income—when essential items and services cost more, there was less money available to divide between them. The women did not discuss the cost of living in detail, nor did they compare it to the cost living in other places, but they did perceive it to be high. In particular, they discussed the high costs of food in the Pictou and Antigonish areas as a barrier to purchasing groceries. Ellen described the exercise of trying to purchase an adequate amount of food as problematic, noting that purchased food often needed to be supplemented with food from the food bank:

> And for the price of food is going up, right? But, um, it's just like, um, I get a decent size grocery order when I have – when I get my cheque at the end of the month. But it just doesn't, a lot of times it doesn't stretch, right? […] Yeah, like I can get a decent grocery order, but like, um, like it doesn't seem to last through the whole month. About the middle of the month or so you gotta go [to the food bank], you know…

The high cost of healthy foods such as fresh fruits and vegetables was especially problematic for the women, who limited their consumption of these foods as a result. Both Harriet and Lynn only purchased healthy foods at a reduced price, for example, Lynn might go months without eating spinach:

> When it's on special I buy spinach, cause my daughter got me eating that. And spinach you get a lot in the thing…And I usually buy lettuce if the lettuce is on special. Like, the lettuce on for two [dollars] forty-nine [cents] a week ago, so I bought a lettuce, and I put a lettuce and a spinach in a salad, like I made it just like that, with lettuce and spinach, but that's not an 'every month' thing. So…it's hard.

Harriet also noted that healthier foods, such as vegetables, were known to be more expensive than preserved foods. She also mentioned the problem of keeping perishable foods from rotting before they can be used:

> [I buy] whatever's on sale. You do have to buy a bag of carrots for a dollar ninety, or onions at Sobeys the other day for ninety-nine cents. It's all fine and good as long as you can keep them good and use them, right?

Participants also identified non-food expenses as a significant factor affecting their economic stability and food security. These expenses included the costs of housing (e.g., rent, costs of seniors living facilities), utility bills, and medications. For Harriet covering all the costs of living using a limited income meant both careful budgeting and making concessions, sacrificing spending on one expense in order to account for another:

> Well, when someone's on disability or a budget, you know, because I don't live beyond my means. I don't have any high accessibility stuff that I need […] I think that if you're capable, and you appreciate your money, and you break it down into what you want to spend on your food, what you have to put out for

> rent and whatever, you might be able to squeeze, and I mean squeeze through. But I mean, I find myself sometimes going without because I don't have enough to do what I have to do.

Harriet describes not only the high costs of her expenses, but also the effect of having multiple expenses to meet. As in the case of healthy food, Harriet might 'go without' one essential in interests of saving money for another. Notably, Harriet viewed some expenses as more worthy than others, for example, she had television "cable and stuff" but did not "buy into any of the movie channels or stuff like that." The women did not describe how they prioritized their spending, but they did note certain expenses that were less negotiable than others (e.g., transportation, medical expenses). These are discussed in the following sections.

Transportation. Transportation was a crucial expense that many had difficulty affording. The costs generated by transportation needs could use up money needed for other essentials, such as food. Transportation costs were problematic due to the limited options available in the study region. Based on participant report and researcher observation, the towns and villages in the counties of Pictou and Antigonish appear to be sprawling, with amenities such as grocery stores and hospitals located outside of town centres. The towns are small, making the distances between places in town quite short, but the streets are not easily walkable. For example, one of the food banks in Pictou County is located in the town of New Glasgow, and although is sits only 1.7 kilometres outside the town centre, most of this distance does not have a sidewalk and sits in a busy road. Furthermore, the towns are sparsely populated, and many residents of the area live in homes that are kilometres away from any public services or commercial areas. Public

transit does not exist in either county, except in the form of not-for-profit transit services which may still charge fees.

The issue of transport was complex and not simply a matter of affordability, as transportation options often did not even exist. Although transportation itself (e.g., public transit, personal vehicles) was not always identified as a major or underlying cause of food insecurity, most of the participants did mention it as a factor affecting access to food, whether it be the availability of money to buy food or the ability to travel to locations where food was available. For example, Maureen was unable to afford food because she needed to put her money towards payments for a car:

> Well, right now it is [hard for me to afford food], because I have a car payment, and I try to get the payments down on it, and they wouldn't go for that, so…I got four more years to go on it. […] if I didn't have the car payment, I would [have enough money from my pension]. […] You know, cause I pay rent, and car payments, car insurance…you know what it's like. […] I'd be lost [without my car] […] And I go out [with my granddaughter] every Friday night, so I have to have my car.

The women reported that there were consequences to not owning a car. Diane and Sheila noted that a car was needed even to get to the food bank. Sheila mentioned that "some people can just walk down to the food bank not too far from where I live," but that walking was increasingly difficult with age. For Diane, public transportation was technically available, but it was not realistic for her to use these services while carrying bags of food:

> Mmm, I would say [the food bank is] about a mile [away]. […] And I mean, we have a transit bus[3] here now, but I mean, you can only take what you can on the bus, and what you can carry, and what you can't carry, you know…can't ask the bus driver to get off and do all that for you.

Without public transportation or affordable taxis, Diane relied on others for rides and possible assistance in getting the food from the food bank back to her house, but the need to rely on someone else for help made her feel uncomfortable:

> Well, you know, like…seems like it's a chore, it's a…you know? Seems like, you're, uh, kind of uh, I don't know, you feel that you're uh, using them in some way, or whatever. […] you know, sometimes you…it gives me the impression that, you know, I would prefer just to walk away from it and just say forget it, you know? And try to do what I could do, you know? And I mean, to get a cab? Well, that's gonna cost you.

Like Diane, Sheila also discussed the high costs of taxis and described a church program which was designed to pay for taxis to take community members to the food bank. However, Sheila felt that this program was not necessarily appropriate for older adults, as she found that "the older people are having hard time, and they don't wanna do that," although no reason was given. In the cases of both Diane and Sheila, transportation services might be available, but they were not necessarily accessible to them as older women carrying heavy loads of food.

Transportation related to accessing healthcare was also expensive. According to Diane and Sheila, it was an essential and non-negotiable expense which could arise unexpectedly. Sheila reported a lack of any public transportation for getting to a hospital:

[3] The transit referred to here was not public transit, but rather the subsidised transit service referred to earlier.

> But they got the Chad bus here now. The Chad bus is, uh, for anybody can use it, you pay for it. But it's also for disability people and uh - who wants to go from the hospital to wherever they have to go. They can use that. But it's not like a public [service]. […] I think someone said it's four or five dollars, but it's not very much. But you gotta give them a day or so to know you want to be picked up at home. […] I don't use it. I can if I want to. I have a great girlfriend that takes me pretty well everywhere I want to go. […] But it's hard for people when there's no bus and it's hard to get around. Very hard.

The cost of transportation also affected access to non-urgent health care services. Diane listed a variety of health-related needs that had to be accessed via paid transportation, usually a taxi:

> From one month to another, [my expenses] could be, you know…something different, it could be…maybe, I need a cab to go see…my family doctor? Or, to a dentist? Or…for eye test, and things, and things like that.

Overall, the physical and economic inaccessibility of transportation meant that the women faced significant expenses to access food or health care, which in turn reduced the money they had available to pay for the health-promoting goods and services they sought (e.g., primary care, healthy food). The following section describes the role of health in determining food security.

Health challenges and limitations. Participants faced health challenges and limitations that made it harder to go grocery shopping, as well as even acquiring an income (to supplement their public pensions) to spend at the grocery store. These health challenges may have been related to aging, however, participants did not identify them as such. Although participants did not know if food insecurity affected their health, ill-health (e.g., chronic disease, mobility challenges) almost always aggravated food

insecurity (e.g., limited diet, physical inaccessibility of grocery shopping). Having worked a number of physically taxing jobs throughout her life, Sheila was left with several health concerns that she reported as prohibitive to getting around in a grocery store:

> Well, I'm having a hard time walking now, like, you know. This is part of my problem. I'm 70 years old and my legs are not as good as they used to be because I've done so much heavy work. Like working in the food court. I also flagged. You know, like holding the signs out? I did that, too. […] now I use a cane, because my balance isn't that good. I have a touch of vertigo which is, um, balance problems. So I take a cane and just deal with it that way. There's a lot of older people who find it very, very hard.

But the health challenges such as those described by Sheila did not necessarily make grocery shopping more difficult, rather, they created economic challenges like finding and retaining employment, thus limiting the women's incomes and deepening the state of food insecurity. For example, Lynn was terminated from her position at a fast food restaurant due to her inability to lift heavy boxes, leaving her without any income other than her OAS pension. Like Lynn, Diane appeared eager to continue working to supplement her OAS pension, and she also identified physical constraints and health concerns as a barrier to paid employment in older adulthood:

> I would like to go back to caregiver work again, but uh, the thing is, I'd probably only go there, and maybe I'd have to build them up to let them down, ya know. Maybe something would come up…and I would have to leave, you know, without a…yeah […] at my age, I wouldn't even think about [working], cause I have leg problems.

Poor health could either limit or remove paid employment as an option for supplementing an income, making it harder to afford essential expenses. As with the cost of living in general, the price of essential expenses related to health proved to be problematic for the women, and their food security could suffer as a result. Lynn explained that she sacrificed money she might use for food in order to afford medications and other uninsured health services:

> The money that I usually use for my groceries, I use for my medication, pay full price. […] So…I used the food bank every month. […] The seniors down here, we have nothing, nothing! If we need a pair of glasses, we have to take this out of our Old Age! If we have a tooth ache, and have to get a tooth out, we have to take this money out of our Old Age to go and get the tooth out, which I did, I had paid $146 for to get one tooth out, ok? You know, I've had three teeth, um, last year I had two teeth that were loose, I called the dentist, and it was gonna cost me $280 to get them out. You know what I did? I played around with those two loose teeth until they fell out!

Limited budgets made it difficult to afford reactionary health care such as medication, not to mention health promoting products, such as healthy foods. The women expressed a strong interest in being able to eat (and afford) healthy foods, even though their budgets did not necessarily accommodate this interest. Maureen discussed her appreciation for healthy food as having developed from her childhood on the farm and expressed regret that similar healthy foods were no longer available in towns since "you just can't go out and pick up an egg, or kill a chicken, or…(laughs) Well, a hen, not a chicken…". Harriet mentioned having visited a nutritionist who recommended improving her vegetable intake by buying frozen vegetables as opposed to fresh vegetables because they were "cheaper." Ellen also strived to buy fresh, healthy foods, but found the costs prohibitive:

> I always try to get some fruit and some vegetables, and um, kosher things for your meals like chicken and fish and pork chops and hamburger and stuff. Milk. Um, and uh, I don't, I try to stay away from all the canned goods. I will get spaghetti sauce and stuff like that, but I don't, I don't, uh, and some soups and that, like sauces and whatever. But, I try to stay away from canned goods as much as I can, you know, processed stuff. I try to stay away from that. But that's hard, too, because you want to get healthy stuff, but healthy stuff costs more.

The women understood the importance of fresh, healthy foods for their well-being, but the high costs often meant that they could not take advantage of this knowledge. Instead, the women needed to react to health issues as they became crises, such as Lynn's dental problems. As previously discussed, these reactions often had to take the form of costly medications, or health care services which were hard to reach without a car. Once money was used up on health needs, there was little left for food. The complex and mutually-reinforcing relationships between health, income, and food insecurity demonstrate the uncompromising nature of the socioeconomic systems through which the women must persist. The following section details their plans and strategies for persevering through the injustices and inequities they face.

Strategies for perseverance

The women employed a wide variety of strategies to address food insecurity, drawing on resources at the community, interpersonal, and individual levels. The following section explores their experiences using these resources and describes their approaches to managing challenges to food access. Notably, the strategies employed at each of the three levels discussed above are often interconnected, for example, individual strategies may still draw on help from interpersonal relationships or community resources. This section

illustrates the complexity of the systems that the women were required to navigate as well as the strategies the women used in the navigation.

Community organizations. Community organizations and services were essential to supporting the women. Food banks were the only example of a formal organization whose primary goal was the reduction of food insecurity. They were experienced differently by all participants—some reported positive experiences, while others were not so positive. Many of the women felt that food banks were good for the community, with Clara describing the positive impact of local food banks as an institution:

> Well, I think food banks are a great thing, and I think it's great for the companies to get a tax write off, cause they are delivering a lot more than they used to. […] And uh, I do believe at the food bank in this county, there are 600 families that need it. […] Yeah that's a lot. So it's good to know—I think the tax write off has really been good for the companies.

Maureen also felt that the food bank positively contributed to her personal life, as it enabled her socialization with friends and neighbors who would often help one another with their orders.

Some of the women felt that the food banks were not able to meet their needs. The foods that were donated to the food bank did not necessarily provide adequate nutrients and could be low quality. The women depended on the foods that people chose to donate to the food banks, regardless of whether or not these were the foods that they wanted or needed to eat. Despite a positive perception of the food bank services and volunteers, Maureen described limited opportunities to collect fruits and vegetables at the food bank and noted that fruits are necessary for diabetics like herself. Although it was possible to collect fresh vegetables "if you happen to be there a day the farmer comes in with the

vegetables […] like potatoes and yellow beans," these instances were dependent on the produce being grown locally and in season. As such, despite years of food bank visits, Maureen had "never seen like, oranges or bananas or […] canned fruit," all of which are expensive foods that are important to the maintenance of health, especially for those managing chronic diseases, and she considered whether people simply "don't like to donate" these items.

In some cases, the women were less concerned about the types of food they could get, and were more wary of the quality of the foods that were provided. During her visits to the food bank in previous years, Sheila found that the food was generally of poor quality, and the small orders she received did not make the food bank services worth her time. Recently, her family members who still used the food bank "got a bunch of groceries, and baby formula and it was all out-dated. So [she] took it back to see if [she] could get it exchanged for more, but they didn't." In a similar story, Harriet also reported receiving poor quality food, which she only discovered upon attempting to cook with it:

> I was gonna make some tuna sandwiches. And I went up to the cupboard, and took this can out, and I went, you know, to open the can. And I said, "Jesus!" [My sister] goes, "Cat food." And I go, "Woaaah! Am I so glad I didn't make those!"

