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## **Food for Thought:**

### **Access to Food in Canada's Remote North**

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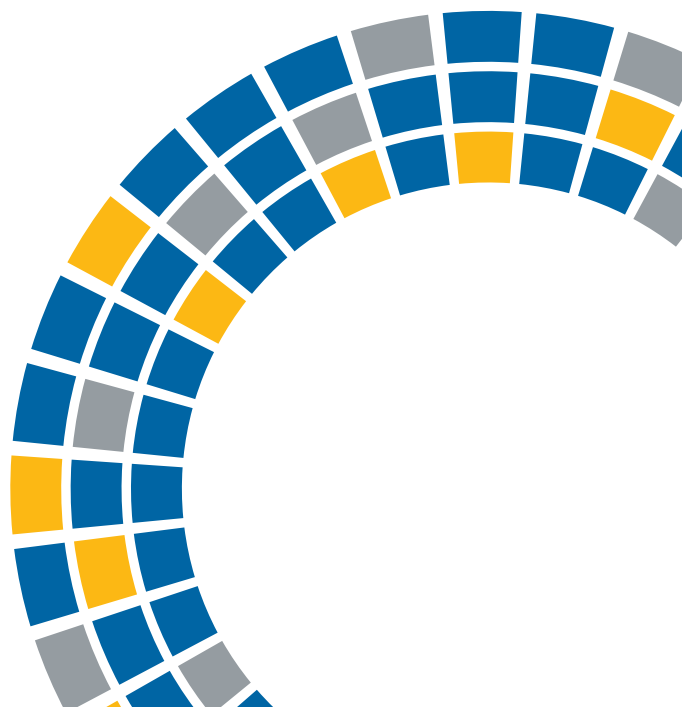
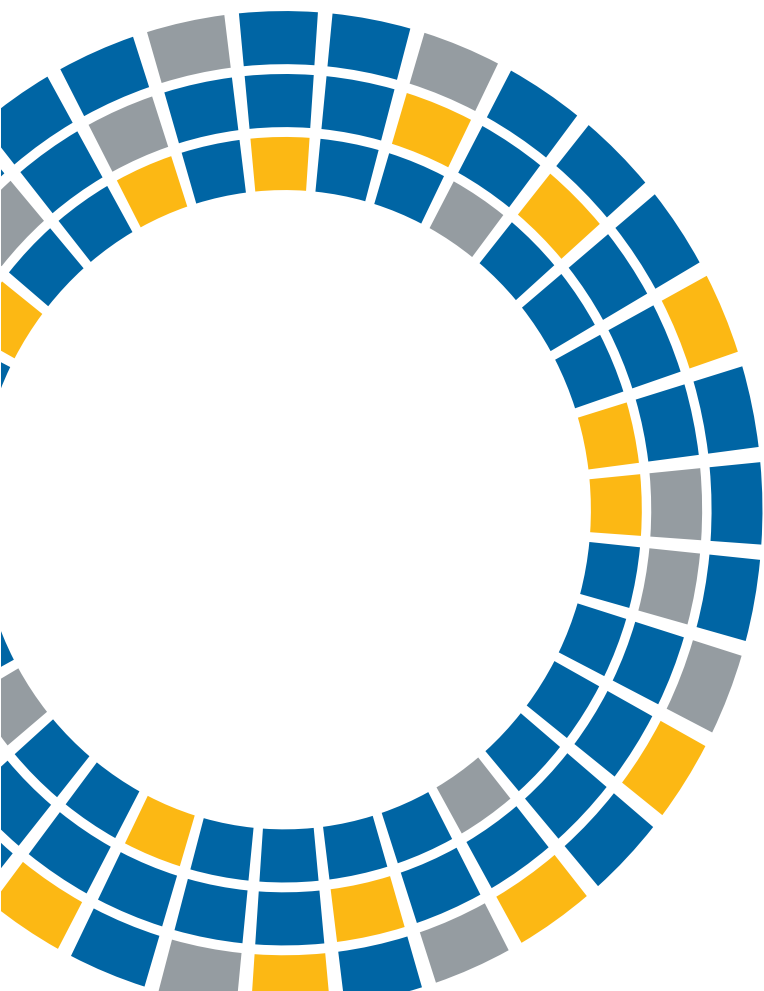
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## About the Author

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## Executive Summary

Current food policies in Canada are inadequately addressing food security in the country's northern region. Remote communities, particularly First Nations, are faced with inaccessibly expensive and low-quality foods and are consuming highly processed items more often, leading to poor health outcomes. To gain a better understanding of the limitations of adequate quantities of healthy, nutritious foods and the impact that this has on First Nations communities in Northern Ontario, this commentary surveys various academic publications, and government and non-government reports to assess the state of food security in Canada's remote northern Indigenous communities. In reviewing the literature, it was found that current policies in Canada are woefully falling short when it comes to addressing food security in the nation's northern reaches. As a result, people living in remote communities face issues accessing healthy and nutritious foods, which in turn, is detrimentally affecting their health. An exploration of determinants to food access in these areas will be followed by an overview of Canada's current food policy framework as it relates to remote Indigenous communities. This review considers interventions that have been implemented or proposed to address food access in comparable communities to inform the development of effective policies for Northern Ontario.

The assessment found that impediments to access range from infrastructure to subsidies to data collection. Many communities lack all-season roads. While this type of infrastructure is expensive and unlikely to provide connectivity for all remote communities, alternative supply chains that include airships may provide cheap and efficient cargo options in the future. While subsidies help alleviate some of these problems, federal interventions such as the Nutrition North Canada retail subsidy, is currently unavailable to many fly-in communities in Northern Ontario and provides only moderate reductions in the cost of food. Further, while subsidies may play a role in easing some of the financial pressures, they do not provide long-term solutions that address the root causes of food insecurity. Moreover, this review revealed a serious knowledge gap in data collection and finds that improved price monitoring coupled with social indicators will be able to inform social assistance programs that would more accurately reflect the cost of living in the north. The vision should be for a system in which First Nations have the capacity to sustain themselves with traditional and locally produced food, supplemented by affordable and nutritious market items.

In addition to the findings about food security presented in this literature review, this commentary also advances several policy recommendations to better address food access in northern First Nations communities:

- Develop a national food policy to coordinate food security initiatives across government departments for a coherent strategy.
- Create a policy environment that supports alternatives to the corporate food distribution model, such as co-operatives.
- Increase road access where financially and environmentally feasible, and investigate the potential of alternative transportation options, such as airships, to increase connectivity between remote communities and the rest of the province.
- Re-evaluate eligibility criteria for Nutrition North Canada to ensure communities in need are covered, and immediately include all fly-in communities not currently eligible in Northern Ontario.
- Improve research data, with the inclusion of cultural determinants to food security.
- Ensure secure, long-term funding to support local agriculture projects.

