



Voices for
Food Security in Nova Scotia



CAN NOVA SCOTIANS AFFORD TO EAT HEALTHY?

Report on 2015 Participatory Food Costing



**A PROJECT OF THE FOOD ACTION RESEARCH CENTRE (FOODARC)
AT MOUNT SAINT VINCENT UNIVERSITY AND
VOICES FOR FOOD SECURITY IN NOVA SCOTIA,
IN PARTNERSHIP WITH COMMUNITY AND UNIVERSITY PARTNERS.
FUNDING SUPPORT PROVIDED BY
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Sincerest thanks to the women who participated as food costers and the others who have guided and carried out the important research that we highlight in this report. We are also grateful to the members of the Voices Management Team, and Advisory Committee, for their contributions to this report. This work follows six previous food costing reports that, together, illustrate important trends with respect to access to a basic healthy diet in Nova Scotia. We hope it continues to inform evidence-based policy solutions to improve the health and well-being of all Nova Scotians.

Many thanks also to Dr. Ilya Blum for his continued support with sampling and data analysis. Thanks to our funder, the Nova Scotia Department of Health and Wellness, for its continued support of this project. We also sincerely appreciate the grocery stores throughout Nova Scotia who participated; their cooperation is important to this research.

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And, as always, thank you to the dedicated staff and volunteers at FoodARC and its many partner organizations, institutions, and community-based groups listed on page 41. Your efforts in every capacity and your ongoing commitment to make change towards healthy, just and sustainable food systems for all, in Nova Scotia and beyond, makes the collaborative, participatory, community-based research that we do possible.

Sincerely,

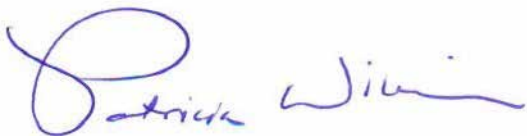
A handwritten signature in blue ink, reading "Patricia Wilkin". The signature is fluid and cursive, with the first name "Patricia" written in a larger, more prominent script than the last name "Wilkin".

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GLOSSARY OF TERMS

IMPORTANT WORDS AND PHRASES TO HELP YOU UNDERSTAND THIS REPORT

Average income. The average amount of money earned by a household in Canada. The average is found by adding up all the incomes surveyed and dividing the total by the number of household incomes surveyed.

Basic nutritious diet. Means the same as National Nutritious Food Basket (NNFB). (Please see below).

Canada Child Benefit (CCB). A tax-free monthly payment to eligible families with children under 18 years. The CCB is a benefit from the Government of Canada. It can also include the Child Disability Benefit or provincial benefits (like the Nova Scotia Child Benefit). This payment has replaced the Canada Child Tax Benefit (CCTB) and the Universal Child Care Benefit (UCCB) as of July 1st, 2016. For more, see <http://www.cra-arc.gc.ca/bnfts/ccb/menu-eng.html>.

Canada Child Tax Benefit (CCTB). A tax-free monthly payment that was made to eligible families with children under 18 until it was replaced by the CCB on July 1st, 2016. For more, see <http://www.cra-arc.gc.ca/cctb/>.

Canada Pension Plan (CPP). Almost every Canadian between ages 18 and 70 years who has a job pays into the Canada Pension Plan (CPP) and can receive a full retirement pension when they are 65. It can also be received as early as age 60 at a reduced amount or as late as age 70 with an increased amount. Only people who pay into CPP can receive it. The average monthly CPP for retired persons in July 2015 was \$640.23.

Disposable Income. The amount of money you have left after paying taxes and paying for the things you need, like food, clothes, and shelter.

Employment Insurance (EI). A federal social program in Canada that helps workers when they do not have a job by paying them a weekly benefit based on their recent earnings. Employees, employers, and the federal government pay into the program. For more, see http://www.servicecanada.gc.ca/eng/ei/menu/what_is.shtml.

Employment Support Services (ESS). Helps employable people on Income Assistance get a job. Provided by the provincial Department of Community Services, services could include education, volunteering, training, and/or part-time work. For more, see http://novascotia.ca/coms/employment/employment_services/.

Food coster. A person on the research team (in this research, a community member with experience of food insecurity) who is trained to collect information – data – on the cost of a basic nutritious diet in grocery stores throughout Nova Scotia for the Participatory Food Costing Reports and may participate in other stages of the research process.

Food Security. When all people, at all times, can get the food they need to be healthy and active. This means they have enough money to buy good food, and that there is good food available close to where they live. Related terms include community food security, food democracy, food justice, and food sovereignty. For more, see <http://www.fao.org/docrep/005/y4671e06.htm>.

Guaranteed Basic Income. A basic income would ensure that everyone in Canada has an adequate level of income to meet basic needs with dignity. For more information see <http://www.basicincomecanada.ca>.

Guaranteed Income Supplement (GIS). A federal Old Age Security benefit (see OAS). The GIS is a monthly non-taxable benefit that may be added to the OAS pension for people with a low income. For more, see <http://www.esdc.gc.ca/en/cpp/oas/gis/index.page>.

Income Assistance. A provincial government program that provides people in financial need with assistance with basic needs such as food, rent, utilities, power, clothing. It may also help with childcare, transportation, prescription drugs, emergency dental care, and eye glasses. For more, see http://novascotia.ca/coms/employment/income_assistance/.

Low-income cut-off (LICO). When a family has a low income, they are likely to spend a larger share of it than a family with average income on necessities like food, shelter, and clothing. The LICO is the threshold at which families are expected to spend 20 percent more of their income than the average family on necessities. For more, see <http://www.statcan.gc.ca/pub/75f0002m/2009002/s2-eng.html>.

Median income. The median is the middle number in a list of numbers. In a list of household incomes, the median would be the amount in the middle, where half the numbers are lower and half the numbers are higher.

Minimum wage (Nova Scotia). The lowest rate of hourly pay legally allowed in Nova Scotia. As of April 1st, 2016, it is \$10.70 per hour for experienced employees and \$10.20 per hour for inexperienced employees. This applies to employees working 48 hours or fewer per week. For more, see <http://novascotia.ca/lae/employmentrights/minimumwage.asp>.

National Nutritious Food Basket (NNFB). A description of almost 70 foods (type and quantity) that can make up a nutritious diet for people of different age and sex categories, including pregnancy and lactation. It was created to show the cost of a nutritious diet in Canada. For more, see <http://www.hc-sc.gc.ca/fn-an/surveill/basket-panier/index-eng.php>.

Nova Scotia Health Authority (NSHA). As of April 1st, 2015, health care in Nova Scotia is provided by one health system. It replaced nine district health authorities. The NSHA is divided into four management zones: Eastern (Zone 3), Northern (Zone 2), Southern (Zone 4), and Western (Zone 1). For more, see <http://novascotia.ca/dhw/about/nova-scotia-health-authority.asp>.

Old Age Security (OAS) pension. The OAS is a monthly payment from the Government of Canada given to most Canadians 65 and older. It is taxable and available regardless of employment history or status. For more, see <http://www.esdc.gc.ca/en/cpp/oas/index.page>.

Participatory food costing. Process that applies a participatory research approach to examine and understand factors that impact access to a healthy diet in Nova Scotia. Unique to Nova Scotia, this means that people, primarily women, who have experience of food insecurity participate in all key stages of the research process, working collaboratively with partners in public health, community organizations, universities, and government.

Reference household of four. In this report, a reference household includes two adults (age 31 to 50), one boy (age 13), and one girl (age 7), and represents an average household.

Rural and urban. For this research, rural means areas with a population of 10,000 people or fewer outside the commuting zone of urban centres. Urban means a community with a population greater than 10,000 people.

Universal Child Care Benefit (UCCB). The UCCB is a taxable benefit for families with children under 18 years, no matter what their income. It was introduced in 2006 and replaced by the CCB as of July 1st, 2016. For more, see <http://www.cra-arc.gc.ca/uccb/>.

Introduction

PURPOSE OF THIS REPORT

Food insecurity is one of the most serious public health concerns facing Nova Scotians. **Nova Scotia has the highest rate of food insecurity among all Canadian provinces, despite being** a province rich with food resources. **Only Canada's Northern territories have greater food insecurity** (Tarasuk, Mitchell, & Dachner, 2016). Rates of food insecurity have been high since 2005, reaching a peak in 2013 with at least 18.4% of Nova Scotians experiencing food insecurity (Tarasuk, Mitchell, & Dachner, 2015b). Although the level of food insecurity in Nova Scotia dropped a bit in 2014, **one in six households** or 15.4% still experience food insecurity (Tarasuk, Mitchell, & Dachner, 2016). This leaves many people in Nova Scotia households struggling to afford healthy food. It is critical that we work together to address this problem; our health and social and economic well-being in Nova Scotia depends on it.

Unique to Nova Scotia, **participatory food costing (PFC)** uses a participatory research approach to examine access to a healthy diet in Nova Scotia. This means that people, primarily women, who have experience of food insecurity participate in all key aspects of the research process, including doing training on and conducting surveys in grocery stores on the cost of and access to a basic nutritious diet. To complete this research, strong and lasting partnerships have formed between FoodARC and Family and Women's Resource Centres, people who have experienced food insecurity, government, universities, and community organizations. Together, we look at the evidence and learn about the cost and affordability of a basic nutritious diet in Nova Scotia for different types of households. Then, we use the information to influence social and policy change to support healthy, just, and sustainable food systems for all Nova Scotians with a focus on addressing root causes.

In this report, we look at what it costs for people and households in Nova Scotia to eat a basic nutritious diet. We compare the monthly cost of a standardized food basket, the **National Nutritious Food Basket (NNFB)** and other essential household expenses, to the incomes of households of different sizes and types to answer this question:

CAN NOVA SCOTIANS AFFORD TO EAT A HEALTHY DIET?

The report shows how hard it is for many Nova Scotians to meet their basic needs, including healthy food. It also looks at how certain changes in government policy could reduce food insecurity and build a brighter, healthier, and more resilient future for all Nova Scotians.

This report has been prepared as part of **Voices for Food Security in Nova Scotia**. **Voices** is a community-university participatory action research project of the Food Action Research Centre (FoodARC) at Mount Saint Vincent University (MSVU) in Halifax, Nova Scotia. The research is funded by the Nova Scotia Department of Health and Wellness. It was started to monitor the cost and affordability of a basic nutritious food basket and to discover policy changes needed to help people have food security. This is the seventh report in a series of Participatory Food Costing cycles that began in 2002 and are completed about every two to three years in Nova Scotia. Each report has looked at the cost and affordability of a nutritious diet and has offered insights into policy proposals that can strengthen food security in our province.

Food costing is a tool used across the country to examine trends and identify priorities for building household food security. It helps us understand the risks households face when they don't have enough money to buy healthy food. It also allows us to examine the potential success of certain income support policies and benefits. Being able to collect and analyze similar data year after year is very important because it helps us understand how the risk of food insecurity changes over time. Food costing

data strengthen our argument for evidence-based policy change. It has been an important tool to advocate for food security for all Nova Scotians, and to inform needed policy changes.

But PFC does much more than other, more conventional ways of doing food costing. Working collaboratively with partners within communities, including those with lived experience of food insecurity, and with organizations and groups that can have an influence on the issue, we aim to:

- 1) Understand and explain lived experiences of, and potential solutions to, food insecurity;
- 2) Connect people's experiences to opportunities for change;
- 3) Foster civic engagement and critical thinking on food security;
- 4) Improve the capacity of people and organizations for research and action to make change, and critically examine what works, what does not work, how, and why;
- 5) Place our efforts within national and global context and perspectives; and
- 6) Co-create and mobilize knowledge to improve networks and shape ways that create conditions for healthy, just, and sustainable food systems for all (Williams, 2014).

What is food insecurity?

In this report we focus on **household food insecurity**. This is how food insecurity is measured in Canada. It means that members of a household have inadequate or insecure access to healthy food due to financial constraints (Tarasuk, Mitchell, & Dachner, 2014). Community food security, food justice, and food sovereignty are related to household food security but it is important to understand that these are not the same thing. Community food security means that all people in a community experience food security through a food system that is sustainable, fair, and does not create unhealthy dependencies in how it is produced, harvested, processed, and distributed (e.g. as in the case of food banks or food aid). Household food insecurity is an

What does household food insecurity look like?

We use the terms severe, moderate, and marginal to describe different levels of food insecurity.

Severe food insecurity means that members of a household may miss meals, reduce how much food they eat, and/or go days without food.

Moderate food insecurity means that they may compromise the quality or quantity of their food.

Marginal food insecurity means that they worry about running out of food and/or limit the variety of foods they choose.

Households in any of these situations experience **food insecurity, a key indicator of material deprivation**. In other words, they do not have all the things they need to live a healthy life and take part in work and social activities. This puts them at risk for serious health, economic, and social problems (Tarasuk, Mitchell, & Dachner, 2014).

essential part of **community food security**. Making sure everyone can get healthy and affordable food goes hand in hand with building healthy, just, and sustainable food systems. Community food security takes into account whether and how households have access to enough healthy food, as well as how that food is made and accessed. Food justice acknowledges that access to healthy food is one more place that people experience systemic oppression and that food is not a neutral issue. Food sovereignty speaks to our right to control our own food systems, including markets, ways of producing food, food cultures, and food environments.

FOOD INSECURITY IS A SIGNIFICANT PROBLEM IN NOVA SCOTIA HOUSEHOLDS

Where you live shapes who you are. Place, whether it's rural or urban, affects what services you are near, where you shop, the schools you attend, and the jobs you can do. Research has explored how your ability to get to a supermarket, community garden, and other food retailers and resources affects your access to healthy food. Socioeconomic status (social and economic position) and social capital (network of relationships) may also affect the ability of people and communities to deal with household food insecurity (Carter, Dubois, & Tremblay, 2013).

15.4% of Nova Scotians or 60,100 households experienced food insecurity in 2014. The levels of deprivation were high with 3.8% experiencing severe and 6.0% experiencing moderate food insecurity. Another 5.6% experienced marginal food insecurity (Tarasuk, Mitchell, & Dachner, 2016).

22% of children in Nova Scotia lived in food insecure households in 2014. While we don't know rates of food insecurity in individual communities in Nova Scotia, the child poverty rate in Cape Breton is 32.4% (Frank, 2015b), suggesting that some communities are more vulnerable to food insecurity than others.

23,840 people in Nova Scotia visited food banks in March 2016, 30.4% of whom were children. This is an increase of 40.9% since 2008 (Food Banks Canada, 2016). Moreover, it is important to note that fewer than 1 in 4 people who experience food insecurity actually use food banks, which means that food bank statistics seriously underestimate the problem (Kirkpatrick & Tarasuk, 2009).

A 2011 study found that 25.6% of grade 5 students in Nova Scotia lived in households experiencing food insecurity. 8.3% reported marginal, 10.2% reported moderate, and, 7.1% reported severe food insecurity (Kirk et al., 2014).


Food insecurity is a serious and growing problem in Canada and Nova Scotia. We also know that some people are at particular risk of food insecurity. Rates of food insecurity are not reported for Nova Scotia by socio-demographics, but we know households that experience higher rates of food insecurity at a national scale also experience higher rates on a provincial scale. Low-income is the strongest predictor of food insecurity. National data consistently show that households with children; lone parent woman-headed households; recent immigrants; Indigenous peoples, particularly in Northern and remote communities; Black and other racialized populations; households relying on Income Assistance, Employment Insurance, or Workers' Compensation; and those who rent rather than own their own homes are at greater risk of food insecurity compared with the general population (Tarasuk, Mitchell, & Dachner, 2016; Dietitians of Canada, 2016; Matheson & McIntyre, 2014).

The Nova Scotia Regional Health Survey 2008-2010, a source of information about Indigenous peoples living on reserve, reported that the food security statement, "the food we bought just didn't last and we didn't have the money to get more" was "often true" for 9.6% of adults and "sometimes true" for 35.2% of adults (Union of Nova Scotia Indians, 2016). Other research has shown that working does not necessarily safeguard households from food insecurity. Earners report multiple jobs and racialized minority workers report disproportionately higher levels of food insecurity (McIntyre, Bartoo, & Herbert Emery, 2014). People struggling with chronic disease or mental health and substance use are also more likely to experience food insecurity and/or poverty (Dietitians of Canada, 2016).

To learn more about food security, visit www.foodarc.ca.

WHAT'S AT STAKE?

The consequences of food insecurity not only impact the physical, mental, and social health of individuals, there are also serious costs for their families and communities (McIntyre & Glanville, 2003; McIntyre, 2003; Hamelin, Habicht, & Beaudry, 1999). ¹Not enough food, or not enough of the right food, means we can't support and maintain health. Food insecurity has a circular effect. It is a result of poor health and well-being, and it is also a significant contributing factor to poor health and well-being. Food insecurity adds to higher rates of poor oral health, chronic disease, stress, depression, and social isolation (Gucciardi et al., 2009; Fuller-Thomson & Nimigon, 2008; Muirhead et al., 2009). Research has shown that people who experience food insecurity also usually report “long-term physical and/or mental disabilities that limit activity at home, work or school; multiple chronic conditions; and major depression” (Roshanafshar & Hawkins, 2015) among other challenges.



*“When I think
of food security,
I think more of feeling
self-assured and feeling
[...] safe and feeling that,
‘Okay, I am going to
have enough money
this month to feed
my kids.’”*

(Williams et al., 2012c, pg. 257)

Food insecurity is hard on children. It can threaten healthy infant development, cognitive abilities, academic performance, and social skills (McIntyre, 2003; Power, 2005; Public Health Agency of Canada, 2004; Howard, 2011). In other words, food insecurity affects how children learn in school and how well they relate to others. This has long-lasting effects on their physical, mental, and emotional development. Children who live with food insecurity over time suffer long-term consequences,

including higher rates of chronic conditions, depression and suicide ideation, and asthma (McIntyre et al., 2013; Kirkpatrick, et al., 2010). It is not a surprise to find that people living with food insecurity use the health care system more often than those who are food secure. This leads to higher health care costs (Fitzpatrick, et al., 2015), at a 76% higher cost to public funds (Tarasuk et al., 2015a), and a multitude of other far reaching consequences on social and economic well-being for our children and potentially future generations.

Two main mechanisms, the Universal Declaration of Human Rights and the International Covenant on Economic, Social and Cultural Rights, conclude that “Canada has a legal obligation to respect, protect and fulfill the right to food” (Food Secure Canada, 2012; see United Nations, 1948 and United Nations, 1966). The most recent review by the Committee on Economic, Social and Cultural Rights (2016) supports the development of a national food policy in Canada, citing concerns about persistent rates of food insecurity. It recommends Canada’s national food policy be rights-based and especially consider the places with high rates of food insecurity as well as implement recommendations by the Special Rapporteur on the Right to Food from 2012.

Even though food prices are rising, Canada’s main food system is part of a global one based on cheap food (Davison, 2011; Seccombe, 2007). In recent years, the cost of foods produced from highly subsidized crops like corn, wheat, and soy has gone down drastically. The incomes of local farmers and fishers have been declining over the past 40 years, and due in part to competition from lower-priced imported goods, many food producers in Nova Scotia already struggle to make a living (Activating Change Together for Community Food Security, 2014; Ecology Action Centre, 2016). For this reason, we know that lowering food prices is not a fair or sustainable option. We cannot talk about high food prices and low incomes without talking about how farmers, fishers, and people preparing and serving food in the retail food industry are also struggling to meet their basic needs, including a nutritious diet. Advocating for local food systems must also include accessibility and affordability for different

¹To learn more about the health impacts of food insecurity, see Thought About Food? (2006). <http://foodthoughtful.ca/>

kinds of households. Family composition, geography, income, sex, gender, sexual orientation, race, class, age, ability, and immigrant status, must all be considered as intersectional identities.

