# The Impact of the COVID-19 Pandemic on Food Security and Food Sovereignty in Nunavut Communities

by

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A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Science

in

Global Health

School of Public Health
University of Alberta

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# Abstract

**Background**: For those living in regions already experiencing health and social difficulties, the COVID-19 pandemic and resulting policies to reduce spread have the potential to exacerbate existing issues, including increasing food insecurity in households. In Nunavut, where 70% of children are food insecure, many households rely on school breakfast or community food programs for nourishment (Egeland, 2011). As a result of the threat of the pandemic to the territory's population, a variety of public health measures were enacted that may have impacted food security, including the closure of schools. Additional actions were taken, such as implementing emergency harvester support funding, to limit the impact of public health measures on household and community food security. The overall impact of these actions on community food sovereignty and security is not yet understood.

**Objectives**: This research project has several inter-related objectives:

a) Describe the measures in place to mitigate impacts of COVID-19 on food security and sovereignty in Nunavut.
b) To describe determinants of food security and food sovereignty in Nunavut and how the COVID-19 pandemic policy response in the territory has impacted these determinants.
c) Understand how community members perceive the impact of the pandemic on food security and sovereignty in their communities.

**Method**: This project used a mixed methods approach to examine the determinants of food security and sovereignty and the impact of the COVID-19 pandemic policy responses on these determinants in Arviat and Iqaluit. A social media scan was conducted to quantify and describe the food sharing that occurred in Nunavut communities in the initial shutdown period of March to June 2020. This data was utilized to provide context to the qualitative interviews. Narrative analysis utilized within a relational epistemology was used to described the experiences of community members in Iqaluit and Arviat during the COVID-19 pandemic.

**Results: Social media scan.** 122 Facebook groups were identified with 116 included in the social media scan. 242 unique instances of food sharing were documented across Nunavut via social media within the study time frame. Most of the food shared was through food programs with store-bought food. For individuals sharing food, most was country food. **Qualitative interviews.** 7 participants were interviewed in Iqaluit (n = 3) and Arviat (n = 4). Key themes included the importance of decolonization for food sovereignty, the importance of food sharing to communities, and the resilience of communities during COVID-19. Food programs were impacted by COVID-19 varyingly, with some ceasing operations to others finding ways to adapt to continue to serve clients. Canada Emergency Response Benefit launch was correlated with a drop in food program utilization in Iqaluit. Food sovereignty was boosted during the COVID-19 pandemic due to increased time at home and on-the-land funding programs. Community members wished to see greater support and strengthening of the country food economy, encouragement/self-worth for youth, community programs to increase knowledge of food and harvesting skill, and for communities to find ways to reach residents who may fall through the cracks during times of need or crisis.

**Conclusion:** This study is one of the first to document the experiences of Nunavummiut in Arviat and Iqaluit during the COVID-19 pandemic and its impacts on food security and food sovereignty in the territory. Further study is needed to document the full range of impacts of the pandemic across the territory.

# Preface

This thesis is an original work by Sidney Alisha Horlick. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name "The Impact of the COVID-19 Pandemic on Food Sovereignty and Food Security in Nunavut Communities", No. Pro00105518, November 24, 2020.

Nunavut Scientific Research License # 01 010 21R-M

# Acknowledgements

This thesis was made possible with the support of several people, for whom I am deeply grateful. Firstly, Thank you to my parents for your love and support throughout my academic journey. This degree would not be possible without the lessons and values you have instilled within me. Thank you for always believing in me.

To my partner, Nicolas, thank you for always lending an ear or a shoulder. Completing this degree during a pandemic was immeasurably tough, but your humour and unwavering support lightened the load. To my friends across the country – you know who you are – thank you for providing your support and advice.

To my Supervisor, Susan Chatwood, and committee member Fay Fletcher, thank you for the support you provided throughout this journey. Shifting the focus of this entire thesis project was not easy, but your guidance allowed it to happen. This degree would not be possible without your assistance.

I would like to thank the participants in this study for sharing their experiences and perspectives on the impacts of COVID-19 in your communities. Many interviews took place in the midst of an outbreak and I am thankful for your willingness to speak to me during trying times.

Thank you to Gwen Healey Akearok at Qaujigiartiit and Shirley Tagalik at Aqqiumavvik for your support for this project. I hope the information this thesis provides aids you in understanding the impacts of the pandemic in your communities.

Finally, I would like to express my appreciation to the many organizations that provided financial support throughout this thesis project. This includes: UAlberta North (University of Alberta Northern Research Award and Kennett Y. Spencer Memorial Scholarship), University of Alberta (Walter H. Johns Graduate Fellowship), Polar Knowledge Canada (Northern Scientific Training Program and Éric Dewailly Memorial Award), and Canadian Institutes of Health Research (Frederick Banting and Charles Best Canada Graduate Scholarship – Master's). This thesis is a direct result of the support of these organizations.

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# CHAPER 1: Introduction

## Background

Food insecurity is characterized by a lack of secure access to sufficient amounts of safe, nutritious food (Leblanc-Laurendeau, 2020). It is not a singular concept, but a spectrum of experiences, spanning from concern over running out of food to malnutrition and hunger (Egeland, 2011). In Canada, food insecurity affects approximately 12.7% of households, representing almost 4.4 million Canadians (Leblanc-Laurendeau, 2020; Statistics Canada, 2020). Nunavut is by far the most impacted by food insecurity of any province or territory, and Inuit in Nunavut experience food insecurity at a rate far greater than any other Indigenous population living in a developed country (Egeland, 2011).

Historically, a variety of surveys have attempted to measure the prevalence of food insecurity amongst *Nunavummiut* (people from Nunavut) and less frequently, Inuit in Nunavut. The International Polar Year Inuit Health Survey in 2007-2008 found that over two-thirds (68.8%) of Inuit households in Nunavut were food insecure at the time of the survey (Rosol et al., 2011). In 2012, the Aboriginal Peoples Survey found that 52% of Inuit adults in Nunavut experienced food insecurity in the previous 12 months (Statistics Canada, 2017a). This is the most recent estimate of food insecurity in Inuit households in the territory.

There is more consistent reporting available on food security amongst all households in Nunavut. The Canadian Community Health Survey has contained a component aimed at measuring food security since 2005; yearly rates in Nunavut estimated by this survey range from 33.1% in 2010 to 46.8% in 2014, and 57% in 2017 (Tarasuk, 2016; Tarasuk & Mitchell, 2020). At the time of the 2020 survey, this was the highest rate recorded in Nunavut since monitoring began (Tarasuk & Mitchell, 2020) In households with children living in the home, this rose to 66%, and nearly a quarter (23.7%) of all households surveyed were characterized as being severely food insecure (Statistics Canada, 2020). There is an emergent trend within these statistics: Nunavut households consistently report food insecurity at rates higher than their territorial or provincial counterparts, with the overall prevalence of food insecurity increasing over time (Rosol et al., 2011; Statistics Canada, 2020; St-Germain et al., 2019; Tarasuk, 2016).

## Geographical Context

This study took place in Arviat and Iqaluit Nunavut. Nunavut is the newest of provinces and territories, created as a result of Inuit land claims. The Nunavut Agreement, which ratified the intention to create the territory, was signed in 1993. Through the separation of lands from the Northwest Territories, Nunavut became its own territory on April 1st, 1999, following decades of negotiations by the national Inuit organization, Inuit Tapiriit Kanatami (ITK). The vision for Nunavut is one of self-determination, with governance that reflects the values and perspectives of the majority population of Inuit that reside within its borders (Légaré, 1998). It is also the "first full territory in a modern nation ever to be governed and administered by Aboriginal people" (Marecic, 1999, p.1). Nunavut Inuit, the beneficiaries of the Nunavut Agreement, are represented by Nunavut Tunngavik Incorporated (NTI), which coordinates and manages Inuit responsibilities outlined in the Nunavut Agreement and ensures the federal and territorial governments uphold their respective obligations to Inuit. Each region within Nunavut – the Kitikmeot in the northwest, the Kivalliq in the centre, and the Qikiqtaaluk in the east – has its own Regional Inuit Association that represents, advocates for, and delivers programming to Inuit within their respective regions. The Government of Nunavut is responsible for the operation of Nunavut through public government.

As of 2016, Nunavut's population stands at 35,944, the vast majority (84.9%) of which are Inuit (Lepage et al., 2019). The territory's population is spread across a land mass of , 2.093 million km², spanning three regions and 25 communities. Of those communities, the most populous are Iqaluit – with 7,740 residents – and Arviat – with 2,514 residents (Statistics Canada, 2017c). Inuktitut is the mother tongue for 63% of Nunavut, and is regularly spoken at home by nearly three-quarters (73.8%) of the population (Lepage et al., 2019). Though they are the two most populous communities, Iqaluit and Arviat differ quite significantly demographically. 57% of the Iqaluit population is Inuit; in Arviat, that proportion increases to 95% Inuit (Lepage et al., 2019). Residents reporting their mother tongue as Inuktitut varies between the two communities. Of residents for which there is census data, approximately 91% in Arviat report Inuktitut as their mother tongue; that percentage decreases to 40% in Iqaluit (Statistics Canada, 2017b). The average household size in Arviat is 4.4 people, compared to 2.8

in Iqaluit, and the median age in Arviat (21.7 years) is nearly 10 years less than Iqaluit (31.1 years) (Statistics Canada, 2017c).

The majority of Inuit in Nunavut hunt, fish, or trap, with two thirds (66%) of the population age 25 to 54 reporting participation in these activities (Statistics Canada, 2019). Gathering wild plants was also a relatively common activity, with 38% of Nunavummiut reporting partaking in this activity in the last 12 months (Statistics Canada, 2019). Those who reported participating in these activities tended to do so often; for instance, across Inuit Nunangat, of those who reported hunting, fishing, or trapping in the last year, 46% report doing so at least a few times a week during the respective seasons for these activities (Statistics Canada, 2019). As noted above, though a large proportion of the population harvests, many *Nunavummiut* experience food insecurity on a day-to-day basis.

## Food Security Strategies

### *Federal Food Security Programs*

Federal and territorial governments have long recognized the increased burden of food insecurity in northern regions in Canada, specifically amongst Indigenous populations, evidenced by the many targeted programs aimed at tackling the issue throughout the years, Traditionally, the Inuit diet consisted of a wide variety of nutrient-dense foods from the land, including large land game, seal, whale, birds, fish, eggs, berries, edible plants, and roots - referred to in modern times as “country food” (Draper, 1977). Colonization caused a rapid shift, sometimes coerced or even forced, from a nomadic way of life and reliance on locally available foods to life in settlements and increasing reliance on market foods (Young & Bjerregaard, 2008). Government-directed relocation beginning in the 1950s resulted in Inuit moving from camps on the land to permanent settlements, where participation in the labour force led to decreased time for participation in hunting and gathering (Qikiqtani Inuit Association, 2013). This - along with forced or coerced attendance of residential schools by children and ongoing colonial policies encouraging the assimilation of Inuit into settler foodways – has led to decreased transmission of cultural knowledge, including traditional food harvest and preparation skills, and increased consumption of market foods (Burnett et al., 2016; Greenwood & Lindsay, 2019). To combat the burden of high prices and unstable access to food on northern settlement residents due to increased reliance on market foods, a food subsidy scheme was created (Stanton, 2011).

The Food Mail Program (FMP), established in 1960, allowed northern, remote communities without year-round access to "surface transportation" to access subsidies to offset the cost of shipping in perishable nutritious food and non-food essentials, with the intent of reducing the risk of food insecurity (Burnett et al., 2015; INAC, 2009). The program targeted communities where, without subsidies, the cost of food would be inaccessibly high for residents (INAC, 2009). Retailers and residents could access these subsidies through Canada Post. Government program funds were used to offset postage rates, bringing them closer to rates seen in southern Canada, thereby reducing costs passed on to the consumer (Burnett et al., 2015). During the time FMP was active, a variety of strategies were implemented to contain rising costs (Stanton, 2011). By 2006, these measures were considered to be insufficient by the Federal Government, and a review was initiated in response to concerns regarding the increasing costs of the program, inefficiencies in structure, lack of focus, and overall dissatisfaction regarding the program's impact on food insecurity in communities (Bell, 2006; Stanton, 2011; Thompson, 2008).

The subsequent 2008 review of the FMP commissioned by Indian and Northern Affairs Canada [INAC] recommended the food mail program be scrapped and replaced with a new program created in consultation with retailers, intending to "ensure the program is delivered to intended recipients in a much more direct, effective manner" (Stanton, 2011 p. 4). Beyond collaboration with retailers, recommendations for the new program included developing a strategic approach to build upon existing resources and work with provincial/territorial governments, create greater community awareness about the FMP and importance of nutrition, address food quality and service delivery issues, engage Indigenous organizations to improve the food eligibility list to ensure items are culturally appropriate, improve access to direct orders, and support local food initiatives such as sharing of country food (INAC, 2009).

In response, the Government of Nunavut published *Response to the Department of Indian and Northern Affairs Review* in September 2009, criticizing the focus of the review on how the subsidy should be applied, rather than the goals of the program, and argued for a re-alignment of the FMP toward a culturally relevant and appropriate food security program that focused on the most vulnerable populations (Government of Nunavut, 2009). Despite opposition from governments and citizens across the north, INAC announced in May 2010 that the FMP would be discontinued and replaced with Nutrition North Canada [NNC]. Northerners were assured the program would be an improvement over the FMP, with promises of lower food prices of 5-11 percent, country food subsidies, and an overall lower rate of food insecurity (Windeyer, 2011b).

The gradual introduction of NNC began in October 2010 through changes to the existing FMP subsidy scheme. On April 1st, 2011, the program launched, but full implementation did not occur until October 2012 when subsidies on non-perishable foods were removed; this delay in implementation came in direct response to complaints of massive increases in food prices as a result of the October 2010 change in food subsidy levels (Windeyer, 2011a). In the years immediately following implementation, NNC received significant backlash from political leaders and community members across the territory (Nunatsiaq News, 2013, 2014; Rennie, 2014). Criticisms of the program included a lack of retailer transparency, no oversight of whether the subsidies were being passed on fully to consumers, ineffective subsidy eligibility for common food items and removal of essential non-food items, failure to reflect community priorities, and that it was doing little to truly alleviate food insecurity for *Nunavummiut* (Galloway, 2017; Government of Canada, 2014). In 2014, the Auditor General of Canada conducted a program review, finding NNC was not meeting its objective of increasing the accessibility of healthy foods to northerners (Government of Canada, 2014).

Despite these issues, no changes were made to the program's subsidy rates or list of eligible foods from 2011 to 2019 (Galloway, 2017; Indigenous and Northern Affairs Canada, 2020). In 2018, an independent examination of the program's effectiveness in Nunavut was undertaken by St Germain et al. (2019). The researchers examined the overall rates of community food insecurity before, during, and after implementation of NNC, and found an average 13.2 percent increase in food insecurity in Nunavut between 2011 – the year of the program launch - and 2014 – after full implementation (St-Germain et al., 2019). However, it is not known whether the increase in food insecurity within this time period is a direct cause of the switch from the FMP to NNC. Other research hypothesizes that these increases may have happened irrespective of the food subsidy scheme in place at the time, and that increasing food insecurity is the result of other factors such as growing commercialization of country food, population growth, decline in local species and harvest restrictions, and climate change (Ford et al., 2019). Regardless, it is evident there is a need for further investigation into the direct causes of food insecurity and the effectiveness of the programs and policies designed to mitigate it amongst *Nunavummiut*.

In January 2019, the federal government released a fully revised subsidized foods list, adding items that were long desired by northerners. These changes included a new “highest-level” category, which increased the subsidy for frozen vegetables and fruit, fresh milk, infant formula, infant cereals, and other infant foods by 25% over the previous rate (Indigenous and Northern Affairs Canada, 2020). In addition, essential non-food items were added onto the subsidy list, resolving a long-standing complaint by northerners over the prohibitively high prices of household items in stores, and of which was a speculated reason for increased food insecurity under NNC (St-Germain et al., 2019). With this change, toilet paper, essential personal hygiene items, and laundry and dishwashing detergents became eligible for subsidy (Indigenous and Northern Affairs Canada, 2020). Items on the subsidy list brought up by re-supply boats in the summer also qualified for the subsidy; previously, only items brought up by air freight received the subsidy (Murray, 2018). However, these changes have not been evaluated, and thus it is not yet known whether they have resulted in improved food security for *Nunavummiut*.

Though the market arm of Nutrition North Canada is the most widely available and funded food security initiative for Nunavut, there are a variety of smaller initiatives aimed at reducing the burden of food insecurity in the territory by boosting food security and food sovereignty efforts territorially, regionally, and locally. These initiatives are funded or run by a wide range of groups, including NTI and Regional Inuit Associations, territorial and municipal governments, community organizations, and non-profits, and help to meet needs in communities that are unmet by NNC.

## Inuit Organization Programs

### *NTI Harvester Support Program*

The Nunavut Tunngavik Incorporated [NTI] Nunavut Harvester Support Program was a response to dwindling prices for animal furs impacting the ability for full-time hunters to support their families (Légaré, 2000). The early iteration of the program was for households whose principal economic activity was hunting for at least 6 months of the year were eligible for the program. Each selected family received $12,000. Once selected, a household would not be eligible for four years afterward. Recipients were selected by community Hunters and Trappers Organizations [HTOs], as these organizations were deemed best to recognize who in the community hunted full time and would benefit from assistance. However, many community members across the territory complained nepotism was occurring within the program, with recipient selection occurring through favouritism rather than demonstrated need (Légaré, 2000).

The Nunavut Harvester Support Program ran annually until 2014, when it was suspended pending a review of protocol due to concerns of exhausting remaining funds (Rogers, 2017). In 2017 the program was reinstated with changes to support families, instead of households, recognizing that due to overcrowding more than one family may live under a single household. Families are eligible for $1000 of harvesting equipment and $1000 of safety equipment each year (Rogers, 2017). Communities are also eligible for funds to support community hunts. However, funds remained at levels similar to before the program's suspension in 2014, and NTI officials recognized a need for increased funding from other levels of government to continue the program into the future (Rogers, 2017). In November 2018, the Federal Government announced the Harvester Support Grant to help lower costs associated with harvesting country food in communities served by Nutrition North Canada. This initiative provides 14.8 million dollars over five years to support traditional hunting and harvesting activities in Nunavut, with the goal of improving food security in the region (Patar, 2020). As of September 2020, program funds are distributed by regional Inuit associations. Evaluations of the impact of this arm of NNC are not yet available.

### QIA Nauttiqsuqtiit

Initially piloted in Arctic Bay in 2018, the *Nauttiqsuqtiit* Inuit Steward program stemmed from the newly created Tallurutiup Imanga National Marine Conservation Area. This program created formalized roles for Inuit in environmental protection and harvesting in Arctic Bay, and following the successful pilot, in Clyde River, Pond Inlet, Grise Fiord, and Resolute Bay (Qikiqtani Inuit Association, 2019a). The *Nauttiqsuqtiit* simultaneously monitor the region and harvest for the benefit of their communities; the animals harvested are shared with the community through feasts to help reduce food insecurity. The on-the-land skills important for navigating the land and harvesting learned by the *Nauttiqsuqtiit* from Elders are passed down to young Inuit in their communities – another important aspect of food sovereignty (Qikiqtani Inuit Association, 2019a).

## Community-Led Strategies

### *Community Freezers*

Community freezers are available in many Nunavut communities, and are run by the local hamlet or HTOs (Boult, 2004). They provide a space for resident harvesters to leave their catch where it may be shared with the rest of town, especially with those who usually would not have access to wild caught meat due to lack of inclusion in more informal sharing networks (Organ et al., 2014; Van Dusen, 2016). However, they are dependent on harvesters sharing their catch, and thus only function as a mechanism to increase food security in a community if there are harvesters willing to donate, or if the community has the means to compensate harvesters for the catch or expenses incurred during harvest; the ability for communities to do this varies widely (Council of Canadian Academies, 2014). Regardless of their varied success as a food insecurity reduction mechanism, these freezers provide an essential service to communities as they are often the sole means of storing harvest from community hunts, since use of traditional means of storage are dwindling due to melting permafrost (Boult, 2004).

The Government of Nunavut supports local community freezers through their Country Food Distribution Program. For communities that own and operate infrastructure that supports the harvest and distribution of country food, the fund pays up to $10,000 of the utilities and maintenance costs (Government of Nunavut, 2017). Communities without functioning or existing infrastructure to support country food harvesting and distribution (i.e. community freezer, community market or cut and wrap facilities) are able to access funds for repairs, upgrades, and purchase of this infrastructure. In 2020, CanNor provided additional funding for projects that support community food systems. In Nunavut, these funds were invested in community freezer purchase or upgrade in five communities, and an intercommunity trade system between Iqaluit, Baker Lake, Arviat, Qikiqtarjuaq, Pond Inlet, and Kimmirut to promote country food sharing where communities may have over or undersupply (Dueling, 2020).

### *Community Food Programs*

Community food programs are a vital aspect of the social support network in Nunavut and most often involve soup kitchens and food banks. There are no territorial organizations overseeing the establishment and operation of food banks or soup kitchens. Food banks and soup kitchens in Nunavut are operated on grant-based or donation-based models, in which funding or donations are continuously sought to support operations (Chan et al., 2006; Inuit Tapiriit Kanatami, n.d.). These programs provide market food and country foods to the populations they serve (Lardeau et al., 2011).

Compared to their urban, southern counterparts, there is relatively little information available on community food programs in Nunavut, including who uses these community food programs, how often, and whether use is changing over time (Ford et al., 2012). Though there is scant literature available on food programs for the majority of Nunavut communities, studies in Iqaluit have highlighted the importance of community food programs for improving food access for families (Ford et al., 2012; Lardeau et al., 2011).

### *Breakfast and Lunch Programs*

Funded by government of Nunavut, Nunavut school breakfast and lunch programs are individually managed and run by schools in each community. Recognizing that children with sufficient food to eat are more likely to graduate, the program provides $1.70 per child per day toward the purchase of program foods (Government of Nunavut, 2013; Pandey & O’Gorman, 2015). Some schools fundraise or acquire additional foods through alternate means, such as collaborating with businesses and non-profits. These programs are an essential service in Nunavut communities, as they are a guaranteed, reliable source of food for many children (Weber, 2020).

### *Knowledge Transmission Initiatives*

A small number of initiatives in the territory aim to restore and/or increase the passing of knowledge from Elders and adults to youth on skills related to country food harvest, preparation, and storage. The Young Hunter’s Program in Arviat, which has been in operation since 2012, brings Elders and instructors together to teach youth about the harvest of country food (Bell, 2020). Youth learn the skills necessary for them to become skilled in sustainable harvesting practices through this program, enabling them to become confident harvesters to help with feeding their families and their community (Bell, 2020).

Ilitaqsiniq Nunavut Literacy Council provides two embedded literacy programs that incorporate the transmission of cultural food skills: *Niqiliri* and *Ilitsiqatigiik*. The *Niqiliri* program teaches traditional practices for butchering the caribou and for creating Inuit foods, such as *mikku* – dried caribou meat - while utilizing all parts of the caribou (Ilitaqsiniq: Nunavut Literacy Council, n.d.-a). *Ilitsiqatigiik* – "Family Cultural Activities" in English – brings children and their parents or role models together to learn cultural teachings important for Inuit family life (Ilitaqsiniq: Nunavut Literacy Council, n.d.-b). These teachings include making traditional tools used for a variety of on-the-land activities such as hunting, fishing, skinning, and butchering, and household tasks such as cooking and bannock making (Ilitaqsiniq: Nunavut Literacy Council, n.d.-b).

## Study Context

COVID-19 was declared a pandemic by the World Health Organization on March 11th, 2020. Nunavut responded by closing schools and daycares on the 17th of March 2020, and declaring a state of public health emergency on March 18th, resulting in the closure of bars, restaurants, offices, post-secondary education, and remaining public places (Deuling, 2020). After several months of zero cases in the territory, slow reopening began, with most restrictions eased by summer 2020. Since the initial closures, Nunavut has experienced two outbreaks of the virus to date: one in Arviat, Whale Cove, and Rankin Inlet, in November 2020 to March 2021 and the other in Iqaluit, from April 2021 to the end of July 2021. Each of these outbreaks resulted in the implementation of strict public health measures in the affected community, and restrictions in varying degrees across the territory, including a two-week stay at home order in November for all of Nunavut. This study design aimed to capture the impact of COVID in impacted communities, while ensuring COVID protocols were followed by the investigator, and community readiness for engagement was respected.

These rolling closures presented a threat to the food security and sovereignty of Nunavummiut. Though there are a wide variety of initiatives aimed at alleviating food insecurity in Nunavut, a large proportion of the population are vulnerable to changes to or availability of the programs described above. With widespread closures to in-person school, work, and community programs, COVID-19 pandemic public health measures have the potential to have unintended impacts on food security and food sovereignty of *Nunavummiut*. Though some of the existing programs aimed at reducing food insecurity in the territory were not affected by the closures, others were forced to reduce, adapt, or cease operations. To combat negative effects, funding programs aimed at mitigating impacts of the restrictions on the food security and sovereignty of population were implemented by the federal and territorial governments and Inuit organizations, and existing community programs adapted their activities where possible.

## Research Objectives

a) Describe the measures in place to mitigate impacts of COVID-19 in Nunavut.
b) Describe determinants of food security and food sovereignty in Nunavut and how the COVID-19 pandemic policy response in the territory has impacted these determinants.
c) Understand how community members perceive the impact of the pandemic on food security and sovereignty in their communities.

## Justification of the Study

The COVID-19 pandemic response in Nunavut presented an opportunity to examine the impacts of the influx of funds, closures, and transition to work-from-home into communities on food security and food sovereignty. Though many funding opportunities, community programs, and community responses were aimed at reducing food insecurity during the pandemic, it is not clear if these initiatives achieved this goal. Additionally, it is unclear what specific impacts COVID-19 outbreaks had on food security and food sovereignty in affected communities, and whether actions taken during these outbreaks were successful.

There is an opportunity to learn from the experiences of community members and service providers about how communities adapted to the public health restrictions during both the initial pandemic period in March 2020 and the additional November 2020 lockdown. There is also an opportunity to gain community members' perspectives on the success of funding programs and activities aimed at reducing food insecurity and promoting food sovereignty during periods of increased public health restrictions.

## Thesis Outline

This thesis is composed of five chapters. Chapter 2 provides an in-depth review of the literature on food security and food sovereignty and its intersections with Indigenous communities within Nunavut, Canada, and around the world. It also includes an outline of the timeline of and response to the COVID-19 pandemic in Nunavut. Chapter 3 is a detailed review of the methods utilized to conduct the social media scan and qualitative interviews presented in this study. Chapter 4 presents the findings of both aspects of the study. The thesis concludes with a discussion of the findings of this study and their implications for future food security and sovereignty work in Nunavut.

# CHAPTER 2: Literature Review

## Definitions and Discourses of Food Security and Food Sovereignty

Definitions are important for understanding the scope of a concept, but should be considered within context, as they are shaped by the time and place in which they arose. Food security and food sovereignty definitions have evolved over time and reflect changes in the international politics of food and the development of the globalized food system. Because of this, analyzing concept discourses in the literature is important as it facilitates understanding of how these concepts are understood and used in practice.

Discourses are ways of understanding particular social processes or phenomena, and reflect the historical processes and public discussions surrounding these processes or phenomena (Koc, 2013). Therefore, discourses of food security refer to "ideas, attitudes, courses of action, beliefs and practices that define conditions of food provisioning in modern society" (Koc, 2013 pp. 247). The complexity of food security discourse reflects conflicting ideas of how access to food should be managed. Additionally, changes in discourse over time mirror shifts in political priorities and subsequent shifts in food system policies and practices (Koc, 2013). Food sovereignty discourses reflect common themes of self-determination within the food system, land control and ownership, decolonization for Indigenous peoples, and the conflicts and alignments of the discourses with food security discourse.

### *Food Security*

In its infancy in the post-World War II era, the concept of food security simply meant sufficient food supply at the national or global scale (Jarosz, 2014). Though food security is now understood to be dependent on access to food and the ability to obtain resources to produce it, buy it, or trade for it, access to food did not become a part of the discourse until the critical works of Amartya Sen and Jean Dreze (Dreze & Sen, 1990). These authors brought access into the larger discussion on hunger and food security. The 1986 World Bank report 'Poverty and Hunger' defined food security in terms of access, as follows: 'access of all people at all times to enough food for an active, healthy life' (World Bank, 1986, in Clapp, 2014, p. 207). This solidified the importance of access within the global food security discourse, where it remains an integral part of the discussion today (Clapp, 2014).

The 1996 Rome Declaration on World Food Security further expanded the definition of food security, and this definition is the most widely utilized definition of food security today; when "all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food which meets their dietary needs and food preferences for an active and healthy life" (FAO, 2006, p. 1). Encompassed within this expanded definition are the four pillars of food security: availability, access, utilization, and stability (FAO, 2006). Availability is defined as "the availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports" (p. 1); access is characterized as having access to sufficient resources to obtain food; utilization incorporates the importance of non-food inputs into food security, and refers to the utilization of food through clean water, sanitation, health care, and adequate diet to achieve nutritional well-being; and stability incorporates both the access and availability dimensions, and refers to having access to adequate food at all times (FAO, 2006).

Food security discourses generally involve promoting strategies that are neoliberal, expertise-driven and production-focused (Wald & Hill, 2016). Neoliberal approaches are ultimately concerned with increasing efficiency and introducing market-based methods as a way of improving food security (Alkon & Mares, 2012). Large-scale food production and their networks is a major theme of food security discourse, however conversations generally pertain to efficiency, the overall adequacy of supplies and nutritional content (Agarwal, 2014; Edelman et al., 2014; Wald & Hill, 2016). Food security discourses place significantly less emphasis on the conditions of how or where the food is produced than food sovereignty discourses (Alkon & Mares, 2012; Edelman et al., 2014). Additionally, support for privatized and volunteer-based initiatives is found within food security discourse (Alkon & Mares, 2012). The individual or household is often the unit of analysis and target of interventions (Clapp, 2014). For instance, food banks and soup kitchens are common interventions that tend to utilize food security focused language in their work (Desmarais & Wittman, 2014).

However, unlike food sovereignty approaches, food security discourse does not usually involve discussions of inequities, such as the unequitable social relations in food production, or in land and resource control and access (Jarosz, 2014). In this sense, inequitable social relations of production are those interactions between individuals or groups of individuals that are unjust, oppressive, or discriminatory, and refers particularly to the inequitable relationships within the global food system between poor and wealthy nations (Jarosz, 2014). Food security discourse largely avoids topics of social control and the power politics of the food system (Patel, 2009). Also notably absent from food security discourse are discussions of the rights of communities and nations to produce for themselves and control their sovereign resources of production (Alkon & Mares, 2012).

In contrast to the individualized and charity-based models of the dominant food security discourse, Weiler et al. (2015) notes that ‘community food security’ has emerged as an alternative discourse within food security. This approach emphasizes self-reliance at the community scale, social justice, and sustainability, concepts which are paralleled within food sovereignty discourses (Weiler et al., 2015). Both approaches have emerged in response to increasing food insecurity amongst marginalized populations (Weiler et al., 2015). However, these initiatives still work within the neoliberal market framework, and in some ways relieve the government of its duty to provide food to those who cannot afford it (Alkon & Mares, 2012). Only within food sovereignty discourses can direct opposition to neoliberal strategies be found (Alkon & Mares, 2012). However, it should be noted that though food security discourse is often associated with, and often does involve approaches that conform to the mainstream, this does not mean that the overall concept of food security should be abandoned (Clapp, 2014). Though discourse tends to involve market-oriented solutions, food security at its base is still a useful concept (Clapp, 2014).

### ***Food Sovereignty***

While a single definition of food security is widely accepted and utilized regionally and transnationally, pinning down a singular definition is much more difficult for food sovereignty. Patel (2009) says of food sovereignty “there are so many versions of the concept, it is hard to know exactly what it means”. The term became popularized after it was proposed during the 1996 Civil Society Forum by Via Campesina, an international peasant organization based in Brazil. This forum was a counter-forum to the 1996 World Food Summit in which the widely accepted definition of food security was proposed. This demonstrates the considerable tensions between peasant farmers and the multi-lateral organizations that claim to represent them, and underscores the oppositional stance taken towards globalization of the world food system by multi-lateral organizations (Jarosz, 2014). Food sovereignty as proposed during this forum in Via Campesina's declaration, titled "The Right to Produce and Access to Land", was defined as:

> "The right of each nation to maintain and develop its own capacity to produce its basic foods respecting cultural and productive diversity. We have the right to produce our own food in our own territory. Food sovereignty is a precondition to genuine food security" (Via Campesina, 1996).

This definition highlights the strong sentiments of national self-determination and self-sufficiency within the food sovereignty movement (Agarwal, 2014). It takes a hard stance against globalization, and places the responsibility for developing systems for provisioning food at both the national and local levels (Jarosz, 2014).

The declaration from which this definition comes also outlines seven principles of food sovereignty. These principles form the basis for food sovereignty discourse and provide insight into the actions food sovereignty advocates wish to see taken by governments and multi-lateral organizations: 1. Food is a basic human right; 2. Agrarian reform is required: Land ownership and control should be given to those landless and farming people who work on the land. The work of producing food and caring for the land must be sufficiently valued both economically and socially, in order to encourage young people to remain in rural communities; 3. Natural resources must be protected; 4. Reorganizing the food trade must occur. Peasant farmers have the right to produce essential food staples for their countries and to control the marketing of their products; 5. Global control over agricultural policies should be ceased; 6. Social peace: food must not be used as a weapon. Increasing levels of poverty and marginalization in the countryside, along with the growing oppression of ethnic minorities and indigenous populations aggravate situations of injustice and hopelessness. The continual displacement, forced urbanization, and repression of peasants cannot be tolerated; 7. Democratic control over the formulation of food policies is a necessity. Peasants and small farmers must have direct input into agricultural policies at all levels (Via Campesina, 1996).

In 2001, Via Campesina introduced an updated definition of food sovereignty in their declaration "Our World is Not for Sale":

> "[Food sovereignty] is the right of peoples to define their own food and agriculture; to protect and regulate domestic agricultural production and trade in order to achieve sustainable development objectives; to determine the extent to which they want to be self reliant; to restrict the dumping of products in their markets; and to provide local fisheries-based communities the priority in managing the use of and the rights to aquatic resources".

This definition expands on the previous definition and promotes the idea that trade policies and practices should be determined by the people, and prioritize local, sustainable production over industry-led production that favours the globalized market. While the 1996 definition focuses on the right of self-reliance of nations, the 2002 definition expands to the rights of peoples to determine the level of self-reliance they wish to achieve (Patel, 2009). Both early definitions understand hunger and poverty to be a result of the globalized nature of the food system and call for a comprehensive shift of this system to prioritize people over profit.