## Introduction

Remote First Nations communities in Northern Ontario face a number of challenges in accessing adequate quantities of healthy, nutritious foods.<sup>1</sup> This review will cover relevant academic literature, and government and non-government reports on the state of food security in Canada's remote northern First Nations communities. An exploration of determinants to food access in these areas will be followed by an overview of Canada's current food policy framework as it relates to remote Indigenous communities.

This review considers interventions that have been implemented or proposed to address food access in comparable communities to inform the development of effective policies for Northern Ontario. In reviewing the literature, it was found that current policies in Canada are inadequately addressing food security in the country's northern region. Remote communities faced with inaccessibly expensive and low-quality foods are consuming highly processed items more often, leading to poor health outcomes. As a result, this review also puts forth the following policy recommendations:

- Develop a national food policy to coordinate food security initiatives across government departments for a coherent strategy.
- Increase road access where financially and environmentally feasible, and investigate the potential of alternative transportation options, such as airships, to increase connectivity between remote communities and the rest of the province.
- Create a policy environment that supports alternatives to the corporate food distribution model, such as co-operatives.
- Re-evaluate eligibility criteria for Nutrition North Canada to ensure communities in need are covered, and immediately include all fly-in communities not currently eligible in Northern Ontario.
- Improve research data, with the inclusion of cultural determinants to food security.
- Ensure secure, long-term funding to support local agriculture projects.

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<sup>1</sup> The author would like to note that in terms of defining remote communities in Ontario, it has been challenging as many definitions of remote communities exist, not all of which are relevant to this review. For example, "remote" is often denoted in health journals in reference to those lacking in education, or as an area defined as being 350 km away from an urban centre (off-grid). Over the course of this project, the author found very few examples of sources where "remote communities" were outlined with the same definition, nor were they applied universally to similar areas under consideration. For the purposes of this literature review, "remote" largely refers to geographic terms, particularly fly-in communities, where food prices are likely to be higher, but also other year-round communities that experience food insecurity due to long-distance travel and spoilage.

*"Current policies in Canada are inadequately addressing food security in the country's northern region."*





## Food Security and First Nations Health

As defined at the 1996 World Food Summit, food security exists when “all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.” This definition encompasses four pillars: access, availability, utilization and stability (Power 2008). While all pillars are interrelated, this review focuses on interventions related to food access, defined as having sufficient resources to obtain enough food for a nutritious diet (WHO n.d.). Strategies designed to address availability, utilization and stability – although a necessary part of a comprehensive food security program – are not the subject of this review.

First Nations communities suffer from food insecurity at much higher rates than the non-Aboriginal population (Socha et al. 2012). The 2008 First Nations Regional Health Survey reported that more than 50 per cent of Aboriginal households in Canada are food insecure, with this incidence rising in more northern and remote communities (Thompson et al. 2012).

Food insecurity is known to be an important determinant to health (Dachner 2014; WHO 2013), contributing to high levels of diet-related illnesses such as diabetes and cardiovascular disease, as well as disproportionately high rates of obesity (Barbeau et al. 2015; Skinner et al. 2013). In First Nations communities across Canada, obesity rates are two and a half times that of the general population (Gates et al. 2013). These trends are

particularly disconcerting considering the difficulty in accessing specialist care in remote areas (De Schutter 2012). These significant health implications are at least partially responsible for the lower life expectancy reported among Aboriginal Canadians, which is five to six years lower than non-Aboriginal Canadians (Barbeau et al. 2015; Skinner et al. 2013; Statistics Canada 2010). Food insecurity is additionally linked to poor learning outcomes, depression and suicide (Socha et al. 2012). These health issues translate into significant economic costs. Obesity and its related diseases amounted to a loss of CAD \$4.6-billion in health care and lost productivity in 2008 (De Schutter 2012). Furthermore, in Ontario, the average annual per capita health care costs for people experiencing food insecurity are more than double that of the food-secure population (Dachner 2014).

Despite recognition of these serious issues, interventions to date have done little to relieve the burden of food insecurity in Northern Ontario's remote Aboriginal communities (Socha et al. 2012).

## Determinants of Food Security in First Nations Communities

### The Nutrition Transition

Colonialism has resulted in a nutrition transition whereby First Nations communities historically reliant on country foods, such as berries and wild game from trapping and fishing, have become increasingly dependent on food sourced from the south. Wild foods largely have been replaced with processed products of lesser quality and higher cost (Council of Canadian Academies 2014; Kuhnlein and Receveur 1996). This decline in harvesting practices has been attributed in part to the attempted assimilation of Indigenous peoples by the Government of Canada. The result of this has been a loss of Aboriginal knowledge and skills, including those related to obtaining and preparing traditional foods (Barbeau et al. 2015; Genuis et al. 2014). Economic forces and industrialization are further undermining traditional food procurement by shifting employment away from traditional subsistence (Socha et al. 2012). In addition, forestry and mining industries are impacting the environment, affecting soil health and land quality, and changing the availability of wild food (Thompson et al. 2011). Numerous hydroelectric development-related projects flood lands and herbicidal sprays common to forest management practices challenge traditional food practices by making these lands unavailable for use (Kuhnlein and Receveur 1996; Stroink and Nelson 2013). The effects of climate change will further affect harvesting by altering the accessibility to, and distribution and availability of, wild food (Beaumier and Ford 2010; Ford 2009).

## High Price of Food

As diets shift away from traditional food, individuals are increasingly reliant on expensive store-bought food, the cost of which is directly related to the isolation of the community (Thompson et al. 2012). It is a problem common across Canada's remote regions, and results from the logistics of importing food in the dominant south-to-north food distribution system. Costs include infrastructure for inventory holding, energy and direct transportation costs (Council of Canadian Academies 2014). Long distances mean that perishable foods are prone to spoilage along the way, increasing losses to the retailer and driving up prices for the consumer (Socha et al. 2012; Council of Canadian Academies 2014).

