



THE SCHOOL OF PUBLIC POLICY

MASTER OF PUBLIC POLICY CAPSTONE PROJECT

Nutrition North Canada: A solution to Northern Canadian Food Insecurity?

Submitted by:

David Bray

Approved by Supervisor:

Dr. Jean-Sébastien Rioux, Ph.D.

Submitted in fulfillment of the requirements of PPOL 623 and completion of the requirements for the Master of Public Policy Degree



THE SCHOOL OF PUBLIC POLICY

Acknowledgments

I would like to thank my advisor, Dr. Jean-Sébastien Rioux, for providing helpful advice and keeping me focused on finishing my project. I would also like to thank the professors and faculty of the School of Public Policy, for providing me with the tools to work on and complete this project. I would like to thank my family: my mother Tricia, father Calvin, and brother Jeffrey for their support as I completed my Master of Public Policy Degree. Finally I would like to thank my friends, for keeping my spirits high as I completed this project.

Table of Contents

Capstone Executive Summary	1
The Policy Question: Is Nutrition North an adequate policy for improving the food security of Northern Canada?	2
What is food security and why is it important?	4
Food insecurity and the North.....	4
The price of food in the North.....	7
History of Canadian Government Northern Food Subsidies.....	9
Background on the Food Mail Program	9
Background on Nutrition North	16
Issues with Nutrition North	20
Post-Nutrition North: Reforming the System.....	27
Improving Northern Food Security: Costs and Benefits	28
Policy Alternatives.....	30
Policy Alternative: Targeted Assistance.....	33
Policy Recommendations	42
Concluding Remarks.....	44
Works Cited.....	46

Capstone Executive Summary

Canada is a relatively wealthy country and issues of food security do not appear to be a major problem. In Northern Canada, however, many individuals find it difficult to access the foods they need to satisfy healthy diet requirements. Food prices in Northern Canada are considerably higher than they are in the South. The costs of transporting food to Northern Canadian communities are high, due to their isolation and distance from shipping routes. The Canadian government has enacted policies to lower food costs: Nutrition North Canada is the current result of these efforts, and it is the second iteration of the Food Mail program enacted in the 1960s. Millions of dollars in subsidies are provided to Northern Canadian retailers to offset the high food transportation costs. Recently, however, a Report from the Auditor General of Canada raised doubts as to whether the program was working to lower food costs. In addition to high food costs, many individuals in Northern Canada, in territories such as Nunavut and the Northwest Territories earn low incomes. These regions also experience food insecurity at much higher rates than the rest of Canada. To ensure all Canadians have access to a proper diet, a more effective Northern food policy is needed. This Capstone provides background of food security in Northern Canada; examines past and current Northern food subsidies, and presents an alternative: providing low income Northerners with a food stamp style subsidy to ease the negative effects of the high costs of food. Enacting this policy would provide stability to low income Northerners and decrease food insecurity in Northern Canada.

The Policy Question: Is Nutrition North an adequate policy for improving the food security of Northern Canada?

Many communities in Northern Canada (which includes Northern regions of Quebec, Manitoba, Saskatchewan, along with the three Territories) are difficult for food suppliers to access, which makes food more expensive. Subsidy programs such as Food Mail and Nutrition North Canada have been implemented to mitigate the effects of distance and isolation on food cost. The first subsidy program, Food Mail, was introduced in the 1960s and remained in effect until 2011, when it was replaced with Nutrition North Canada. Nutrition North Canada is administered by the Department of Aboriginal Affairs and Northern Development (AANDC). The Canadian government provided \$65.2 million in the 2014-15 budget towards subsidizing Northern food retailers to lower food costs in isolated Northern communities, and this amount rose to \$68.2 million in the 2015-16 budget.¹ A report by the Auditor General of Canada released in the fall of 2014 raised serious questions about the program's effectiveness in lowering food costs in the targeted areas. The Auditor General's report stated that the program had not sufficiently monitored whether or not retailers had passed along the subsidy to consumers.² In Nunavut, high costs of food are difficult for the population to bear. In 2009-2010, 42 percent of Nunavut residents received social assistance, and in some regions such as Kitikmeot, 53 percent

¹ Nutrition North Canada, How Nutrition North Works, last modified November 18, 2014, <http://www.nutritionnorthcanada.gc.ca/eng/1415538638170/1415538670874>.

² Michael Ferguson (Auditor General of Canada), "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada—Aboriginal Affairs and Northern Development Canada, *Office of the Auditor General*, Fall 2014, http://www.oag-bvg.gc.ca/internet/docs/parl_oag_201411_06_e.pdf, 6-8.

of residents receive social assistance.³ This is considerably higher than the rest of Canada where, as of 2012, the average social assistance usage rate is just above six percent.⁴ With high levels of poverty, ensuring necessary items such as food remains affordable is crucial, meaning that any policy designed to target this issue must be effective.

The Government of Canada has also committed to asserting its sovereignty over the North, and a region must be populated for a sovereignty claim to be valid.⁵ It is difficult to maintain a strong population in a region if its inhabitants face numerous socio-economic issues. In their 2011 book entitled *Canada and the Changing Arctic*, Griffiths, Huebert and Lackenbauer, argue that working on improving health issues in the North is “critically important.”⁶ The Canadian Government has identified “promoting economic and social development” as a key part of its Northern Strategy.⁷ Nutrition North was designed to assist Northerners in accessing healthy food, and contribute to community development. There are however, questions about the program’s effectiveness and as a result Nutrition North Canada is currently being reviewed for improvement. With higher than average levels of food insecurity in the Canadian North, programs designed to make health food more accessible and affordable should be effective and efficient. The policy question at hand is evaluating Nutrition North Canada as a policy to achieve better food security and health outcomes in Northern Canada and whether it can be improved or replaced by a better program.

³ CBC News, “Poverty, Inequality Rising in Nunavut,” *CBC News*, November 12, 2013, <http://www.cbc.ca/news/canada/north/poverty-inequality-rising-in-nunavut-1.2422793>.

⁴ Ron Kneebone, “The Rise and Fall of Social Assistance in Canada,” *The School of Public Policy: SPP Research Papers*, 7.5, 6.

⁵ Franklyn Griffiths, Rob Huebert and P. Whitney Lackenbauer, *Canada and the Changing Arctic*, (Waterloo: Wilfrid Laurier Press, 2011), 14.

⁶ Griffiths, *et al.*, *Canada and the Changing Arctic*, 265.

⁷ Northern Strategy, Promoting Social and Economic Development, last modified April 13, 2015, <http://www.northernstrategy.gc.ca/soc-dev/index-eng.asp>.

What is food security and why is it important?

People require certain amounts and types of food to live a healthy life. Those who have access to these foods are considered food secure. The concept of food security was defined at the 1996 World Health summit as ensuring “all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life.”⁸ When people have secure access to food, it increases their likelihood of living healthy long lives. This, the World Health Organization states, is crucial not just for healthy societies, but also to trade, economic development, and the environment.⁹ The economic costs of food insecurity can be high, one study stated prevalent food insecurity led to a “one-point loss of annual rate of economic growth, with loss of productivity, higher incidence of disease, and greater vulnerability of people, especially children.”¹⁰ Ensuring a society has adequate access to food is critical to producing optimal socioeconomic outcomes.

Food insecurity and the North

Nutrition North Canada serves to alleviate high food costs in isolated Northern communities, many of which struggle with food security related issues. The data suggest that communities in Northern Canada—especially Nunavut—face food access and nutrition related issues at much higher rates than the Canadian average. These issues include food insecurity and obesity.

⁸ World Health Organization, Food Security, (accessed 28 June, 2015), <http://www.who.int/trade/glossary/story028/en/>.

⁹ World Health Organization, Food Security.

¹⁰ Food and Agriculture Organization of the United Nations, III. Food Security, (accessed 28 June, 2015) <http://www.fao.org/docrep/006/y5061e/y5061e08.htm>.

A study published in 2012 by Valarie Tarasuk, Andy Mitchell and Naomi Dachner entitled *Food Insecurity in Canada (2012)* examined access to food across Canada. To measure food insecurity, they used data from the Canadian Community Health Survey (CCHS), which collects data from around 60,000 domiciles. The survey includes 18 questions, asking participants about their food purchasing and consumption habits, and whether they had difficulties in accessing sufficient amounts of food.¹¹ One example of a survey question reads as follows: “The food that you and other household members bought just didn’t last, and there wasn’t any money to get more. Was that often true, sometimes true, or never true in the past 12 months?”¹² They defined three levels of food insecurity: marginally food insecure, moderately food insecure, and severely food insecure. People considered marginally food insecure were those who had noted “some concern or problem over food access in the past 12 months.”¹³ Any individual that answered one of the eighteen questions indicating some level of difficulty accessing food was deemed to be food insecure. The researchers stated marginal food insecurity was included because a “growing body of literature” suggests any reported difficulties with food access indicated that the respondents are “more vulnerable than those who have affirmed no items on the 18-item questionnaire.”¹⁴ Those considered moderately food insecure had “reported compromises in the quality and/or quantity” of food consumed. Severe food insecurity was defined as respondents who made “extensive compromises” such as missing meals, eating less, and going days without food. The study includes all three types in defining food insecurity.¹⁵

¹¹ Tarasuk, V, Mitchell, A, Dachner, N. (2014). *Household food insecurity in Canada*, 2012 (Toronto: PROOF, 2012), <http://nutritionalsciences.lamp.utoronto.ca/>, 19

¹² Tarasuk, et al., *Household food insecurity in Canada*, 2012, 19.

¹³ Tarasuk, et al., *op. cit.*, 2012, 6-8.

¹⁴ *Ibid*, 29.

¹⁵ Tarasuk, et al., *op. cit.*, 6-8.

The study by Tarasuk, *et al.* examined rates of food insecurity across Canada, noting rates in every province and territory. At the national level, 12.6 % of Canadian households in 2012 were considered by the study to be in at least one of the levels of food insecurity.¹⁶ Food insecurity rates in the Northern territories were all higher. In Yukon, 17.1 % of respondents reported food insecurity, in the Northwest Territories 20.4% of respondents were food insecure. The numbers from Nunavut were most shocking, with 45.2 % of respondents reporting food insecurity.¹⁷ In Nunavut, 18.5% of respondents were severely food insecure, and 21.8% were moderately food insecure—only 5% of Nunavut respondents were marginally food insecure.¹⁸ The study also noted that the data suggested food insecurity was worsening. In Nunavut, the percentage of respondents reporting food insecurity increased from 36.4% to 45.2% from 2011 to 2012, a difference which the Tarasuk, *et al.* paper stated was “not statistically significant.”¹⁹ Respondents in the Northwest Territories also reported increasing levels of food insecurity; rising from 15.2% to 20.4% from 2011 to 2012.²⁰ The data from the CCHS show that the rates of food insecurity in the North are considerably higher than the rest of Canada. Close to half of Nunavut respondents reported food insecurity, and a large portion of them had severe issues with food access. In addition to this, there are also many notable health issues in Northern communities. Inuit children (aged 3-5), for example, face higher than normal levels of obesity, with two thirds of Inuit children reported to be overweight or obese.²¹

¹⁶ Tarasuk, et al., *op. cit.*, 8.