We need a broad strategy for tackling household food insecurity that builds healthy, just, and sustainable food systems for all as a cornerstone of healthy communities. It is also important to continue monitoring the affordability of a nutritious diet. This is one way to ensure that all Nova Scotians have access to a healthy diet for generations to come.

The new federal government has included food policy across many of its mandates. This shows how food policy cuts across many issues and challenges, is embedded in our lives, and affirms the appropriateness of a national food policy. For example, there are references to food policy in the mandates of the Ministers of Agriculture; Health; Indigenous and Northern Affairs; Families, Children and Social Development; Infrastructure and Communities; Environment; Fisheries, Oceans and the Canadian Coast Guard; and Public Services and Procurement (Food Secure Canada, n.d.). Food Secure Canada (n.d.) has already shared these goals:

- “Lead the development of a Canadian Poverty Reduction Strategy that would set targets to reduce poverty and measure and publicly report on progress” (Minister of Families, Children and Social Development); and
- “Develop a food policy that promotes healthy living and safe food by putting more healthy, high-quality food, produced by Canadian ranchers and farmers, on the tables of families across the country” (Minister of Agriculture).

Part of the Health Minister’s mandate has also been a Healthy Eating Strategy for Canada that involves improving Canada’s Food Guide and nutrition labeling, reducing sodium in food, getting rid of industrially-produced trans fats, limiting marketing of unhealthy food and drinks to children, and improving the Nutrition North program (Food Secure Canada, 2016).

Research Question: **CAN NOVA SCOTIANS AFFORD TO EAT HEALTHY IN 2015?**

Given the impacts of the global economic recession over the last decade, as well as recent increasing food prices in Nova Scotia, it comes as no surprise that the cost of a basic nutritious diet has increased. But has the income of Nova Scotians increased enough to keep pace with food costs and the cost of living? What policy changes should our Nova Scotian and Canadian governments consider to ensure access to a basic nutritious diet for all Nova Scotians, and indeed Canadians? What is the potential impact that key policy levers could have on ensuring that a basic nutritious diet is within reach for every household in our province? These are the questions we explore in this PFC report.

Methods: HOW WAS PARTICIPATORY FOOD COSTING DONE IN NOVA SCOTIA IN 2015?

COLLECTING LOCAL INFORMATION ABOUT THE COST OF A BASIC HEALTHY DIET

We carried out PFC in 21 grocery stores throughout the four Nova Scotia Health Authority zones in June 2015. We

What is the National Nutritious Food Basket?

The NNFB is a basket containing 67 food items. It can be used to figure out the cost of a basic nutritious diet for people of different ages and sex, including during pregnancy and lactation.

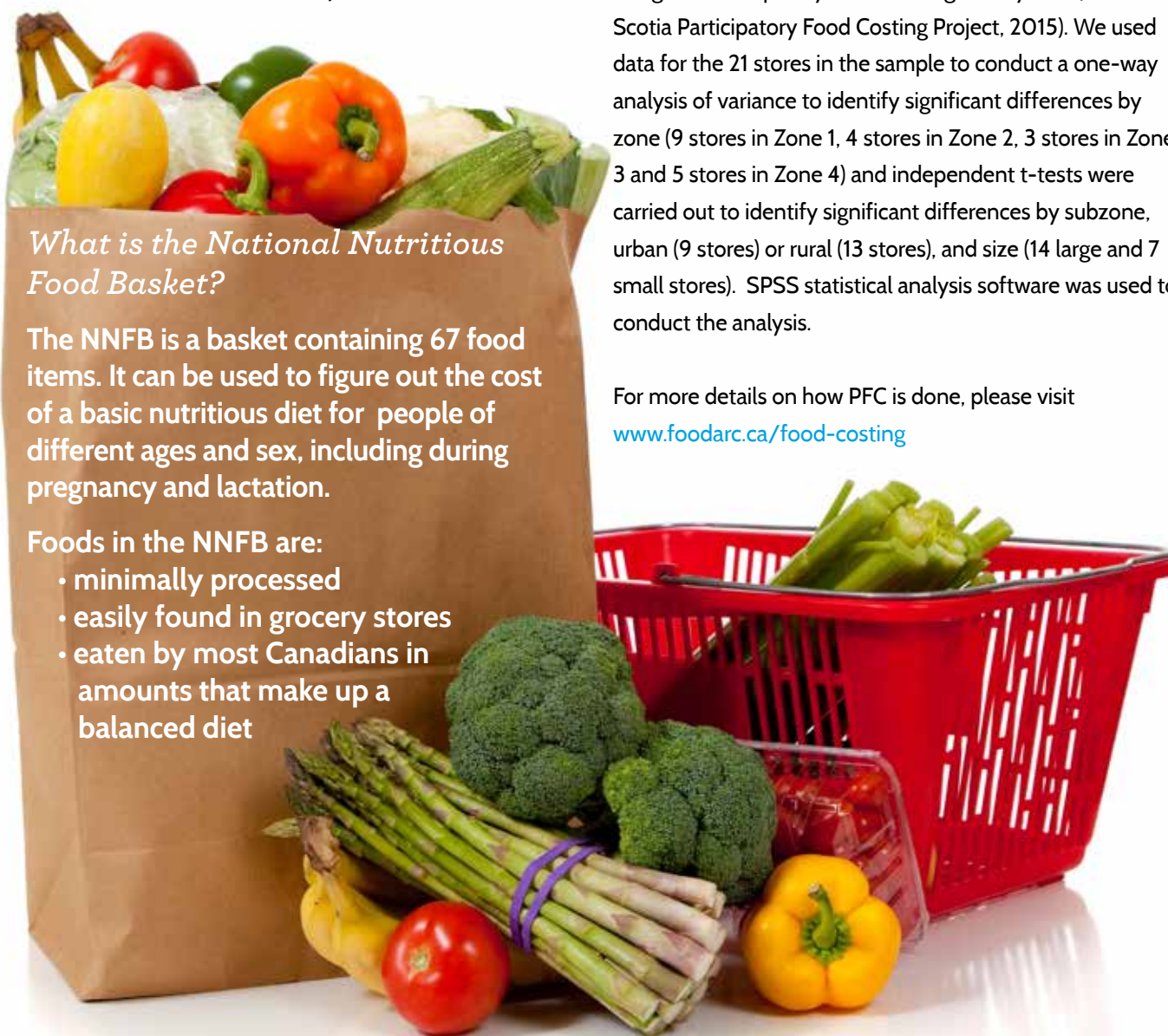
Foods in the NNFB are:

- minimally processed
- easily found in grocery stores
- eaten by most Canadians in amounts that make up a balanced diet

updated the complete list of grocery stores in Nova Scotia from previous cycles of PFC research, and confirmed the list with store head offices. This list was used to generate a stratified random sample. This means a sample is broken down into smaller groups based on characteristics – in our case the sample was based on store population density stratified by zone, using the four health authority zones. Stores were randomly selected and the number of stores selected was proportional (appropriate for statistical analysis) to the number of stores in each region.

In June 2015, FoodARC's community-based research partners, trained and/or retrained in PFC methods in May 2015, collected prices of the 67 food items in the NNFB using the Participatory Food Costing Survey Tool (Nova Scotia Participatory Food Costing Project, 2015). We used data for the 21 stores in the sample to conduct a one-way analysis of variance to identify significant differences by zone (9 stores in Zone 1, 4 stores in Zone 2, 3 stores in Zone 3 and 5 stores in Zone 4) and independent t-tests were carried out to identify significant differences by subzone, urban (9 stores) or rural (13 stores), and size (14 large and 7 small stores). SPSS statistical analysis software was used to conduct the analysis.

For more details on how PFC is done, please visit www.foodarc.ca/food-costing



THE FOOD COSTING SURVEY TOOL

The Participatory Food Costing Survey Tool was adapted from the NNFB and has been used to conduct seven cycles of PFC in Nova Scotia. The NNFB does not include snack foods, baby foods, restaurant or take-out foods, organic foods, food required for special diets (e.g. for people with celiac disease), foods purchased at farmers' markets, or foods with little nutritional value. The basket assumes that people are buying their groceries from a grocery store and preparing their meals from scratch at home.

PARTICIPATORY FOOD COSTING: A UNIQUE COLLABORATION OF COMMUNITY, UNIVERSITY, AND GOVERNMENT PARTNERS

Across Canada, the Participatory Food Costing Model is unique to Nova Scotia (Williams et al., 2012a). PFC means that people who have experienced food insecurity work together in all stages of the research with others working to impact the issue (for example, staff at Family Resource Centres, Women's Centres, other community-based organizations, university partners, and policy and decision makers from government). This includes guiding the focus of the research, collecting data, analyzing data, and sharing the findings. Project partners also play vital roles in using PFC research to influence policy and strengthen food security in communities across Nova Scotia and beyond.

In 2015, 29 people from eleven Family Resource Centres throughout Nova Scotia participated as food costers, helping plan and carry out PFC data collection. Food costers went in pairs to the selected grocery stores in their regions. Using the Participatory Food Costing Survey Tool, they recorded the lowest available price for each of the 67 food items in the NNFB.

A Management Team and an Advisory Committee supported the research. The Management Team consisted of academic and community-based researchers, as well as the FoodARC Project Coordinator. The Advisory

Committee represented academia, health organizations and government departments, community organizations, experienced food costers, and more. The intention was to have as many perspectives as possible at the table, with experience and expertise to advise on the scenarios and policy levers being examined.

“I’ve suffered food insecurity myself um and years ago I used to think that it was me, that it was my bad budgeting, that I wasn’t a good parent um because I couldn’t stretch my food dollars and, and with all the information that I’ve learned over the past ten years [from PFC], it’s not me at all...you know, it’s the fact that, you know, is, is I’m paid pretty good um but being the only income for four or five people family um you know um we don’t do it right um... so it’s not me, it’s, it’s you know, society, it’s food.”

(Food coster, Williams, Anderson, Hunter, Watt, 2013, p. 33).

Findings: THE COST OF A BASIC NUTRITIOUS DIET IN NOVA SCOTIA IN 2015

WHAT IS THE AVERAGE MONTHLY COST OF A BASIC NUTRITIOUS DIET FOR PEOPLE OF DIFFERENT AGES AND SEX, INCLUDING DURING PREGNANCY AND LACTATION?

The NNFB can be used to estimate the cost of eating a basic nutritious diet for a household of any size and composition. The tables below show a breakdown of the average monthly cost of a basic nutritious diet for people of different ages and sex, including for pregnancy and lactation.

Based on the average monthly food basket costs, household scenarios can be created by adding together the monthly food basket cost, for each household member and then multiplying the sum by the appropriate adjustment factor below, according to household size.

Table 1: Average monthly costs of the NNFB in Nova Scotia in June 2015 by age and sex, including pregnancy and lactation

BOY	Monthly Cost	GIRL	Monthly Cost
2-3 years	\$134.58	2-3 years	\$134.66
4-8 years	\$170.34	4-8 years	\$168.13
9-13 years	\$213.18	9-13 years	\$197.32
14-18 years	\$332.46	14-18 years	\$236.94

MAN	WOMAN
19-30 years \$321.85	19-30 years \$248.58
31-50 years \$290.20	31-50 years \$245.60
51-70 years \$279.93	51-70 years \$215.59
71+ years \$277.29	71+ years \$211.61

PREGNANCY	LACTATION
Under 19 years \$265.60	Under 19 years \$275.78
19-30 years \$268.94	19-30 years \$287.30
31-50 years \$262.66	31-50 years \$281.02

Table 2: Household size adjustment factor

FAMILY SIZE	Adjustment Factor
1 persons	Multiply by 1.15
2 persons	Multiply by 1.10
3 persons	Multiply by 1.05
4 persons	No Change
5 persons	Multiply by 0.95
6 persons	Multiply by 0.90

Example 1: Calculating the monthly cost of a basic nutritious diet for a reference household of four

Woman (31-50 yr)	\$245.60
Man (31-50 yr)	+ \$290.20
Girl (7 yr)	+ \$168.13
Boy (13 yr)	+ \$168.13
Adjustment Factor	No change

Monthly Total = \$850.59

Example 2: Calculating the monthly cost of a basic nutritious diet for a lone male household

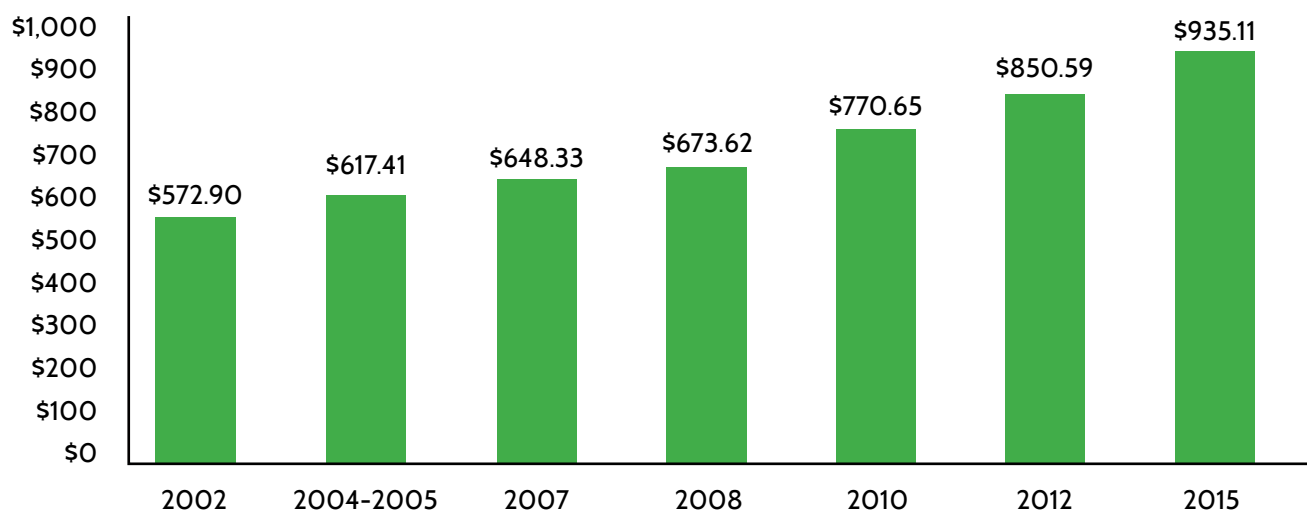
Man (19-30 yr)	\$321.85
Adjustment factor	x 1.15

Monthly Total = \$370.13

HOW HAS THE COST OF A HEALTHY DIET CHANGED IN NOVA SCOTIA SINCE 2002?

Over the 14-year span of PFC research in Nova Scotia, the monthly cost of a basic nutritious diet for a reference household of four, using current dollars, has increased by 63%. As seen in **Figure 1**, in 2015 the monthly cost of this basket was \$935.11 for a household of four compared with \$572.90 in 2002. This is an increase of \$362.21. Between 2012 and 2015, the cost of the food basket increased by about 10%.

Figure 1: The monthly cost of a basic nutritious diet for a reference household of four in Nova Scotia from 2002-2015 ²



“[We live in] a very, very small town... We have the [small grocery store]... But the prices are unreal... But they have to have the food costs high because they can't get the big bulk sections like in the big stores... So they have to charge more... Who can afford to shop there?”

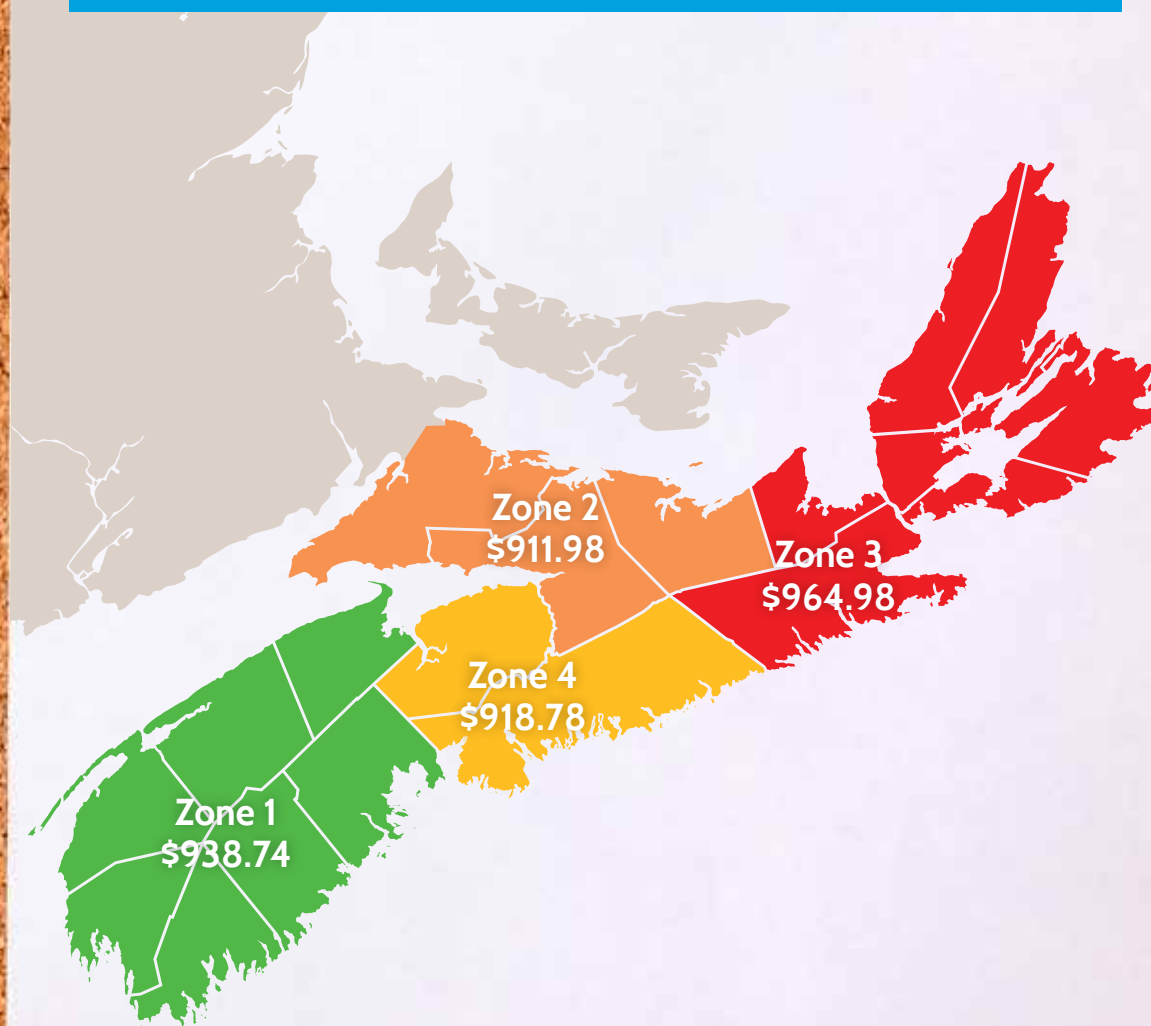
(Family Resource Centre participant, Williams et al., 2012, p.258).

