Feeding My Family: How are Individuals using Social Media in the context of supporting Food Security and Food Sovereignty in Northern Canada?

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ABSTRACT

In this day and age, digital information and communication technologies (ICTs) have become an instrumental tool that people around the world can use to share and exchange information faster and more efficiently. There is no doubt that digital ICTs support more efficient and productive communication. However, it is not evident to what extent digital ICTs, such as social media platforms, may be used as a tool to increase awareness and promote advocacy of public issues in certain regions and communities. This capstone research project focuses on exploring the role that social media platforms play in increasing awareness of and promoting advocacy for food sovereignty as a means to support food security and healthy eating in rural communities in the northern territories of Yukon, Nunavut, and Northwest Territories.

A thorough literature review provides evidence of how people living in Northern and Indigenous communities are experiencing challenges and opportunities related to food insecurity and food sovereignty. Nevertheless, research gaps remain in how, social media tools are being used in this context. I explored these questions through a qualitative content analysis of postings in a public Facebook group, *Feeding My Family*, which focuses on food insecurity in the North. My original intention was to also conduct interviews with administrators and members of this group, but these potential participants did not respond to my request for interviews within the established deadline. It appears that the Facebook group is not currently active, possibly due to the Coronavirus Disease (COVID-19) pandemic that first appeared in 2019 and as of summer 2020, continues to spread worldwide (World Health Organization (WHO). Therefore, my supervisor and I determined that I would focus my capstone research on analysing social media posts. My content analysis of Facebook posts

found that social media is indeed an effective tool in raising awareness and promoting on-line activism in the context of food security and sovereignty in Northern Canada. In this capstone, I explain some of the reasons why, and also describe how people are using social media in this context. I also observed that online engagement in the Facebook group only took place for a limited time. The reasons why online engagement was not sustained fall outside the scope of this capstone research project. Therefore, I recommend that future researchers consider exploring the reasons behind the lack of sustained uptake in online engagement on food insecurity in the North of Canada.

CHAPTER 1: INTRODUCTION

My research questions and interest in how social media is used to raise awareness and inform government policy on public issues such as food security emerged from my background working in the hi-tech and non-profit sectors, an interest in food related concerns, and recent interactions and engagement in the MACT program and with faculty; all of which led me towards exploring this line of inquiry in my capstone research project.

WHAT IS THE TOPIC I AM STUDYING?

My capstone research project explores how residents of Northern Canada are using social media platforms, such as Facebook, to share and exchange information to advocate for food sovereignty and to raise awareness about concerns related to food accessibility and food security. While my research questions specifically analyse how Northern residents are using social media tools like Facebook, I also stress the larger structural barriers affecting food security and accessibility in this context. In particular, my literature review discusses research that demonstrates how Indigenous peoples tend to be the most adversely impacted by structural barriers, including economic and social determinants of health.

WHO AM I AND WHY I AM INTERESTED IN THIS TOPIC?

I, Larissa Koplyay, am a descendent of immigrant parents, from Hungary and Mexico. I appreciate the importance that active citizens have in promoting advocacy on public policy issues and in making a meaningful contribution to advancing socio-economic goals. I have worked in the hi-tech and non-profit sectors and have conducted research exploring various topics, ranging from government policy and digital communications to human rights issues. While growing up in Ottawa, ON (CAN), I developed an interest in healthcare issues impacting

individuals and society; particularly regarding how technology can be utilized to improve the management of digital information while increasing efficiencies and improving socio-economic outcomes. I enrolled in the Master of Arts in Communications and Technology (MACT) program at the University of Alberta with an interest in exploring how social media platforms are being used by people living in Northern and Indigenous communities to increase awareness of food insecurity and promote advocacy for increased accessibility to healthy food in the North.

WHY SHOULD WE CARE?