The lack of fresh foods and the potentially poor quality of donated foods speaks less to the shortcomings of the individual food banks and more to the struggle of relying on food that is chosen by others, without any consultation with the recipients of the food. The women never expressed discontent with the food bank volunteers, rather, they were frustrated by the limited selection of foods available to them. The act of using a food bank could also be frustrating due to its stigmatization, as was the case for Harriet, who

described food banks visits as having "zero. Zero confidentiality. You feel humiliated, you're embarrassed." Notably, not all women felt the humiliation that Harriet experienced. Clara acknowledged that stigmatization was a problem, and that some people could be bothered by having others become aware of their food bank use, but she didn't "care who knows [she] goes in there." In this case, Clara herself was not affected by stigmatization, but she acknowledged that it could still impact others, although the factors determining who is and is not affected by stigmatization were not discussed.

Despite the fact that some of the women felt a sense of shame and stigmatization in visiting the food bank, certain women also commented on the credibility of other food banks users, as they felt that there were those who misused the services provided. The women perceived some users to be taking the food that should to other community members in greater need. For example, Lynn felt that the policies restricting food bank use were lax and allowed people to use the food bank when they were not truly in need of its services:

> What they should do down here, they should…fix it, so people that need the food bank…they have to change the system… […] They can't have the use of just a health card going to the food bank, cause anybody can go with the health card. You know there's people that got houses, there's people that got two cars are going to the food bank.

Clara felt that this misuse was prevalent among younger people using the food bank:

> Today – young people today have bad attitudes. They need to be out working, I'm sure there's stuff around here for young people. It's the older people that can't seem to get anything. But uh, I don't know, because they don't say too much. They play with their little machines – iPods and all those gadgets that people have. They sit there until it's time for their number to come up.

This rhetoric the women used suggests that they believed some food bank users are more capable than others of mitigating their need to collect the food that is given away. The women did not perceive that certain users—perhaps younger people who do not face the challenges and obstacles of older adulthood—were not making use of opportunities to save money or make money that could provide them with increased income to use for buying food. The use of alternative strategies to using the food banks was important to the women, and they turned to numerous other options.

Aside from food banks, participants also described the availability of numerous other services including community lunchrooms (e.g., church lunches, seniors "soup and sandwich" lunches at the Salvation Army), as well as programs at Sobeys grocery stores offering free meals. Interestingly, several women reported that many special programs appeared to be offered at Christmas time, including free turkeys and chickens provided through a partnership between Sobeys and the food banks, as well as a turkey dinner at the Salvation Army.[4]

Church programs were also a source of community support. Six of the seven participants mentioned the use of church programs as an option for food assistance. Ellen described a program run in collaboration between multiple churches which served those in the community who were homeless. Although she had never used the service herself, she knew others who had benefited, explaining that "different churches once a week will make a big sort of a meal and everybody – anybody can go and eat stew." Churches acted as a place of convergence between the support of community organizations and personal

[4] The repeated mention of Christmas programs and events may be due to the fact that data for this study were collected between October and February.

relationships. Participants were not only involved with churches as services users, but also as members of communities and families, however, these personal relationships with religious communities did not guarantee more support in times of need. Lynn described being heavily involved in her local church's social community, but she was ultimately turned away when she sought help in a time of severe food insecurity:

> I went over there to the [church], I called them, and I says, you know, can you help me get some food? You know, I have no food in the house, they didn't call me back, I waited two days for them to call me back, and they said no. God never even turned nobody away for food. And I used to go to the church all the time, and I don't go to the church no more.

Like all other sources of support and assistance available to the women, churches were simply one of many options for getting food in times of need. As institutions, their power and resources appeared to be limited, and they remained deeply connected to the personal interrelationships of the local communities. Personal relationships among community members could hold substantial influence over the women's ability to not only live in the community, but to survive poverty.

Interpersonal relationships. With regard to personal relationships, experiences of support varied between participants, however, most relationships were grounded in some form of reciprocity. In some cases, goods and services were casually exchanged as needed, and in other cases, they were offered or received begrudgingly, out of pure necessity. For example, some described sensing a lack of personal support from friends and family. Sheila claimed that her siblings stuck to themselves and were "not a friendly bunch," and Lynn felt that her siblings living nearby were not interested in helping her in a time of need:

> I got brothers and sisters, ok, and they know I go to the food bank, but they don't help me! […] All my brothers and sisters, I'm the poorest one in the family. Now all my brothers and sisters, you know, if I had money, if I knew I had a sister or a brother going to the food bank, (having a rough time), I would help them out. Cause that's who I am. […] You know? I doing work for my baby sister, helping her out with her house, she would give me money, well, I would work hard, and she'd gimme like, $100 cause I went up there and did that, and then I got sick and ended up in the hospital, and I still went and worked for her, and she still owes me for 2 weeks. And I asked her on Friday, I said, "You have any more for me?" and she says, "I have no more money left."

Notably, Lynn's frustration appears to be grounded in her siblings' failure to engage in a reciprocal exchange. Reciprocity was expected but not delivered, with Lynn upholding her part of the relationship and expecting similar goods or services in return. In Diane's case, she had received support from her family, but felt that they were uncomfortable or reluctant in this role:

> Diane: …you know, even with my own relatives, you know, it's kind of a, you know, um, they don't like…waiting?
>
> Interviewer: Oh, ok. So they don't go in with you?
>
> D: No. Usually there's somebody there's somebody there that will carry it out.
>
> I: Ok. But they couldn't help you get it home?
>
> D: Uh they—yeah, they would do that. But it's not that they'd be, uh, overwhelmed […] you know, like…seems like it's a chore, it's a…you know? Seems like, you're, uh, kind of uh, I don't know, you feel that you're uh, using them in some way, or whatever.

Although some women had experienced difficulty in establishing successful reciprocal exchanges, other women were able to take advantage of community exchanges

as a way of supporting themselves. Similar to Diane, Maureen sometimes received drives to the food bank and grocery store, however, unlike Lynn and Diane, she did not report feeling that her family resented helping her, rather, her family was frequently supportive of her in variety of ways. This support included bringing her loads of fire wood and home-baked biscuits and soup. Instead of relying on family, Sheila relied on friends for transportation and assistance. She noted the importance of friends for accessing transportation, stating that "people who don't have, like, good, good friends, they have to either get a cab or depend on somebody and give them money for gas or whatever." However, she made it clear that no form of transportation came without a cost, as she would "give [her] girlfriend money and take her out for dinner or whatever" in exchange for a ride.

Most women reported living alone, but still maintained strong social relationships with other in their families and communities. Those who lived in individual apartments or dwellings reported regular encounters with family and friends, sometimes to share meals. Notably, living alone could be reported as problematic, for example, Maureen explained that buying and cooking food for only one person was difficult, as excess food would quickly rot and get wasted. However, several women lived in communal dwellings, such as subsidized seniors' housing. While living in this type of dwelling, Sheila found that she was able to socialize and exchange goods and services with the other residents in a form of reciprocity:

> I was in there because you don't get much money when you're on welfare in other words. […] So what I was doing, I was helping the people in the Senior's. I was, like, say, help making their beds up or taking their garbage outside, or cleaning the fridge out, or cleaning their cupboards, anything for them. Some of

> them would give me money, and if they couldn't give me money, they would give me food to hold me over.

Sheila's case demonstrates that living with others can not only be advantageous, but it can facilitate a key survival strategy, in that it enables reciprocal exchange of good and services, often involving food.

The exchange of goods often involved money or food and generally relied on skills or resources that the women already owned or used themselves. Although the exchange of goods and services was a collaboration, it appeared to require skill, resources, and initiative to be successful. Maureen discussed an informal arrangement she had developed with her neighbour in which she would provide them with car rides in exchange for a small fee:

> And I take my neighbors—$5 for this trip, $5 for that trip and it soon adds up! I had two friends—my best friend, she passed away, we were friends for 45 years—she was older than I was, she passed away a year ago, and she'd go out three or four times a week, and she'd give me $10 every time, you know, and I sure missed that when it wasn't coming in! It's, you know, one week would get my gas for the whole week, you know.

Harriet also mentioned an arrangement with other community members in which she sold her cooking and baked goods:

> So I'm retired now, but I still do a little bit of cooking on the side. Uh, some people might want, you know, at Christmas time and Easter and stuff like that it's good for me because people don't wanna cook. So I'll order some meat pies, they want some biscuits or some corn bread, or…bread, so. Do a little bit of that under the table and that's how I make some extra money to get me through!

Finally, Ellen traded cooking and baked goods with her sister in exchange for use of a garden:

> I try to, like, I didn't get any jams made this year, but I try to go to 'u-picks' [berry farms] and get berries in the summer, and make jams, and I make pickles. But it's just from the farms so I get cucumbers and green tomatoes from [my sister], and make pickles and chow, and things like that. […] When [my sister and her family] have stuff leftover…I've been doing that just for the last few years. Yeah. And I make, I give them some of the stuff I make, and whatever, you know.

In all three cases, the women drew on their resources and abilities to obtain necessary goods and services. Although money was scarce, the women were able to monetize their own skills, or at least exchange their skills for other scarce resources such as nutritious food. Skills and knowledge became a form of currency serving both the community and the women themselves.

Personal skills and knowledge. All of the women lived alone, which could present challenges, but independence did not necessarily always disadvantage the women. They reported using a variety of personal skills to cope, and seldom indicated a lack of knowledge or skill with regards to food. Despite food being scarce and sometime of poor quality, the women found creative ways of acquiring and preparing the food available to them. Although many strategies for addressing food security relied on cooperation with community members and services, the women were often capable of meeting their own food needs, provided they had access to adequate resources. Essentially, organizations and community members might serve to supply the women with food, tools, and money,

but the women reported feeling proficient in cooking food and budgeting money once it was available to them.

With regard to cooking, nearly all participants described a selection of their cooking skills, and notably, many referred to creative strategies for stretching food. The women had found multiple ways to cook cheap or commonly donated foods like hamburger and canned fish, with Ellen stating that "nobody's going to go hungry if all you have in your cupboard is tomato and vegetable soup." For Harriet, it was important that her strategies for making food stretch across multiple meals also created food that was easy and accessible, meaning that she would not have to ask or pay for help during times of poor health:

> I buy things on sale, and I'm a cook by trade so I know how to stretch it out. […] Like, if I have turkey I'm not throwing out the carcass. I'm going to make a soup! Like when I went in for surgery – I have an artificial hip – when I went for my surgery last December 'cause I had another one in October – I made soups and put 'em in my freezer, you know. Homemade stuff that I wouldn't have to worry about making anyone cook for me because I am a cook! Why would I need someone else to come in?

For Ellen, this was a skill she had developed earlier in her life, both as a child herself, and then as a homemaker and provider for her own children:

> We were never – growing up, we were never short of food that I could ever remember…My mum baked bread and, and, you know, cooked all the time.. […] We didn't have much food when the kids were small. […] I always made, I could make something from a shoestring. And I still can when I have money too, but you can't make nothing from nothing, right?

Cooking was something other women reported learning at home in their childhood. Lynn described it as one of several responsibilities she had taken on as the eldest female child in her family:

> Well, I was the oldest girl in the family, and my mum showed me how to bake and cook, and stuff like that, so, um…my mum was a great cook and she was a great baker, you know? […] I don't remember…I don't remember the other children doing much. It was like me, I was…doing more […] I would get up in the morning, make the fire, put the bread (on the stove), and the coal, and go and get water at twelve o'clock at night from the well…I don't remember—well, I remember my brother'd go out and get wood, but I remember me doing more than any of them you know?

Notably, the act of cooking for the family appeared to be frequently associated with female roles in the family, such as mother or sister, and it appeared to be learned not by choice but by necessity. For Lynn, being the eldest girl in the family meant she was expected "to do more" for the others, and for Ellen, the task of providing meals for her family using limited food had fallen to her. Regardless of the reasons for which they had learned to cook, the women's experiences earlier in their life appeared to be important in helping them manage their present circumstances.

Another skill the women were proud of was their ability to manage their finances. "I know how to manage money," Sheila noted, "and there's a lot of people that don't know how to manage money." She described a detailed plan for saving money:

> I have a savings account in the [bank], where the money comes out for my [telecommunications] and my rent, or anything if I have to buy groceries. I also have an account with [a different bank as well]. […] I also collect bottles. People give me bottles. My girlfriend takes it to the recycle place. And the money I get

> for my bottles goes in for my funeral. I got the girls at the church saving bottles too! My daughter doesn't think much of me collecting bottles, but it adds up!

Notably, Sheila shared that she had had to "save and scratch everything" to make ends meet earlier in her life when she was the sole provider for her children. She moved to find work once her relationship to her husband no longer tied her to Nova Scotia:

> I was really having a hard time with it […] it was very, very difficult trying to bring up two kids, keeping them in school, buying whatever you had to buy, and my husband was flirtin' around with my sister so I decided I would pick up – all I had was two hand bags and a purse.

The women often applied their budgeting skills to grocery shopping, seeking out good deals on food. Clara shared her strategies for saving money on grocery bills:

> One of the girls I used to work with at the call centre, she would always go into the Sobeys at a certain time, and um, you would buy the meat that was on for 50% off, there wasn't anything wrong with it, so I've learned to buy most of the meat, I'd only pick up 50% off, and I do the same thing when you got to Walmart, Walmart has a section where they have 25% off, and um, so I learned to look at that, and then you just come home and throw it in the freezer.

For Clara, the skills of grocery shopping and budgeting had been acquired at a young age, as she had done her family's grocery shopping in childhood, something Harriet had done as well:

> My mother used to say to me, "This is how I go shopping. Take that little thing and go shopping for me!" And I says okay that little thing's called a calculator but okay, no problem. And you do say it that way because do you know how hard it is to walk around and not pick up stuff that you really, really don't need, you know?