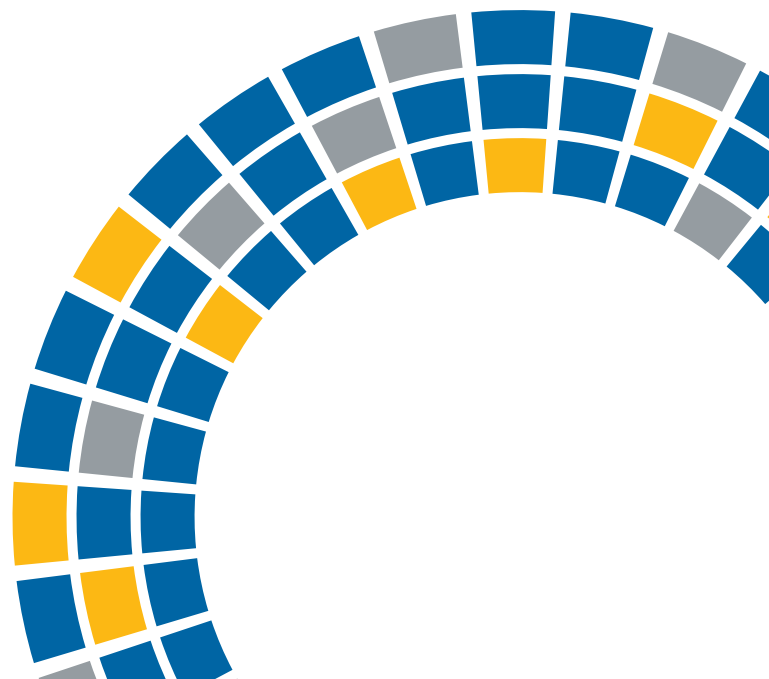
In addition, if the Canadian dollar continues to drop, imported foods – which are more susceptible to fluctuations – will rise in price. This means fruit and vegetables, which are mostly imported in Canada, will become more expensive. Unlike meat, fruit and vegetables have few or no substitutes, so prices have a significant impact. Extreme weather events, which will increase in frequency due to climate change, also affect food prices. For example, in 2015 the drought in California resulted in fruit and vegetable price increases, while predictions of increased rainfall for 2016 may, to some degree, offset the rising prices caused by the devaluation of the dollar (Charlebois et al. 2015). The Food Prince Report 2016 predicts that food prices will continue to outpace general inflation, rising anywhere from 2 to 4 per cent, significantly impacting vulnerable northern communities (Charlebois et al. 2015).

For many northern communities, winter roads are the most cost-effective transportation option (Smith 2011). Yet outside of their operating season, or for those communities that lack seasonal road access, supplies must be airlifted – a more costly method that is reflected in high food prices (Council of Canadian Academies 2014). As winters become shorter and weather more variable due to the effects of climate change, winter road seasons will become shorter and more unreliable, and more items will have to be imported by air. (Thompson et al. 2012). One study has found that a vital road in the Northwest Territories may have its operating season reduced by one-fifth as early as 2020 (Hayley and Proskin 2008). In Alaska, winter road seasons have declined by half – from 200 days to 100 days – since the 1970s. Increased frequency of unusual rainfalls and thaw events are expected to further disrupt road networks in the coming years (Smith 2011).

A 2011 Laval University study found that food items were 81 per cent more expensive in Nunavik than in Quebec City (Duhaime and Caron 2012). Similarly, a 2010 report in Saskatchewan found that northern communities paid \$252.27 per week for the same food basket costing \$184.91 in a southern Saskatchewan city (PHNSWG 2010). Nutrition North Canada, the federal subsidy program serving Canada's north, reported that, in 2013, the average cost to feed a family of four a healthy diet for one week in Attawapiskat was \$427.95, compared to \$198.20 in Toronto (Toronto Public Health 2013). The 2011-2012 First Nations Food, Nutrition and Environment Study found a high of \$344 for weekly groceries for a family of four in Northern Ontario, compared to \$205 in Ottawa. Although regular reports on the costs of food baskets in all remote communities are not available, it is clear that prices are much higher than in the south, with the situation exacerbated by relatively higher rates of unemployment and poverty in these regions (Skinner et al. 2013).

## Poverty and Low Incomes

As a result of a long history of colonialism leaving Aboriginal people in Canada politically and economically marginalized (De Schutter 2012; Fieldhouse and Thompson 2012), First Nations communities experience a high prevalence of poverty and low income, compromising their ability to access nutritious food. According to the 2011 National Household Survey (NHS), the average median income for respondents with an aboriginal identity was \$20,701, compared to \$30,195 for respondents with non-aboriginal identities (Statistics Canada 2011). A lack of financial resources limits access to both expensive market foods and wild food, which requires significant funds for equipment, supplies and fuel (Skinner 2013).



# Current Food Policy Framework in Canada

## International Policies

The federal government has made international commitments to food security for Canadians, most recently with the Rome Declaration on Food Security in 2002 (Power 2008). In addition, Canada's 1998 Action Plan for Food Security, a response to the World Food Summit, specifically recognized the unique challenges faced by Aboriginal people. The United Nations Declaration on the Rights of Indigenous People (UNDRIP) further stresses that indigenous people have the right to full enjoyment of all human rights recognized in the United Nations Universal Declaration of Human Rights, which includes the right to food (United Nations 2007). Taking this further, UNDRIP emphasizes the right to access land and resources, pursue subsistence activities and maintain institutions, traditions and culture (United Nations 2007). Yet a lack of political will and an absence of legal structures to enforce the right to food have meant that it is not a judiciable issue in Canada (Rideout et al. 2007). Additionally, there is a disconnect between international and domestic policies, as well as between federal and provincial responsibilities which limits the implementation of right-to-food policies (Rideout et al. 2007). As a result, evidence suggests that these international commitments have not led to effective policy-making (Socha et al. 2011), with Canadian household food insecurity remaining relatively stable over time, rising slightly from 11.3 per cent in 2008 to 12.3 per cent in 2012 (Mah et al. 2014).

Canada's state of food security was subject to international scrutiny with the official visit of the UN Special Rapporteur on the right to food in 2012. Olivier De Schutter conducted an 11-day mission to assess Canada's progress in ensuring the right to food to its citizens. In his post-visit report, De Schutter expressed alarm at the high rates of food insecurity despite the prosperity of the country. He raised particular concern over the socioeconomic disadvantage of Indigenous people, and stressed the need for a national food strategy (De Schutter 2012).