Public health is linked to the availability of healthy food through conditions such as Type 2 Diabetes (T2D). At present, Canada is experiencing an increasing trend in overall cases of T2D. This has become a collective concern as levels of T2D continue to rise amongst all segments of the Canadian population, with higher disproportionate growth in the North (Crowshoe et al., 2018). Without proper management, T2D can reduce quality of life, resulting in limb loss, poor health outcomes, and increased risk of death. While individual-level factors such as behaviour and eating habits are one component of reduction and management of T2D, others important factors are tied to the social determinants of health, such as access to affordable and healthy food. As I explain in more detail in my literature review, in Northern Canada many people face challenges in securing access to healthy and affordable food, and in improving food security through culturally-appropriate methods, such as food sovereignty activities that are tied to Indigenous practices. Information disseminated via digital information communication technologies (ICTs) can assist in improving this situation by raising awareness about T2D and its broader causes, such as food insecurity, and by promoting online advocacy to explore potential solutions, including food sovereignty activities. Communication exchanges using ICTs also have the capacity to reach a vast number of people across the country, regardless of geographical

distance or time zone. In this context, my capstone research project explores the impacts that social media may have in promoting collective action and advocacy. I focus my analysis of this issue on a public Facebook group dedicated to issues of food insecurity and food sovereignty in Northern Canada; however, this focus could also be applied in other contexts.

INTRODUCING THE RESEARCH TOPIC: FOOD INSECURITY IN NORTHERN CANADA

Food insecurity is a significant and growing concern among diverse communities and individuals around the world. In fact, it is estimated that approximately 820 million people around the world will experience hunger and food insecurity, and that children in food insecure households are the most vulnerable (Canadian Feed the Children, 2019). This problem exists across Canada. Despite being among the world's richest countries with a gross domestic product (GDP) exceeding \$1.6 trillion in 2017 and with an average life expectancy of 82.5 years, there are many people living in Canada who do not have access to healthy food (Suneson, 2019, paras. 22-23). According to Canadian Feed the Children, a Canadian non-governmental organization (NGO), food insecurity is understood as the lack of access to healthy food. This concept highlights the physical and/or economic barriers that prevent people from accessing "sufficient, safe, and nutritious food to meet ...dietary needs and food preferences for an active and healthy life" (Canadian Feed the Children, n.d., para. 2).

Compared to the general Canadian population, Indigenous communities in rural and remote areas of Canada are affected the most by food insecurity. This issue extends back to the earliest days of colonisation (Daschuk, 2013; Missing and Murdered Indigenous Women and Girls (MMIWG), 2019, pp. 171-172). Today, Indigenous peoples continue to face "significant"

and ongoing challenges" related to food insecurity due to the legacy of colonialism (Canadian Feed the Children, n.d., para. 5). Under current conditions, it is very difficult for Indigenous peoples in remote communities to feed themselves and their families with affordable fresh food. Over the years, "many Indigenous families have come to rely more frequently on "commercial grocery stores where they [often encounter] high prices for nutritious food" (ibid, para. 12). High prices of healthy food have pushed many Indigenous households into a "cycle of poverty and food insecurity [that] is difficult to overcome" (ibid). For example, amongst Inuit households in Canada, roughly 2 in 3 Inuit children will experience food insecurity (ibid, para. 6).

My literature review suggests three core reasons for these challenges, which I describe in more detail in subsequent sections. First, cultural practices of Indigenous peoples related to food security and food sovereignty have been undermined due to historical and ongoing impacts of settler-colonial policies. Second, environmental challenges due to climate change are further impacting the ability of rural and remote Indigenous communities to engage in land-based food activities. Third, Indigenous peoples face economic challenges that impact their ability to purchase healthy food, which is also more expensive in rural and remote Northern communities.

CULTURAL PRACTICES

Indigenous peoples have always been engaged in sourcing healthy local food to feed their families and communities, from hunting caribou to catching fish and harvesting vegetables. However, traditional practices used to access healthy and affordable food have been disrupted by adverse impacts from settler-colonial policies. For instance, some prevalent barriers to food security for Indigenous peoples living in Canada include, but are not limited to, the legacy of residential schools that tore families apart, and the government's ban to freely practice their

traditional spiritual practices, language, and identity (ibid, paras. 7-12). With respect to their impacts on food security, these structural barriers have impacted connections to traditional practices for accessing food (ibid, paras. 7-9). Compounding factors include "the ongoing loss of rights to traditional territories and resources" (ibid, para. 11).