Neither Clara or Sheila explicitly attributed their present knowledge of budgeting and frugal shopping to their earlier experiences, but their mention of prior lessons in saving money at least suggests that they had practiced this skill before needing it in older adulthood.

Another skill often learned in childhood that proved useful in older adulthood was gardening and growing food. As a way of sourcing healthy food that was affordable, Harriet had made use of a community garden:

> When they built it, there was an office around. Now we plant a garden around it! Open to the public and you come pick your strawberries, and tomatoes, and all your different spices, and your kale, and yeah! You just walk by with a bag and take some vegetables! My friends say, "[Clara], what are you doin', you're stealin' vegetables from the library!" At least that's what the library would've been telling ya. But it's for everyone to eat here! [laughs] "Really?" I said really. So I always go over there with a bag and pick my thyme, and my oregano, and stuff and bring it home and I hang it out and dry it and put it in mason jars. I get all my pickling from there! All the cucumbers.

Two of the women had grown up on farms, and they discussed the skills and knowledge they acquired as children growing and cultivating their own food. Maureen recalled her years on the farm with fondness:

> Maureen: Well, I grew up on a farm and on the farm we had everything we needed, you know, the only thing my mom bought in town was flour, shortening, or sugar, cause we had our own milk, our own chickens, you know, our own eggs…everything! […] we never went without anything. […] [my mother] made homemade biscuits, and we made our own butter, of course, from…churned it. And you know, we always had potatoes, and meat, and like I say, she'd buy fish and that in town, you know, we always had plenty that way.

> Interviewer: And did you grow all your own vegetables and that sort of thing?
>
> M: Mmhmm. And we had apple trees, and we had plum trees, whole beds…Oh, I love the farm!

Maureen described various skills learned on the farm, including churning butter and milking cows, claiming that "somebody put one in front of me, I still could put the separator together! (laughs) You don't forget those things!" Ellen recounts a similar experience from her childhood farm in the same region:

> We lived on a farm. And, uh, so there was no problem with fresh vegetables and fruit – fruit maybe so much in the winter, like we had apples. […] We usually raised pigs, we usually had chickens, and every once in a while we had, like we used to – when I was little – we had a full farm. […] We used to have to pick apples for the pigs and, you know, weed the garden!

Although Ellen is still able to garden using her sister's land, Maureen did not discuss gardening as a currently available option, suggesting that the possession of gardening and farming knowledge was only useful insofar as land and equipment were available. Unlike, cooking with scarce food and budgeting with scarce money, gardening and farming had tended to be learned in situations where resources were plentiful, such as Ellen's "full farm," and this this skill set was less applicable in times of need.

Self-efficacy. Nearly all of the women expressed a sense of self-efficacy when describing their skill set. They appeared to feel confident in their knowledge, often having acquired it over their lifetime, and never suggested that their struggles could be attributed to a deficit in knowledge. Unlike other women, Clara suggested a lack of skill or knowledge in some areas. However, she was able to identify a range of options

available to help her, indicating that she possessed enough knowledge to devise a solution:

> I would love to plant a garden here, but um, I found out after I bought the house, nothing but rocks. Yep. Now, I was thinking of maybe getting a tiller and seeing what I can do, but if I break the tiller I'm going to have to pay for it if I rent it. […] I can't even keep a plant alive. […] I mean, if you can get bales of hay, you can put seeds in the hay, and it will grow, you know, things like that, so I'm thinking of different ways of trying to grow maybe something where I don't have to go through a ton of rock. […] I don't have the strength in my arms anyway for a tiller, but I might…try.

In addition to the assistance she received in gardening, Clara sought clarification in her cooking as well. Even when she was unfamiliar with the food she collected from the food bank, she would ask others with more knowledge how it might be cooked:

> But you get really, really nice stuff. Stuff I never even thought of buying. And you get to try it and say, "Oh, that's pretty good!" Like I said, it's always a surprise what you're going to get. […] Um – the jars of food – I mean, I have to ask the ladies, "What do I do with this?" Because I didn't know what it was [laughs]. So um, you know. You just get what, um, I guess I like the surprise.

This attitude appeared to contrast with confident assertions from other women who felt that their skills and knowledge could be not only sufficient to support themselves, but even superior to the skills and knowledge of others. For example, Harriet mentioned that while some people did not know how to budget their money to buy healthier foods, she was not among them, and in fact, she was equipped to offer them advice:

> They had a workshop here one time of how to manage your money, and everyone has a different income. And some people aren't aware of how to budget themselves, you know? Like you have to break – I always tell them, you

> have to break it down to a blue collar, because some people don't understand numbers. Just say that if you get $40, ask them how would you spend it on groceries? And you'd be surprised what people write down on a piece of paper, you know? Rice, macaroni, beans, cheese and weins [weiners]. It's unhealthy.

Here, Harriet portrays herself as a liaison between those in the "blue collar" community and those seeking to assist them. She is both the expert in the subject of budgeting and in the needs of the community. This stands in contrast to Clara's relationship with the community, where she appears to be an equal partner who exchanges knowledge as needed, rather than being an expert herself. Most of the women appeared to share Harriet's approach, which implied a strong sense of self-efficacy.

Resilience as Survival

The previous two sections in this chapter describe the manner in which structural factors impact the household food insecurity of the women. In some cases, organizational and institutional policies and practices inhibited the women's ability to acquire sufficient and appropriate food. In other cases, the women were able to work with organizations and individuals at institutional, community, and interpersonal levels to access food and other resources (mostly, the money needed to buy food). Even when institutions and organizations mitigated some food insecurity, the women often played an active role in seeking out and utilizing the assistance being offered, in addition to drawing on their own skills and knowledge.

As individuals experiencing duress, the women demonstrated resilience to injustices and inequities preventing them from being food secure. However, the narrative of resilience the women describe should not be understood as simply a story of using strength to overcome hardship, rather, it must be contextualized within the women's

struggle to survive circumstances over which they often have little control. Alongside their descriptions of the institutions and organizations involved in either perpetuating or alleviating food insecurity (formally and informally), the women also shared their perceptions of these entities and their relationships with food insecure individuals. These perceptions are shared below.

Sense of support. Despite numerous connections to community members and organizations, many of the women described a sense that they lived their (often-difficult) lives with little support. In relation to institutional support, Lynn felt that the quality of public pensions for older adults in Canada was not an issue of interest to the Canadian government, much less the overall well-being of low-income older Canadians:

> Everybody gets help [from the government], I hear them in the budget—this is for this cause, this is for that cause, but you never hear them say anything about the seniors […] The government should […] see what the seniors are doing, see how they're living. They have to have somebody come around, and talk to seniors, and see how they're living, you know? Not the seniors that have money in their pocket, seniors on fixed income, low income. You know?

Lynn expressed a similar opinion of the community supports available to her, the difference being that, unlike government support, community support seemed to have been stronger both in the past and in other places. This meant that the "fading" support in Pictou-Antigonish at this time was noticeable, such as the termination of free breakfast and lunch programs, which had kept many people in Pictou Country from "going hungry." The lack of community support was not just frustrating for Lynn, but directly affected her ability to "survive" in Nova Scotia, as she did not "have the places to go, to get help" in this province. Ellen had also lived in another province before moving back to

Nova Scotia, and she too felt that the present sense of community in Pictou and Antigonish was less strong than it had been elsewhere in the past:

> But up there [in another province] I knew just about everybody. You know, everybody knows everybody. But you have a, you know, um, everybody has a big community that I do know here, but they're not necessarily in this town. […] like I know my general neighbours that are around me. But I don't know people down the end of the street or up the street. A lot of people do know that because they're going up there and they've been in this particular town all their lives, so they know a lot of people…

For both women, past experiences of community support in other places created a stark contrast to their present circumstances. They understood how to use community support as a tool for coping, but disconnection (or even partial disconnection) from their current place of residence left them without one of their key strategies.

Generally, support from all sources was perceived to be either withheld or difficult to access. Overall, the women knew what they wanted to change and who needed to make these changes. They knew that public policy, such as pensions, and even community organizations appeared to be failing them, and there was no indication that these failures would desist. These circumstances left them to rely on their own skills, abilities, and networks, with no guarantee of reliability from any of these resources. Accordingly, participants expressed a sense that there was little they could do to affect change in the current system, in which they held limited power. Diane suggested a sense that good intentions and a willingness to improve the circumstances of food-insecure older women was meaningless without action, but that there was little action taking place, as she was "sure there's a lot more could be done. There is a lot more could be done."

Several participants appeared to feel obligated to accept assistance of any kind when it was available. In relation to food, this meant that the women consumed the food that was offered at either low or no cost, and did not eat food that could not meet these criteria. As previously, discussed, the food available at the food bank did not always meet the women's needs, but nevertheless, they continued to collect it. For Lynn, taking the food bank donations was not a choice, and she believed that "you have to take what you can get, it's free. Even if you don't like it, you've gotta, you know…if you're hungry, you know, you've gotta eat it." Ellen felt similarly about the food that she received through community programs:

> The way I look at it, beggars can't be choosers, right? […] There might be some people like complain, "Oh, soup again…". But it goes in your belly, don't be growling, there are people that are starvin'.

Clara shared this sentiment, and for her, the notion that she could not turn food away appeared to have developed in childhood, at least partly as a result of being food insecure:

> The groceries were always there, or what was there – we didn't have that much 'cause there were so many of us. And um, it's uh – so. That kind of stays with you, when you know you didn't have much food when you were a kid. […] I just had something put in front of you and ate it. And if you didn't eat it, you stood at the table and you ate it.

The women appeared to feel an obligation to accept help of any kind, regardless of its utility or practicality. Particularly in Clara's case, the need to accept what is offered was deeply ingrained. In this way, there appeared to be little incentive or expectation for

charitable endeavours to improve or diversify their offerings, as the women did not feel they could ask for more.

Hardship and resilience. The manner in which hardships in earlier life informed later experiences of food insecurity was variable between participants. For example, Clara's experience of food insecurity in childhood was not universal among the women, as some had grown up in food secure homes. What did appear to be common amongst all participants was lifelong learning of the knowledge and skills needed to adapt to different circumstances, and the development of the resilience needed to survive adversity and injustice. Although the women highlighted skills related to food, economic and social strategies for coping with food insecurity were equally important, particularly because their food insecurity was rooted in socioeconomic barriers. Lynn's story about learning to withstand abuse appears to be unrelated to food security, but it describes the role that age and experience played in the development of her resilience to mistreatment:

> I had no motivation…I was always scared…I was always scared that I couldn't do anything. I was always terrified that because—when my life—I was sexually abused and this and that, and you know, I remember, I thought I had to do this, I thought I had to go with (inaudible) or something, you know? But, you know, I, I you know…seven years ago…I used to go to work, and the bosses would holler at you and everything you know, and I used to cry, I used to go in the corner and cry, and seven years ago I said I'm not taking no more bull crap from nobody no more. I had to wait until I was 60 years old to say I wouldn't take any bull crap from anybody, you know?

Lynn's story is important to understanding food insecurity because it does not necessarily indicate that hardship in childhood informed her attitudes later in life, rather, it appears to suggest that age provided her with perspective and experience. The

experience of hardship did not necessarily impact the women's ability to cope within systems set against them, but the accumulation of expertise and knowledge could prepare them to survive impossible and unjust circumstances through skill, adaptation, and determination. In essence, the relationship between hardship and resilience did not appear to be one of cause and effect, rather, the hardships described in this study seemed to *necessitate* resilience in its most extreme form: a method of literal survival.

Summary

This chapter has outlined the main findings of the study, which are generally related to the barriers to food security, and the strategies employed to persevere through these barriers. The study found that there four key barriers to food security, but income was the most impactful, as all barriers could be related to income in some way. The study also found that the women managed their food insecurity using a variety of different strategies including using community programs, such as food banks, engaging in reciprocal exchanges of goods and services with friends, family and neighbours, and cooking, growing, and preserving food. Despite feeling confident in their own abilities, the women expressed frustration that they were not better supported in their efforts to persevere through systemic (primarily economic) injustice, and that they were required to confront this injustice at all. The following chapter discusses these findings, comparing them to findings in other relevant literature, and considering their implications for policy and research.

Chapter 5: Discussion

Introduction

Many of the experiences shared by this study's participants were reflected in what is already known in the literature related to the economic inequity of older women, the challenges of transportation and accessibility in older adulthood and in rural areas, the use of social reciprocity among marginalized communities, and the importance of the SDOH in determining health outcomes. This study's findings also emphasized the resilience present in older women, identifying them as not only capable and resourceful in the face of food insecurity, but also as an important resource for knowledge and community building. The following chapter reviews the present study's findings within the context of existing literature, and outlines opportunities for policy change and intervention grounded in this evidence.

The Experience of Food Insecurity

Barriers to food security. This study supports the claim that income is the major factor determining household food insecurity in Canada (Chen & Che, 2001; Dieticians of Canada, 2016). The findings suggest that Canadian public pensions may not be adequate to meet the cost of living for all older adults in Canada. Although they are the foundation of older women's incomes (Milan & Vezina, 2011) and capable of providing essential economic support (McIntyre et al., 2016), the participants of this study (all of whom received OAS) reported that their incomes were inadequate to meet all their essential expenses. Quantitative work has suggested that older adults in Canada tend to be less likely to be food insecure than younger Canadians (Ledrou & Gervais, 2005; Tarasuk, et al., 2013). This qualitative study exploring the experiences of food insecurity among older women in Nova Scotia, Canada found that, despite receiving a form of

guaranteed income, nearly all of these women (except one) did not report any reduction in food insecurity after receiving their OAS. The only woman who did report a reduction was still required to supplement her OAS income through paid labour, reciprocal exchanges, and other activities, such as collecting bottles off the street to exchange for cash. These findings do not dispute the fact that, overall, older Canadians may be less vulnerable to food insecurity than younger Canadians might be, but it acknowledges that food insecurity in older adulthood is complex and multi-faceted, and may be experienced differently by different populations.