¹⁷ *Ibid.*, 2.

¹⁸ *Ibid.*, 9.

¹⁹ *Ibid.*, 9.

²⁰ *Ibid.*, 9.

²¹ Expert Panel on the State of Knowledge of Food Security in Northern Canada, *Aboriginal Food Security in Northern Canada: An Assessment of the State of Knowledge*, (Ottawa: Council of Canadian Academies, 2014), 54.

The Tarasuk, *et al.* study noted that moderate and severe food insecurity included compromises in both the type and amount of food consumed. Patterns in the health of Northern communities are trending in a negative direction. Historically, the diet of the Inuit peoples, most of whom live in communities in the Northwest Territories and Nunavut, has been sustained with traditional foods. Traditional food is defined as “those harvested from the local environment.”²² While there is limited data on the diet of the Inuit peoples, around the world most indigenous peoples are moving away from these traditional food sources towards processed foods.²³ This may explain some of the negative trends in Inuit health. A Council of Canadian Academies paper on Northern Aboriginal food security noted that the rate of obesity in Inuit communities is at 26%, much higher than the Canadian average of 16%, and that 28% of Inuit children aged 3-5 were obese and 39.3% were overweight; in total 67.3% of children are over a healthy weight, a rate higher than that on First Nations’ reserves (62.3%).²⁴ The North faces many issues at a higher rate than Canadians, Inuit people are especially vulnerable, and this is not helped by the high cost of food in the North.

The price of food in the North

Nutrition North, as well as the previous policy, Food Mail, were introduced to offset the high food costs in Northern communities. How expensive is food in these communities? Prices vary across Northern areas. Certain communities are more accessible by major suppliers than others, while many others are only accessible by airplane. It is not easy for providers to bring

²² Sangita Sharma, Xia Cao, Cindy Roache, Annie Buchan, Rhonda Reid, and Joel Gittelsohn, “Assessing dietary intake in a population undergoing a rapid transition in diet and lifestyle: the Arctic Inuit in Nunavut, Canada,” *British Journal of Nutrition* 103 (2010): 749-759, 749.

²³ Sharma et al., “Assessing dietary intake in a population undergoing a rapid transition in diet and lifestyle,” 749.

²⁴ Expert Panel on Food Security in Northern Canada, *op. cit.*, 54.

food to many Northern communities, and as a result food is more expensive. A CBC report examined the cost of five basic items in 11 Northwest Territories communities: oranges, potatoes, milk, eggs and a loaf of bread. In the capital, Yellowknife, the total cost was just under \$20 while elsewhere, prices were much higher. The average price was \$32, and some paid much higher than that. Those in Tuktoyaktuk paid the most, with the cost of the five goods amounting to \$38.35.²⁵

Communities in Nunavut also struggle with high food costs. According to a survey conducted by the Nunavut Bureau of Statistics, food costs 140% more on average in Nunavut than it does in communities in Southern Canada.²⁶ Another study aggregated results from Inuit health surveys, finding on average Northerners paid \$380 per week on groceries; for comparison, individuals in Northern Saskatchewan paid \$252.27 per week, and people in Newfoundland paid \$178.84.²⁷ In short, food in the North is very expensive, and almost certainly contributes to the issues of food insecurity. On average, food in the North, according to the aforementioned Inuit health surveys, would cost \$19,760 in a year—49.6% of Inuit adults make less than \$20,000 per year.²⁸ These statistics demonstrate the need for food subsidies in the North, and since the 1960s Canada has been subsidizing food in Northern Canada, until the introduction of Nutrition North, this was done through the Food Mail Program.

²⁵ CBC News, “Northern Food Costs Remain Sky High,” *CBC News*, October 17, 2013, <http://www.cbc.ca/news/canada/north/northern-food-costs-remain-sky-high-1.2101753>.

²⁶ Megan Campbell, Lara Honrado, and Brian Kingston, *Hunger in Nunavut: Local Food for Healthier Communities*, (Action Canada, 2014), 6.

²⁷ Expert Panel on Food Security in Northern Canada, *op. cit.*, 103-104.

²⁸ Expert Panel on Food Security in Northern Canada, *op. cit.*, 103.

History of Canadian Government Northern Food Subsidies

Many Northern Canadian communities are accessible only by plane. This isolation makes it impossible to ship in food at low prices. It is also difficult for many individuals to harvest local foods in the Canadian North. As a result, the Canadian Government has been subsidizing the costs of food being shipped into Northern Canada. This has been done through two programs: the Food Mail program and Nutrition North.

Background on the Food Mail Program

Food Mail was the Government's first major subsidy in Northern Canada. It was developed in the 1960s, as a result of a transition in the Northern way of life from "traditional nomadic hunting" to permanent "sedentary" communities, which were experiencing difficulties securing a steady supply of food.²⁹ The Food Mail program was designed to stabilize the supply of food and ensure the transition from nomadic hunting to permanent communities was as smooth as possible for Northerners. Through subsidies to Canada Post, the Government would ensure various products such as perishable food, along with non-food items such as hygiene products and machinery, would be delivered to Northern communities only accessible by airplane.³⁰ Food Mail would provide subsidies for goods such as: nutritious perishable food (fresh and frozen), non-perishable food, and essential non-food items (such as the ones noted above).³¹ Nutritious perishable foods had a rate of \$0.8 per kilogram in all Provinces and Territories, and non-perishable food and non-food items had a subsidy rate of \$1.00 per kilogram

²⁹ Standing Committee on Aboriginal Affairs and Northern Development, Chair: Bruce Stanton, MP, *From Food Mail to Nutrition North Canada*, (Ottawa: Canada, Parliament, House of Commons, 2011), 5.

³⁰ Standing Committee on Aboriginal Affairs and Development, *From Food Mail to Nutrition North Canada*, 6.

³¹ Graeme Dargo, *Food Mail Program Review: Findings and Recommendations of the Minister's Special Representative*, (Yellowknife: Dargo and Associates, 2008), 7.

in the provinces and \$2.15 in the territories.³² These were freight subsidies provided to Canada Post, which were designed to “cover a portion of the cost of transporting eligible foods to isolated communities.”³³ Canada Post was contracted by the Government of Canada to ship the goods. Graeme Dargo, author of a 2008 report to the Minister of Indian and Northern Affairs on the Food Mail program notes this example that explains how the Food Mail Program functions:

“If the cost of air cargo from Churchill to Repulse Bay was \$5.00 per kilogram then the user would pay \$0.80 per kilogram and Canada would pay the difference of \$4.20 per kilogram. The user would pay a CPC handling fee and any costs of local delivery from the airport at Repulse Bay to the final place of delivery.”³⁴

This subsidy was designed to offset the normally high costs of food transportation. Dargo notes that without the program, a 4.5 kilogram bag of potatoes would cost the residents of Pond Inlet \$64.49, as opposed to its subsidized price of \$18.29.³⁵ At the time of the report, there were 135 communities eligible to receive Food Mail, however 31 of them did not participate.³⁶ Their non-participation, as noted by Dargo, was due to the fact that the cargo rates were lower than the Food Mail subsidy rates. These communities were able to have food shipped in at rates lower than subsidized Food Mail rate, likely due to the fact that they were easily accessible compared to other Northern communities. It made no sense for them to use Food Mail because it was more expensive than the standard shipping rates.³⁷ Dargo recommended that the list of eligible communities be reviewed.³⁸ Food Mail served many Northerners in its near 50 year run time. In

³² Dargo, *Food Mail Program Review*, 7.

³³ Dargo, *Food Mail Program Review*, 7.

³⁴ Dargo, *Food Mail Program Review*, 8.

³⁵ Dargo, *Food Mail Program Review*, 4.

³⁶ *Ibid*, 5-7.

³⁷ *Ibid*, 37.

³⁸ *Ibid*, 5.

2007-2008, 17.8 million kilograms of goods were shipped through the Food Mail, and 72,000 people depended on the program.³⁹ Food Mail also provided educational material. They distributed informational brochures and posters, and offered safe food handling courses to food retailers.⁴⁰ On 1 April, 2011, the Government of Canada transitioned from the Food Mail system to Nutrition North Canada, because the Food Mail program fell out of favour with the current Government due to various inefficiencies and issues, which included growing program costs, inequities, and inconsistencies with eligibility among others explained below.⁴¹

Graeme Dargo's report shows why Food Mail was reviewed and why the Government of Canada chose to transition to a new subsidy program: growing costs, inequities, poor monitoring, and issues with eligibility are the major issues Dargo noted with the Food Mail program. Dargo's findings provide some key lessons for constructing a new food subsidy policy in Northern Canada.

A great deal of scrutiny surrounded the skyrocketing costs of the Food Mail program. In 2004-5, the program cost the Government \$36 million, by 2008-09 it had reached \$60 million. Dargo notes that population growth and increased nutritious food consumption played a role in the rising costs, but states that a major factor was the large increases in the cost of fuel. Food subsidy rates, Dargo states, have remained fixed since 1993, while the cost of fuel had risen considerably. This cost of fuel required greater subsidies to offset transportation cost.⁴² He also noted that the Food Mail program had a universal subsidy of \$0.8 per kilogram for perishable

³⁹ Jody B. Glacken and Frederick Hill, *The Food Mail Pilot Projects: Achievements and Challenges*, (Ottawa: Indian Affairs and Northern Development, 2009), 2.

⁴⁰ David A. Boulton, *Hunger in the Arctic: Food (In)Security in Inuit Communities: A Discussion Paper*, (Ottawa: National Aboriginal Health Organization, 2004), 3.

⁴¹ Nutrition North Canada, *How Nutrition North Canada Works*.

⁴² Dargo, *Food Mail Program Review*, 13.

food. Northern retailers would pay \$0.8 in food shipping costs, and the Government of Canada would cover the rest. This meant that as fuel prices rose, the Government would bear most of the cost increases. Expenditures on the Food Mail program rose 13% annually from 1999 to 2008.⁴³

It cost providers more (with the subsidy) to ship to communities farther North, which Dargo was told was a result of lower storage capacity in the provinces, which required retailers in the provinces to re-supply more often. Dargo disagreed with this assessment, stating that storage costs for retailers in the territories were likely similar to those in the provinces. Dargo believed these differing rates created an unfair and inequitable system.⁴⁴ Nutrition North Canada's variable rates are likely a result of Dargo's recommendations.

Northerners and Aboriginals expressed concerns to Dargo about the fairness of the program. Dargo noted that the Food Mail program was unfair and favoured privileged individuals.⁴⁵ Dargo notes some examples of this in his report: for example, personal orders, which were subsidized items ordered by an individual, rather than a retailer. Dargo believed that allowing this to occur exacerbated inequalities between Northerners. He noted that for individuals to receive personal orders, they must have a credit card, own a vehicle, and have the ability to "communicate to place an order."⁴⁶ This, Dargo believed, favoured those who were well off, noting that many Northerners do not have access to a vehicle or a credit card, and are therefore being excluded by an unfair system.⁴⁷

⁴³ Glacken and Hill, *Food Mail Pilot Projects*, 2.

⁴⁴ Dargo, *Food Mail Program Review*, 16.