CLIMATE CHANGE

Climate change has also made it increasingly difficult for people to practice land-based food gathering practices. For example, global warming in the North has thinned the ice and shortened the times when it is possible to hunt in territories that remain under the authority of Indigenous communities. Since the first Earth Summit in Rio de Janeiro in 1992, the Inuit community in Canada and the Inuit Circumpolar Council (ICC) have called for the need to address global warming, in part to address its impacts on food security (Brake, 2018, para. 4). The Intergovernmental Panel on Climate Change (IPCC) – the United Nations body responsible for assessing the science related to climate change – has also pointed out that elevated temperatures have significantly contributed to the increase in frequency of food insecurity, and the collapse of the ocean's wildlife (The Intergovernmental Panel on Climate Change (IPCC), n.d.; Brake, 2018, para. 5). With each increase in the world's temperature of 0.5°C degrees, there is an accompanying increased risk of entire ecosystems dying off as it becomes too hot to sustain life (Brake, 2018, paras. 8-9).

Northern Canada is particularly vulnerable to climate change, as seen in changes such as thinning ice and rising sea levels (ibid, para. 9). The Arctic and Subarctic are two of the first regions of the world to experience the direct and local effects of global warming (Canadian Geographic: Indigenous Peoples Atlas of Canada, n.d., para. 1). The Government of Canada has

implemented several new climate change programs to encourage adaptation to climate change (i.e. Climate Change and Health Adaptation Program, Northern Responsible Energy Approach for Community Heat and Electricity Program, Climate Change Preparedness in the North Program, First Nations Adapt Program, and Indigenous Community-Based Climate Monitoring Program) (Indigenous and Northern Affairs Canada, n.d.a.). However, according to the federal Environment Commissioner of Canada, Julie Gelfand, "Canada is not doing enough" to address climate change (Lewis, 2019, para. 1). In summary, climate change is another pervasive factor that Indigenous peoples in Canada have to contend with when sourcing food. This is especially the case for Inuit communities in the North who have demonstrated the burden that climate change is placing on their communities and on their ability to access healthy food (Canadian Feed the Children, n.d., para. 2).

SOCIOECONOMIC CHALLENGES

Poverty is generally higher amongst Indigenous populations in Canada compared to the general population. Overall, "child poverty on reserves has remained [virtually] unchanged for a decade" (Beedie et al., 2019, p. 1). According to a 2019 report, *Towards Justice: Tacking Indigenous Child Poverty in Canada*, "First Nations children are ... the most marginalized and economically disadvantaged" population group in Canada, with "the highest rates of poverty" (ibid, p. 3). According to the report: "47% of status First Nations children" live in poverty – over half (53%) of which live on-reserve" (ibid, p. 1). Unfortunately, child poverty for First Nations children has not improved much over the years either. For example, in 2006, the rate of poverty was 52%, but 10 years later this figure had only dropped by 5% (to 47%) (ibid, p. 2). According to the 2019 report, this drop is likely due to the number of children relocating from reserves to off-reserve communities, which suggests that the situation may not have improved in reserve

communities (ibid, p. 2). That said, child poverty for Inuit children has improved somewhat in Nunavut, Newfoundland, Labrador, and the Northwest Territories (ibid).

In part, these challenges are tied to "deeply rooted structural barriers embedded in the Canadian economic landscape" (The National Indigenous Economic Development Board (NIEDB), 2019, p. 8). These barriers are tied to the legacy of colonialism; for example the "Indian Act and its restrictive land regime, [the] inadequate implementation of the treaties, and systemic exclusion of Indigenous peoples from economic systems" have all contributed towards the lower rates of economic achievement for Indigenous populations in Canada (ibid).