Ledrou and Gervais (2005) posit that the food insecurity of older adults may be different from younger adults, as factors other than income could be more likely to contribute to the food insecurity of older adults, including physical illness or disability preventing or inhibiting grocery shopping and cooking. The present study indicates that older women in rural Nova Scotia were affected by health concerns to a degree, but were often fully capable of grocery shopping and cooking, even in instances of illness. What did affect their food insecurity were the costs associated with poor health, such as transportation to medical treatments (a factor that was likely related to rural living) or payment for medications, as well as the loss of non-pension income when poor health forced them to miss out on paid work.

Participants did not make any direct links between food security and health. They did, however, want to be healthy by eating what they describe as "healthy food," sometimes identified as fruits and vegetables or local produce including dairy. This suggests that the notion of 'healthy food' is familiar, but participants had not generally considered whether there were direct links between the food they were able to consume

and their health status. Maureen, however, identified a discrepancy between the foods she needs to address her diabetes, and the foods available to her. None of the participants in this study made any connections between food insecurity and mental health and well-being, but Buck-McFayden (2015) reports that women experiencing food insecurity in rural areas reported stress and even self-harm as a result of food insecurity. Notably, participants did discuss feelings of frustration that they needed to use food banks.

It is possible that health impacted older women's food insecurity through pathways which were difficult to discern. The CSDH framework (Solar & Irwin, 2010) and the Sadana et al. (2016) frameworks exploring relationships between the SDOH and health outcomes draw a feedback loop between the outcomes and the determinants. The feedback loop between health and food insecurity was also reflected in this thesis, for example, all of the women reported difficulty affording healthy foods, which may have left them with poorer health. Some women also discussed poor health as a barrier to employment, which then reduced their options for supplementing their income and reducing food insecurity. Here, health outcomes circle back to affect intermediary determinants. These findings on food insecurity and health are consistent with other research on related topics, which also demonstrated that food insecurity could impact health (Gundersen, Tarasuk, Cheng, de Oliveira & Kurdyak, 2018; Kirkpatrick & Tarasuk, 2008; Majowicz et al., 2016) and vice versa (Galesloot et al., 2012; Olabiyi & McIntyre, 2014; Tarasuk et al., 2013; Weisner et al., 2011).

Rurality could also be a barrier to food security, as it impacted participants' access to transportation. Much like poor health, transportation affected participants' food security via income as well. The costs associated with transportation such as taxis, not-

for-profit transport organizations, and even private car lease payments took money away from the women's food budget. Transportation that was free of cost could make the women feel uncomfortable, as it required them to rely on favours from family and friends. Like Arbuthnot et al. (2007), this study found that rural transport was especially critical for medical purposes. Previous studies had also found that rural transportation was problematic (Wanless et al., 2010), especially for women in Nova Scotia (Williams et al., 2012), including urban older women (Green-Lapierre et al., 2012).

Overall, rurality was not discussed in depth by participants. Although they shared stories about transportation challenges, they did not elaborate further on other possible impacts of rurality, such as relationships with community members, or the lack of available economic opportunities. It is possible that the women were less-inclined to comment on rural experiences because many lived in towns, rather than in more isolated areas. Although some women had grown up outside of towns, the search for employment and affordable housing (e.g., Public Housing for Seniors) often necessitated a move to more densely populated regions, away from family farms. If this study had been able to more fully explore the women's lifecourses, then the women's interpretations of rural life and its impacts on income, social networks, and food security over time might have become clearer. It is also possible that rurality impacted food insecurity through pathways which are not easy to measure or identify, and thus were not discussed by participants. In addition to geographical definitions, rurality has been conceived of as a sociocultural phenomenon (Halfacree, 1993; Keating & Phillips, 2008; Ramsey et al., 2002), but intangible factors such as social relationships in rural communities (and their differences from urban contexts) could be difficult to distinguish and explain.

Finally, gender may have also impacted older women's food security. There is literature discussing the female experience of older adulthood and its effects on food security and nutrition. For example, widowhood can affect both a woman's income and her eating habits (Gazsco, 2005; Li, 2004; Vesnaver et al., 2015). The women in the present study did not identify gender as a factor impacting their experience of food insecurity in older adulthood. Some women had experienced the loss of a spouse through death or divorce, but in the women's interviews, these events were never tied to a change in poverty or food insecurity. Some women did identify experiences earlier in their life that were affected by gender, such as the expectation that they would care for their families as the eldest female child.

Like health and rurality, the women did not make direct connections between gender and food security, but it is likely that some connections did exist, primarily in relation to women's lower incomes. All the women worked, but none described having worked in highly skilled, well-paying jobs. This was certainly the case in earlier life, and definitely the case for those working in older adulthood. Historically, women (as compared to men) have had lower paying jobs that do not require a high level of skill, and although the "job quality" gap between men and women has narrowed in Canada, the gap does still exist (Cloutier, Bernard & Tremblay, 2009). One possible explanation for the gap is the devaluation of "women's" work, which is often "care" work (e.g., nursing, childcare, teaching, cleaning) (Cohen & Huffman, 2003; Dwyer, 2013). It should be noted that the women appeared to have a variety of useful skills which could be considered traditionally female, such as those learned through their responsibilities as the eldest female child. The gendered nature of food-related skills (e.g., gardening, preserving) might account for

some of the discrepancy between the women's apparent skill and the low-paying, low-skilled labour they relied on for income.

Skills and strategies for coping. The women in this study were highly skilled in many aspects of food cultivation, acquisition, and preparation, and they met challenges presented to them using creativity and knowledge. They had often learned skills in their earlier life which allowed them to navigate their circumstances. Like, Huisken et al. (2016), the study disputes the notion that skill-building should be a major focus for efforts to improve food security in Canada as proposed by other researchers (Chenhall, 2010; Hamelin, Mercier & Bedard, 2010; Howard & Edge, 2013), as the study did not find that a lack of skill impacted food security among rural-dwelling older women. The findings demonstrate that, despite scarce resources, these women 'survived' food insecurity by using a variety of skills and knowledge. However, although the women were capable of managing with little, intervention and aid were still warranted, as their strategies for survival could be unreliable and dependent on factors outside their control (e.g., relying on favours from family and friends, finding access to gardens, reallocating money to one essential expense to another). The study suggests that improved access to resources such as gardens, transportation services, group housing, and, most importantly, money could improve the women's food security and possibly improve their health outcomes, as they would be able to use their skills and knowledge to their fullest capacity.

Notably, the findings in this study are mostly consistent with findings from Green-Lapierre et al. (2012) who examined food insecure older women in Halifax, Nova Scotia. Both studies identified aspects such as transportation and health problems as

barriers to food security, and community programs use, family and friends, and personal food management (e.g., saving money, cooking food to cut down on costs) as strategies to address it. Although these findings suggest that there may be little difference between the experiences of food insecurity among older women in urban and rural Nova Scotia, the rural-dwelling participants in this study reported some additional strategies, such as growing their own food as a response to their lack of access to expensive foods such as vegetables. Furthermore, the challenges of transportation and limited resources (e.g., community programs closing) appeared to be more problematic for the rural women—even though urban women had difficulty using public transit or community programs, these options were actually available to them. Rurality could act as both a strength and a detriment to supporting food security, as it fostered individual skills while simultaneously limiting the resources needed to put these skills to use.

The findings from this study were also mostly consistent with Green-Lapierre et al.'s (2012) findings on the women's attitudes to food insecurity. They noted that the women in their study did not believe themselves to be food insecure, and instead, they felt that they had lived through worse and were resourceful enough to manage their circumstances, drawing on lessons learned from living through poverty. The participants of the present study also discussed feeling as though they could manage the challenges presented to them and believed that they were not as poor as many others.

The principle difference between the two studies is the explanation for participants' attitudes towards poverty: those in Green-Lapierre et al.'s (2012) study—half of whom were ages 65-75 and half of whom were ages 75 and older in 2007—discussed the impacts of living through the Great Depression and World War II as an

influence on their understanding of poverty and food insecurity. As older women they had lived through these times of extreme deprivation and thus their present circumstances did not appear so bad in comparison. The participants in the present study, however, are too young to have lived through either the Great Depression or World War II and may have been raised by those who lived during these times. It is possible that the women's attitude towards their circumstances is not impacted by specific events which led to disparities, but rather, it reflects the experience of poverty at any time in history. It could be that this attitude has been repeatedly passed down from one generation to the next, similar to the passing down of skills like cooking and budgeting. In a sense, this attitude of resilience may in itself be a tool for surviving poverty that is taught and learned.

Surviving Poverty

Stigma of poverty. An important aspect of the experience of food security among the study participants was the stigmatization of poverty and specifically food bank use. Food bank use is highly stigmatized due to its connections with poverty, and it can lead to a sense of shame or failure on the part of food bank users (Garthwaite, 2016; Purdam, Garratt & Esmail, 2016; van der Horst, Pascucci & Bol, 2014). A discourse of stigmatization around food insecurity is known to be present in Nova Scotia (Andrée et al., 2016). For some women, the stigma of food bank use was hurtful, but others claimed that it did not bother them, although they appeared to acknowledge that it existed. Stigma was not so much a factor that explicitly affected the women's experiences as it was an underlying notion which informed the way the women perceived the way others used the food bank. Some women expressed displeasure that some people in the community used

the food banks unnecessarily or improperly, claiming that the food banks might run low on supplies as a result.

The women never explained why food bank use was more acceptable for them than for others, but it may relate to how the women perceived themselves and their own image as a person living in poverty. Reutter et al. (2009, p. 306) found that Canadians living in poverty were often critical of others in similar situations. They argue that this is an act of "cognitive distancing" which allows people living with low-incomes to separate their personal identities from their income, and there was considerable energy invested into concealing poverty. The women in the present study rarely appeared to be concerned with hiding their poverty, however, they were adamant about their ability to meet challenges. Assuming the women may have been influenced by a dominant cultural narrative portraying food bank users as failures, they may have wished to distance themselves from this image.

Reciprocal relationships. Social relationships were also a prominent factor in helping participants to address food insecurity. This is consistent with findings from similar studies of food security among older women and rural-dwelling women (Buck-McFayden, 2015; Green-Lapierre et al., 2012). Social relationships have also been noted to be a key factor in supporting the health and food security of rural dwellers (Bacsu et al., 2013; Chafey et al., 1998; Leipert, 2005). Participants described networks of social reciprocity that encompassed their families, neighbours, and communities. They traded services for favours and money and held an expectation that favours would be returned, particularly by those tied to them through family. For some women, these ties held

strong, for others, they were unreliable; there was little consistency between the women in the use and abuse of their social networks, other than that they all needed them.

Carol Stack's (1975) ethnography of a black community surviving poverty in the United States is useful for understanding these networks and the extent to which they govern survival strategies. Stack explained that, in the context of the community she studied, female adults acted as the foundations of community cooperation. She also reported that they often adopted a sense of "martyrdom" (p. 38) fueled by a sense of resentment that their sacrifices for others were not appreciated. This was reflected in the present study, as some participants described frustration and disappointment that their contributions to their families and communities were not always met with a similar degree of generosity.

There are several differences between the community that Stack (1975) described and the counties of Pictou and Antigonish. Stack noted that everyone in her community of study wanted to give an impression of generosity while simultaneously hesitating to admit their own dependence on others. Most participants in the present study were similarly eager to admit their own abilities, contributions, and independence, but rather than deny their need for assistance, many of the women explained that help from others (even help that was unwanted or reluctantly given) was essential to their survival, and that any lack of willing support made it harder to get by.

This distinction may be related to the most significant difference between Stack's community and the communities in the present study: the apparent strength of the social networks. Stack described a community where the residents came from similar ethnic, cultural, economic, geographical, and even familial backgrounds, and kin networks

sustained community members through times of great need. The participants in the present study experienced varying degrees of support and represented a diverse array of backgrounds. Some had grown up in poverty and others with plenty, and some had been raised near the towns they now live in while others had lived across Canada. Although it is difficult to determine whether the possible diversity of these communities contributed to the variance in support between participants, Stack did note that an individual's reputation in her community would determine their selection as a partner in exchange—those with unknown or poor reputations—would be less likely to be included.

It is also possible that community reputation could be even more important in small, rural communities, where there are fewer people to engage in exchange. Thus, rural dwellers—such as the participants in this study—must be careful to maintain positive relationships with family, friends, and other community members who could determine their access to goods and service. According to the women in this study, these relationships were important accessing food aid (e.g., subsidies, donations of food), transportation to grocery stores, and the use of gardens to grow food.

Developing resilience. Participants described themselves as capable of managing their circumstances, sometimes calling themselves "a survivor" or stating that they "do just fine." Such narratives are important to deconstructing dominant cultural narratives which often disregard the social value of older women (Hatch, 2005; Hurd, 2000). Many of the women had learned lessons from challenges in earlier life, whether it be childhood poverty or providing for their own children using limited resources. Gattuso (2003) also found that older women perceived themselves as guarded against present day hardships as a result of facing hardships in the past. That said, some women did not report having

endured food insecurity or poverty in their earlier life (e.g., those who were raised on farms), and yet they too discussed a variety of skills, for example, knowledge of growing food and tending to farm animals. Furthermore, these same women indicated the use of social networks and reciprocity among others experiencing poverty as important strategies, a finding which is congruent with Kinsel (2005).