## Federal Policies

The call for a federal food policy has been echoed by a number of groups and academics (Rideout et al. 2007; Schiff 2014). At the federal level, the departments of Health Canada, Agriculture and Agri-Food Canada, and Aboriginal Affairs and Northern Development Canada share some responsibility for northern food governance, but there is no overarching inter-departmental authority in place to assume leadership and implement a comprehensive strategy (Exner-Pirot 2014). Rather, the policies produced by these departments work independently of each other, resulting in a disjointed framework with no coordination of short-term and long-term goals (De Schutter 2012). According to Rideout et al. (2007, p.570), Canada's current piecemeal approach to food policy "hinders rational analysis

of problems and the development of effective policy." A comprehensive national framework would work across divided jurisdictions such as health, environment and social policy, covering the gaps left by a fragmented food governance system (Rideout et al. 2007).

## Provincial Policies

At the provincial level, there are a number of food-related policies and programs, though these are often designed for the urban food security experience, and are ill-suited to address the unique needs of northern First Nations communities. The few that deal with northern issues include Manitoba's Northern Healthy Foods Initiative, as well as several developed for the territories, such as those designed to increase traditional food procurement (Epp 2011).

Epp (2011) compiled a near-comprehensive list of provincial approaches to food security in Canada. Although Ontario benefits from a number of progressive food policies, including those designed to improve local food production and consumption, these cater primarily to the food security experience in Southern Ontario, a vastly different region than the north. Programs that deal explicitly with the unique food issues facing Ontario's remote northern communities are sparse. Epp found only one that engages directly with northern food issues.

By contrast, Epp lists a number of programs that appear to be focused on achieving long-term food security in the territories. He notes that in the Northwest Territories, food policies are geared toward supporting traditional harvesting activities and encouraging self-sufficiency. Similarly, Nunavut's policies recognize the cultural importance of hunting, trapping and fishing, and provide assistance to those unable to engage in these activities. Yukon goes one step further by placing emphasis on building an agricultural sector to reduce dependence on externally sourced food. As Northern Ontario's remote communities' food security experience is more similar to that of the territories than of urban centres in the south, successful policies from the territories merit consideration.

## Municipal Policies

As northern communities experience higher rates of severe food insecurity, with particular challenges relating to geospatial and cultural conditions, the key to the success of food security interventions is likely to rely on their ability to respond to local needs. Local governance can provide appropriate responses and management given the social, ecological and cultural characteristics specific to a location (Folke et al. 2010; Lebel et al. 2006). Further, solutions will only be sustainable if they take into account the Aboriginal

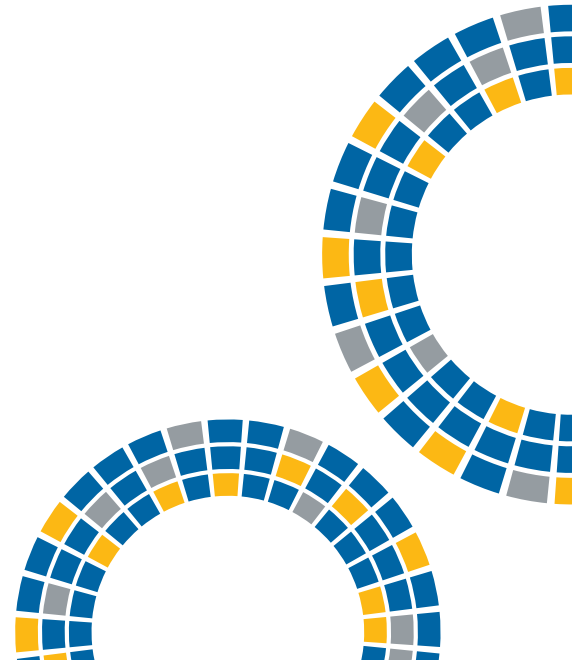


*“Solutions will only be sustainable if they take into account the Aboriginal worldview.”*

worldview (De Schutter 2012; Ferris 2011). Municipalities, although best placed to respond to local needs, are often limited in funds and capacity, especially in remote communities (Schiff 2014). Provincially and federally supported local action could help improve access to nutritious foods with targeted and sustainable initiatives (Wegener, Raine and Hanning 2012).

## Indigenous strategies

Crucially, there are numerous examples of indigenous-led responses to food security. In October 2015, the Mushkegowuk Council (representing Attawapiskat, Kashechewan, Fort Albany and Moose Cree First Nations) adopted a resolution to seek ways to assist communities with food security, including looking into the creation of a Food Security Advisory Group to work in partnership with the Mushkegowuk Environmental Research Centre and Nutrition North Canada (Mushkegowuk Council 2015). Nishnawbe Aski Nation (NAN) actively pursues food security issues in its territory, seeking community-based solutions including working with communities to restore access to traditional foods (NAN 2011). NAN has also developed a food strategy, which aims to “rebuild our food sovereignty across our nation in order to enhance our quality of life through access to food that is safe, nutritious, culturally appropriate and affordable for all our people at all times” (OHCC 2014, p. 1). Part of the food strategy will be to empower communities to develop local individualized food system plans that will respond to their unique needs and challenges (OHCC 2014). Community-led solutions such as these tend to have better buy-in and have more successful outcomes, and will be vitally important in securing access to food in northern communities (Skinner et al. 2013).



# Strategies to Improve Access to Food in Remote First Nations Communities

## Short-, Medium- and Long-term Solutions

Food access strategies fall very broadly into the categories of short-, medium- and long-term solutions, all of which are necessary to respond to the diversity of ways in which individuals experience food insecurity (Council of Canadian Academies 2014).

To address the urgent need for food, food banks and school lunch programs can provide vital nutrition to individuals unable to access healthy and adequate food. While these address immediate needs, short-term approaches tackle only the symptoms of food security (Loopstra and Tarasuk 2015).

Medium-term solutions include subsidies such as the Nutrition North Canada retailer subsidy program. While these can make nutritious items moderately more affordable, they do little to address the root causes of food security (Burnett, Skinner and LeBlanc 2015).

Long-term solutions include those that endeavour to reduce dependence on imported foods by supporting access to alternative local sources (Skinner et al. 2013), reduce prices by sharply increasing the efficiency of food transportation to the north (Council of Canadian Academies 2014), or ensure individuals have economic access to nutritious food for themselves and their families.

## Improved Northern Infrastructure

The isolation of a community is directly related to food security, with fly-in communities more food insecure than those with all-season road or train access (Thompson et al. 2012). Increasing road access has the potential to lower the price of goods by lowering costs associated with air shipment (Skinner et al. 2013; Socha et al. 2011; Thompson et al. 2012).

Ontario's far north has very little infrastructure compared to the rest of the province. There are 29 airports operated by Ontario serving remote communities, and another six airports run by communities. Between Cochrane and Moosonee, there is rail access provided by the Ontario Northland Transportation Commission. The road network is limited to two all-season roads, and a system of winter roads joining thirty-one remote communities. Operating seasons have already shortened by a week on average, and there is evidence that they are set to contract at least another two weeks in the coming decades (Centre for Indigenous Environmental Resources, 2010).