⁴⁵ Dargo, *Food Mail Program Review*, 16.

⁴⁶ *Ibid*, 16.

⁴⁷ *Ibid*, 17.

Graeme Dargo's report also expressed concerns surrounding the items eligible for a Food Mail subsidy. He noted that items such as socks and toasters were eligible to be shipped through the Food Mail program, despite not contributing to the program's overall goal of reducing food costs. Dargo also expressed concerns that certain food items such as frozen meals, pizza, and ice cream were included on the list of eligible items, in spite of their poor health content.⁴⁸ Dargo conducted meeting with Aboriginal leaders and stakeholders who shared his concerns over eligible items. They felt that their needs were not always met by the Food Mail subsidy program, expressing concerns over using the Canadian Food guide as a guideline for food. Dargo points out that lard, not considered nutritious by any Canadian measure, is a top seller in Northern communities because it is a key ingredient in bannock, a popular traditional Aboriginal food item. Dargo also points out that southern meats such as pork and chicken are subsidized, but traditional local food sources known as country food are not, despite the fact that they are nutritious alternatives to processed food.⁴⁹ There were, as mentioned earlier, educational offerings designed to teach citizens in Food Mail communities about healthy food choices. Cooking classes were offered, and although they helped to raise some awareness about healthy eating, they were poorly attended.⁵⁰ Food Mail's goal was to provide nutritious food to Northern Canadians at affordable prices, and these findings suggest the program was not effectively following through on these objectives.

In order for a food subsidy to function properly, it must have effective mechanisms to monitor its progress in food cost reduction. Graeme Dargo states that the Department of Indian

⁴⁸ Ibid, 9.

⁴⁹ Dargo, *Food Mail Program Review*, 9-10.

⁵⁰ Kashef Majid and Sonya Grier, "The Food Mail Program: 'When Pigs Fly' – Dispatching Access and Affordability to Healthy Food," *Social Marketing Quarterly* 16, (2010):78-95, 91.

and Northern Affairs was not able to properly monitor the Food Mail Program and whether it was meeting its objectives of providing affordable, nutritious food to Northern Canadians. Dargo observed that there were no specific measures of performance used to gauge if Food Mail was meeting its objectives.⁵¹ The program did have some monitoring, as they sent out individuals to examine food prices in communities being served by Food Mail. Dargo, however, expressed doubts that this was an effective monitoring technique. He mentions that prices will vary from community to community, as some are closer to major supply lines than others. He also noted that these reviews were not conducted on a regular basis in every eligible community.⁵² The Department of Indian and Northern Affairs likely did not know whether if Food Mail was meeting its stated objectives.

Dargo states that there were issues in distribution, in 2007-08, Nunavik, a community in Northern Quebec, received 5.3 million kilos of items, and Nunavut received 5.8 million kilos, despite the fact that Nunavut's population is larger than Nunavik's by 5,000 people. This, Dargo states, was caused in part by the fact that the subsidy rates had not changed since 1993, he notes that:

“This is particular to the Provinces where the non-perishable food rate of \$1.0 per kilogram, versus \$2.15 in the Territories for the same, which has been justified due to apparent lack of supply storage in the Provinces. This provides an attractive opportunity to receive goods at well below sealift rates, while reducing annual inventory carrying and storage costs.”⁵³

⁵¹ Dargo, *Food Mail Program Review*, 11.

⁵² Dargo, *Food Mail Program Review*, 11.

⁵³ Dargo, *Food Mail Program Review*, 13.

Dargo's research shows the reasoning behind the transition from Food Mail to the Nutrition North program.

The Government of Canada initiated a review of Food Mail in 2006, this review included both an internal review by the Department of Indian Affairs and Northern Development, and the independent review of Graeme Dargo.⁵⁴ The review concluded in 2009, and the government assessed the various options and recommendations of the various reports.⁵⁵ A 2011 Government report by the Standing Committee on Aboriginal Affairs and Northern Development detailed the findings of the review, and detailed the transition to a new policy, which would be Nutrition North Canada. The report, likely as a result of his input, notes many of the flaws Dargo found with the Food Mail Program. It notes the lack of country food, concerns about the health content of certain eligible items, and insufficient awareness about the program.⁵⁶ They explained that the findings suggested a new type of food subsidy would be a stronger, more cost effective option. The review stated that a retail subsidy would be a more efficient way to lower food costs in Northern Canada. The Department of Indian Affairs and Northern Development estimated savings of \$7 million through switching to a market based retail subsidy. This prompted the Government of Canada to transition to the Nutrition North food subsidy.⁵⁷

The introduction of Nutrition North did not change the budgetary demands of Northern food subsidies. The report detailing the transition from Food Mail to Nutrition North Canada noted that "the total funding envelope [for Nutrition North Canada] will remain essentially unchanged from previous years."⁵⁸ Nutrition North's budget, therefore was similar in size to that

⁵⁴ Majid and Grier, "The Food Mail Program: When Pigs Fly," 89.

⁵⁵ Stanton, "From Food Mail to Nutrition North," 10.

⁵⁶ Stanton, "From Food Mail to Nutrition North," 11-12.

⁵⁷ Ibid, 12.

⁵⁸ Stanton, "From Food Mail to Nutrition North," 12.

of the previous Food Mail system. There was some optimism about Nutrition North when it was announced: some retailers noted that the system would provide healthier food options, would be more transparent, and would increase the amount of competition between retailers in the region.⁵⁹ There were some concerns from other retailers and assorted stakeholders as they learned of the details of the program. Smaller retailers expressed concerns surrounding their ability to compete against larger retailers, they stated that the ability of larger providers to buy in bulk would allow them to get better shipping rates and sell their food at better prices.⁶⁰ Concerns were also expressed about the products eligible for the subsidy, noting that child care products, hunting materials, and certain dried goods such as pasta and rice were not covered.⁶¹ While these concerns were heard, the Government of Canada went ahead with the program, and on April 1st, 2011, they launched Nutrition North Canada.⁶²

Background on Nutrition North

Nutrition North Canada uses a market-based solution to high food prices in Northern communities, it provides subsidies for certain foods, which include:

“a variety of perishable and nutritious food items (fruit, vegetables, milk, eggs, meat and cheese) shipped by air to an eligible community” and

"country" or traditional food commercially-processed in the North such as Arctic char, musk-ox and caribou (important sources of nutrients) shipped by air to an eligible community.”⁶³

⁵⁹ Ibid, 15.

⁶⁰ Ibid, 23.

⁶¹ Stanton, “From Food Mail to Nutrition North,” 23.

⁶² Government of Canada, How Nutrition North works.

⁶³ Government of Canada, Nutrition North Canada, “How Nutrition North Works.”

There are different subsidies for different foods. There are level 1 foods, which are defined as “nutritious perishable,” and level 2 foods, which are referred to as “other staple items;” level 1 items receive larger subsidies than level 2 items.⁶⁴ Certain communities are eligible to receive Nutrition North subsidies. To be eligible to receive the subsidy, communities must:

“lack year-round surface transportation (for example, no permanent road, rail or marine access)” and

“Have used Food Mail, the department's previous northern transportation subsidy program.”⁶⁵

Different communities receive different subsidies based on factors such as accessibility and shipping costs. Some communities receive the full subsidy, while others receive a partial subsidy. For example, food retailers in Arctic Bay in the Baffin region receive an 8.60 dollar per kilogram subsidy on level 1 foods, while food retailers in Berens River, Manitoba receive a 0.05 dollar per kilogram subsidy for level 1 foods.⁶⁶ Nutrition North Canada notes the reasoning behind varying subsidy rates by stating they consider “retailers' shipping costs, the weight of eligible goods they anticipate shipping by plane throughout the year as well as the number of eligible communities.”⁶⁷ In communities where shipping costs are higher, and more goods are being shipped, retailers can expect to receive a larger subsidy.

⁶⁴ Nutrition North Canada, How Nutrition North Works.

⁶⁵ Nutrition North Canada, Nutrition North: Eligible communities, last modified November 18, 2014, <http://www.nutritionnorthcanada.gc.ca/eng/1415540731169/1415540791407#tpc1>.

⁶⁶ Nutrition North Canada, Eligible communities.

⁶⁷ Nutrition North Canada, How Nutrition North Works.

Nutrition North’s budget has been around 60 million dollars since the program was introduced. Recent federal budgets have increased the funds allocated to Nutrition North Canada. In 2014-15, the program received 65.2 million dollars and 68.5 million dollars in 2015-16 because the program has a five percent escalator that compounds annually.⁶⁸ Some money is also allocated to educate people on healthy lifestyles; 2.9 million dollars has been set aside for “community based nutrition education,” which is administered by Health Canada.⁶⁹ This education works to teach Northerners about healthy eating habits and ways to make healthy food. Health Canada offers programs in Northern communities that are eligible to receive the full Nutrition North subsidy. Education programs include training of community workers, school based nutrition education, cooking classes, and workshops designed to improve knowledge about nutrition.⁷⁰ Through subsidizing nutritious food and providing health food education, Nutrition North Canada is designed not just to lower food costs, but to improve the health of Northerners.

Northern retailers and southern suppliers are both allowed to apply to receive the subsidy. In order to receive it, retailers and suppliers must meet certain criteria. Some of these are obvious: Northern retailers must be located in eligible communities and sell the foods that are subsidized by the program. They also need to make the subsidy known to the consumers. There are a variety of rules regarding reporting that retailers have to follow: they have to report how much food they ship in, what prices they charge for the food, and how much of the subsidy they are claiming.⁷¹ Southern suppliers also follow a set of similar rules. They are required, as expected, to sell to Northern retailers. Like the Northern retailers, they have to report various

⁶⁸ Nutrition North Canada, How Nutrition North Works.

⁶⁹ Nutrition North Canada, How Nutrition North Works.

⁷⁰ Nutrition North Canada, Eligible Food, last modified November 18, 2014, <http://www.nutritionnorthcanada.gc.ca/eng/1415548276694/1415548329309#tpc5>.

⁷¹ Nutrition North Canada, Information for retailers and Suppliers, last modified November 18, 2014, <http://www.nutritionnorthcanada.gc.ca/eng/1415626422397/1415626591979>.

details about what and how much they ship. They are also, like the Northern retailers, expected to monitor their use of the subsidy and provide proof that it is being passed on to consumers.⁷² Nutrition North Canada outlines criteria upon which they base their selection of southern suppliers, examples of which include: Aboriginal ownership, financial stability, and experience shipping to the North, among others.⁷³ Country food providers also must meet a certain set of criteria to receive subsidy. As mentioned earlier, country food refers to the traditional foods harvested locally in the North. There are a variety of conditions that country food providers must meet, examples of these include: being a government regulated supplier, have existing or “anticipated” clients in eligible communities, providing records of items shipped, and providing proof that the subsidy was passed on to consumers.⁷⁴

Nutrition North Canada appears to have mechanisms to monitor retailers and suppliers to ensure the program is functioning correctly. They state that a sample group of retailers and suppliers are subject to a compliance review every year.⁷⁵ With the Auditor General’s recent report however, doubts are beginning to emerge about the effectiveness of Nutrition North Canada to about its ability to monitor that retailers are passing the subsidy to consumers, and its ability to provide affordable, healthy food to Northern Canadians.