In essence, all of the women could be shown to have developed some resilience to poverty and difficult circumstances, regardless of experiences in their earlier life. Hadley and Crooks (2012) argue that, in some situations, the provision of aid (e.g., supplies, funding, personnel) to households facing drought-based food insecurity can be counterproductive to developing long-term food security strategies, as it limits the households' capacity for adaptation to difficult circumstances which have the potential to be repeated. McLeod et al. (2016) also determined that personal and social hardships allowed older women to develop resilience later in life. Although this argument could suggest that the experience of hardship is, in fact, a sign of strength and resilience, however, the women in this study did not appear to be more or less resilient if their earlier lives did not contain any hardships. Notably, Kinsel (2005) also reported that the older women she interviewed came from a wide variety of earlier experiences—some were negative, and some were positive—and drew no links between different types of early experiences and present resilience.

Although participants' adaptations to their circumstances are indicative of a resilience to adversity, it is important to consider the context in which these claims are made. In the context of this study, resilience did not protect older women from food insecurity, nor did it protect them from poor health outcomes in older adulthood. Even

within the framework of a capability approach towards aging (Sen, 1987), the women were not always capable of engaging in the activities that were meaningful or even essential for them, such as grocery shopping or gardening. These 'incapabilities' do not necessarily represent a lack or failure of resilience, rather, they indicate barriers to older adults' functioning, as suggested by Stephens et al. (2015).

The participants of the present study are food insecure because of economic injustice, not environmental degradation, and their resilience would not be necessary without the imposition of poverty. Stack (1975) explains that poverty is a social construct which is, arguably, deliberately imposed upon marginalized populations in the interests of maintaining a socioeconomic status quo in which a wealthy few, rich in capital, hold power over masses of people with little capital and few resources. So long as the people with less wealth fear unemployment, they will continue to work in unskilled jobs which are poorly compensated, since some money is better than none. Regardless of the resilience present in these women, the fact remains that it should not be required. Although poverty in early life had sometimes informed the development of coping mechanisms applicable to their present circumstances, it was also possible for women growing up with adequate resources to meet hardship in later life with a set of skills that enabled them to manage adversity, and possibly even thrive in times of plenty.

Policy Implications and Opportunities

Food security must be considered in the context of an opportunity for health promotion and policy. The discipline of health promotion relies on identifying the mechanisms whereby social inequities manifest as health inequities, thus allowing health promoters to identify points of intervention (Phelan, Link & Tehranifar, 2010). This

study suggests that, for older, rural-dwelling, food-insecure women, these points are overwhelmingly situated in structural factors and the SDOH (e.g., income, access to economic resources, and access to transportation). Some of these points of intervention are included in the health promotion actions put forward by the Ottawa Charter on Health Promotion (WHO, 1986), which includes creating environments which support healthy living conditions (e.g., providing adequate and accessible transportation in rural communities). However, other proposed actions are not supported, for example, the Charter recommends facilitating the development of personal skills needed to maintain good health status, but this study's findings indicate that older women experiencing food insecurity may not lack skills or knowledge.

The Ottawa Charter (WHO, 1986) also calls for the development of healthy public policy, and explicitly notes the need to impact policy in 'non-health' sectors. As demonstrated in this study's findings, promoting health for older women faced with low incomes and rural environments must focus on affecting change at the level of policy. The WHO's CSDH framework (Solar & Irwin, 2010) offers a guide to understanding opportunities for policy intervention affecting health outcomes, and Sadana et al. (2016) provide insight into specific considerations for use of the framework among older adult populations.

The CSDH framework (Solar & Irwin, 2010) proposes policy intervention types at four levels of impact: micro (individual interaction), which can reduce the unequal consequences of illness (e.g., poor nutrition), macro (public policies), which can reduce exposures to health-damaging factors (e.g., poverty), mesa (community) which can reduce vulnerabilities to poor health, and the global environment, which can reduce social

stratification. The following sections describe considerations for policy action in relation to health via food security at all four levels: food banks and programs reducing unequal consequences of food insecurity, creating age-friendly communities to reduce older adults' vulnerabilities, reviewing and reforming national public pension policies with a gendered and rural lens, and the implementation of a BIG to reduce social stratification.

Micro: Food security programs. The women in this study described the options available to them for addressing their food insecurity. Some of these took the form of food bank and food program usage. Given that all study participants were past or present food bank users, they shared their thoughts on food bank operations. There are some changes and enhancements which could make them more accessible to older, rural women, namely the facilitation of transportation to and from food banks, as well as assistance in getting food bundles into homes. Participants in this study recommended delivery services as a helpful option. The provision of fruits and vegetables—ideally fresh but canned if necessary—was also suggested as a possible addition to food bank offerings.

Study participants did not make recommendations for other food programs (e.g. soup kitchens, free Christmas turkeys), aside from expressing disappointment that some had been cancelled (e.g., breakfast and lunch programs at local grocery stores and churches). That said, this study demonstrated that older women have much to offer, including their abilities as cooks, gardeners, farmers, and coordinators, and these skills should be used to their fullest capacity. In applying Sen's (1987) capabilities approach, community programs might strive to make use of the women's skills, knowledge, and existing social networks, letting the women determine their level of involvement in the

programs. Community organizations might supply the resources (e.g., food, tools, transportation) and space (e.g., garden plots, community kitchens) for older women to engage in food-related practices to the extent that they desire, with the level of assistance that they desire.

Notably, many of these recommendations for improving food programs require resources (e.g., funding, personnel, outreach) and may not be realistic for the food banks in Pictou or Antigonish. These organizations are run exclusively by volunteers, and food banks in this region are sometimes struggling to stay open, let alone enhance the services they offer. For example, the Canso food bank in Guysborough County closed due to lack of funding and available space shortly before data collection for this study had begun. Also, like food banks, many community programs had ceased operations in recent years. Overall, the women did not mention any organizations that were working to address the root causes of hunger or food insecurity—any organizations they were aware of focused on charitable food donation alone.

McIntyre, Jessiman-Perrault, Mah, and Godley (2018) determined that household food insecurity policy actors (e.g., researchers, non-governmental organizations, government actors)—and their related networks—are limited in Nova Scotia, as compared to other provinces such as Ontario and British Columbia. Nova Scotian actors tend to focus on food-related policies and practices for addressing household food insecurity, as opposed to income-based approaches. Across Canada, policy actors are more likely to be academic researchers, non-governmental organizations, or charitable organizations than government or public health workers. These trends are concerning,

considering that community and regional resources such as charitable organizations do not always have the capacity to meet the needs of household food insecurity.

Notably, responses to health and food insecurity acting at the levels of the individual and community may be favoured over population level interventions, as McIntyre, Patterson and Mah (2018) report that policy makers are able to engender positive responses to the issue of food insecurity if the problem is presented in the context of achievable responses such as community programs, food education, and charity. Although these responses indicate an interest in addressing food insecurity, their focus on 'achievability' suggests that they are created more to serve those providing or facilitating the response (e.g., food banks donations, cooking classes) rather than those receiving it. Middleton, Mehta, McNaughton and Booth (2018) argue that the donation of food to a food bank can be understood through the social convention of gift giving, in which the giver demonstrates superiority, and the receiver is left to feel inferior, as the situation does permit them to reciprocate. Furthermore, nutritional health is promoted by facilitating individual choice in diet composition, as food-insecure Canadian women were found to choose healthy foods if resources (such as income) permitted (McIntyre et al., 2007).

Based on this study's findings, isolated actors, such as organizations and services, are unlikely to have an impact beyond the level of the individual (or household), and may not even make a difference in those contexts. Tarasuk et al. (2014) found that food banks in Canada were unable to meet the demands of household food insecurity across the nation. Similarly, the present study suggests that food banks and community food programs in rural Nova Scotia may be unable to meet the specific needs and demands of

food insecure older women, many of which stem primarily from an income deficit. Alternative options to charitable food programming might include socially-conscious food enterprises that promise potential revenue generation. Mah, Cook, Rideout, and Minaker (2016) recommend that municipalities can fund and foster social food enterprises using fiscal policy instruments, such as using revenue from the taxation of less-healthy food options like soft drinks to fund social food initiatives. This policy option could be promising for a population such as older, rural women, as the participants of the present study showed an interest in using their skills (e.g., cooking, growing food) to support their incomes. If these women were provided with additional funding to formalize their social food enterprises, then the revenue being generated might become substantial enough to positively impact their food security.

Mesa: Age-friendly communities. For the women in this study, challenges related to the accessibility of food within their communities left them more vulnerable to food insecurity and resulting poor health outcomes. Barriers and facilitators to community accessibility in a rural area can be understood through both a food and an aging lens. As previously discussed, Sadana et al. (2016) offer a framework which is useful for promoting resilient aging, or, considering factors impeding desired capacities in older adulthood. These might include the accessibility of transportation and the built environment, physical functioning, and material living conditions. Notably, many of these factors can also apply to considerations for community food environment, such as accessibility and location of food services (Glanz, Sallis, Saelens & Frank, 2005).

The development of communities that foster capabilities in older adulthood is a current priority for public policy in Nova Scotia. In 2017, the Province of Nova Scotia

released their report on aging in the province (Nova Scotia Department of Seniors, 2017). One of their three primary goals for addressing the needs of older Nova Scotians was the creation of age-friendly communities to support those who remain living in their communities, rather than institutional care. Their recommendations included making investments in and consulting older adults on affordable housing transportation infrastructure, affordable housing (including public housing), and age-friendly planning in terms of public infrastructure, civic-participation, and employment. In a rural context, Keating, Eales and Phillips (2013) caution that the needs of age-friendly communities will differ depending on the characteristics of community residents. For example, a community with more marginalized residents (such as those in Pictou and Antigonish) will prioritize affordable housing more so than a community with higher average household incomes. Building communities on the strengths of residents is ideal, suggesting that the communities in this study might benefit from facilitating older women's skills in farming and growing food, and maintaining social networks of reciprocity.

Overall, policies promoting age-friendly and food-friendly communities can be approached in much the same way as one another. Mah et al. (2016) suggest that policy instruments used to affect community food accessibility might include an examination of zoning laws, which determine the placement of food retailers and services within a municipality, as well as the proximity and placement of land intended for agricultural use. Using the Sadana et al. (2016) considerations for age-friendly physical environments, this might include a revision of zoning laws in Pictou and Antigonish using an aging lens. For example, there are several Public Housing for Seniors locations

throughout both counties, and it might be helpful to assess their proximity to food retailers and food programs, such as food banks, as well as the transportation options available nearby. Some of the women in the present study also mentioned the desire to access more agricultural land for growing food, despite living in a rural region, and so the consideration of agricultural zones in proximity to public housing could be important to supporting the capacities of older adults in relation to food security.

Notably, the ultimate goal for many of the Shift report's (Nova Scotia Department of Seniors, 2017) recommendations was the reduction of social isolation and the fostering of social networks among older adults who might be isolated to due mobility impairments and illness, among other concerns. Although all the women in this study lived alone, they maintained active social networks, although those with access to transportation found it easier. What did concern the women about living alone was the consumer nutrition environment (Glanz et al., 2005). It was often expensive and complicated to buy food in appropriate amounts for a single older adult—foods bought in bulk were cheaper but more likely to go bad before being used up, and single serving foods were expensive. This is a policy consideration that must be addressed through a combination of retailer, community, and regional capacity to support programs which can offer healthy food in smaller servings at reduced costs in less-accessible areas, such as mobile markets (Mah et al., 2016). Keller et al. (2007) also suggest that community organizations and service providers can promote older adults' food security by helping to coordinate between multiple services and facilitating participation in relevant initiatives, such as government funding for nutritious foods.

Many of these recommendations for improved community health and well-being require community resources and capacity. Community context, such as culture and environment, is especially important for rural health interventions, as rural regions may contend with specific factors not found in urban areas or even other rural areas (Hartley, 2004). In the case of the Pictou and Antigonish counties, the local economies—both monetary and reciprocal in nature—do not appear capable of reliably sustaining the programs, services, and informal assistance needed to foster older women's food security. Although the study participants suggested that there are strong informal social networks within the communities, the relationships within these networks were tenuous, and the women whose networks had unraveled were left with very few resources. Notably, participants' limited discussions of rurality mean that it is not possible to determine the precise reason for the unreliability of community support, and further investigation would be necessary to identify which factors contributed most.

The WHO's CSDH framework (Solar & Irwin, 2010) identifies social capital and cohesion as potentially powerful determinants of health which exist at both the structural and intermediary levels; however, the framework acknowledges that these determinants hold far less power than those grounded in political power, such as socioeconomic status. The framework cautions against the use of social capital as an excuse for governments to avoid taking action on the SDOH at a root level. This argument mirrors those presented as critiques of resilience and healthy aging as functions of neoliberalism, in which the expectation of individual or even community responsibility for well-being absolves the state of the duty to care for its citizens (Mckeown & Glenn, 2018; Murray et al., 2003; Pond et al., 2010; Portacolone, 2011). Although individual and community resilience to

food insecurity (and thus poor health outcomes) may appear to be more feasible than strategies reimagining systems of food and income, this thesis demonstrates that it is simply not adequate to combat the issue of food insecurity, which is inherently systemic in nature. Thus, systems-based interventions must be used in response.

Macro: Public pensions. The Sadana et al. (2016) framework considers health and social care systems, such as public pensions, to be an intermediary determinant of health for older adults. Similarly, Solar and Irwin (2010) consider public policies to be important in reducing exposure to health-damaging effects, such as poverty. As previously discussed, public pensions in Canada do not necessarily serve all recipients equally, as is the case for the gender imbalance in CPP payouts.

For low-income older Canadians, the GIS benefit of the OAS public pension is intended to act as a form of income guarantee, but it does not meet the criteria for the BIG, which is meant to provide an income capable of meeting basic needs with dignity (Basic Income Canada Network, n.d.). The findings from this study suggest that the GIS, even in conjunction with the CPP, does not necessarily provide recipients with a living wage given the cost of living. The GIS is only intended to provide a minimum level of income (Employment and Social Development Canada, 2017), but this standard is not necessarily being achieved for all recipients. Even in the case that GIS allowed study participants to purchase adequate food, they still supplemented their income with other activities and relied on reciprocal exchanges to get by. Furthermore, the provision of the GIS pension is based on a low-income cut-off, which in theory might help those most in need. In practice, a low-income cut-off may make it difficult for older adults to escape

poverty, as an increase in income could push them out of the income bracket for GIS, thus removing it as a source of financial support.