In 2005, according to Statistics Canada, the median total income for Indigenous populations in Canada between the ages of 25 to 54 was slightly over \$22,000, compared to over \$33,000 non-Indigenous peoples (Statistics Canada, n.d.a., para. 1). That same year, it was estimated that First Nations earned about \$19,000, Inuit about \$25,000, and Métis about \$28,000 (ibid). These numbers decrease for First Nations living on-reserve, who earned about \$14,000 compared to those living off-reserve who earned about \$22,500 (ibid).

While it is important to note that location does not appear to make a difference for the income disparity between Indigenous populations and the general population in Canada (Wilson & Macdonald, 2010, p. 3), income disparity exists throughout Canada. It is estimated that First Nations working in urban reserves earn 34% less compared to those who are non-Indigenous (ibid, 2010, p. 3). However, this inequality is compounded in rural reserves, where First Nations earn approximately 88% less than their non-Indigenous peers (ibid).

In summary, Indigenous populations in Canada are negatively affected by the social determinants of health, including: social exclusion, low income and unequitable income distribution, Indigenous status, racialization, gender, disability, reduced learning opportunities, low education attainment, poor employment and working conditions, unemployment and job insecurity, no social safety network, poor housing, [and] inadequate health services (Beedie et al., 2019, p. 6). They have been overrepresented in "low paying jobs and [have] higher unemployment rates...than their non-Indigenous counterparts" (NIEDB, 2019, p. 8).

Additionally, they suffer from the negative impacts of structural racisms, including ongoing discrimination, inadequate and insufficient housing, and lack of access to water, transportation, and connectivity infrastructure (Beedie et al., 2019, p. 8). All of these factors have contributed to food insecurity amongst Indigenous populations in Canada (ibid, p. 2). In the next chapter, I conduct a literature review that will discuss issues of food security and food sovereignty in more detail, and also consider the ways that different groups are using ICTs to raise awareness of – and advocate for solutions to – these public issues.

CHAPTER 2: LITERATURE REVIEW

INTRODUCTION TO LITERATURE REVIEW

As discussed in the previous chapter, food insecurity is tied to socioeconomic determinants of health, resulting in structural barriers that can reduce access to healthy, minimally processed foods (Government of Canada, 2018; Beedie et al., 2019). These structural barriers can also hinder efforts towards combating diabetes, since a healthy diet is one of the best means to prevent the development of T2D (Zgibor et al., 2001). To improve access to perishable nutritious food in remote Northern communities, the Government of Canada has developed a subsidy program called Nutrition North Canada (NNC). Along with public policy solutions, Indigenous peoples have proposed their own solutions to these challenges. Traditional food systems in Canada's Northern communities have "close cultural and spiritual ties to the land" and are reliant on harvesting and gathering (Spring et al., 2018, p. 111). However, accessibility to traditional foods has been impacted by socioeconomic factors, such as climate change, resulting in increased reliance on less healthy and more expensive processed foods (Spring et al., 2018; Dahm, 2015). Beyond climate change and food related policies, industrial mining in the North is another contributing factor that hinders the ability of subsistence hunters to sustain themselves and their families (Parlee et al., 2018; McDonald, 2018). Nevertheless, self-determination in the food sovereignty movement has "emerged as a means of addressing pervasive food-related problems" prevalent "in many Indigenous communities in Canada" (Robin, 2019, p. 1). In this literature review, I will review the research on these issues, before turning to ways that social media may help raise awareness of both challenges and potential solutions.

LITERATURE REVIEW METHODOLOGY

With a focus on online activism on food security and accessibility of healthy food in the North, I conducted a comprehensive bibliographic search of peer-reviewed journals, academic databases, university libraries (i.e. University of Alberta), and public domain search engines (i.e. Google scholar). The criteria for the inclusion of literature in this search comprised of resources on the following subjects:

- Canadian Indigenous groups (i.e. First Nations, Métis, and Inuit);
- Social determinants of health;
- Cultural practices;
- Access to healthy food, food sovereignty, and food security;
- Climate change, industrial development and winter roads;
- Social media platforms; and
- Best practices and policy interventions.