⁷² Nutrition North Canada, Information for retailers and Suppliers.

⁷³ Nutrition North Canada, Information for retailers and Suppliers.

⁷⁴ Nutrition North Canada, Information for retailers and Suppliers.

⁷⁵ Nutrition North Canada, How Nutrition North Works.

Issues with Nutrition North

The 2014 Auditor General's report brought the issues of Nutrition North to the public. In order for Nutrition North to be an effective program, it must demonstrably lower food costs for people living in eligible communities. The Auditor General's report suggests that the reporting mechanisms are not functioning properly. The report stated that compliance reviews from 2011-12, 2012-13, and 2013-14 did not adequately verify that the subsidy had been transferred to consumers. It noted that while reviews look at whether the subsidy is applied to the "landed cost" (meaning cost of the food to the retailers) of food, Nutrition North Canada does not examine the profit margins of Northern retailers—the Auditor General's report identified this as a key issue with Nutrition North.⁷⁶ Retailers are able to reduce their costs through the subsidy, if they do not pass the savings along to consumers, they would be able to reap the benefits of lower landed costs without passing the savings along to consumers. The report mentioned that during the investigation, they inquired about monitoring profit margins, and the Department of Aboriginal Affairs and Northern Development Canada (AANDC) stated that it was not mandatory to monitor profit margins and that doing so would be difficult because that information might be withheld due to "commercial confidentiality."⁷⁷ The Auditor General noted that retailers were willing to provide the Department with the landed costs of food including the subsidy, and that this information was also "commercially sensitive."⁷⁸

There are growing concerns that food retailers passing the subsidy along to themselves rather than the consumers. In 2012, a series of protests were organized throughout Northern

⁷⁶ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 7-8.

⁷⁷ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 8.

⁷⁸ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 8.

communities to raise awareness about the issue of high food costs. One of the organizers of the protests, Leese Papatsie, stated that: "In upper, High Arctic communities, the subsidy is higher than the freight cost. So they're making money like that."⁷⁹ This comment reflects the Auditor General's concerns in about profit margins. On this issue, AANDC in a response to the Auditor General's recommendation stated they would agree to stronger monitoring of profit margins.⁸⁰ On 1 April, 2015, the Government of Canada announced it would include mandatory monitoring of profit margins as part of the Nutrition North Canada program.⁸¹ Ensuring the subsidy is administered transparently is important, as it allows AANDC to ensure the 65.2 million dollars is being effectively passed on to consumers. The Auditor General's report notes that transparency was one of the recommendations in a standing committee's report on the transition from Food Mail to Nutrition North.⁸² Indeed, the report recommended "transparent monitoring mechanisms for retailers and transporters to ensure consumers receive the full benefits of the Nutrition North Canada program."⁸³ While this reform comes well after the 2011 Report by the Standing Committee, it least follows up on recommendations for strong transparency.

The move from the current Harper government to increase transparency and monitoring comes with an upcoming election in the fall of 2015. With Nutrition North under increased scrutiny, both current and potential policy makers are raising concerns with perceived shortfalls of the program. A group of Members of Parliament from the New Democratic Party of Canada (NDP) are moving to expand the subsidy to 46 communities at an additional cost of \$7.5

⁷⁹ Steve Rennie, "Nutrition North food subsidy program: What went wrong," *CBC News*, December 22, 2014, <http://www.cbc.ca/news/canada/north/nutrition-north-food-subsidy-program-what-went-wrong-1.2880756>.

⁸⁰ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 10.

⁸¹ CBC News, "Nutrition North retailers must hand over profit margin data," *CBC News*, April 2, 2015, <http://www.cbc.ca/news/canada/north/nutrition-north-retailers-must-hand-over-profit-margin-data-1.3019298>

⁸² Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 8.

⁸³ Standing Committee on Aboriginal Affairs and Development, *From Food Mail to Nutrition North Canada*, 31.

million.⁸⁴ Community eligibility was one of the issues raised by the Auditor General's report. As noted earlier, communities were eligible to receive Nutrition North subsidies if they lacked surface transportation and used Food Mail in the past. The Auditor General's report noted that these criteria did not accurately reflect a community's need for the subsidy. Certain communities, the report states, may have not have used Food Mail but are currently in need of food subsidies.⁸⁵ The Auditor General's report also highlights inconsistencies between eligible communities, pointing out two communities in Northern Ontario which are 20 kilometres apart: one community receives a full subsidy of \$1.60/kilogram, while the other receives a partial \$0.05/kilogram subsidy. The Auditor General did not understand why two communities so close together had such different subsidies.⁸⁶ With high levels of food insecurity in the North, it is important that any retailers in any community in need of the program receive the required subsidy, regardless of whether they used Food Mail in the past. The Auditor General's report recommended that AANDC review the eligibility of communities in the North and base it upon current need. In a response within the report, AANDC stated they agreed with the recommendation of the Auditor General, and that they were in the process of re-evaluating community eligibility to better serve Northern Canada based upon need rather than past usage.⁸⁷ These findings suggest Nutrition North Canada needs to expand its eligible community criteria, whether AANDC's promised review achieves this remains to be seen.

The performance mechanisms of Nutrition North Canada, which deal with issues such as program management and cost control were also criticized in the Auditor General's report. As

⁸⁴ CBC News, NDP Name Northern Communities Left out of Nutrition North, *CBC News*, May 27, 2015, <http://www.cbc.ca/news/canada/north/ndp-name-northern-communities-left-out-of-nutrition-north-1.3088451>.

⁸⁵ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 4.

⁸⁶ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 4-5.

⁸⁷ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 5.

noted above, the Auditor General has noted issues with Nutrition North Canada's ability to monitor whether consumers are receiving the benefits of the food subsidy. The Auditor General's report notes that Nutrition North Canada uses weight of food shipped, food basket prices, weight of food purchase (per person), and awareness levels (of NNC) as indicators of program performance.⁸⁸ Using these measures, Nutrition North Canada claimed that the subsidy decreased the price of food. They stated that from 2011 to 2014, food prices in Northern Canada have dropped by 7.2%, while the weight of food shipped has increased by 25%.⁸⁹ The Auditor General's report however casts doubt on whether these performance measures are sufficiently accurate: the food basket measure, as noted in the Auditor General's report, included 67 items, some of which were eligible for the subsidy, and some were not. The Auditor General notes that there are some issues with the data collected: AANDC is not able to monitor the veracity of the reported prices with the subsidy, 30 retailers are excluded because they lack the proper data to provide a full cost of a food basket, and the food basket includes non-subsidized items.⁹⁰ The report also found that the amount of food purchased and food spoiled was not reported, these were both to be used as measures of performance—without them NNC's data on performance is incomplete.⁹¹ The Auditor General's investigation shows various gaps in Nutrition North's performance evaluations. He recommended a review of NNC's performance measures, which AANDC agreed with.⁹²

The Auditor's final issue with Nutrition North is the lack of a proper cost containment strategy. As noted above, a major reason for the transition from Food Mail to Nutrition North

⁸⁸ Ibid, 11

⁸⁹ Nutrition North Canada, How Nutrition North Canada Works.

⁹⁰ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 12.

⁹¹ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 12.

⁹² Ibid, 13.

was that the Food Mail Program constantly went over its budget. If Nutrition North is unable to manage cost growth, then it is failing as an adequate replacement to Food Mail. The Auditor General's report notes that while there were plans to establish an "Oversight Committee" to monitor the costs of the program, they have rarely met and have done little in the way of cost control.⁹³

Like the Food Mail Program, Nutrition North Canada has had issues staying within its budget. The Auditor General's report points out that due to an overestimation in the weight of food in 2011-12, Nutrition North Canada increased the subsidy rates, as the overestimation provided some extra budgetary space to work with. However, in the following year they did not restore the rates to their original levels, and went \$6.2 million over-budget for 2012-13. This has grown to an 8.2 million dollar shortfall, and according to the Auditor General, this number is expected to continue to increase.⁹⁴ This provides evidence that Nutrition North, like Food Mail, is consistently going over-budget. The Auditor General recommended AANDC consider "all options in implementing its cost control strategy" (no specific recommendations were given), AANDC agreed with this recommendation and stated they would consider "annual changes to the subsidy rates."⁹⁵

Nutrition North's impact upon health is noted in the Auditor General's report. The Auditor General notes that Nutrition North Canada did consult with Health Canada in developing a list of nutritious food items to subsidize.⁹⁶ Health Canada notes that they participate in the Nutrition North program by providing the following in Northern communities: education on

⁹³ Ibid, 14.

⁹⁴ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 14.

⁹⁵ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 14.

⁹⁶ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 3.

healthy eating, cooking classes, and nutrition workshops.⁹⁷ The Auditor General's report notes that higher subsidies are placed on foods such as fruits, vegetables, meat and bread. The Auditor General stated that due to public pressure Nutrition North Canada continued to place low level subsidies on unhealthy food items such as ice cream and bacon.⁹⁸ While the report found that Nutrition North Canada had worked to build a list of demonstrably healthy foods, it was less clear whether they had become more affordable. It stated that AANDC had not been able fulfill its goal of making nutritious food more affordable and accessible in isolated Arctic region.⁹⁹ If the policy goal is to improve health outcomes and mitigate food insecurity in the North, the Auditor General's report suggests Nutrition North needs improvement.

The Auditor General's report illustrates many of the issues with Nutrition North Canada. There are numerous problems with compliance reviews, as well as the program's ability to control costs—which, as noted earlier, was a major reason why Food Mail program no longer exists. With high rates of food insecurity in the North, notably prevalent among Inuit populations, there is strong need to mitigate the high costs of food on an already vulnerable population. If Nutrition North were to function properly, it still may not address the most severe food insecurity issues. Food insecurity levels have remained high in Northern Canada in the 2000s and 2010s. In 2005, 38% of Nunavut residents reported some level of food insecurity, while this dropped to 31% during 2009 and 2010, food insecurity levels went up to 45.2% in 2012. In the Northwest Territories, food insecurity levels were at 14.2% in 2005, and are now at 20.4%. Yukon is the least food insecure Territory, with a food insecurity level in 2007 of 17.8%,

⁹⁷ Health Canada, Nutrition North Canada, last modified July 27, <http://www.hc-sc.gc.ca/fn-an/nutrition/north-nord/index-eng.php>.

⁹⁸ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 3-4.