Public pension policy in Canada should be reviewed for equity in terms of gender and rural dwellers. All public pension programs should be reviewed using the Gender-Based Analysis + (GBA+) framework adopted by the Government of Canada. Its implementation was required in all Government of Canada policy analysis beginning in 2016, with 2017 marked as the start date for inclusion in pension policy review (Status of Women Canada, 2016a). The Government of Canada made a commitment to the use of gender-based analysis in policy-making in 1995, upon Canada's ratification of the United Nations' Beijing Platform for Action at the Fourth World Conference on Women (Status of Women Canada, 2016b). More recently, GBA+ became an analytical framework for examining the potentially gendered impacts of public policies, with the '+' indicating the consideration of all factors intersecting with gender, including income, age, and culture (Status of Women Canada, 2016b).

If the GBA+ framework was applied to topics relevant to this thesis, it is possible that the following policy revisions might emerge: The CPP might devise a plan for compensating women's unpaid work, such as caring for those in the home (e.g., maternity leave) and community (e.g., volunteer work). Kodar (2004) suggests offering tax credits for volunteer/caregiving work under the CPP as a replacement for the tax subsidies provided for RPPs and RRSPs (e.g., income-splitting, which only benefits married couples). If these tax subsidies were reconfigured to better support rural women, who are often already engaged in unpaid labour (Standing Senate Committee on

Agriculture and Forestry, 2006), disparities in pension incomes might be reduced, perhaps even reducing GIS payouts.

Examining the GIS benefit of the OAS specifically, it might potentially overcome its inadequacies by acknowledging that all older Canadians live in different circumstances. Although it accounts for marital status (e.g., widowed, single) and the income of a partner (should they exist) at the time that the GIS is received (Government of Canada, 2016c), there are no other factors considered in assessing the amount provided to individual recipients, such as income (and partner's income) over the lifecourse. Some circumstances (e.g., gender, rural-dwelling) may affect retirement savings and/or the cost of living. For example, rural women are less likely to be employed (Status of Women Canada, 2016c) and face higher costs of living related to transportation. Additional criteria governing GIS payouts might help to reduce food insecurity among more vulnerable populations by ensuring the adequacy of their income to meet their needs.

Globalization environment: Basic income guarantee. A better solution to food insecurity than pension reform may be the implementation of a BIG for all. This policy approach to addressing food insecurity and health would not simply reduce exposure to poverty, rather, it holds the potential to reduce social stratification entirely. The BIG differs from the GIS in that it is universal, regardless of age, occupation, or additional income, which allows it to be received without any associated stigma. There are some aspects of the BIG which are mirrored in the GIS, for example, both provide those in need with money rather than purchasing supplies for them, which allows individuals the dignity of choosing how to spend their income. This aspect makes the GIS (and the BIG in general) superior to systems of charitable donation (e.g., food banks, community meal

programs) in which the availability and interest of strangers determines the foods that an individual living in poverty will consume. It also ensures that the federal and provincial governments do not offload responsibility for citizen well-being onto communities who have few resources but face a high-demand for help.

McIntyre et al. (2016) demonstrated that the GIS was able to reduce the food insecurity of older adults in Canada. Loopstra et al. (2015) demonstrated a similar decline in food insecurity for the overall population of Newfoundland, after the province increased social welfare spending. These findings imply that a basic income might reduce food insecurity of older adults in rural, Atlantic Canada. The implementation of a BIG in Canada is not, however, straightforward. Under the Canadian Constitution Act of 1867 (Constitution Act, 1867), the administration of social welfare programs is a provincial responsibility, meaning that a BIG falls under a provincial jurisdiction. Currently, provincial support for a BIG is weak, as evidenced by the newly-elected Ontario Progressive Conservative government cancelling the Basic Income Pilot (Ministry of Children, Community and Social Services, 2018), and Nova Scotia Premier Stephen McNeil has shown hesitancy to implement a BIG in provincial public policy (Grant, 2018). Although the federal government has announced both a national poverty strategy (Government of Canada, 2018) and a national food policy addressing food insecurity (Government of Canada, 2017), it would need to explore alternative policy avenues for facilitating a provincially-administered BIG, such as adjusting funding incentives (e.g., transfer payments).

Given the sensitivity and complexity of income and food insecurity as political issues, it could be helpful to create measurable indicators linking policy implementation

to effective change. Interestingly, McIntyre et al. (2018) note that a BIG tends to elicit positive, high intensity emotional responses in policy makers, but that the opposite is true for food insecurity when framed as an issue of income. If the federal government is interested in appealing to provincial governments to address food insecurity through income policy, it might be useful to draw on both the positive emotional impact of BIG policy and the measurability of household food insecurity. McIntyre et al. (2018) suggest that food insecurity could be better used as a metric for measuring household income than as policy problem to be addressed, which implies that rates of household food insecurity could be monitored as way of determining and demonstrating the success of income policies, such as the BIG.

Considerations for policy implementation.

Whole-of-government approach. To affect individual and household outcomes, policy at multiple levels must be addressed, ideally within a comprehensive framework or approach. In 2009, the Senate Subcommittee on Population Health recommended that political and policy action on the SDOH in Canada would require a "whole-of-government approach", wherein government bodies such as ministries, agencies, and departments would need to collaborate on equal terms to produce effective policies (Standing Senate Committee on Social Affairs, Science and Technology. 2009, p. 17-18). The food insecurity of older, rural women might be impacted at multiple levels through a single policy: increasing OAS alone (public policy) could enable older adults to access better transportation in rural communities, as well as removing the individual indignity of using a food bank. The community and regional policy options outlined above will only be effective if they can be championed and implemented throughout the political system.

Consultation of older, rural women. A complete policy analysis of strategies to address food insecurity among older, rural women is beyond the scope of this thesis, however, there is a key strategy to be discussed: the inclusion of older women in policy making. The Standing Senate Committee on Social Affairs, Science and Technology (2009) recommends the consultation of relevant populations in creating policies affecting their health. Similarly, Keating et al. (2013) suggest that rural older adults be made a part of community planning decisions. Although meaningful consultation should be employed in crafting policies that accurately and effectively target the needs of this population, there are barriers to achieving this goal. This study found that its participants were often difficult to reach, as they could not attend any events (such as interviews) outside their homes due to illness and/or lack of transportation. Any policy consultations employing a 'town hall' approach will likely fail to connect with key informants. As per this study, the best approach may be individual phone conversations, or simply making use of existing research and existing frameworks, such as the GBA+ framework where meaningful consultation is not possible.

As per the WHO (Solar & Irwin, 2010) CSDH framework for the SDOH, the redistribution of power is essential to the reduction of health inequities, including those resulting from food insecurity and consequent poor nutrition. That older, rural women are individually powerful is evident—the women in this study were resilient and capable of ensuring their survival. But these women had little sense that they might hold collective power, and that institutions holding the majority of socioeconomic and political power in Canada had little interest in their well-being. If age-friendly communities can create spaces in which older women are able to participate as citizens, the women may come to

understand their collective impact. In a province that is aging rurally, with older women outliving older men, older, rural women's potential voting power should incentivize provincial and municipal political action. Politicians and policy makers should look to policies which facilitate aging and remove barriers to older adulthood lived at the functional capacity desired by individuals, communities, and populations as a whole.

Methodological considerations

During the study's development, lifecourse theory was considered as a theoretical framework for the study**.** It was intended to inform the interview guide—where participants were asked to describe experiences with food and strategies to address food insecurity at different points in their life—as well as serving to frame and interpret the study's findings on how the women developed the skills, knowledge, and resilience to survive food insecurity. During the process of data analysis, the researcher determined that lifecourse theory could not be used as a tool for framing and interpreting the study findings, as there was insufficient data to establish links between experiences earlier in life (e.g., moving to and from urban areas), and outcomes later in life (e.g., connection to community). Although participants did reference experiences in their earlier life (i.e., childhood and younger adulthood), these narratives were not always clearly tied to food or food security, and further investigation would have been required to determine the links between the women's stories and their experiences of food insecurity in older adulthood. As such, the lifecourse theory did not inform the final data analysis, and participants interviews were instead examined for latent themes.

Without further clarification, it was not possible to discuss food security across the lifecourse without insinuating that experiences such as poverty or geographic mobility

could be deterministic of food security in later life. However, there was sufficient evidence to suggest that the women had developed a sense of resilience over time. Although it was not necessarily possible to draw links between specific events or experiences and the development of resilience in older adulthood, themes present throughout the women's stories suggested the notion of resilient aging could be useful to understanding food insecurity among older, rural women. As such findings were framed and interpreted using resilience alone, without a lifecourse perspective to explain how resilience—and responses to food insecurity in general—were developed over time.

Study Limitations

This study has some limitations, most of which are related to the study sample. The study did not recruit older, rural-dwelling women who were not food bank users, meaning that this study does not capture experiences of food insecurity that do not include food bank use. This could include women who choose not to use food banks and women who are house-bound. Even within the population of older women who use food banks, only those women who were comfortable sharing their experiences were included. Other women in the region may have different experiences of food insecurity (e.g., may have experienced the stigma of food bank use differently) that were not captured in the stories of the seven participants. Furthermore, I did not collect sociodemographic data on any participants, thus this study did not determine whether factors such as race, ethnicity, sexual orientation, or gender identity impacted upon the experience of food insecurity and its influences on health outcomes. No participants self-reported this data. Notably, the intention of this study was not to identify the characteristics of older, rural women

experiencing food insecurity, but rather to record their stories and experiences in a meaningful way.

The study was also limited by constraints on my time and resources. The timeline of my degree program meant that recruitment was terminated at seven participants. It is possible that the recruitment of more participants could have provided additional insight into the diversity of experiences of food insecurity among rural older women. Recruitment was also limited by the researcher's position within the communities of interest. As an outsider to the community, I relied on assistance from local organizations and individuals to connect with potential participants. In some cases, I did not know the details of the relationships between potential participants and these individuals and organizations. Sometimes, I had to make assumptions about how the older women of Pictou-Antigonish-Guysborough might respond to my recruitment materials as promoted by a food bank, a church, or a legion. Although I consulted friends and acquaintances from the region of interest as I designed and conducted recruitment, it is likely that these perspectives did not represent the feelings and experiences of all community members. It is also possible that further consultation with the community prior to designing the study might have led me to examine different or additional perspectives in my research, or even different research questions altogether.

With more time and additional resources to develop a network within the community, I might have been able to better connect with the community and better understand how to recruit a broader diversity or participants. Despite coming from a rural area in another Canadian province, having several personal friends and acquaintances from the Pictou-Antigonish-Guysborough region, and consulting with key organizations

such as Feed Nova Scotia and local food banks, I was never fully aware of all key issues and perspectives related to research among the population of interest. For example, I was not able to spend time at the food banks to observe their operations for myself, nor was I able to spend time exploring the walkability and transportation services of each county in detail. Researchers with more time, financial resources, and connections to the community could consider spending more time living and working in the community (rather than commuting as I did) or hiring community research assistants or gatekeepers to facilitate access to the community.

Considerations for Future Research

Future research should examine the experiences of older, rural-dwelling women who are food insecure, but do not use food banks. Loopstra and Tarasuk (2015) report that food bank users only represent a portion of the food insecure population in Canada, suggesting that there are other populations of older, rural-dwelling, food-insecure women who may face different barriers to food security than their food bank-using counterparts. This could be especially important in determining the experiences of women in this population who are house-bound. Research in this area might also consider the efficacy of phone interviews as a method of including rural and remote populations in research, particularly in the case of populations who are house-bound due to health concerns and/or lack of transportation options. This could offer more insight into food insecurity among more isolated rural women.

Research into the adequacy of pension income for older women in Canada should be continued as new generations of women enter older adulthood. Women with pensions dependent on paid labour (e.g., the CPP, private or corporate pensions) could have

different experiences of income in older adulthood than women who never or rarely worked for pay. Notably, the overall number of women entering the paid workforce in Canada has increased over time, with nearly steady annual increases in women's employment rates between 1976 and 1996 (Ferrao, 2010). Research on income in older adulthood should consider the impact of labour force participation on income adequacy for older women, especially given the continued prevalence of women's unpaid labour (Kodar, 2004; Milan et al., 2015). Research should also examine the intersection of factors such as rurality, health (e.g., capacity to work, medical costs), and sociodemographic data with income in older adulthood.

Further research could investigate direct links between food insecurity and health. The Canadian Longitudinal Study on Aging (CLSA) (Raina, Wolfson, Kirkland & Griffiths, 2018) identified Canadian seniors as being at risk for poorer nutrition due to health concerns (e.g., loss of dexterity for using a knife) in older adulthood. This relationship should also be investigated across the lifecourse; for example, whether food insecurity in early life can impact health in later life. Although this study does suggest that health can impact food security, there is a need for more work investigating the cyclical relationship between food security and health, determining exactly how one impacts the other. This could also benefit from a lifecourse perspective, which might consider the chain of causality between poorer health and food insecurity.

Conclusion

There are older women in rural Nova Scotia who face food insecurity as a daily struggle. This thesis sought to capture their experiences and describe the phenomenon of food insecurity in older womanhood beyond just the rates of prevalence and severity. The

findings indicated that older women employ creative and resourceful strategies to manage food insecurity, as it demands that older women seek out strategies and resources that extend past those available through institutions and formal programs (e.g., public pensions, food banks, community initiatives), such as exchanging goods and services with others or limiting spending on other basic needs, such as medications. The women's experiences suggest not only that existing formal support for food insecurity in older womanhood is inadequate, but that food insecurity should be addressed long before it becomes a problem later in life, making unjust demands of older women.