Via Campesina again updated the definition of food sovereignty in 2007; this definition, which is part of the Declaration of Nyeleni, is the most current and commonly cited definition:

> "Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems." (Via Campesina, 2007, p. 1)

There are also clarifications of the conditions in which food sovereignty operates:

> "It puts those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations. It defends the interests and inclusion of the next generation. It offers a strategy to resist and dismantle the current corporate trade and food regime, and directions for food, farming, pastoral and fisheries systems determined by local producers. Food sovereignty prioritises local and national economies and markets and empowers peasant and family farmer-driven agriculture, artisanal – fishing, pastoralist-led grazing, and food production, distribution and consumption based on environmental, social and economic sustainability. Food sovereignty promotes transparent trade that guarantees just income to all peoples and the rights of consumers to control their food and nutrition. It ensures that the rights to use and

> manage our lands, territories, waters, seeds, livestock and biodiversity are in the hands of those of us who produce food. Food sovereignty implies new social relations free of oppression and inequality between men and women, peoples, racial groups, social classes and generations." (p. 1)

This definition forms the basis for many regionally adapted definitions of food sovereignty. It represents a shift of food sovereignty from language emphasizing the important of self-determination in production to also include consumption. A key difference with this definition is the recognition of the right to food that is culturally appropriate and is obtained through ecologically sustainable methods. There is also a shift from advocating for nations to be self-reliant in the 1996 definition, to people being as self-sufficient as they want to be in the 2002 definition, to finally emphasizing the importance of group decisions (Agarwal, 2014).

These formative definitions showcase the underpinnings of food sovereignty discourse. Food sovereignty is rooted in rights-based language that advocates for self-determination of local peoples and the right to define their own food systems in culturally appropriate terms. Food sovereignty discourse advocates for the conceptualization and realization of alternative food systems that restore the rights of people to control, produce, and harvest food on the lands they occupy. Restoration of sustainable food practices, that were long the norm for Indigenous peoples and other ethnicities who lived symbiotically with the land prior to their dispossession, is central to the discussion of food sovereignty. Social control of the food system is at the centre of food sovereignty discourse; food sovereignty brings in discussions of the inequitable social relations between poor and wealthy nations within the global food system and emphasizes the importance of transforming these relations into ones that are just, unoppressive, and non-discriminatory (Jarosz, 2014). It recognizes that decisions on food systems are made by individuals from a entirely separate, privileged class than those who are most affected by these decisions and calls for democratic control of food system (Jarosz, 2014; Patel, 2009).

### Critiques of Food Security Approaches

Critics of food security discourse argue that there is excessive focus on aligning the approach to the neoliberal agenda, that is, attempting to solve issues such as hunger and food insecurity through market and trade-based mechanisms, rather than looking inward at how these mechanisms create and perpetuate food insecurity (Jarosz, 2014; Koc, 2013; Noll & Murdock, 2020). Though earlier discourse included discussions of the right to food, critics contend that shifts in language now reflect a market-oriented approach to food security instead of one that is rights-based (Koc, 2013). As a result, many scholars have rejected the utility of the concept to enact change, as they view it too strongly favours the mainstream agenda, unjustly favours market orientation, and ignores disruptive solutions to the issues needing resolution (Clapp, 2014; Wald & Hill, 2016). In the process, these scholars imply that food sovereignty and food security are oppositional concepts that cannot be aligned toward a common goal (Clapp, 2014).

Other criticisms of the food security approach include the exclusion – within ideology and practice - of the 'hows' to achieving food security. This critique emphasizes that practices within the global food system do not always align with what practices are promoted by food security ideology. Jarosz (2014) highlights that though the 1996 declaration affirms the rights of nations to enact policies that promote food security within their borders, World Trade Organization rulings erode these rights by favouring trade relations over national policies that protect local food production and sale. Another theme of critique centres on the lack of direction in food security discourse in regard to how its ideals might be achieved, and that proponents omit tangible direction on how food security may be achieved. For example, Patel (2009) notes that the importance of social control of the food system is not included in the common definition of food security, nor are discussions on how control may be achieved. Other criticisms note that despite the focus of food security discourse on access, there is no direction on where the food should come from or how it should be produced (Lang & Barling, 2012).

## Critiques of Food Sovereignty Approaches

Food sovereignty criticisms focus on the broad nature of its varying definitions. Critics argue this makes it difficult to pin down what it means and, more importantly, how to achieve it (Edelman et al., 2014; Patel, 2009). While food security receives criticism for its lack of direction as to how to achieve it, food sovereignty itself does not have a prescribed set of rules (Clapp, 2014). However, Jarosz (2014) argues that a uniform definition of food sovereignty should be resisted. Via Campesina wishes for consensus on what food sovereignty means, but a standardized definition of food sovereignty will be difficult to reach solely because multiple food systems exist at the local, regional, and national levels (Jarosz, 2014). Thus, in determining what food sovereignty means in practice in a particular community, region, or country, overarching definitions such as Via Campesina's may act as a guide, but definitions that incorporate the context of the place and level of analysis should be privileged. Communities should be enabled to define what food sovereignty means and how they may achieve it for their peoples.

Other criticisms see food sovereignty discourses as often myopically focused on food and farmers, rather than promoting the societal conditions that would enable communities to become food sovereign. Edelman et al. (2014) notes that food sovereignty requires a "healthy, sustainable and diverse rural economy" (p. 924) that is diversified beyond food production. Some individuals who farm the land they live on do not want to remain producers within the food sovereignty framework (Agarwal, 2014; Patel, 2009). Diversification would allow these individuals to obtain living wage that would enable them to regularly and consistently purchase the food they require (Agarwal, 2014).

Agarwal (2014) notes that though Via Campesina advocates for group decisions that benefit the whole, it is unclear whether individuals who no longer wish to pursue subsistence farming would be permitted to under a food sovereignty framework. The author criticizes the emphasis placed on group decisions within the 2007 definition and argues for the 2002 definition's emphasis on the individual's right to determine their own level of self-sufficiency. Like Agarwal (2014), Patel (2009) argues that individuals should be able to determine for themselves whether to pursue subsistence livelihoods, take up commercial food production, or abandon food production altogether.

Patel (2009) also argues that the language utilized by food sovereignty advocates represents a paradox: the definition of food sovereignty rejects the role of the state in food systems while simultaneously utilizing rights-based language. The author notes that use of rights-based language means that there must be a guarantor of those rights, and thus this implies there is a role for the state to ensure the rights outlined in the definition. However, this criticism does not take into account the growing sovereignty and self-determination of nations specifically amongst Indigenous populations, and the duty of the state to uphold the right to self-determination. Self-determination of peoples simultaneously allows the duty of the state to ensure rights are upheld and the right of peoples to define food and agriculture systems co-exist. Self-determination means that Indigenous peoples control their own affairs and uphold the rights of their own peoples. Nation-states ensuring self-determination simultaneously enables them to uphold the right to food while allowing for Indigenous peoples to define what the systems involved in ensuring the right to food would look like.

These criticisms are important to consider when approaching food insecurity from a food sovereignty or food security lens. As highlighted by these authors, there are strengths and weaknesses associated with each approach. Though many scholars approach food from an either food sovereignty or food security perspective, others argue there is common ground amongst these concepts, and that the best solutions to solving hunger and food insecurity occurs from bringing both approaches together (Jarosz, 2014; Noll & Murdock, 2020; Weiler et al., 2015).

## Aligning Food Security and Food Sovereignty

Critiques of the prevailing language and definitions are important to consider when approaching food insecurity from a food sovereignty or food security lens. As highlighted by these authors, there are strengths and weaknesses associated with each approach. Though many scholars approach food from an either food sovereignty or food security perspective, others argue there is common ground amongst these concepts, and that the best solutions to solving hunger and food insecurity comes from a marrying of both approaches (Carney, 2012; Jarosz, 2014)

Oftentimes critics conceptualize food sovereignty and food security as opposing concepts, rather than being relational and complimentary (Carney, 2012; Clapp, 2014; Jarosz, 2014). As food security discourse is often associated with a neoliberal agenda, and food sovereignty discourses directly opposing globalist approaches to food systems, some scholars view the discourses as having irreconcilable differences. This despite the fact the originator of food sovereignty, Via Campesina, acknowledges that a relationship exists between food sovereignty and food security. Within the original definition, food sovereignty is described as "a precondition to achieving genuine food security" (Via Campesina, 1996, p. 1)

Clapp (2014) argues food security and food sovereignty are falsely portrayed as oppositional, with food sovereignty often portrayed as the "better" alternative to food security. The author contends that instead, food security and food sovereignty are complimentary concepts, equally important in understanding food insecurity and should be treated as such within the prevailing discourses. Each concept has its strengths, with food security providing valuable insights into individual and household food access issues, hunger, and nutrition, while food sovereignty largely concerns itself with food and land rights, environmental protection, and national and local food production (Clapp, 2014). Instead, as Clapp (2014) and Jarosz (2014) argue, common ground between the two discourses should be sought within all levels of the food system, as this is where the best solutions to issues of food insecurity will be found.

## Indigenous Movements, Food Security and Food Sovereignty

### *Indigenous Food Security*

Living in a state of food security is correlated with adequate, secure income. Though Indigenous peoples comprise 5% of the world's population, they comprise 15% of the world's poor (DESA-UN, 2009). Thus in many countries, food insecurity rates tend to be higher among Indigenous peoples than their non-Indigenous counterparts (Rocha & Liberato, 2013). Many Indigenous food systems operate within a dual model, in which foods are either store-bought or obtained from on-the-land harvest (Damman et al., 2008; J. D. Ford, 2009a; Robidoux et al., 2012). Increased reliance on westernized, store-bought food poses numerous risks for the health and well-being of Indigenous peoples globally. The rapid westernization of Indigenous peoples' diet and lifestyle has been dubbed the "nutrition transition", and has been linked to increases in food insecurity and rates of non-communicable diseases, including obesity and diabetes (Albala et al., 2002; Damman et al., 2008; Popkin, 2001; Power, 2008; Reeds et al., 2016) Additionally, increased reliance by Indigenous peoples on store-bought foods leaves them vulnerable to rising food prices (Kuhnlein & Receveur, 1996). Individual and household food security may also be affected by various factors associated with food obtained from the land, including food safety, access to transportation, and environmental change (Lam et al., 2019; Power, 2008).

The available literature on Indigenous food security primarily involves measurement and interventions. Food security measurement is most commonly applied at the national level. As a result, the tools utilized often do not reflect the realities of Indigenous communities or Indigenous conceptualizations of food security. As survey tools are made to be generalizable to a large proportion of the population, specific factors that influence food security in Indigenous communities have previously been absent; criticisms include a lack of engagement of Indigenous communities, their generalized design means nuanced understandings of food security are not possible, and they consist of inappropriate questions for measuring food security amongst specific groups (Anderson & Smylie, 2009; Council of Canadian Academies, 2014; S. C.

Gerlach & Loring, 2013). This highlights a need for understandings of Indigenous food security beyond survey measures.

Food preferences are an important aspect of food security; for many Indigenous peoples, preferred foods include country foods[1] (Richmond et al., 2020). Food security advocates have emphasized the need for more specific measurement tools that reflect the realities, cultures, and food preferences of Indigenous peoples (S. C. Gerlach & Loring, 2013; Lam et al., 2019; Power, 2008). Power (2008) argues for an additional level of food security analysis beyond the individual, household, and community. The author argues that cultural food security, described as "the ability of Indigenous people to reliably access important traditional/country food through traditional harvesting methods" (p. 96), be included in Indigenous food security analyses (Power, 2008). Proposed indicators include levels of traditional food knowledge, access to traditional food systems, and safety of country/traditional food (Power, 2008). Additional indicators could include availability of traditional foods, and the impacts of climate change on harvestable animals and traditional agriculture (S. C. Gerlach & Loring, 2013; Lam et al., 2019).

Food security interventions to improve food access for Indigenous peoples often take a top-down approach, involving multinational organizations, governments, or regional committees to advance food security efforts. These efforts may or may not involve Indigenous peoples in their planning and implementation. This is starkly contrasted with the grassroots organizing seen in the Indigenous food sovereignty movement. This top-down approach appears to have alienated Indigenous peoples from the broader food security discourse, wherein organizations such as the UN Food and Agriculture Organization and the World Trade Organization perform advocacy work on behalf of Indigenous peoples, rather than Indigenous peoples controlling the direction of the work themselves. Documents from international organizations often utilize language such as "engagement" and "consultation" when speaking of efforts to include Indigenous peoples in food security work (Kuhnlein et al., 2013). Though there is relatively little food security advocacy work at this level that directly stems from Indigenous communities, it is not for lack of effort on their part; Via Campesina was created within a climate of exclusion from broader food security discussions and a desire for local peoples to have a voice at the inter- and multinational levels. Though La Via Campesina is not strictly an Indigenous organization, its exclusion from multinational food security meetings highlights the desire to limit input in high level food security discourse to the privileged few.

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[1] Inuit Tapiriit Kanatami defines country food as "all animal, plant, and fish species that are harvested by Inuit, whether or not they are commercially harvested or sold" (Inuit Tapiriit Kanatami, 2021)

At the national, regional, and local levels, the extent of Indigenous involvement in food security projects is unclear. Browne et al. (2020) reviewed food and nutrition policies in urban and rural settings worldwide and their effectiveness for Indigenous peoples. 60 out of the 78 interventions reviewed in this study involved Indigenous peoples in the intervention design or other cultural considerations in the research. Food security approaches for Indigenous communities included healthy foods provision in public institutions, using economic tools to make healthy food more affordable, improving the nutritional quality of the food supply through methods such as fortifications, store-based interventions to improve the availability and visibility of healthy food options, improving food supply chains, public awareness campaigns to improve knowledge of healthy foods, nutrition counseling, and nutrition educations programs (Browne et al., 2020). Though these interventions did include Indigenous peoples in the design process, this study does not highlight whether any of these interventions were initiated by Indigenous communities themselves, calling into question to what extent these interventions may be considered Indigenous.

However, there is at least one example of Indigenous-led partnerships to promote food security in Indigenous communities. Kuhnlein et al. (2013) described Indigenous food security interventions created in response to under or overnutrition in 12 diverse settings worldwide. All interventions were developed in partnership between Indigenous leaders and academics and were successful in reducing food insecurity and increasing positive health outcomes in their applied populations. The interventions fall into four categories: traditional food harvesting of wild/animal plants; agricultural activities; education on nutrition and food production in community and schools; and developing local leadership to make linkages with business, health department, education, government and nongovernmental organisations (Fieldhouse & Thompson, 2012). All interventions were community-driven, incorporated the local ecosystem, and included capacity building components in order to promote long-term sustainability. Though a rare example, the authors provide insight into the Indigenous food security work that is occurring in local and regional settings globally.

In a book on intervention and policies for healthy Indigenous communities released by the Food and Agriculture Organization [FAO][2], regional and local food security projects in Indigenous communities that are described as success stories appear to originate from governments or non-governmental organizations, with few taking on a collaborative or participatory approach with these communities, and none arise from the work of community leaders themselves (Kuhnlein et al., 2013). Though the projects all involve local leadership and input, the projects are still guided and implemented by non-Indigenous actors (Kuhnlein et al., 2013). There are several possible reasons for the lack of discussion on Indigenous food security projects that are conceptualized and led by Indigenous peoples within their own communities. It could be that Indigenous communities are being deliberately excluded from food security discourse in favour of approaches that fit the food security narrative. These initiatives may also be impacted by publication bias, in which community-based initiatives may be less likely to publish and raise awareness of their activities. Alternatively, Indigenous food security work may more likely be placed in the food sovereignty category due to greater alignment of the concept with Indigenous cosmologies and conceptions of justice (Coté, 2016; Noll & Murdock, 2020).

### Indigenous Food Security in Canada.

Though Power (2008) argues for the additional component of cultural food security to be considered in Indigenous conceptualizations of food security, Indigenous food security literature tends to refer to the FAO definition of food security. Food security of Indigenous peoples in Canada is primarily measured through the Household Food Security Survey Module of the Canadian Community Health Survey. The module asks 18 questions assessing the household food security level in the previous 12 months. The survey is useful, as it provides broad insights into levels of food security in Indigenous households across the country, but it is not without flaws. The indicators of household food security used in this survey were developed for use in non-Indigenous contexts and may exclude important indicators of Indigenous food security (PROOF, n.d.). The survey also omits Indigenous peoples living on reserves, thus excluding approximately one-third of the Indigenous population in the country (PROOF, n.d.). Indigenous organizations and Universities have attempted to fill these gaps in the data by conducting independent surveys. Collaboration between these entities resulted in the Inuit Health Survey

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[2] The FAO is an agency of the United Nations that leads international efforts for food security

(2007-2008) and the First Nations Food, Nutrition, and Environment Study (2008-2018) (Chan et al., 2021; Egeland, 2011). Indigenous-led, self-conducted surveys with food security indicators include the First Nations Regional Health Survey in British Columbia and the future National Inuit Health Survey by ITK (D'Souza, 2019).

These surveys highlight the disparities between Indigenous and non-Indigenous populations. Food insecurity is over twice as prevalent in off-reserve Indigenous households in Canada (28.2%) compared to the national average (12.7%) (Tarasuk & Mitchell, 2020). This figure does not include on-reserve Indigenous peoples, who experience the greatest levels of poverty; therefore, it is likely that the overall prevalence of Indigenous peoples in the country that experience food insecurity is much higher (Matties, 2016). Attempts to estimate food insecurity rates in some on-reserve communities have found varying rates of food insecurity. The most recent First Nations Regional Health Survey in 2015-2017 surveyed on-reserve First Nations adults living in British Columbia and found 55% experienced moderate to severe food insecurity in the last year (First Nations Health Authority, 2019). Domingo et al. (2021) surveyed First Nations households on-reserve across British Columbia, Alberta, Manitoba, and Ontario, with almost half (46.4%) of respondents reporting some level of food insecurity (Domingo et al., 2021). Thompson et. al (2012) reported an extremely high rate (75%) of food insecurity in Northern Manitoba households. However, increased food insecurity on-reserve is not a certainty: a 2020 study compared food insecurity in the London, Ontario area and a nearby First Nations reserve. The study found 35% of First Nations peoples on reserve were food insecure, compared to 55% of those living in London (Richmond et al., 2020). Social supports available on-reserve were credited with mitigating the relationship between food insecurity and income (Richmond et al., 2020).

Other studies have investigated risk and protective factors of food security in Indigenous communities across Canada. Income is inversely related to reporting experiencing food insecurity (Deaton et al., 2020; Richmond et al., 2020; Willows et al., 2009). Households within communities without year-round road access, respondents who are female, receiving social assistance, presence of children in the household – especially three or more children, less than 10 years of education, and younger age were associated with higher odds of experiencing food insecurity for Indigenous peoples (Domingo et al., 2021; Willows et al., 2009). Food insecurity in Indigenous communities is worsened by environmental contamination of food sources, climate change, loss of cultural food practices and access to land, unreliable food supplies, and high cost and reduced availability and quality of healthy market food (Elliott et al., 2012; J. D. Ford, 2009a; Power, 2008; Richmond et al., 2021; Skinner et al., 2014). Protective factors identified in the literature include steady income, country food programs that support individuals living off the land, increased number of grocery stores in the community, local garden provisioning, living in a two-parent household, family living within the community, presence of a hunter in the household, and knowledge of methods of hunting, preserving, and storing traditional foods (Beaumier et al., 2015; Deaton et al., 2020; Skinner et al., 2013; S. Thompson et al., 2012). Barriers to eating preferred foods include time – to both procure and prepare the food – money, distance, living in households without an active hunter, and lack of relatives willing or able to share wild meat (Richmond et al., 2020; Skinner et al., 2014).

### ***Indigenous Food Sovereignty***

Indigenous food sovereignty has arisen from the dominant food sovereignty discourse, providing an alternative perspective to how food sovereignty may be applied to better reflect the different cultures, foodways, and realities of Indigenous peoples (Matties, 2016). Indigenous food sovereignty in practice is best described as "a living, breathing way of life found in the past and present and envisioned for future generations" (Robin, 2019 p. 91). Though it has recently experienced a resurgence as a means to address the suppression of Indigenous relationships with the land, it is important to remember that food sovereignty is not a new concept and its principles were observed by Indigenous peoples long before colonization (Robin, 2019). It should also be noted that just as there is no uniform definition of food sovereignty, there is no uniform definition of Indigenous food sovereignty; it varies contextually amongst different Indigenous cultures and places. However, there are indeed commonalities that can be identified and explored amongst Indigenous food sovereignty movements and approaches.

Indigenous food sovereignty is described in the literature as the "continuation of anti-colonial struggles in post-colonial contexts" (Grey & Patel, 2015, p. 433). It is central to the fight for self-determination and decolonization by Indigenous peoples across the world (Coté, 2016). Colonization saw the imposition of the settler food system on Indigenous peoples as a form of assimilation, where it served and continues to serve one of the key components of colonialism: to remove Indigenous peoples from their knowledges of and relationships with the land (Coté, 2016). Just as this system creates and maintains inequitable social relations between nations internationally, it also locates Indigenous peoples and settler nation-states within a similar dynamic. In both contexts, the food sovereignty movement re-asserts the right of oppressed groups to identify strategies to combat food insecurity and develop food systems and practices that reflect culturally appropriate ways of producing, consuming, and distributing food (Coté, 2016). Indigenous food sovereignty involves the revitalization of cultural knowledge. The re-establishment of Indigenous foodways is a key component to this effort.

Indigenous peoples and communities are distinct, and thus a singular definition of food sovereignty would never encompass all of their realities (Coté, 2016). However, Coté (2016) notes that, despite their differences, these communities are "united by eco-philosophical principles that have guided their interactions with the environment and the non-human world that has informed their food systems" (p. 9). The specific conceptualizations of how the land and humans are linked are a common fibre linking Indigenous cultures. The land is not a commodity, but rather an entity with which humans have a symbiotic, reciprocal relationship (Grey & Patel, 2015). Thus, Indigenous food sovereignty is more than instating a respectful relationship with the land as described by La Via Campesina: it involves a spiritual understanding of the land as an entity with rights itself, as Grey and Patel (2015) argue, "just as people have a right to their land, the land has a right to its people" (p. 436). The cultural ecology that is woven into Indigenous knowledges and ways of life means that Indigenous food sovereignty is more than the rights associated with food production and consumption: the right to determine food policy is inseparable from the right to be Indigenous (Coté, 2016).

The Indigenous food sovereignty movement takes issue with the "sovereignty" aspect of food sovereignty. Often sovereignty is associated with control and authority (Coté, 2016). Authors note that notions of ownership and control over land within the dominant food sovereignty discourse do not mesh with Indigenous worldviews, as within these paradigms, the land is not something that can be owned or controlled (Coté, 2016; Desmarais & Wittman, 2014; Grey & Patel, 2015). Therefore, the term requires a reframing for these contexts to be inclusive of Indigenous communities. Coté (2016) calls this an "Indigenizing" of the term food sovereignty, which entails redefining it within the Indigenous struggle for self-sufficiency, autonomy, and self-determination. Rather than assimilating to the agriculture-centric alternative food systems imagined by the food sovereignty movement, it means to reassert, value, and protect cultural food practices and food networks against the pressures of colonization (Desmarais & Wittman, 2014). It involves a "re-skilling" of cultural knowledges surrounding food harvest, preparation, and consumption and a resurgence of the knowledge transmission networks utilized to pass down that knowledge to the next generation (Grey & Patel, 2015)

Though there are a wide array of indicators and statistics regarding Indigenous food security, there is considerably less information on measuring and monitoring progress toward Indigenous food sovereignty. The First Nations Development Institute based in the United States developed the Food Sovereignty Assessment Tool to enable communities to collect data about local food systems by providing an instrument for the assessment and measurement of food access, land use, and food policy (First Nations Development Institute, 2015). This tool is designed to be culturally relevant for Indigenous communities in the United States. The tool includes indicators of community food resources, food assistance, diet and health, and culture, as well as questions to assist with asset mapping of organizations, governance, local food and agriculture-related business, natural resources and the environment, and community demographics.

Though there are commonalities between Indigenous food sovereignty approaches between different Indigenous communities, it should be noted that there is no such thing as pan-Indigeneity. Generalizing Indigenous communities as though they are interchangeable should be avoided. Food sovereignty amongst the Indigenous peoples of the Amazon Rainforest will look significantly different compared to food sovereignty for Inuit in Canada. Hence the importance of flexibility in defining food sovereignty: Indigenous communities must be able to define food sovereignty within terms that are cohesive with their relationships with the land and the unique local contexts. When conducting food sovereignty research or projects, the community definition of the concept must be determined at the outset in order for meaningful analysis of the results of the project to occur.

### Indigenous Food Sovereignty in Canada.

In Canada, food sovereignty emerged in the early 2000s from the work of The National Farmers Union [NFU] and Quebec's Union Paysanne, the two Canadian members of La Vía

Campesina (Desmarais & Wittman, 2014).  The initial focus of food sovereignty in Canada was agricultural production and trade policy issues (Desmarais & Wittman, 2014). Food sovereignty work in the country remained largely under the radar until 2006, when Food Secure Canada was formed during a joint meeting of the food movement in Canada and the United States, at which attending members were introduced to the food sovereignty approach. Food Secure Canada is the national civil society organization whose main objectives are food security and sustainable food systems (Desmarais & Wittman, 2014; Shawki, 2015). Following this, representatives from Food Secure Canada, NFU, and Union Paysanne attended the 2007 Nyeleni International Forum, where these organizations committed to consolidating a national food sovereignty movement (Desmarais & Wittman, 2014). This resulted in the creation of the pan-Canadian People's Food Policy Project [PFPP] and efforts to define food sovereignty in terms that would resonate with Canadians (Shawki, 2015). This project is recognized as unique within the global food sovereignty movement for bringing together a large number of people to participate in the project – a process conducive with the spirit of the movement (Shawki, 2015).

The Indigenous Circle, created as part of the PFPP to address issues of colonialism and social justice within the project, and British Columbia's Working Group on Indigenous Food Sovereignty [WGIFS], are credited with being the grassroots movements in Canada that brought discussions of Indigenous food sovereignty from the background into the forefront (Levkoe & Sheedy, 2019; Robin, 2019). Work from these organizations - and others - have sought to define what Indigenous food sovereignty means within Canada and to clarify a collective vision for the movement, while still allowing space for the unique contexts of different communities. The input of the Indigenous Circle, among other stakeholders and communities engaged during the PFPP, resulted in four priority recommendations for the direction of future Indigenous food sovereignty work. The document calls for land reform and redistribution of land currently designated as crown land or national and provincial parks for food harvesting activities. It emphasizes the importance of addressing environmental degradation by integrating Indigenous customary law with western science and legislation at all levels of government. Addressing the social determinants of health that negatively impact Indigenous peoples' ability to access their own cultural food is a third priority. Finally, the document states the need for healing and rebuilding modern-day relationships between Indigenous peoples and stakeholders through clear assignment of responsibilities and protection, conservation, and restoration of Indigenous lands (People's Food Policy Project, 2011).

Indigenous food sovereignty is guided by cultural harvesting and management strategies passed down through the generations. WGIFS has outlined four principles of Indigenous food sovereignty that guide the movement in Canada: 1. Sacred or divine sovereignty. Food is a gift from the Creator and Indigenous food sovereignty is achieved by respecting the kinship with and responsibility to the land; 2. Participatory. Continued participation in cultural harvesting practices is a must; 3. Self-determination. The ability to be free from dependence on colonial food systems and to make decisions regarding their own food systems; 4. Policy. Indigenous food sovereignty provides a policy reform restorative framework for reconciling cultural values and food practices with colonial laws and policies (Working Group on Indigenous Food Sovereignty, 2010). However, it is not certain how this organization or others working within this field define achievement of these principles, and there are few indicators of Indigenous food sovereignty in Canada within the literature. As there are few indicators, there is also a lack of data; despite the emerging literature on Indigenous food sovereignty in recent years, statistics pertaining to its implementation and measurement are sparse (Laforge et al., 2021). Though organizations in the United States have developed assessment tools, these are designed to be applicable across a wide variety of Indigenous cultures in the country, and thus there may be specific contextual indicators missing that are important to food sovereignty for Indigenous peoples in Canada (First Nations Development Institute, 2015).

Beyond the foundational work of the Indigenous Circle and WGIFS, numerous Indigenous communities have mobilized their own resources for community food sovereignty projects. Robin (2019) analyzed Indigenous food projects in communities in Western Canada and found four fundamental elements of Indigenous food sovereignty: history, connection to the land, relationships, and cultural identity. History recognizes that Indigenous food sovereignty is a way of life, with practices stemming from the past and present; acknowledging what was lost through colonialism has been key for these communities to move forward. Fostering a connection to the land through these projects is fundamental to the environmental stewardship relationship Indigenous peoples have; it is also a source of healing and language. Indigenous food sovereignty contains an awareness of the interconnectedness between people, the land, and waters. Upholding relationships with the land and with each other facilitates support for, creation of, and sustainability of food sovereignty projects. Cultural knowledge of food is vital for youth, and land-based food practices can support the connection of Indigenous communities with the land. Community food projects can help support stronger cultural identities and cultural revitalization by bringing together Elders, youth, and other community members to share knowledge (Robin, 2019).

Work on behalf of both WGIFS and the Indigenous Circle has resulted in land redistribution and reform legislation that ensures access to food from the land for peoples living in traditional territories (PFPP, 2011 and WGIFS, 2011 in Tobin, 2019). Indigenous communities have also regained control of or succeeded in protecting lands and waters via court challenges (Kepkiewicz & Dale, 2019). However, free land and water access for Indigenous peoples continues to be restricted for numerous reasons, including government and industry projects, which represents an ongoing challenge for Indigenous food sovereignty in Canada (Kepkiewicz & Dale, 2019). In addition to land reform, Indigenous communities have worked on a variety of local food sovereignty initiatives. These include increasing knowledge of traditional food practices, fostering community ability to produce and harvest foods, developing capacity for environmental and wildlife monitoring, developing or revitalizing traditional food distribution networks, and facilitating relationships that contribute to the sustainability of food sovereignty projects (Rahm et al., 2019; Robin, 2019; Wesche et al., 2016).

The literature also argues settler food sovereignty movements also pose a challenge to the attainment of Indigenous food sovereignty in the country. Though Indigenous food sovereignty is increasingly in the forefront of the food sovereignty discourse in Canada, the settler food sovereignty movement has rarely engaged in discourse regarding their role in perpetuating colonialism and colonial food systems through property ownership (Kepkiewicz & Dale, 2019). Settler food sovereignty tends to focus on agricultural production and the rights of small-scale and family farmers, but glosses over the role of settler farming in the ongoing dispossession of Indigenous peoples of their land (Kepkiewicz & Dale, 2019). Land dispossession is discussed, but solely in relation to corporate and foreign appropriation of agricultural lands and its impacts on small-scale Canadian farmers (Kepkiewicz, 2020). Indigenous food sovereignty activists have encouraged settler food sovereignty activists to change their relationships with land, particularly how private ownership informs these relationships (Kepkiewicz, 2020). Within settler conceptions of land ownership, only those who legally possess the land have a right to a relationship with it (Tuck & Yang, 2012). Thus, the reaffirmation of settler land rights to Indigenous territories within settler food sovereignty discourse impedes progress towards Indigenous food sovereignty. Access to, and relationships with the land are quintessential aspects of Indigenous food sovereignty that must be realized in order for it to be achieved.

## Food Security and Food Sovereignty in Nunavut

### *Food Security*

Responding to the needs of Nunavummiut for poverty reduction and food security has long been an identified priority for the Government of Nunavut (Government of Nunavut, 2018; Wakegijig et al., 2013). Food security is identified as a component of well-being and self-reliance of Nunavut communities. The Nunavut Food Security Coalition was created in response to the territory's poverty reduction plan in order to coordinate collaboration between stakeholders within government, Inuit organizations, NGOs, business, and research (Wakegijig et al., 2013). The coalition takes an inclusive approach that guides its vision and activities by bringing together community members and stakeholders in public engagement sessions involving group dialogue, deliberation, and decision-making (Wakegijig et al., 2013). The Coalition uses the FAO definition of food security to guide its work. Beyond this definition, the Coalition has identified six themes of food security around which the territorial food strategy is structured: country food, store-bought food, local food production, life skills, programs and community initiatives, in addition to policy and legislation (Nunavut Food Security Coalition, 2014).

Food security surveys have tended to generalize the entire territory, leading to little detailed information regarding the specific experiences of food insecurity as it varies between communities and subsets of the population. Researchers have attempted to fill these gaps in the literature by engaging communities in food security studies. Guo et al. (2015) estimated the seasonal prevalence of food insecurity in Iqaluit and its associated risk factors; 28.7% of households in this study were food insecure, however the seasonal prevalence of food insecurity between May and September 2012 were not significantly different. However, there were significant discrepancies in this rate between Inuit and non-Inuit households: 45% of Inuit households surveyed in both September and May were considered food insecure compared to only 5% of non-Inuit households in September and 4% in May (Guo et al., 2015). Though this rate is significantly higher than the Canadian average of 12.7%, it is lower than other estimates of food insecurity observed in smaller Nunavut communities (Statistics Canada, 2020). Previous studies found food insecurity rates of 64% in Igloolik and 83-92% of households in Kugaaruk (Ford & Berrang-Ford, 2009; Lawn & Harvey, 2003).

Lysenko & Schott (2019) attempted to combine harvesting studies and food security studies to provide an assessment of food security at the community level. The authors took two approaches to identifying food insecure communities: assessing key indicators and constructing two indices that explore how key aspects of food insecurity interact. By aggregating and assessing community food security indicators such as median income, unemployment rate, per capita harvest in kg of arctic char, caribou, and seal, the ratio of active and intensive hunters to households, and the ratio of male and female lone-parent families to households, the authors found that Igloolik was the only community in Nunavut performing well on all counts. Iqaluit performed relatively well on labour market indicators, though the community had poor harvesting performance. Clyde River, Kimmirut, Kugaaruk, Naujaat, Sanikiluaq, Taloyoak and Whale Cove all had relatively weak performance on at least five indicators. However, the authors note that harvesting data is from 2001 and may not reflect communities' current harvesting activities.

Lysenko & Schott (2019) also constructed an Economic Vulnerability Index (EVI), which is the product of the proportion of vulnerable households – defined as single male and female households - and the community unemployment rate, and Country-Food Availability Index (CFI) which is the ratio of active and intense hunters per vulnerable household in the community. Higher EVI is related to greater economic difficulties in the community, and greater CFI indicates greater access of vulnerable households to country food. Resolute Bay and Salliq had low EVI and high CFI, indicating greater food security in those communities. Using this form of analysis, Baker Lake, Clyde River, Gjoa Haven, Kimmirut, Kugluktuk, Qikiqtarjuaq, Rankin Inlet, and Taloyoak were identified as communities that appear to experience relatively high food insecurity. The differing lists of food secure communities highlights the way that differing approaches to assessing food security at the community level generate different results, indicating that a wide variety of factors should be considered in these analyses.