²From 2002 to 2008, the 1998 NNFB was used and from 2010 to 2015 the 2008 NNFB was used.

DOES THE COST OF A BASIC NUTRITIOUS DIET DIFFER ACROSS NOVA SCOTIA?

The monthly cost of the NNFB for the reference household of four seems to vary across the province, as seen in **Figure 2** below. However, no statistically significant differences were found between zones, so comparisons between regions should not be made based on these estimates.

FIGURE 2: Monthly cost of the NNFB by Nova Scotia Health Authority zone in Nova Scotia for the reference household of four in June 2015

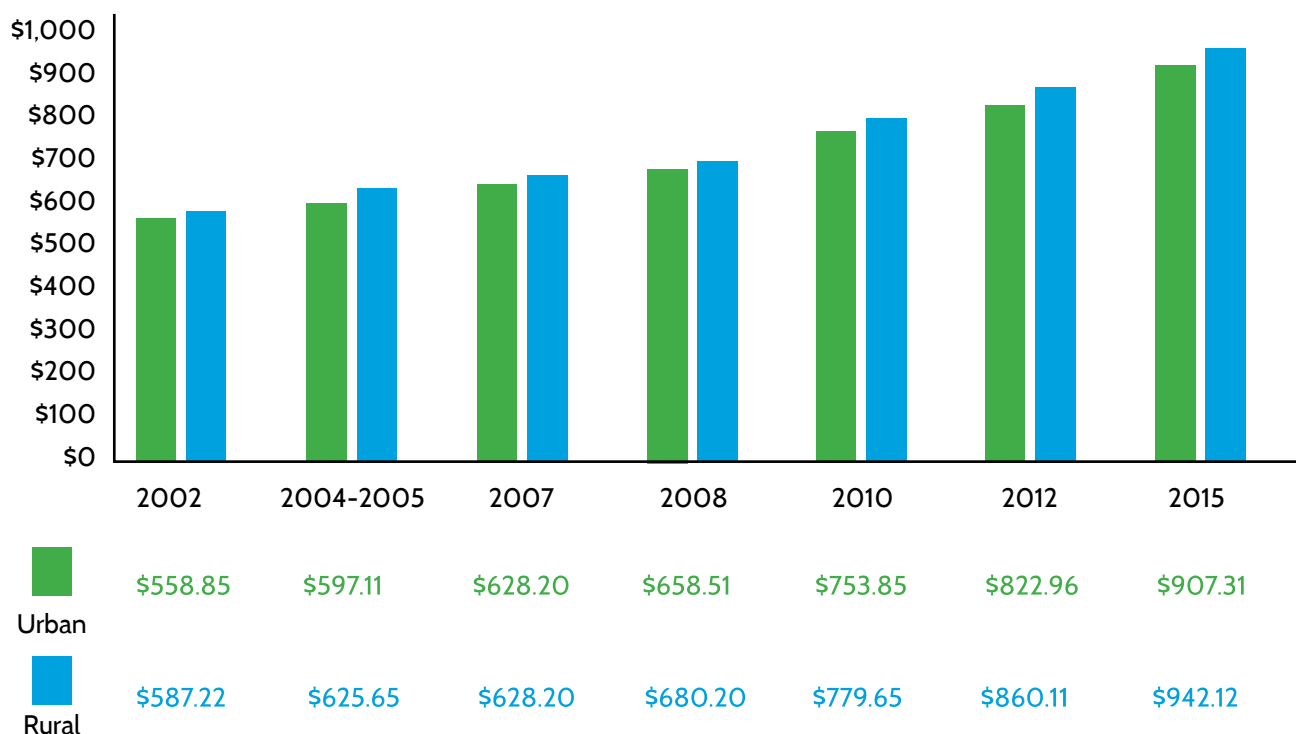


DOES IT MATTER IF YOU LIVE IN AN URBAN OR RURAL COMMUNITY?

The NNFB has typically cost more in rural areas than in urban centres (Nova Scotia Participatory Food Costing Projects, 2011, 2013). As seen in **Figure 3**, the average monthly cost of the NNFB for the reference family of four in rural areas in 2015 was \$942.12. This is \$34.81 per month more than the cost of a basic nutritious diet in grocery stores in urban areas.

Independent sample t-tests, a way to determine difference, were carried out to identify statistically significant differences by zone, location (urban/rural), and store size with a 95% confidence interval.³ We found the average cost of the NNFB was lower in larger stores compared with smaller stores. We did not find significant differences among the average monthly NNFB costs of the four zones; however, the difference in NNFB costs between urban and rural stores was statistically significant.⁴ This finding aligns with previous PFC cycles which showed that the NNFB costs more in rural areas, and with findings reported in *Making Food Matter Activating Change Together for Community Food Security* that rural communities often rely on smaller, more expensive stores that are close by. People who live in rural areas must travel to larger food retailers in more central or urban areas to buy food at lower prices, with additional costs for transportation if they have this option available to them. Still, across the country, Tarasuk, Mitchell, and Dachner report, that food insecurity was “slightly more prevalent in urban areas than rural ones among those provinces participating in 2014 [...]” (p. 4), though the difference was not statistically significant.

Figure 3: Average monthly costs of buying the NNFB for the reference household of four in grocery stores located in rural and urban areas of Nova Scotia from 2002-2015.



³A confidence interval is used in statistics to acknowledge uncertainty of estimated quantities – they are “one way to represent how ‘good’ an estimate is. Specifically, a confidence interval is a range of values estimated through a model that shows how sampling, data collection, and modeling lead to “uncertainty between the true value of the quantity we are estimating and our estimate of that value” (United States Census Bureau, 2013).

⁴p-value = 0.049

CAN HOUSEHOLDS IN NOVA SCOTIA AFFORD A BASIC NUTRITIOUS DIET?

Affordability scenarios

To find out whether households in Nova Scotia have enough money every month to afford a basic nutritious diet, we have created *affordability scenarios* that represent a number of hypothetical low-income households, as well as an average and median income household. The scenarios show the cost of the NNFB plus the cost of basic living expenses, and what this means with respect to the affordability of these basic needs in relation to household income.

Selection of households

The low-income household scenarios represent the types of households that we know are at high risk of food insecurity based on previous food security research in Nova Scotia (Frank, 2015a; Nova Scotia Participatory Food Costing Project, 2009; Nova Scotia Participatory Food Costing Project, 2011; Nova Scotia Participatory Food Costing Project, 2013; Nova Scotia Participatory Food Security Projects, 2008; Williams, 2014), and national population surveys (Tarasuk et al., 2016).

To compare these findings with findings from previous PFC cycles, some of the affordability scenarios created for 2015 are the same as the ones for 2012. We updated others to more closely reflect households at risk for food insecurity in Nova Scotia in 2015. Affordability scenarios not shown here can be found at www.foodarc.ca/food-costing.

Policy change scenarios

Also new in this cycle of PFC are a set of scenarios that show the impact key policy changes could have on the risk of food insecurity among low-income households. Table 3 shows the four household scenarios that are included in the report to highlight the potential impact of:

- the federal government's new Canada Child Benefit (CCB),
- and a hypothetical increase in the minimum wage to \$15.00 per hour.

Table 3 Participatory Food Costing 2015 household scenarios.

<p>Reference household of four</p>	<p>This household is made up of:</p> <ul style="list-style-type: none"> • a man and woman 31 to 50 years • a girl, 7 years • a boy, 13 years <p>This scenario is the same as in the 2012 cycle. This set of scenarios shows how affordable a basic nutritious diet is for a household with:</p> <ol style="list-style-type: none"> 1) a median income; 2) an average income; 3) one full-time minimum wage salary and one part-time minimum wage salary; OR 4) Income Assistance.
<p>Lone mother with two children</p>	<p>The household is made up of:</p> <ul style="list-style-type: none"> • a woman, 31 to 50 years • two boys, 4 and 12 years <p>This scenario has been changed from the “lone mother with three children” in previous cycles because a lone mother with two children is more common in Nova Scotia. The scenario shows the affordability of a basic nutritious diet on Income Assistance.</p>
<p>Lone man without a disability</p>	<p>This household is made up of:</p> <ul style="list-style-type: none"> • a man, 19 to 30 years, who receives Income Assistance, OR • a man, 19 to 30 years, who works full-time earning minimum wage <p>This is the same as in the 2012 cycle. About 75% of people receiving Income Assistance in Nova Scotia are single people without children (personal communication, Department of Community Services, November 1, 2016).</p>
<p>Lone man with a disability and lone senior man with a disability</p>	<p>This household is made up of:</p> <ul style="list-style-type: none"> • a man with a disability, 54 to 59 years, who receives Income Assistance, OR • a man with a disability, 65 to 70 years, who receives Old Age Security and the Guaranteed Income Supplement <p>This is a new scenario in the 2015 cycle. It is changed from the lone senior woman in previous cycles to show how affordable a basic nutritious diet is for a person with a disability and to highlight the differences in benefits once one turns 65.</p>

We chose to examine the impact of these policy changes based on their timeliness and on input from Advisory Committee members.

We highlighted the CCB, started in July 2016, to show the effect of this policy change on the household expenses of families with children. Childcare is necessary so parents can go to work or school, and is a significant monthly cost for families on low fixed incomes. During the 2015 federal election, the Liberal Party of Canada proposed the new CCB to replace the Canada Child Tax Benefit, Family Tax Cut, National Child Benefit Supplement, and Universal Child Care Benefit. The new benefit is \$6,400.00 per child per year for children under the age of six and \$5,400.00 per child per year for children six to seventeen. The amount families are eligible for is based on their household income. As household income increases, the CCB amount decreases. This benefit is integrated, progressive, tax-free, and improves benefits for middle-income and low-income households. It is not yet clear if it will help families with children access a basic nutritious diet and meet other basic needs such as shelter and heat. The Centre for Canadian Policy Alternatives has recommended the benefit amount be indexed and increase with inflation. Even so, it complements other policies such as recommended affordable childcare (or better yet, publicly funded childcare) and the operating GST credit (Klein & Yalnizyan, 2016).

The push for an increase in minimum wage to \$15.00 per hour has recently increased in Nova Scotia and across the country (Ryan, 2016). This is partly due to support from a number of organizations, including the Canadian Centre on Policy Alternatives and the Federal and Provincial New Democratic Party. However, our previous work raises questions about whether or not a higher minimum wage is a good long-term solution, and points to the need for a more complete policy framework to ensure a liveable income (Newell, Williams, & Watt, 2014). A minimum wage of \$15.00 per hour still falls short of a living wage. A living wage is what a household needs to earn to meet basic needs and participate in the civic and social life of their community. It must be calculated municipally to reflect

local costs of living. For Halifax, the living wage has been calculated at \$20.10 per hour⁵ (Johnston & Saulnier, 2015).

In this report, using our scenarios, we look at whether or not these two policy levers – the CCB and a \$15 minimum wage – could ensure access to a basic nutritious diet and other needs essential for Nova Scotia households.

GENERAL ASSUMPTIONS FOR AFFORDABILITY SCENARIOS

The affordability scenarios are hypothetical – meaning they are examples of possible households – but they reflect the real experiences of many Nova Scotians. They include different kinds of income and income supports, as well as conservative estimates for basic expenses essential for each household (see Newell, Williams, & Watt, 2014). The tax credits and income supports shown assume the *best case scenario*, or the maximum amount that the family or individual could receive. For example, we calculated personal allowance and shelter allowance from the Employment Support and Income Assistance Program using the maximum amounts available.

The incomes and expenses included in each scenario are based on federal and provincial data sources. There was also input from PFC partners, food costers, the Food Costing Advisory Committee, similar research, and key stakeholders. The methods for determining affordability have been published previously (Vozoris et al., 2002; Williams et al., 2006; Williams et al., 2012d; Newell Williams, & Watt., 2014; Green et al., 2008).

For a detailed overview of the data sources used in the creation of these affordability scenarios, see please visit www.foodarc.ca/food-costing.

⁵The living wage for Halifax was recalculated for 2016 and was reported as \$19.17. The living wage for Antigonish, NS in 2016 was \$17.30. (Saulnier, Johnson & Johnston, 2016)

Expenses not included in the scenarios

Although the scenarios use conservative estimates for basic household expenses, many common expenses are still not included. For example: ⁶

- Educational expenses or reading materials, and school lunches
- Out of pocket healthcare expenses (e.g., over-the-counter medications, prescription medications for people without drug plans, eye and dental care, co-payments for those with drug and dental coverage). For example, the lone senior man would pay \$31.83 per month as co-payment as a part of the provincial Pharmacare program.
- Foods purchased at restaurants, farmers' markets, or organic foods
- Nutritional supplements
- Household maintenance expenses (e.g., fixing appliances, plumbing)
- Physical activities or recreation
- Special diets or other expenses associated with chronic disease or disability management (e.g. home renovations for disability accommodations, wheelchair repair costs). Note that the Income Assistance allowance for special diets has not increased since it was introduced in 1998 (Nova Scotia Participatory Food Costing Projects, 2013).
- Driver's license costs and monthly vehicle payments and maintenance
- Internet access
- Summer and holiday childcare

The affordability scenarios do not take into account other expenses such as family emergencies, ill family members, or credit card or loan debt. They also do not account for the costs of having a baby, family members with special needs, life insurance, or personal savings for the future. Lastly, some scenarios assume that public transportation is available. This is not true for many rural communities. The cost of public transport based on the

Survey of Household Spending (Statistics Canada, 2016a) is underestimated compared with true costs, but we used it for comparison of the 2015 data with previous food costing cycles.

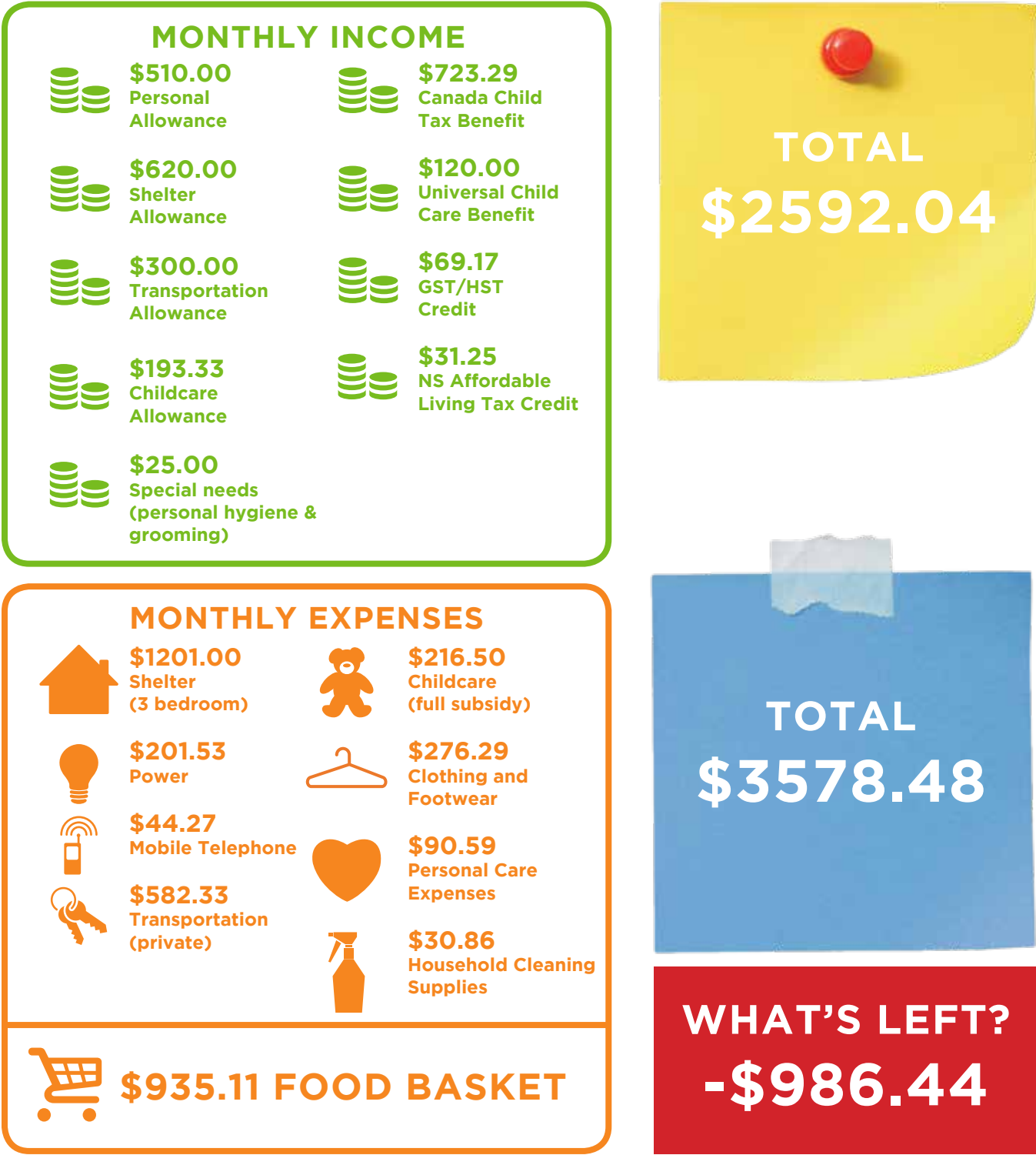
“...you budget your grocery shopping and you only have enough to get a cab home once a month... Like, you can’t go and pick up fresh fruit and vegetables like two and three times a month, you have to go once a month cause that’s the only time you have money enough for a cab. Other than that, you can’t walk home with bags and bags... Once that fruit runs out you gotta take the bus and maybe go over and pick some things up. But, you might not have that option...”

(Family Resource Centre participant, Williams et al., 2012c, p.259).

⁶For Income Assistance recipients, expenses such as dental and optical care, household maintenance, and special diet expenses may be covered through the program. Expenses must meet Employment Support and Income Assistance criteria and are approved on a case by case basis (Nova Scotia Department of Community Services, 2016)

Figure 4: Affordability of a basic nutritious diet in Nova Scotia in June 2015 for a reference household of four receiving Income Assistance (attending an educational program)

Figure 4 shows that a reference household of four relying on Income Assistance would experience a potential monthly deficit of \$51.33 even before taking into consideration the cost of a basic nutritious diet. If that household were to cover their basic expenses and buy a nutritious diet, their potential monthly deficit would be \$986.44. The same reference household earning minimum wage, with one adult working full-time hours and one working part-time hours, would have a potential deficit of \$418.07 per month.



To see the median income, average income and minimum wage scenarios for a reference household of four, please visit www.foodarc.ca/food-costing.

Figure 5: Affordability of a basic nutritious diet in Nova Scotia in June 2015 for a lone mother with two children receiving minimum wage (1 FT, \$10.60/hour)

Figure 5 shows the potential monthly deficit that a lone mother aged 31 to 50 receiving minimum wage with two boys aged 4 and 12 years would see after buying a basic nutritious diet in June 2015. After accounting for all of their basic needs, they would be left with a deficit of \$510.12 each month if they were to purchase a basic nutritious diet. When relying on income assistance, this household would face a potential monthly deficit of \$681.10.