Better support for income and pension savings in younger adulthood, as well as gendered and rural considerations therein, might be capable of reducing the impacts of food insecurity in older adulthood. This support could include reducing the gendered wage gap and gendered disparities in public pension contributions, as well as acknowledging the need for higher quality and better paying career opportunities in rural regions (particularly for women). Notably, the financial and administrative leadership for these initiatives must come from provincial and federal governments. Communities and individuals may have the capacity to address some factors affecting older adults' food insecurity, such as limitations related to physical mobility and sometimes even transportation, but they cannot address impacts stemming from income on a broader scale. To address the various aspects of food insecurity among older, rural women, both the funding capacity of federal and provincial governments and the localized knowledge of communities and individuals will be necessary. Intersectoral and whole-of-government action on food insecurity for Canadians of all ages will be needed to make effective, sustainable, and lasting change.

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APPENDIX A: Food Bank Recruitment Email

Hello,

My name is Madeleine McKay, and I am a MA student in Health Promotion at Dalhousie University. My thesis research is an exploration of food insecurity among older women (age 65 and above) in rural Nova Scotia. I am interested in talking to women who use foodbanks. I am contacting you to ask for your assistance in participant recruitment for this project. That is, your assistance in promoting the project to older women who live within the geographic area of your food bank. It would be very helpful if you were able to promote the study by posting the attached poster and publicly displaying the attached pamphlet at your food bank.

I would be happy to speak more with you about how your food bank may be able to be involved in this study. If you are interested in assisting in participant recruitment for this project, please reply to this email, or call me at 613-770-3087. Please contact me if you would like more information related to the study's purpose, relevance, or methods.

Warm regards,

Madeleine

APPENDIX B: Food Bank Recruitment Phone Script

Hello,

My name is Madeleine McKay, and I am a graduate student in Health Promotion at Dalhousie University. My thesis research will be exploring food insecurity among older women (age 65 and above) in rural Nova Scotia. After discussing this topic with Feed Nova Scotia, I have decided that I am interested in talking to women who use foodbanks. I am contacting you to determine your interest in helping to facilitate participant recruitment for this project. That is, your assistance in promoting the project to older women who live within the geographic area of your food bank. It would be very helpful if you were able to promote the study by posting the attached poster and publicly displaying the attached pamphlet at your food bank. Would I be able to provide you with some details on the project?

If you are interested in assisting in participant recruitment for this project, I can email you a copy of the interview guide, as well as the recruitment poster and pamphlet. We can also discuss further details of the project. Would I be able to get an email address for your organization, or a relevant individual?

Thank you!

APPENDIX C: Food Bank Project Information Package

Dalhousie Master's Thesis Research:

Older Women's Food Security: The Rural Nova Scotian Experience

Lead Researcher: Madeleine McKay (902-229-0551)

Project Description

Rationale

Food insecurity occurs when people do not have "physical, social and economic access to sufficient, safe and nutritious food (FAO, 2003, p. 29)." It can result in poor nutrition and health issues such as chronic disease (Vozoris & Tarasuk, 2003). The promotion of food security is linked to the prevention of chronic disease (Lenoir-Wijnkoop et al., 2013). The effects of poor nutrition may be especially concerning among older adults, who are susceptible to nutritional risk (Ramage-Morin & Garriguet, 2013). Income is the primary determinant of household food insecurity (Chen & Che, 2001), but many Canadians relying on public pensions for their income (e.g., older adults) may find it difficult to afford adequate food (Green et al., 2008). Public pensions are the main source of income for older women (Milan & Vezina, 2011, p. 22), but may not provide adequate economic support, especially for older women in rural areas (Barnwell, 2006). One of the key strategies to addressing food insecurity in Canada includes foodbanks (Bazerghi et al., 2016).

Nova Scotia's rate of food insecurity is currently the highest provincial rate in the country at 11.9%, compared to the Canadian national rate of 8.0% (Roshanafshar & Hawkins, 2015, p. 4). The province also has among the highest rates of chronic disease in the country (Ellison et al., 2016), which may be linked in part to the reported food insecurity. Nova Scotia also has a population that is rapidly aging (Statistics Canada, 2016), and the number of individuals using foodbanks whose primary income came from a pension increased from 8.5% in 2015 (Food Banks Canada, 2015) to 12.4% in 2016 (Food Banks Canada, 2016). One Canadian study examined the food security of older women in urban areas of Nova Scotia (Green-Lapierre et al., 2012), but only described urban experiences, suggesting the need for more work investigating rural food insecurity from a female perspective. This study will produce new knowledge related to the experience of food insecurity in rural Canada, particularly for older women. It will reveal the ways in which food insecurity impacts this population, and the actions currently being taken to address it.

Purpose

The study has three purposes: First, to explore the food insecurity of older, rural-dwelling Nova Scotian women in the context of the province's high food insecurity rates. Second, to explore the relationship between health and food security among older, rural-dwelling women in a Canadian context. Third, to better understand how older, rural-dwelling women are currently addressing food insecurity, and how their strategies how evolved over time.

Study Population

Participants will be women age 65 and above, using a local foodbank, and having lived in the Pictou-Antigonish-Guysborough region of Nova Scotia for the majority of their adult lives.

Methods

Participants will be individually interviewed by the lead researcher, and asked open-ended questions about the strategies they use to find food, and how food insecurity affects their health and well-being. The researcher will identify the stories in participants' responses, and then collectively examine all the stories to identify common themes and experiences.

Research Questions

1) How are rural-dwelling women, aged 65 and older, who are food bank users in Nova Scotia experiencing food insecurity?

2) Do these women believe that food insecurity influences their physical, social, and emotional health and well-being, and if so, how?

3) How are they addressing food insecurity, and have their strategies changed over time?

Data Collection Methods

The project will use semi-structured interviews, conducted during one session lasting one to two hours with each participant. Interview sessions will take place at public locations in communities local to the participants. These places may include libraries, community centres, or churches. Each individual participant will be asked to identify a quiet, public space in which they are comfortable meeting, and the researcher will then review the chosen location to confirm its suitability. That is, the location should be able to offer a room with a door which can provide a quiet and private space to conduct the interview. Interviews will be conducted with the researcher and participant alone. All interviews will take place during the day or early evening.

Prior to the interview, the researcher will provide the participant with all compensation related to their participation in the study, including the $20 gift card to a local grocery store, and compensation for travel expenses. The researcher will also review the informed consent form with each participant at this time. This includes reviewing options for the delivery of study results to participants. Participants can indicate whether they want the results, and if so, how they want them to be delivered. They will be given the choice to receive a condensed report, the full thesis manuscript, or both. If they wish to receive the results by mail, they will be asked to provide a mailing address.

If the participant agrees to audio recording of the interview session, the researcher will prepare the audio recording equipment, which will consist of a handheld, battery powered audio recorder. The audio recording will not begin until the researcher confirms that the participant is ready to officially commence the interview session. In the case that the participant has not consented to audio recording, the researcher will begin to take notes at this time.

Interview questions will begin by asking for basic socio-demographic information related to the participant's geographic location, proximity of family, and the number of people in their home. It will then consider participants' food-related strategies (e.g., purchasing, growing, storing and preparing)

both at the time of the interview, as well as earlier in their life spans. The interviews will also ask participants to describe current food-related practices and challenges.

Once the interview questions have all been answered, the researcher will ask participants whether they would like to change or add to any of their responses. Once the participant confirms that they are satisfied with their responses, the audio recorder will be stopped, or the researcher will cease taking notes. This procedure will also be followed in the event that a participant chooses to end their interview before all questions have been answered.

Participant Compensation

Participants will be offered a $20 gift card to nearby grocery stores as a thank you for participation in the study. Participants can indicate the grocery store of their choice during initial correspondence with the researcher. The gift card will be offered at the beginning of each interview, and participants will be free to leave at any time but retain the gift card. That is, the gift cards will be provided to all participants, regardless of whether or not they decide to withdraw from the study. Participants will also be compensated for any costs related to transportation to and from the site of the interview, including parking costs, gas, and taxi and bus fares up to a cost of $20 per participant. The compensation can be provided at the time of the interview. Receipts and tickets will not be necessary, and cost calculations will be based on participant report. Compensation for travel will be provided even in the case that a participant withdraws from the study.

Privacy & Confidentiality

During data collection, participants' real names will never be recorded in official interviews, either in audio recordings or in notes taken. Interviews will be numbered and a pseudonym will be assigned to each interviewee. Any personal identifiers mentioned by participants in their interviews will not be transcribed, and will instead be replaced by general identifiers (e.g., 'local store').

All electronic data obtained in data collection will be kept on two password protected external hard drives, which will only ever be inserted into a password protected personal computer. The hard drives will be stored in a locked cabinet at the School of Health and Human Performance on the Dalhousie University campus. Any hard copies of data will also be kept there. The office will only be accessible by the researcher and her co-supervisors.

At the earliest possible date, all interview notes and audio recordings will be deleted or otherwise destroyed (e.g., shredded if in hard copy). The researcher's notes on data analysis will not be destroyed, as they will only be discussing data in aggregate form, and thus they will be at a reduced risk of revealing individual participant identities. The researcher will also delete all email correspondence between themselves and the participants, ensuring that emails are also deleted from the 'discarded' email folders. Other participant information collected throughout the research process (e.g., contact information) will also be stored on the external hard drives or in hard copy in the locked cabinet, and destroyed in the same manner as other data.

The study's data will only ever be discussed between the researcher and her thesis co-supervisors. Whenever possible, data will be discussed collectively, and references to individual responses will be limited. The real names of participants and the people and places in their interview responses will never be used during these discussions.

Participants will be referred to using pseudonyms in the presentation of data. If participants have given their consent to be quoted, their direct quotes may be used in any document sharing research findings, and these quotes will be attributed to the participant's assigned pseudonym. Any proper names (e.g., places, people) included in quotes will be replaced with object names (e.g., "local store," "participant's family member"). The researcher will keep direct quotes as short as possible, and paraphrase whenever possible in order to protect participants' identities.

Confidentiality will only be breached in the event that the participant reports an incidence of child or elder abuse. If a participant reports child or elder abuse, the lead researcher will immediately contact her supervisors to discuss what was said to ensure that this is a case of abuse. Child or elder abuse will be reported to the appropriate authorities.

Risk & Benefit Analysis

The primary ethical consideration of concern for this study is that of privacy and confidentiality. The TCPS2 Article 5 (2014) requires that researchers should safeguard participant information, ensuring that it is not misused or wrongfully disclosed. Furthermore, the nature of the study's subject matter may be sensitive, as it identifies participants as having experienced food insecurity and possibly poverty, or at least financial need. Participants are clearly described as food bank users throughout the research process, and thus any individual identified as a study participant would also be immediately identified as a food bank user. Given the small population size of the towns located in the region of interest, it may be easy for other locals to identify participants based on the information included in the study. Participants will be offering detailed narrative accounts of their personal lives, and should their stories mention other community members, there may also be a danger that locals will not only identify participants, but may also identify those described in participant stories.

The researcher will take a number of different precautions to preserve confidentiality wherever possible. Recruitment via the region's foodbanks will be organized in such a way that participants may simply collect a discreet pamphlet containing the researcher's contact information. The pamphlet will not advertise the research topic, although a poster advertising the study will be posted at the foodbank. The participants will be given the option selecting any public location of the interviews, which will allow them to identify a space in which they feel that their privacy will be adequately protected. The interview location should be a public space in order to account for the safety of the researcher, and the building should be able to offer a room with a closed door in order to maximize privacy during the interview. Possible locations may include libraries, community centres, and churches. Wherever possible, the researcher will avoid disclosing the reason for their use of the space.

The study will also seek to limit or reframe the perception of older female food bank users, avoiding any reference to food bank use or older womanhood as a deficit or failing. Wherever possible, the study will discuss the women's strengths and achievements in the face of challenges. By emphasizing the strengths and abilities of participants, the researcher will endeavour to celebrate their achievements, rather than displaying their struggles.

The communities implicated in the study also face some risk, as results which identify negative aspects of community life may stigmatize (or further stigmatize) a community. The community name will not be anonymized, because the rural communities may still be identified via participant stories and community contextual information. Contextual details of the communities are important to

understanding a research topic. The researcher will strive to highlight community strengths throughout the study.

There are no direct benefits to the participants of this study. Indirect benefits include making a contribution to new knowledge in an area of study which is largely unexplored. The study findings may help foodbanks and other organizations supporting food security in rural Canada (e.g., organizations hosting community dinners) to better serve the needs of rural older women by identifying the potential barriers this population faces in acquiring healthy food. The research may also help to inform food policy at the provincial and national levels (e.g., the Canadian National Food Policy currently in development) by providing researchers, public citizens, and policymakers with information about the lives of a demographic that is known to be at high-risk for food insecurity, but is poorly represented in existing data.

Receiving Research Results

A lay summary of the study will be provided to Feed Nova Scotia, as well as the food banks which assist with recruitment, and other food banks in the Pictou-Antigonish-Guysborough region. The full thesis document will be offered and provided if requested. The researcher will also attend the annual Feed Nova Scotia Day of Sharing meeting held in May 2018. The findings shared with Feed Nova Scotia will report the needs of older women in rural areas of the province, with regard to accessing food and food-related services such as foodbanks. The report may include individual quotes or stories, but these will be anonymized.

The data will also be shared with primary health care providers, in an effort to support primary care for older adults. The research may be presented at forums such as the Primary Health Care Research Day (hosted annually in Halifax by Collaborative Research in Primary Health Care), and the annual Food Secure Canada assembly. Primary health care providers will benefit from an improved understanding of older women's experiences of food insecurity, as well as their capacity to address related health outcomes. For example, some older women may face negative health outcomes due to poor nutrition, but they may not be able to afford a healthier diet. In cases such as these, primary health care providers should understand that nutritional recommendations may not always be helpful if the woman cannot afford or access healthy food.