⁹⁹ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 15.

this dipped down to 13% in 2008, and remained below 14% from 2008-2010, it then rose and as of 2012 sits at 17.1%.¹⁰⁰ Nutrition North's claimed 7% drop in prices from 2011 to 2014 may not be enough to help those most vulnerable with food insecurity, especially considering most people in the territories reporting moderate or severe food insecurity. Most Inuit adults earn less than \$20, 000 in a year and average food costs expenditures in the North are unaffordable. The 2009 data stated from Statistics Canada states that average yearly expenditure on food was \$7,496 in Yukon, \$9,509 in the Northwest Territories, and \$14, 815 in Nunavut (overall Canadian expenditures were \$7,262).¹⁰¹ While income assistance would help cover some of the costs of food, 77% of respondents reporting food insecurity also reported using some level of social assistance. Levels were similar in Yukon, where 75.4% of respondents reporting food insecurity also reported using social assistance. There was no data from the Northwest Territories due to low sample size.¹⁰² In terms of overall income levels, in 2012 Nunavut had a median total income of \$65,530, which is the lowest in Canada (overall Canadian median total income is \$74,540). In contrast, the Northwest Territories had the highest median total income in Canada, \$106, 710. Yukon also has a relatively high median total income of \$94, 460.¹⁰³ It is likely that food insecurity is more prevalent in certain parts of Northern populations than others. The Tarasuk, *et al.* paper notes that households closer to the low income measure (LIM), which is half the median household income, were more likely to be food insecure. The paper also notes that 45.3% of households earning less than half of the LIM are food insecure.¹⁰⁴ In order for a policy to effectively solve food security concerns, and improve the health, it needs to identify

¹⁰⁰ Tarasuk, *et al.*, *Household food insecurity in Canada*, 2012, 15.

¹⁰¹ Ferguson, "Report of the Auditor General of Canada—Fall 2014: Chapter 6, Nutrition North Canada," 1.

¹⁰² Tarasuk, *et al.*, *Household food insecurity in Canada*, 2012, 11.

¹⁰³ Statistics Canada, "Median total income, by family type, by province and territory (All census families)," last modified June 26, 2015, <http://www.statcan.gc.ca/tables-tableaux/sum-som/101/cst01/famil108a-eng.htm>.

¹⁰⁴ Tarasuk, *et al.*, *Household food insecurity in Canada*, 2012, 10.

those most in need of assistance. There is little doubt that food prices are higher in the North, as mentioned earlier, Graeme Dargo found that without any food subsidies, a 10 pound bag of potatoes in Pond Inlet would cost the residents of \$64.49, much higher than the actual price of \$18.29.¹⁰⁵ While food subsidies have helped Northern Canadians avoid extremely high prices, they may not be enough to help the most vulnerable deal with issues of food insecurity.

Post-Nutrition North: Reforming the System

There is a lot of overlap with Graeme Dargo's report on Food Mail and the Auditor General's report on Nutrition North Canada, and issues with Food Mail ought to have provided some lessons for future policies. Dargo expressed concerns over Food Mail's ability to monitor the effectiveness of the subsidy. The Auditor General expressed similar concerns with Nutrition North Canada. The Government of Canada has responded by mandating monitoring of profit margins. Cost control was also a concern of both Graeme Dargo and the Auditor General. Food Mail and Nutrition North both were unable to effectively maintain sustainable cost growth. AANDC has pledged to follow through on the recommendations of the Auditor General. However, the recommendations on which they are following through echo those in Dargo's report, the Government of Canada may wish to consider alternative approaches to alleviating Northern Food insecurity.

¹⁰⁵ Dargo, *Food Mail Program Review*, 11.

Improving Northern Food Security: Costs and Benefits

Nutrition North Canada currently costs the government \$65 million, and is set to increase in the next fiscal year. While this is a small piece of the government spending pie, ensuring it produces adequate benefits is critical in assessing the policy. In this case, understanding the social benefits accrued from spending on food insecurity is a useful tool in assessing whether it is worth spending millions of dollars on better Northerners access to food. The costs are clear, the Government of Canada has allocated \$68.5 million towards Nutrition North Canada.

The benefits are more difficult to understand. The socioeconomic benefits of reducing food insecurity and its health problems, however, can be expressed in dollar figures. Reducing the amount of health issues related to food insecurity and malnutrition will lower health care costs as healthier individuals generally place less strain on the health care system. Researchers Angella MacEwan and Barbara Clow from the Atlantic Centre of Excellence for Women's Health worked to develop an understanding of the economic costs of food insecurity in their paper "Dollars and Sense: An Economic Costing of Obesity, Food Insecurity, and Chronic Illness." Food insecurity, they note, has potential connections to both undernourishment and obesity. Individuals reporting moderate food insecurity in accounted for 6.3% of undernourished Canadians, and severely food insecure individuals accounted for 3.7% of undernourished Canadians. Similarly, 6.4% of obese Canadians were reported to be moderately food insecure, and 2.1% of obese Canadians reported severe food insecurity. These percentages are higher than

those of normal weight Canadians who reported food insecurity, of the Canadians reporting normal weight, 4.7% were moderately food insecure and 1.6% were severely food insecure.¹⁰⁶

Obesity imposes both direct and indirect costs on the health care system. Direct costs are those associated with medical care of individuals (i.e. hospital care, consultations with medical professionals). Indirect costs are related to those caused by lost productivity (i.e. lost worktime due to illness or premature death).¹⁰⁷ The public health agency of Canada estimated that in 2008, obesity incurred 1.96 billion dollars in direct costs and 2.63 billion dollars in indirect costs.¹⁰⁸ In 2011, 6.3 million Canadian adults were reported to be obese.¹⁰⁹ Using these figures, a rough estimate of per person costs of obesity can be created. The direct costs of obesity per person amount to around \$311, and the indirect costs around \$417 per person, meaning the total costs are at \$728 per person. These figures can provide a rough estimate of reduced costs of a successful food security policy.

Nutrition North currently serves a list of eligible communities, some Northerners live in Nutrition North eligible communities, while others do not. The current population of individuals served by Nutrition North Canada is 93,700.¹¹⁰ With the budget of Nutrition North Canada being increased to \$68.5 million in 2015-16, this means that the subsidy will cost around \$730 per

¹⁰⁶ Angella MacEwan and Barbara Clow, "Dollars and Sense: An Economic Costing of Obesity, Food Insecurity, and Chronic Illness," (Atlantic Centre of Excellence for Women's Health, 2011), 10.

¹⁰⁷ Institut National de Sante du Quebec, "The Economic Impact of Obesity and Overweight," *Institut National de Sante Publique du Quebec: TOPO Collection* 9, April 2014, https://www.inspq.qc.ca/pdf/publications/1799_Topo_9_VA.pdf, 2.

¹⁰⁸ INSPQ, "The Economic Impact of Obesity and Overweight," 5.

¹⁰⁹ Statistics Canada, Health at a Glance, last modified May 28, 2014, <http://www.statcan.gc.ca/pub/82-624-x/2014001/article/11922-eng.htm>.

¹¹⁰ Nutrition North Canada, "Northern Food Retail Data Collection & Analysis by Enrg Research Group," last modified March 6, 2015, <http://www.nutritionnorthcanada.gc.ca/eng/1424364469057/1424364505951>

person. These figures above can be used to measure the effectiveness of current and alternative policies.

Policy Alternatives

Nutrition North Canada's shortcomings may be too plentiful to offer a solution through reform of the current system. There remains a large portion of Northern Canadians dealing with issues of food insecurity, and helping them may require a different policy approach. Food costs are high, and many Northern Canadians do not have the sufficient funds to afford food, among the other costs of living they face. Low income has a strong effect on food consumption decisions, a *Canadian Journal of Health* essay authored by Sean Mark, Marie Lambert, Jennifer O'Loughlin, and Katherine Grey-Donald observed from studies that low income food insecure households in the United States reduced consumption of items such as nuts, seeds, and green leafy vegetables. While they did not find the exact cause of the reduction in healthy food consumption, they suggested low income was tied to compromises in eating habits and that public education campaigns may not be enough to promote healthy eating.¹¹¹ As noted earlier, there are many health issues related to overweightness and obesity in the Canadian North. Childhood health trends are also alarming. The Mark, *et al.* paper also noted that youth in low income households were, on average, shorter than their counterparts in households above the low income level. This may suggest that low income individuals are unable access the foods for a proper nutritious diet.¹¹² Policies that target these issues can yield great benefit; research done

¹¹¹ Sean Mark, Marie Lambert, Jennifer O'Loughlin, and Katherine Grey-Donald, "Household Income, Food Insecurity and Nutrition in Canadian Youth," *Canadian Journal of Health*, 103.2 (March/April 2012): 94-99, 97.

¹¹² Mark *et al.*, "Household Income, Food Insecurity and Nutrition in Canadian Youth," 97.

through the Copenhagen consensus examined the best ways to allocate aid money to yield the best outcomes. They examined the financial benefits from allocating one dollar to a single cause. They found that a productive area to spend money was reducing childhood malnutrition. Their study examined various developing countries in Asia, Africa, and the Middle East.¹¹³ The findings suggested that spending a single dollar on reducing malnutrition related stunting in children by 40% would yield \$45 of socio-economic benefits.¹¹⁴ The Government of Canada currently spends \$65 million on improving health outcomes in the North. If this money can be spent effectively, it may yield socioeconomic benefits much larger than the costs, as poor health outcomes place strain on the Canadian health care system.

Low income is connected to poor health outcomes, and with many Northern Canadians earning less than the average cost of an annual food basket, food insecurity is likely connected to low income. The ability of Northern Canadians to afford food is often dependent on their income levels. Those in the lower income deciles may benefit some from lower food costs, but they may already have issues accessing food if it were priced at levels comparable to Southern Canadian communities. Targeted policies designed to improve food security could potentially improve health outcomes in Northern communities

Increasing the income of Northerners could improve their food security and health. As it has been stated before, many living up North do not have sufficient income to ensure they are food secure. Improving the income situation is difficult, however, as there is no single cause of

¹¹³ Susan Horton and John Hoddinott, "Benefits and Costs of the Food and Nutrition Targets for the Post-2015 Development Agenda," *The Copenhagen Consensus (2015)*, http://www.copenhagenconsensus.com/sites/default/files/food_security_and_nutrition_perspective_-_horton_hoddinott_0.pdf (accessed 5 September, 2015), 7.

¹¹⁴ The Economist, "The Economics of Optimism," *The Economist*, January 24, 2015, <http://www.economist.com/news/finance-and-economics/21640361-debate-heats-up-about-what-goals-world-should-set-itself-2030>.

poverty. Many food insecure Northerners already use some level of social assistance, but for those reporting food insecurity, they clearly are unable to meet their dietary needs. In a research paper published by the University of Calgary's School of Public Policy entitled *How a Guaranteed Annual Income Could Put Food Banks Out of Business* authors Herb Emery, Valerie Fleisch and Lynn McIntyre examine income assistance policy in relation to food security. They note individuals aged 65-69 with incomes below \$20,000 experience food insecurity at a much lower rate than those in the 60-64 age bracket. They attribute this to the guaranteed annual income that seniors receive through their Canadian pension benefits.¹¹⁵ With many Inuit Canadians earning less than \$20,000 in annual income, their findings offer a potential policy route to decreasing food insecurity in Northern Canada. Emery, *et al.* make note of shocks and their effect on poverty. They note that "shocks," events that reduce purchasing power, often push people towards food insecurity. Households with lower incomes have are not as capable to deal with these shocks, be they large or small.¹¹⁶ They suggest a policy that can allow these households to stabilize their income levels and deal with various shocks as they arise. Noting the transition from income sources such as employment insurance (EI), workers compensation, and social assistance to old age pension, they find that while food insecurity rates for low income earners (<\$20,000) were high for the age brackets of 55-59 (34% food insecure), and 60-64 (27% food insecure). When individuals become eligible to collect pension benefits, and thus have a stabilized income, food insecurity rates drop considerably with only 14% of respondents aged

¹¹⁵ Herb Emery, Herbert Fleisch, and Lynn McIntyre, *How a Guaranteed Annual Income Could Put Food Banks Out of Business*, (Calgary: The School of Public Policy, 2013), 2.