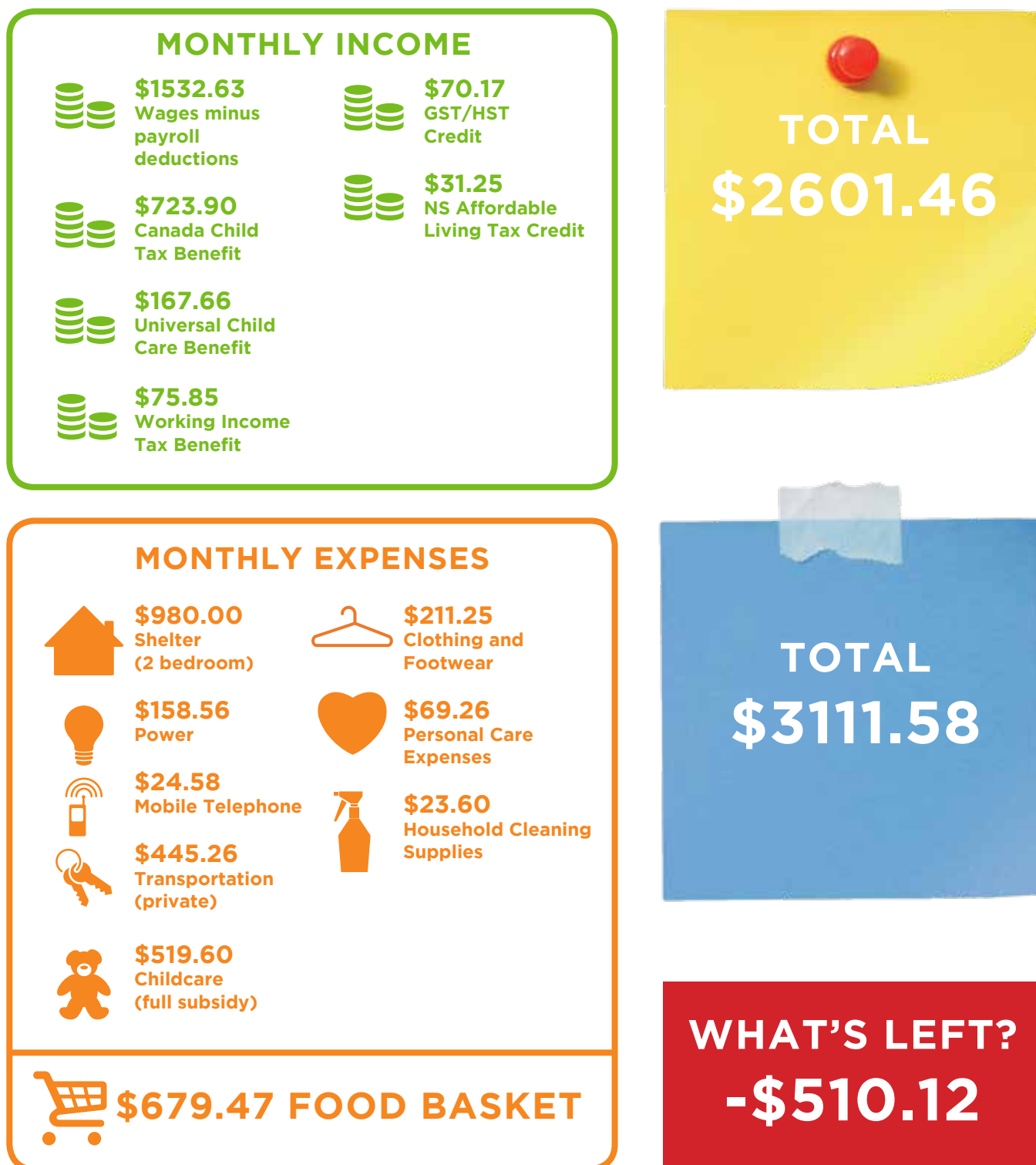
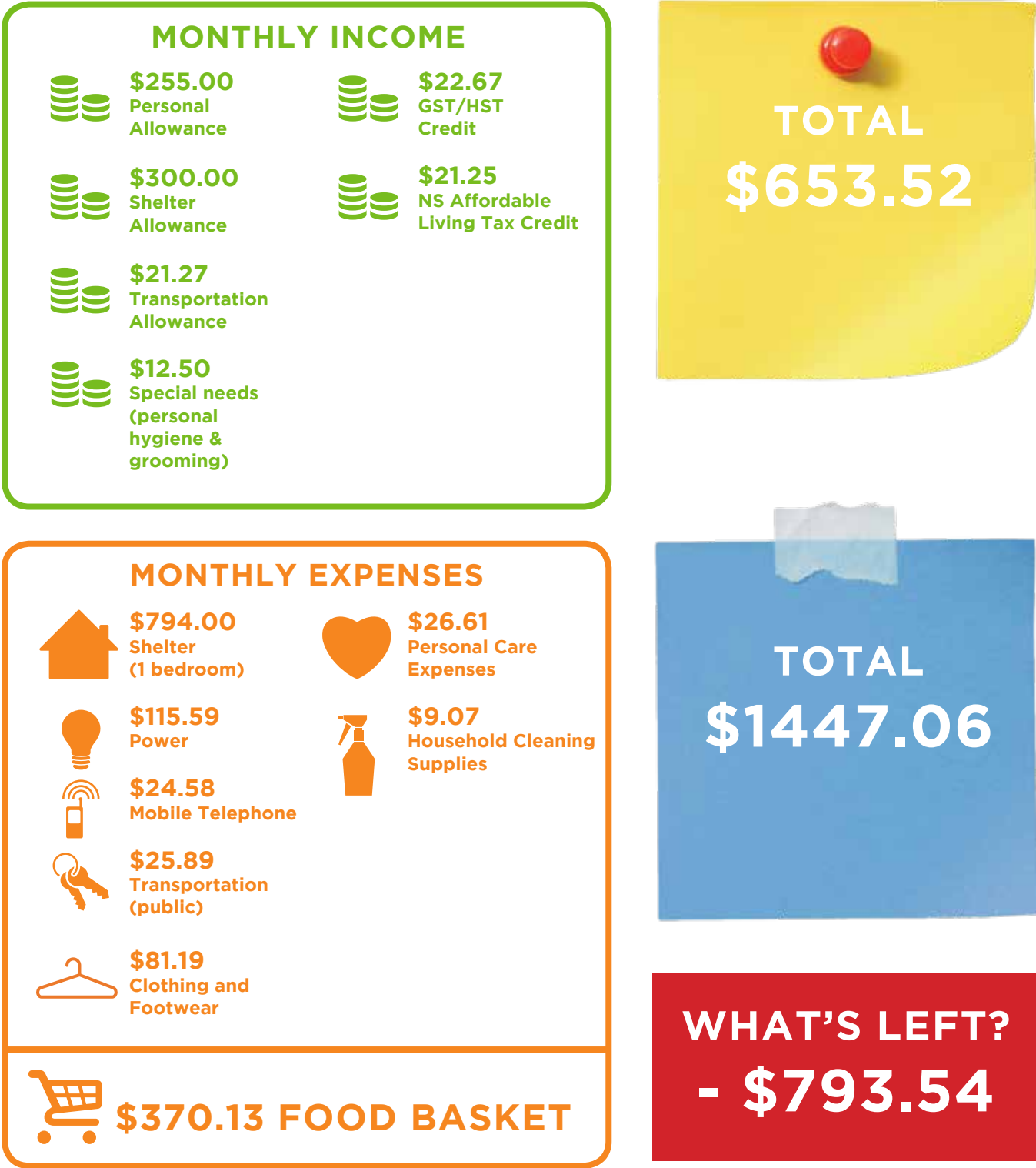


Figure 6: Affordability of a basic nutritious diet in Nova Scotia in June 2015 for a lone man without a disability receiving income assistance (attending an educational program)

Figure 6 shows the monthly income and expenses for a lone man between the ages of 19 and 30 years receiving Income Assistance in June 2015. Each month, this man will face a potential monthly deficit of \$793.54 after buying a basic nutritious diet. If this same man were to work full-time hours earning minimum wage, he would have \$141.40 left over at the end of each month to cover other expenses.



To see the minimum wage scenario for a lone man without a disability, please visit www.foodarc.ca/food-costing.

Figure 7: Affordability of a basic nutritious diet in Nova Scotia in June 2015 for a lone man with a disability receiving Income Assistance

Figure 7 shows a man between the ages of 54 and 59 years with a spinal cord injury whose main source of income is Income Assistance. After buying a basic nutritious diet, he would face a potential monthly deficit of \$510.33. This is less than a lone man without a disability receiving Income Assistance, because the shelter allowance is higher for the man with a disability.

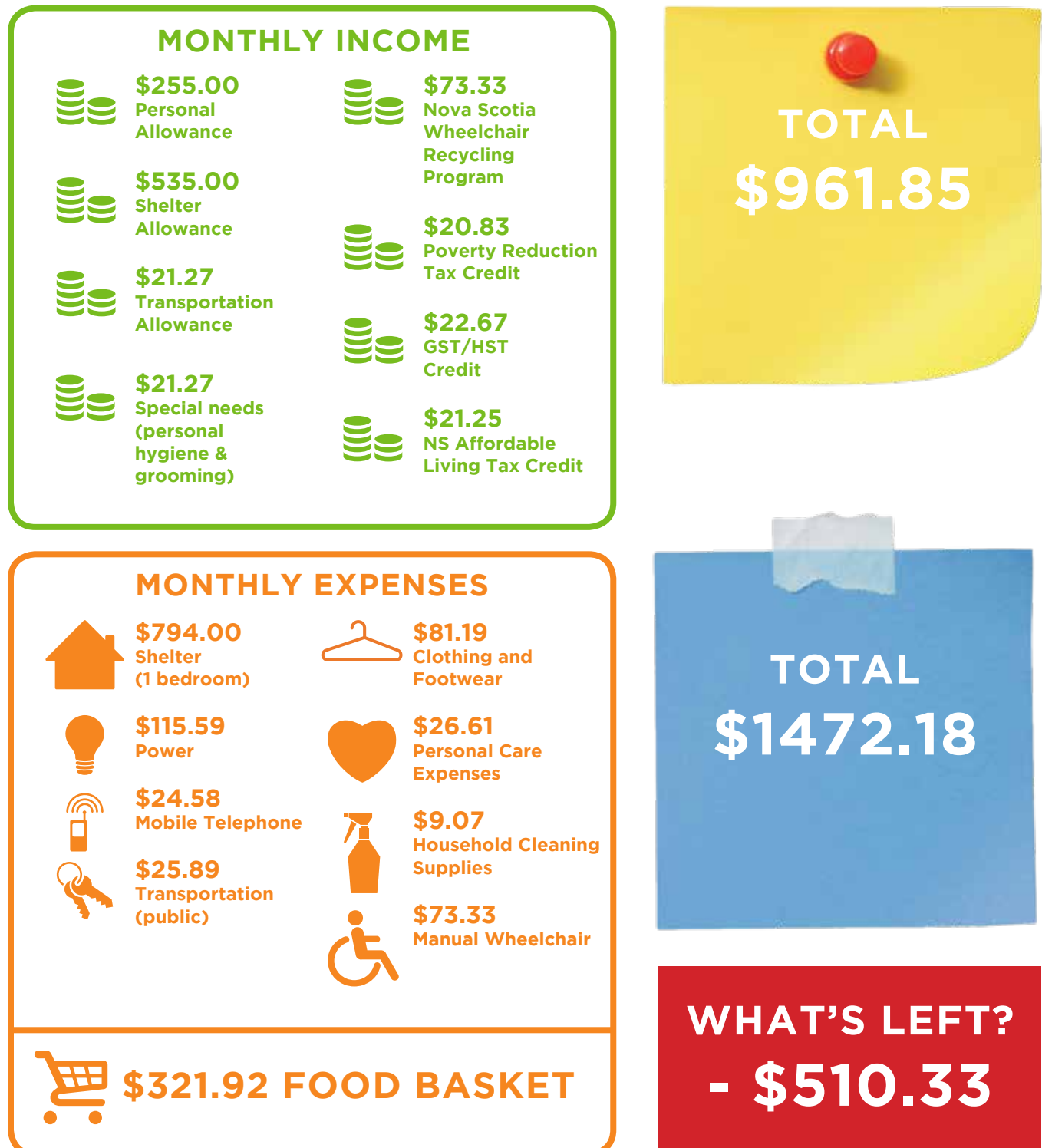
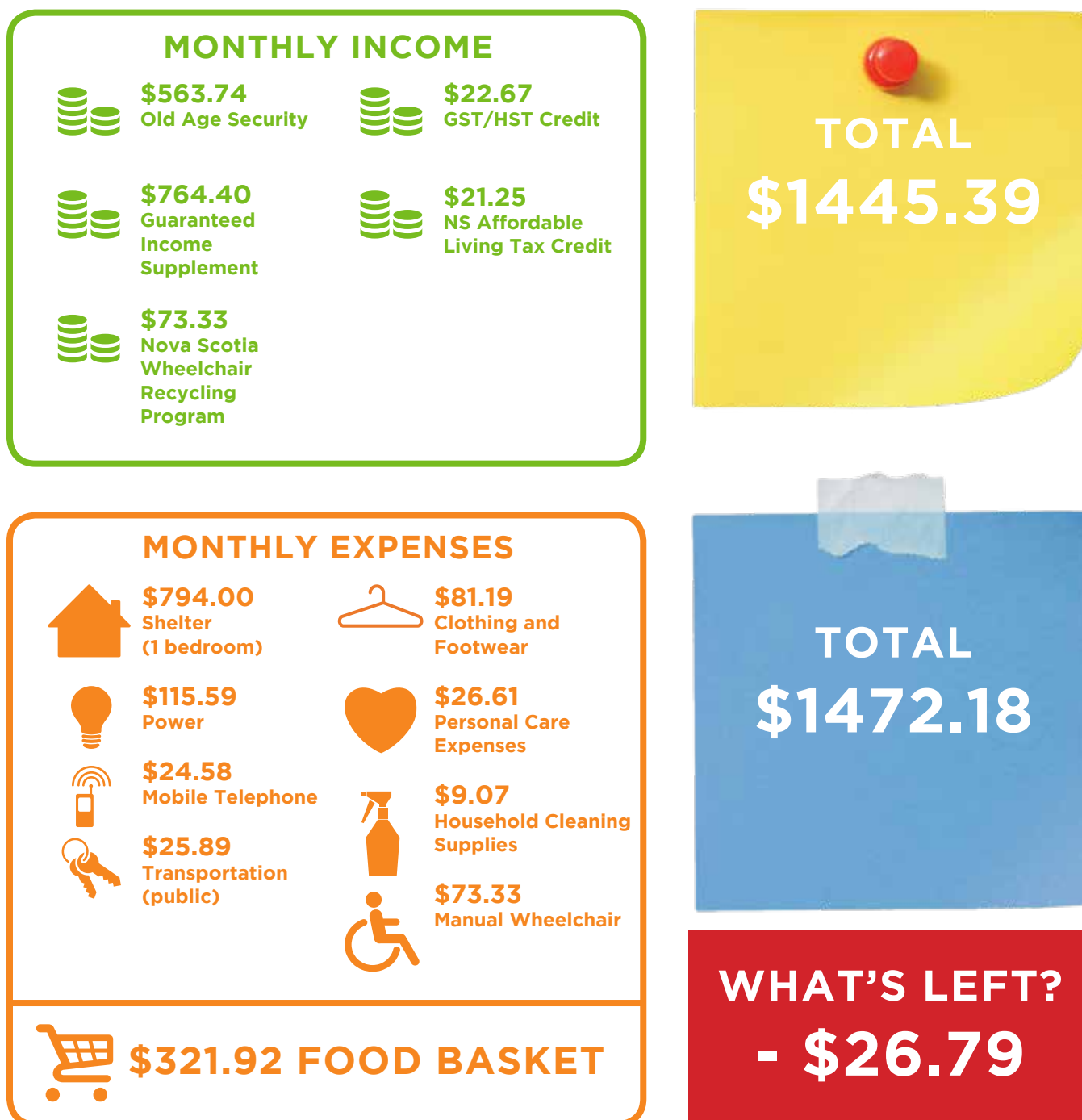


Figure 8: Affordability of a basic nutritious diet in Nova Scotia in June 2015 for a lone senior man with a disability receiving Old Age Security and Guaranteed Income Supplement

Figure 8 shows the potential financial impact when the same man with a disability reaches age 65. The cost of a nutritious diet is the same, but he becomes eligible for the Old Age Security (OAS) benefit and the Guaranteed Income Supplement (GIS). These government payments significantly reduce the potential monthly deficit he would face if he were to purchase a basic nutritious diet to \$26.79. This accounts for a \$451.71 improvement in potential monthly deficits when the man becomes a senior compared to the lone man between the ages of 54 and 59. However, he is clearly still at risk for food insecurity.



POLICY CHANGE SCENARIOS

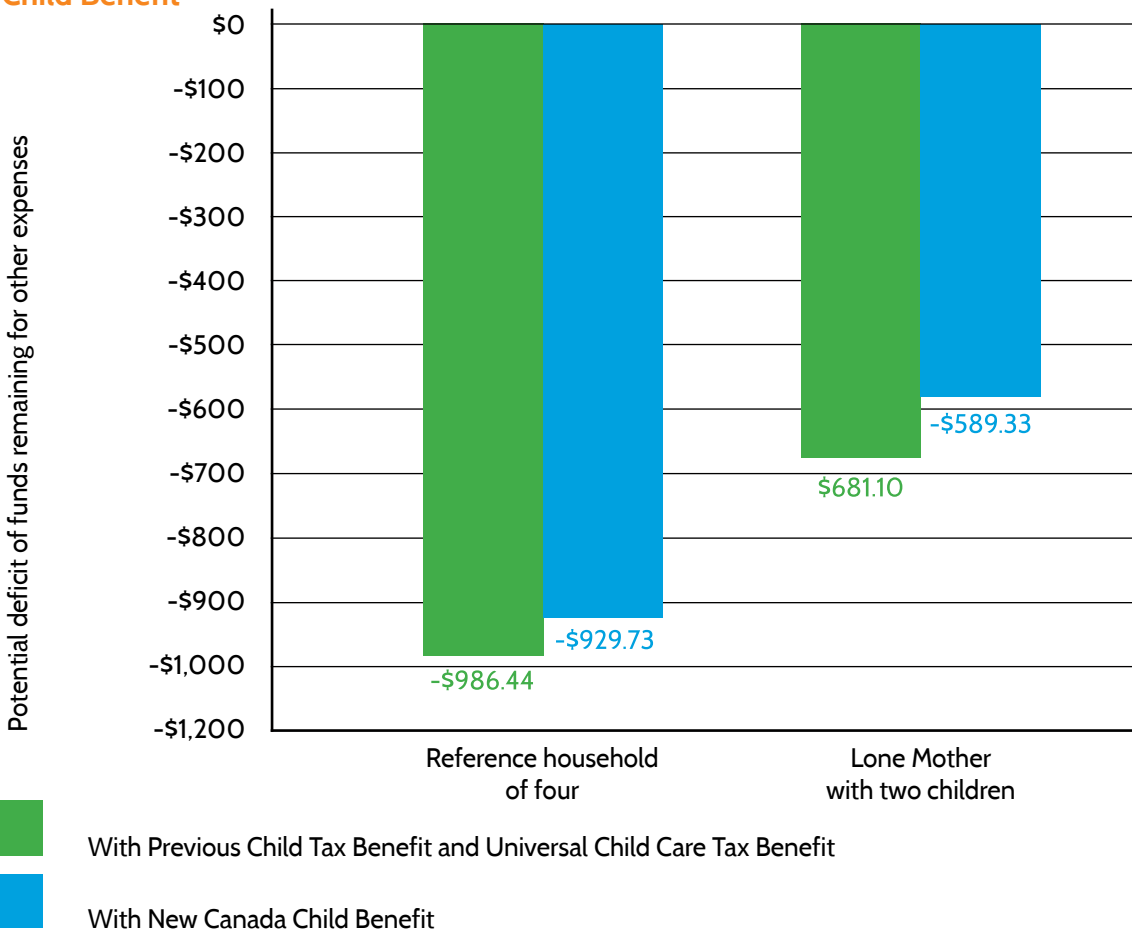
A. Canada Child Benefit (CCB) introduced in July 2016

The increased CCB takes some pressure off the reference household of four and the lone mother with two children relying on Income Assistance, but these households still face a large potential deficit after buying a nutritious diet each month.