My search of literature in these areas revealed that quantitative methods have been used most often to study the social determinants of health. Some of the challenges in using quantitative research methods include non-significant causal relationship between variables by randomly assigning participants, not being able to control independent variables, and ethical concerns (Query et al., 2009). I also found resources that used qualitative methods to engage with First Nations, Métis, and Inuit populations living in Canada in order to study the dissemination of content via social media platforms (i.e. Facebook), as well as to identify barriers and solutions to food insecurity from the Indigenous perspective (i.e. through interviews).

Step 1) **Pre-search:** I selected secondary sources (ex. 'grey literature' such as news articles) and peer-reviewed journal articles via online searches on Google Scholar, Google, University of Alberta Library Archives, and scholarly databases (Snelson, 2016, p.3). I then used a systematic process to analyse these selected sources (ibid). For my online search, I developed key search words and phrases identified from the literature review, as well as from prior online searches using key words and phrases, search filters, and scholarly databases. The specific key words and phrases I used included the following:

- Food insecurity/security
- Canada
- Canadian Indigenous peoples—First Nations, Métis, Inuit
- Northwest Territories, Nunavut, Yukon
- Food pricing/cost
- Poverty in Canada
- Hunger in Canada
- Social determinants of health
- Traditional food(s)
- Food Sovereignty Movement
- Accessible food
- Diabetes—Type 1 Diabetes (T1D) and Type 2 Diabetes(T2D)
- Mining in the North of Canada
- Feeding My Family
- Social media platforms
- Climate change in Canada—global warming and winter roads

The literature review included exploring topics such as: Facebook and communications technology (i.e. social media platforms); research approaches (multi-method approach); socioeconomic factors contributing towards food insecurity in the North of Canada; and historical context. Essentially, I combined Facebook and social media-specific key search words and phrases with the list of more general topics above to explore various journals, studies, news articles, blogs, etc. The key search words and phrases mentioned above were used at least once in the literature review. The information drawn for this capstone research project comes from an array of specialties (i.e. fields of study) and databases (ex. scientific, medical, and communications specialized journals).

Step 2) <u>Search</u>: I conducted my online searche for materials in 2019 and 2020. The materials used for this capstone research project are provided in the References and Additional Bibliography. There were limitations in the selection of materials: for example, my searches were conducted in English, which limited the scope of my results to publications in English. The following sections summarize my findings from this literature review process.

SOCIOECONOMIC CHALLENGES AND FOOD INSECURITY

Issues of food insecurity tied to social determinants of health include structural barriers that can reduce choice to healthy, minimally processed foods (Government of Canada, 2018; Beedie et al., 2019). Although some studies have focused on individual-level factors, such as claims made about genetic predisposition to diabetes in Indigenous groups (Hay, 2018), research discussed below indicates that the main social determinants of health for Indigenous people in Northern communities include poverty and lack of access to healthy food. For this reason and in

the context of my study, I focus on how social media is used by Northern residents to increase awareness and promote advocacy to improve access to healthy and affordable food in the North.

SOCIAL DETERMINANTS OF HEALTH APPROACH TO STUDYING DIABETES

Structural barriers that hinder efforts towards combating diabetes include socioeconomic status (SES), lack of access to quality medical care and healthy food, insufficient means to pay for care or healthy food sources, and lack of collective awareness about diabetes related issues that require collective action (Zgibor et al., 2001; Palmater, 2011). The ongoing funding inequities of basic social services has resulted in desperate living conditions, poor health, and barriers to education and employment. Policy makers need to focus on equitable funding, First Nations jurisdiction, and cultural revitalization to achieve healthy communities (Palmater, 2011).

Bringing down the prevalence rate of diabetes in remote Indigenous communities requires government action, policy change, and dissemination of appropriate information. Digital information and communication technologies (ICTs) provide one tool that people living in these communities can use to achieve these goals. While digital ICTs can offer a bridge to connect community members with one another, and with policymakers and others, digital adoption is complex in Northern Indigenous communities. That is because barriers go beyond access to technologies themselves, and include broader social issues, such as settler colonialism, lack of effective government policy, socioeconomic uncertainty, geographic impediments, and small populations. The history of settler colonialism has affected relationships and trust as top-down government approaches to public policy issues do not necessarily serve the needs of the diverse Northern peoples. Therefore, the adoption of digital ICTs in these communities requires a

multifaceted approach that engages Northern residents and that reflects their concerns and needs (Fontaine, 2017).