¹¹⁶ Emery *et al.*, *How a Guaranteed Annual Income can put Food Banks out of Business*, 3.

65-69 and 12% of respondents aged 70-74 reporting food insecurity.¹¹⁷ These findings suggest that a stable source of income can go a long way in reducing the food insecurity rate.

The Emery, *et al.* paper examines the possibility of expanding guaranteed income eligibility beyond Canadians aged 65 and above. This could be an option for communities in the North struggling with low income and high rates of food insecurity. It is, however, a major policy shift that may not be realistic because estimates hold that a Canada wide program would cost \$30-\$50 billion. Emery, *et al.*, however, state that expanding current old age security benefits would cost much less than that, and costs such as administration and health care would be reduced.¹¹⁸ The findings in the Emery, *et al.* paper suggest that guaranteed annual income has outcomes desired by Nutrition North Canada. They found that individuals reported significantly less health problems after turning 65, despite the fact the health issues typically become more prevalent as people age. Mental health issues within the 65-69 and 70-74 group also decreased from those reported 60-64 group.¹¹⁹ Income has a strong connection with food insecurity, if Canada wants to take a large step in reducing the high food insecurity rates in Northern Canada, strong consideration should be given to policies that stabilize the incomes of vulnerable Northern Canadians.

Policy Alternative: Targeted Assistance

While high food prices certainly contribute to Northern Food Insecurity, they are likely not the sole cause. Low income individuals are much more vulnerable to food insecurity regardless of food cost, and there is considerable poverty in Northern Canada. An individual

¹¹⁷ Emery *et al.*, 2013, op. cit, 10.

¹¹⁸ Emery, *et al.*, op. cit., 13.

¹¹⁹ Emery, *et al.*, op. cit., 11.

living in a Nutrition North eligible community will benefit from lowered food costs whether they are poor or not. To ensure all Canadians have access to food, it would be more effective to spend money in a way that helps the most vulnerable Canadians first. There are a variety of policies that can be used to strengthen the purchasing power of low income Northerners and ensure they have better access to healthy and nutritious food.

In a community where retailers utilize the Nutrition North program, everyone living in the community benefits from the subsidy. Individuals in low income brackets pay the same price for food as those in middle and upper brackets. Many individuals that do not require assistance to access healthy food receive it regardless—Nutrition North, in effect is a universal subsidy, of around \$730 dollars per person. To illustrate this point, the community of Iqaluit will be used as an example. Iqaluit is eligible to receive the full Nutrition North Food subsidy, and level 1 foods are subsidized at a rate of \$2.30 per kilogram.¹²⁰ Iqaluit has a population, according to the 2011 census, of 6,595.¹²¹ It has a median after tax income of \$52,531. There are 1,340 residents of Iqaluit that fall into the top two income brackets (\$80,000-\$99,999 and \$100,000 and over), while 1,225 residents are in the four income brackets that fall below \$20,000.¹²² Nutrition North's benefits are felt by both the high and low income earners. To address the high levels of Northern food insecurity, the next policy should work to assist the 1,225 residents in Iqaluit that earn below \$20,000. A means-tested policy provides a cost effective alternative to address Canadians most vulnerable to food security issues.

¹²⁰ Nutrition North Canada, List of Eligible Communities.

¹²¹ Statistics Canada, NHS Profile, Iqaluit, CY, Nunavut, 2011, last modified December 19, 2014, <https://www12.statcan.gc.ca/nhs-enm/2011/dp-prof/details/Page.cfm?Lang=E&Geo1=CSD&Code1=6204003&Data=Count&SearchText=Iqaluit&SearchType=Begins&SearchPR=01&A1=All&B1=All&GeoLevel=PR&GeoCode=10>.

¹²² Statistics Canada, *NHS Profile, Iqaluit, CY, Nunavut, 2011*.

Means tested policies provide support to individuals that meet a certain criteria. Means tested policies are advantageous because they can target those who need it, and avoid spending money on individuals that can comfortably live without any assistance. Expanding means tested assistance to Northerners can help in reducing food insecurity levels. The paper by Emery, *et al.* noted that income stability has a strong link to food insecurity. Therefore ensuring that the poorest individuals have more income stability is a key to increasing food security. As noted earlier, Nutrition North spends around \$730 per person. Any individual, be they rich or poor, has access to this subsidy. If, however, the subsidy was directed towards poorer individuals, it could target the high levels of food insecurity in Northern Canada. Iqaluit has a total population of 6,595, at \$730 per person, meaning the cost of Nutrition North in Iqaluit amounts roughly to around \$4,814,350. If this were allocated differently, for example allocating sixty percent of this money (\$2,888,610) to the 1,225 low income earners, they would receive \$2,358 per person. Distributing \$2,000-\$2,500 in subsidies to the lowest income earners would fit within the original budget of Nutrition North, and could potentially work to slow the growing program costs. It would also leave room for a base level subsidy, to ensure that food costs do not grow out of control. As noted earlier, Graeme Dargo pointed out that without food subsidies, the cost of potatoes was around three and a half times higher (\$64 as opposed to \$18). Maintaining a food subsidy program is important to ensure the cost of living in the North does not become prohibitively high, but if AANDC follows through on the recommendations of the Auditor General such as monitoring profits and better cost control measures, Nutrition North may not require a considerably larger budget.

There are a variety of policy options to provide stability for low income Northern Canadians and improve their food security. In-kind transfers are an option that allows policy

makers to target the affected groups within Canada and provide them with what they directly need. A common example of an in-kind transfer is a food stamp system. Food stamps are distributed by governments to eligible individuals, and can be redeemed at food retailers to make purchasing food more affordable. The most notable example of a food stamps policy is the Supplemental Nutrition Assistance Program (SNAP) in the United States. The participants use a card known as an electronic benefits card (EBT) at grocery stores to purchase their required goods.¹²³ Many Americans use SNAP: in 2014 there were 46.5 million people in the United States using the Food Stamp system.¹²⁴ SNAP is the most notable food stamp system, and provides a blueprint for a future system to be used in the Canadian North. SNAP covers most food in stores, with the exception of pre-made meals, as recipients are expected to prepare meals at home.¹²⁵ Excluding pre-made meals within a Canadian plan would be compatible with the goal of improving nutritional outcomes, but it also makes it easier to make food less accessible. SNAP also is designed to target low-income Americans. Households must have less than \$2,000 of assets in order to receive SNAP benefits, although this limit increases to \$3,250 if the recipient is disabled or over the age of 60.¹²⁶ With the above research suggesting that targeting individuals with income levels below \$20,000 will decrease food insecurity, the Canadian system ought to follow this as a guideline, rather than follow the American model; this is due to the high levels of food insecurity and the higher food prices in areas eligible for Nutrition North.

SNAP's effect on American food security levels is a source of debate within the United States. Some research does suggest that Americans that utilize the SNAP benefits are less likely

¹²³ Brian Glenn, *The American Welfare State: A Guide*, (New York: Taylor and Francis, 2014), 53.

¹²⁴ United States Department of Agriculture, Supplemental Nutrition Assistance Program: Average Monthly Participation (Persons), (accessed 8 August, 2015), <http://www.fns.usda.gov/sites/default/files/pd/15SNAPpartPP.pdf>

¹²⁵ Glenn, *American Welfare State*, 53.

¹²⁶ Glenn, *American Welfare State*, 54.

to find themselves food insecure. A paper published by the United States Department of Agriculture (USDA) took a month by month analysis of low income households, and found that 20% of households reported very low food security before using SNAP, after using the program this rate dropped to 12%.¹²⁷ They also found that the prevalence of food insecurity with recent food insecurity levels dropped by one third after receiving benefits, this led the USDA to conclude SNAP has a “moderate ameliorative effect” on food insecurity levels.¹²⁸ The USDA is not alone in examining the effectiveness of SNAP: Brent Krieder, John V. Pepper, Craig Gunderson, and Dean Jolliffe wrote a paper examining the effect of SNAP, while attempting to avoid the common issues of self-selection bias and mis-reporting. Through controlling for reporting issues that skewed the data, they found that SNAP reduced the prevalence of food insecurity by at least 2.7 percentage points, childhood food insecurity by 8.1 percentage points, and obesity by 5.3 percentage points.¹²⁹ Another recent study also suggested that the SNAP program was working to reduce household food insecurity. In a *Journal of Nutrition Article* by James Mabli and Jim Ohls, a sampling of individuals noted decreases in the level of food insecurity and low food security. They used a cross-sectional comparison group design and a longitudinal group design.¹³⁰ They noted in their findings that the proportion of households experiencing food insecurity in both their sample groups dropped by 6%-17%, and the proportion of households experiencing severe food insecurity dropped by 12%-19%.¹³¹ These

¹²⁷ Mark Nord and Anne Marie Golla, *Does SNAP Decrease Food Insecurity? Untangling the Self-Selection Effect*, (Washington D.C.: United States Department of Agriculture, 2009), 15.

¹²⁸ Nord and Golla, *Does SNAP Decrease Food Insecurity?*, 15.

¹²⁹ Brent Krieder, John V. Pepper, Craig Gunderson, and Dean Jolliffe, “Identifying the Effects of SNAP (Food Stamps) on Child Health Outcomes When Participation Is Endogenous and Misreported,” *Journal of American Statistical Association* 107.499: 958-975, 973.

¹³⁰ James Mabli and Jim Ohls, “Supplemental Nutrition Assistance Program Participation Is Associated with an Increase in Household Food Security in a National Evaluation,” *The Journal of Nutrition* 145.2: 344-351, 345.

¹³¹ Malbi and Ohls, “Supplemental Nutrition Assistance Program Participation Is Associated with an Increase in Household Food Security in a National Evaluation,” 344.

findings, along with the findings of the other research papers suggest that food stamps can be an effective policy tool in reducing food insecurity. With any policy, however, there are issues—food stamps are no exception.

While some research has demonstrated that food stamps are an effective tool to combat food insecurity, there are some issues with bringing a similar system to Canada. SNAP, costs \$69 billion dollars per year to run.¹³² With 46.5 million users, this amounts to \$1,500 a participant. Some may find this too expensive, given the budget of Nutrition North is only \$68 million dollars. The transfers would also have to be higher given the food costs in Northern Canada. The population of the North, however, is fairly small, only 93,000 people currently live in communities served by Nutrition North and if the transfers are restricted to individuals earning below \$20,000 in a given year, it may help to contain costs. Nunavut has a population, as of April 1st 2015, of 36,886, if we assume that 45.2% of these individuals are food insecure, as suggested by the Canadian Household Health survey, then approximately 16,672 residents of Nunavut experience food insecurity. If all of these 16,672 individuals were to receive \$2,000 annually in food benefits, the total expenses would \$33,344,000, which may not be too expensive for a future Northern Food subsidy. The costs may be high, but if the program's funding is re-adjusted, it may be a workable solution within the constraints of the next Canadian federal budget.