Figure 9 shows the difference the new CCB would make to the affordability of the nutritious diet for a reference household of four and a lone mother with two children receiving Income Assistance. At the time we collected the data in June 2015, both households were eligible for the Canada Child Tax Benefit (CCTB) and Universal Child care Benefit (UCCB). The CCTB and the UCCB together equalled \$843.29 per month for the reference household of four and

\$891.56 for the lone mother with two children. Even with these benefits, the reference household of four still faced a potential monthly deficit of \$986.44 and the lone mother with two children still faced a potential monthly deficit of \$681.10. With the new CCB, the reference household of four would now receive \$900.00 per month in tax-free government benefits. However, this still means an overall potential deficit of \$929.73 per month after buying a basic nutritious diet. For the lone mother with two children, they would now receive \$983.33 per month, but after buying a basic nutritious diet they would still face a potential deficit of \$589.33 per month. While the new benefit helps both of these households they can still expect a large deficit at the end of each month after buying a basic nutritious diet, putting them at serious risk of food insecurity. In the case of the reference household of four their potential deficit has only shrunk by \$56.71 and in the case of the lone mother with two children, their potential deficit has only shrunk by \$91.77.

Figure 9: End of month balance after purchasing a basic nutritious diet in Nova Scotia in June 2015 for a reference household of four and lone mother with two children receiving Income Assistance with previous Child Tax Benefit and Universal Child Care Benefit compared with the New Canada Child Benefit



B. Hypothetical \$15 per hour minimum wage

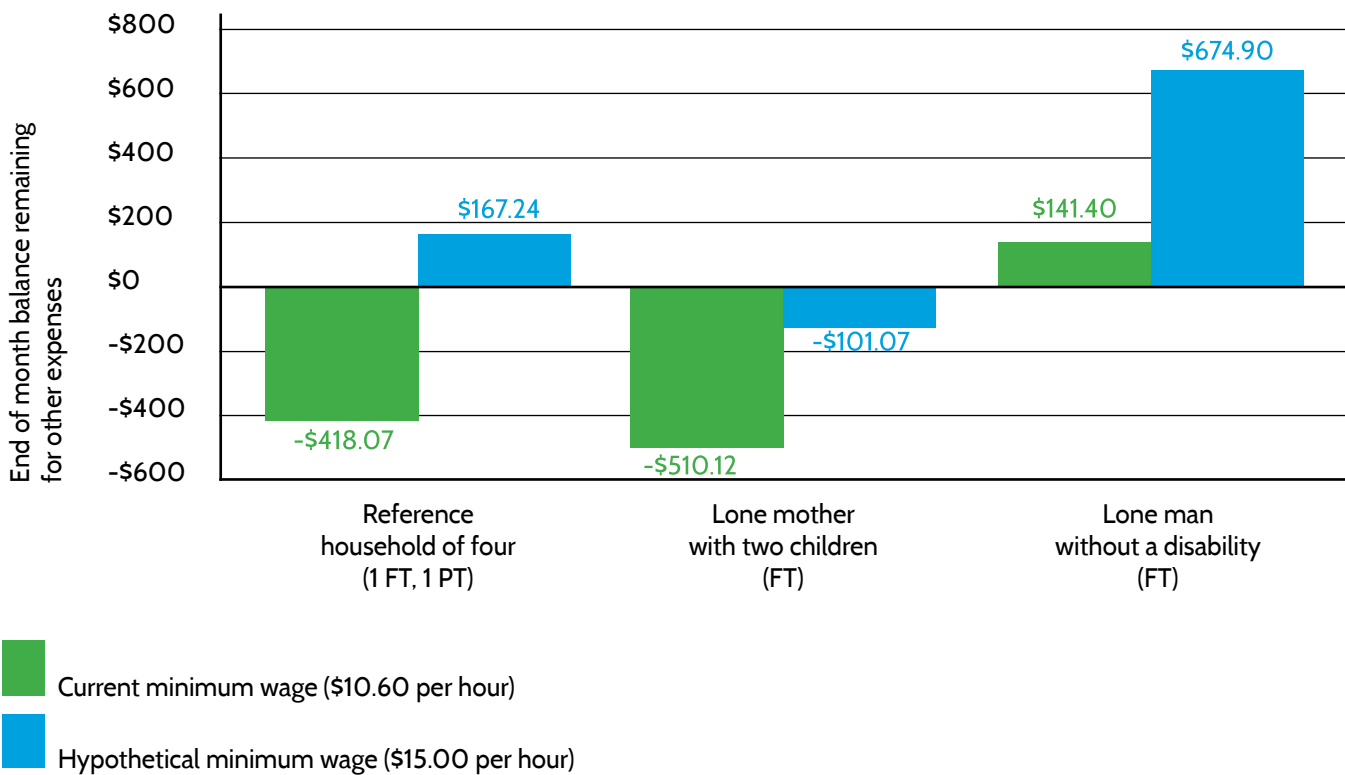
Figure 10 shows the potential financial impact of increasing the Nova Scotia minimum wage from \$10.60 (minimum wage in June 2015) to \$15 per hour on the reference household of four, the lone mother with two children, and the lone man without a disability. A \$15 per hour minimum wage allows the reference household of four to have a small amount remaining at the end of the month for other expenses after buying a nutritious diet, but the lone mother still faces a potential monthly deficit. The lone man would have a larger amount remaining than he would with the current minimum wage.

In the scenario involving the reference household of four, we assume one adult working full-time hours (40) and one adult working part-time hours (20). At \$10.60 per hour, this household faces a potential monthly deficit of \$418.07. With an increase in the minimum wage to \$15 per hour, this same household has a small amount remaining of \$167.24 each month after purchasing a basic nutritious diet and meeting other essential needs.

In the case of the lone mother with two children, this household would continue to face a potential deficit each month after buying a basic nutritious diet if the minimum wage was \$15 per hour. In the scenario, the mother is working full-time (40) hours. At \$10.60 per hour, this household would face a potential monthly deficit of \$510.12 after purchasing a basic nutritious diet; at \$15 per hour, her deficit would only be \$101.07 a month, amounting to a \$409.05 difference. While this decrease in the potential deficit would improve this family’s situation, they would still be facing a deficit if they were to purchase a basic nutritious diet – and still be very much at risk for food insecurity.

An increase in the minimum wage to \$15 per hour from \$10.60 per hour would leave the lone man without a disability working full-time (40) hours in a more secure financial position each month after buying a basic nutritious diet. At \$10.60 per hour, he would have \$141.40 remaining each month after purchasing a basic nutritious diet; however, earning \$15 per hour would mean he would have \$674.90 remaining each month to cover all remaining expenses and to put towards savings, debts, or emergencies.

Figure 10: End of month balance after purchasing a basic nutritious diet in Nova Scotia in June 2015 for a reference household of four, lone mother with two children, and lone man without a disability if minimum wage was increased to \$15/hour compared with 2015 minimum wage (\$10.60/hour)



SUMMARY OF FINDINGS

Table 4. Summary of end of month balance faced by different household scenarios after purchasing a nutritious diet and meeting other essential needs

	Current Situation			Policy Change	
	Income Assistance	Minimum Wage	OAS/GIS	Increased Canada Child Benefit	\$15/h min wage
Reference household of four	-\$986.44	-\$418.07	N/A	-\$929.73	\$167.24
Lone mother with two kids	-\$681.10	-\$510.12	N/A	-\$589.33	-\$101.07
Lone man	-\$793.54	\$141.40	N/A	N/A	\$674.90
Lone man with disability	-\$510.33	N/A	N/A	N/A	N/A
Lone senior man with disability	N/A	N/A	-\$26.79	N/A	N/A

We found that the reference household of four earning median and average incomes would be able to afford a basic nutritious diet and their basic costs of living with some money left over for other needs and emergencies. A median income household would have \$1841.22 left, and an average income household would have \$726.32 left at the end of each month.

We also found households earning minimum wage or receiving Income Assistance would not be able to afford their basic needs if they were to purchase a basic nutritious diet; let alone save money or cover unexpected costs. A household of four earning minimum wage could have a deficit of \$418.07 and a household of four receiving Income Assistance could have a deficit of \$986.44 a month. This puts them at high risk of food insecurity. A lone mother of two receiving Income Assistance could have a monthly deficit of \$681.10 after paying for a basic nutritious diet and essential household needs. A lone 19- to 30-year-old man without a disability receiving Income Assistance could face a monthly deficit of \$793.54 after buying a basic nutritious

diet. If this same man were to work full-time hours earning minimum wage, he would have \$141.40 left over at the end of each month to cover other expenses.

A lone man 54 to 59 years old with a spinal cord injury, whose main income is Income Assistance, could face a monthly deficit of \$510.33 after buying a basic nutritious diet. When this man reaches 65, he is eligible for the Old Age Security (OAS) benefit and the Guaranteed Income Supplement (GIS). These government payments can decrease his monthly deficit after buying a basic nutritious diet to \$26.79. Seniors who receive OAS and GIS show us what a basic income for eligible Nova Scotians of all ages might look like, but the lone senior man with a disability is still vulnerable to food insecurity. This shows that existing income supports for people with disabilities are not enough to provide a basic nutritious diet.

Discussion: WHAT DO THESE FINDINGS TELL US ABOUT BUILDING FOOD SECURITY IN NOVA SCOTIA?

This cycle of PFC findings provides evidence that in 2015, a basic nutritious diet is out of reach for many low-income households in Nova Scotia. When we look at the six previous PFC cycles over the last decade, findings suggest that the risk of food insecurity has been increasing without adequate and appropriate policy changes (Williams, et al., 2012d, Newell et al., 2014). In other words, current government programs and benefits designed to safeguard Nova Scotians from poverty and food insecurity are not enough. This is especially worrying because the consequences of food insecurity on health and social and economic well-being are far reaching, as discussed previously.

Our findings show that of all the household scenarios examined, those that rely on Income Assistance are at the highest risk of food insecurity. This is consistent with previous research (see Tarasuk, Mitchell, & Dachner, 2016). Our previous research has also shown that over time, Income Assistance is less and less adequate to provide the essentials for health and well-being due to allowances not being increased to keep pace with the growing cost of living and other basic needs such as shelter and heat in Nova Scotia (Williams et al., 2012d).

Households earning minimum wage (reference household of four, lone mother with two children) and the lone senior man with a disability receiving OAS and GIS are also at significant risk of food insecurity. They would face a potential deficit of about \$400, \$500, and \$30 respectively at the end of each month if they were to buy a basic nutritious diet.

These findings match previous research (Williams, et al., 2006; Newell et al., 2014) that shows even with an increase in the minimum wage from \$5.80 to \$10.60 per hour between 2002 and 2015, there is a major financial gap for families who depend on minimum wage employment. The provincial government's commitment to adjusting the minimum wage each year based on the Consumer Price Index (CBC News,

Income Assistance personal allowance has increased by \$20 since 2015 in Nova Scotia,

reflecting the "single largest increase in the province's history" (Nova Scotia Finance and Treasury Board, 2016). We looked at how this new policy lever affects a lone man without a disability. Over 75% of Nova Scotia Department of Community Services clients receiving Income Assistance are single and without children, and 59% of those single people without children are men (personal communication, Department of Community Services, November 1, 2016). Furthermore, most clients are between the ages of 25 and 54 (personal communication, Department of Community Services, November 1, 2016). With the \$20 increase, the lone man's potential deficit would decrease from \$793.54 to \$773.54 – an arguably tiny difference in his ability to afford a basic nutritious diet. This is despite the \$7.5 million investment by the province that the individual \$20-increase costs. It shows that income-related supports are not the only answer for those in need. Coordinated affordable transportation, housing, and childcare policies are key to ending food insecurity. This suggests that more comprehensive poverty reduction strategies, including a guaranteed basic income, are needed to ensure sustainable livelihoods.

2016) is positive, but as our findings and previous research suggest, not adequate (Newell, Williams, & Watt, 2014; Williams et al., 2006). Our findings show that a minimum wage increase to account for the consumer price index will not go far enough to address the significant problem of food insecurity facing Nova Scotia citizens relying on minimum wage earnings.

Together with our previous analysis of the inadequacy of minimum wage and Income Assistance in Nova Scotia (Williams, et al., 2012d; Newell, Williams, & Watt, 2014), these findings provide compelling evidence for the need for better income supports and complementary social programs such as publicly funded childcare and affordable housing. In other places, such as the United Kingdom, a living wage is being tested in several communities with promising economic results (Coulson & Bonner, 2015). A living wage is calculated so an employee's wage can meet the basic costs of living. The Canadian Centre for Policy Alternatives (Ivanova & Klein, 2016) has studied the benefits of a living wage for families, communities, and employers. For families, the benefits are obvious. A living wage reflects the actual costs of living in particular communities, so families can afford their basic needs, including a healthy diet, and experience less stress, better mental and physical health, and participate in their community activities and social network (Johnston & Saulnier, 2015). It holds significant promise to build healthier communities and reduce poverty. For employers, a living wage has led to "reduced absenteeism and staff turnover; increased skill, morale, and productivity levels; reduced recruitment and training costs; and improved customer satisfaction" (Ivanova & Klein, 2016, p. 2).

Our findings show that of all households examined in 2015, the household least at risk for food insecurity was the lone man without a disability earning minimum wage. This is followed by the lone senior man with a disability because he can access Old Age Security and the Guaranteed Income Supplement. Consistent with our previous findings (Green et al., 2008), McIntyre et al. (2016) have shown that OAS and GIS serve as a sort of guaranteed basic income that can reduce food insecurity. McIntyre et al. (2016a) have shown that Canadians over 65 are half as likely as low-income

Canadians under 65 to experience food insecurity, when we control for other factors, showing how these income supports have brought most seniors out of poverty.

There has been a growing interest in a guaranteed basic income. In its simplest form, a guaranteed basic income is a payment to eligible households that ensures a minimum level of income. There are many different ideas about what this could look like. Questions include where the money would come from, the goal of the policy, the amount, eligibility, what programs it would replace, potential unintended impacts, and how it could work with existing programs and services (Canadian Centre of Policy Alternatives, 2016). Ensuring a guaranteed basic income is grounded in social justice principles is very important. We need policy that decreases poverty by improving access to social and public services, reducing income inequality, upholding human rights, and strengthening social inclusion.

In Ontario, the Wynne government included a basic income pilot in its spring 2016 budget. The province will carry out consultations about the pilot from November 2016 to January 2017 and announce a plan by April 2017. The Toronto Star has reported that Ontario's special advisor on basic income, Hugh Segal, has suggested a monthly payment of at least \$1320 (Monsebraaten, 2016); however, the adequacy of this, and the guiding principles necessary to ensure social justice is currently unclear, and the subject of considerable debate. One goal of a basic income is to reduce income inequalities. Doing so has been shown by Wilkinson and Pickett (2009) to improve health and social problems like life expectancy, infant mortality, obesity, mental illness, social mobility, and more.

Our scenarios are meant to represent typical low-income Nova Scotian households, but they have limitations. They cannot reflect every household and every situation at risk of food insecurity. We have used *conservative estimates* of only essential costs of living; thus, our findings likely underestimate the actual total cost of basic needs and overestimate the amount of money people have left over to pay for a nutritious diet. The scenarios do not include other essential costs to households, such as out of pocket

healthcare, household maintenance, recreational activities, special diets and foods purchased at restaurants and farmers' markets. They also do not cover the costs of surprise expenses like family emergencies (see p. 21 for a complete list).

The affordability scenarios also assume *best case scenarios* for tax credits and other income supports. This is unrealistic for many, maybe most, households that rely on income supports. For example, senior women are less likely to apply for the GIS than men, even though two thirds of the seniors living alone in Nova Scotia are women (Green et al, 2008). This means senior women living alone are probably at higher risk of experiencing food insecurity (Green et al., 2008). Since the research by Green and colleagues, there has been a small decrease in the number of senior women (65+) living alone, but they are still more than twice as likely to do so than men (Statistics Canada, 2015f). The poverty rate for single senior women was 28% in 2013, rising alongside senior poverty overall from 3.9% in 1995 to 11.1% in 2013 (Shillington, 2016). In 2013, Service Canada "implemented a process to automatically enrol seniors who are eligible to receive the Old Age Security pension" (Government of Canada, 2016b) to augment the application process; we suggest the same should be done for the GIS.

It is important to note that the shelter allowance for people without disabilities has not increased since 2006 and the shelter allowance for people with disabilities has not increased since its implementation (Employment Support and Income Assistance Regulations, 2001). The majority of households, whose lived experience is not the best case scenario, likely have even bigger challenges than we show in the affordability scenarios here.

For example, shelter allowances in our affordability scenarios are based on the National Occupancy Standard (NOS), which is that a home must have enough bedrooms for the size and make-up of the household. Parent(s) must have their own bedroom and any child over the age of five must also have their own bedroom (Statistics Canada, 2015e; Canada Mortgage and Housing Corporation, 2014b). If children are of the same sex, they may share a bedroom until one child

turns 18. So, if our lone mother with two children household had one female and one male child, if fulfilling the NOS, they would have to live in a three-bedroom home, which would raise their shelter costs (Statistics Canada, 2015e; Canada Mortgage and Housing Corporation, 2014b). Notably, while we follow the NOS in our affordability scenarios, Income Assistance in Nova Scotia depends on the number of people in a home, not where or how its residents live.

The time to take action to address food insecurity is now.

Overall, these findings, and our previous research (Johnson et al., 2015; Newell, Williams, & Watt, 2014; Williams et al., 2012b; Williams, et al., 2012c; Williams et al., 2012d), show that we need better community and social supports and sustainable social and economic policy approaches to build and shape food security to benefit everyone equitably. Food insecurity is a complex issue, but it is not unsolvable. There is growing attention to food insecurity as a social injustice. Food insecurity is the place where intersecting oppression, unjust economic systems, and disregard for physical, social, mental and ecological health come together.

The food movement in Nova Scotia is growing. It is made up of many different partners concerned about where Nova Scotians get their food and how we can make it accessible to everyone. We need bold changes to social and economic policy to solve the problem of food insecurity. In countries that have policies to lessen social and income inequities, people are healthier and society is more peaceful and productive overall (MacEwen & Saulnier, 2010; Wilkinson & Pickett, 2010). Lynn McIntyre and colleagues (2016b), for example, argue that "although other factors such as gender and social position can influence access to food, food insecurity at the household level can be understood primarily as a problem of economic access to food, transcending how individuals and households manage their food expenditures and make dietary choices" (p. 83). We need a pledge to make sure every Nova Scotian has a sustainable liveable income to meet their basic needs, including a nutritious diet, through comprehensive policy approaches that provide long-term solutions to food insecurity (Newell, Williams, & Watt, 2014; Williams et al 2012d).