Other studies have attempted to assess food security status and its associated factors in children in Nunavut. The 2007-2008 Nunavut Inuit Child Health survey – the most comprehensive assessment of child health in Nunavut to date – found that nearly 70% of Inuit preschoolers were living in food insecure households (Egeland et al., 2010). Households in Nunavut with children are also more likely to be food insecure. An assessment of food security in Iqaluit by Huet et al., (2017) found that 32.9% of households with children were food insecure compared to 23.3% of households without children. Country food consumption, including cooked, raw, fermented, dried or frozen fish and meats, was not found to be significantly different between households with and without children. However, there was a significant difference in the consumption of dried meat between September (51%) and May (38%) in households with children, with no difference observed in households without children (Huet et al., 2017). Food insecurity was also higher when people in households with children consumed more retail foods, raw fish or meat, and frozen fish or meat. This correlation between country food consumption and food insecurity has been observed elsewhere, but has been explained as likely due to less engagement in paid labour by those engaged in time-consuming hunting and harvesting activity as in food secure households (Egeland et al., 2010)..

Respect for and ability to meet ones food preferences is an important aspect of food security. Country food is repeatedly expressed as a preferred food for Nunavut Inuit in the literature (Guo et al., 2015; Lardeau et al., 2011; Newell et al., 2020). Lardeau et al. (2011) interviewed community food program users in Iqaluit; participants described their desire to consume country food on a regular basis, however, this food was often only available to them through community food programs. The desire to eat country food on a regular basis lends itself to a sense of yearning when it is unavailable. Gilbert et al., (2020) interviewed participants in two Nunavut communities about their experiences during low-yield harvest periods. In multiple interviews, "craving" country food was described by participants, "characterized by participants as a deep and powerful yearning or desire for country food and typically occurring during a long absence of country food from their diet" (p. 165-166). Elders noted that some parts of the caribou are not commonly consumed anymore, such as rectum, kidney, heart, liver, tongue and guts in addition to less prevalent country foods, and missed eating these foods (Beaumier et al., 2015). Lack of or decreasing country food in the diet is attributed to several factors in the literature. Participants reported observations of less plentiful animal and fish populations, leading to decreases in available country food, and less sharing occurring in the community (Beaumier et al., 2015; Ford, 2009a; Gilbert et al., 2020). Greater access to store-bought foods and loss of family members able to harvest country foods were also attributed to declining consumption (Newell et al., 2020).

There are numerous recognized barriers to food security in Nunavut. This includes unemployment or lack of income, reliance on income support, high cost of food, living and hunting expenses, societal and individual changes in diet, lifestyle, cultural practice and knowledge, lack of hunters in the household, and addictions (Beaumier et al., 2015; Chan et al., 2006; Ford et al., 2012; Gilbert et al., 2020; Lardeau et al., 2011). Food insecurity is also associated with household crowding, public housing, poor quality housing in need of major repairs, younger age of the person in charge of food preparation, and lack of formal education (Beaumier et al., 2015; Egeland et al., 2010; Guo et al., 2015). Income support is described in the literature as being insufficient to meet the needs of families as not enough was left over for food after covering living expenses (Beaumier et al., 2015). High cost of food means that families on income support cannot afford to feed their families sufficient quantities of food (Beaumier et al., 2015; Lawn & Harvey, 2003). Community food programs are often utilized to fill the gaps for many individuals. In Iqaluit, Ford et al., (2012) found the majority of community food program users in the community report using these programs for over a year and on a regular basis.

Facilitators of food security in Nunavut identified in the literature include employment status of the individual responsible for food preparation, high family income, market food subsidies, hunter in the household, time for harvesting, traditional food use, customary country food sharing systems, and the presence of social supports in the community such as food banks, soup kitchens, or community freezers (Chan et al., 2006; Ford et al., 2012; Lardeau et al., 2011; Lysenko & Schott, 2019). Country food is a common theme and is recognized as a facilitator of food security, particularly for its reduced cost if family has access to hunting equipment or if the local Hunter and Trapper’s Organization puts it on sale or gives it away for free, availability, healthiness, and ability to be gained through reciprocal sharing networks (Chan et al., 2006). Food security among Inuit is critically tied to country food. In one study in Clyde River, it comprised a substantial proportion (20%) of the family diet (Harder & Wenzel, 2012). This means that analyses of food security and insecurity must include analyses of country food availability in order to be meaningful.

### *Food Sovereignty*

Though the definition of food security is fairly rigid, there is greater support for contextually adapted definitions of food sovereignty, as the meanings and methods of the concept will vary dependent on place, history, and culture (Jarosz, 2014). In Indigenous settings, these definitions should come from the Indigenous peoples of that region themselves (Coté, 2016). Thus, it is important to include the definition of food sovereignty as defined by Inuit in Nunavut. The Qikiqtani Inuit Association is the only Inuit organization in Nunavut that has established a definition for Inuit in Nunavut, which is: “1. The right to healthy and nutritious food; 2. the right to culturally appropriate food; 3. the right to food harvested through ecologically sound and sustainable methods as guided by the Nunavut Agreement” (p. 7). Food sovereignty provides a lens by which to meaningfully analyze the country food harvest and environmental stewardship as it relates to food insecurity in Nunavut and the factors which influence it. Food sovereignty in Nunavut can be viewed as a set of circumstances separate from food security, but also something that is influenced by and influences food security (Council of Canadian Academies, 2014).

Access to the land and ability to harvest country foods from the land are two important components of health and well-being linked to food sovereignty in Nunavut. Newell et al. (2020) examined the connection between food security, cultural continuity and community health and well-being in Chesterfield Inlet; harvesting and sharing food was described by participants as both an integral aspect of Inuit Qaujimajatuqangit (Inuit traditional knowledge) and supportive of community health and well-being. Participants explained that the transmission of knowledge surrounding harvesting and food practices is an important aspect of Inuit identity, “keeps you grounded”, is good exercise, and an activity that is heavily enjoyed (Newell et al., 2020). The activity of harvesting promotes not only community health but the hunter’s health through physical activity, increased food security, and improved mental health. As access to country food is linked to health and food security, some individuals are at greater risk of effects in the situation where country food becomes less available. Gilbert et al., (2020) found four subpopulations deemed to be at elevated risk of adverse effects from low availability of country food: elders, low-income or low-resource individuals, those ill or at risk of chronic disease, and children or young adults. This is corroborated by other studies showing the effects of country food consumption in these populations.

Education on country food skills, promotion at public events, harvester support programs, and access to sharing networks are associated with greater country food consumption (Gilbert et al., 2020) Elders tend to consume more country food on average than younger people (Chan et al., 2006). Low income individuals may be more likely to utilize sharing networks to access food, or have more time to spend hunting and thus consume more country food (Egeland et al., 2011; Ford, 2009a; Lysenko & Schott, 2019). Country food consumption is associated with higher protein and lower carbohydrate consumption, and higher intake of micronutrients, indicating its importance for promoting and maintaining health and preventing chronic disease such as obesity (Egeland et al., 2011). It is also important for supporting the health of children, especially those experiencing food insecurity; children in food insecure homes who consume country food regularly are much less likely to be anemic than those in food insecure homes who do not consume country food on a regular basis (Egeland et al., 2011).

Impacts on one's perception of health were also observed by Gilbert et al. (2020). In periods where there was a lack of country food available, participants described feeling as though their blood became "less thick" and moved with "less flow", with negative effects also perceived on digestive health due to more store-bought food in the diet (Gilbert et al., 2020). Participants also felt negative mental health effects as a result of reduced access to country food, including feeling depressed or just generally irritable, and noted Elders can be particularly discouraged by lack of access. Store-bought food intake increases during low-yield periods of harvest, and participants had concerns in relation to the nutritional value of those foods. Participants worried about the loss in "healthy" fats, protein, and vitamins, and increases in diabetes, obesity, malnutrition, and other illnesses and health problems related to a shift in the balance of country food and store-bought foods in the diet (Gilbert et al., 2020).

Though country foods remain preferred foods for many people in Nunavut, they are not always a reliable or accessible source of food. Lysenko & Schott, (2019) utilized Nunavut Wildlife Management Board data to examine animal availability across Nunavut communities and found wide variation in country food availability per capita across Nunavut. While many communities had diversified access to animals, communities such as such as Whale Cove, Coral Harbour, Chesterfield Inlet or Qikiqtarjuaq were dependent almost entirely on a single species, making them much more vulnerable to fluctuations in wildlife (Lysenko & Schott, 2019). Additional barriers to increased country food consumption included high costs of hunting, high costs of transportation and repairs, high market cost of country food, constraints of income support, and changes in lifestyle and cultural practices (Beaumier et al., 2015; Chan et al., 2006; Lawn & Harvey, 2003). There is concern that the high costs of hunting equipment and transportation is impeding young men from learning how to hunt, compounded by the fact that the men who can afford to hunt often are employed full time and thus have less time to spend on the land harvesting and teaching others to harvest (Beaumier et al., 2015). Access to country food is limited for people on income support due to the limited portion of support provided in the form of cash; only this cash portion is able to be used to purchase supplies to go hunting (Beaumier et al., 2015). However, many of the issues related to the cost of hunting may be mediated by family access to resources through the lending of equipment, or provisioning of ammunition, fuel, or a repair part (Harder & Wenzel, 2012).

There are a variety of factors associated with increased ability to harvest or access to harvesting grounds identified in the literature. Higher median income facilitates access to the transportation required to access harvesting areas and the equipment, gas, and other goods required for harvesting and is correlated with higher numbers of active and intense hunters in the household (Lysenko & Schott, 2019). Occasional hunting activity is associated with lower income and unemployment, indicating that these factors allow more time for occasional hunting and provide a sense of urgency for the task, but not the income needed to access the required tools and transportation, and indicates that that households in communities with higher unemployment rates and lower median incomes increasingly rely on harvesting for food (Lysenko & Schott, 2019). Lysenko & Schott's (2019) comparison of community harvesting activities and median income showed Arctic Bay, Cape Dorset, Clyde River and Gjoa Haven, have a higher number of active and intense numbers per household, while Iqaluit has the least hunters and active and intense hunters per household. The communities with higher numbers of active and intense hunters also had lower median incomes; this correlation is because higher income tends to mean there is less overcrowding and smaller households (Lysenko & Schott, 2019).

Sharing networks are an important part of the Inuit food system and continuing the practices of harvesting and sharing foods holds significant cultural importance (Ford, 2009; Harder & Wenzel, 2012; Newell et al., 2020). Family is central to sharing networks, with food – most often country food - being shared with extended relatives across generations; access to these sharing networks strengthens the food system for many individuals and families across the north (Beaumier et al., 2015; Chan et al., 2006; Harder & Wenzel, 2012). Sharing networks may be contained within the community or encompass family members in other communities and can be used to fill the gaps in country food needs during times with lesser access to country foods in the community (Gilbert et al., 2020). They can be a means of mediating risk for those at greatest threat of food insecurity (Egeland et al., 2011). While country food is exchanged outside the home, sharing meals within the home is another important component of food sharing that occurs more often, allowing many people within an extended family access to country foods on a regular basis (Harder & Wenzel, 2012). Country food may also be swapped with other communities in exchange for foods that are more plentiful in their own community (Gilbert et al., 2020). For those without active harvesters in the family, community food programs, Facebook, community freezers, and community radio are important sources of country food sharing (Dunn & Gross, 2016; Gilbert et al., 2020; Harder & Wenzel, 2012; Lardeau et al., 2011).

The sale of country food is a controversial topic due to its perceived conflict with the cultural principles of sharing food. Country food sale and purchase has increased in recent years due to rising harvesting costs and increased participation in the wage economy leaving less time for harvesting (Beaumier et al., 2015; Lardeau et al., 2011). Country food is primarily sold privately, through individuals, or publicly, through Hunter and Trappers Organizations or commercial stores (Beaumier et al., 2015; Gilbert et al., 2020). However, sale of certain types of country food, such as caribou, through public means is limited due to federal food inspection requirements (Beaumier et al., 2015). Sale of mattaaq and fish is not as tightly regulated and can be sold through commercial means (Beaumier et al., 2015). Foods sold also vary between communities due to availability and attitudes; in Arviat, generally only fish is sold due to the belief that caribou should be shared; in Iqaluit, a study on experiences of community food program users showed that participants were open to the idea of paying for all types of country foods due to the realities of access to country food living in a city (Beaumier et al., 2015;

Lardeau et al., 2011). Purchase of country food is also relied upon to supplement diets during low-yield periods of harvest (Gilbert et al., 2020).

Food sovereignty has just recently come into focus in the political sphere in Nunavut. Until recently, relatively few designated "food sovereignty" projects existed in the territory, though many projects focusing on reducing food insecurity have components that could be considered food sovereignty. The Qikiqtani Inuit Association was the first organization to create a mandate for food sovereignty work with the introduction of the *Nauttiqsuqtiit* Land Guardians. Recently, the Kitikmeot region of Nunavut also began its own food sovereignty work. *Niqihaqut* – a food sovereignty project out of Taloyoak – recently won an Arctic Inspiration prize and will provide the community with a meat-processing facility served by a sustainable, monitored harvest (Ritchot, 2021a). The facility will help create and sustain a country food economy in the community, creating jobs and providing an alterative to purchasing meat at the grocery store. The facility will be equipped with all the tools required for a cut-and-wrap operation. The project aims to preserve traditional knowledge by financially supporting people to get out on the land and teaching processing facility employees important skills like butchering.

Environmental stewardship is an important aspect of Indigenous food sovereignty. Ensuring the land and animals are healthy enables the long-term sustainability of harvest, as outlined in principles 2 and 3 of QIA's definition of food sovereignty (Qikiqtani Inuit Association, 2019b). Inuit in Nunavut have also acted against harmful development projects to protect the land and waters in Nunavut. Clyde River fought against the National Energy Board's 2014 decision that allowed oil companies to conduct seismic testing in the waters near the community (Skura, 2016). Community leaders were not properly consulted on the project and feared that the constant airgun shots from the underwater surveys would scare away or deafen the seals, whales, and fish the community relies upon for food. The court case launched by the community reached the Supreme Court of Canada in 2017, where it was ruled the National Energy Board did not properly consult the community, and did not give proper consideration to the treaty rights of Inuit and their reliance on marine wildlife for food prior to giving the green light to oil companies (Tasker, 2017). The ruling set a clear precedent and solidified the requirement for adequate consultation of Indigenous communities on projects that may affect their treaty rights (Tasker, 2017). More recently, Inuit in Nunavut set up a blockade at the Mary

River Iron Mine near Pond Inlet in opposition to its expansion proposal and current ecological impacts. The group of protestors, called the Nuluujaat Land Guardians, argue that the mine is releasing iron dust, causing harm to nearby plants and wildlife, and expansion will further, possibly irreversibly, threaten their lands and access to food (Bennett, 2021; Neary, 2021; Yahoo News, 2021).

## The COVID-19 Pandemic in Nunavut

### *Timeline*

The declaration of the COVID-19 outbreak as a pandemic on March 11th, 2020 ushered in rapid change worldwide. The virus posed a unique threat to rural and remote regions with few health resources. Nunavut is one of these regions; the territory has relatively few health resources available to treat COVID-19 patients and overcrowding in homes is common. The territory was considered by officials to be at significantly increased vulnerability to severe impacts on the population should the virus reach the territory. On March 15th, a two-week self-isolation was ordered for anyone entering the territory, followed shortly by the closure of schools and daycares on the 17th of March (Government of Nunavut, 2020a). A state of public health emergency was declared March 18th, resulting in the closure of bars, restaurants, offices, and post-secondary education (Deuling, 2020). On March 24th, with no cases detected in the territory and to protect returning residents from importing the virus from other regions in Canada, the Government of Nunavut implemented a mandatory 14-day isolation period at a government-run southern isolation centre prior to entering the territory (Tranter, 2020). Limiting contacts and staying home as much as possible was also recommended by leaders (Driscoll, 2020).

On May 25th, “Nunavut’s Path” – a plan for reopening – was released by the Government of Nunavut; the plan classified restrictions to be lifted by their associated risk, and the impact of the reopening process was to be re-evaluated every two weeks by the territorial COVID-19 task force to determine if further easing of restrictions was prudent (CBC News, 2020a). Self-isolation requirements were to remain in place indefinitely, until either a vaccine or proven therapy became widely available (CBC News, 2020a). On June 1st, restrictions began to ease, and by July 20th, with allowing bars and restaurants to resume normal hours, the vast majority of restrictions implemented at the beginning of March were no longer in place (CBC News, 2020b). Nunavut remained free of COVID-19 for nearly 8 months since the implementation of mandatory isolation on March 15th, however this changed on November 6th, 2020 when the first case of the virus was detected in Sanikiluaq, a community situated on the Belcher Islands in Hudson Bay. This was followed shortly by the detection of a second case in the same community. However the isolation of the community from the rest of the territory due to its location and lack of connecting flights to the rest of Nunavut meant that lockdown measures were not implemented outside Sanikiluaq at the time of detection (Government of Nunavut, 2020b).

Community spread in Arviat was confirmed on November 15th. With it unknown whether the Arviat outbreak spread to other communities through travel, and to combat spread of the virus in Arviat and prevent spread in other communities, a two-week territory-wide lockdown began November 18th. No community spread was detected outside Arviat during this time. The outbreak peaked at 153 active cases on November 25th, and on December 2, with no detected cases over the lockdown period, restrictions were eased for the rest of the territory. In Rankin Inlet and Whale Cove, where there were cases detected but no community spread occurred, a hybrid set of restrictions remained in place. However, on December 23rd, a new case was detected in Whale Cove, and the community went back into lockdown. On December 30, the Rankin Inlet outbreak was declared over and hybrid restrictions were eased Active cases in the territory dropped to zero on January 3rd 2020. Over the course of the outbreak 265 total cases were detected, 222 of which were in Arviat. Arviat and Whale Cove remained under lockdown until January 12th, when restrictions were lifted, allowing schools, government offices, and private businesses to reopen, and allowing indoor gatherings of 10 people in addition to household members (Nunatsiaq News, 2021).

However, this period without lockdown in Arviat was short-lived. On January 22nd a single case was detected in Arviat, and a second case was detected on the following day. With vaccines available and already administered in the community, the outbreak was not nearly as serious as the previous. Public health restrictions remained strict in the community for the month of February as new cases were detected. On March 9th restrictions were eased in the community, allowing people to return to work and school despite new cases emerging as the source of cases were able to be linked, and with no evidence of uncontrolled spread in the community (Venn, 2021). New cases continued to be identified until March 14th, and active cases in the community

– and territory - returned to zero on March 20th. After more than five months of grappling with the virus, Arviat was finally declared COVID-free on April 20th, 2021 (George, 2021).

While the Arviat outbreak came to an end, a new outbreak emerged in the territory's capital. Late on April 14th 2021, a single case was detected in Iqaluit, with strict public health measures implemented in the community the following morning (Ritchot, 2021b). Schools, daycares, and non-essential businesses closed, with non-essential employees told to work from home (Ritchot, 2021b). This case was the first reported case in the territory in nearly three weeks (Ritchot, 2021b). With a super-spreader event occurring at one of the bars in the community prior to the detection of the first case, the virus spread quickly throughout the community, leading to 37 detected cases within a week (Frizzell, 2021). One month from the detection of the first case in Iqaluit, on May 14th 2021 there were 223 total cases to date, with 78 active and 145 recoveries. On July 20, 2021, over three months after the initial case, the Iqaluit outbreak of COVID-19 was finally declared over (CBC News, 2021).

## Food Security in Nunavut During the COVID-19 Pandemic

Early focus in the pandemic literature centred on how health measures would both impact existing health and social issues in Indigenous communities and how these issues would impact the effectiveness of health measures (Levi & Robin, 2020; Wirzba, 2020). The Yellowhead Institute criticized early increases in funding to food-related charities like Food Banks Canada, the Salvation Army, and Breakfast Clubs of Canada to alleviate food insecurity in Indigenous communities, asserting that relying on charities to serve Indigenous communities is extremely problematic (Levi & Robin, 2020). The Institute also criticized the short-term additional funding provided to Indigenous communities, stating the programs highlight how underfunded and vulnerable to crises Indigenous communities truly are (Levi & Robin, 2020). The organization calls for long-term food security solutions, including addressing infrastructure issues, that persist beyond the existence of the COVID-19 pandemic.

As Indigenous communities are increasingly vulnerable to impacts from public health crises, there is speculation that food insecurity increased in Nunavut during the COVID-19 pandemic (Wirzba, 2020). Reliance of many individuals on community food programs leaves them vulnerable to changes in the availability of those programs, for example, the importance of school breakfast and lunch programs for providing meals to children in the territory (Wirzba, 2020). However, this is simply speculation; as there are no existing studies on food security during the pandemic in Nunavut, the true impact of the COVID-19 pandemic and related public health measures on food security in Nunavut communities is unclear. Discussions around impacts on food sovereignty activities are even more scarce. There has been little identifiable literature produced exploring the impact of the pandemic on food sovereignty in the territory, despite a wide variety of initiatives initiated to reduce the impact of the pandemic on food security and food sovereignty in Nunavut communities.

### *Government and Inuit Organization Responses*

#### COVID-19 Food Security and Sovereignty Relief Funding.

The risk of pandemic restrictions exacerbating existing food insecurity in the territory was a significant concern for officials. Closures of schools, offices, and businesses presented a threat to the food security of people in the territory as it removed access to places where people commonly receive or share food and prevented many employees dependent on hourly wages from working. Since the implementation of COVID-19 public health measures in Nunavut, governments and communities aimed to lessen the impact on food security amongst *Nunavummiut*. The Government of Nunavut and NTI provided funding early in the pandemic for community programs, and through Federal funding initiatives Regional Inuit Associations ensured cash for food and harvesting supplies reached those in need.

The Indigenous Community Support Fund was created by the Federal Government with the express purpose of mitigating any potential impacts on communities caused by the public health measures. $45 million of the $305 million of funding was allocated to Inuit Tapiriit Kanatami to flow to the four representative Inuit organizations across Inuit Nunangat (D’Souza, 2020). $22,545,000 from this fund flowed from ITK to NTI, which was then allocated regionally for delivery by the three Regional Inuit Associations (RIAs) in Nunavut – Kitikmeot Inuit Association, Kivalliq Inuit Association, and Qikiqtani Inuit Assocation - to communities within these regions (D’Souza, 2020). Distribution of these funds to Inuit households took the form of several different programs, many of which had a component aimed at alleviating or preventing food insecurity. Names and dollar amounts distributed by these programs varied based on decisions made by individual RIAs, but the subsets of the population targeted by each program remained the same across regions.

The Emergency Harvester Support Fund (Qikiqtani region), also known as the Traditional Activities Support Fund (Kivalliq) or COVID-19 On-the-Land Program (Kitikmeot) supported harvesters and their families to spend time on the land, with priority given to those willing to spend 14 days or more outside of the community (Evalik & Kitikmeot Inuit Association, 2020a; Kivalliq Inuit Association, 2020; Qikiqtani Inuit Association, 2020a). Inuit who had a camp or cabin and transportation were eligible for funds, which could be used to cover a variety of costs including fuel, food, and ammunition (Qikiqtani Inuit Association, 2020a). A grant of $1000 per household per month was available to those in the Kitikmeot region, a one-time grant of $1500 to those in the Qikiqtani region, and an unspecified amount in the Kivalliq region (Evalik & Kitikmeot Inuit Association, 2020a; Kivalliq Inuit Association, 2020; Qikiqtani Inuit Association, 2020a). This program expanded eligibility in the Qikiqtani region to aid households in purchasing groceries in November 2020, and was renewed in the Kivalliq and Qikiqtani regions for a second round in December 2020 following the provision of additional funds by the Federal Government (Kivalliq Inuit Association, 2020b; Nunavut Tunngavik Incorporated, 2020b).

The Emergency Vouchers for Elders Initiative (Qikiqtani region) provided short-term financial support to alleviate the impact of the pandemic on Elders and help them access healthy food and cleaning supplies. This program was also known as the Inuit Elders Support Fund in the Kivalliq and the Elders Supplement Program in the Kitikmeot; all COVID-19 Elder support programs provided $500 per month to Elders over 60 years of age for three months, from April through June (Evalik & Kitikmeot Inuit Association, 2020a; Kivalliq Inuit Association, 2020a; Qikiqtani Inuit Association, 2020c). This program was extended through to August, and renewed again in November in the Qikiqtani and Kitikmeot regions in response to the emergent COVID-19 outbreak (Qikiqtani Inuit Association, 2020c).

Within affected areas, targeted supports were made available through the Inuit organizations. Nearly all COVID-19 cases in the territory concentrated in the Kivalliq region, the Kivalliq Inuit Association provided funding to hamlets to allow them to provide emergency food hampers to community members in November 2020 (Kivalliq Inuit Association, 2020c). QIA provided $152000 worth of food hampers to the Sanikiluaq in December, as aid following a difficult November for the community (Qikiqtani Inuit Association, 2020d). Nunavut Tunngavik also allocated $500,000 to the affected communities to provide food, cleaning supplies, and learning resources for individuals diagnosed with the coronavirus and their families (Nunavut Tunngavik Incorporated, 2020a).

An expansion to Indigenous community support funds in November allowed for additional food-related funding to be provided to Nunavut communities. The QIA Family Support Initiative continued to allow households to apply for funding for harvester supports and also expanded the program to include groceries as eligible expenses; the one-time grant was lowered from $1500 to $1000 to accommodate more families (Quinn, 2020). Because Sanikiluaq was impacted by an outbreak in November, QIA provided food hampers worth $550 and grocery vouchers worth $300 to aid households in the community in January and February 2021 (Qikiqtani Inuit Association, 2021a).

In the Kitikmeot region, Inuit families were able to access a monthly voucher redeemable for meat packs from the local CO-OP through to March 2021 (Evalik & Kitikmeot Inuit Association, 2020c). Families on income support in the Kitikmeot region were also eligible for an additional $50 grocery store gift card for the months of January through to March; similarly, Qikiqtani families on income support were eligible for a one-time $423 grocery gift card in February 2021 (Qikiqtani Inuit Association, 2021b). In the Kivalliq, in addition to ongoing support for communities affected by COVID-19 outbreaks, each household in the region was provided a one-time $1500 grocery store gift card (Kivalliq Inuit Association, 2020b). These were distributed in December 2020 and January 2021.

In response to COVID-19 restrictions shutting down a large proportion of the economy, The Canada Emergency Response Benefit (CERB) was created to help workers who lost their income as a result of COVID-19 (Alini, 2020). From March 15 to October 4 2020, 10,020 Nunavummiut filed CERB or EI applications, after which the program was closed and was transitioned to three new programs: the Canada Recovery Benefit (CRB), the Canada Recovery Sickness Benefit (CRSB), and the Canada Recovery Caregiving Benefit (CRCB). As of February 14, 2021, 1,870 *Nunavummiut* applied for CRB 1,060 for CRSB, and 3,040 for CRCB (Canada Revenue Agency, 2021a, 2021c, 2021b). These programs are thought to be directly linked to mitigation of food insecurity for some Canadians, as increases in grocery sales directly coincided with the delivery of these supports (Badets, 2020).

### *Community Responses*

In response to the initial shutdowns in March, community members across the territory also acted to mitigate the negative impacts that COVID-19 shutdowns would have on regularly-provided food programs. In most communities, teachers - who run school breakfast programs across the territory – devised ways to distribute breakfast program food bags to students to replace the meals usually given out at school in the morning and during snack time. Hamlets and food banks also found ways to provide food to families while maintaining social distancing, such as the provision of food hampers. Soup kitchens across the territory changed their programs to provide takeout to clients instead of sit-in meals. Additionally, many communities provided food deliveries to Elders, in recognition that many Elders normally attend programs in which food is provided and may rely on them. Other informal forms of support from community members, such as dropping off food at the doors of family and friends, were also provided, though these are less formally documented in the literature.

# CHAPTER 3: Methods

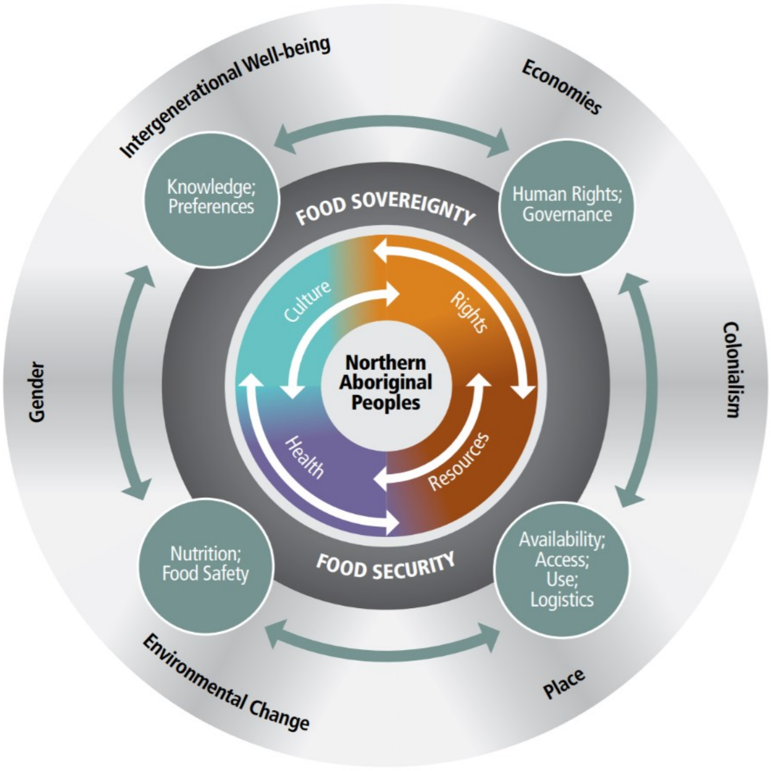
This chapter presents an in-depth review of the methods selected for this research study. First, the conceptual framework that guided the development of the study methodology is presented. Then the theoretical underpinnings and methods used for the social media scan and qualitative interviews are described. The chapter concludes with an explanation of the strategy used for ensuring ethical and rigorous conduct of the study.

## Conceptual Framework

The literature review highlighted that the ideal approach to food insecurity analyses is to adopt both a food security and food sovereignty lens. Thus, the conceptual framework for this study utilizes both frames. The conceptual framework for examining food security and food sovereignty in this study stems primarily from the Council of Canadian Academies (2011) conceptual framework for examining food insecurity in Canada's north, outlined in Figure 3-1.

**Figure 3-1**

*Conceptual Framework*


Intergenerational Well-being
Economies
Colonialism
Place
Environmental Change
Gender
Knowledge; Preferences
Human Rights; Governance
Nutrition; Food Safety
Availability; Access; Use; Logistics
FOOD SOVEREIGNTY
FOOD SECURITY
Culture
Rights
Resources
Health
Northern Aboriginal Peoples

*Note.* The image was created for the purposes of understanding food insecurity from a northern perspective. From "Aboriginal Food Security in Northern Canada: An Assessment of the State of Knowledge" by the Council of Canadian Academies, 2014, p. xviii Copyright Council of Canadian Academies.

This framework links the broad range of factors contributing to food security and sovereignty in northern Indigenous communities. Indigenous peoples and the interactions between them and their culture, rights, health, and resources are centred within their framework. Food security and food sovereignty arise from the interactions between these individual factors and larger ecological factors like gender, colonialism, environmental change, place, economies, and intergenerational well-being. This framework also acknowledges that there is a relationship without hierarchy between food security and food sovereignty, and that achieving one is a step to achieving the other. The multiple components of food security and food sovereignty and their interactions with individual and ecological factors are also recognized by the framework. As a whole, it provides a guide for the examination of the complex network of factors that contribute to achieving food security and food sovereignty for Indigenous peoples living in Canada's northern regions.

While there is a widely accepted definition for food security, the meaning of food sovereignty is much more variable. As previously stated, the concept of food sovereignty is rooted in the idea that peoples have the right to define their own policies that are appropriate to their unique circumstances. Thus, in order to meaningfully examine food sovereignty within the Inuit context, a definition of food sovereignty proposed by Inuit must be included within the conceptual model. I chose to integrate QIAs definition of food sovereignty within the conceptual framework, as it defines what food sovereignty means for Inuit in Nunavut. It is also the only existing definition outlining the parameters of food sovereignty for any group of Inuit in Nunavut. Including this definition allows for the consideration of additional components of food sovereignty important to Inuit not otherwise defined in the broader northern context. QIA's definition, as integrated into the framework, is composed of three main components: the right to culturally appropriate food, the right to access wildlife in empowering, economically stimulating ways, and the right to sustainably harvested food.

## Positionality

An important aspect of research within a relational framework, particularly of research conducted by settlers in Indigenous communities, is the concept of positionality.

I am a Canadian, born and raised in Iqaluit, Nunavut. My family is from the central region of Newfoundland and Labrador, and we are of settler background, with ancestors traveling overseas from southern England in the 18th and 19th centuries.

The importance of food security and food sovereignty, though perhaps not always communicated in these terms, has been impressed upon me through my experiences. As a girl growing up in Nunavut I spent a significant amount of time outside with friends, family, and T school. As an adult, hiking, camping, and fishing are activities deeply important to me. I have spent countless hours doing on the lands and waters surrounding Iqaluit. In elementary school, my principal was an expert harvester and it would not be unusual to return to school in the morning to find a caribou, seal, or other animal laying on a piece of cardboard – the spoils from a successful harvest. These animals would be prepared and often shared with the school. The importance of animals for food, skin, fur, and countless other uses have been woven into the experiences I have had as a Nunavummiuq. I have had the opportunity to observe and learn about how these animals are used and consumed throughout my lifetime, knowledge of which I am very grateful to have had shared with me.

As a settler and student, I am an insider to the research process. I am an outsider to Nunavut communities as a researcher, but an insider as a community member and friend.

I have taken to heart the knowledge and thoughts communicated to me by the participants of this research project. I hope my endeavors within this project have respected their words and amplified their voices appropriately.

## Relational Epistemology

Relational epistemology is based on the notion that knowing is co-created throughout life. One truth does not exist in this epistemology, as it recognizes the existence of multiple truths, and that these truths are shaped within the contexts of the relationships we have throughout life. Our understanding of the world is continually shaped and reshaped through our experiences and interactions with others. This epistemology emphasizes the transactional nature of knowing: we are not objective viewers of reality from the sidelines, but are embedded within reality, affecting it as we experience it (Thayer-Bacon, 2010). We cannot separate ourselves from our relationships with others and our environment, as to do so would ignore all the ways in which we, as humans, are connected with each other and the world around us (Thayer-Bacon, 2010). Relational epistemology contextualizes knowing within the relationships an individual has had since birth (Thayer-Bacon, 1997).