A number of studies are currently being led by First Nations assessing the potential to realign winter roads

for all-season use. The Growth Plan for Northern Ontario has established a framework for the development of a multimodal transportation network to ease the movement of people and goods in the north, which is set to be released in 2017. Mining and other development proposals also have the potential to expand the road network. In particular, a number of all-season and winter roads, as well as airstrips and rail, are being considered to enable mining projects in the Ring of Fire (MoNRF 2014).

All-season road access has a significant impact on food accessibility, but may prove to be financially, logistically or politically prohibitive for many remote communities. It also does not guarantee food security, as demonstrated in South Indian Lake, Manitoba – a First Nations community with road access that is suffering from 100 per cent food insecurity (Thompson et al. 2011). At the same time, there are also concerns about the negative social impacts of all-season road access, such as increased influx of drugs and alcohol, as well as the negative effects on the environment (Centre for Indigenous Environmental Resources 2010).

Barring the construction of a vast network of all-season access roads crisscrossing Northern Ontario, remote communities will continue to be served primarily by air, and rising fuel costs are likely to continue to raise food prices. Alternative air transportation options are emerging capable of carrying bulky cargo shipments with more efficient fuel requirements (Prentice and Russel 2009). A study in northern Manitoba and Kivalliq, Nunavut, determined that airships could lower the cost of transportation by anywhere from 18 per cent to 55 per cent (Council of Canadian Academies 2014). Though the technology is available, airships require large investments, and there appears to be little interest in establishing the ground-based infrastructure required for their application (Prentice and Russel 2009). Thus they are unlikely to meet the needs of remote communities in the immediate future.

## Reducing Northern Store Dominance

During the nine to 10 months that winter roads are unavailable, the Northern chain of grocery stores, which is run by the North West Company, has a virtual monopoly on market foods in Northern Ontario. Within the North West Company, prices are set regionally, and within each region these are consistent, with minor adjustments being made to reflect the differences in freight rates. As such, managers do not have control over the base cost of items shipped to their stores.



Given it is a profit-driven enterprise, foods must be priced to reflect the fixed costs of transportation and high rates of spoilage that compromise profit margins, resulting in high prices (Thompson et al. 2011).

Alternatives to the corporate model of the Northern chain could provide moderate savings to consumers. Co-operative models have been developed in Nunavut, as well as in South Indian Lake First Nations (Thompson et al. 2012), and elsewhere in Arctic Canada. Co-ops might be better aligned with Aboriginal values, and local governance means that they are more suited to meet community needs and build assets. By contrast, in the Northern store chain, decisions are made in urban centres and the profits flow south (Socha et al. 2011). Typically, the Northern stores employ managers external to the community, limiting local decision-making and human capital development. Alternative models such as locally run co-operatives would put economic control back in the community, and competition would help regulate prices (Thompson et al. 2012).

## Subsidies

If the Northern chain of stores is to remain the primary source of market food, subsidies will continue to play a role in lowering food prices for northern communities (Burnett, Skinner and LeBlanc 2015).

Nutrition North Canada (NNC) is the most extensive national response to the northern food crisis to date,

replacing the unsuccessful Food Mail program in 2011 (Burnett, Skinner and LeBlanc 2015). Food Mail was run by the Department of Indian and Northern Affairs Canada (now Aboriginal Affairs and Northern Development Canada) to provide transportation subsidies to ship food to communities that lacked year-round road access. Items eligible under Food Mail were based on the Nutritious Food Basket, a compilation of items selected by Health Canada to reflect a nutritious diet. Non-food essentials such as personal hygiene products, bottled water and hunting equipment were also eligible for subsidies (Burnett, Skinner and LeBlanc 2015; Rabson 2015).

In response to the rising costs of Food Mail, an independent report was commissioned by the federal government to review the program, which concluded it exceeded the available budget and recommended a market-based system take its place. In contrast to its predecessor, NNC pays the subsidy to participating retailers rather than to shipping companies (Burnett, Skinner and LeBlanc 2015).

Communities are eligible for NNC subsidies if they lack year-round access roads, and have previously accessed the Food Mail program (Galloway 2014; GoC 2014). The subsidy covers food items deemed nutritious or essential, calculated based on the community's subsidy level (full or partial) on a per-kilogram basis. Items are sorted into level one or level two subsidies, with a higher subsidy for the most nutritious, perishable



items. Retailer prices are using point-of-sale receipts. Aboriginal Affairs and Northern Development Canada (AANDC) publishes quarterly fiscal reports on the Nutrition North website, along with a listing of the subsidy level and an annual food cost survey for each community (Galloway 2014).

Since its implementation, however, critics have been swift to point out its shortcomings. The current system lacks accountability as it does not allow for an assessment of whether or not the subsidy has been passed on from the retailer to the consumer. In a bid by AANDC to increase transparency and accountability, retailers were mandated to comply by April 2016 with new regulations requiring subsidies to be displayed on customers' receipts. There is also doubt as to whether or not the program responds to the needs of all communities, and there are calls to re-evaluate current historic-based eligibility criteria (Burnett, Skinner and LeBlanc 2015; Thompson et al. 2012).

Under NNC eligibility requirements, many remote communities are unable to access subsidies, despite experiencing high food costs. For a number of reasons, many communities did not make use of the Food Mail program. For example, in Northern Ontario, as in many provincial northern areas, retailers often accessed better shipping rates through alternative carriers. In 2008, a Food Mail review reported that 31 northern retailers did not use the program as their transportation rates were less or equal to the subsidy rates available (Burnett, Skinner and LeBlanc 2015). The territories were more likely to participate as they were less likely to be able to negotiate better shipping rates than the subsidy provided. As NNC participation requires previous use of Food Mail, many communities in Ontario were left ineligible (Burnett, Skinner and LeBlanc 2015). Although NNC was supposed to revise community eligibility on an annual basis, this has yet to happen since its establishment (Rabson 2015).

In contrast to Food Mail, NNC made nearly all non-food items ineligible. Eliminated goods include diapers, toilet paper, dental hygiene products and hunting and fishing equipment such as fishing nets and ammunition. Bottled water is no longer eligible for subsidy (Burnett, Skinner and LeBlanc 2015), which is especially concerning as 88 First Nations communities, located primarily in northern Canada, were under boil water advisories as of May 31, 2015 (Health Canada 2015). Removing these subsidies affects the amount of income families and individuals can allocate for food and decreases their access to traditional food.