Conclusions and Recommendations

This section provides seven key conclusions along with corresponding recommendations for building food security in Nova Scotia.

Conclusion #1. Current Income Assistance (IA) rates are inadequate and unacceptable. They leave low-income households with a large potential monthly deficit, meaning people and families simply cannot afford a basic nutritious diet.

Even though Income Assistance rates increased in 2013, incomes for families receiving assistance still fall far short of the costs of living. We noted earlier the provincial government's \$20 per month increase to personal allowance rates (Nova Scotia Finance and Treasury Board, 2016). This increase will help, but it does not reflect the increase in the cost of a nutritious diet, which rose by \$84.52 between 2012 and 2015, has increased even further in 2016, and will likely increase further in 2017 (Charlebois et al., 2016). Allowances have not kept up with the cost of living and the cost of a nutritious diet.

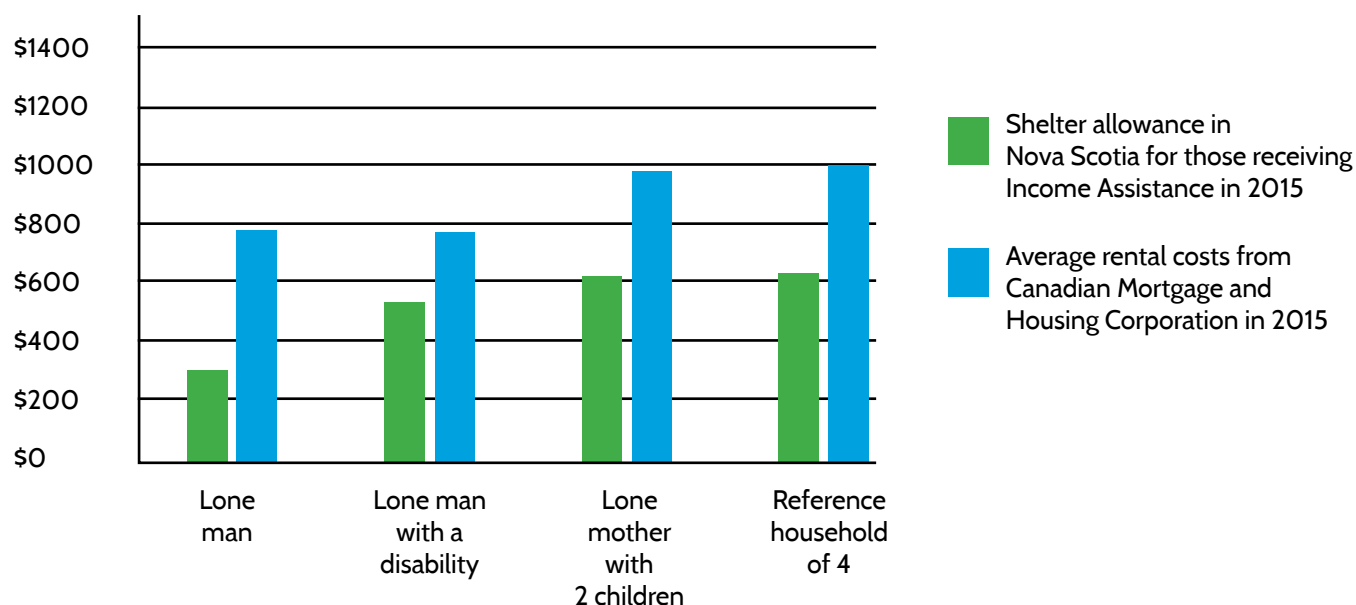
Beginning largely in the 80s, neoliberal policy has helped lead to more precarious employment, privatization of services, regressive tax changes, and more (Sanger, 2016). We are still feeling these effects. Annual increases in Income Assistance personal allowances to keep pace with inflation are not enough; current rates need a significant boost to make up for previous cuts and stagnant rates. Both the Income Assistance and Employment Support Program are being restructured to make them more transparent, easier for recipients to understand, and easier for the government to run. It is hard to say if this restructuring will have any impact on rates of poverty or food insecurity in households that rely on Income Assistance, but increasing Income Assistance rates is one tool of many we can use to address household food insecurity in Canada in the short term.

The basis for integrated social policy is to make sure that income-related supports work with other supports such as

affordable housing and the momentum for publicly available childcare. The province's Healthy Eating Strategy (2005) suggested these policies to help end food insecurity over a decade ago: "increasing the availability of affordable housing, because current housing costs leave little money for food in the poorest households" and "increasing the availability of affordable, high-quality daycare, which is currently a significant barrier to employment" (p. 26). Yet, the shelter allowance for people with disabilities receiving Income Assistance has been \$535 a month since the program was introduced in August 2001 and the last increase in shelter rates for people without disabilities was in 2006 (Employment Support and Income Assistance Regulations, 2001).

The Government of Canada has pulled together the results of its consultations about a national housing strategy and published the findings on November 22, 2016. The consultations asked if a vision for Canada's National Housing Strategy could be the following: "All Canadians have access to housing that meets their needs and they can afford. Housing is the cornerstone of building sustainable, inclusive communities and a strong Canadian economy where we can prosper and thrive" (Government of Canada, 2016d). The National Housing Strategy will be released in 2017, but in the meantime they have summarized what they heard from over 7,000 Canadians who participated in the consultations. Among the themes was the need to make housing more affordable, especially for those with low incomes, end homelessness, and ensure our laws and policies support and enable these goals (Conference Board of Canada, 2016). With this draft vision and broad consultation, the Government acknowledges how important housing is to a person's health and prosperity. As Kendall Worth wrote about his lived experience in *My Life on Income Assistance* for the Halifax Media Co-op (2012), the maximum shelter allowance and other amounts for people receiving Income Assistance drastically limits where they can afford to live. He shares that. "Living on this source of income limits your abilities to live in a safe neighbourhood, to live a simple day-to-day life, and to get meaningful employment." Our findings show the difference between shelter allowances and the cost of housing in Nova Scotia (see **Figure 11**), making it clear that shelter costs can constrain a household's food budget since the latter is an inflexible expense.

Figure 11: Comparison between shelter allowances and average rental costs in Nova Scotia in 2015



In reference to the third recommendation people who are employed while receiving Income Assistance in Nova Scotia can keep the first \$150 they earn (\$300 for people with disabilities), “plus an incentive of 30% of your remaining net wages” (Nova Scotia Department of Community Services, 2013a). If someone with a job continues to receive Income Assistance, they may receive Pharmacare benefits, plus the cost of childcare, transportation to work, and work-related purchases (Nova Scotia Department of Community Services, 2013a). It is hard to measure the impact of this policy on peoples’ incomes, and if the loss of benefits makes going back to work more difficult for people who can. Nova Scotians for Tax Fairness (2016) made recommendations to the 2016 Nova Scotia budget. They included an increase to the Affordable Living Tax Credit, the Poverty Reduction Credit, and Income Assistance rates so people getting any combination would not have to use food banks (Nova Scotians for Tax Fairness, 2016). They also highlighted the claw-backs of income supports, describing it as “effectively a tax rate 50% higher than the marginal tax rate for the wealthiest Canadians” (Nova Scotians for Tax Fairness, 2016, p. 3). In 2016, the Ontario branch of the Canadian Centre for Policy Alternatives called for a similar push for program structures to do more to reduce the rate at which earned income is deducted from Income Assistance amounts. In a

discussion of the deductions in Ontario they state, “[R]ight now, people who are on social assistance can and do work, but their income is deducted from their benefits at a very high rate. [...] This means it’s impossible for people who work while on social assistance to actually earn enough money to have an adequate income” (Laidley, 2016 p. 29). This point applies equally in Nova Scotia; our finding of the inadequacy of Income Assistance shows that we urgently need a change in Employment Support and Income Assistance policies in this province.

Recommendations:

- I. Within five years, increase Income Assistance rates to a level that would allow all households to meet their basic needs. After that, adjust the rates every year to keep up with the cost of living, including the cost of a basic nutritious diet.
- II. Ensure strong social policy as the foundation for food policy that maintains food security.
- III. Reduce the rate at which employment income is deducted from IA amounts for those who are working while receiving IA.

Conclusion #2. The current minimum wage is not high enough for working households with children to afford a nutritious diet.

The minimum wage is now adjusted each year based on the increase in the cost of living in Nova Scotia, but it is still too low to support families with children or other dependents. Even when we hypothetically increase the minimum wage to \$15 per hour, the reference family of four would only have \$167 to spend on all extra expenses. The lone mother with two children would still face a potential deficit of at least \$101 a month. A living wage, estimated at \$20.10 for Halifax,⁷ would help close the gaps in many of the household scenarios where one or more people are working and earning money (Johnston & Saulnier, 2015). According to the Canadian Centre for Policy Alternatives–Nova Scotia (Johnston & Saulnier, 2015), “the living wage is designed to cover all basic necessities plus allow families to live in dignity and enjoy a decent quality of life” (p. 1). A living wage is different from a minimum wage because it is not legislated by the government and is a type of voluntary policy in both public and private sectors (Johnston & Saulnier, 2015). A living wage would also cover the basic needs in our affordability scenarios and other household expenses (furniture, Internet), out of pocket health care services, parent education, social inclusion,⁸ and an emergency fund. It is encouraging to see growing support for a living wage across the country.

Recommendations:

- IV. Research the possibility and impact of putting a living wage in place in Nova Scotia workplaces and pilot a program to see how a living wage makes a basic nutritious diet more affordable.
- V. Increase incentives for businesses to employ Nova Scotians in full-time positions and offer benefits.

Conclusion #3. Income supports that make sure people have enough to live on, including a living wage and the Guaranteed Income Supplement (GIS), reduce the likelihood of low-income households being food insecure.

The difference in the end-of-month balance between the lone man with a disability and the lone senior man with a disability shows us that a basic guaranteed income can safeguard vulnerable households against food insecurity. This is in line with research that shows food insecurity rates among older adults drop by 50% once they turn 65 and start receiving OAS and the GIS (Emery, Fleisch & McIntyre, 2013). Recent work by the Broadbent Institute shows that OAS and GIS levels have decreased from 76% of median incomes in 1984 to 60% of median incomes today (Shillington, 2016). This suggests that even a basic guaranteed income amount that has been criticized for being too low can improve food security. Other income support programs that give a guaranteed basic income could be extended to all Nova Scotians, with similar impacts (Emery, Fleisch, & McIntyre, 2013).

Despite the potential challenges for food security experienced by low-income seniors in Nova Scotia, the federal and provincial governments have taken steps to ensure healthy aging for this population. Unfortunately, many seniors who are eligible for the federal GIS are not getting it. You must still apply for the GIS in writing, print the online application form, fill it in, and mail it (Government of Canada, 2016c). This may be a barrier and have an impact on who ends up receiving GIS. Many of the people who are eligible for GIS but not getting it are seniors in vulnerable communities, such as Indigenous peoples, homeless or near homeless, and immigrants (Employment and Social Development Canada, 2013). Employment and Social Development Canada (2010) has taken some successful steps to solve this problem, but must keep monitoring to make sure all seniors get the full income supports they need. The provincial government’s ongoing consultation and commitment to the Action Plan for an Aging Population in

⁷We have not calculated the impact of a living wage on our household scenarios because living wage rates must be calculated for individual municipalities to reflect local costs of living. The living wage for Halifax was recently adjusted for 2016 to \$19.17 (Saulnier, Johnson & Johnston, 2016). The living wage for Antigonish in 2016 was calculated to be \$17.30.

⁸For example, costs associated with recreation, reading materials, children’s toys, eating at restaurants, and charitable donations.

Nova Scotia also holds promise for the ways it can support people to live healthy lives as they age, a priority for a province whose population over 65 will reach almost 30% by 2040 (Nova Scotia Department of Seniors, 2016).

Poverty and food insecurity have serious health, economic, and social impacts. A basic income supplement for all families with a low income could save the provincial and federal governments money, especially in health care costs (McIntyre et al., 2016, St. Pierre, 2016). In Nova Scotia and nationally, there is more and more drive behind this policy strategy. In addition to Ontario's pilot project, policy makers in Alberta and Manitoba have also expressed interest. A recent report by the Canadian Centre for Policy Alternatives (2016) highlighted that Income Assistance today is based on different values from what a basic income program could be: "[I]t is highly conditional, controlling and judgemental, restrictively targeted and stigmatizing to users – characteristics that won't go away even if rates are raised" (Canadian Centre for Policy Alternatives, 2016, p. 14). A basic income may be especially helpful in areas that rely on seasonal labour, like Nova Scotia (Foster, 2016). It may allow more people to live and work in the places they call home. While the momentum for a guaranteed basic income increases, the transformation of the Employment Support and Income Assistance Program taking place in Nova Scotia, noted previously, holds promise for positive change.

Recommendations:

- VI. Pilot and evaluate the impact of a guaranteed basic income in Nova Scotia on household food insecurity.
- VII. Put automatic enrollment in place for the Guaranteed Income Supplement.

Conclusion #4. Low-income households need affordable and subsidized housing to meet their basic nutritional needs.

From our research, we know that high fixed costs have a big impact on household food budgets. Fixed costs include shelter, power, childcare, and transportation. For a low-

income household, food is often the most flexible part of the budget (Williams et al., 2012c; Williams et al., 2012d). These households will have more income left for a nutritious diet if they can reduce their fixed costs. For example, housing is affordable if it does not cost more than 30% of a household income (Canada Mortgage and Housing Corporation, 2016), yet every household scenario in this report would have to spend upwards of 40% of their income on housing when based on 2015 Income Assistance amounts and minimum wage rates, leaving little money left for other basic expenses.

There have been some advances in addressing homelessness in Nova Scotia and creating affordable housing. They include more rent subsidies and the province's first long-term housing strategy. The provincial and federal governments have also invested \$12 million to build new social housing units, repair and upgrade existing units, and repair cooperative housing facilities (Canada Mortgage and Housing Corporation 2014a; CBC News, 2014; Canada Mortgage and Housing Corporation, 2015a; Canada Without Poverty, 2015). Even so, the waitlist for public housing is currently 4300 to 4500 households per year (Canada Without Poverty, 2015; Markan, 2015). In 2006, 43,760 households, or 12.1% of all Nova Scotia households, did not have adequate, suitable and/or affordable housing (Nova Scotia Housing Development Corporation, 2012). Legislation was recently tabled by the Nova Scotia New Democratic Party (NDP) that would allow people to raise concerns through the Nova Scotia Human Rights Commission if their "access to adequate food, water, housing, and access to healthcare or social services are threatened" (NDP, 2016). Our findings suggest that this could strengthen the standard of living of Nova Scotians with low incomes.

Recommendation:

- VIII. Increase the number of adequate, affordable, and safe housing units to reflect the number of households living below the low-income cut-off.

Conclusion #5. Childcare costs make low-income households raising young children unable to afford a basic nutritious diet.

Provincial government childcare subsidies help families afford a basic nutritious diet and other basic needs, but households with children still face big potential deficits. In the two scenarios of households with children receiving Income Assistance, childcare takes up 7.4% to 21.6% of the budget. The increased CCB from the federal government is helpful, but it replaces other benefits. It does not make much difference overall, particularly for households relying on Income Assistance where adults want to work or go to school. Parents employed in both the public and private sectors also need appropriate paid maternity and parental leave. Low-income families need affordable childcare. In many provinces across Canada, childcare fees can be higher than university tuition (Childcare Resource and Research Unit, 2013). Quebec's childcare fees are by far the lowest in Canada (\$154 per month for all age groups in 2010) due to their universal childcare program. Nova Scotian parents and guardians paid \$616 per month per child in 2010 (Childcare Resource and Research Unit, 2013).

These fees are difficult for many medium-income households and simply out of reach for low-income households, especially with more than one child. The current provincial government recently increased the parent subsidy for childcare, changed subsidy eligibility criteria, limited fees, and simplified the application process to reduce barriers to affordable childcare (Nova Scotia Education and Early Childhood Development, 2016). Still, we do not yet know if this is enough to meet the need, or if low-income households face other barriers to accessing childcare like location or lack of transportation. In addition to increasing the childcare subsidy, the Nova Scotia branch of the Canadian Centre for Policy Alternatives (2015) has proposed developing an Early Learning and Child Care system; our findings also support this recommendation. They propose that the system be universally accessible, publicly-funded, provincially regulated, inclusive, involving both learning and care, accountable to and based on input by parents and communities, and respectful of the rights

to self-governance and self-determination by Mi'kmaq in Nova Scotia (Canadian Centre for Policy Alternatives (2015).

Recommendations:

- IX. Look at the provincial childcare subsidy to see if it helps people seek and keep employment.
- X. Increase the amount of the federal CCB, or increase other benefits to offset the high cost of childcare.
- XI. Examine the effectiveness of a publicly funded, provincially regulated childcare system

Conclusion #6. Income support for people with disabilities is not enough to afford a basic nutritious diet, which increases their likelihood of food insecurity.

Forty-four percent of people who rely on Income Assistance have a disability (personal communication, Nova Scotia Department of Community Services, January 7, 2016) and Nova Scotia has the highest rate of disability in Canada (Nova Scotia Department of Labour and Advanced Education, 2013). Because Income Assistance rates are inadequate, many people with disabilities are at high risk for food insecurity. To make things worse, the special needs allowances under the Income Assistance program have changed and do not cover as many items. This has led to "increased pain, illness, and social exclusion for... those with disabilities and chronic illnesses" (Wuite, Saulnier & Lord, 2013, p.7). For people with disabilities, adequate short- or long-term Income Assistance is a source of support if they are not able to work or face persistent barriers to employment such as discrimination or lack of accommodation (Gunderson & Lee, 2016; Batavia & Beaulaurier, 2001). Employment incomes for working people with disabilities in Nova Scotia are generally lower than for people without disabilities, and many live far below the poverty line (Disabled Persons Commission, n.d). This has a direct impact on food insecurity.

Many different disabilities can affect a person's access to a basic nutritious diet. Although income supports are clearly too low for people both with and without disabilities, we highlight the unique and specific challenges that people with disabilities must navigate in order to eat a healthy diet.

Recommendation:

XII. Ensure enough income and related policy supports for Nova Scotians with disabilities, who work and who do not work, to have a basic nutritious diet.

Conclusion #7. For low-income households, lack of affordable transportation can compromise their ability to access and afford a basic nutritious diet.

The affordability scenarios show the inadequacy of the transportation allowance afforded to adults receiving Income Assistance (up to \$150 per adult) compared with the estimated actual costs of transportation (about \$585 per family of four for private transportation), especially in rural areas where public transportation is not available. We have found that, like childcare and housing, affordable transportation could work with income supports to improve food security in Nova Scotia. In 2014, the average household in Nova Scotia devoted 15.5% (\$10,985 of \$70,501) of their total spending to transportation (Statistics Canada, 2016a). A limitation of our affordability scenarios is that the estimated monthly cost of public transportation (\$25.89) likely underestimates actual costs depending on where you live. \$25.89 would pay for approximately one 20-minute taxi ride in a rural area where public transit is unavailable or inaccessible. It would pay for roughly one week of bus tickets for Halifax Transit or Kings Transit. But, a monthly bus pass costs \$90.00 per month from Kings Transit or \$78.00 from Halifax Transit.