There are some concerns about whether the system is effective at both providing low income individuals with a secure supply of food, and ensuring positive health outcomes. There is some evidence to suggest that recipients of SNAP benefits are at a higher risk of negative health

¹³² United States Department of Agriculture, Supplemental Assistance Program Benefits, (Accessed 8 August), [http://www.fns.usda.gov/sites/default/files/pd/17SNAPfyBEN\\$.pdf](http://www.fns.usda.gov/sites/default/files/pd/17SNAPfyBEN$.pdf).

outcomes than non-recipients. John Cawley, in *The Oxford Handbook of the Social Science of Obesity* notes that working age women, who comprise 28% of SNAP recipients, are more likely than non-recipients to be overweight or obese. According to research noted by Cawley, their likelihood of becoming overweight or obese increases by 2-5 percentage points. This trend, however, is limited to that specific group, with no similar trends noted in other groups.¹³³ In a review essay from *Health and Place*, Nathaniel L. DeBono, Nancy A. Ross, and Lea Berrang Ford also examine the potential link between weight issues and SNAP. Their analysis of the existing research led them to a similar conclusion to that of Cawley, that there is a link between long term female users of Food Stamps/SNAP and weight issues.¹³⁴ This could potentially be a drawback to a future Canadian program, as it was one of the goals of Nutrition North and Food Mail to improve health outcomes. This knowledge, however, could be used a lesson in crafting the policy to best suit the health needs of Northern Canadians. DeBono, *et al.* noted that policy reforms have suggested, such as encouraging SNAP eligible retailers to carry more fresh produce and healthier foods.¹³⁵ The *American Journal of Public Health* noted that it may difficult to forbid the sale of unhealthy foods, due to pressure from the companies that sell the products. They suggested that it may be easier, and just as effective, to lower the price of healthier foods by returning thirty cents on every dollar of healthy food bought. They support this idea with research that suggests that a 10% drop in the cost of fruits and vegetables causes SNAP recipients to purchase 6%-7% more of them.¹³⁶ If a two pronged policy approach is used with a

¹³³ John Cawley, *The Oxford Handbook of the Social Science of Obesity*, (New York: Oxford University Press, 2011), 418.

¹³⁴ Nathaniel L. DeBono, Nancy A. Ross, and Lea Berrang Ford, "Does the Food Stamp Program cause obesity? A realist review and a call for place-based research," *Health and Place* 18 (2012): 747-756: 755.

¹³⁵ DeBono et al., "Does the Food Stamp Program cause obesity," 755.

¹³⁶ Jonathan D. Shenkin and Michael F. Jacobson, "Using the Food Stamp Program and Other Methods to Promote Healthy Diets for Low-Income Consumers," *American Journal of Public Health* 100.9 (2010): 1562-1564, 1563.

future Northern food subsidy, that subsidizes both retailers and low income Northerners, it may be easier to coordinate and strengthen health outcomes.

Using a food stamps general food subsidy to retailers will have drawbacks; the most obvious being that if food subsidies to retailers are reduced or eliminated, prices will inevitably rise. In the most isolated regions this could potentially make food prohibitively expensive—many individuals will be unable to access food, and many retailers may be unable to maintain their business. Increasing food prices have been shown to raising food insecurity levels. A study examining food prices and their effect on SNAP program recipient noted that when food prices increased by 10%, food insecurity rates went up by 2.5%, and child food insecurity rates increased by 12.4%.¹³⁷ While food prices in Northern Canada are already considerably high, if they go up too much, the effect of either in-kind or in-cash transfers will be nullified. It is therefore important to maintain some level of general food subsidy to either retailers, or potentially return to the Food Mail system.

Any future policy, be it a continuation of the subsidies designed to lower food costs or a food stamps system, would yield more benefits if it targets children's health. As it has been noted before, many children living in Northern Canada live in food insecure households, and are afflicted with health concerns such as overweightness and obesity at rates higher than their Southern counterparts. There is also the concern of childhood growth stunting as a result of food insecurity. The aforementioned Copenhagen consensus study noted a large benefit to cost ratio when monies are directed towards reducing childhood stunting as a result of malnutrition. Addressing health concerns at a young age can be a preventative measure against costly severe

¹³⁷ Colleen Walton and Jennifer Taylor, *Prince Edward Island Food Costing Project*, (Charlottetown: Prince Edward Island Food Security Network, 2013), 8.

health problems in later life. There are multiple policy tools that can improve health outcomes in children, these however, are limited by the isolated nature of most Northern communities. They do not have the same capacity to do outreach and educational work with families as large urban centres. Nutrition North and Health Canada currently offer educational programs, which include nutritional programs in schools, but there is little else being done to promote early childhood nutrition.¹³⁸ A paper by the Committee on Obesity Prevention Practices for Young Children Institute of Medicine analyzed various methods to promote childhood nutrition and curb the growth of childhood obesity. Among their recommendations was a call on governments to ensure all citizens, including low income earners, have access to healthy food.¹³⁹ Should Nutrition North or any future food subsidy be successful, this goal will be easy to meet.

There are other goals that require more focus on the health of children. Training for individuals that work with children can be a cost effective way to promote children's nutrition. The aforementioned paper on childhood obesity noted, for example, that promoting breast-feeding can reduce childhood obesity. The World Health Organization's international code of Marketing of Breast Milk substitutes, mandates no promotion of breast milk substitutes, and does not allow doctors to sample these substitutes.¹⁴⁰ The rationale for this, the Institute of Medicine states, is that breastfed children have lower risk of becoming obese.¹⁴¹ In a report examining childhood obesity by the Region of Peel, they stated that research from sources such as the US Centers for Disease Control and Prevention, Health Canada, and the American Academy of

¹³⁸ Nutrition North Canada, How Nutrition North Works.

¹³⁹ Committee on Obesity Prevention Policies for Young Children, *Early Childhood Obesity Prevention*, ed. Leann L. Birch, Lynn Parker, and Annina Burns, (Washington, D.C., National Academies Press, 2011), 101.

¹⁴⁰ Committee on Obesity Prevention Policies for Young Children, *Early Childhood Obesity Prevention*, 86.

¹⁴¹ Committee on Obesity Prevention Policies for Young Children, *Early Childhood Obesity Prevention*, 87.

Pediatrics all found links between breastfeeding and lowered childhood obesity rates.¹⁴² This presents an easy and effective method to increase health outcomes in young children. While communities in Northern Canada do not have the same capacity as those in Toronto or Vancouver, this represents a simple change that can work to improve health outcomes, and if it not already, could be a useful part of a Nutrition North program.

Policy Recommendations

Canada needs strong policies to ensure all proper Northern Canadians have access to food. The Northern Territories face the highest levels of food insecurity in Canada. Canada currently uses a food subsidy provided directly to retailers, which is designed to offset the high costs of transporting food to Northern communities. The Government of Canada must ensure that the program is run in an effective and transparent manner. The Auditor General stated that without regular inspections of company profit margins, there is no way to know if the full subsidy is being passed on to Northern Canadians. Monitoring profit margins, along with the rest of the Governor General's recommendations are critical to ensuring a future subsidy is successful. A future program should also review the list eligible communities to ensure that all Northern Canadians that need the subsidy can access it. These food subsidies however do not do enough for many low income Northern Canadians.

¹⁴² Sarah Baker, Marilyn Kusi-Achampong, and Elizabeth Walker, *Effective Public Health Interventions in the Prevention of Obesity in Children from Birth to Six Years: A Rapid Review of the Evidence*, (Brampton, Ontario: Peel Public Health, 2011), 15.

Many individuals living in Northern Canada do not have enough money to afford the food required for a healthy diet. Canadians earning low income, as noted earlier in the Emery, *et al.* paper, are likely to face income shocks that make them more vulnerable to become food insecure. Strengthening their income can improve their food security. A means-tested program, similar to the SNAP program in the United States, can increase low income Northern Canadians access to healthy foods. This program would be used alongside a Northern food subsidy, ensuring that food does not become prohibitively expensive in Northern Canada. Furthermore, the system can be implemented electronically; the United States uses electronic benefit transfer (EBT). This can allow policy makers to administer the program efficiently, and track the food purchasing habits of those most vulnerable to food insecurity. This Capstone also recommends implementing a system that further lowers the cost of healthy foods for those who receive the benefits. The aforementioned research suggested that lowering the costs of healthy food for SNAP recipients caused them to consume more. That research suggested returning thirty cents for every dollar spent could prove effective in promoting healthy eating. A future Canadian system should include a similar return to encourage healthier eating.

The costs of the program have been increasing. The Government of Canada should consider allocating \$85-90 million dollars towards a new Nutrition North program, with proper cost control mechanisms to avoid major future cost increases. A food subsidy should remain in place, to ensure that food in isolated Northern communities does not become too expensive. The remaining funds will be used to provide low-income Northerners with direct assistance in purchasing food. The most recent Statistics Canada data states that in 2013, around 7610 adults

(out of 19,570 adults) in Nunavut earn less than \$20,000 in a year.¹⁴³ Providing these individuals on average with \$4000 dollars of food assistance would cost \$30,440,000, while an average of \$3000 per person would cost \$22,830,000. These payments would vary from person to person depending on factors such as income level, ability of an individual to work, and how many children a recipient has. Most of Nutrition North funding is spent on Nunavut, with approximately 60% of the subsidy money currently being spent on Nunavut.¹⁴⁴ This system can affordably provide assistance to low income earners in isolated communities, and work within a future Nutrition North program.

Improving health starts at a young age. Northern Canadians, notably Inuit populations, face higher than average levels of childhood overweightness and obesity. Overall improvements in food choices will certainly improve the health of children. Simple educational tools can also improve the health of Northern Canadians. Research suggests that promoting breastfeeding with infants has a noticeable effect in lowering childhood obesity. Simple policies like these can be worked into a larger effort to improve the health of Northern Canadians.

Concluding Remarks

Northern food insecurity is a major policy issue in Canada. The prevalence of food insecurity is much higher in the Canadian Territories, especially Nunavut. People living in isolated Northern communities pay much more on average for food than those in Southern Canada; the Canadian

¹⁴³ Statistics Canada, Individuals by total income level, by province and territory (Nunavut), last modified June 26, 2015, <http://www.statcan.gc.ca/tables-tableaux/sum-som/101/cst01/famil105n-eng.htm>.

¹⁴⁴ Tracy Galloway, "Is the Nutrition North Canada retail subsidy program meeting the goal of making nutritious and perishable food more accessible and affordable in the North?," *Canadian Journal of Public Health*, 105.5: e396-e397, e396.