Relationality is integral to Indigenous ways of knowing and forms the basis of decolonizing methodologies (Gerlach, 2018; Wilson, 2008). For research with Indigenous communities to be decolonizing and reflective of these communities and Indigenous ways of knowing, it must be conducted within a relational paradigm (Wilson, 2008). Wilson (2020) writes that because Indigenous knowledge is so interconnected, highly contextual, and philosophically different than western knowledge, Indigenous knowledge cannot be extracted from its relational context as is the tendency in western science. Working within a relational epistemology enables the researcher to treat this knowledge respectfully and holistically, as it should be treated. Gerlach (2018) writes of the importance of "thinking relationally" in the context of non-Indigenous researchers working with Indigenous communities, as relationality can "provide the epistemological scaffolding necessary for enacting critically oriented and decolonizing research" (p. 1)

As relational epistemology is grounded in the relationships we have with others, research that stems from this epistemology has relationality weaved throughout the design, from process to content (Kovach, 2009; Wilson, 2008). Relationships are central to this epistemology, and the first relationships to consider are between researcher and self, and researcher and research. Kovach (2009) notes that a researcher working within this epistemology will expressly reference their personal preparations, including noting their own "motivations, purpose, inward knowing, observation, and variety of ways that the researcher can relate her own process undertaken in the research" (pp. 34). The researcher must take the time needed to look inward and deeply consider these components to understand their own frame and what they are bringing to the research. The researcher's own positionality and connections to the communities in which the research is taking place also influence the process and outcomes of the research itself. The researcher's relationships with individuals and communities are a key consideration, as for personal information and anecdote to be shared within a research relationship, there must be a groundwork laid for trust to occur in the researcher by the participant (Kovach, 2009). However, building these relationships is not simply a means to an end within the research; rather to the contrary; just as one's relationships are inextricable from the self, relationships with the community are inextricable from the researcher (Thayer-Bacon, 1997). Within this epistemology these relationships exist prior to and persist beyond any research study.

Relational epistemology requires the researcher to think beyond methods to include critical reflection on the role of the self in the knowledge construction process (Gerlach, 2018). Framed within a relational epistemology, one's own interests stem from the experiences and relationships accumulated over time. My own interests in food security and food sovereignty research are shaped by my own experiences growing up in Iqaluit. After the introduction of Nutrition North Canada, a great amount of attention was directed toward food insecurity, as many felt it was a step back in dealing with the issue. *Feeding My Family*, a grassroots movement directed toward raising awareness regarding the high costs of food and high rates of food insecurity in the territory was created by an Iqaluit woman. I believe that observing these discussions, debates, and protests as a teenager shaped my understanding of food insecurity and my interest in studying the issue – and approaches to addressing it - in depth. My personal ethics and commitment to relationality is shaped by these experiences and grounds my approach to community engagement and research.

The conception of this study began within the context of my own relationships, stemming from a conversation with a community-based researcher and long-time colleague living in Iqaluit. The communities in which this study took place were selected for several reasons, my own personal and professional connections to and within them being one such reason. Spending most of my life in Iqaluit, I feel a special connection with the community, the land and waters surrounding it, and the people within it. I also traveled to Arviat several times during my work as a research assistant at Qaujigiartiit, collaborating with Aqqiumavvik on a variety of research projects. Within this context, my prior relationships with both organizations and knowledge of their work and relationships to their own communities were reasons behind my desire to collaborate. Both organizations do highly important work in their communities, and thus it was of utmost importance that my thesis research was conducted with their support and that it would be beneficial to their work and support their mandates. As the study took shape, I reached out to other organizations and individuals in Nunavut working within the fields of food security and food sovereignty - many of which I had previous professional and personal relationships with- to garner a better understanding of the topic and their scope of work.

### Decolonizing Methodologies and Relational Accountability

Research in Indigenous communities by non-Indigenous researchers has a long and storied history rife with wrongdoing. Research has often been used as an oppressive tool of settler-colonial governments and academic institutions, fulfilling and perpetuating negative and false conceptualizations of Indigenous communities and peoples (Smith, 2021). Aleut scholar Eve Tuck (2009) writes of the legacies of this form of research on Alaskan Native communities: “For many of us, the research on our communities has historically been damage centered, intent on portraying our neighborhoods and tribes as defeated and broken” (pp. 412). Damage-centred research, as Tuck describes, applies a deficit lens to Indigenous communities, documenting the pain or loss of individuals, communities, or tribes. These forms of research leads to flattened, discriminatory narratives of communities with little room for nuance and complexity. Instead, the author argues for the application of a desire-based framework to research with Indigenous communities, which is concerned with ‘depathologizing’ the experiences of individuals and communities so that people and communities are seen as more than their damage and as complex as they truly are (Tuck, 2009).

Maori Scholar Smith (2021) notes that over time, because of the oppressive and othering actions on behalf of researchers, research has become one of the ‘dirtiest words’ in Indigenous communities. Decolonizing methodologies have emerged as an alternative to Western methodologies and their associated oppressive tactics (Smith, 2021). As research throughout history in settler-states on Indigenous peoples is predicated on the power relationship between the researcher and researched, decolonizing research methodologies address this power dynamic by providing a framework of doing research in Indigenous communities that is centred in Indigenous ways of knowing and being and embodies a “more critical understanding of the underlying assumptions, motivations and values that inform research practices” (Smith, 2021, pp. 20). Decolonizing methodologies ‘suspend damage’ and privilege Indigenous voices and rights to self-determination, while simultaneously rejecting settler-colonial methodologies that further marginalize Indigenous peoples (Antoine, 2017; Tuck, 2009).

Decolonizing methodologies prioritize the needs of Indigenous communities and ask how the research will benefit communities' cultural continuity, social processes, and political structures (Beeman-Cadwallader et al., 2012). Allowing research to be guided by what benefits the community and being accountable to one's relationships in the community forms the basis of relational accountability – an approach to decolonizing research that is rooted in relationality (Wilson et al., 2020). Relational accountability requires the researcher to reflect continually throughout the research relationship on the value of their research to the community and if they as researchers are upholding the central tenets of relational accountability, namely: respect, reciprocity, and responsibility (Wilson, 2008). In this approach, respect goes beyond simply respecting those involved in the research – it also entails giving due respect to the information provided (Barlo et al., 2021). Responsibility acknowledges that the researcher holds responsibility for the information provided and ensuring that the information is used appropriately. The person providing the information is its ultimate owner, with the researcher responsible for taking proper care of that information while it is in their hands (Barlo et al., 2021). Reciprocity is the act of demonstrating the importance of the relationship. Barlo et al., (2021) describes the importance of relational accountability to research with Indigenous communities:

> "I think the word accountability is a really important one, and it does come out of relationship. You will be held accountable by the participant, by the Knowledge, and by Country. All of those things will bite you if you do it wrong." (pp. 46).

Critical reflexivity stems from relational accountability. As relational accountability involves continual reflection of one's duties in relation to the community, critical reflexivity involves reflecting on how "intent and mindfulness" is employed in the research (Beeman-Cadwallader et al., 2012). It entails the researchers own self-reflection during the construction of meaning, with special consideration given to the political context of one's own location and privilege (Kovach, 2009). Biermann (2011) argues that in order to create the decolonizing conditions necessary to do research with Indigenous peoples, the researcher must go through a process of deconstructing privilege. This involves an in-depth analysis of how the systems of colonial power - within which we operate and are located - are created and maintained by societal structures and discourses. We must understand the location and influences of our own privilege prior to engaging in decolonizing research.

In the context of research with Indigenous peoples and communities, critical reflexivity involves an acknowledgement of what Margaret Kovach calls the 'politics of representation' (Kovach, 2009). Research involves the representation of stories through the lens and perspectives of the researcher (Kovach, 2017). Representation of Indigenous communities through research, as previously noted, has led to a stereotyped, deficit-oriented narrative perpetuated by the continuing cycle of outsider research on Indigenous communities (Kovach, 2017). Acknowledging the politics of representation means to understand and appreciate the position of the researcher in shaping representation as a politically fraught role which wields significant power (Kovach, 2017). It also involves a commitment to respectful representation which honours Indigenous epistemology, is rooted in Indigenous teachings (e.g. relationality), contextualizes the research within the experiences of the communities it pertains to, stems from experience and story, recognizes the importance of colonialism, neocolonialism, and resistance within Indigenous societies, and is easily accessible to the communities and peoples it represents (Kovach, 2017).

## Narrative Methods

Narrative methods are, at their core, a way of understanding mutual human experience from the perspectives of those who live them, as an individual's stories contain narratives that are reflections of collective social phenomena (Mayan, 2016; Trainor & Graue, 2013). Narrative analysis – a subtype of qualitative inquiry - is a blanket term to describe a group of methods for interpreting data composed in the form of story (Chase, 2011; Riessman, 2008). This method allows us to "understand and interpret people and the events or processes that are important to those people. At the same time, the intention is to uncover the meanings and experiences that are attached to that story" (Åstedt-Kurki & Heikkinen, 1994 p. 420). Narrative approaches – like decolonizing methodologies - stem from relational epistemology, thus the stories produced through narrative methods are co-constructed at the interface of the researcher and participant. The researcher is not a neutral observer in this form of research, but rather an instrument for furthering and deepening the narrative, with pieces of themselves becoming embedded as the story takes shape (Clandinin & Connelly, 2000). Narrative research is powerful in that it allows for deep dives into the nuances of human experience through individual storied accounts (Riessman, 2008). Because stories allow others to embody the experience, living it as the storyteller orates it, they are compelling, mobilizing, and can push others into organizing for social change (Riessman, 2008).

Similarly, Indigenous scholars describe the importance of story in their work, as it can operate "as a decolonizing action that gives voice to the misinterpreted and marginalized" (Kovach, 2009 pp. 94). Though Indigenous and narrative methods arise from different paradigms – one from what Kovach (2009) calls a 'tribal' paradigm, and the other a Western paradigm, there is alignment between the two through the importance of story. Narrative analysis also aligns with a decolonizing research approach as it breaks down the power imbalance between the researcher and researched, something that is quintessential to decolonizing research methods (Healey, 2018). The ebb and flow of conversation in which both parties open up aspects of themselves for analysis and interpretation by the other creates a space in which power is shared (Kovach, 2010). It is upon this foundation of balanced power in which meaningful stories are told and interpretations are co-created.

While there are an array of methods held within the broader field of narrative analysis – thematic analysis, structural analysis, dialogic/performance analysis, and visual analysis – I selected visual and thematic analysis for my thesis (Riessman, 2008). Although narrative inquiry is primarily concerned with treating individual narratives as units – termed "case-based analysis", rather than fragmenting them through a process of thematic categorization, Riessman (2008) argues for the combination of thematic coding with analyses of individual cases, as each tradition allows for a different form of understanding to occur and unique insights to be drawn. Simple categorization can exclude nuance and reduce the agency of the storyteller by taking particular moments out of context. A combination approach allows for texts to be seen for both the meanings held within the content, but also includes deeper understandings of the context in which particular incidents are storied, thereby honouring the individual agency and intention of each research participant (Riessman, 2008).

Most forms of narrative analysis attend to how a story is told, for whom the story is told, what purpose the story fulfils, and other literary features (Clandinin & Connelly, 2000;

Riessman, 2008). Unlike these forms, thematic analysis views language as a resource and is primarily concerned with matters of content (Riessman, 2008). The focus of the inquiry is on the content of the story, rather than the language used. The research relationship and the role of the researcher in constructing the narrative is not as important in this form of narrative analysis, though the researcher may briefly explore their role (Riessman, 2008). The research interview is widely used to compose texts for thematic analysis (Clandinin & Connelly, 2000). Though thematic analysis is similar to other forms of qualitative inquiry – especially grounded theory - it differs by attempting to keep the sequences and wealth of detail in individual narratives intact. A case-centred approach is taken, with the individual comprising each "case" (Riessman, 2008). Stories may take different forms, and it is up to the researcher to define the boundaries of what is considered a story in their inquiry; it may be as small as a segment of an interview, or as large as an entire account of a particular incident (Riessman, 2008). Prior theory guides the determination of the unit of analysis, of which may be the entire narrative or specific concepts reported in the narrative. Theories are built across these cases by identifying common thematic elements within the units of analyses. Thematic narrative analysis differs from grounded theory in that units of analysis are considered in relation to the narrative context in which they are situated (Ross & Green, 2011) Local context is not as important as the societal context (Riessman, 2008).

Small stories research is an alternative form of narrative inquiry, proposed as an alternative to the dominant form of narrative analysis that restricts narrative to textual data and privileges long, storied narratives (Georgakopoulou, 2017). It is utilized to analyze the small stories seen in our everyday lives. Georgakopoulou (2017) has advocated for the application of small stories research to social media content. In their own research, the author has adapted a variety of methods to suit the analysis of "small stories" found on social media, and argues for the flexible adaptation of varied methods to suit the continually changing landscape of the online environment. Visual content analyses may be utilized to build context by identifying narratives and attaching meaning to other forms of data than research interview texts or written documents (Chase, 2011). Instead, a narrative can be constructed by the researcher from images or a series of images (Riessman, 2008). This entails attending to details within particular images to build a story of the image or series of images (Riessman, 2008).

## Social Media Scan

### *Method*

A small stories narrative visual analysis was conducted in June and July 2020 for the purposes of collecting and analysing social media posts pertaining to food-sharing during COVID-19 lockdown periods in Nunavut communities. Posts were identified through a cross-sectional retrospective review of community Facebook groups in Nunavut communities. Posts involving community food sharing between March 12th 2020 and June 29th 2020 were included in the analysis.

Utilizing visual analyses to categorize, quantify, and narrate the utilization of Facebook groups for community food sharing has occurred elsewhere in Nunavut (Dunn & Gross, 2016). Dunn & Gross documented the quantity of country food by animal on Cambridge Bay News, using the information to contextualize their larger study on how the community utilizes Facebook to share food with community members. The authors note that "the benefit of looking at the role of digital media in everyday life is that it refocuses the research questions on the agency with which Inuit address problems of everyday life" (pp. 231). This study combines multiple methods to produce a narrative of the utility of Facebook to continuing a cultural value long-practiced by Inuit, and how this medium was utilized to adapt to the impacts of the COVID-19 pandemic on food sharing in communities. The objective of the visual analysis employed in this study was to identify and contextualize the types of food sharing that occurred and the adaptations community members made to local food sharing as storied through social media.

### *Selection Criteria*

Community Facebook groups were identified through a search for groups with community names in the title of the group. Groups were assessed based on their number of total and recent posts, as well as number of members. Groups were included based on perceived activity, which was determined by the number of recent posts in the last 30 days in comparison to the size of the community. Community-run Facebook pages involving the hamlet or community food programs were also included.

Posts on the selected Facebook groups and pages were deemed relevant to the research question if: the posts contained 1) instances of country or store-bought food sharing; 2) requests by individuals for food sharing; or 3) sharing food by community members (individuals) or community food programs. Posts that involved exchange of money were excluded from data extraction. Posts before March 12th 2020 or after June 29th 2020 were not included. June 29th was chosen as the end date as Government of Nunavut restrictions were eased on this date regarding indoor and outdoor gatherings and day camps and other childcare programs. As many food programs were forced to adapt to the shutting of schools and daycares in order to serve the families that depend on them to alleviate the pressures of food insecurity, this date was chosen as the end of the initial period of the pandemic for the purposes of the analysis.

### *Data Mining and Analysis*

Facebook group pages were scrolled chronologically by myself and a research associate from Qaujigiartiit, and screen captures were taken of relevant posts. Four groups were unable to be scrolled chronologically due to the group's limitations on viewing posts past 30 days. To still include posts from these groups, a search strategy was devised to find food sharing-related posts dating back prior to 30 days in these groups. This involved searching for terms commonly found in food-sharing posts as well as English and Inuktitut terms for country food with varied spellings to encompass different dialects. These terms are outlined in table 1.

**Table 3-1**

*Facebook Group Search Terms*

| | **English** | **Inuktitut** |
|---|---|---|
| *Country food terms* | ""caribou" "walrus" "fish" ”seal" "whale" | "nattiq" "natsiq" "Mattak" "Pitti" "pitsi" "iqaluk" "tuktu" "arvik" |
| *Terms related to food sharing* | “free” “pick up” | N/A |

*Note.* These search terms were utilized in four of the 122 Facebook groups identified in this study

Acts of food sharing were the main unit of analysis. Visual analysis was utilized to extract narratives from posts, with inductive coding (Snelson, 2016). Posts were separated into themes of individual food sharing and food sharing from food programs. Under these themes, posts were categorized according to the dual food system of Inuit as either country food sharing or sharing of store-bought food (Ford, 2009b). Country food was deemed to be any hunted, fished, or gathered livestock or plants and berries. Store-bought food was defined as cooked meals, prepared foods, or packaged foods. Food requests, and whether requests were fulfilled were also recorded. Fulfilled requests were included in the counts of food sharing instances. Other observations of community food sharing characteristics during this period were recorded and are included in the results.

## Qualitative Interviews

### *Method*

This component of the research study utilized thematic narrative analysis. This method was selected for its relational qualities and congruence with communication of experience through story.

### *Setting*

Participants were recruited from Iqaluit and Arviat. Due to COVID-19 public health restrictions, it was not possible to travel to these communities to interview participants. In lieu of in-person or video interviews, phone interviews were conducted. Phone interviews were selected as internet in Nunavut is expensive and monthly bandwidth is limited. Requiring participants to partake in an interview via video call would put undue costs onto them by using up their monthly allotment more quickly than what might be usual. Participants chose the time and location of where the phone interview would take place, with all occurring either in the participant's home or workplace. I conducted all the interviews.

### *Recruitment and Participants*

Participants were recruited through purposeful and snowball sampling. Research partners in Iqaluit and Arviat provided suggestions of individuals to reach out to in each community. I also posted a message on the local Public Service Announcements Facebook page and my personal Twitter account looking for participants to self-identify for the study. Participants were screened to meet inclusion criteria prior to the interview stage based on the three criteria: 1. Living or having primary residence in Iqaluit or Arviat; 2. Received or currently receiving COVID-19 related food assistance, food-related program funding, or involved in the administration of food assistance or funding; and 3. Access to long-distance calling. In line with the relational nature of my research, I had previous relationships with many participants, and others has previous relationships with colleagues or friends of mine. As compensation for their time, participants were provided a $50 grocery card to a northern retailer.

15 participants were contacted or self-identified for participation in this project, with seven participating in an interview. Of those participating in interviews, three participants were from Iqaluit and four from Arviat. Of these, four were women and three were men. Five received food assistance or support, two received COVID-19 on-the-land funding, and two were involved in the administration of COVID-19 food assistance programs or funding.

### *Data Generation*

Interviews were conducted with all project participants. A semi-structured interview guide was developed for the purpose of the interview, using the conceptual model as a guide. Questions were centred around the thematic components of food security and food sovereignty identified in the model presented on page 50 to investigate the topic of interest with sufficient breadth and depth. Questions were designed to evoke stories from participants regarding their experiences during the COVID-19 pandemic and the impacts they observed in their communities of the pandemic and public health measures on food security and food sovereignty. The interview guide was reviewed by individuals at both partner organizations and was piloted with a community member in Iqaluit prior to commencement of the study phase.

Each interview began with a review of the study purpose, confirmation of participant's understanding of the consent form, including permission to record the interview. If I did not have a prior relationship with participants, I introduced myself, where I am from, and my connection to Nunavut and Iqaluit and Arviat. The questions in the guide served as a starting point for the interview, with follow-up questions varying based on the direction of the conversation. A direct effort was made to conduct interviews less formally and with more of a conversational flow. The semi-structured guide allowed for the discussion to be open to different aspects of food security and food sovereignty; flexibility with the guide was permitted to venture off into different subjects of conversation depending on the direction taken by the participant (Clandinin & Connelly, 2000). As narrative inquiry is relational, there is a reciprocity in the relationship between researcher and participant, particularly during the research interview (Clandinin &

Connelly, 2000). Conducive to narrative approaches to research, I also shared my own stories regarding my experiences with the pandemic, when appropriate (Healey, 2018).

Interviews were conducted in an iterative process, with questions added as insights highlighted additional areas to explore (DiCicco-Bloom & Crabtree, 2006). Questions were also rephrased between interviews, where warranted, to elicit more detailed responses. All interviews were conducted in English, and the general question guide for the interviews is provided in Appendix A. Critical reflexivity was key to this process, as I reflected on the influence of my own position on the interview process as a white-settler researcher working in Inuit Nunangat.

All interviews were audio recorded and transcribed. Each interview lasted 30-90 minutes. Otter transcription software and Office 365 were utilized to perform initial automated transcriptions of the audio recordings. All transcripts generated were read through, manually cleaned, and verified to match audio recordings. Transcripts were provided to study participants after cleaning for review and to provide an opportunity for them to add additional remarks.

### *Saturation*

Participants were recruited through purposeful and snowball sampling. Interviews proceeded if participants met the inclusion criteria. Recruitment of those who have knowledge of or experience with the phenomenon is a critical aspect of reaching saturation (Morse et al., 2002). Sampling was adjusted to include more individuals who had received on-the-land program funding as interviews were conducted to ensure saturation (DiCicco-Bloom & Crabtree, 2006).

### *Data Analysis*

The conceptual model was used as a broad guide for identifying how the COVID-19 pandemic affected specific components of food security and food sovereignty as addressed by participants. However, it was applied flexibly, and the analysis was open to themes outside of the boundaries of the conceptual model. Case-based and categorical analysis was applied. After the initial three interviews were conducted, data analysis was commenced, and occurred concurrently with additional interviews (DiCicco-Bloom & Crabtree, 2006). NVivo Software was utilized to aid in organizing themes and visualizing connections between themes.

The immersion/crystallization (I/C) data analysis technique as pioneered by Borkan, (1999) was utilized. This method involves repeated "delving into and experiencing the data" (p. 182), and is unique for several reasons (Borkan, 1999). First, it situates the self deeply within the analysis: it is a more engaged and fluid process in which the researcher is fully immersed within the data, using this process as an opportunity to progress beyond obvious interpretations (Borkan, 1999). Periodic suspension of immersion and interpretation is another key aspect of this analysis approach, as pausing interaction with the data allows for the crystallization of new understandings (Borkan, 1999). I/C is systematic and iterative, involving data extraction, examination, pattern and theme identification, and refinement of findings (Or et al., 2014).

As recommended with I/C, the process of data analysis began with the initiation of the research process. As we come to research with our own past experiences and engagement with the topic at hand, researchers often hold a priori biases or hypotheses regarding what the project's findings will be. Part of I/C is acknowledging these biases at the outset of the project. Exercising reflexivity by understanding how our own positions in relation to the research may influence its direction is an important aspect of I/C and relational accountability (Beeman-Cadwallader et al., 2012; A. Gerlach, 2018; Kovach, 2017). It involves thinking critically about the role of the self in the knowledge construction process, as it recognizes that the researcher is not a neutral instrument to be utilized within the research, but brings "his or her cultural, social, historical, political, theoretical, and personal self into the research process" (Gerlach p. 4).

Immersion, the first component of I/C involves devoting substantial, concentrated time and mental energy to reading and rereading interview transcripts (Borkan, 1999). If no new insights are emerging, it is encouraged for the researcher to spend time away from the data, as this may allow for insights to crystallize. Once insights make themselves known, they are recorded, codes are formed, and links are made between insights where required. After transcribing and performing an initial coding pass of transcripts, I spent considerable time away from the data. As a COVID-19 outbreak occurred in Iqaluit while data generation was occurring, this required additional time to reflect on how previous interviews informed this new context. Over time, insights emerged as I distanced myself from the data. During this time, I kept notes of all new insights, which were later, as appropriate, during subsequent analyses of the data.

Reflecting on insights with the research team, colleagues, and/or participants is another key aspect of the I/C approach (Borkan, 1999). This is similar to an important aspect of relational accountability: checking with the participants and community partners to validate raw findings and to ensure they are a true representation of the community (Barlo et al., 2021). In my process, I reflected on insights and the research process with many people. The initial findings were validated with community members in Nunavut to ensure the interpretations were true reflections of the data. When struggling with different aspects of the analysis, I also engaged my thesis committee to ensure my insights reflected the data, and research participants to ensure my insights accurately reflected their experiences.

I/C is particularly useful for this project as it allows the story or narrative to be considered as a whole alongside its individual parts. Line-by-line coding is not particularly useful for narrative approaches because it does not reflect the manner in which information is shared. The stories told are not always linear, nor are the lessons conveyed gleaned from a specific sentence or set of sentences. The key messages are often woven throughout the story as a whole. Thus, the process by which codes are assigned must be much more fluid and flexible in order to give the data the respect it deserves. The fluid and holistic manner in which I/C handles data is thus a highly appropriate method of analyzing data for this study.

### *Validation*

To validate findings, I visited Iqaluit at the end of July 2020. As my visit was planned while the outbreak in Iqaluit had finished but had not yet been declared over, I opted to remain in one community so as not to do any more travel than needed to validate the findings and to be extra COVID-safe. During this visit, I presented my findings to the Mayor and City Council of Iqaluit and community stakeholders Qaujigiartiit Health Research Centre. Part of the reason for this visit was for validation and feedback of my findings, but also to act respectfully and ensure the community that my research involves reciprocity: that I was not just conducting this project to complete a requirement to achieve my degree, but to give back to the community as well.

## Ethics and Rigour

### *Ethics*

Prior to initiating interviews, I completed mandatory research ethics training from the University of Alberta. I obtained formal ethics approval from the University of Alberta and a research license (#0101021R-M) was obtained from the Nunavut Research Institute (NRI). In order to be granted a research license from NRI, proof of community support for the project was required. I obtained support from both communities, and at the request of Aqqiumavvik, entered into a research agreement with the organization. Community councils in Iqaluit and Arviat were also required to approve the project prior to commencement. The application procedure also involved demonstrating the benefits the research would have to Nunavummiut. A project description and consent forms were translated into Inuktitut for this purpose.

Because of the exploitative history of research in Indigenous communities, extra care must be taken to ensure that this history is not repeated, and that respectful, reciprocal, and responsible research relationships are negotiated. The Nunavut Research Institute requires researchers to follow principles nearly identical to the ones outlined by Kovach (2010), who describes important ethical principles for research conducted with and in Indigenous communities, including: a research relationship based in mutual respect; research that yields benefits to the community; the researcher obtains appropriate permissions and informed consent; research that does not exploit communities; research that is not extractive; and research that respects community ethics and protocol.

Relational ethics guides each element of the inquiry process (Clandinin & Connelly, 2000), such that consideration of consequences for participants' lives is always a fundamental concern. Ethical work doesn't end with the granting of IRB approval. While IRBs provide helpful guidelines, there are additional ethical considerations to contend with when doing research with individuals of whom one is in relation. Beyond external ethical protocol and agreements, I also applied my own internal set of relational ethics informed by principles of relational accountability, as discussed previously. Wilson (2008) describes her own process of enacting her own internal set of research ethics beyond those imposed by Institutional Research Boards. She acknowledges that she is guided by Indigenous concepts of relationality, including recruiting participants through friends, relations, and family, which enters her and the participant in a sort of contract bound by the duties to apply respect, reciprocity, and responsibility to those she is in relation with. I carried this mindset with me as I progressed through the research.

Wilson (2008) also acknowledges that though she is Indigenous, she is an outsider in Indigenous communities outside of her own and must behave as such and engage Indigenous members of those communities she seeks to do research in and with. Though I was born in Iqaluit, I am not Indigenous and thus I carefully and continually consider my role as a white settler doing research in Indigenous communities; to reconcile my role as an outsider in this sense, I discussed the implications and meaning of my research and ethical concerns I had with Indigenous researchers and community members prior to beginning data collection (Wilson, 2008). I did not assume that because I grew up in an Indigenous community that I would have a natural propensity to conduct research with Inuit in a perfectly ethical manner: consulting with community members and other Indigenous researchers helped to ensure the project was grounded in a sound set of internal ethics and would respect the wishes and protocols of the community.

### ***Rigour***

In relational studies, rigour and ethics are intertwined. Ensuring rigour means ensuring that the results and interpretations accurately reflect the experiences of the individuals and/or communities that are involved in the research, actions that demonstrate care toward others and their stories. Morse et. al (2002) proposed new criteria for validity and reliability in qualitative studies, arguing that to ensure rigour in qualitative studies, one must employ strategies that are rooted in verification. These strategies are "the mechanisms used during the process of research to incrementally contribute to ensuring reliability and validity and, thus, the rigor of a study" (Morse et al., 2002, pp. 17). The authors argue for the use of process-oriented mechanisms, as post-hoc strategies often miss whether the researcher has constructed and implemented their research in a rigorous manner. Post-hoc strategies also miss what Morse et al. (2002) term "investigator responsiveness". Responsiveness is the ability of the investigator to be creative, sensitive, and flexible in using the verification strategies. Lack of responsiveness is a threat to the validity of the study.

The utilization of each verification strategy helps to compound validity and reliability in a study, as they work incrementally and synergistically. The first of these strategies is *methodological coherence*, which aims to ensure there is congruence between the research questions and the methods utilized to collect and analyze data. Working within a relational context and aimed at understanding the experiences of Nunavummiut during the COVID-19 pandemic, I engaged participants in narrative research – a method which at its core is concerned with understanding human experience.

Secondly, the sample must be appropriate: participants should best represent or have knowledge of the research topic. Sampling adequacy is proved by saturation and replication. Saturation ensures that there will be replication, and replication ensures completeness. Prior to interviews, I screened all participants to ensure they understood the scope of the research and whether they received food assistance or COVID-19 on-the-land program funding.

The third strategy involves collecting and analyzing data concurrently, which allows for the researcher to learn what else needs to be explored and to modify the research as necessary (Mayan, 2009). I began interviews in March of 2021 and conducted three initial interviews. Interviews were transcribed and an initial coding pass was performed. Subsequent interviews were conducted with the same basic questions, with new lines of questioning introduced, informed by previous interviews.

Fourth involves *thinking theoretically* which involves the application of both macro and micro perspectives to continually progress toward the development of new ideas, checking and rechecking insights within the context of the data to build a solid foundation. Ideas found in initial data is reconfirmed by new data as one progresses simultaneously along data collection and analysis. Reflection on these ideas leads to new insights arising, which must be confirmed against the already collected data. The application of interviewing and analyzing data simultaneously lends to thinking theoretically. In my process, I continually referred back to the data when new insights emerged to identify these themes within other transcripts to confirm its viability; I/C allows for the immersive thinking in order for new insights to emerge (Borkan, 1999).

# CHAPTER 4: Results

## Social Media Scan

Two sets of social media data are presented in this results section: the first, data from the communities in which qualitative interviews were conducted is presented, and secondly, data from all Nunavut communities is presented. Iqaluit and Arviat data are separated to provide deeper contextualization of the sharing that occurred in these communities during lockdown periods for the purposes of comparison and integration with the qualitative data.

Data mining was done with the aid of a research assistant at Qaujigiartiit Health Research centre. When questions arose as to whether a certain post should be included, the research assistant and I discussed the best course of action, coming to a conclusion based on the information available in the post.

## Nunavut Data

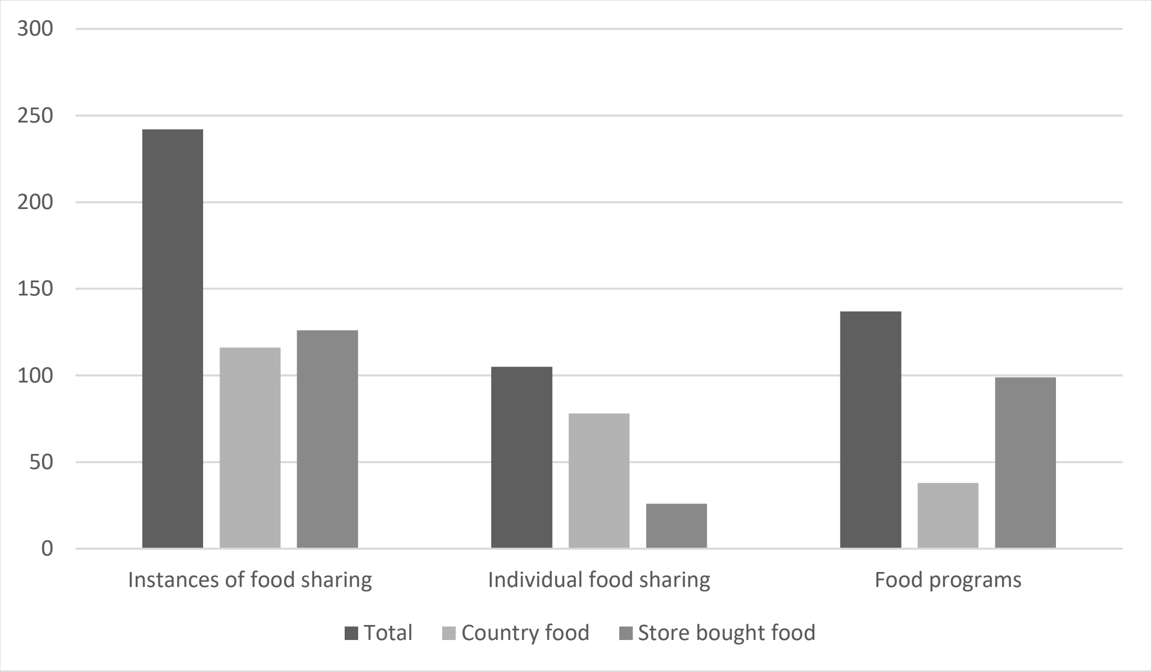
122 Community Facebook groups were identified across Nunavut's 25 communities. 6 were unable to be accessed and were subsequently excluded from the data collection, with the 116 remaining Facebook groups mined for data. The details of the 116 groups mined is available in Appendix B.

### *Food sharing posts*

242 unique instances of food sharing were identified in 116 Nunavut community Facebook pages during the initial period of the pandemic.

**Figure 4-1**

*Breakdown of Food Sharing on Nunavut Community Facebook Groups*



Most food sharing (n= 137) was facilitated by community food programs. These community food programs consisted of breakfast programs, food banks, soup kitchens, and community freezers. Store-bought food was overwhelmingly distributed by these programs, with 99 unique posts identified in this category. 38 posts in which community food programs distributed country food were identified.

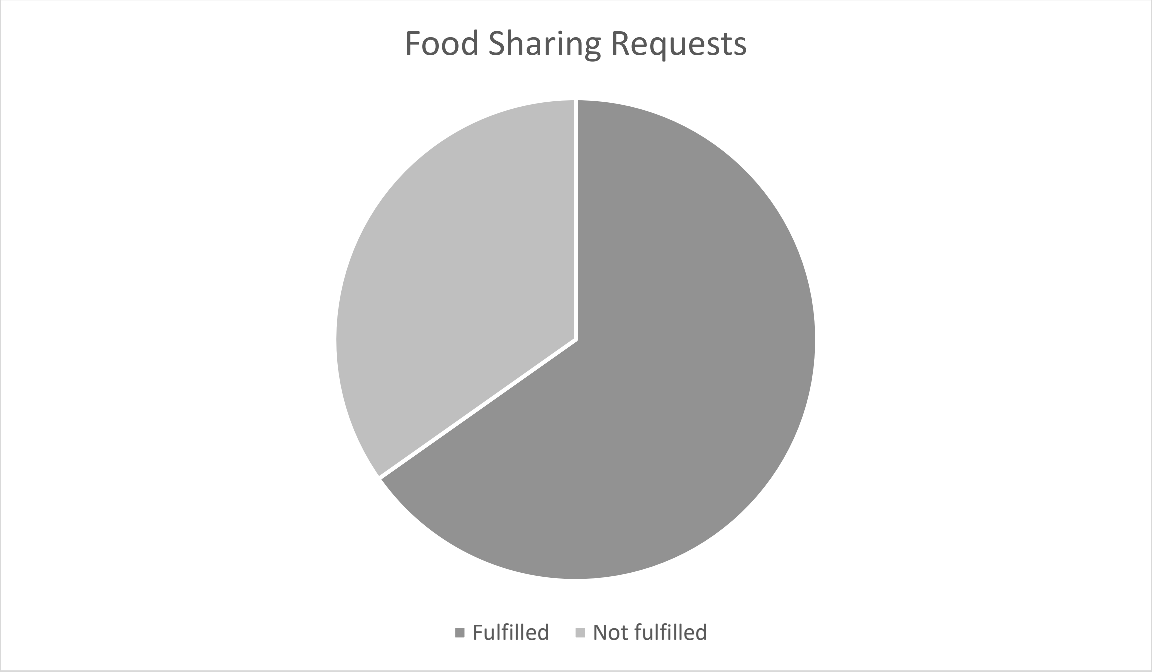
105 instances of individuals sharing their own food were identified. Mainly country food was shared by individuals (n =78). Sharing of store-bought food occurred much more infrequently amongst individuals, with 26 posts mined.