Recognizing the inadequacies of NNC, some provinces have introduced their own subsidy programs. In 1997, Newfoundland and Labrador implemented the Air Foodlift Subsidy Program through the Labrador and Aboriginal Affairs to improve the accessibility of perishable items when boat access is blocked by winter ice. Through the program, participating retailers are paid a subsidy to offset the high costs of flying

items into remote coastal communities, which they are then required to pass onto consumers (Labrador and Aboriginal Affairs Office 2015). Besides Newfoundland and Labrador, Quebec is the only other province that currently has a subsidy program. It came into effect as part of a larger program aiming to address the high cost of living in the remote Kativik region of Northern Quebec, and it has helped reduce the cost of 40 grocery items by 20 per cent (First Nations of Quebec and Labrador Health and Social Services Commission, 2014).

Manitoba has also explored the option of providing subsidies to lower northern food prices in the province, thus supplementing gaps in the Nutrition North Canada program. The plan was launched in the second half of 2015 to cover communities that are in need but are not currently subsidized under NNC's existing eligibility criteria (The Canadian Press 2012; Rabson 2015).

Despite its limitations, NNC officials demonstrate that it has reduced the cost of the nutritious food basket by \$31 since 2011 (GoC 2015). Also, the Aboriginal Food Security in Northern Canada: An Assessment of the State of Knowledge report by the Council of Canadian Academies (2014) found that programs such as NNC and the Air Foodlift Subsidy Program are likely to play a large role in the strategy to address the high cost of food in northern Canada, until the underlying causes of food security are addressed (Burnett, Skinner and LeBlanc 2015; Exnor-Pirot 2014). Its continued use, however, is likely to only increase First Nations' dependence on imported food (Conteh and Segsworth 2013).

## Poverty Reduction Strategies

Food insecurity is most strongly related to low income (Council of Canadian Academies 2014; Power 2008). Policies and programs that alleviate the symptoms of food security will provide short-term relief, but a long-term strategy will only be effective if it attacks the problem at its root.

As food is often the most flexible expense in a family or an individual's budget, it is often the first to be compromised. Without sufficiently addressing issues related to poverty reduction, little progress can be made on eliminating food insecurity. Interventions will either directly address poverty through social assistance programs and housing initiatives, for example, or support community economic development to promote self-reliance in the long-term (Council of Canadian Academies 2014).

The Canadian government provides a range of income support programs that impact food security by liberating financial resources that can be allocated to food. Employment Insurance, Old Age Security and the Canada Child Tax Benefit are some examples, and there are others that are targeted to northern communities. For example, the Northern Residents Deduction is provided to those living in a prescribed northern or intermediate zone as defined by Canada Revenue Agency (CRA 2015a; GoC 2010) in recognition of the higher



cost of living (CRA 2015b). The Northern Ontario Energy Credit provides residents there with a credit for energy costs (Ministry of Finance 2015), although the amount is static regardless of community. These credits may fail to fully acknowledge regional differences within Northern Ontario, and indications are that despite supplements, incomes are inadequate to cover basic needs (Cardwell 2012; Tarasuk, Mitchell and Dachner 2014).

Given that 64 per cent of people reliant on social assistance in Ontario are food insecure, it is clear that current levels of welfare fail to reflect cost of living (De Schutter 2012; Tarasuk, Mitchell and Dachner 2014). In order to inform effective social policy reforms, food prices need to be accurately and consistently monitored. In urban centres, evidence-based approaches documenting food costs have been used to pressure governments to expand spending on social security (Socha et al. 2011), but such data is limited particularly in on-reserve First Nations communities. Improved price monitoring coupled with social indicators to assist in the identification of particularly vulnerable populations will be able to inform social assistance programs that would more accurately reflect the cost of living in the north.

## Improved Research and Data

Although there is a large body of research on food security in Northern Canada, comprehensive data sets that include social determinants of food security are lacking, and on-reserve communities in particular tend to be underrepresented. These knowledge gaps impede the creation of sound public policy appropriate for these populations.

Food costing is a tool that can be used to monitor accessibility and affordability of food items by relating them to a family or individual's income to subsequently inform policy (Burnett, Skinner and LeBlanc 2015). A scan of literature has revealed inadequate pricing systems in place to regularly monitor and report on the cost of food in Northern Ontario. Thus, despite widespread concern about food prices, there remains limited hard data (Socha et al. 2012). Currently, Nutrition North Canada publishes yearly pricing on the Revised Northern Food Basket, however, this is limited to eligible communities participating in the program, and

only includes 67 items (Socha et al. 2012). Across the provinces, many local health units collect prices and report the annual cost of a Nutritious Food Basket in their area. These, however, are mostly limited to major urban centres, resulting in data that is not reflective of food prices in remote communities. Acknowledging this gap, Manitoba undertook the two-year Northern Food Price Survey to be used in planning and policy-making, although other provinces have yet to follow suit on a study of that scale (Socha et al. 2012).

In addition to obtaining more robust data sets, data collection methods and standards need to be expanded to include the social realities of food security experienced by Aboriginal people. For example, traditional food and informal institutions such as sharing are rarely included in measurements, partly because of the difficulty in measuring complex social issues. A more complete picture of Aboriginal health and well-being as they relate to food is required to inform evidence-based public policy (Council of Canadian Academies 2014).

Food Secure Canada, a network of organizations working on food issues across the country, currently has a project funded by Industry Canada to assess food costs in Nova Scotia and Northern Ontario. This project will develop methodologies to improve the collection of food costing data in the north and incorporate the cost of forest and freshwater foods, while creating a model that can be used in other vulnerable communities (Food Secure Canada 2015).



## Localizing the Food System

Given that long-distance transportation is a key factor in the high cost of market food, policy options should be explored that offer an alternative to expensive imported foods through enabling and supporting a local food system. In Northern Ontario's communities, there are pockets of local food initiatives popping up which are laying the foundation for a broader local system that is more responsive to their needs. Although dependence on the market system is unlikely to be reversed, diets supplemented with alternative foods, such as forest and freshwater food, or food produced through local agriculture, could help ease the financial strain on individuals and households while building northern capacity and increasing self-reliance (Skinner et al. 2013).

## Traditional Food

Over the years, political structures have displaced Aboriginal people, relocating and urbanizing communities. This has resulted in a physical disconnect from their traditional lands and an increased reliance on imported food (Kuhnlein and Receveur 1996). This nutrition transition has seen traditional food replaced with highly processed, high-cost market food at the expense of Aboriginal people's health and well-being.