Finally, participants will be given the option of receiving a condensed report on the study's findings, the full thesis manuscript, or both documents. These documents will be provided to them through their choice of either email, or mail delivery to an address they have listed on the consent form. If requested, both documents will be sent to participants after the thesis has been successfully defended.

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APPENDIX D: Form Confirming Food Banks' Assistance in Recruitment

I _____ consent to allow Madeleine McKay, Master's student at Dalhousie University, to post a poster and pamphlets recruiting participants for her thesis study in my foodbank, [insert name of foodbank]_____.

Date: _____

Signature: _____

APPENDIX E: Participant Recruitment Poster

Research Participants Needed

for a study on **food security**

- Are you a woman over 65?
- Do you currently live in the Pictou-Antigonish-Guysborough region of Nova Scotia?
- Have you used a food bank in the last 5 years?

If you are interested in sharing your experiences accessing food in an interview **(in-person in your community, or over the phone),** please contact us at:

Phone: (902) 223-0551

If you are concerned about long-distance fees when calling to Halifax, please call collect.

Email: madeleine.mckay@dal.ca

Participants will be provided with a $20 gift card to the food retailer of their choice, as a thank-you for taking part. Transportation costs for in-person interviews covered up to $25.

APPENDIX F: Participant Recruitment Pamphlet

Research Participants Needed

I am conducting a study on food security. We are looking for participants who:

- Are women over 65
- Currently live in the Pictou-Antigonish-Guysborough region of Nova Scotia
- Have used the foodbank in the last 5 years

Participants will be provided with a $20 gift card to the food retailer of their choice. Transportation costs for in-person interviews covered up to $25.

If you are interested in sharing your experiences accessing food in an interview **(in-person in your community, or over the phone),** please contact us at:

Phone: (902) 223-0551

If you are concerned about long-distance fees when calling to Halifax, please call collect.

Email:
madeleine.mckay@dal.ca

APPENDIX G: Interview Guide

Socio-Demographic Questions

1. How long have you lived in this area?
2. (If applicable): Where did you live before moving here?
3. Is your family nearby?
4. Do you live alone or with others now?

Theme: Experiences with food into adulthood.

5. Can you tell me about the types of foods you ate on a typical day in your childhood?
    a. Can you tell me a story about a time it was hard to get [foods discussed earlier]?
    b. [Probe: Can you tell me any stories about what you did to get enough food during that time/those times?]
    c. Do you feel like the stories you've shared reflect your experiences throughout your childhood?

Theme: Experiences with food into adulthood.

6. Can you tell me about the types of foods you ate on a typical day when you were a younger adult?
    a. Can you tell me a story about a time it was hard to get [foods discussed earlier]?
    b. [Probe: Can you tell me any stories about what you did to get enough food during that time/those times?]
    c. Do you feel like the stories you've shared reflect your experiences throughout your younger adulthood?

Theme: Experiences with food as an older adult.

7. Can you share any recent stories about times that it was hard for you access food? [Probe: Can you describe any barriers you've faced trying to get enough food?]
8. Can you share with me some examples of your experience with using the food bank [positive, negative, or both]? In your opinion, what do you think can be done to ensure such positive experiences happen regularly? What do you think could be done to ensure that these types of negative experiences don't happen?
    a. How have these positive or negative experiences affected your well-being?
9. Are there things that you do other than visiting the foodbank to make sure you have enough food? Can you tell me any stories about them?

a. [Probe: Do you ever use canning, preserving, growing foods, sharing foods, community dinners etc. as a way of getting enough food?]

b. [Probe: Can you tell me about a time when one of these activities had a positive or negative effect on your well-being?]

c. How could your experience of accessing food outside of the food bank be improved?

10. A lot of health research tells us that what we eat can affect our health. Can you tell me about how you think the foods you eat from the food bank might affect your health?
    a. When you are able to get foods from places other than the food bank [probe: you mentioned earlier that you get foods from X, Y and Z places], how do you think these foods affect your health?
    b. [Probe: Is your mental, emotional, or social health and well-being affected?]
11. Is there anything else you want to share about how you get your food, or any challenges you've faced getting food?

APPENDIX H: Consent Form

DALHOUSIE UNIVERSITY

CONSENT FORM

Project title: Food Insecurity among Older Women: The Rural Nova Scotian Experience

Lead researcher:

Madeleine McKay, Dalhousie University
madeleine.mckay@dal.ca
(613)-770-3087

Other researchers (Co-supervisors):

Debbie Martin, Dalhousie University
debbie.martin@dal.ca
(902) 494-7717

Lois Jackson, Dalhousie University
lois.jackson@dal.ca
(902) 494-1341

Introduction

We invite you to take part in a research study being conducted by myself (Madeleine McKay), a student at Dalhousie University Masters of Arts in Health Promotion. Choosing whether or not to participate in this research is entirely your choice. There will be no impact on your ability to use the food bank's services if you decide not to participate in the research. The information below tells you about what is involved in the research, what you will be asked to do, and about any benefits, risks, inconveniences or discomforts that you might experience.

You should discuss any questions you have about this study with either myself (Madeleine) or my thesis supervisors, Debbie Martin and Lois Jackson. Please ask as many questions as you like. If you have questions later, please contact me, the lead researcher.

Purpose and Outline of the Research Study

When people cannot find, buy, or prepare nutritious food, they are considered to be food insecure. This study will be exploring older women's experiences of food insecurity in rural Nova Scotia. It will look at the ways in which food insecurity can impact older women's health and well-being, physically, mentally, and emotionally. It will investigate the strategies these women use to get the food they need.

The study plans to recruit eight to ten women who use foodbanks in one rural region of Nova Scotia. They will be asked to participate in a one-to-two-hour interview. They will be asked questions about their experiences accessing food. The lead researcher will analyze these women's responses, and look for common themes. These themes will be discussed and presented in a thesis manuscript, in a condensed report to the study participants, in a report to Feed Nova Scotia, and in a report to any other organizations interested in the study's findings, such as Food Secure Canada. The study's findings can provide useful information to organizations and institutions serving and assisting older women in rural Canada. The findings could help develop new and better policies related to food security and nutritional health for older in women in Nova Scotia and in rural areas in Canada.

Who Can Take Part in the Research Study

You can participate in the study if you are a female aged 65 years and older who currently lives in the Pictou-Antigonish-Guysborough region of Nova Scotia, and has used a food bank at least once within the past five years. You must have lived in the Pictou-Antigonish-Guysborough region of Nova Scotia for the majority of your adult life. It is up to you to decide whether you meet this requirement.

What You Will Be Asked to Do

You will be asked to participate in one interview lasting a maximum of two hours. In-person interviews will take place in the local public space of your choice, for example, a public library, a community centre, or a church. The space should be able to provide us a room that has a door we can close for privacy during the interview. Interviews can also happen over the telephone. You will be asked to describe your experiences accessing food throughout your life, including

activities like shopping, growing, and cooking food. You will also be asked to describe how access to food affects your health and well-being, for example, whether you feel physically unwell if you are not able to get the food you need. You can refuse to answer any questions.

Possible Benefits, Risks and Discomforts
Participating in the study might not benefit you, but we might learn things that will benefit others. The study's findings could help people in Nova Scotia understand how and why older women in the province's rural areas might have difficulty getting enough healthy food to eat. Understanding this will help people and organizations in Nova Scotia (such as foodbanks) to provide older women with better services that suit their needs.

The risks associated with this study are minimal. That said, there is a risk that the study could jeopardize your privacy and anonymity in the community, since the study is about a specific population in a small geographical area. What you say may be linked to you personally even though your name will not be used. Also, in the unlikely event that we suspect child or elder abuse, we are required to contact authorities, and reveal your identity. If you report child or elder abuse, the lead researcher (Madeleine) will inform her supervisors (Lois and Debbie) and immediately contact the correct authorities.

We will try to address these risks whenever we can. Your real name will never be used during the research process. When we share the study's findings, we will use paraphrase you as much as possible to reduce the risk of having people identify you or the people who mention in your responses. Your interview responses will be well protected, and deleted or destroyed once they are not needed anymore.

Compensation / Reimbursement
All participants will be offered a $20 gift card for a local grocery store as a thank you for their time and effort. You will be offered this thank-you gift even if you decide to withdraw your participation from the study. Participants who are interviewed in-person will also be compensated up to $25 for any costs related to transportation to and from the interview site, including parking costs, gas, and taxi and bus fares. Participants interviewed over the telephone will not receive travel compensation.

How your information will be protected:
Once you agree to participate in the study, you will be assigned a participant number and a pseudonym. Your number or pseudonym will be used to refer to you throughout the entire research process. Your contact phone number or email address will be kept until the researcher has completed all the interviews needed for the research. The signed consent forms will be kept in a locked cabinet in the researcher's home until the research is over. Then, they will be moved to a locked cabinet at the School of Health and Human Performance on the Dalhousie University campus, and destroyed by the researcher or her thesis supervisors after five years. If you choose to fill out the request for study information form so that we can send you the study results, this form will be kept in the locked cabinet at the researcher's home until the study is

done, and we can mail you the results. After the study results are mailed, these forms will be destroyed by the researcher.

During interviews, your responses will either be audio recorded, or the researcher will take notes on your responses to the interview questions. At the end of the signature page, you will be given the option to refuse to have your interview audio recorded. If this is the case, the researcher will take notes instead. The notes or recordings will be destroyed once they have been transcribed. During data analysis, the transcribed interviews and interview notes will be kept in a locked cabinet at the researcher's home. Once the study is over, data will be stored in a locked cabinet in the office of thesis co-supervisor Dr. Debbie Martin at the School of Health and Human Performance on the Dalhousie University campus, and destroyed by the researcher or Dr. Martin after five years.

During the research process, your interview may be discussed with the researcher's (Madeleine's) thesis supervisors, and the thesis committee members. Your real name will never be used in these discussions. Also, any documents or presentations that share the study's findings will use your pseudonym.

If You Decide to Stop Participating
You are free to leave the study at any time. If you decide to stop participating at any point in the study, you can also decide whether you want any of the information that you have contributed to the study up to that point to be removed, or if you will still let us use that information. You will have up to one week to make this decision. After one week, it will become impossible for us to remove it because it will already be analyzed and incorporated into the thesis.

How to Obtain Results
We will provide you with a short summary of the study when the study is finished. You can also request a copy of the full thesis manuscript. You can also indicate whether you would like a copy of the thesis by checking "yes" or "no" when prompted at the end of the signature page.

Questions
We are happy to talk with you about any questions or concerns you may have about your participation in this research study. Please contact Madeleine McKay (at 902-223-0551, madeleine.mckay@dal.ca), Debbie Martin (at 902-494-7717, debbie.martin@dal.ca) or Lois Jackson (at 902-494-1341, lois.jackson@dal.ca) at any time with questions, comments, or concerns about the research study. We will also tell you if any new information comes up that could affect your decision to participate.

If you have any ethical concerns about your participation in this research, you may also contact Research Ethics, Dalhousie University at 902-494-1462, or email: ethics@dal.ca (and reference REB file # 2017-4259).

Signature Page: In-person Interview

Project Title: Food Insecurity among Older Women: The Rural Nova Scotian Experience

Lead Researcher: Madeleine McKay, Dalhousie University

I, _____ (your name), agree to the following:

I have read the explanation about this study. I have been given the opportunity to discuss it with the researcher, and my questions have been answered to my satisfaction.

I understand that I have been asked to take part in an interview that will occur at a location that is acceptable to me.

I agree to take part in this study. I realize that my participation is voluntary and that I am free to withdraw from the study at any time, until 1 week after my interview is completed.

_____	_____	_____
Name	Signature	Date

I agree that my interview may be audio-recorded ☐Yes ☐No

IF NO: I agree to have notes taken of what I say ☐Yes ☐No

I agree that direct quotes from my interview may be used without identifying me ☐Yes ☐No

_____	_____	_____
Name	Signature	Date

Signature Page: Telephone Interview

Project Title: Food Insecurity among Older Women: The Rural Nova Scotian Experience

Lead Researcher: Madeleine McKay, Dalhousie University

_____ (participant name) has verbally agreed to the following:

They have read the explanation about this study. They have been given the opportunity to discuss it with the researcher, and their questions have been answered to their satisfaction.

They understand that they have been asked to take part in an interview that will occur over the telephone.

They agree to take part in this study. They realize that their participation is voluntary and that they are free to withdraw from the study at any time, until 1 week after their interview is completed.

_____ _____
Researcher's Signature Date

They agree that their interview may be audio-recorded ☐Yes ☐No

IF NO: They agree to have notes taken of what they say ☐Yes ☐No

They agree that direct quotes from their interview may be used without identifying them ☐Yes ☐No

_____ _____
Researcher's Signature Date

APPENDIX I: Dalhousie REB Approval Letter

DALHOUSIE UNIVERSITY
Research Services

Social Sciences & Humanities Research Ethics Board
Letter of Approval

September 13, 2017

Madeleine McKay
Health\Health & Human Performance

Dear Madeleine,

REB #: 2017-4259
Project Title: Food Security among Older Women: The Rural Nova Scotian Experience

Effective Date: September 12, 2017
Expiry Date: September 12, 2018

The Social Sciences & Humanities Research Ethics Board has reviewed your application for research involving humans and found the proposed research to be in accordance with the Tri-Council Policy Statement on *Ethical Conduct for Research Involving Humans.* This approval will be in effect for 12 months as indicated above. This approval is subject to the conditions listed below which constitute your on-going responsibilities with respect to the ethical conduct of this research.

Sincerely,

[redacted]
Dr. Karen Beazley, Chair

APPENDIX J: Request for Study Information

Request for Study Information

I would like a copy of the *thesis report*

☐Yes (by email) ☐Yes (mailed to address listed below) ☐No

I would like a copy of the *full thesis*

☐Yes (by email) ☐Yes (mailed to address listed below) ☐No

Mailing Address: _____

_____

_____

Email Address: _____