### *Food sharing requests*

There were 16 requests for food sharing identified across community Facebook groups. Of these, 6 were fulfilled. 10 of these specified they were seeking country food, with 6 others requesting any type of food.

**Figure 4-2**

*Food Sharing Requests on Social Media Across Nunavut*



*Note* Requests were marked as fulfilled if there were offers to share food within the comments

Posts of this nature were identified in Arctic Bay, Sanikiluaq, Cambridge Bay, Gjoa Haven, Kugaaruk, and Naujaat.

### *Community Characteristics*

Two of the three communities with the largest number of posts are communities with much smaller populations than many of the other communities in the region. The largest number of food sharing instances (n= 29) was recorded in Arctic Bay; 19 of these were from community food programs, whereas 10 were from individual food sharing. This trend is reversed in Kugluktuk, which had the second-largest recorded number (n=25) of food sharing instances, where 23 of the 25 were from individuals, 21 of whom were sharing country food. The third highest recorded number of posts was 24, in Sanikiluaq, with the majority of posts (n = 16) involving individuals, 10 of which were country food sharing. A comprehensive table with data by community is provided in Appendix C.

### Iqaluit and Arviat data

The data presented below was collected in conjunction with Qaujigiartiit Health Research Centre in Iqaluit. 10 community Facebook groups in Iqaluit and Arviat met the criteria for active community Facebook groups and pages. Within these groups, 26 unique instances of food sharing were identified in community Facebook pages in Iqaluit (n=18) and Arviat (n=8).

The majority (n=15) of posts consisted of instances of sharing from food programs. 13 of the 15 posts from community food programs were in Iqaluit Facebook groups, with 2 in Arviat. 14 of these instances involving the sharing of store-bought food. Only one post by food programs consisted of country food sharing, in an Iqaluit Facebook group.

11 instances of food sharing from individuals were identified in the search. Of these, over half (n=6) involved instances of country food sharing. Most of the individual food sharing posts (n=6) were identified in Arviat Facebook groups. In Iqaluit, 5 posts involving individual food sharing were identified, with most (n=3) involving store-bought food. In Arviat, the opposite was true, with 4 of the 6 identified food sharing posts involving country food.

**Table 4-2**

*Categorized Food Sharing Posts In Community Facebook Groups In Iqaluit And Arviat*

| Community | Individual country food | Individual store-bought | Total individual food sharing | FP country food | FP store-bought | Total food program sharing | Total instances food sharing |
|---|---|---|---|---|---|---|---|
| **Qikiqtaaluk** | | | | | | | |
| **Iqaluit** | 2 | 3 | 5 | 1 | 12 | 13 | **18** |
| **Kivalliq** | | | | | | | |
| **Arviat** | 4 | 2 | 6 | 0 | 2 | 2 | **8** |
| TOTAL | 6 | 5 | 11 | 1 | 14 | 15 | **26** |

1 instance of a request for food sharing was identified in these communities during the study period, mined from an Iqaluit Facebook group. This request was for any type of food, and the request was identified as unfulfilled.

### *Post content in Iqaluit and Arviat*

#### *Impacts of and adaptations to COVID-19 within community food programs*

Posts in these communities highlighted the unique ways food program facilitators adapted their programs to still be able to serve their clients despite the lockdown. Social media facilitated the sharing of information and food during the March 2020-June 2020 lockdown in Nunavut.

Contactless giveaways from schools and food banks in Iqaluit were a method used to work within the social distancing requirements of the public health measures while still meeting the needs of the population. Food banks continued to operate in Iqaluit, providing contactless distribution.

In Iqaluit, another such adaptation involved schoolteachers setting up distribution stations outdoors at a time of year when temperatures could get as low as -20 C without the windchill. These stations were in the parking lots of schools, in which bags of food and other essentials were given out. These adaptations to the school breakfast and snack programs were essential. By finding a way to continue to distribute food to children in the community, this program met a significant need: one post mentioned there were 1000 breakfasts given out in the previous week – meaning the demand was there. Recognizing this, teachers operated these distribution stations every weekday, even on holidays.

Instead of having country food distributions, The Iqaluit HTO delivered food to doorsteps. To facilitate this, the Iqaluit HTO posted on Facebook to notify community members that there was food to distribute, and to call the HTO before a certain date in order to ensure their household would be on the list to receive country food.

In Arviat, food hampers were given out contactless by the hamlet. Hampers were dropped off on doorsteps, with community members being notified of this distribution through social media.

Community members expressed thanks for the food provided to them from program facilitators. These comments highlighted the importance of these programs in communities and the gratitude community members feel to be able to have access to such services.

### *Community Spirit*

The mined Facebook posts also show how community members came together to provide additional supports beyond the formal supports organized by non-profits and governments. These posts demonstrate the caring that community members expressed for each other during this time.

Community members posted offers to give groceries to hungry people. Despite public health restrictions, Facebook allowed for food sharing from individuals to continue to occur as it let community members notify others of where and when the food would be available and how to pick it up in a COVID-19 safe manner.

Posts offering leftover prepared food to hungry people were also shared. Several of these posts expressed a desire to give unneeded finood directly to those in need, specifying that the food they were giving away was to allow for those who are not receiving assistance or who do not have an income to be able to eat a meal.

These posts emphasize how community members took the initiative to help others in the small ways they could. They also highlight how community members met a need that maybe was not being appropriately met by other initiatives. Those in need expressed deep gratitude for the distributions from community members.

The overarching story told by the mined Facebook posts from Iqaluit and Arviat was one of both these communities coming together to support one another during difficult times, using at times minimal resources (in the cases of individuals) and taking initiative to ensure that the needs of community members were met.

## Qualitative Interviews

### Sources and Roles of Food Support

A wide variety of sources of food support were described by participants. These resources included formal supports, like community programs and income assistance, and informal supports such as family and sharing networks. These supports filled essential gaps in government assistance programs and food subsidies.

#### *“Sharing is a Traditional Thing”*

Sharing was described by participants incredibly important; people share food with each other for a vast array of reasons, including but not limited to: cultural importance; to help people in need of food; to help those who may not have access to certain types of food, especially country food; to help family; or to fulfill a personal sense of duty.

> The Inuit value of sharing is so strong, and alive and well. – A.S.

> Well, sharing is a traditional thing. So, we share mostly country food for people who don't have equipment… or transportation to go hunting for country food – R.M.

Participants spoke of sharing coming most often from friends and family. Participants described Facebook and community radio being key facilitators of sharing.

> When we couldn't go out, our relatives would help us out, [and] when it seemed to be getting difficult for us, our friends would help us out. – R.M.

> There have been lots of people posting on Facebook hey we have ptarmigans available. Come pick up at this house, like lots of times, just on IPSA [Iqaluit Public Service Announcements Facebook page] – B.U.

One participant directly discussed the significance of sharing to the role of the hunter in Inuit culture. Sharing was described as inseparable from the role of the hunter in the community:

> That's the definition of a hunter - is that you provide for others. So if you view yourself as a hunter, you have the obligation to supply to other people. – A.S.

### ***Family***

A family support system was incredibly important for food security. When struggling to get enough food to feed their families, participants cited relatives as their biggest support. Relatives share food with each other, often through gathering for a meal. Oftentimes country food is shared from harvest, and family members who are able to hunt ensure that family members that cannot are provided country food. Having a large family network was also associated with food security, as family members were able to ensure everyone in the network had enough food.

> It was mostly relatives, that would help us out, with food. We would be invited over for a meal." – R.M.

> I come from a large family network, and everybody looks out for everybody." – B.U.

***Programs (Community Supports)***

Participants were asked to describe the community programs they were aware of for people in the community struggling to get food for their families. Many community programs were described as providing an essential service to community members in need of food, and greatly appreciated by the individuals and families who utilize them. The programs described by participants are provided through non-profit organizations, schools, and hamlet or city halls. These programs are provided by both volunteers and paid staff.

In Arviat, the community provided essential services to families without access to food, and had several programs specifically tailored to help elders in the community. One participant spoke of the increase he noticed in the number of programs available in the community since he struggled with food insecurity as a child, and the positive influence of the additional programs for families who are having difficulties.

> When I was younger, and it was a little tough, because there weren't many programs back then. The hamlet is now helping a lot with food for people who need food at home, and they would cook meals at the drop-in centre…for people who didn’t have food at home. They would also cook meals for Elders at the community hall. The hamlet would also run programs for elders so they could get together to have meals…share food, mostly traditional foods. So with these programs, it has been helpful for these families who are in need of food. – R.M.

However, though they described more programs being available, this individual perceived negative changes at the community level in terms of the amount of food available at the food bank. This change was attributed to the increase in population of the community since the participant’s childhood.

> “[When I was growing up] the population was smaller, there were like more food at the food bank. So that was quite helpful.” – R.M.

The food banks and meal service in Iqaluit also help those who are in need of food. These services provide cooked meals and take-home groceries to those served by these programs. Previously, the food bank was solely providing non-perishable food items. By working with the Qajuqturvik food centre the food bank provides perishable food items such as produce and country food. The food centre also provides a healthy food box that operates on a sliding scale, allowing fresh food boxes for low income individuals to be subsidized by higher income families. Though food support programs were described by one participant as not the ideal way to get food for families in the long term, short term, these programs provide critical support and are a key part of the social safety net in Nunavut. The Healthy Food Box provided by Qajuqturvik was particularly appreciated, as it provided good quality fruits and vegetables to people and allowed them the opportunity to donate food they didn't need back to the food centre.

> If you forget to pick up your food box, it gets donated back to the soup kitchen. But I'm pretty sure that they provide food boxes to low-income families for free…So you get a whole bunch of fruits and vegetables and whatever you don't want to take home, you can donate it back to the [food centre]. -L.O.

School breakfast programs were a source of support for youth struggling with food insecurity in their households; in telling a story about their experience of food insecurity as a child, R.M. remarked that alongside family supports, their school breakfast program helped him to get food when struggling.

> I usually went to school for the breakfast program, and sometimes getting invited to my relatives so that would help a lot. – R.M.

Income support would help in the sense that it provided some funds that could be used towards the purchase of food when unemployed or underemployed. However, income support was not enough to fully meet the needs of those receiving it. This is discussed further in the theme "barriers to food security".

> And my dad was on income support monthly, and I would get my child tax benefits. – R.M.

A more informal form of food support comes from community programs that are not provided with the express purpose of providing food assistance to individuals; these programs have a main purpose other than food, such as sewing, support, or skill development. However, the food provided at these community programs are an additional form of support that help people make ends meet in between paycheques or income support payments.

> I noticed there's this family that's struggling with food security, but with the programs that we had, before COVID, they were actually pretty helpful because if you actually went to this program, let's say there's a sewing program at a place, and they would sometimes offer light snacks, so that helps them. – R.M.

> We also do an Inuit women's group that happens every…once a week, every Tuesday evening, and that's just a program for them to come together and work on projects and have them share food and support each other. – K.I.

## Preferences

Food preferences are an important aspect of food security. Though food may be available through a variety of means, it is important to consider whether the supports available align with the preferences of individuals.

### *Country food*

Participants described a strong preference for country food and continuing to consume and promote its consumption. Participants described the importance of having country food in the diet for personal and cultural well-being.

> "We still continue to have our traditional food diet." – I.H.

> "For us, [we're] definitely trying to promote consumption of more country food because of course it's healthy whereas, store-bought food generally is not. So for us this is the best, to have increased access to harvesting and to [be] providing country food back to the community." – A.S.

One participant told a story of how the community held a call-in radio show about food security with the community during one of the lockdown periods. Though the responses deviated from the original question asked by the emcees of the show, the show highlighted the importance of country food to Inuit in the community. Callers were keen to discuss their personal connections to country, or "traditional food" as the participant called it. In this story, the connection people had to this kind of food – and the eagerness people had to share their favourite kinds of country foods and methods or recipes for preparing it became quite evident. This story highlights the deep connection Inuit have to country food and the importance of continuing to consume it and transmitting the knowledge required to prepare it in various ways.

> “When you say food security in English you could mean everything, right? Anything and everything. But in the Inuit way of thinking, if you don't specify, nobody can answer you. Nobody knows where to start.
> So [during] the first program…we decided that okay, let's start with traditional food - what's your take on that? And they called in about that, then we switched to “what do you think about store-bought food”?... But it [the show] still was well received. People said what they thought they understood us to be asking and so it was good. It actually switched to what I like best about traditional food. The show ended up going in that direction. Oh yeah, so they just they didn't even pay attention to what we asked…”Yeah, here's what I like about our traditional food”. Here's how I make it. Here's how to make it and my favorite traditional food is this, and I learned it from that person. And then so it ended up just being about that. – I.H.

In addition to its cultural value, country food was preferred by participants due to its increased nutritional value over store-bought food. Store-bought food was described by several different participants as often more “processed” or not as “healthy” as country food. One participant described his preference for country food, and expressed that if they have a visitors, they will go for country food as it’s more nutritious.

> We switched to ‘what do you think about store-bought food’?...what we were trying to do initially was point out the nutritional value of the food, that is now available and what may not be nutritionally that well for you. – I.H.

> Yes, they’re [country foods] more healthy. I didn't know that until I was old enough to know, the difference between processed food and country [food]. [It’s] more nutritious, like country food…I’m going to have country food with a friend, when he’s visiting. – R.M.

Program facilitators also described preferring to incorporate country food as the main source of protein because of its cultural importance and nutrition profile.

> And that we're trying to incorporate as our hopefully one day it will be, our main – well it is more or less our main source of protein, but we want it to be almost exclusively our only source of protein in our programs, or our meal service. – A.S.

This was expressed in conjunction with the sentiment that food programming should be culturally accessible and incorporating country food into food programming is imperative for improving agency in food programs and for respecting people's cultural and personal food preferences.

> I feel that any sort of food access programming makes decisions on people's behalf, they decide what was going to be on the menu, or in a food hamper, what's going to be provided and that removes a lot of agency from people in determining what they should [eat[,what they need for themselves and their families. A lot of times that those decisions are made without a culturally, without taking into [account]… the cultural appropriateness of the food. – K.I.

### ***Produce***

Several participants also described wanting to eat fruits and vegetables, when available, but described experiences of finding it difficult to incorporate due to inconsistent availability and varying quality of the fresh food.

> Like, sometimes I want strawberries and they're bad or I just don't like them. Grapes have been pretty good to get. Yeah, certain fruits like they're not easy to get here. And that's just a constant challenge. – B.U.

### ***Ideal way to get food***

Participants described the ideal way to get food as a combination of store-based and land-based approaches.

> There's actually two subject matters there. You're talking about traditional food harvesting and the other one you're talking about store-bought food. The main thing I think about that question is that for person of my background, it always almost means two things, the stuff that gets shipped up North and goes to the Northern stores or the stores, like the Co-op and other stores that are in the community. And the other part is always traditional food. – I.H.

Accessing country food through hunting, sharing networks or purchase was expressed as an ideal way to get food, and participants expressed being along varying levels of reaching that ideal

> Well, because people are able to be hunting regularly and bringing food back to the community. And because the Inuit value of sharing is so strong, and alive and well, I think people who need or want country food definitely have greater access to it. – A.S.

> Go out to the country food store, get some fish. And then every once a while actually catch an animal. Catch an animal and have that animal. Let's say rabbit. Yeah, every once in a while. – B.U.

Having adequate income to access store-bought food was expressed as another ideal way to get food for participants and people in their communities.

> Interviewer: So what would you say is the ideal way for people in the community to get food for their families? Participant (N.T.): Ideal way? Buy them.

> The ideal would be living wages or living income support… And that to me is the and, and is the, I mean, the ideal solution to food insecurity is to just provide people with a means of buying food that day, that is most appropriate for them. – K.I.

In recanting their experience with COVID and the impacts of COVID on the community, one participant described having a wide variety of supports available – involving both country and store-bought food - as the ideal way for people in the community to get food.

> Interviewer: What would be the ideal way for people in the community to get food for their families?
> R.M.: Well, before COVID we had different programs in town like cooking programs, food bank, community freezer programs. we were running before we had COVID. And when COVID …when we had COVID it was a little hard for people who are on low income. So depending on what kind of income they had…so it was a little tough for them, but we, um, the hamlet gave out two vouchers twice now. Once back in January. And another one not too long ago. I mean, food vouchers and where I work – <organization> - they also sent out packages for us during the lockdown.

A community that is able to understand and help those struggling to get food through a variety of means is seen as the ideal for this individual, and is exhibited in the following quote:

> With food security, I think people will have a little bit better understanding of what it was like when I was growing up. I grew up with food insecurity. And seeing people struggling with food security, It gets tough sometimes. But a lot of people are now helping out. -R.M.

However, another participant described access to food supports, though beneficial to those that utilize them, are not the ideal solution to issues of food insecurity.

> Realizing that while a lot of these efforts that we do provide, for food access are, to some extent needed and something said welcome by the eyes of people that are benefiting from them. But they're not the perfect or the ideal solution. – K.I.

This represents a difference of opinion and may reflect differences in thinking between the two participants. Currently, the ideal is not achievable for a variety of reasons that are reflected in the sections below, and thus having programs available in the community to help those in immediate need is critical; ideally, these programs would not be needed, as the reasons behind why people are food insecure would be addressed. In an ideal situation, people would be able to access food without needing assistance from community food programs.

Participants talked extensively about the importance of sharing in Inuit culture and the importance of community helping each other. These programs helped this individual immensely when they were younger and are another form of sharing food. This may also reflect a difference in understanding of the question; the participant referring to programs as not being the ideal appears to be exhibiting more long-term thinking.

### Reaching the Ideal

I.H., L.O, and B.U expressed that their ideal conceptions of how people in their family and community get food may not always (match up) with their realities. The issues of why reaching the ideal may be difficult are discussed further in the themes on barriers to food security and food sovereignty.

> I know that there's many families that don't have the access to both [country food and store-bought food]. -I.H.

> And I try to incorporate as much country food as possible into our meals, because it's just healthier. But sometimes we can't always do that. – L.O.

> Country food is available, but it's expensive and it's limited. And I think, one of the issues is that like I guess you can say the target population for quote-unquote target population of that country store is mostly people who don't have the means to like buy that shit every day. – B.U.

One participant spoke of increased ability to harvest allowing for more country food to be consumed in the community, expressing that more time out on the land has, in their opinion, allowed for the community to get closer to the ideal – which for many, is consuming country food.

> [We're] definitely trying to promote consumption of more country food. For us this is the best, to have increased access to harvesting and to [be] providing country food back to the community. – A.S.

Reasons for why the ideal way to get food is difficult to achieve, how the ideal might be achieved, and how COVID-19 has impacted the ideal are discussed in the following sections.

## Barriers and Facilitators of Food Security

Participants described a variety of barriers and facilitators to food security in their communities. Though presented separately, these factors are interrelated and should be considered holistically. This list may not be exhaustive, but is representative of the barriers and facilitators to food security that are the most pertinent and are at the forefront of these participants' minds.

### *Barriers*

#### Income Support is Not Enough and the Food Is Quite Expensive.

Though several participants suggested that buying food would be the ideal way for them and community members to get food for their families, it was discussed that this is not often a possibility for several reasons. Income support was continually expressed as a barrier to food security by participants. Though it provided assistance to unemployed individuals, it consistently was described as not enough to cover living expenses with enough left over to be able to purchase enough food to meet the nutrition needs of individuals and families.

> And my dad was on income support monthly, and I would get my child tax benefits. So that was helping a little… but growing up with food insecurity was tough for me. – R.M.

> I think that a lot of them are trying to make their, whatever income they are receiving be it through…be it a paycheck, or income assistance, they're going to make it last as long as possible….But a lot of people have it gone within a week or two. – K.I.

Another barrier to purchasing food was the high cost of certain items; though some foods were similar to market prices in other regions of Canada, other types of foods – including some healthy foods – were more expensive, making their inclusion in the diet cost-prohibitive.

> Like the food is quite expensive….like steaks and whatnot, they're - I think they're more expensive here. – N.M.

### Housing, Is or Is Probably Our Biggest Problem.

The lack of adequate housing was a prominent issue in these communities. Lack of housing both directly and indirectly relates to food security through several mechanisms. Primarily, lack of stable housing affects an individual's ability to reliably purchase, prepare, and store food for themselves.

> And there are people that are really desperate to find housing for themselves that are living in really less than ideal circumstances. And they feel sort of powerless. They can't even access rental properties because they don't exist, public housing waitlists, are at least in Iqaluit five years because I know people have been on the waitlist for that long and haven't gotten anything. And that obviously affects people's food security as there is not a place where they can prepare food or store food or… essentially live their lives. – K.I.

Income support payment calculations not factoring in the prohibitively high cost of housing in the north is another mechanism by which lack of adequate housing supply affects food security. Unless they are in public housing, lack of affordable housing on the market outside of the limited public housing supply leaves those on income support very little left over after rent for other living expenses.

> And one of the reasons for that is that the cost of housing is not factored into the equation where it would be in other jurisdictions in the provinces and territories. And while this makes sense for people who do have access to public housing or otherwise, it doesn't make sense for people who have been on a public housing waiting list for potentially maybe up to 10 years. So, we are expecting individuals in those situations who are not housed, who are either couchsurfing or staying in living situations that are not ideal to also live on $650 a month. So one thing that I think needs to change is that, that, I think that we should be having an assistance that is calculated like the other provinces and territories with the assumption that somebody is having to pay for their housing needs. – K.I.

#### Obviously, Mental Health Supports Would Be Really Welcome.

In discussing their experience running community programs, K.I. emphasized the interconnectedness of mental health and addictions with food security, and the importance of targeting these issues in order to improve health outcomes.

> Obviously, mental health supports are… would be really welcome. [For] a lot of people a lot of food insecurity comes from, a lot of the other expenses they have in their life. And a lot of that has to do with addictions. Addictions can be very expensive. And obviously this limits people’s ability to buy food. And so having some kind of support to, to help with addictions. I mean, the root cause of these addictions is primarily mental health. And so to have more targeted supports to that would be appreciated, I'm sure. I know that they're talking about how they have plans for a treatment center here in Iqaluit, but that's years down the road. – K.I.

### *Facilitators*

Several participants told stories of times they experienced food insecurity, and what circumstances led to them no longer experiencing food insecurity. Others described things they observed in their community to contribute to positive changes in food insecurity or supported food security for themselves and community members.

#### Income

Participants talked of how gaining employment and making an adequate income lifted them out of food insecurity.

> Interviewer: And then have there ever been times where you have experienced food insecurity? N.T.: When I was a child, yes, but not since I started working and earning an income. I grew up very poor as well, like I grew up in an iglu until I was about six years old. And there was sometimes where I wouldn't eat for like two days because we had no food. Not now cause like, I work and I make an income and make sure that my family's needs are met.
>
> I grew up with food insecurity. Because I grew up with a single parent. And growing up…as a single parent it must have been tough for my dad…as a single father. It's tough and we're doing okay, now that we're both working. – R.M.

### Education

Education was cited by these participants as a helpful tool for gaining well-paying employment, which in turn helped with ensuring food security.

> Because of how much I had furthered my education it has helped a lot [with food insecurity] – N.T.

N.T. described their desire for more opportunities for youth in their community to receive post-secondary education, but also for community members to seek out these opportunities and understand that they are capable of accomplishing anything if they put their minds to it.

> Interviewer: Are there supports that you would like to see in the community for those struggling to get food for their family? N.T: Yes, like education, and also self-worth. Like, "you are able".

### Resources

Resources – both capital and natural - allow food to be obtained from both aspects of the dual food system. This section refers specifically to capital resources (physical, mental, financial, human, and social resources) one needs in order to be able to obtain food. When present in abundance, resources facilitate access to food. A shortage of any of these resources can have negative impacts on the ability to procure food.

One such resource is Nutrition North Canada subsidies. For participants, NNC helped to reduce prices in some cases. However, for certain types of food and other essential items, participants felt NNC did not provide enough of a subsidy.

> Food here is quite expensive, but like milk and eggs and bread. I think they're both the same price here like our loaf of bread here is $2.89 or dozen eggs is $2 and 80 cents or something and one those big jugs of milk are four bucks. Same prices as down south, but things like steaks and whatnot, they're - I think they're more expensive here. But the milk eggs and that are about the same price here that they are down south. – N.T.

Capital resources that one can tap into include support programs. In times of need, emergency supports such as programs allowed for those struggling to get enough to eat. These formal and informal forms of food support are discussed in theme “programs”.

### Knowledge and Skills.

Food knowledge and skills were described as an important facilitator of food security. Having programs or people who can teach food skills may lead to better understanding of nutrition and consumption of foods with better nutritional value, thereby increasing the acceptability of food – an important component of food security.

However, this was not the only benefit described by participants. Learning food skills was also an indirect means of improving one’s food security by using these skills to gain employment. Participants spoke of the importance of gaining food skills for these reasons, and their own experiences with individuals in their lives using their food skills to become employed when times were tough. This was a resource they were able to tap into when struggling with food insecurity.

> In those days we used to be on income support, when I was a child, but my mother would get any job that she [could]. She became a very good cook so she used to cook when any construction came in or she would cook for the qablunaaq [white] people, though she didn’t read and write English. And she was very good at sewing, so she would sew and make some income. And work on sealskin, make some income that way, but most of her jobs that she had were housecleaning, custodian work, or she’d also work as a cook. – N.T.

The importance of teaching these transferable skills was a theme of discussion. It was recognized that possessing these skills provides individuals another set of skills that may be used to gain employment.

> Right now we do a pre-employment training program. And that's for anybody who is facing barriers to employment, or is underemployed, and is looking to find employment, somewhere in the community or outside the community. With the program we focus on food skills, but it's also just a general life skills and resiliency program training program that helps people get into the wage economy. We have a Kids Cooking club, that happens once a week. That involves getting them comfortable or with working in the kitchen working with food. – K.I.

### *Both*

#### Health.

Health is both a barrier and facilitator to food security, depending on whether one is in good health or bad health. Good health supports activities that promote greater food security; being unable to work because of health issues can lead to difficulties.

Having to stay home when sick can be a barrier to food security through the inability to go to work or go to the store. For those who rely on daily wages – instead of salaries – illness may impact their ability to make an income. Though I.H. was not impacted by lack of income due to illness, this participant spoke of being sick impacting their ability to go to work. Due to lack of services in communities, being sick can also impact one's ability to get food if they are unable to leave the house. A.S. spoke of the impacts of COVID-19 hitting the community affecting people's ability to leave their homes and go to the store. In Nunavut communities where the main suppliers are Northern and Co-Op stores, the infrastructure for online ordering is not there, thus leaving people in a bind if they are too ill or under isolation orders.

> I haven't stopped working at all since covid hit. Other than the two weeks I said I was pretty sick. – I.H.

> When covid hit, it came in with one person who was asymptomatic in the community for 10 days. So it was able to spread very widely in the community before he had symptoms…it had spread by then into all the schools, into the daycares, and then home to

> the family. So we had initially a lot of positive covid tests. So there were a number of families that were locked down who could not leave their household and they didn't have anybody to shop for them. - A.S

Food insecurity can also act as a barrier to health, indirectly linking health to food security through the above connection of ability to work to health. R.M. spoke of the impact of food insecurity in his childhood on his health; specifically pertaining to medications that were labeled "take with food":

> Because if I get sick, and I need to take my medication with food, how else am I going to take my medications when I don't have food at home? So that makes you think a lot especially with your health, [how are] you going to take medications with food?. – R.M.

### Facts About Nutritious Food.

Understanding what is nutritious and what is less nutritious and promoting consumption of healthier foods – especially country food – was a concern for several participants. At least one participant expressed their lack of nutrition knowledge in the past, and their desire for others to learn more in order to be able to make informed choices. Lack of nutrition knowledge can impact food security through decreased consumption of nutritious, quality foods, whereas increased knowledge can be a facilitator for food security.

> I didn't know that until I was old enough to know, the difference between processed food and country [food]. And what they do with processed food. [So] I would like to see more youth programs for certain age groups, and nutrition programs so they'll be able to know those facts about nutritious food. – R.M.

### Logistics.

Logistics can be a barrier or a facilitator to food security through a variety of mechanisms, including impacts on food supply and quality. In Nunavut, ordering food from southern suppliers is a way for many families and programs to stretch their dollar further. However, issues or difficulties with logistics affects the ability of the population to benefit from ordering from the south. This process is made easier by improvements to websites and ordering platforms and improvement in shipping procedures.

> And one of the things that we said was when people [in the south] had started to have to order stuff, have things delivered. we said “welcome to our world”. Here's what we've been trying to say all along, that's why it's important today, [and they] should really improve the stuff, like when we order stuff from down south. When we complained about ordering things from up here because it was difficult. It wasn't a problem down south, so they never bothered trying to improve it. – I.H.

Weather affecting the ability of foods to come in has an impact on supply and food quality; often, when food doesn’t come in due to weather, it is of much poorer quality than what one would normally be able to find in the grocery store.

> We also provide we also do a sealift every year for non- perishables. So usually, we have a lot of food on hand. And we're, it's we're able to access pretty easily. If not, obviously, there's like, issues with weather and shipping. Last week one of our shipments didn't come in, so we had to delay our market distribution, or our healthy food box distribution, so those sort of things? Obviously, messed up the supply a bit but on the on the whole, what we need. – L.O.

> It [food shipment] was stuck in Ottawa at cargo for the weekend and we didn't get it until Monday and, yeah it wasn’t the best, 'cause most of it started going bad. – L.O

## Barriers and Facilitators of Food Sovereignty

### *Barriers to food sovereignty*

Major themes of discussion relating to food sovereignty included the various factors influencing time spent on the land and harvesting activities. Cultural and bureaucratic factors influencing the sale of country food were also discussed. As previously discussed, when asked what their ideal way to get food would be, participants spoke of country food as the ideal, with many having the desire to increase their consumption of country food. Participants spoke of many reasons why increasing their consumption is difficult.

#### “They Don't Got the Skill to Go Out There” – Lack Of Knowledge And Skills.

This theme draws a co-relation between lack of knowledge to the difficulties of achieving food sovereignty. This relates to the impacts of colonization and its role in perpetuating food insecurity. Because ties with the land and family were suppressed as a result of residential schools, many people were never able to learn how to harvest. This continues in the present day as children must go to school, and parents to work, leaving much less time for learning skills required for harvesting.

> And a lot of people never got taught how to hunt they just got told to go to school. They don't got the skill to go out there. It's not possible. – I.H.

### Weather.

As much as good weather can act as a facilitator of harvesting, it can also act as a barrier. Changes in weather, especially quick changes can also limit ability to access the land. One participant spoke of how quickly the snow melted this year – preventing access to some areas on the land earlier than expected.

> It all melted freaking fast. Over the last few weeks, like melted super bad. – B.U.

Weather and conditions at certain times of year limits ability to access land. It is also important that these weather patterns are predictable in order for people to be able to reliably plan ahead for when they may not be able to hunt.

> [We couldn’t go out to the cabin] in November….the ice wasn't completely frozen and it was too cold to boat. – L.O.

Seasonality and weather also limits the harvest of certain foods in the community.

> People like to eat Arctic char and so Arctic char is harder to come by, but I think that's more, a seasonal thing [more] than anything else? I had some boys bring me arctic char through this covid period, but I was so surprised that they managed to find arctic char. So you have to travel to places where you know they might be found … but that would be [the case] regardless of COVID, in this time of year it would be difficult to find Arctic char anyway.
>
> Well, obviously, country, food is sort of a seasonal thing. So there are points in a year where we're not able to procure a lot of country food [from local hunters]. – A.S.

Being unable to access certain foods seasonally is a normal aspect of life – but is harder to plan for with limited time to harvest.

### Work commitments.

Work commitments frequently prevented participants and their families from harvesting. However, those who are not currently working also have difficulties with being able to harvest, as those who have the equipment often don't have the time to devote to harvesting activities, and many of those who have the time often don't have the equipment due to financial constraints.

> Of course it's the people who are working who can afford to have the equipment to be able to go out and harvest….but they don't have the time normally to be able to do that, because there is a wage economy. – A.S.

Participants spoke of work commitments as being one of the main reasons they and their families are not able to go out on the land or harvest as much as they would like to. Being tied to the "wage economy" limited these individuals' free time and workplaces sometimes did not have the flexibility to accommodate seasonal harvesting.

#### Issues of transportation or equipment.

Transportation was another frequently cited barrier to accessing the land and participating in harvesting activities. Lack of or costliness of equipment – such as rifles, bullets, and other materials was another barrier to harvesting. Inadequate equipment and the costs of repairs were another barrier to harvesting.

Lack of a machine to get out on the land, or boat to get out on the water was described as a significant barrier to harvesting. Like other participants, B.U. spoke of their lack of adequate transportation as their own personal barrier to accessing the land for harvesting activities.

> Before, one of the main things that prevented me from going [hunting], was because I didn't have a machine of my own. – B.U.

Broken/inadequate transportation was another barrier to getting out on the land that participants described. Repairs often come with a high price tag or long waiting time for parts to arrive, further complicating one's situation by having to wait for repairs.

> The other one [son] is trying to [go hunting]. [He] has a broken skidoo so, he's been not going, obviously. – I.H.

Lack of other equipment that is needed to harvest or makes harvesting more accessible or easier can be a barrier to harvesting activities. One participant described that prior to having a cabin, seal hunting was less accessible to their family. Lack of cabin limited their access to fertile hunting grounds, as travelling to access these area took a significant amount of time.

> I think, 'cause it was, before we built our cabin I didn't go out as much as [partner name] was. But not, we wouldn't go out weekly, unless we were invited to like our friends cabin, then we would do that. – L.O.

Participants discussed how the high cost of equipment and gas is another barrier to getting out on the land. This means that most often, the people who are able to afford the associated costs with harvesting are employed; however, because of their participation in the wage economy, this simultaneously limits their free time and thus their ability to spend time on the land.

> The only way you're going to get [country food] is by skidoo now and gas, and it is very expensive to go out. – I.H.