Despite its decline, traditional food procurement remains an important part of the cultural identity of First Nations, and studies have reported that supplementation of diets with wild foods could play a significant role in creating food-secure First Nations communities. The First Nations Food, Nutrition and Environment Study (2012) reported that 93 per cent of First Nations diets included traditional food, between 43 grams to 205 grams per day, with northern communities consuming greater amounts than their southern counterparts. Beyond the links to environmental health, country foods are found to be more nutritious than much of what is available in the retail market, contributing to overall health and well-being.

There are, however, significant costs associated with traditional food procurement as well, creating a barrier for many low-income households (Pal, Haman and Robidoux 2013). As such, policies that provide support for individuals to engage in subsistence hunting and fishing could help overcome these financial constraints. Under the Food Mail program, hunting, trapping and fishing equipment was subsidized. These items were removed when it was replaced by Nutrition North Canada (Food Secure Canada 2015; Burnett, Skinner and LeBlanc 2015). In some provinces, programs have stepped in to fill the gap in harvester support created by the dismantling of Food Mail. The Inuit Hunting, Fishing and Trapping Support Program implemented by



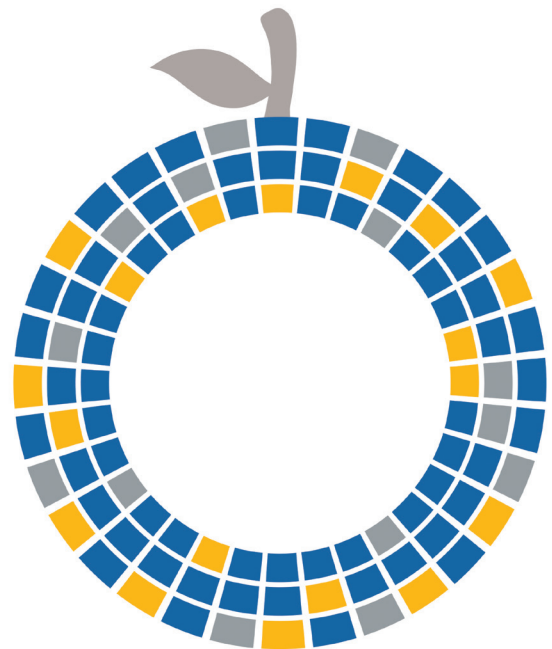
the municipal Kativik Regional Government in northern Quebec provides allowances for any funds required to partake in these activities. This includes purchasing or repairing equipment such as boats and ATVs, as well as access to the lands and marketing of harvested products (Pal, Haman and Robidoux 2013). In the Northwest Territories, a similar program provides funding to offset the cost of tools and equipment required for hunting and trapping (Epp 2011). In Nunavut, the territorial government runs a support program that provides funds to help cover the cost of fuel and equipment (Epp 2011). And in Manitoba, the Northern Healthy Foods Initiative provides loans for the purchase of freezers to promote the storage of country foods (Thompson, Kamal and Wong 2010).

No such harvester support program exists in Ontario. However, studies exploring the costs and benefits of traditional foods in Northern Ontario find that First Nations people identify lack of funds to buy necessary equipment as a key barrier to accessing traditional foods (Lambden et al. 2006; Pal, Haman and Robidoux 2013; Socha et al. 2012). As such, financial support would permit more harvesters to supplement the diet of communities faced with the high prices of market foods (Pal, Haman and Robidoux 2013).

Another barrier to harvesting is the decline of traditional skills. Colonialism interrupted the transfer of knowledge between generations, leaving many individuals lacking the capacity to hunt, fish or trap. Policies and programs that support the exchange of knowledge related to food procurement could help improve access to country foods. In the Northwest Territories, the Departments of Municipal and Community Affairs and Environment and Natural Resources run the Take a Kid Trapping Program to encourage the participation of youth in traditional food procurement activities, and to reverse the trend toward degradation of traditional knowledge and skills (Epp 2011). It has also been suggested that knowledge and skills in local food production and harvesting should be built into elementary and secondary school curriculum, with flexibility to tailor this to individual community environmental settings (Food Secure Canada 2015).

On top of financial constraints and loss of skills, regulations on the processing and distribution of fish and meat products undermine the capacity of harvesters to provide local supplies, and have been identified as a barrier to food security in remote communities (Council of Canadian Academies 2014). For example, safety regulations in many cases prevent, rather than regulate, the sale of wild meat (Thompson et al. 2011; Food Secure Canada 2015), restricting its distribution, while additionally eliminating a potential source of income

(Thompson et al. 2011). Regulations on traditional food distribution should be reviewed to strike a more appropriate balance between food safety and food prohibition (Thompson et al. 2011). Lastly, monitoring the health of wildlife populations (Council of Canadian Academies 2014) and policies that recognize the importance of access to traditional lands will be necessary to ensure country foods remain part of First Nations diets (Power 2008).



## Local Agriculture

The agricultural sector in northern Canada is restricted largely as a result of harsh weather conditions, but greenhouse technologies and a warming climate may create new opportunities for local production. Numerous initiatives have already shown it is feasible, but lack of capacity and long-term funding are limiting factors for many northern communities.

In 2012-13, Agriculture and Agri-Food Canada began a study on the economic sustainability of greenhouses in the north. The study revealed that it is economically viable for northern communities to develop greenhouse models that will provide nutritious food at less cost than currently available in these markets (Lenton 2013). This is promising, as most current greenhouse initiatives, while worthwhile community projects, rely on funding from the federal government and are not sustainable in the long-term. Another study looked at ways in which ventures could be made economically viable, and likely to continue after funding has ceased (Busch 2012). Cumulative benefits could make greenhouses an attractive alternative as they also have the potential to provide employment opportunities and improved food quality, while building northern capacity and self-reliance (Council of Canadian Academies 2014; Skinner et al. 2013).

Many authors suggest local food production is a viable strategy for improving access to healthy foods (Spiegelhaar, Tsuji and Oelbermann 2013), and some provinces have developed programs to support it. Manitoba's Northern Healthy Foods Initiative resulted in the creation of a number of community gardens and greenhouses, and the Yukon's Agriculture Development Initiative provides funding up to \$20,000 to individuals, or \$50,000 to non-profits or governments, for local agricultural

projects. Academic literature suggests community-led local food production is part of the solution to increasing food security for First Nations communities. These projects tend to stress the importance of a supportive policy environment to create the space for such efforts, as well as secure, long-term funding (Spiegelhaar, Tsuji and Oelbermann 2013). Further studies will be required to demonstrate their impact on food security.