In rural communities with no public transit, and sometimes no taxi service, a private vehicle is not a luxury but a necessity, and it can be expensive. Many low-income

people in Nova Scotia do not have affordable and regular transportation. They are isolated with no way to travel to buy their basic needs, including food. This is especially true for people with limited mobility or a limited social network to rely on for rides to the grocery store. Our past research found that physical access to healthy food was hard for many people in Nova Scotia. For people with low incomes living in rural areas, this can be a big issue (Activating Change Together for Community Food Security, 2014, p. 14).

Better access to private and public transportation would build a more food secure province by giving people more reliable access to healthy food. It would support social inclusion and grow employment opportunities. Affordable and accessible transportation, by private vehicle or public transit, would also boost food budgets by lowering the proportion of income needed for transportation expenses.

Recommendations:

- XIII. Invest in affordable and accessible community-appropriate public transit.
- XIV. Increase Income Assistance to ensure Nova Scotians who need to can afford to have a private vehicle.

Concluding Comments: WHAT YOU CAN DO

FoodARC's vision is for healthy, just, and sustainable food systems for all – where all **community residents have access to enough affordable, healthy and culturally appropriate food, produced in socially, economically and ecologically sustainable ways that promote community self-reliance and social justice.**

Our approach to looking at and understanding household food security is based on our belief that food is one way inequities manifest. Everyone has a right to the healthy and culturally appropriate food they want, as well as the right to define and shape their food system. This understanding is part of all the recommendations in this report. It is also key to the suggestions below for how to take action to define, change, and design our food system. This includes making the processes and structures that inform production, distribution, and consumption more just and resilient. Together we must challenge the predominant, neoliberal, global economic and food systems that value profits over people.

At an individual level, what can each of us do to help ensure food security for all in Nova Scotia?

Challenge assumptions about food insecurity

When we think and talk about poverty and food insecurity, negative stereotypes and assumptions are common. This can include “blaming the victim,” which leads to social exclusion and a lack of action for positive change. Poverty and food insecurity are problems with deep roots in systemic social and economic inequities, not the behaviour of individuals.

In our daily lives, we can look critically at our own assumptions about food insecurity and talk to co-workers, friends, family members, and people in our communities about the causes of food insecurity. We can also participate in learning opportunities that challenge our own biases.

Get engaged in creating change

Learn more about what is happening in your community to address poverty and food insecurity:

- Join public conversations about causes, consequences, and solutions to poverty and food security.
- Challenge people who say that households that are food insecure are to blame because of their own choices about their health and eating.
- Provide evidence that income-related supports and minimum wages are not enough for many households to afford a basic nutritious diet.
- Have conversations with your local and provincial politicians to gain support for public policy that improves wages, Income Assistance, food policy, etc.
- Work with others to create positive change in your community, province, and country.

The following tools can support you to work towards a healthier, just, and sustainable food system in Nova Scotia:

Make Food Matter Toolkit

This website is full of resources to help you make change in your organization or community. There are tools and information to show how policy is made, help you to advocate and lead community conversations, and learn how to communicate about food security so people will listen. Check out the toolkit at www.makefoodmatter.ca.

The Hand You're Dealt

This two- to four-player board game is based on the PFC results in this report. It's an engaging way to help people learn about food insecurity and what we can do about it. The game has a Facilitator Guide with four sets of discussion questions. You can find out about obtaining a copy at www.foodarc.ca.

Thought About Food: A Workbook on Food Security & Influencing Policy

Thought About Food? is a workbook developed as part of a series of research projects on food security. It offers inspiring tools and information for communities to come together and organize to make food security a reality for everyone. www.foodthoughtful.ca

For more information on how you can help build food security in Nova Scotia, please visit:

- FoodARC www.foodarc.ca
 - FoodARC is a research centre at Mount Saint Vincent University committed to research and action to build food security in Nova Scotia and beyond. FoodARC's projects and activities have four pillars: research, building capacity, sharing knowledge, and advocacy and policy change.
- Healthy Populations Institute (formerly the Atlantic Health Promotion Research Centre) www.dal.ca/dept/hpi.html
 - The Healthy Populations Institute aims to improve population health and promote health equity by understanding and influencing the complex conditions that impact communities' health. Its areas of focus are research development, capacity building and training, knowledge translation, and research management.
- Food Secure Canada www.foodsecurecanada.org
 - Food Secure Canada is a pan-Canadian alliance of organizations and individuals working together to advance food security and food sovereignty through three interlocking goals: zero hunger, healthy and safe food, and sustainable food systems.
- Ecology Action Centre www.ecologyaction.ca
 - The Ecology Action Centre is an independent organization that works with partners to provide up-to-date environmental information, pursue evidence-based solutions, and act as a watchdog for the environment.

“I think that often families that are, that experience poverty are just not listened to or considered that they don’t have really anything important to add to the discussion. And I think that that’s far from the truth. So I think it’s a good reminder that we need to be listening to people that live in those circumstances when we’re trying to figure out how to make changes in society to make it better... I think that’s one of the good things about PFC is that is participatory.”

(Family Resource Centre partner, Mount Saint Vincent University and Nova Scotia Food Security Network, 2013, p.12).

RESEARCH TEAM

(April 2015 – February 2017)

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REFERENCES

- Activating Change Together for Community Food Security (ACT for CFS). (2014). *Making Food Matter: Strategies for activating change together*. Halifax, NS: Food Action Research Centre (FoodARC), Mount Saint Vincent University.
- Batavia, A., & Beaulaurier, R. (2001). The financial vulnerability of people with disabilities: *Assessing poverty risks*. *Journal of Sociology and Social Welfare*, 28, 139-162.
- Burke, D. (2016, April 20). Nova Scotia's \$20-a-month income assistance increase panned. *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/nova-scotia/income-assistance-government-budget-social-services-1.3545040>
- Canada Mortgage and Housing Corporation. (2014a). *Government of Nova Scotia announces investment of \$4-million in social housing*. Retrieved from <http://www.marketwired.com/press-release/government-of-nova-scotia-announces-investment-of-4-million-in-social-housing-1891645.htm>
- Canada Mortgage and Housing Corporation. (2014b). *Housing in Canada online: Definitions of variables, suitable housing*. Retrieved from http://cmhc.beyond2020.com/HiCDefinitions_EN.html#_Suitable_dwellings
- Canada Mortgage and Housing Corporation. (2015a). *Federal and provincial governments announce investment for co-operative housing*. Retrieved from <https://www.cmhc-schl.gc.ca/en/corp/nero/nere/2015/2015-01-23-0900.cfm>
- Canada Mortgage and Housing Corporation. (2015b). *Rental market report: Nova Scotia highlights, 2015*. Retrieved from https://www.cmhc-schl.gc.ca/odpub/esub/64503/64503_2015_B01.pdf
- Canada Mortgage and Housing Corporation. (2016). *About affordable housing in Canada*. Retrieved from https://www.cmhc-schl.gc.ca/en/inpr/afhoce/afhoce_021.cfm
- Canada Revenue Agency. (2015a). *CCTB: Application and eligibility*. Retrieved from http://www.cra-arc.gc.ca/bnfts/cctb/fq_qlfyng-eng.html. Accessed June 2015.
- Canada Revenue Agency. (2015b). *Child and family benefits calculator*. Retrieved from <http://www.cra-arc.gc.ca/bnfts/clcltr/cfbc-eng.html>
- Canada Revenue Agency. (2015c). *CPP contribution rates, maximums and exemptions*. Retrieved from <http://www.cra-arc.gc.ca/tx/bsnss/tpcs/pyrll/clcltng/cpp-rpc/cnt-chrt-pf-eng.html>
- Canada Revenue Agency. (2015d). *EI premium rates and maximums*. Retrieved from <http://www.cra-arc.gc.ca/tx/bsnss/tpcs/pyrll/clcltng/ei/cnt-chrt-pf-eng.html>
- Canada Revenue Agency. (2015e). *Goods and services tax/harmonized sales tax (GST/HST) credit*. Retrieved from <http://www.cra-arc.gc.ca/bnfts/gsthst/menu-eng.html>
- Canada Revenue Agency. (2015f). *Payroll deductions online calculator*. Retrieved from <http://www.cra-arc.gc.ca/esrvc-srvce/tx/bsnss/pdoc-eng.html>
- Canada Revenue Agency. (2015g). *Universal child care benefit (UCCB)*. Retrieved from <http://www.cra-arc.gc.ca/bnfts/uccb-puge/menu-eng.html>
- Canada Revenue Agency. (2015h). *Working income tax benefit (WITB)*. Retrieved from <http://www.cra-arc.gc.ca/bnfts/wtb/menu-eng.html>
- Canada Revenue Agency. (2016). *Canada child benefit - Overview*. Retrieved from <http://www.cra-arc.gc.ca/bnfts/ccb/menu-eng.html>.
- Canada Without Poverty. (2013). *Nova Scotia provincial poverty profile*. Retrieved from http://www.cwp-csp.ca/resources/sites/default/files/resources/NS_Poverty_Profile_2013.pdf
- Canada Without Poverty. (2015). *Nova Scotia poverty progress profile*. Retrieved from http://www.cwp-csp.ca/wp-content/uploads/2012/05/2015-Province-Poverty-Profiles_NS.pdf
- Canadian Centre for Policy Alternatives. (2016). A. Himelfarb & T. Hennessy (Eds.). *Basic income: Rethinking social policy*. Retrieved from <https://www.policyalternatives.ca/publications/reports/basic-income>
- Canadian Radio-television and Telecommunications Commission. (2015). *Communications monitoring report 2015: Canada's communication system: An overview for citizens, consumers, and creators*. Ottawa, ON: Government of Canada. Retrieved from <http://crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2015/cmr.pdf>

- Carter, M.A., Dubois, L., & Tremblay, M. (2013). Place and food insecurity: A critical review and synthesis of the literature. *Public Health Nutrition*, 17(1), 94-112.
- CBC News. (2014, October 28). *Low income Nova Scotians to qualify for expanded rent subsidies*. Retrieved from <http://www.cbc.ca/news/canada/nova-scotia/low-income-nova-scotians-to-qualify-for-expanded-rent-subsidies-1.2815926>.
- CBC News. (2016, January 27). *Nova Scotia to increase minimum wage by 10 cents*. Retrieved from <http://www.cbc.ca/news/canada/nova-scotia/minimum-wage-nova-scotia-increase-1.3421916>
- Charlebois, S., Harris, J., Tyedmers, P., Bailey, M., Keselj, V., Conrad, C., Grant, G., Somogyi, S., & Chamberlain, S. (2016). *Canada's Food Price Report 2017*. Halifax, NS: Dalhousie University. Retrieved from <https://www.dal.ca/faculty/management/news-events/canada-s-food-price-report.html>
- Childcare Resource and Research Unit. (2013). *The state of early childhood education and care in Canada 2010: Trends and analysis*. Retrieved from <http://www.childcarecanada.org/publications/eccec-canada/13/O2/state-early-childhood-education-and-care-canada-2010-trends-and-analy>
- Conference Board of Canada. (2016). *What we heard: Shaping Canada's National Housing Strategy*. Ottawa, ON: Government of Canada. Retrieved from <https://www.letstalkhousing.ca/pdfs/what-we-heard.pdf>
- Coulson, A. B. & Bonner, J. (2015). *Living Wages Employers: Evidence of UK Business Cases*. London: Citizens UK on behalf of the Living Wage Foundation. Retrieved from http://www.livingwage.org.uk/sites/default/files/BAR_LivingWageReport%20cropped%2021%2001.pdf
- Coveney, J. (2014). *Food*. New York, NY: Routledge.
- Davison, J. (2011, October 7). *Food eats up less of our spending, but costs us more*. CBC News. Retrieved from <http://www.cbc.ca/news/canada/food-eats-up-less-of-our-spending-but-costs-us-more-1.1054574>.
- Dietitians of Canada. (2016). *Addressing household food insecurity in Canada, position-statement and recommendations from Dietitians of Canada*. Retrieved from <http://www.dietitians.ca/Dietitians-Views/Food-Security/Household-Food-Insecurity.aspx>
- Disabled Persons Commission. (n.d.). *Gender and income statistics for persons with disabilities: A statistical report 2013-2014*. Halifax, NS: Government of Nova Scotia. Retrieved from <http://disability.novascotia.ca/sites/default/files/Gender%20and%20income%20stats%20manual.pdf>
- Easter Seals Nova Scotia. (2013). *Nova Scotia wheelchair recycling program application form*. Retrieved from <http://www.easterseals.ns.ca/uploads/539067894058cWheelchairs,%20form.pdf>
- Ecology Action Centre. (2016). *Local food for all!* Retrieved from <https://ecologyaction.ca/costshareCSA>.
- Emery, J. C., Fleisch, V. C., & McIntyre, L. (2013). How a guaranteed annual income could put food banks out of business. *University of Calgary SPP Research Papers*, 6(37). Retrieved from <https://www.policyschool.ca/wp-content/uploads/2016/03/emery-foodbankfinal.pdf>
- Employment and Social Development Canada. (2013). *Evaluation of the Guaranteed Income Supplement Take-up Measures and Outreach, February 2010*. Ottawa, ON: Government of Canada. Retrieved from <http://publications.gc.ca/site/eng/370826/publication.html>
- Employment Support and Income Assistance Regulations*, Section 21, Employment Support and Income Assistance Act, Statutes of Nova Scotia (2000, c. 27). [N.S. Reg. 25/2001 (March 23, 2001, effective August 1, 2001)] as amended. Retrieved from <https://www.novascotia.ca/JUST/REGULATIONS/regs/esiaregs.htm>
- Findlay, T., & Saulnier, C. (2015). *From patchwork quilt to sturdy foundation: Build a seamless early learning and child care system now*, CCPA-NS submission to the Department of Education and Early Childhood Development's Regulated Child Care Review. Halifax, NS: Canadian Centre for Policy Alternatives. Retrieved from https://www.policyalternatives.ca/sites/default/files/uploads/publications/Nova%20Scotia%20Office/2015/05/From_Patchwork_Quilt_to_Sturdy_Foundation_NS_Education_Submission.pdf
- Fitzpatrick, T., Rosella, L. C., Calzavara, A., Petch, J., Pinto, A.D., Manson, H., Goel, V., & Wodchis, W. P. (2015). Looking beyond income and education: socioeconomic status gradients among future high-cost users of health care. *American Journal of Preventive Medicine*, 49, 161-171.

- Food Banks Canada. (2016). *Hunger Count 2016: A comprehensive report on hunger and food bank use in Canada, and recommendations for change*. Retrieved from <https://www.foodbankscanada.ca/HungerCount>
- Food Secure Canada. (n.d.). *Food policy on new federal government agenda*. Retrieved from <http://foodsecurecanada.org/Food-Policy-on-New-Federal-Government-Agenda>.
- Food Secure Canada. (2013). *The right to food in Canada*. Retrieved from <https://foodsecurecanada.org/right-food-canada>
- Food Secure Canada. (2016). *Making sense of the new Healthy Eating Strategy*. Retrieved from <https://foodsecurecanada.org/resources-news/news-media/making-sense-new-healthy-eating-strategy>
- Foster, K. (2016). Basic income and seasonal work. A. Himelfarb and T. Hennessy (Eds.). *Basic income: Rethinking social policy*. Retrieved from https://www.policyalternatives.ca/sites/default/files/uploads/publications/National%20Office,%20Ontario%20Office/2016/10/CCPA%20ON%20Basic%20Income_FINAL.pdf
- Frank, L. (2015a). Exploring infant feeding practices in food insecure households: What is the real issue? *Food and Foodways*, 23(3), 186-209.
- Frank, L. (2015b). *End it now: The 2015 report card on child and family poverty in Nova Scotia*. Halifax, NS: Canadian Centre for Policy Alternatives. Retrieved from <https://www.policyalternatives.ca/publications/reports/2015-report-card-child-and-family-poverty-nova-scotia>
- Fuller-Thomson, E., & Nimigon, J. (2008). Factors associated with depression among individuals with chronic fatigue syndrome: Findings from a nationally representative survey. *Family Practice*, 25, 414-422.
- Government of Canada. (2016a). *Hourly Minimum Wages in CANADA for Adult Workers*. Ottawa, ON: Government of Canada. Retrieved from <http://srv116.services.gc.ca/dimt/wid/sm-mw/rpt2.aspx>.
- Government of Canada. (2016b). *Old age security pension*. Ottawa, ON: Government of Canada. Retrieved from <http://www.esdc.gc.ca/en/cpp/oas/index.page>.
- Government of Canada. (2016c). *Guaranteed income supplement – apply*. Ottawa, ON: Government of Canada. Retrieved from <https://www.canada.ca/en/services/benefits/publicpensions/cpp/old-age-security/guaranteed-income-supplement/apply.html>
- Government of Canada. (2016d). *A new vision for housing in Canada, let's talk housing*. Ottawa, ON: Government of Canada. Retrieved from <https://www.letstalkhousing.ca/learn-more/index.cfm>
- Gucciardi, E., Vogt, J. A., DeMelo, M., & Stewart, D.E. (2009). Exploration of the relationship between household food insecurity and diabetes in Canada. *Diabetes Care*, 32(12), 2218-2224.
- Gunderson, M., & Lee, B. (2016). Pay discrimination against persons with disabilities: Canadian evidence from PALS. *The International Journal of Human Resource Management*, 27(4), 1531-1549. DOI: 10.1080/09585192.2015.1072106.
- Green, R., Williams, P. Johnson, C., & Blum, I. (2008). Can Canadian seniors on public pensions afford a nutritious diet? *Canadian Journal on Aging*, 27(1), 69-79.
- Hamelin, A-M., Habicht, J-P., & Beaudry, M. (1999). Food insecurity: Consequences for the household and broader social implications. *The Journal of Nutrition*, 129(2), 525S-528S.
- Healthy Eating Action Group of the Nova Scotia Alliance for Healthy Eating and Physical Activity with the Office of Health Promotion. (2005). *Healthy eating Nova Scotia*. Halifax, NS: Nova Scotia Department of Health and Wellness. Retrieved from <http://novascotia.ca/dhw/healthy-communities/healthy-eating-strategy.asp>
- Howard, L. (2011). Transitions between food insecurity and food security predict children's social skill development during elementary school. *British Journal of Nutrition*, 105, 1852-1860.
- Ivanova, I., Klein, S., & Knowles, T. (2016). *Working for a living wage: Making paid work meet basic family needs in metro Vancouver, 2016 update*. Vancouver, BC: Canadian Centre for Policy Alternatives. Retrieved from <https://www.policyalternatives.ca/livingwage2016>.