### Development.

It was noted in this study that development in the community made animals change their usual habitats, requiring people to go further away from the community to harvest. Since it takes more time to travel to harvesting areas, this can limit the length of time that can be devoted to actual harvesting activities.

> “The new sea port that sticks out, it’s caused, how do you say it… like you need to go further to go out hunting to catch seals, essentially…Even with harp seals, *qairulik*, you could see them like, in the bay, it’s like unheard of now. You need to go so far out to go hunting, especially during the summer.” – L.O.

### Poor Health.

One participant spoke of how their health concerns limited their ability to participate in harvesting activities. This highlights how health can be a barrier to harvesting if it is poor, but a facilitator if one is in good health.

> “I haven't been able to go hunting because of my health. I can't lift really heavy objects. So that's why I haven’t been hunting for a while. Because I’m too worried about my health.” - R.M.

### “Selling Country Food Is Still a Stigma”

Several participants talked about the social climate surrounding the sale of country food and the stigma that is sometimes attached to it. These conversations were primarily in favour of selling country food for a variety of reasons, including the high cost of hunting equipment, supplies, and gas.

I.H. discussed this issue in depth, in the context of a radio show conducted during their community’s lockdown and described this stigma as associated with a cultural rule implemented for the survival of Inuit prior to contact and community life. In the words of I.H., sharing was of the utmost importance at that time, as it was a matter of survival and existence. However, this participant argues for the flexibility of this rule as the circumstances have changed immensely since Inuit were living nomadically. This participant discussed the need for financial support for hunters as hunting is a highly cost-prohibitive activity, and that reducing this stigma and allowing for people to sell their catch to those who can afford to purchase it could increase people’s access to country food, support hunters, and bolster the country food economy.

> “This is how I explained it on the radio station. Long time ago everybody was a Hunter, everybody was a food hunter gatherer person - right down to their children. And so everybody had the skills to hunt, everybody knew how to do this. So if one of us was not catching anything, it would only make sense that you share with me as I needed, once I was back on my feet in one day maybe you're the one who's not getting food, then I share mine with yours. This way we ensure each others existence, and it was all about existence.
>
> To me, the original rule was to ensure everybody survives that should survive… it's not right to die of starvation, that's what the whole point was, and so the only way you are going to assure that is if you put in a rule or a belief or an obligation saying that you have to share. But again, you have to think of the setting. The culture was a complete cultural operation, they were self sufficient. Everything was in place and when it wasn't they had to help each other. Help those in need. And maybe the Hunter got injured. That's maybe all it was. And as soon as he recovers, they’ll be hunting again.

> So let's not forget that,  it's about food security, not…you can't make a rule that can't apply anymore in my view and try to force it into a situation where it just undoes stuff. If you have to make an adjustment, nothing is written in stone. In fact, Inuit people don't have one written thing in their existence, so, really, look at the circumstances, you gotta look at the setting…You need to look at each person.
>
> There's a lot of us now in a large community like this, and we know that Inuit people only lived in very small groups way spread out. That was on purpose so that they would never run out of food. And actually, you're in a situation now where we're forced to live in a large community, and that changes the game. It changes everything. So if you don't make an adjustment to accommodate the situation, we're going to keep accusing each other of doing something wrong. That maybe doesn't even need to exist, like if this is about management, let's get it right. Let's start managing it properly. Let's not waste food, let's make it like easier to spread around, and those people who don't have Skidoos, but they can buy it so they can have something to eat. What's wrong with that?
>
> So let's look at the reality of it, and let's make it work here. Let's be fair.– I.H.

Supporting hunters to provide country food through its sale – and the stigma attached to that - was also discussed by K.I.

> The sale of country food is still a stigma especially among older generations in the territory and it's something that we're conscious of. There's still some backlash against hunters that sell country food…on the whole they're younger hunters. But at the same time, we acknowledge it's in the land claims agreement that all NLCA beneficiaries are permitted to sell country food. And we will really leave it up to individual discretion whether they want to sell or not. – K.I.

Both participants felt that allowing the sale of country food was pertinent especially taken in the current context of high costs of transportation and the time required to hunt. They both took into consideration that though it technically goes against cultural values, allowing for the sale of country food may allow for individuals to support themselves as part-time or full-time hunters, increase access to country food for those who don't have people to share with them, and bolster the country food economy. The importance of self-determination in these issues regarding the food system was discussed in both quotes above; a critical aspect of food sovereignty.

> "With very low work available in the community like this, an add-on question was can we organize it so that we have a traditional outlet where people, doesn't matter who you are, could go get, and buy if you want. And the other thing was that we know in Arviat, where we're situated [is a] humongous geese colony, right? There's so many geese and that they're not in other places, and they really want that. So if we harvested them, packaged them properly and made them available for purchase. Then those people that are providing the geese could get a bit of an income to supplement whatever it is that helps them throughout the year. So really, it's a lot like trapping foxes. We know the market's really low on foxes now…sealskin, don't people won't buy those anymore unless you're… another Inuk is going to buy it from you. …They didn't see a problem with the geese thing." – I.H.

Though this stigmatization was noted as a barrier to country food, several participants noted buying country food from hunters or retailers: emphasizing though there may be stigma, there is still a market for people who may not necessarily have access to country food at that time for a number of reasons.

### Procedural and Bureaucratic Factors

Several procedural and bureaucratic factors impair the ability of the country food economy to become more robust. Federal inspection is required to sell country food commercially – this is a barrier in small communities that don't have access to these kinds of facilities. Additionally, other logistics must be sorted out – like a place to store country food after processing and packing. Small communities do not have access to these types of facilities readily, and thus must go through yet another funding proposal process to access funds to install such facilities in their communities.

> We're working on, building up our country's food distribution capacity. So, by this summer, we should have a freezer and then a space with which to process country food… to cut it and package it. – K.I.

> I mean, we gotta look at other logistics like when, where do we start storing them? We may need to [look into getting] another community freezer that's going to be dedicated to that place of storing food that we may need to go after, but now we can seek funding for that, right? – I.H.

Bureaucratic issues – including lack of regulation – are also a barrier. Much of the country food sale that occurs now is in the form of informal sales through social media and personal connections. This is unregulated, and though the majority of the time it works well, there can be issues with people not getting what they purchased or getting a different quality than what was promised.

> I think there's people getting ripped off, and maybe not getting the quality that they thought they were getting. It's uncontrolled. They're at the mercy of the seller. The poor people that are purchasing it are at absolute mercy. Nope, no way of protecting that person from the person they're buying it from. – I.H.

Because of the lack of formal regulation of informal country food sales, there are concerns regarding herd health. Some of the stigma surrounding country food sales comes from concerns of over-hunting for profit. I.H. spoke of his view on the need to transform this market in order to preserve herd health for future generations.

> I think that there's ways to do things. I always say from a human being approach. That you don't need to compromise being a human being to do whatever it is we're trying to do. If we think we have to, that's false. We're just not wanting to take the time to manage it properly and if we don't manage things properly, then you're going to create a difficult future for people in the future. – I.H.

### ***Facilitators to Food Sovereignty***

#### **Weather.**

As much as bad weather is a barrier of harvesting, weather can also be a facilitator. Harvesting is dependent on the weather conditions, as good weather allows people to access the land safely. For those who work, weather can impact harvesting significantly as good weather and time off work must coincide.

> When the weather permits, they're [sons] hunting. – I.H.

> We know to travel on the land and to harvest the caribou. If I recall the weather was not too bad, and the Caribou were reasonably close at hand. – A.S.

#### Flexible Work Environment.

As good weather is a facilitator of harvesting, a flexible work environment enables food sovereignty as it allows employees to access the land when the weather permits. This increases the frequency that time off work and good weather coincides, facilitating harvesting activities.

> Yeah, it's great because we have actually cell phone reception at our cabin…we both have a flexible work atmosphere, so if we're not too busy at work, we're able to go to our cabin and either work from there or take time off. – L.O.

#### Income and Transportation.

Transportation – in the form of snowmobile, all-terrain vehicle, or boat, can be very expensive to obtain and maintain. Sufficient income allows individuals to access the supplies and tools required for travelling on the land and harvesting.

> And when did we buy our boat…we bought our boat in 2019… we would do a lot of boating trips. – L.O.

Having family members with transportation also supports food sovereignty as it allows for sharing to occur within the family unit; alternatively, relatives may travel together to assist with harvesting activities.

> Community members who have equipment and transportation, they would share traditional food with family. I guess it depends, like if they have transportation. - R.M.

> When we couldn't go out, our relatives would help us out. Or we would hop on and help them if they needed extra hands when they were out hunting. – R.M.

#### Knowledge.

Sufficient knowledge of harvesting related practices is incredibly important for achieving food sovereignty for a community. This involves community members having a deep, holistic understanding of these practices, including but not exclusive to: knowledge required to safely navigate the land; knowledge required to adapt to the circumstances; knowledge required for hunting/fishing/sewing clothing to be on the land; and possessing an understanding how to read and manage weather changes.

I.H. touched on the vast array of knowledge that needs to be held by individuals in order to safely navigate the land and harvest. The undertone of his message in the following text is of the importance and depth of Inuit knowledge and the need for this knowledge in order to be able to harvest safely. It also acknowledges the holistic nature of this knowledge that extends beyond skills to one's mindset and attitude.

> Inuit, as Hunter gatherer group, there's a few things that you need to do very deliberately. And it has a lot to do with the way your… our attitude is. And to be grateful, respectful of the weather. We have to have good work ethic approach, that you have to be positive, be willing to work, share the workload, have good observation skills.
>
> You're no longer just walking around in the community. You're now in an area where there's actually quite dangerous animals that can go after you, you need to stay on top of things. You need to respect that. Listen to the person in charge, and mostly have a good attitude. Be respectful. It's not enough to just say "please be observant"… one of the first things that you gotta constantly study is the weather. Which way is the wind going? Where's the sun at? How the clouds look, and, certain things you could if recognize the weather's about to go bad.
>
> And most of all, you gotta dress well, right? I mean, you can't have things that are too tight on your feet. Otherwise you're just going to cut the circulation of your blood going through your feet and that's going to work against you. And if your clothing at the upper part of your body and your torso, that's too loose, that's going to work against you. And frostbite is a serious possibility so, there's ways to actually address the frostbite, you actually take snow and put it on where you're frostbit. And it'll stop it from swelling up. And that in itself makes the blood circulation work again. – I.H.

Having the knowledge to navigate the land allows for people to safely and successfully harvest, enabling them to give back their catch to the community. Similarly, this contributes to food sovereignty as it increases the chances of harvest.

> If we go to camp and <partner> is able to go boating a couple of hours during the day if the tides are good, then it's more than likely he will catch a seal. And sometimes he'll catch more than one. We definitely share our catch, especially with some elders around the community. - L.O.

> I'm just replicating what my father taught me, that's the way he had it set up so, I'm set up that way. He's no longer with us, but it's still the same thing, the program that he initiated. I'm passing that on to my sons and…we were ready to handle any kind of situation we come across. – I.H.

Having the knowledge of how to prepare foods and how to prepare them ahead of time for storage contributes to food sovereignty as it allows for country food to be utilized to its fullest extent. Knowing how to prepare foods for long term storage also aids in retaining the nutritional value of the food.

> So we never ever run out of country food. We keep a winter supply that we also give away to people who may need country food. or when my son or my son in laws give us country food. My husband and I prepare then all so that they're put into meal sized portions when they're caught. – N.T.

> In springtime, we would go out to our cabin, and have traditional food out at the cabin, summertime we would dry out caribou meat and save it for fall. So we would have dried caribou meat, we were mostly eating caribou meat. – R.M.

Programs that teach this knowledge to those who may not have knowledgeable people in their lives otherwise are important for revitalizing and carrying on this cultural knowledge. Due to suppressed and broken knowledge transmission pathways resulting from colonization and residential schools, not everyone has the opportunity to learn harvesting, toolmaking, or sewing skills from family members.

> <Participant's partner> teaches hunting skills, or [other skills] like how to make qamutiit or on-the-land programs. So I think those are very, very beneficial so that people are able to have those skills and be able to become self reliant, especially if they don't have a father figure or uncles that are able to teach them these skills. And so I think his job is

> pretty important in that aspect, for people who are reconnecting with their culture, who didn’t grow up being able to go hunting or fishing. – L.O.

### Country Food (Subsistence) Economy.

What is referred to here as the “country food economy” is composed of factors relating to the sale or sharing of country food between community members within the same community or across the territory. A thriving country food economy contributes to overall food sovereignty as it increases the availability of country food in a community. The economy is composed of the network of harvesters, community members and organizations that are able to financially support harvesters through the purchase of harvest or gifting supplies to harvesters, community facilities that support the processing. The ability to package and store country food, and access to organizations and entities that can financially contribute to the installation of infrastructure that support this such as processing facilities are part of the set of factors involved in a robust country food economy. Non-monetary means such as in-kind support also helps to facilitate harvesting.

#### *Network of Hunters.*

A thriving country food economy requires hunters that are able and willing to share or sell food. A robust network of hunters contributes to community and household food sovereignty. K.I. noted the importance of this network of hunters, and is working to formalize a network and make it easier for them to sell their harvest in order to boost food sovereignty.

> We're working with the people who are responsible for the hunters, harvest website… building up like a network of hunters and material for them to sell their product.

Having a network of hunters that one can contact contributes to food sovereignty as it allows for individuals to support the local harvesting economy instead of the market economy. It also allows households to access preferred foods – such as country food - from other communities when community supply is low or the household is unable to harvest these foods.

> Interviewer: …On Baffin now you can't even really get caribou that much. I.H.: Yeah, yeah. They need it. We have it. So we could make it [country food sales] work properly right now.

The sharing economy within the country food economy contributes to household food sovereignty. Participants noted having family that is able to harvest for them as a boost to their household country food supply.

#### ***Buying/Selling of Country Food***

Buying country food helps to support the country food economy as it allows hunters to recoup costs related to harvesting. As noted in the barriers discussed above, costs are a barrier to food sovereignty. Supporting hunters by buying country food removes this barrier to local harvest, which in turn facilitates food sovereignty. As noted above, the sale of country food can be controversial, thus a community that allows the sale of country food – and community members willing to buy it - is also required. Participants mentioned being supportive of buying country food as it allowed them to supplement their own diets when they were unable to access it by other means.

> If we are running out country food, we're able to ask family if they have anything extra and we always replace it or we order from people we know from Rankin or Arviat. - L.O.

#### ***Country Food Processing/Distribution Capacity.***

Having the ability to process country food for sale and distribute it contributes to food sovereignty by bolstering the country food economy.

> So by this summer, we should have a freezer and then a space with which to process country food… to cut it and package it. – K.I.

Incorporating country food into programs by purchasing food from hunters also helps to support the country food/subsistence economy.

> We are working as I mentioned before, we're trying to build up our capacity to distribute country food. And we're doing that we're doing that through purchases from hunters, and then distributing it through our food bank partners as well as our healthy food box program. – K.I.

#### ***Funding To Support Country Food Distribution.***

Accessible funding for processing/packing facilities supports the country food economy by enabling communities to further develop their local country food economy. I.H. spoke of their community's desire for a processing and packaging facility and storage facilities by which they could prepare and store country food for sale. The desired facility would be federally inspected so that country food – specifically geese - could be sold on a wider scale. Funding would enable them to do this.

> So we could write up a [funding] proposal as Aqqiumavvik society and try to get this setup. Find out what it takes to do that and give it a shot, and then they're like, OK, cool, let's do that. There is the company in Winnipeg MB that designs portable, health inspected approved. Like an ATCO trailer-sized thing. It's like Seacan and you can move that Seacan to location. And so we could move it ahead of time in the winter time. And because it's once it's there, it's pretty much going to stay there because that's where the geese are, and just operate it that way. I.H.

### Resources.

Living nearby natural harvesting resources and having the ability to access them promotes food sovereignty. Participants spoke of how having animals close at hand makes it easier for them to harvest, and thus increases their consumption of country food.

> My dad goes out hunting with his brother in law. Like there's caribou close to town. So yeah he caught a few of them and he gave away a few to his brother in law. So we had more than enough caribou meat at home. I've been eating caribou meat for quite a while. – R.M.

This is related to the theme discussing issues of transportation or equipment, where issues of equipment can limit access as the animals are too far away to reach on a regular basis.

Proper management of natural resources is also important. I.H. spoke of the importance of "a combination of wildlife and people management" to ensure long-term viability of the animal population and harvest, especially when these animals are being harvested for sale.

> It can't be just about now, you gotta think about the long haul and the viability. It will constantly have a research aspect to it to monitor. Maybe one day we'll say, realistically we can only sell 2000 caribou a year from this part, we're monitoring it so when we get to

> that 2000 we stop. Yeah, well, it's a combination of wildlife and people management, right? – I.H.

## Colonization, Food Security, and Food Sovereignty

Food security and food sovereignty is heavily influenced by the ongoing impacts of colonization; participants spoke of these impacts.

### *"Traditional Food"*

Participants spoke of how continued harvesting and passing down of knowledge is a key component of revitalizing and sustaining Inuit culture. As described in theme "country food", the preferred foods for most participants was country food. However, some do not have as much access to country food due to broken knowledge transmission pathways as evidenced by the discussion below on the importance of knowledge for harvesting, and less time due the need to participate in the wage economy to make a living. I.H. spoke of the importance of traditional knowledge and passing down this knowledge in the context of their family's harvesting activities.

> So, we're now getting to past winter. We're going to start getting into springtime so our thinking is going to go towards the traditional food harvest. Get ready for spring time kind of thing and we try to stay ahead of it, have everything planned out. And we're constantly repairing our transportation, Skidoos or boats or ATV's to be able to access traditional food. I'm just replicating what my father taught me. – I.H.

### *Food Sovereignty and Decolonization: "Recover from The Impact of Colonization"*

Participants spoke of how being free from the wage economy allows people to hunt more prolifically. Finding ways to combine harvesting with the wage economy was a suggested path that could allow people to live in more traditional ways, harvesting for a living while still being able to support themselves in the ways that community life demands. I.H. suggested that the sale of country food can support ways of living that reconnect people with the land and culture, allowing communities, families, and individuals to recover from the impacts that colonization has had on their ways of life.

> I think that for some that want to just hunt for a living, could actually do that. And the culture itself would start to revive. You see what I'm saying? You're still being respectful of the culture. And if we want to help find a way to still be respectful to the culture and, enhance that 'cause that's how you recover from colonization, right? – I.H.

School was also cited as a reason many did not learn harvesting skills, as schooling in Nunavut still mostly follows a colonial template. Though culture days are integrated, participants spoke of how there is not the dedicated, long-term teaching of skills required to be a good harvester at school, and that this instead is taught outside of school either with family members or through extracurriculars. Though skills are becoming more integrated, previous generations are left without the knowledge of how to harvest/sew clothing/navigate the land.

> And a lot of people never got taught how to hunt - they just got told to go to school. – I.H.

Besides impacts on lifestyles, the ongoing legacy of colonialism is evident in decision-making regarding the food system. Determination of the food system is still not fully in the hands of Inuit. Though changes to food subsidy models have been made to support harvesting activities and the food preferences of Nunavummiut, there are still challenges to Inuit achieving food sovereignty. The Federal government has final say over all decisions regarding the food system. Nutrition north is the main federal funding source that subsidizes some country food through shipping costs. Though Inuit input is given through the program's advisory panel, it is questionable to what level that input is put into practice. K.I spoke of how nutrition north could be better positioned to support food sovereignty:

> One of the really obvious cost savings is like, nutrition north, you can definitely cut a chunk off of that budget and adapt it to a hunter who's actually probably able to provide more food that's more culturally appropriate and more nutritional than what you would get from just shipping something, especially when I get up to the high arctic, like Resolute and Grise Fiord. – K.I.

### COVID-19 Impacts

COVID-19 lockdowns had a wide variety of impacts on the communities and participants involved in this study. The effects of the pandemic and associated changes, funding influx, and other measures resulted in negative, positive, and neutral changes in communities and to community programs and activities.

### *Activities Permitted During Lockdown or COVID-19 Outbreaks*

Though the vast majority of programs were canceled due to lockdowns, some were able to continue. As long as there were no active COVID-19 cases in the community, outdoor community programs were permitted to occur by nature of their low risk to spread the virus should it enter the community.

> [On the land programs] definitely had to adapt to COVID. But they made it work, I think especially because...they're able to be outside for majority of the program. – L.O.

During outbreaks where communities were shut down due to active cases, some of the only activities possible were harvesting.

> Yeah, so as long as you don't have active covid in your household, then you're not allowed to leave your house, but as long as you don't have active covid in your household, you can go out hunting. – A.S.

### *Community Adaptations*

#### **Community Program Adaptations.**

As indoor in-person programs were not possible during lockdowns, and no in-person programs were allowed at all during COVID-19 community outbreaks, adaptations were needed if programs were to continue operating in some capacity. Food and on-the-land program facilitators came up with creative ways of adapting programs so that they could continue to serve the community.

> So what we've been able to do because the taxis were taken off the road during lockdown. We were able to hire the taxis to deliver the meals to people’s porches in a contactless way. And we know the taxis are sanitized. – A.S.

> The [Covid outbreak] is still ongoing, so once a week we prepare a hot meal and deliver it to 50 people who are either elders that we work with in our programs, or [those in the] Men’s healing group that we work with and [that] generally would come into a meeting

> at where they would be fed. So we're continuing to offer food to that group as well. And will keep doing that until the lockdown is lifted in Arviat.- A.S.

On the land programs were able to run more frequently during lockdowns – as long as there were no active COVID-19 cases in the community - due to closures giving participants more time to attend programming.

> There was more activity with the Young Hunters program. Because the school had closed down so these kids weren't in school all day so we could run young hunters programs all day, not just afterschool and so we actually increased last year the Young Hunters program. And so we were running more sessions and longer sessions, and we did more harvesting trips. And that carried on through the summer. We were very active with those programs, [and] very actively harvesting. You know, the geese came and the eggs came and the fish came and we just sort of went through it all. – A.S.

However, some programs, such as skills training programs, could not continue during lockdown periods.

> Almost all of our programs were in person programs before. We weren't in the habit of providing takeout meals, and that all changed with COVID. And also, we had to basically curtail all of our training programs or food skills programming when the pandemic began, and we focused exclusively on food access programs, so the meals on takeout basis, and also supporting food banks in their distributions, as well as the food box program, which was also was, which was to pick up or delivery basis. – K.I.

#### Community Activity Adaptations.

Community activities related to food security and food sovereignty also had to adapt to the changes due to lockdowns. With COVID cases in the community, more hunting was occurring within household groups; this is related to and is further discussed in “Flexible And/Or Reduced Working Hours”.

Grocery shopping also had to adapt in households, as people decided to send out one designated person instead of shopping in groups. Though delivery was available, it was not accessible for many people, either due to the speed of the service or the lack of the credit card in the household. Others, when isolating, were able to get by on the support of other family members who were able to shop for them.

> At the beginning when we first started, the stores were trying to say they could deliver. It was pretty slow though, I don't know maybe some who have patience were able to use it, but what we have been doing is sending one person. – I.H.

> My daughter and my daughters and my son in laws, they would shop for us and put them outside. And we never even stepped on the ground until we were told that we can stop isolate, [and that] we were recovered. – N.T.

### *Sources Of Food Support During COVID And Mitigation Of Impacts*

The potential for COVID-19 pandemic community lockdowns to significantly negatively impact community members' ability to get food for themselves and/or their families was a key focus in Nunavut. Mitigation activities took place at all levels, from territory-wide funding programs to community members checking in on each other and dropping food off on porches. Programs to mitigate the impacts of lockdowns on food security were initiated at the territorial and community levels. With the federal funds made available, Inuit organizations distributed funds that directly enabled people to buy food for their households and supplies to get out on the land.

#### On-The-Land Funding.

Participants overwhelmingly spoke of the positive impacts the on-the-land supports had on their households and communities, as they enabled people to access country food and the land more easily. People who did not necessarily have the means to get out on the land before the COVID-19 pandemic were able to use these funds to purchase equipment for harvesting.

> …at the same time, many other families that normally would not be able to hunt that regularly because economically they don't have the wherewithal, just got a big boost of money from KIA. So now they've been able to equip themselves, buy gas, and so they're more likely able to also go hunting and provide the country food for their families so it's like we're seeing a benefit on all fronts. – A.S.

> So, yeah, [the money] was for hunting, kind of thing and yeah one was for food and, one of the, one of the amounts I got a rifle and hunting gear and I was able to...have been able to use that rifle, since.

L.O. spoke of how these funds enabled their family to build a cabin, giving them greater access to harvesting grounds as they were able to stay in the area for longer periods of time instead of only being able to take day trips.

> It was a $1500 grant [that we received]. And the grant would encourage families or hunters to go out camping for an extended period of time. We used that money and started our cabin building. We had always talked about building a cabin, but as soon as the pandemic hit <participant's partner> was like, okay, I need to start building just in case something happens, and we need to go and be safe on the land. But that was our thinking to be able to go to our cabin and then go hunting from our cabin instead…'cause it can take a long time [to get to where you need to go], especially with weather. But just outside of our cabin there's good hunting, hunting spots for seals. – L.O.

### Food Basket/Voucher Programs.

Food vouchers and hampers were also provided to families in communities affected by COVID-19 lockdowns. These supports were initiated to reduce the negative impacts that workplace shutdowns and mandatory isolation may have on the ability of people to feed their families. Food hamper distribution was initiated by the hamlet in Arviat and Nunavut Tunngavik Incorporated. In Iqaluit, Nunavut Tunngavik alone provided isolation baskets to families. Participants described these hampers as a welcome boost to food security during these periods.

> Now that I'm thinking about it, I realized that Kivalliq Inuit Association has also helped us with food vouchers. So I also forgot to mention that food vouchers, they also helped a lot because each household around the Kivalliq region got food vouchers. – R.M.

> On top of that, Of course, the federal government had kicked in all kinds of money and so the hamlet was distributing food to families. And that didn't start until after the summer, but they began this program of making food more readily available. – A.S.

### CERB.

The introduction of CERB was noted to have an impact on community members. One program facilitator noted that the introduction of CERB directly coincided with significant reductions in the number of people coming to food programs.

> So the meal service definitely, there was a huge change we noticed.
>
> For the first couple of weeks, in late March, we had, I would say equivalent numbers, if not higher numbers than what we normally had. So we had a kind of a rush of services, and that all changed in early April… the only correlation I can make with that is… [it was] about a week after CERB was launched. And then it was essentially five business days that it took to process payment requests to be deposited into bank accounts. A week after that, we noticed that there was a very steep decline…saw a drop in about two thirds, three quarters of demand. And it was it was stark, and it lasted, essentially until the fall, the numbers were a third…less than half of what we normally see. And I feel that that was attributable to the increased purchasing power that people had through CERB payments. – K.I.

### “We’re Just Trying Our Best To Help People Who Are In Need Of Food”.

During covid outbreaks community members offered to shop for others and drop food off on porches. Instead of sharing a meal of country food or visiting to share food, community members also dropped food off on porches of those they would normally share food with.

> And since more people were out hunting they were sharing their food even though we were in lockdown. And they were like following the restrictions… they were following the safety protocols and they dropped off the traditional food without contact, so that was really helpful. – R.M.
>
> We will drop off things for others to eat. We’re always kind of doing that anyway, dropping off. When the family gathering eats, there's a lot of left - of course, there's probably leftovers, and we’ll do what my father always said, “make sure that who needs to eat are getting food” and so my wife would still drop them off at their doorstep and…We're dropping food off that way. – I.H.

During lockdowns, community members also checked in on those who they knew might be struggling to get food. Some families do not have access to credit cards which made ordering food to their homes difficult as they could not use contactless payment options. However, this was also dependent on families identifying themselves as needing help. Despite these challenges, community members did their best they could to provide assistance to those needing help, including grocery shopping for those who did not have the ability to pay with a credit card.

> The problem was you're not allowed to know who those [COVID-19 positive] families are. So unless they reached out individually, you couldn't really help. But when we did know families like that, we tried to drop off food in their porches. The stores provided home delivery so you could phone in an order and as long as you had a credit card to prepay your order then they would deliver your order to you. Many people who didn't have credit cards were running into problems, and those are the people that you try to you try to listen on Facebook to see who is in need, but there were a lot of people who openly said, “we've tested positive for covid, don't come near us.” And were very open about that, but other people were very reticent. They were afraid they would be blamed or shamed or whatever. So it so there was this difficulty in finding out who was in need and which families were okay. – A.S.

### ***Changes In Supports/Resources/Barriers To Food Programs***

Though a wide array of funding programs were initiated during COVID lockdowns to mitigate their impacts on food security and sovereignty, COVID-19 did have impacts on the operation of food programs in the territory. Lockdowns created barriers to the operation of certain programs, thereby reducing the community’s access to these programs or preventing access altogether.

A.S.. spoke of how restrictions limited the number of people that could be served by the Meals on Wheels program. Though there was interest from a large number of community members, only 50 meal deliveries could be accommodated due to limits on where the food could be prepared, and alternate locations being closed due to the lockdown.

> We could increase the number of people who are doing Meals on Wheels too, although they have...We have to cook the meals in a household that has been covid-free. I.e. mine.

> And to prepare 50 hot meals. And for one house- for one kitchen, that's about it, like the school kitchens are all closed. If we could access the school kitchen, we could do much more, but because of covid we're not allowed to go – A.S.

K.I. spoke of the impacts of public health restrictions on their organization's ability to provide in-person food programming.

> We had to basically curtail all of our training programs or food skills programming when the pandemic began, and we focused exclusively on food access programs, so the meals on takeout basis, and also supporting food banks in their distributions, as well as the food box program, which was also was, which was to pick up or delivery basis. And we've tried to bring back the in person programs over the past year, we started up with them back in September, but then had to quickly stop them again in late November, because of the lockdown. – K.I.

School breakfast programs were also impacted by COVID-19 shutdowns, preventing the programs from running and providing meals to children.

> They're [taxi companies] only doing our delivery so that's worked for us, but things like the breakfast programs within the school, those things just stopped.

Attention was paid to mitigate the impacts of COVID on community food programs. A.S. described their experience with seeking funding to shift to other services that would help their organization to continue to feed people. Funds were made easy to get to provide or shift programming to still be able to operate.

> When our cooking program had to shut down because we couldn't meet, we applied to the Department of Family Services to redirect those funds to be used with the Meals on Wheels Program and they they were very open to accommodating that. – A.S.

> …there's definitely been money available, as there's also been lots of Call for proposals like with breakfast clubs of Canada and various other groups who had new covid funds available. -A.S.

### *"People With Jobs Were Now Staying At Home Because Of COVID"*

COVID-19 lockdowns resulted in workers staying at home, except for those responsible for essential services required to keep the community running. As a result of the poor internet in Nunavut, many people were not able to carry out their full work duties, if any of their regular work, at home.

With the vast majority of regularly employed people at home due to lockdowns, time was able to be dedicated to reaching consensus on community issues in one community. Discussions around food sales were able to occur in this community, allowing the community to come to an understanding on the long-debated subject.

> What we were able to do was get… more focus on the radio show. We are allowed to have one to three o'clock every Monday afternoon. And what we did was use that to get community input, communicate and tell everybody what want to do on the subject matters that we're doing and we were able to ask questions that are…that I think the community needs to ask itself. Especially when there's a lot of people with different opinions and ruling on some of the situations that are important in the community, so we're able to look at creating a radio call in show for people. – I.H.

### *More People Out On The Land/More Time For Hunting And Harvesting*

All participants expressed that due to the shutdown or lockdown situations in their communities, they or their relatives were able to get out on the land and engage in hunting and harvesting activities. This increase was due to several factors, listed below as subthemes.

#### **Encouragement.**

Hunting was encouraged by community leaders and Inuit organizations as it was one of the safest activities possible during covid outbreaks. Many of the funding programs initially introduced in March 2020 for on-the-land activities were to encourage people to self-isolate on the land.

> Well, one of the things that we were told right from the beginning is that when you go out hunting, there's only you and the land. So it would be pretty hard to get covid from that, so they didn't stop us from hunting. – A.S.

### Flexible And/Or Reduced Working Hours.

Lockdowns, for many people, resulted in increased flexibility in working hours, or in some cases, reduced working hours. In turn, this allowed people to go out on the land more frequently. This theme is directly related to the theme “work commitments”, where work commitments were recognized as a barrier to harvesting/food sovereignty.

> [My son] actually prefers hunting than working, so now that he's not supposed to be at work, he's definitely out hunting. – I.H.

> When we were in lockdown people with jobs were now staying at home because of COVID. They have more time to go out hunting and so that was pretty good for them. And since more people were out hunting they were sharing their food even though we were in lockdown. – R.M.

This increased free time coincided with the introduction of on-the-land funding programs. These two factors combined greatly increased the time able to be spent on the land due to the subsidization of associated costs. For those without equipment, the funding programs facilitated their acquisition, increasing the number of people able to harvest.

> All of Nunavut had a bit of a shutdown and so people were taking advantage of that. We know to travel on the land and to harvest the caribou. If I recall the weather was not too bad, and the Caribou were reasonably close at hand. I know my son in law was going out regularly, so in fact that was like a boost to food security for a lot of people because they had increased access to country food. – A.S.

In addition to increases in their own abilities and their relatives’ abilities to go out on the land, participants also noted an increase in traffic on the land around their communities during lockdown periods. This was attributed to the increased time at home allowing community members to get out on the land when the weather permitted.

> You should have seen a couple weeks ago when this recent lockdown first started, so many, like, a lot of people were out, out and about, on skidoos, lots of people. It's pretty cool to see, seeing that the lockdown has encouraged people to go out. And I've seen it. – B.U.

Many participants felt that the increase in harvesting due to these factors had resulted in a net increase in the country food available in their communities.

> And in some situations we were actually hunting even more, because we're not supposed to be at work. So in a way, we have more traditional food even, and are sharing it a lot. – A.S.

**More Time at Home for Children.**

More time at home had other benefits to working towards food sovereignty, in addition to increases in country foods in the community. During lockdown periods, participants noted there were also more people hunting with their children as households were not allowed to mix. If COVID-19 was not actively in the community, on-the-land programs could run, including those that teach children harvesting skills, like the Young Hunters Program in Arviat. With schools not in session, this meant that such programs could run throughout the day, not just in the late afternoons or weekends. These factors in combination meant that children were spending more time on the land.

> So as long as you don't have active covid in your household, then you're not allowed to leave your house, but as long as you don't have active covid in your household, you can go out hunting.
>
> Of course, you can't go out with anybody outside your household…because you could only go in your household. It's more likely that if people would go hunting with a hunting partner with, or a small group of guys would go out hunting, but because you can only go with people in your own household now, many of the youth within the family are going hunting with their dads, so that that's another positive that's coming out of this. Of course, they're out of school, so they're available and your regular hunting partner cannot go with you, so you take your son or, your children or whatever. – A.S.

More children spending time on the land is also related to hunting being one of the only permitted activities during COVID-19 lockdowns.

### *Social Aspect of Food*

The social aspects and benefits of food, described by participants as very important to Inuit culture, were also impacted by COVID-19 public health measures. Sharing is often done in these social settings.