Lastly, a changing climate, while negatively affecting road access (CIER 2010) as well as accessibility and distribution of wild food (Beaumier and Ford 2010; Ford 2009), may provide improved opportunities for agriculture. Climate change is expected to warm northern regions twice as much as elsewhere; by 2050, Northern Ontario is expected to have an extra 30 to 45 growing days (Stroink and Nelson 2013).





## Conclusion

Current food policies in Canada are inadequately addressing food security in the country's northern region. Remote communities faced with inaccessibly expensive and low-quality foods are consuming highly processed items more often, leading to poor health outcomes. All-season road infrastructure is expensive and unlikely to provide connectivity for all remote communities, but airships may provide cheap and efficient cargo options in the future.

The Nutrition North Canada retail subsidy, the most extensive federal response to date, is currently unavailable to many fly-in communities in Northern Ontario and provides only moderate reductions in the cost of food. Further, while subsidies may play a role in easing some of the financial pressures, they do not provide long-term solutions that address the root causes of food insecurity. This review revealed a serious knowledge gap in data collection and finds that improved price monitoring coupled with social indicators will be able to inform social assistance programs that would more accurately reflect the cost of living in the north. The vision should be for a system in which First Nations have the capacity to sustain themselves with traditional and locally produced food, supplemented by affordable and nutritious market items.

## Recommendations

- Develop a national food policy to coordinate food security initiatives across government departments for a coherent strategy.
- Increase road access where financially and environmentally feasible, and investigate the potential of alternative transportation options, such as airships, to increase connectivity between remote communities and the rest of the province.
- Create a policy environment that is supportive for alternatives to the corporate food distribution model, such as co-operatives.
- Re-evaluate eligibility criteria for Nutrition North Canada to ensure communities in need are covered, and immediately include all fly-in communities not currently eligible in Northern Ontario.
- Improve research data, with the inclusion of cultural determinants to food security.
- Ensure secure, long-term funding to support local agriculture projects.



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## About Northern Policy Institute

*Northern Policy Institute is Northern Ontario's independent think tank. We perform research, collect and disseminate evidence, and identify policy opportunities to support the growth of sustainable Northern Communities. Our operations are located in Thunder Bay and Sudbury. We seek to enhance Northern Ontario's capacity to take the lead position on socio-economic policy that impacts Northern Ontario, Ontario, and Canada as a whole.*

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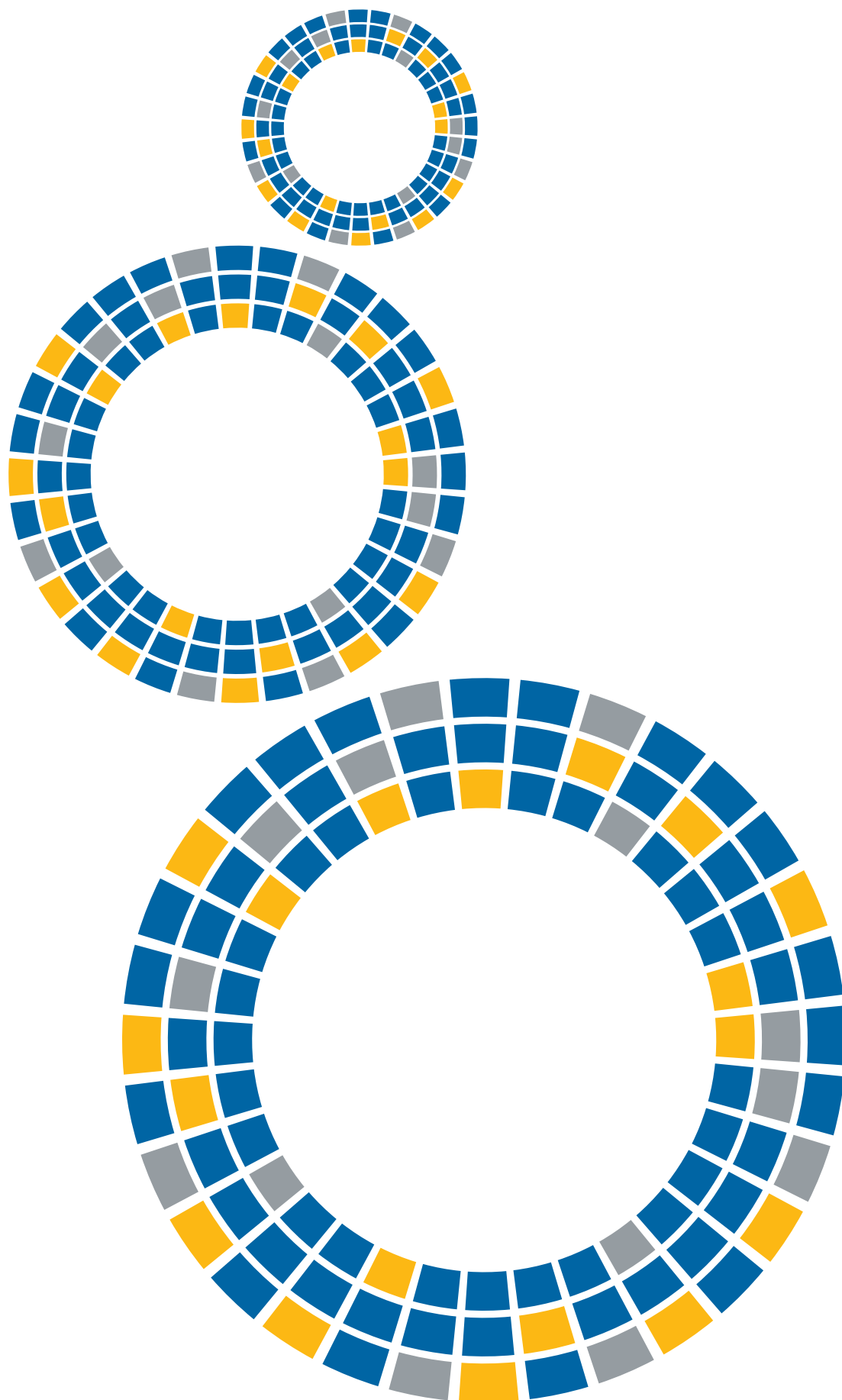
**Access to Care for All Northern  
Ontarians as a Means to Optimizing  
Health**  
Emily Donato and John MacDonald

**Roads, Rail, and the Ring of Fire**  
Rick Millette and Mike Commito

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