Government has used two different food subsidies to address this problem. The Food Mail Program was the first; it subsidized Canada Post deliveries of food to Northern communities. While it worked to lower food costs, the program had problems with controlling costs, eligibility, and fairly distributing food. As a result, the Government of Canada introduced a new food subsidy to lower Northern food costs: Nutrition North Canada. This system provided subsidies directly to food retailers in Northern Canada to offset the high costs of bringing in food. Nutrition North was designed to lower food costs, allow Northerners to access healthier food, and provide overall improvement to health outcomes. The recent report of the Auditor General suggests that the program does not have enough oversight, and there is no clear way to know if it is actually successful in lowering food costs. There are also many individuals living in poverty in Northern Canada, while food subsidies can make food somewhat more affordable, for those earning less than \$20,000 a year, it is not enough. Research suggests that food insecurity is tied to disruptions or shocks created by changes in income levels. Therefore, this Capstone suggests, that in addition to a food subsidy, Canada introduce a system that provides direct assistance to the most vulnerable Northern Canadians. A means-tested program similar to SNAP in the United States, in concert with a closely monitored food subsidy can provide stability to low-income Northern Canadians and improve their food security. Northern Canada has serious issues of poverty, and no single policy is going to solve them all, but ensuring that all Northern Canadians have access to healthy food is a good first step.

Works Cited

- Baker, Sarah, Marilyn Kusi-Achampong, and Elizabeth Walker. *Effective Public Health Interventions in the Prevention of Obesity in Children from Birth to Six Years: A Rapid Review of the Evidence*, Brampton, Ontario: Peel Public Health, 2011.
- Boult, David A. *Hunger in the Arctic: Food (In)Security in Inuit Communities: A Discussion Paper*, Ottawa: National Aboriginal Health Organization, 2004.
- Campbell, Megan, Lara Honrado, and Brian Kingston. *Hunger in Nunavut: Local Food for Healthier Communities*, (Action Canada, 2014).
- Cawley, John. *The Oxford Handbook of the Social Science of Obesity*, New York: Oxford University Press, 2011.
- CBC News. "Northern Food Costs Remain Sky High," *CBC News*, October 17, 2013, <http://www.cbc.ca/news/canada/north/northern-food-costs-remain-sky-high-1.2101753>.
- CBC News. "Nutrition North retailers must hand over profit margin data," *CBC News*, April 2, 2015, <http://www.cbc.ca/news/canada/north/nutrition-north-retailers-must-hand-over-profit-margin-data-1.3019298>
- CBC News. "Poverty, Inequality Rising in Nunavut," *CBC News*, November 12, 2013, <http://www.cbc.ca/news/canada/north/poverty-inequality-rising-in-nunavut-1.2422793>.
- CBC News. NDP Name Northern Communities Left out of Nutrition North, *CBC News*, May 27, 2015, <http://www.cbc.ca/news/canada/north/ndp-name-northern-communities-left-out-of-nutrition-north-1.3088451>.
- Committee on Obesity Prevention Policies for Young Children. *Early Childhood Obesity Prevention*, ed. Leann L. Birch, Lynn Parker, and Annina Burns, Washington, D.C., National Academies Press, 2011.
- Dargo, Graeme. *Food Mail Program Review: Findings and Recommendations of the Minister's Special Representative*, Yellowknife: Dargo and Associates, 2008.
- DeBono, Nathaniel L., Nancy A. Ross, and Lea Berrang Ford. "Does the Food Stamp Program cause obesity? A realist review and a call for place-based research," *Health and Place* 18 (2012): 747-756.
- Emery, Herb, Herbert Fleisch, and Lynn McIntyre. *How a Guaranteed Annual Income Could Put Food Banks Out of Business*, Calgary: The School of Public Policy, 2013.

- Expert Panel on the State of Knowledge of Food Security in Northern Canada. *Aboriginal Food Security in Northern Canada: An Assessment of the State of Knowledge*, Ottawa: Council of Canadian Academies, 2014.
- Ferguson, Michael. (Auditor General of Canada), “Report of the Auditor General of Canada— Nutrition North Canada—Aboriginal Affairs and Northern Development Canada,” *Office of the Auditor General*, Fall 2014, http://www.oag-bvg.gc.ca/internet/docs/parl_oag_201411_06_e.pdf.
- Food and Agriculture Organization of the United Nations, III. Food Security, (accessed 28 June, 2015) <http://www.fao.org/docrep/006/y5061e/y5061e08.htm>.
- Galloway, Tracy. “Is the Nutrition North Canada retail subsidy program meeting the goal of making nutritious and perishable food more accessible and affordable in the North?,” *Canadian Journal of Public Health*, 105.5: e396-e397.
- Glacken, Jody B. and Frederick Hill. *The Food Mail Pilot Projects: Achievements and Challenges*, Ottawa: Department of Indian Affairs and Northern Development, 2009.
- Glenn, Brian. *The American Welfare State: A Guide*, New York: Taylor and Francis, 2014.
- Griffiths, Franklyn, Rob Huebert and P. Whitney Lackenbauer. *Canada and the Changing Arctic*, Waterloo: Wilfrid Laurier Press, 2011.
- Health Canada, Nutrition North Canada, last modified July 27, 2012, <http://www.hc-sc.gc.ca/fn-an/nutrition/north-nord/index-eng.php>.
- Horton, Susan and John Hoddinott. “Benefits and Costs of the Food and Nutrition Targets for the Post-2015 Development Agenda,” *The Copenhagen Consensus (2015)*, http://www.copenhagenconsensus.com/sites/default/files/food_security_and_nutrition_perspective_-_horton_hoddinott_0.pdf (accessed 5 September, 2015).
- Institut National de Sante du Quebec. “The Economic Impact of Obesity and Overweight,” *Institut National de Sante Publique du Quebec: TOPO Collection 9*, April, 2014, https://www.inspq.qc.ca/pdf/publications/1799_Topo_9_VA.pdf.
- Kneebone, Ron. “The Rise and Fall of Social Assistance in Canada,” *The School of Public Policy: SPP Research Papers*, 7.5.
- Krieder, Brent, John V. Pepper, Craig Gundersen, and Dean Jolliffe. “Identifying the Effects of SNAP (Food Stamps) on Child Health Outcomes When Participation Is Endogenous and Misreported,” *Journal of American Statistical Association* 107.499: 958-975.
- Mabli, James and Jim Ohls. “Supplemental Nutrition Assistance Program Participation Is Associated with an Increase in Household Food Security in a National Evaluation,” *The Journal of Nutrition* 145.2: 344-351.

- MacEwan, Angella and Barbara Clow. *Dollars and Sense: An Economic Costing of Obesity, Food Insecurity, and Chronic Illness*, Halifax: Atlantic Centre of Excellence for Women's Health, 2011.
- Majid, Kashef and Sonya Grier. "The Food Mail Program: "When Pigs Fly" – Dispatching Access and Affordability to Healthy Food," *Social Marketing Quarterly* 16, (2010): 78-95.
- Mark, Sean, Marie Lambert, Jennifer O'Loughlin, and Katherine Grey-Donald. "Household Income, Food Insecurity and Nutrition in Canadian Youth," *Canadian Journal of Health*, 103.2 (March/April 2012): 94-99.
- Nord, Mark and Anne Marie Golla. *Does SNAP Decrease Food Insecurity? Untangling the Self-Selection Effect*, Washington, D.C.: United States Department of Agriculture, 2009.
- Northern Strategy, Promoting Social and Economic Development, last modified April 13, 2015, <http://www.northernstrategy.gc.ca/soc-dev/index-eng.asp>.
- Nutrition North Canada, "Nutrition North: Eligible communities," last modified November 18, 2014, <http://www.nutritionnorthcanada.gc.ca/eng/1415540731169/1415540791407#tpc1>.
- Nutrition North Canada, Eligible Food, last modified November 18, 2014, <http://www.nutritionnorthcanada.gc.ca/eng/1415548276694/1415548329309#tpc5>.
- Nutrition North Canada, How Nutrition North Works, last modified November 18, 2014, <http://www.nutritionnorthcanada.gc.ca/eng/1415538638170/1415538670874>.
- Nutrition North Canada, Information for retailers and Suppliers, last modified November 18, 2014, <http://www.nutritionnorthcanada.gc.ca/eng/1415626422397/1415626591979>.
- Nutrition North Canada, Northern Food Retail Data Collection & Analysis by Enrg Research Group, last modified March 6, 2015, <http://www.nutritionnorthcanada.gc.ca/eng/1424364469057/1424364505951>
- Rennie, Steve. "Nutrition North food subsidy program: What went wrong," *CBC News*, <http://www.cbc.ca/news/canada/north/nutrition-north-food-subsidy-program-what-went-wrong-1.2880756>.
- Sharma, Sangita, Xia Cao, Cindy Roache, Annie Buchan, Rhonda Reid, and Joel Gittelsohn. "Assessing dietary intake in a population undergoing a rapid transition in diet and lifestyle: the Arctic Inuit in Nunavut, Canada," *British Journal of Nutrition* 103 (2010): 749-759.

- Shenkin, Jonathan D. and Michael F. Jacobson. "Using the Food Stamp Program and Other Methods to Promote Healthy Diets for Low-Income Consumers," *American Journal of Public Health* 100.9 (2010): 1562-1564.
- Standing Committee on Aboriginal Affairs and Northern Development, Chair: Bruce Stanton, MP. *From Food Mail to Nutrition North Canada*, Ottawa: Canada, Parliament, House of Commons, 2011.
- Statistics Canada. Health at a Glance, last modified May 28, 2014, <http://www.statcan.gc.ca/pub/82-624-x/2014001/article/11922-eng.htm>.
- Statistics Canada. Median total income, by family type, by province and territory (All census families), last modified June 26, 2015, <http://www.statcan.gc.ca/tables-tableaux/sum-som/101/cst01/famil108a-eng.htm>.
- Statistics Canada. Individuals by total income level, by province and territory (Nunavut), last modified June 26, 2015, <http://www.statcan.gc.ca/tables-tableaux/sum-som/101/cst01/famil105n-eng.htm>.
- Statistics Canada. NHS Profile, Iqaluit, CY, Nunavut, 2011, last modified December 19, 2014, <https://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/details/Page.cfm?Lang=E&Geo1=CSD&Code1=6204003&Data=Count&SearchText=Iqaluit&SearchType=Begins&SearchPR=01&A1=All&B1=All&GeoLevel=PR&GeoCode=10>.
- Tarasuk, V, Mitchell, A, Dachner, N. (2014). *Household food insecurity in Canada*, 2012 Toronto: PROOF, 2012, <http://nutritionalsciences.lamp.utoronto.ca/>.
- The Economist. "The Economics of Optimism," *The Economist*, January 24, 2015, <http://www.economist.com/news/finance-and-economics/21640361-debate-heats-up-about-what-goals-world-should-set-itself-2030>.
- United States Department of Agriculture. Supplemental Assistance Program Benefits, (Accessed 8 August), [http://www.fns.usda.gov/sites/default/files/pd/17SNAPfyBEN\\$.pdf](http://www.fns.usda.gov/sites/default/files/pd/17SNAPfyBEN$.pdf).
- United States Department of Agriculture. Supplemental Nutrition Assistance Program: Average Monthly Participation (Persons), (accessed 8 August, 2015), <http://www.fns.usda.gov/sites/default/files/pd/15SNAPpartPP.pdf>
- Walton, Colleen and Jennifer Taylor. *Prince Edward Island Food Costing Project*, Charlottetown: Prince Edward Island Food Security Network, 2013.
- World Health Organization. Food Security, (accessed 28 June, 2015), <http://www.who.int/trade/glossary/story028/en/>.