- Johnson, C. P., Williams, P. L., & Gillis, D. E. (2015). The capacity building experience of women engaged in determining the cost and affordability of healthy food in Nova Scotia, Canada. *Journal of Hunger & Environmental Nutrition*, 10(3), 356-378. DOI: 10.1080/19320248.2014.962769
- Johnston, M., & Saulnier, C. (2015). *Working for a living, not living for work: The Halifax living wage 2015*. Halifax, NS: Canadian Centre for Policy Alternatives. Retrieved from <https://www.policyalternatives.ca/publications/reports/working-living-not-living-work>
- Kirk, S. F. L., Kuhle, S., MacIsaac, J. D., Williams, P. L., Rossiter, M., Ohinmaa, A., & Veugelers, P. J. (2014). Food security status among grade 5 students in Nova Scotia, Canada and its association with health outcomes. *Public Health Nutrition*, 17(16), 2943-2951. DOI:10.1017/S1368980014001414
- Kirkpatrick, S., & Tarasuk, V. (2009). Food insecurity and participation in community food programs among low-income Toronto families. *Canadian Journal of Public Health*, 100(2), 135-139.
- Kirkpatrick, S., McIntyre, L., & Potestio, M. L. (2010). Child hunger and long-term adverse consequences for health. *Archives of Pediatrics and Adolescent Medicine Journal*, 164, 754-762.
- Klein, S., & Yalnizyan, A. (2016). *Better is always possible: A federal plan to tackle poverty and inequality*. Ottawa, ON: Canadian Centre for Policy Alternatives. Retrieved from <https://www.policyalternatives.ca/publications/reports/better-always-possible>
- Laidley, J. (2016). The devil's in the details. A. Himelfarb and T. Hennessy (Eds.). *Basic income: Rethinking social policy*. Retrieved from <https://www.policyalternatives.ca/publications/reports/basic-income>
- Laroche, J. (2016, October 28). Program offers 1 year of free university to Nova Scotians on social assistance. *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/nova-scotia/welfare-assistance-university-community-college-books-tuition-aid-community-services-1.3825959>
- MacEwen, A., & Saulnier, C. (2010). *The cost of poverty in Nova Scotia*. Halifax, NS: Canadian Centre for Policy Alternatives. Retrieved from <https://www.policyalternatives.ca/publications/reports/%E2%80%89cost%E2%80%89poverty%E2%80%89nova%E2%80%89scotia>
- Markan, Z. (2015, March 18). Nova Scotia not in a housing crisis says province. *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/nova-scotia/nova-scotia-not-in-a-housing-crisis-says-province-1.2998731>
- Matheson, J., & McIntyre, L. (2014). Women respondents report higher household food insecurity than do men in similar Canadian households. *Public Health Nutrition*, 17(1), 40-48.
- McIntyre, L. (2003). Food security: More than a determinant of health. *Policy Options*, 23(3) 46-51.
- McIntyre, L., & Glanville, T. (2003). Do low-income lone mothers compromise their nutrition to feed their children? *Canadian Medical Association Journal*, 168(6), 686-691.
- McIntyre, L., Williams, J. V., Lavorato, D. H., & Patten, S. (2013). Depression and suicide ideation in late adolescence and early adulthood are an outcome of child hunger. *Journal of Affective Disorders*, 150(1), 123-129.
- McIntyre, L., Bartoo, A., & Emery, J.C. (2014). When working is not enough: Food insecurity in the Canadian labour force. *Public Health Nutrition*, 17(1), 49-57.
- McIntyre, L., Dutton, D., Kwok, C., & Emery, J. C. (2016a). Reduction of food insecurity among low-income Canadian seniors as a likely impact of a guaranteed annual income. *Canadian Public Policy*, 274-286. DOI: 10.3138/cpp.2015-069.
- McIntyre, L., Patterson, P., Anderson, L., and Mah, C. (2016b). Household food insecurity in Canada: Problem definition and potential solutions in the public policy domain. *Canadian Public Policy*, 42(1), 83-93.
- Monsebraaten, L. (2016, November 3). Proposed basic income pilot would provide monthly payments of least \$1,320. *The Toronto Star*. Retrieved from: <https://www.thestar.com/news/canada/2016/11/03/proposed-basic-income-pilot-would-provide-monthly-payments-of-least-1320.html>

Mount Saint Vincent and Nova Scotia Food Security Network. (2013). *Photovoice Report: Pictures that represent voices... Examining the impacts of participatory food costing on communities and organizations*. Halifax, NS: Mount Saint Vincent University.

Muirhead, V., Quiñonez, C., Figueiredo, R., & Locker, D. (2009). Oral health disparities and food insecurity in working poor Canadians. *Community Dentistry and Oral Epidemiology*, 37(4), 294-304.

New Democratic Party. (2016, October 18). *NDP introduces legislation to require adequate services for low-income Nova Scotians* [Press Release]. Retrieved from <https://nsndp.ca/ns/ndp-introduces-legislation-to-require-adequate-services-for-low-income-nova-scotians>.

Newell, F., Williams, P. L., & Watt, C. (2014). Is the minimum enough? Affordability of a nutritious diet for minimum wage earners in Nova Scotia (2002-2012). *Canadian Journal of Public Health*, 105(3), 158-165.

Noseworthy, B. L., Williams, P. L., Blum, I., & MacLeod, M. (2011). The availability and relative cost of locally produced foods in grocery stores in Nova Scotia. *Journal of Hunger and Environmental Nutrition*, 6(2), 188-206.

Nova Scotians for Tax Fairness. (2016). *Budget talks: Recommendations for NS 2016 budget*. Retrieved from http://www.taxfairness.ca/sites/taxfairness.ca/files/pdf/nsstf_submission_to_ns_gov_re_2016_budget.pdf

Nova Scotia Department of Community Services. (n.d)a. *Nova Scotia Department of Community Services statement of mandate 2013-2014*. Retrieved from http://O-nsleg-edeposit.gov.ns.ca.legcat.gov.ns.ca/deposit/b10665717_2013-2014.pdf

Nova Scotia Department of Community Services. (n.d.)b. *Program transformation*. Retrieved from <http://novascotia.ca/coms/transformation/program-transformation.asp>

Nova Scotia Department of Community Services. (2013a). *How having a job affects income assistance*. Retrieved from http://novascotia.ca/coms/employment/income_assistance/WhenIgetaJob.html.

Nova Scotia Department of Community Services. (2013b). *Enable and reward work*. Retrieved from <http://novascotia.ca/coms/poverty/Enableandrewardwork.html>

Nova Scotia Department of Community Services. (2013c). *The poverty reduction credit (PRC)*. Retrieved from <http://novascotia.ca/coms/noteworthy/PovertyReductionCredit.html>

Nova Scotia Department of Community Services. (2013d). *Improve support for those most in need*. Retrieved from <http://www.novascotia.ca/coms/poverty/Improvemostinneed.html>

Nova Scotia Department of Community Services. (2016). *Nova Scotia employment support and income assistance manual*. Retrieved from http://novascotia.ca/coms/employment/income_assistance/ESIAManual.html

Nova Scotia Department of Education and Early Childhood Development. (2016). *Affordable, Quality Child Care: A Great Place to Grow!* Retrieved from <https://www.ednet.ns.ca/>

Nova Scotia Department of Finance. (2015). *Affordable living tax credit and poverty reduction credit*. Retrieved from <http://www.novascotia.ca/finance/en/home/taxation/tax101/personalincometax/altc-prc.aspx>

Nova Scotia Department of Labour and Advanced Education. (2016). *Minimum Wage FAQ*. Retrieved from <http://novascotia.ca/lae/employmentrights/minimumwagefaq.asp>

Nova Scotia Department of Seniors. (2016). *Nova Scotia's Action Plan for an Aging Population*. Retrieved from <http://novascotia.ca/seniorstalk/action-plan-for-aging.asp>.

Nova Scotia Early Childhood Development Services. (2016). *Child care subsidy program, terms and conditions, version 5.3*. Retrieved from https://www.ednet.ns.ca/earlyyears/documents/families/Subsidy_Terms_and_Conditions.pdf

Nova Scotia Department of Health and Wellness. (n.d.). *Seniors' pharmacare program*. Retrieved from <http://novascotia.ca/dhw/pharmacare/seniors-pharmacare.asp>

Nova Scotia Department of Labour and Advanced Education. (2013). *Stakeholder Discussions on the Renewal of the Labour Market Agreement*. Retrieved from <http://novascotia.ca/lae/policy/docs/lmacjgconsultationssummary.pdf>

Nova Scotia Department of Labour and Advanced Education. (2016). *Annual report, 2016: The Nova Scotia Minimum Wage Review Committee*. Retrieved from <http://novascotia.ca/lae/employmentrights/docs/MWRC2016.pdf>

Nova Scotia Finance and Treasury Board. (2016). *Budget 2016-2017 bulletin: Supporting Nova Scotians who need it most*. Retrieved from <http://www.novascotia.ca/finance/site-finance/media/finance/budget2016/Supporting-Nova-Scotians-Who-Need-It-Most-Bulletin.pdf>

Nova Scotia Finance and Treasury Board. (2016, May 3). *Financial Measures (2016) Act introduced* [News Release]. Retrieved from <http://novascotia.ca/news/release/?id=20160503005>

Nova Scotia Housing Development Corporation. (2012). *Business plan 2012-2013*. Halifax, NS: Housing Nova Scotia. Retrieved from http://housing.novascotia.ca/sites/default/files/Business_Plan_2012-2013_NSHDC.pdf

Nova Scotia Participatory Food Security Project. (2008). *Cost and affordability of a nutritious diet in Nova Scotia: Report of 2007 food costing*. Halifax, NS: Mount Saint Vincent University. Retrieved from <http://foodarc.ca/resources/publications/#2009>.

Nova Scotia Participatory Food Security Project. (2009). *Cost and affordability of a nutritious diet in Nova Scotia: Report of 2008 food costing*. Halifax, NS: Mount Saint Vincent University. Retrieved from <http://foodarc.ca/resources/publications/#2009>.

Nova Scotia Participatory Food Costing Project. (2011). *Can Nova Scotians afford to eat healthy? Report of 2010 participatory food costing*. Halifax, NS: Mount Saint Vincent University. Retrieved from <http://foodarc.ca/resources/publications/#2009>.

Nova Scotia Participatory Food Costing Project. (2013). *Can Nova Scotians afford to eat healthy? Report on 2012 participatory food costing*. Halifax, NS: Mount Saint Vincent University. Retrieved from <http://foodarc.ca/resources/publications/#2009>.

Nova Scotia Participatory Food Costing Projects. (2015). *Participatory food costing survey tool 2015*. Halifax, NS: Mount Saint Vincent University.

Nova Scotia Power. (2015). Domestic service tariff. Retrieved from <http://www.nspower.ca/en/home/about-us/electricity-rates-and-regulations/rates/domestic-service-tariff.aspx>.

Oxfam Canada. (2016). *Why are food prices rising?* Retrieved from https://www.oxfam.ca/grow/learn/why_food_prices_are_rising

Power, E. (2005). Determinants of healthy eating among low-income Canadians. *Canadian Journal of Public Health*, 96(Sup 3), S37-S42.

Province of Nova Scotia. (2015). Minimum wage. Retrieved from <http://novascotia.ca/lae/employmentrights/minimumwage.asp>

Public Health Agency of Canada. (2004). *The social determinants of health: An overview of the implications for policy and the role of the health sector*. Ottawa, ON: Public Health Agency of Canada. Retrieved from <http://www.cwhn.ca/en/node/24759>.

Robinson, V. (2010). *Food costs for families: Analysis of the proportion of the minimum wage and income support benefit entitlements that families need to purchase a healthy diet*. Wellington, New Zealand: Regional Public Health. Retrieved from <http://www.rph.org.nz/content/5e8db71f-cf65-41ac-8075-1f430f43e01b.cmr>

Roshanafshar, S., & Hawkins, E. (2015). *Health at a glance: Food insecurity in Canada*. Statistics Canada, Catalogue no. 2-624-X. Retrieved from <http://www.statcan.gc.ca/pub/82-624-x/2015001/article/14138-eng.htm>

Ryan, H. (2016, May 10). 'People have to live:' NDP to table \$15 an hour minimum wage bill. *Metro News*. Retrieved from <http://www.metronews.ca/news/halifax/2016/05/10/nova-scotia-ndp-table-15-an-hour-minimum-wage-bill.html>

Sanger, T. (2016). How progressive is a basic income? Labour perspectives. A. Himelfarb and T. Hennessy (Eds.). *Basic income: Rethinking social policy*. Retrieved from <https://www.policyalternatives.ca/publications/reports/basic-income>

- Saulnier, C., Johnson, C., & Johnston, M. (2016). *Working for a living, not living for work: The Halifax and Antigonish living wages for 2016*. Halifax, NS: Canadian Centre for Policy Alternatives. Retrieved from https://www.policyalternatives.ca/sites/default/files/uploads/publications/Nova%20Scotia%20Office/2016/12/CCPA-NS_Halifax_Antigonish_LivingWage_2016.pdf
- Secombe, W. (2007). *A home-grown strategy for Ontario agriculture: A new deal for farmers, a new relationship with consumers*. Toronto, ON: Toronto Food Policy Council. Retrieved from <http://www.ryerson.ca/foodsecurity/definition/resources/OMAFRApolicyshift.pdf>
- Service Canada. (2013). First Nations workers and the Canada Pension Plan. Retrieved from <http://www.servicecanada.gc.ca/eng/services/pensions/cpp/publications/firstnation.s/html>
- Service Canada. (2015a). Canada Pension Plan/Old Age Security Quarterly Report – Monthly amounts and related figures from April to June 2015. Retrieved from http://publications.gc.ca/collections/collection_2015/servcan/SG3-2-2015-2-eng.pdf
- Service Canada. (2015b). Guaranteed income supplement. Retrieved from <https://www.canada.ca/en/services/benefits/publicpensions/cpp/old-age-security/guaranteed-income-supplement.html>
- Service Canada. (2015c). Old age security pension. Retrieved from <https://www.canada.ca/en/services/benefits/publicpensions/cpp/old-age-security.html>
- Shillington, R. (2016). *An analysis of the economic circumstances of Canadian seniors*. The Ottawa, ON: Broadbent Institute. Retrieved from http://www.broadbentinstitute.ca/an_analysis_of_the_economic_circumstances_of_canadian_seniors
- Statistics Canada. (2015a). *Average hourly wages of employees by selected characteristics and occupation, unadjusted data, by province (monthly) (Nova Scotia)*. Retrieved from <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/labr69d-eng.htm>
- Statistics Canada. (2015b). The Consumer Price Index (62-001-X). Retrieved from <http://www5.statcan.gc.ca/olc-cel/olc.action?ObjId=62-001-X&ObjType=2&lang=en&limit=0>
- Statistics Canada. (2015c). Median employment income of dual-earner couple families(dollars). CANSIM table 111-0009. Retrieved from <http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=1110009>
- Statistics Canada. (2015d). Survey of household spending, 2013. Retrieved from <http://www5.statcan.gc.ca/cansim/a26>
- Statistics Canada. (2015f). Living arrangements of seniors. Retrieved from http://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-312-x/98-312-x2011003_4-eng.cfm
- Statistics Canada. (2016a). Table 203-0022 – Survey of household spending (SHS), household spending, Canada, regions and provinces, by household income quintile. CANSIM (database). Retrieved from <http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=2030022>
- Statistics Canada. (2016b). Appendix H – Estimated number of households and average household size by domain. Retrieved from <http://www.statcan.gc.ca/pub/62f0026m/2016001/app-annh-eng.htm>
- St. Pierre, R. (2016). *Tackling Canadian poverty through a basic minimum income*. Toronto, ON: The Public Policy and Governance Review. Retrieved from <https://ppgreview.ca/2016/02/15/tackling-canadian-poverty-through-a-basic-minimum-income/>.
- Tarasuk, V., Cheng, J., de Oliveira, C., Dachner, N., Gundersen, C., & Kurdyak, P. (2015a). Association between household food insecurity and annual health care costs. *Canadian Medical Association Journal*, DOI:10.1503 /cmaj.150234
- Tarasuk, V., Mitchell, A., & Dachner, N. (2015b). *Household food insecurity in Canada, 2013*. Toronto, ON: Research to Identify Policy Options to Reduce Food Insecurity (PROOF). Retrieved from <http://proof.utoronto.ca/>
- Tarasuk, V., Mitchell, A., & Dachner, N. (2016). *Household food insecurity in Canada, 2014*. Toronto, ON: Research to Identify Policy Options to Reduce Food Insecurity (PROOF). Retrieved from <http://proof.utoronto.ca>.
- Union of Nova Scotia Indians. (2016). Nova Scotia RHS Data Online. Retrieved from: <http://unsi.data.fnigc.ca/online>.

- United Nations, General Assembly, *The Universal Declaration of Human Rights*, (10 December 1948). Retrieved from <http://www.un.org/en/universal-declaration-human-rights/>.
- United Nations, General Assembly. *International Covenant on Economic, Social and Cultural Rights*, (16 December 1966). Retrieved from <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx>
- United Nations Committee on Economic, Social and Cultural Rights. (2016). *Concluding observations on the sixth periodic report of Canada*. Retrieved from <http://www.refworld.org/docid/5645a16f4.html>
- United States Census Bureau. (2013). Small area income and poverty estimates: A basic explanation of confidence intervals. Retrieved from <https://www.census.gov/did/www/saiepe/methods/statecounty/ci.html>
- Vozoris, N., Davis, B., & Tarasuk, V. (2002). The affordability of a nutritious diet for households on welfare in Toronto. *Canadian Journal of Public Health*, 93(1), 36-40. .
- Wilkinson, R.G., & Pickett, K. (2009). *The spirit level: Why more equal societies almost always do better*. London, UK: Allen Lane.
- Wilkinson, R.G., & Pickett, K. (2010). *The Spirit Level: Why Greater Equality Makes Societies Stronger*. New York, NY: Bloomsbury Press.
- Williams, P. L., Johnson, C. P., Kratzmann, M. L. V., Shanthi Jacob Johnson, C., Anderson, B. J., & Chenhall, C. (2006). Can households earning minimum wage in Nova Scotia afford a nutritious diet? *Canadian Journal of Public Health*, 97(6), 430-434.
- Williams, P., Amero, M., Anderson, B., Green-Lapierre, R., Johnson, C., & Reimer, D. (2012a). A participatory food costing model in Nova Scotia. *Canadian Journal of Dietetic Practice and Research*, 73(4), 181-188.
- Williams, P. L., Amero, M., Anderson, B., Gillis, D., Green-Lapierre, R., Johnson, C., & Reimer, D. (2012b). A participatory model for food costing in Nova Scotia: Sustainable community action for food security. *Canadian Journal of Dietetic Practice and Research*, 73(4), 181-188.
- Williams, P. L., MacAulay, R., Anderson, B., Barro, K., Gillis, D. E., Johnson, C., Reimer, D. E. (2012c). "I would have never thought that I would be in such a predicament": Voices from women experiencing food insecurity in Nova Scotia, Canada. *Journal of Hunger & Environmental Nutrition*, 7(2-3), 253-270.
- Williams, P. L., Watt, C., Amero, M., Anderson, B., Blum, I., Green-LaPierre, R., Reimer, D.E. (2012d). Affordability of a nutritious diet for income assistance recipients in Nova Scotia (2002-2010). *Canadian Journal of Public Health*, 103(3), 183-188.
- Williams, P.L., Anderson, B.J., Hunter, H., & Watt, C. (2013). *The Nova Scotia Participatory Food Costing Projects (2001-2011): Evaluative learning from ten years of participatory research*. Retrieved from <http://foodarc.ca/resources/publications/#2009>.
- Williams, P. L. (2014). I would have never?: A critical examination of women's agency for food security through participatory action research. J. Page-Reeves (Ed.). *Women redefining the experience of food insecurity: Life off the edge of the table*. London, UK: Lexington Books.
- Worth, K. (2012, July 31). *My life on income assistance*. Halifax Media Co-op. Retrieved from <http://halifax.mediacoop.ca/story/my-life-income-assistance/11896>.
- Wuite, S., Saulnier, C., & Lord, S. (2013). *Cornerstone compromised: A critical analysis of changes to special needs assistance in Nova Scotia*. Halifax, NS: Canadian Centre for Policy Alternatives. Retrieved from <https://www.policyalternatives.ca/publications/reports/cornerstone-compromised>



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