> And that's what we do normally on a very regular basis. And every other family probably is very similar, it's very social. Te difficulty with Covid is that for a social society, it's really that socializing feature in us really works against us. That's the difficulty [of] trying to stay separated, [it] is so opposite of what we promote, we promote togetherness all the time, like…socializing we promote. It's heavily promoted in Inuit culture. – I.H.

> So, another, another part that is affected [is] not only in obtaining the food it's how you consume it, how you're consuming it has been affected greatly. that's a more negative effect [of] COVID that comes to mind. – B.U.

### *Covid Mitigation*

Mitigating the spread of the virus was made difficult by issues with housing in the community. The stories told by two participants of their experiences with COVID-19 in their communities highlighted the impacts of housing on health.

> I don't think they can solve that problem [viruses spreading in the community] until they have more houses so that it's not so crowded. There are so many houses that have anywhere from 6 to 12 to 13 or more in the house. In two to three bedroom houses. Unless you were going to put them somewhere for awhile, once one person got it pretty much just goes to the next person to the next person. So it's going to take awhile to recover from that cause the problem exists because of poor housing not really for any other reason than that. – I.H.

> When it first started, the Chief Medical Officer of Health went on TV and he said, if you have someone in your household with Covid, they need to isolate in their own bedroom if they come out of their meals, should be delivered to their bedroom. If they come out of their bedroom, they need to be wearing a mask. They should use only one bathroom and nobody else should use that bathroom. How is somebody going to get their own bedroom when there's five people in a bed? Like ridiculous. And so we said okay, so if in a large

> household where many people might be put at risk, where there might be elders in that household or people with underlying chronic diseases in that household who might be put at risk. Is there some way? Of moving those people out to our now empty hotels are many empty apartments, government owned apartments, to protect them. – A.S.

Housing is indirectly related to food security with health as an intermediary. Housing impacts health as noted above; health in turn impacts food security and food sovereignty, this is discussed further in the previous section on the interconnectedness of health, food security, and food sovereignty.

### *Small Impact on Food Availability in Stores*

In Iqaluit, participants expressed they noticed no changes in the amounts or types of food available in stores since the beginning of the pandemic. In Arviat, it was noted that there was speculation of some effect of the surge in cases in Manitoba, where food shipments come from for this community, on the availability of foods in the stores. A noticeable difference was described in the amount of food available in the stores around November, prior to Arviat's first cases and around the time COVID-19 cases were increasing rapidly in Manitoba. However, Iqaluit and Arviat participants noted that there were no observable impacts on shipments or types of food available in stores in their communities as a result of outbreaks in their communities. Issues with procurement were attributed to case increases in southern shipment hubs.

## Recommendations

Participants expressed several desired changes to their food system and made recommendations toward how they see their community achieving food security and/or food sovereignty.

### *Greater Support/Strengthening of Country Food Economy*

#### Exploring Alternative Funding Models to Provide Support to Harvesters.

One program leader spoke of how their organization is exploring alterative funding models to support hunters, specifically social finance. The end goal for this organization is to be able to treat harvesting like a job and hire salaried hunters to harvest country food for the organization's food programs. However, finding the funding for such an endeavour has been difficult, because it hasn’t been done previously. This has led this organization to search for alternatives to the traditional proposal-based funding model.

The following quote from K.I. represents a unique approach to supporting food sovereignty that may be replicated across the territory.

> What we're exploring is the potential for social finance, basically bringing in private equity, to fund hunter salaries. So the idea is that a, a typical approach to addressing some sort of social problem would be either for government to address it themselves, or for charitable organizations - or social impact organizations - to receive public funding to deal with it. But [for] a registered charity, like ourselves, the idea behind social finance is that, with that typical model, there's a risk, and the risk of the intervention not really working. And the risk is basically borne by the government.
>
> So we've always been wondering about how do we take an idea like the salarization of hunting, which makes sense, and it's actually been demonstrated as essentially paying for itself through pilot studies, but how do we go from there, actually being able to fund it and actually being able to expand it on the wide scale? And that's what the question is…where does this money come from, are governments able to do this up front? In most cases, not. But there's another way that you can actually just get all this money floating around in the private sector to cover those up front costs.- K.I.

This participant suggested that finding a way for communities to hire and pay hunters as a full-time job could reduce food insecurity by ushering in greater food sovereignty and increasing the country food supply available. The salarization of hunting, as they described, would allow for communities to procure and manage a municipal country food supply. As this is a relatively unique and new concept, the participant expressed that finding a way to fund this was – to date – relatively challenging, and exploring alternative funding pathways to achieve this, such as social finance, could allow for a pilot program to occur.

#### Changes to Support Harvesters and Increase Access to Country Food.

Related to the theme “country food” in which participants expressed deep desire to consume more country foods, increasing access to country food was important to participants.

Several changes to current systems were suggested in order to facilitate greater procurement of country food, and thereby increase food sovereignty in communities.

One suggestion involved making changes to the funding structure of nutrition north to provide a larger amount of funding for harvesters and harvesting related activities. It was suggested that these changes should include continued support for hunters as they are able to provide food that is culturally appropriate and of greater nutritional value than many of the foods that are currently subsidized.

> So that's one thing that we're exploring. One of the really obvious cost savings is [with] nutrition north you can definitely cut a chunk off of that budget and adapt it to a hunter who's probably able to provide more food that's more culturally appropriate and more like more nutritional – K.I.

Another suggestion was to improve access to country food more easily year-round by connecting with other communities to create a network of hunters from whom individuals, households, and others can order country food. This would allow for people to access animals from communities that have them available when they are out of season in one's home community.

> So there are points in a year where we're not able to procure a lot of country food. That might change though, because up until last fall, we were mostly dependent on local hunters. And so that was that we were entirely dependent on what the hunting seasons are here in the area around Iqaluit. But now we're starting to procure country food from our hunters in other communities. And so we have a lot more…There should be a lot better supply because the hunting seasons are different than the community. – K.I.

Participants also recognized a need for a robust country food economy and supporting this economy through the purchase of country food. The following quote highlights one participant's desire for cheaper, more accessible country food via greater demand increasing sales.

> If there was more demand for it, people would probably be able to sell seal. I don't actually know how it runs but maybe if there was more demand, they could provide more

> variety of food. Is it limited because of low demand right now, I don't know, but that's my guess. – B.U.

Providing incentives for the sale of regionally procured country food, thus increasing the demand for the product by lowering costs, is a potential solution to this issue.

### Less Stigmatization and Formalized Management of Country Food Sales.

A suggested method of increasing sales was to increase the people willing to purchase country food through destigmatization of its sale. I.H. spoke of how to him it is important to resolve issues of stigmatization and judgement towards those who sell versus share country food as everyone is in a different set of circumstances, and that selling their harvest may allow people in more difficult sets of circumstances to earn an income and support their families.

> But the question was going to be. "Do you believe traditional food could be sold? Or not sold? is it…Is it right? Does it go against the concept of sharing if you're going to sell it?" So that's how the rest of the show pretty much went, it addressed that. And it was something that weighed heavy on people because there were so many different directions that people were saying, the certain older groups were saying you can't sell food. So I started that statement to the Radio show and it was really well received, people were explaining their situation some were having difficulties, and always have been. For these reasons and so you could see that people were looking for something to resolve this, because there's too many mixed messages here. – I.H.

For those concerned that sale is damaging caribou and other wildlife stocks, they proposed that proper, community-based management and monitoring of harvest by Inuit for country food sales could ensure things are done properly, preserving herd health for the future. This would allow for the country food economy to become more robust, allowing people to support themselves, and sustainable, allowing for this to be a long-term source of income or food.

> Let's start managing it properly. Let's not waste food, let's make it like easier to spread around [by allowing sales]. I really believe that you have to have some kind of consistent management concept there to help with this situation as a society. When you have nothing there, it's going to infringe on a lot of people, and that in itself becomes

> unhealthy. And the viability - it will constantly have a research aspect to it to monitor, maybe one day we'll say, realistically we can only sell 2000 caribou a year from this part, we're monitoring it so when we get to that 2000 we stop. – I.H.

### *Encouragement/Self-worth*

Several participants remarked on the deep need to increase the self-esteem and self-worth of youth in their communities; youth need to know that they are capable of achieving whatever they put their minds to. This could be education, however it may be as simple as increasing one's belief in oneself.

> Yeah, If they're shown like, here's what I can do with a bit of support and a bit of discipline, I guess, If you start working towards something, get this... or if you start working towards something different more specific. You can do that can do this kind of thing. – B.U.

> Yes, education, and also self-worth. You are able. If you don't have a disability of any kind, like mental disability, physical disability, you are able to, you can. Nothing can stop you, only you can stop yourself…. if people here look further, look more, they can find it. The resources aren't here, we don't have the resources here, but if they looked, tried to get help, they can get it.

> Somebody who can encourage you to, somebody who can help you, as long as you're not disabled or mentally disabled, anybody can do what they want to do, even if the resources aren't available here. Learn to move away from your family, learn to be independent, anybody…when people get enough encouragement, you can do it…you can. Don't stay where you are stuck, go as far as you can go like, there is no limit to what you can do if you set your mind to it. – N.T.

Holistically, this relates back to food security directly through overall well-being and indirectly through greater likelihood of being able to support oneself and one's family, whether it be through earning an income in the wage economy or becoming a successful harvester.

### *Programs to Increase Knowledge of Food and Harvesting Skills*

Participants spoke of two prevailing themes with regard to programs they would like to see in their community to increase food security and/or food sovereignty. Food skills programs that would teach these skills for use in both the household and employment scenarios were recommended by participants. This is related to the need for knowledge of food security.

> I just would like to see youth programs, I want to there continue because if they can learn how to cook if they develop those skills, maybe they could work at a kitchen, and it depends on how much they really want to learn, they really want to know. I would like to see more youth programs for certain age groups, and nutrition programs so they'll be able to know those facts about nutritious food. – R.M.

Programs that teach the skills required for harvesting, including tool-making, navigation, and hunting were identified as an important component of revitalizing knowledge transmission pathways from colonization. Recognizing the importance of these programs, participants described their desire for more types of these programs or more availability in their communities in order for people to learn these crucial skills, especially those who don't have the ability to learn from family members.

> I'd like to see is like some kind of excursion program. Let's go with an example. Tukisigiarvik society, HTA, and NTI bond together to create this excursion where Elders, and hunters, and get people from the population to come participate in a day-long trip you are providing. They're taken out on a day trip, and they hunt and they're shown how to hunt and shown the benefits of it. – B.U.

Participants noted that providing ways to facilitate the transmission of Inuit knowledge amongst community members is incredibly important for food sovereignty.

### *Finding Ways to Reach Residents Who May Fall Through The Cracks*

It was recommended that creative ways be devised to reach residents who are most in need of assistance, especially in crisis situations such as viral outbreaks. Concern was expressed about the large nature of large communities, in particular those leading to those who need help falling through the cracks in crises situations, leading to those in need not getting the help they require. Because expressing the need for help is an individual decision, it can be difficult to ensure that all those in need of help receive it. L.O. expressed their concern in relation to this in Iqaluit.

> I think it already is so…Iqaluit is so big and so…we're like a city. So, it's so hard to…relay that information to people. Like when Arviat had their outbreaks…their hamlet, they did such a good job at providing for their residents. I feel like if we had an outbreak in Iqaluit, that type of support would have to be administered…I don't even know by who because I don't think the city would be capable or have the capacity. – L.O.

### ***Community self-determination in decision-making***

This theme relates to the desire for greater control over community decisions including those relating to community health during the COVID-19 outbreak. One community member felt there could have been significantly more meaningful involvement of local decision-makers that had experience with managing outbreaks, and that involving these individuals would have led to better health outcomes.

This recommendation is related to the theme "Colonization, Food Security, and Food Sovereignty". Colonization took decision-making out of the hands of local people and made it the role of the government. During the COVID-19 outbreaks, communities did not have the ability to give suggestions or take actions based on their lived experiences that may improve health outcomes. This theme is also related to the themes discussing health as a barrier and facilitator to food security and sovereignty. Health affects one's ability to engage in activities that facilitate food security and food sovereignty and may have had implications in individual cases in these communities during COVID-19 outbreaks.

> I think especially with hindsight, many very poor decisions made on our behalf. All the decisions were made in Iqaluit locally, no decisions were made. It could have resulted in better health outcomes if people in Iqaluit had had a better understanding of what life was really like in our community? And what community spread looks like in our community. The other thing we had [in the past] was we had an outbreak of E.Coli and exactly the same thing. We had next to no support from the Department of Health and as a community we came together and made decisions like we were shutting down the schools. We were limiting access in the stores, all the produce had to be wrapped and

> covered. At a community level we made those decisions. But in this in this covid instance, we weren't allowed to meet. We were supposed to get together. We weren't allowed to make any decisions that could have led to better health outcomes. – A.S.

Though this story relates back to COVID-19, it has an underlying theme of community self-determination: an important component of food sovereignty. It also relates indirectly to the impacts of the COVID-19 outbreak on food security and food sovereignty through health as an intermediary. This theme has important implications for the management of health crises, as listening to community input may improve health outcomes.

### Validation of Findings

Findings were validated with presentations to Iqaluit City Council and Qaujigiartiit Health research centre in July 2021. Particular attention was paid to validating the outcomes of the COVID-19 pandemic in communities as these are novel findings not widely represented in the literature thus far; with a smaller sample size especially in Iqaluit, ensuring that these findings were valid and reflected community experience was highly important.

In all, approximately 20 people were presented to in Iqaluit. Community feedback validated these findings; those present echoed the findings of this study, stating that many of them accurately reflected their experiences during periods of lockdown and viral outbreak. Particularly, those present felt that the results related to increased levels of traffic on the land, country food being shared in the community, and overall food sovereignty resonated with their observations during the study period. Income support was also a focus of discussion, with many feeling that the observed correlation between CERB and reduction of food program use was valid and that it reflected greater issues with the income support framework. The impacts of COVID-19 on school breakfast programs were also a focus of these discussions. These groups also expressed a desire for these events to be documented, so as to provide evidence for advocacy work in the future surrounding food security and food sovereignty.

# CHAPTER 5: Discussion

The purpose of the study was to describe public health measures implemented during the COVID-19 pandemic, determinants of food security and food sovereignty in Nunavut, and the impacts of the former on the latter as perceived by community members. This study built on the conceptual framework created by the Canadian Council of Academies (2014) to analyze the components of food security and food sovereignty. The conceptual framework provided the scaffolding for understanding how the various components of food security and food sovereignty relate to the everyday experiences of community members with food security and food sovereignty before and during the COVID-19 pandemic. This study detailed the variety of determinants of and factors related to food security and food sovereignty as described by community members and the impact of the COVID-19 pandemic on these determinants. This is one of the first studies to look at the impacts of the COVID-19 pandemic and associated public health measures on food security and food sovereignty in Nunavut communities. While the current body of research on food security and insecurity in Nunavut is relatively large, there is comparatively little available research on the barriers and facilitators to food sovereignty in the territory. As a result this study also contributes to the body of literature on determinants of food sovereignty in Nunavut, and strengthens the body of literature on food security.

## Food Support

Prior to COVID-19, common forms of food support included organizational resources such as community food programs and income support. Community food programs are a critical component of the social support network, providing staples and fresh foods as well as meals to those in need. The importance of these programs to community members has been noted elsewhere: 82% of food program users in a study based in Iqaluit reported that these programs regularly help them relieve hunger, but also provided more than just a source of food as they increased the sense of well-being amongst participants, decreased anxiety, and reduced feelings of helplessness around not being able to afford food. (Ford et al., 2012).

Informal food support was another form of support identified by this study that families could tap into when in need. Informal food support includes programs that run for other purposes than providing food, but the food provided during the programs may be relied upon as a source of food by some participants. The additional layer of protection that these programs provide help community members fill gaps between supports and is something they can rely on; this highlights that community programming funding initiatives should continue to allow for the purchase of food items for consumption at non-food programs.

Most importantly, households receive food shared by relatives, friends, and community members - most often in the form of country food. Gathering for a meal of country food or providing harvested meat are the most common methods by which food is shared. Store-bought food is also shared, though less often. The relative prolificity and importance placed on country food sharing is well-known. Sharing is deeply valued in Inuit culture, and hunting and sharing continue to be deeply ingrained in Inuit identity (Qikiqtani Inuit Association, 2019b; Ready & Power, 2018).

Participants discussed the values and beliefs associated with food sharing in their communities in depth. They described the food shared with them most often coming from friends or family, though sometimes community-wide sharing would occur through community radio, and in recent years, Facebook has become increasingly part of how communities in Nunavut communicate information with each other. The rising importance of social media in facilitating food sharing in communities in Nunavut has been documented in recent years. Dunn & Gross (2016) described the use of Cambridge Bay News to share country food in the community. The authors noted the difference in types of animals shared depended on their seasonality, with at least 1 post per month offering country food. For those who receive food from this medium, the group is an important source of country food. The study notes that sharing of food through these networks implicitly communicates that Inuit are still taking care of each other beyond government networks; this is something exemplified by the current study on impacts of COVID-19: the value of sharing is alive and well and supports people in times of need.

### *Food Support and Sharing During COVID-19*

Findings from the social media scan suggest that just as it was prior to the pandemic, Facebook is an important method of communicating information during periods of increased COVID-19 public health restrictions on the adaptations to food programs and how community members can access food supports. Food was shared through distanced means such as dropping off on porches or pickup from the doorsteps of the household sharing the food. Facebook was used as a means to communicate locations and times of food distributions in the context of an evolving public health situation.

The social media scan found 242 instances of food sharing through social media across Nunavut; 18 of these were in Iqaluit and 8 in Arviat during the initial March 2020 to June 2020 lockdown period, with the majority of these instances involving the sharing of store-bought food. Food programs were also more likely to share store-bought food. However, individuals were more likely to share country food than store-bought food, no different than what participants describe occurring in their communities prior to COVID-19 lockdowns. This pattern was corroborated by the qualitative interviews. Participants described how the foods most often shared by families were country food, with food programs most often distributing store-bought food, and described a desire to consume country food whenever possible. Food programs recognized the need to incorporate more country food into their distributions. In the literature, Nunavummiut's desire to consume more country food is well-documented, and there is a recognized need for more country food to be incorporated into food programs; this information suggests that there is work to be done to increase the consumption of country food within food programs in order to better align these programs with cultural preferences.

Participants described a relative increase in country food availability and food sharing in their communities during COVID-19 lockdowns. With barriers to food sovereignty alleviated due to contextual factors surrounding the lockdowns and the introduction of on-the-land funding programs during these periods, community members felt this facilitated increased harvesting, resulting in a net increase in country food and therefore food security and sovereignty; the implications of these changes are discussed further below.

### *Family Supports*

When participants were struggling to get enough to feed themselves or their families, relatives were the most commonly cited support. Family was also most likely to be a source of country food when in need. The importance of relatives for food sharing is corroborated by the literature. Participants in Ford & Beaumier's 2011 study on experiences and determinants of food insecurity in Igloolik noted that when they no longer had country foods at home, relatives were their first contact for support in obtaining these foods. Familial ties are incredibly important for food exchanges in Inuit communities (Dombrowski et al., 2013; J. D. Ford & Beaumier, 2011). Food sharing occurs most commonly amongst relatives, and harvesting relationships are most likely to be formed amongst closely related family members. This puts those without harvesters in the family or with harvesters who are not able to harvest successfully or regularly at greater risk of having less access to country food due to weak or non-existent familial sharing ties. On the other hand, having a large family network was associated with greater food security, as families were able to pool greater quantities of food resources – either store-bought or country food – and act as a support network when some members of the family were unable to access country or store-bought foods. The importance of a large family network in accessing country food is noted elsewhere: Collings et al (2016) described the determinants of country food access, noting that married households had some of the greatest access to country food, largely due to their ability to access country food from both sides of the family.

### Preferences and Food Security

As identified in the conceptual framework, preferences are an important part of food security and tie into the importance of access to food that has cultural significance. Food security cannot be achieved until all people have access to food that are culturally important. Unsurprisingly, participants in this study expressed a strong preference for consuming country food in their households and communities and continuing to promote its consumption. Personal and cultural well-being were two main reasons cited for consuming country food. This is related to the cultural importance of country food and its linkages to identity; consumption of country food ties individuals to their culture and to the lands from which the food comes from, two relationships that are incredibly important. Country foods constitute a vital component of their identity, and tie Inuit to their community, the past, and the land (Wein et al., 1996). Searles (2016) explains that beyond identity and culture, Inuit preferences for country food are a way to push back against the imposition of colonial ways of life; regular consumption of country food as something that is perceived by Inuit to differentiate them from *Qallunaat* (non-Inuit). Thus, decolonization and country food harvest and consumption are inextricably linked.

Country food was described by participants in an overwhelmingly positive light. Besides its benefits for personal and cultural well-being, country food was overwhelmingly perceived by participants to be healthier and more nutritious, with store-bought food generally being less so. Reasons for this included it being less processed, fresher, and of better quality. This belief is also found in the literature, with other benefits cited by Inuit including that it makes you stronger, keeps you warmer, makes you live longer, has no additives such as hormones or antibiotics, and has greater variety than store-bought foods (Pufall et al., 2011; Searles, 2016). The nutritional benefits of country food are many: children who consume country food have a lower prevalence of iron deficiency (Egeland et al., 2011). In studies where participants consume a relatively modest amount of country food, these foods still represent a major source of protein and other essential nutrients (Egeland et al., 2011; Kenny et al., 2018). Perceptions of healthfulness are also related to the quality of food found in stores and the related knowledge regarding its preparation. Store-bought produce is often of middling to poor quality due to the long flight path it takes to get to communities, with shipping delays due to weather compounding issues of quality. Country food is often eaten raw shortly after it is caught or shared and consumed soon after returning from a successful hunt. If not consumed within a short time frame, it is prepared shortly after harvest for storage by freezing, fermentation, or drying. These processes are well-known and those receiving prepared foods have an understanding of how their food came to be. This is not the same for store-bought food, where these facts are more ambiguous.

### Preferences and Food Programs

Preferences and their contributions to one's perception of personal health and well-being are an important consideration for food programs; for its many benefits, participants mentioned the need for incorporation of country food within food programming in Inuit communities. Though these comments came from program facilitators, a previous study in Iqaluit corroborates these remarks with those of program participants. Food program users expressed a strong desire for the inclusion of more country foods in food programming, including in meals offered at the soup kitchen and those given out at the food bank (Ford et al., 2012b). The inclusion of more country food has implications for well-being that go beyond health; due to its cultural importance and positive perception, consumption of more country food for people who rely on these programs would provide a needed boost to mental, emotional, and cultural well-being.

A combination of store-bought and land-based approaches were described by participants as the ideal way to get food. Adequate income is required to access store-bought food. To access country food, individuals and households must possess the knowledge and equipment to be able to harvest successfully; for those without harvesters in their families or access to sharing networks, they must have the financial wherewithal to purchase country food. These two methods of obtaining food comprise the dual Inuit food system (Ford, 2009). Ford, (2009) described the interaction between these two systems, noting that in times of financial stress, country food becomes the most prominent source of food within this system, and within times of environmental stress, store-bought food features more prominently. However, financial stress may also shift consumption to cheaper, less healthy forms of store-bought food due to the expenses related to harvest (Ford, 2009).

Other factors may influence consumption as well: participants in this project spoke of not including as much produce in their diets as they as might like to due to the poor quality and inconsistent availability of this type of food. Participation in both aspects of this food system was important to participants; though country food was a preference expressed by participants, many also valued having access to quality produce. Thus, initiatives to support Nunavummiut and reduce food insecurity in the territory must address and improve access to both sources of food. When COVID-19 public health restrictions were implemented, the programs initiated at the community and territorial levels targeted access to both country and store-bought food. However, participants noted that the quality of store-bought food remained unchanged, and remains a barrier to achieving the ideal way to get food.

## Food Security – Barriers, Facilitators, And COVID-19 Impacts

### *CERB, Food Vouchers, and Food Hampers*

The inadequacy of income support was a noted barrier to food security in this study. In response to the socioeconomic pressures of COVID-19 lockdown, the Canada Emergency Response Benefit (CERB) was launched to provide support to those whose employment was impacted. Though it was intended for only this group of individuals, CERB was a low-barrier program and could be accessed by many others who did not necessarily qualify, however with the caveat that it would be clawed back by the CRA when personal taxes were filed. It was noted by program facilitators in this study that CERB coincided with a marked decrease in demand for their food programs. A previous study found that 61% of food program users in Iqaluit relied on income support for their main source of income (Ford et al., 2012b). Taking these factors into consideration, it is possible that those on income support - the people who often access food programs - were able to access CERB, reducing their need for these supports.

When comparing CERB funds to those provided by income support, it is easy to see that even with the funds provided by basic social assistance excluded, CERB would provide a massive boost to the buying power of households. Income support payment calculations for Nunavut reflect the fact that 95% of Iqalummiut on income support live in public housing, For these individuals, most housing costs (fuel, water, sewage, garbage, and/or municipal needs) are fully paid for by the government, with rent and electricity costs heavily subsidized. Thus, income support calculations represent the total buying power of the household, minus minor housing costs.

Monthly income

**Table 5-1**

*CERB payments and other benefits compared to Nunavut income support payments*

| **Income component** | **Single person considered employable** | **Single person considered employable, CERB** | **Single parent, one child** | **Single parent, one child, CERB** |
|---|---|---|---|---|
| Base payment (basic social assistance[1] or CERB[2]) | \$769[1] | \$2000[2] | \$953[1] | \$2000[2] |
| Federal child benefits | | | \$547.33 | \$547.33 |
| Territorial child benefits | | | \$27.50 | \$27.50 |
| GST credit | \$23.92 | \$23.92 | \$60.41 | \$60.41 |
| Total monthly income (2019 data) | \$792.92 | \$2023.92 | \$1588.24 | \$2635.24 |

*Note*. The data on 'single person considered employable' and 'single parent, one child' is sourced from "Welfare in Canada, 2019" by J. Laidley & H. Aldridge, 2020, Maytree.

CERB and other social benefits would provide over double the amount per month given by income support for a single person, and over an extra \$1000 per month for a single person with a child. This supports the idea expressed by a food program facilitator that CERB is a possible cause of the decrease in demand for some food programs in the April to October 2020 period. This finding supports the idea that income support is not nearly enough for Nunavummiut to feed themselves and their families while meeting their other needs, as increased access to the financial means to purchase food appears to correlate with a reduction in food program uses in the community.

Food vouchers and hampers provided a needed boost to households by addressing some of the barriers to food security. In this study, the high cost of food was identified by participants as a barrier to food security. Food vouchers were given out during times of increased public health restrictions to combat the pressure households may be feeling due to public health restrictions closing programs and workplaces. Participants described these vouchers as a needed boost to food security, with similar sentiments expressed regarding food hampers. Hampers provided goods to households, allowing for money to be spent elsewhere or to supplement what the hampers provided. Lack of income is a noted barrier to food security

The high cost of housing in the territory was another barrier to food security identified in this study. Because housing costs take up a disproportionate amount of household income for many families in Nunavut, little is left over for other necessities, including food. Food vouchers provided by Inuit organizations during COVID-19 lockdown periods expanded the buying capacity of households, meaning more food could be purchased. However, many people in Nunavut are homeless or living in shacks. Lack of housing complicates ones ability to cook and store food, compromising food security. Household crowding, prominent in many Nunavut communities, also impacts one’s ability to become and/or remain food secure. In a study on food security in Iqaluit, 14% of participants experiencing food insecurity expressed that household crowding was a main challenge to achieving food security (Ford et al., 2012b). It is uncertain how initiatives introduced during COVID-19 benefited those who are without the ability to purchase, prepare, and store foods.

Lack of financial means is a known barrier to food security, and the unique ways it acts as a barrier during crisis situations is highlighted in this study. Lack of credit card impacted some community members’ abilities to shop for themselves when their household was experiencing a COVID-19 outbreak in the home. Though relatives and friends were able to provide support by shopping for these individuals, this highlights the gap in supports available during the initial outbreak period in Arviat. Though food hampers were distributed in the community, a more rapid response may have prevented some of the stressors associated with family members trying to ensure their relatives were fed, and individuals in isolation worrying about where their next meal would come from.

### *Education and Employment*

Education was described as a facilitator of food security by participants in this study, as it allows for individuals to achieve meaningful, well-paying employment. A known barrier to food security, employment has at times been described by food insecure individuals as the main challenge to achieving a sense of food security within a household (Ford et al., 2012b). Lack of food in the household is also directly attributed to unemployment and insufficient levels of income support (Ford et al., 2012b). Education is also related to dependency on food supports: food program users in Iqaluit are less likely to report completing high school (13%) compared to the general population in the city (66%) (Ford et al., 2012b).

COVID-19 had impacts on education in the territory. COVID-19 caused the closure of schools, and with the poor internet in Nunavut, impacted the in-school learning of many school-aged children. However, other forms of education were able to thrive during lockdown periods. As children spent more time at home, important hands-on skills, including harvesting skills were able to be taught as children were able to participate in these activities on a more regular basis. However, programs teaching other skills were impacted by lockdowns, as described below.

### *Knowledge and Skills*

The operation of food skills and nutrition programs were impacted by COVID-19 public health restrictions. Many of these programs aim to teach youth and adults about healthy choices and provide them with food skills that provide them a means to become employed in the food or mining industries in the territory. Though the operation of these programs will resume with the lifting of public health restrictions, it is possible that the pause on these programs had impacts on employability in the interim. Further study is needed to determine the full impacts of the closure of these programs on training opportunities in communities.

### *Resources*

Food programs, an important resource for many families in times of need, had to adapt to COVID-19 restrictions. Programs that were in person had to move to delivery or takeout options. When the facility in which the program normally operated was accessible, the programs were able to provide food through these options at similar capacity to previously. However, in Arviat during the viral outbreak, these programs were only able to operate in a COVID-free home and not within any public facilities. As a result, this limited the number of meals that could be distributed to community members. Additionally, some in-person programs were simply unable to run. One of the programs affected by lockdowns were school breakfast programs. As schools were closed, and their kitchens unable to be used even for takeout options, these programs were unable to serve most students in the community during COVID-19 lockdowns. As noted by one participant, school food programs were a critical source of food when they did not have enough food at home growing up. Many children in the territory depend on school food programs as they are a guaranteed meal, snack, and sometimes even lunch five days a week. Thus, the closure of these school food programs during community shut down periods due to COVID-19 presents a significant risk to the food security of children in the territory. Further research is needed to determine to what extent children's food security was affected by the closures of these programs.

Social capital was a resource one is able to tap into when struggling for food. Family was the most often cited source of food support during difficult times. During COVID-19 restrictions, or when families were sick with the virus, relatives did the shopping for families who were stuck at home, especially for those who did not have credit cards and were unable to order delivery from the stores. Families also dropped off gifts of store-bought and country food on the doorsteps of family members. However, not everyone has family who has the resources to do this, and thus it is important to note that this experience may not have been the same for other community members.

### *Health*

Health is indirectly related to food security as good health facilitates participation in activities that promote food security, such as gaining and maintaining employment. COVID mitigation was made difficult by crowded housing in communities, with visible impacts on viral spread and the health of community members. Though the advice from public health was to isolate as soon as one received a positive result, many households were unable to isolate from the positive case or cases in their homes due to overcrowding. In Arviat, due to a relative lack of other locations for cases to isolate, those in overcrowded homes were unable to be transferred to another location to isolate away from family. Therefore, a single COVID-19 case in the household often led to multiple cases or the whole household getting the virus, resulting in these families needing to isolate away from the community for a month or more. Further study is needed to understand the health impacts of COVID-19 outbreaks in households on food security. Though participants in this study received food support from family members when sick with COVID-19, this experience may have been different for those without family support in the community or whose family members are unable to provide support.

Mental health and addictions were also described by participants in the study as a determinant of food insecurity. This finding is corroborated in the literature on food security in Nunavut: in a study on the determinants of food insecurity for Iqaluit food program users, 8% stated that dealing with addictions was their main challenge in attaining food security. Substance abuse and suicide were noted to have a major impact on the well-being of the community in Kugluktuk, with implications for not only food security but food sovereignty, as addictions impair the ability to engage in harvesting activities (Panikkar & Lemmond, 2020). This highlights the need for holistic solutions to food security and sovereignty issues that go beyond financial solutions.

### ***Logistics***

Online ordering often facilitates food security as it allows greater access to food options at prices that are often better than found within the community. One participant felt that online ordering platforms for southern retailers improved due to the need for these businesses to adapt to lockdowns increasing the demand for online ordering capabilities.

Participants did not note a significant change in the availability or quality of produce due to outbreaks in the community. Participants felt that stores were kept well stocked during lockdowns, with the outbreaks in the community not felt to have an impact on the availability of foods in the stores. Surging cases in southern hubs were felt to have had an impact on the food availability in Arviat for a short period of time in November 2020. As northern air cargo routes have few southern hubs, increasing cases in these areas – particularly Winnipeg - were felt to impact the ability of airlines and stores to import food. Foods are already nearing their expiry date by the time they reach store shelves in Nunavut, and thus any changes that impact transit length have the potential to significantly decrease the quality and nutritional value of the product (Ford & Beaumier, 2011).

### *Food Security and Food Sovereignty Programmatic Barriers Removed*

Funding for food security and food sovereignty was distributed quickly, with few barriers involved within the application process. Program facilitators were easily able to shift funds for programs cancelled by COVID into new initiatives to mitigate the impact of public health restrictions. Barriers to accessing funding programs are an identified barrier to food security and food sovereignty; COVID-19 funding was beneficial in that it reduced this barrier. The importance of funding for equipment associated with harvesting is noted in the literature; Hoover et al. (2017) suggest that increasing access to such programs is a key component to reducing the cost burden associated with harvesting. The authors note that harvesters in need are able to access these programs more easily when there is awareness of them and the application process is easy to navigate; due to the prolific nature of the COVID-19 pandemic and the associated assistance programs, it may be that these programs were more widely circulated. Additionally, there was a desire to funnel this funding into homes quickly – the ease of access appears to have allowed many households to benefit from this funding during times of strict public health measures.

## Food Sovereignty: Barriers, Facilitators, and COVID-19 Impacts

### *On-The-Land Funding Programs and More Time For Harvesting*

Increased ability of community members to harvest and a significant increase the time able to be spent on harvesting were two key changes resulting from COVID-19 public health measures identified in this study. Work commitments were an identified barrier to food sovereignty in normal times. Harvesters who also participate in the wage economy – i.e., are employed – are more likely to be able to harvest more prolifically when they do go out on the land as they have the financial means to access modern equipment that facilitates greater access to animals (Dombrowski et al., 2013). For instance, a new skidoo uses less gas, allowing a hunter to go further on a day trip. However, these individuals are only able to harvest occasionally, as their participation in the wage economy limits their free time (Suluk & Blakney, 2008).

The closure of workplaces and schools because of the pandemic resulted in the introduction of a more flexible work environment, which allowed for more time to be spent on the land than normally. More time on the land was also facilitated by being able to work around the weather patterns. With workplaces and schools closed, and with workplaces becoming more flexible with working hours and deadlines, families were able to plan harvesting around the weather and go when the weather permitted, instead of hoping for good weather on weekends when the regular work schedule would normally allow for harvesting.

Identified barriers to food sovereignty associated with income and transportation were alleviated by the implementation of COVID-19 on the land funding programs. Harvester support programs are a noted boost to harvesting activities in Inuit communities (Kishigami, 2000). Inadequate transportation, lack of transportation, repair costs, and lack of other needed equipment were all barriers described by participants in this study. Sufficient income is a known facilitator of food sovereignty, as it allows for the purchase of supplies and equipment to access the land. It is nearly impossible for community members to harvest full time unless they have household members who can provide financial support, as it is too expensive (Ford & Beaumier, 2011). Participation in the wage economy facilitates purchase of equipment, but those who can afford the cost cannot always afford the time. However, those who have the time to harvest most often do not have access to reliable, efficient equipment, and though they may spend more time on the land, these intensive hunters are often not as successful as those who have access to the newest equipment (Suluk & Blakney, 2008).

However, the funding programs introduced during the pandemic served to equalize this disparity. COVID-19 on the land funding allowed for community members who may have not had the financial means to do so to upgrade or repair their transportation. It provided the extra funds needed for community members to be able to purchase transportation. There is the potential for these purchases to have impacts far beyond the individual or household that has access to these tools as a result of these funding programs, as sharing of equipment is common among relatives (Searles, 2016). Sharing of these resources amongst relatives helps to facilitate the greatest spread of resources and chances for successful harvest (Searles, 2016); accordingly, the more that a family has access to reliable transportation, the more country food that can be accessed. The funds also allowed participants to acquire additional large equipment that allowed them to spend more time on the land, such as facilitating the building of a cabin near fertile harvesting grounds. Access to outpost camps or cabins are a known facilitator of harvesting, as they increase the spatial extent over which such activities may take place (Ford & Beaumier, 2011).

Because of the versatility for which the funds could be used, on the land funding programs also reduced the cost barrier to other needs for harvesting including gasoline, bullets, food, and sewing materials for proper clothing. High cost of these goods was cited by participants as another barrier to harvesting, and therefore food sovereignty. The findings indicate that funding programs that facilitate the purchase of equipment, tools, and supplies increase access to the land, and in turn have a positive influence on food sovereignty in the study communities. The importance of funding for equipment associated with harvesting is noted in the literature; Hoover et al. (2017) suggest that increasing access to such programs is a key component to reducing the cost burden associated with harvesting. The authors note that harvesters in need are able to access these programs more easily when there is awareness of them and the application process is easy to navigate; due to the prolific nature of the COVID-19 pandemic and the associated assistance programs, it may be that these programs were more widely circulated. Additionally, there was a desire to funnel this funding into homes quickly – the ease of access appears to have allowed many households to benefit from this funding during times of strict public health measures.

Access and participation in a network of harvesters is a facilitator of food sovereignty, as it bolsters the local country food economy and promotes access to country food within the household and community. With closures of schools and workplaces freeing up time for many harvesters, and COVID-19 funding programs providing the financial means to acquire the needed supplies and equipment, many of those with harvesting skills were able to access the land more easily and frequently. As a result, participants noted a significant increase in on-the-land activity around their communities and a resultant increase in country food available and sharing of that food amongst the community.

### *Health and Well-being*

Poor health was noted to be a barrier for at least one participant to being able to participate in harvesting activities. With COVID-19 greatly affecting the health of communities during outbreaks, it is important to note that with isolation measures impacting the ability of households to leave the house for weeks to months due to outbreaks, the health impacts of

COVID-19 may have trickled into impacts for food security and food sovereignty, especially where long COVID is involved. It will be important to continue to monitor the health of residents and the long-term impacts of the virus on their ability to work and participate in community activities, especially as these factors can have an impact on the food security and sovereignty of individuals, households, and communities.

The findings note that the social aspect of food was also impacted by the implementation of public health measures; sharing food, an important component of the Inuit food system, is more than just the exchange of goods, and provides benefits beyond nutrition. Sharing food is often done in the form of a communal gathering, with friends and extended family most often consuming a meal of country food. Notions of well-being, happiness, health, and healing are closely associated to connecting with family, going on the land together, and sharing food together (Kral et al., 2011). Though community members were able to adapt to public health measures to ensure that food was still shared, providing the mental and emotional benefits that a communal meal would was much more difficult.

### ***Knowledge and Skills***

Knowledge around harvesting practices and attitudes and the transmission of that knowledge between knowledge holders and learners is an important facilitator of food sovereignty. Participants described the importance of the transfer of this type of knowledge for many reasons, including the transmission of cultural values, self-sufficiency, and the continued resistance against complete infiltration of colonial ways of life. Decolonization and the ability to harvest were inextricable to some participants. The ability to harvest full time allows for the accumulation of a large set of knowledge and skills, enabling these individuals to harvest multiple species at all times of the year. For instance, certain species such as walrus demand a deep understanding of how to hunt the animal and require a considerable investment of time. A successful harvester will know how to safely navigate during all forms of outdoor travel and understand how to read weather and changing conditions (Ford & Beaumier, 2011). However, learning all that goes into being a harvester extends far beyond the tangible skills of tracking and navigation of various conditions of land, ice, and water, to mental and emotional intelligence, including patience, observation skills, control over one’s emotions, ability to withstand pressure, planning, strategizing and execution, among many others (Pearce et al., 2011). These skills are taught over a considerable length of time – time that the modern wage economy and school system often does not warrant.

Knowledge transfer was positively impacted by COVID-19 public health measures. Though schools were shut down in communities, on-the-land programs were still able to run in many cases, however with some limitations. In Arviat, this meant the Young Hunters Program – which connects elders and harvesters to youth to facilitate learning was able to run more frequently, operating during the day when school would usually be in session. With COVID-19 lockdown measures requiring households to suspend contact with those outside their household, it was noted that harvesters were bringing their children along on trips more frequently as they could not go with their normal harvesting partners, and their children were at home and available. The opportunities for children to learn these skills on a regular basis are important, and fostering the transfer of these inter-generational skills is something that should be continued to be supported in Inuit communities (Hoover et al., 2017).

### *Community Decisions Regarding Food Systems*

In Arviat, the COVID-19 shutdown due to positive cases in the community provided an opportunity for the community to devote time to discussing the sale of country food and to come to an understanding around what should be permitted. Selling country food is still stigmatized in many ways, but because of the high costs associated with harvesting, some may sell part of their harvest to help recuperate some of the expenses associated with their harvesting trips. Not all of what a harvester catches is sold, and often a portion is given back to the community, with the portion of the harvest that is sold subsidizing their costs, which in turn may allow them to harvest more frequently. Sale of country food can also help those who are not connected to sharing networks to access country food.

### *Resources*

Natural resources are a known facilitator of food sovereignty; when one has access to fertile harvesting grounds, this increases the chance that a successful harvest may occur. Participants in this study noted that being in close proximity to these resources helps to promote their harvest. COVID-19 shutdowns provided two means by which increased proximity to natural resources was facilitated: cabin building and flexible work schedule. COVID-19 on the land funding allowed families in communities to build cabins, allowing them to stay out closer to known travel paths of animals for longer periods of time. A flexible work schedule meant that more time could be spent in these areas, and more time could be devoted to travel to access areas further away from the community that were known for good harvesting. As development has pushed animals further away from communities, the time to be able to devote to travel to these areas and spending more time within them aided participants and community members to harvest more prolifically.

### Decolonization and COVID-19

The findings indicate that participants feel that participation in activities that promote food sovereignty promote the continuation and encouragement of cultural knowledge transmission, and in turn, support decolonization. Participants spoke of how continued harvesting of country food and passing down the knowledge required to do so is a key component of revitalizing and retaining Inuit culture and ensuring self-sufficiency. COVID-19 workplace closures allowed for community members to harvest more prolifically, with school closures permitting those on the land to bring their children along with them. The Qikiqtani Inuit Association notes that colonization has disconnected many Inuit from harvesting. Thus, supporting the continued transmission of knowledge, skills, and language through the promotion of the harvesting and conservation economy (Qikiqtani Inuit Association, 2019b).

This study found support for Inuit food systems. Supporting the harvesting economy involves Inuit being given the tools to make decisions regarding how country food is managed and sold. Self-determination of the food system is an important component of food sovereignty and is rooted in notions of decolonization. It involves pushing back against the imposed colonial system to determine and advocate for what works best for Indigenous peoples. It was suggested in this study that the sale of country food can support ways of living that reconnect people with the land and culture, allowing communities, families, and individuals to recover from the impacts that colonization has had on their ways of life. This includes investments in infrastructure that can support the sale of these foods, as giving harvesters the tools necessary to feed Inuit communities can stimulate the local economy (Qikiqtani Inuit Association, 2019b). It was noted by participants within this study that support for such initiatives is increasing.

Findings from this study indicate that nutrition north could be better positioned to support Inuit food preferences and food sovereignty. This includes allowing for Inuit to determine how nutrition north funds are allocated. Currently, the federal government determines what proportion of Nutrition North funds are utilized for the Indigenous Harvester Support Program, and how that program doles out funds to communities and harvesters. During the inception of this program, Inuit advocated for greater support for harvesting activities, but the program did not respond in kind until the pandemic initiated the creation of a federal harvester support program. This relates to community decision making surrounding the food system: an important aspect of food sovereignty with ties to decolonization. Inuit have long advocated for free, prior, and informed consent regarding decisions pertaining to the food system (Obed, 2016). With the influx of funds that finally addressed some of the desire of Inuit for programs supporting food sovereignty, and with the funding from these programs administered by Inuit organizations, COVID-19 impact mitigation initiatives represented a step in the right direction for Inuit self-determination of the food system.

## Strengths and Limitations

This study had multiple strengths, one being my connections to Nunavut. I conducted part of this study in my hometown, and the other within another community in the territory. My prolonged relationships with community members in Iqaluit and the community partner in Arviat allowed for trust to be built between myself and participants even in the short time spent conducting the interview. In depth interviews and chosen narrative method allowed for a deep dive into the experiences of Nunavummiut during this time. Participants, despite being relatively small in number, were diverse in experience, with some having experienced food insecurity, some having benefited from on-the-land programs, and some being on the other side as program facilitators.

Several limitations to this study were directly related to COVID-19. Due to the outbreak in Arviat in November, and public health restrictions around the time of the ethics and licensing applications meant that in-person interviews were not possible for this project. In research rooted in relationality, connections and relationships are important, and though I had preceding relationships with the research communities, I was not able to develop participant relationships to the extent I would have liked during the data collection phase. The changing public health situation of outbreaks in both study communities during the planning and data collection phases limited the number of participants. With people moving back into the office in mid-March in Arviat, some emails went unanswered by interested participants, which may be associated with increased work duties after months out of the office. On the other hand, the closure of workplaces in April in Iqaluit led to many people taking time off and heading out on the land to harvest and stay at cabins, as discussed by study participants and validated by community members. Thus, interviews that were set up or in the planning phase prior to the outbreak were unable to occur in a timely fashion. As a result, this study has a relatively small sample size of seven interviews, although data saturation was acheived. Additionally, as qualitative research, this study cannot be generalized.

## Implication of Findings and Recommendations

The impacts of COVID-19 measures on food security and food sovereignty described by this study provide insights into how these determinants can be better supported in Nunavut. The implications of these impacts, in conjunction with the recommendations made by the study participants to tackle issues of food insecurity in their communities can be combined to provide considerations for communities. There is much that can be learnt from the impacts of the COVID-19 pandemic on Nunavut communities, from how to better support harvesters, promote country food consumption, increase well-being and self-esteem through support systems, and recover from the impacts of colonization.

Firstly, it is evident that Nunavut must develop a crisis response plan that addresses the basic needs of Nunavummiut within a crisis. The strength of Inuit communities to come together and support others when dealing with isolation related to COVID-19 was highlighted by this study. However, those without credit cards were particularly vulnerable as they were unable to order food to their homes. Though community members stepped in to take care of the individuals they knew were isolating, this was an informal form of support that community members took upon themselves as they saw there was a need that had to be met. Food hamper deliveries did not occur for several weeks when the outbreak in Arviat first occurred. Though this highlights the significant community care given during the pandemic, leaders should be better prepared in the future to support the basic food needs of residents immediately, as it may be that the level of community care seen during COVID-19 outbreaks may not be able to be given in a different crisis scenario. This relates to a suggestion that another participant gave in Iqaluit, that communities should be finding ways to reach residents who may fall through the cracks. A crisis response plan should ensure that all those in the community will be taken care of – especially the most vulnerable.

The food vouchers given out by Inuit organizations provided support to Inuit across the territory during periods of increased public health measures. It was recognized that unemployment due to COVID-19 public health restrictions could impact individuals' ability to feed themselves and their families; however, this same support is not given regularly despite Nunavut having an unemployment rate of 13.4 per cent, almost 2.5 times the Canadian average (Nunatsiaq News, 2020). Though a short-term solution, the viability of continuing such a program on an as-needed basis should be explored. Food vouchers, as described by a participant in this study, provide agency to make choices – something that promotes well being and notions of self-efficacy.

It was recommended by participants that income support be increased. The comparison in Table 5-1 above shows that CERB provided significantly more funds than income support does. Participants in this study noted that the funds provided by income support are not enough to provide food. It is evident that changes need to be made to the level of support provided, otherwise income support is effectively mandating hunger.

A significant finding of this study was the variety of ways in which COVID-19 ushered in change for multiple facets of food sovereignty. It provided the funding, time, and resources for communities to harvest. Continuing to promote and strengthen the country food economy is paramount to achieving food sovereignty in Nunavut. Participants in this study wished to see changes to the current food sovereignty framework in the territory in order to support harvesters and increase access to country food. This is supported by strengthening the country food economy via several mechanisms, including properly funding on-the-land programs, supporting Inuit self-determination in food systems, exploring alternative funding models to provide supports to full-time harvesters, facilitating programs that increase knowledge of harvesting skills, and encouraging youth and promoting development of their self-worth.

COVID-19 saw an increase in the ability of harvesters to get out on the land regularly due to the situational and financial changes ushered in by the pandemic. This was mainly due to two synergistic factors: influx of funding initiatives for on the land programs and increased flexibility of working and school hours. It is evident that in order to continue to support harvesters, communities and leaders must find ways to subsidize the associated costs, and expenses related to equipment and transport were a significant barrier to food sovereignty. In addition, Inuit harvesting seasons are well-known: the initial lockdown in April-June 2020 was described by participants as a time of great abundance of country foods in communities as it coincided with the spring hunting season – a time where the weather is relatively mild, the days longer, and the snow and sea ice still intact. The implication of this finding is that in order for food sovereignty to become achievable, there must be greater respect and flexibility amongst employers for harvesting during these times of abundance.

Participants in this study called for less stigmatization and formalized Inuit community management of country food sales. In addition to funding programs supporting hunters, participants spoke of how, due to the costs associated with harvesting, communities should attempt to come to a consensus on moving forward with country food sales and how this can be integrated respectfully into the subsistence and sharing economies. A participant in Arviat spoke of how being able to harvest full-time is one of the ways communities can recover from colonization; harvesters being able to sell their catch to fund their harvests and to support their families was one way this participant saw communities being able to return to a way of life that helps to restore the knowledge and practices suppressed by colonization and the imposition of colonial ways of life.

It was evident, however, that any sales must be initiated and managed by Inuit, and that each community should have a method of determining what is best for their community: a one size fits all approach would ignore the unique histories and contexts that exist for each Nunavut community. Community self-determination in decision-making is important and it is evident that for any set of policy options for food security and food sovereignty, this must be at the forefront.

Exploring alternative funding models to provide support to harvesters was also discussed in this study as a potential method of improving food sovereignty in communities. Participant discussed finding ways to make community harvester a paid, full-time position through unique funding pathways. Full-time harvesting as a paid job has been implemented in Nunavut via the Nauttiqsuqtiit Inuit Stewards in Arctic Bay, in which the position's conservation and monitoring duties are combined with harvesting for distribution within the community. Participants spoke of a need to explore ways to replicate this program outside of federal funding mechanisms, including the use of social finance. Regardless, of how it is funded, it is evident there is desire within Nunavut to find alternative ways to integrate harvesting into the wage economy in order to feed communities and continue Inuit ways of life.

Findings from this study indicate there is a desire in the study communities to increase the self-worth, self-esteem, and to provide encouragement to youth to reach their greatest potential. Food security and sovereignty is about more than just increasing access to store-bought or country food; it involves a holistic approach to improving the social determinants of health behind these concepts. This includes encouraging youth to achieve their dreams, as increasing self-efficacy is associated with better health, education, and employment outcomes. Connecting youth with opportunities and focusing community initiatives to increase youth's self-worth and self-esteem should be considered a priority by leaders. Additionally, participants spoke of the need to encourage youth and increase their confidence in their abilities to harvest. Encouragement and opportunity featured heavily in these conversations.

To encourage youth to harvest, participants wished to see more opportunities for youth to participate in on-the-land skills programs which facilitate transfer of essential knowledge to youth from knowledgeable adults and elders. Participants noted the importance of these skills and how teaching harvesting skills can help communities recover from the impacts of colonization. Harvesting knowledge was able to facilitate greater food sharing during COVID-19 as it presented the opportunity for knowledgeable people to harvest more frequently. Thus, it is evident that knowledge of harvesting facilitates food sovereignty and expansion of these types of programs needed. The need for harvesting programs was discussed in conjunction to the need for food skills programs; several participants noted the need for better understanding of the nutritional value of store-bought food and that developing food skills enables people to achieve employment in the food industry. Moving forward, policies should be introduced to support and expand these programs.

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# Appendix A

## Interview Guide

How are you feeling today?

Tell me a little about yourself

[I am going to ask some questions regarding food security]

What would be the ideal way for you to get food for your family?

What's the reality of how you get food now?

How might you be able to achieve the ideal or why is it difficult?

Can you tell me about (community supports) available to people struggling to get enough food to feed their families?

> Can you tell me about supports for hunters?
>
> Have these changed since covid? How?

Have you used these supports before? During covid?

Can you tell me about a time (or times) where you felt unsure where you/your family's next meal would come from?

> How have you gotten food during these times?
>
> Have there been times where you needed help getting food but didn't receive it? Can you tell me about these times?
>
> Have you experienced this during covid?
>
> Was this experience made better or worse during COVID? Can you explain?

Have there been times where there were certain foods you have needed or would have liked to eat that were difficult to get or not available to you? Can you tell me about that?

Have there been times where you or your family would have liked to go out on the land to get country food but couldn't? Can you tell me about that?

Is there anything else you would like to tell me about your experiences getting food before or during covid?

At any point when you have had difficulty getting food, has there been anyone or any group/program that has helped you or stood out to you?

Are there supports that you would like to see in the community for those struggling to get food for their families?

Is there anything else you would like to tell me today?

# Appendix B

Facebook group info

| Community | Group Name | Group or Page | Type of Group | Number of members | How Active? | Accessed? |
|---|---|---|---|---|---|---|
| **Arctic Bay** | Arctic Bay News | Group | PSA/News | 1,950 | 202 in the last 30 days | TRUE |
| | Arctic bay sell//swap | Group | Sell/swap | 2,871 | 52 in the last 30 days | TRUE |
| | Arctic Bay selling station | Group | Sell/swap | 3,687 | 202 in the last 30 days | TRUE |
| | Ikpiarjuk News | Group | PSA/News | 1,383 | 220 in the last 30 days | TRUE |
| **Clyde River** | Clyde River Sell/Swap | Group | Sell/Swap | 559 | 55 in last 30 days | TRUE |
| | Clyde River Sell/Swap | Group | Sell/Swap | 6058 | 406 in the last 30 days | TRUE |
| | Clyde River News | Group | PSA/News | 1504 | 138 in the last 30 days | TRUE |
| | Clyde River Auction/Bids | Group | Sell/Swap | 765 | 0 in the last 30 days | TRUE |
| | Clyde river Tusagaksaqarvik | Group | PSA/News | 634 | 17 in the last 30 days | FALSE |
| | Clyde River Rant & Rave | Group | Misc. | 88 | 1 in the last 30 days | TRUE |
| **Grise Fiord** | Grise Fiord News, Sell/Swap and This and That | Group | Sell/Swap | 369 | 188 in the last 30 days | TRUE |
| | Grise Fiord Local Page | Group | News | 320 | 99 in the last 30 days | FALSE |
| | Grise Fiord Sell /Swap | Group | Sell/Swap | 972 | 13 in the last 30 days | TRUE |
| | Grise Fiord Food Bank | Group | PSA/News | 51 likes | active | TRUE |
| **Sanirajak** | Sanirajak sell and swap | Group | Buy & Sell | 4,324 | 108 in the last 30 days | TRUE |
| | Sanirajak News | Group | General / News | 865 | 89 in the last 30 days | TRUE |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Hall Beach sell and swap | Group | Buy & Sell | 342 | 1 in last 30 days | TRUE |
| | Igloolik and Hall Beach talk NO RULES | Group | General / News | 567 | 4 in the last 30 days | TRUE |
| | Sanirajak / Hall Beach Food Bank | Page | General / News | 172 likes | active | TRUE |
| **Igloolik** | Igloolik Sell/ Swap | Group | Buy & Sell | 9,023 | 380 in the last 30 days | TRUE |
| | Igloolik NEWS | Group | General / News | 527 | 18 in last 30 days | TRUE |
| | Igloolik-miut | Group | | 704 | 15 in the last 30 days | TRUE |
| | Igloolik Recreation | Page | PSA/News | 228 likes | inactive | TRUE |
| **Iqaluit** | Iqaluit Sell/Swap | Group | Sell/Swap | 24079 | 1,880 in the last 30 days | TRUE |
| | Iqaluit Public Service Announcements | Group | PSA | 14,836 | 619 in the last 30 days | TRUE |
| | Iqaluit Rant and Rave | Group | General / News | 8,313 | 151 in the last 30 days | TRUE |
| | Iqaluit Sell Swap #2 | Group | Sell/Swap | 8,670 | 1,828 in the last 30 days | TRUE |
| **Kimmirut** | Kimmirut Swap/Sell | Group | Sell/Swap | 2,063 | 82 in the last 30 days | TRUE |
| | Kimmirut PSA | Group | PSA | 565 | 75 in the last 30 days | TRUE |
| | Iluiliq Centre Kimmirut | Page | Page | 53 follows | active | TRUE |
| **Kinngait** | Kinngait Public Service Announcement | Group | General / News | 187 | 24 in the last 30 days | TRUE |
| | Cape Dorset sell/swap | Group | Buy & Sell | 1,486 | 43 in the last 30 days | TRUE |
| | Kinngarni odds and ends | Group | Buy & Sell | 2,345 | 293 In the last 30 days | TRUE |
| **Pangnirtung** | Pangnirtung Sell/Swap | Group | Buy & Sell | 12,064 | 369 in last 30 | TRUE |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Pangnirtung News & announcements | Group | General / News | 3,055 | 223 in the last 30 days | TRUE |
| **Pond Inlet** | Pond Inlet News | Group | General / News | | 190 in the last 30 days | TRUE |
| | Pond Inlet Sell/Swap | Group | Buy & Sell | 7,759 | 282 in the last 30 days | TRUE |
| | Hamlet of Pond Inlet | Page | News | 262 people follow this | active | TRUE |
| | Mittima Food Bank Society | Page | General / News | 356 likes | active | TRUE |
| **Qikiqtarjuaq** | Qikiqtarjuaq News | Group | PSA/News | 1404 | 78 in the last 30 days | TRUE |
| | Qikiqtarjuaq Sell/Swap | Group | Buy & Sell | 5391 | 176 in the last 30 days | TRUE |
| | Qikiqtarjuaq photos and its stories | Group | Photo Sharing | 2040 | 31 in the last 30 days | TRUE |
| **Resolute Bay** | Resolute Bay Sell/Swap,News and This and That | Group | General / News<br>Buy & Sell | 2250 | 135 in the last 30 days | TRUE |
| | Resolute Bay | Group | General / News | 430 | 16 in the last 30 days | TRUE |
| **Sanikiluaq** | Sanikiluaq Announcements | Group | General / News | 1932 | 379 in the last 30 days | TRUE |
| | Sanikiluaq Announcements | Group | General / News | 787 | 175 in the last 30 days | FALSE |
| | Sanikiluaq Wellness announcement page | Page | Page | 224 | daily | TRUE |
| | Sanikiluaq Buy and Sell | Group | Buy & Sell | | 135 in the last month | TRUE |
| **Cambridge Bay** | Cambridge Bay Volunteers During COVID-19 | Group | General / News | | inactive | TRUE |
| | Municipality of Cambridge Bay | Page | Hamlet Page | 1454 | active | TRUE |
| | Cambridge Bay Sell Swap | Group | Buy & Sell | 5941 | 474 in the last 30 days | TRUE |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Cambridge Bay News | Group | General / News | 4845 | 420 in the last 30 days | TRUE |
| **Gjoa Haven** | Gjoa Haven (Uqshuuqtuuq) | Group | General / News | 2558 | 279 in the last 30 days | TRUE |
| | Gjoa Haven Sell/Swap | Group | Buy & Sell | 5037 | 624 in the last 30 days | TRUE |
| | Nanivara: Naujaat & Gjoa Haven | Page | Photo Sharing | 580 | inactive | TRUE |
| | Gjoa Haven 2020 events/ Social(Physical) Distancing | Group | General / News | 539 | 183 in the last 30 days | TRUE |
| | Uqshuuqtuuq Sell or Find | Group | Buy & Sell | 1817 | 252 in the last 30 days | TRUE |
| **Kugaaruk** | Kugaaruk Sale and Swap/ Messages | Group | Buy & Sell | 3,277 | 657 in the last 30 days | TRUE |
| | Kugaaruk, Nunavut (Pelly Bay) | Group | General / News | 1301 | 133 in the last 30 days | TRUE |
| **Kugluktuk** | Kugluktuk News | Group | General / News | 2439 | 286 in the last 30 days | TRUE |
| | Kugluktuk Buy Sell | Group | Buy & Sell | 3444 | 418 in the last 30 days | TRUE |
| **Taloyoak** | Taloyoak Sell/Swap Buy and Messages | Group | Buy & Sell | 5366 | 944 in the last 30 days | TRUE |
| | Taloyoak News 1 | Group | General / News | 1112 | 99 in the last 30 days | TRUE |
| | Taloyoak Community Events | Group | General / News | 510 | 29 in the last 30 days | TRUE |
| | Taloyoak News | Group | General / News | 414 | 5 in the last 30 days | TRUE |
| | Taloyoak Sell / Swap | Page | Page | 111 | 0 in the last 30 days | TRUE |
| | Recreation Taloyoak | Group | General / News | 498 | 70 in the last 30 days | TRUE |
| **Arviat** | Hamlet of Arviat | Page | Hamlet Page | 1753 | active | TRUE |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Arviat Sell/Swap | Group | Buy & Sell | 2249 | 443 in the last 30 days | TRUE |
| | Arviat Sell / Swap Group | Group | Buy & Sell | 2272 | 543 in the last 30 days | TRUE |
| | Arviat Hunters and Trappers Organization | Page | HTO Page | 242 | inactive | TRUE |
| | ARVIAT Nunavut Local News | Group | General | 742 | 32 in the last 30 days | TRUE |
| | Arviat SELL/SWAP Group | Group | Buy & Sell | 1237 | 240 in the last 30 days | TRUE |
| **Baker Lake** | Baker Lake Community Events | Group | PSA | 4528 | 337 in the last 30 days | TRUE |
| | Baker Lake Sell/Swap | Group | Buy & Sell | 8552 | 615 in the last 30 days | TRUE |
| | Baker Lake Health & Wellness Committee | Page | Wellness Programming | 312 | active | TRUE |
| | Abluqta Society | Page | Page - Food bank | | active | TRUE |
| **Chesterfield Inlet** | Chesterfield Inlet Sell/Swap | Group | Buy & Sell | 3065 | 93 in the last 30 days | FALSE |
| | Chesterfield Inlet Sell/Swap NO RULES | Group | Buy & Sell | 439 | 10 in the last 30 | FALSE |
| | Hamlet of Chesterfield Inlet | Page | Hamlet Page | 160 | Infrequent | TRUE |
| **Coral Harbour** | Salliqvaluk Facebook (Coral Harbour) | Group | News | 1215 | 18 in the last 30 days | TRUE |
| | Coral Harbour 'NEWS' no limitations :) | Group | News | 476 | 55 in the last 30 days | TRUE |
| | Coral Harbour Buy, Sell or trade | Group | Buy & Sell | 3033 | 54 in the last 30 days | TRUE |
| | Coral Harbour Elders | Group | Photo Sharing | 1499 | 1 in the last 30 days | TRUE |
| | Salliq Public Service Announcements | Group | General | 448 | 78 in the last 30 days | FALSE |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Naujaat** | Repulse Bay/Naujaat/ Sell/Swap | Group | Buy & Sell | 5,740 | 228 in the last 30 days | TRUE |
| | Naujaat Sell/Swap | Group | Buy & Sell | 876 | 40 in the last 30 days | TRUE |
| | Naujaat Sell/Swap NO RULE! | Group | Buy & Sell | 881 | 53 in the last 30 days | TRUE |
| | Naujaat, Nunavut - Aivilingmiut | Group | Photo Sharing? | 1239 | 57 in the last 30 days | TRUE |
| **Rankin Inlet** | The Rankin Inlet News | Group | News | 7704 | 416 in the last 30 days | TRUE |
| | Rankin Inlet Sell/Swap | Group | Buy & Sell | 13847 | 849 in the last 30 days | TRUE |
| | Hamlet of Rankin Inlet | Group | PSA | 2588 | 8 in the last 30 days | TRUE |
| | Rankin Inlet Local Naalagvik | Group | Local Radio | 770 | barely, two new posts in May, Jan before that | TRUE |
| | Rankin Inlet Rant and Rave | Group | Misc. | 781 | 3 in the last 30 days | FALSE |
| **Whale Cove** | Whale Cove Sell & Swap | Group | Buy & Sell | 2440 | 137 posts in the last 30 days | TRUE |
| | Whale Cove Hamlet | Page | News | 135 | active | TRUE |
| | Issatikpaluk Facebook(Whale Cove Only) | Group | Buy & Sell | 728 | 25 in the last 30 days | FALSE |
| | Whale Cove Recreation Announcements | Group | General | 203 | 15 in the last 30 days | TRUE |

# Appendix C

**Table C-1**

*Community Food Sharing From Individuals and Food Programs*

| Community | Individual country food | Individual store-bought | Total individual food sharing | Food program country food | Food program store-bought | Total food program sharing | Total instances food sharing |
|---|---|---|---|---|---|---|---|
| **Qikiqtaaluk** | | | | | | | |
| Arctic Bay | 7 | 3 | **10** | 1 | 18 | 19 | **29** |
| Clyde River | 0 | 1 | **1** | 2 | 13 | 15 | **16** |
| Grise Fiord | 1 | 0 | **1** | 8 | 3 | 11 | **12** |
| Igloolik | 4 | 1 | **5** | 0 | 1 | 1 | **6** |
| Iqaluit | 2 | 3 | **5** | 1 | 12 | 13 | **18** |
| Kimmirut | 3 | 0 | **3** | 1 | 4 | 5 | **8** |
| Kinngait | 1 | 0 | **1** | 0 | 0 | 0 | **1** |
| Pangnirtung | 1 | 0 | **1** | 2 | 1 | 3 | **4** |
| Pond Inlet | 4 | 0 | **4** | 5 | 7 | 12 | **16** |
| Qikiqtarjuaq | 0 | 0 | **0** | 1 | 0 | 1 | **1** |
| Resolute | 0 | 3 | **3** | 2 | 6 | 8 | **11** |
| Sanirajak | 0 | 0 | **0** | 1 | 10 | 11 | **11** |
| Sanikiluaq | 10 | 6 | **16** | 3 | 5 | 8 | **24** |
| | | | | | | | |
| **Kitikmeot** | | | | | | | |
| Cambridge Bay | 3 | 1 | **4** | 0 | 2 | 2 | **6** |
| Gjoa Haven | 3 | 3 | **6** | 0 | 1 | 1 | **7** |
| Kugaaruk | 6 | 0 | **6** | 1 | 0 | 1 | **7** |
| Kugluktuk | 21 | 2 | **23** | 0 | 2 | 2 | **25** |
| Taloyoak | 0 | 0 | **0** | 10 | 0 | 10 | **10** |
| | | | | | | | |
| **Kivalliq** | | | | | | | |
| Arviat | 4 | 2 | **6** | 0 | 2 | 2 | **8** |
| Baker Lake | 4 | 1 | **5** | 0 | 9 | 9 | **14** |
| Chesterfield Inlet | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| Coral Harbour | 0 | 0 | **1** | 0 | 0 | 0 | **1** |
| Naujaat | 3 | 0 | **3** | 0 | 1 | 1 | **4** |
| Rankin Inlet | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| Whale Cove | 1 | 0 | **1** | 0 | 2 | 2 | **3** |
| Totals | **78** | **26** | **105** | **38** | **99** | **137** | **242** |

**Table C-2**

*Food Sharing Requests Through Community Facebook Pages*

| Community | Country food requests | Store-bought requests | Total instances food requests | Total food requests fulfilled |
|---|---|---|---|---|
| ***Qikiqtaaluk*** | | | | |
| Arctic Bay | 2 | 1 | **3** | **1** |
| Clyde River | 0 | 0 | **0** | **0** |
| Grise Fiord | 0 | 0 | **0** | **0** |
| Igloolik | 0 | 0 | **0** | **0** |
| Iqaluit | 0 | 1 | **1** | **0** |
| Kimmirut | 0 | 0 | **0** | **0** |
| Kinngait | 0 | 0 | **0** | **0** |
| Pangnirtung | 0 | 0 | **0** | **0** |
| Pond Inlet | 0 | 0 | **0** | **0** |
| Qikiqtarjuaq | 0 | 0 | **0** | **0** |
| Resolute | 0 | 0 | **0** | **0** |
| Sanirajak | 0 | 0 | **0** | **0** |
| Sanikiluaq | 3 | 2 | **5** | **4** |
| | | | | |
| ***Kitikmeot*** | | | | |
| Cambridge Bay | 1 | 0 | **1** | **0** |
| Gjoa Haven | 1 | 0 | **1** | **0** |
| Kugaaruk | 1 | 2 | **3** | **0** |
| Kugluktuk | 0 | 0 | **0** | **0** |
| Taloyoak | 0 | 0 | **0** | **0** |
| | | | | |
| ***Kivalliq*** | | | | |
| Arviat | 0 | 0 | **0** | **0** |
| Baker Lake | 0 | 0 | **0** | **0** |
| Chesterfield Inlet | 0 | 0 | **0** | **0** |
| Coral Harbour | 0 | 0 | **0** | **0** |
| Naujaat | 2 | 0 | **2** | **1** |
| Rankin Inlet | 0 | 0 | **0** | **0** |
| Whale Cove | 0 | 0 | **0** | **0** |
| **Totals** | **10** | **6** | **16** | **6** |