FOOD INSECURITY: LACK OF ACCESS TO HEALTHY FOOD

Access to healthy food is one of the best means to prevent the development of T2D. However, as discussed earlier, 1 in 8 Canadian households will experience food insecurity (CBC News: The National, 2020). Food insecurity occurs when there is an immediate and on-going inability to secure an adequate diet made up of high-quality, healthy food (Council of Canadian Academies, 2014, p. xxv). Food security is influenced by the social determinants of health. The 1996 World Food Summit (WFS) determined that food security exists "when all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (Committee on World Food Security, 2012, p. 5).

Food insecurity is a significant issue in Indigenous Northern communities in Canada, especially for children and women (Council of Canadian Academies, 2014, p. xiv; Food Secure Canada (FSC), n.d.a.). A 2018 study found that 35.1% of Inuit households in Nunavut will experience severe food insecurity, while only 29.7% of them will be food secure (ibid, 2018, p. xv). Inuit households in the Inuvialuit Settlement Region experience 13% of severe levels of food insecurity, while just 54% will be food secure (Council of Canadian Academies, 2014, p. xv). According to the *International Polar Year Inuit health Survey*, 2007-2008, "Nunavut has the highest documented rate(s) of food insecurity for any Indigenous population living in a developed country" (ibid).

NUTRITION NORTH CANADA

To improve access to perishable nutritious food in remote Northern communities, the Government of Canada developed a subsidy program called Nutrition North Canada (NNC). The NNC subsidizes a list of nutritious eligible foods, as well as some non-food items like diapers and non-prescription drugs that are sold by registered retailers, suppliers, and country food processors (Government of Canada, n.d.a., paras. 1-2). As of 2016, roughly \$53 million is spent each year to subsidize the transportation of primarily perishable food to 103 isolated Northern communities that do not have year-round road, rail, or marine access in several provinces and territories, including Yukon, the Northwest Territories, and Nunavut (Food Banks Canada, 2016, p. 2).

The success of the NNC program has been challenged by a number of studies. For example, despite the implementation of NNC, the number of people in the North who could not afford basic food increased from 33.1% in 2010 to 46.8% in 2014 (German, 2019, para. 2). Yet according to the Government of Canada, the program's results from 2011-2016 demonstrate that NNC was successful in reducing the prices "of eligible food in isolated Northern communities" as well as "increasing the amount of perishable nutritious food available" (Government of Canada, n.d.b., para. 1). On average, "[b]etween April 2011 and March 2015," a family of four spent \$94 per month less (5%) than they did in March 2011 (ibid, para. 2). However, according to Statistics Canada, the price of food over part of this time period (between 2014 and 2015) in fact increased by 9.9% (ibid). The 2014 Fall Report of the Auditor General of Canada, in Section 6.10, also indicated that NNC should have obtained more information that showed

¹ Statistics Canada also found that from 2011 to 2016 there was roughly a 25% increase in the "average volume of eligible items shipped to Northern isolated communities" (ibid).

whether "the full subsidy [was] being passed on to consumers" (Office of the Auditor General of Canada, 2014, paras. 15-16). More recently, a 2019 study titled, *Food insecurity in Nunavut following the introduction of Nutrition North Canada*, found that the replacement of the previous *Food Mail Program* with NNC in Nunavut was not about helping people become more food secure, but rather its primary aim was cutting government costs (ibid).

Research indicates that there is also limited trust in the NNC program by people living in the North (German, 2019). For example, in 2016 the federal government engaged in a process to review the NNC program (Coppes, 2019; Government of Canada, n.d.c.). The report from this engagement exercise provided general observations that referred to the high cost of living in the North, along with fixed levels of income that make it difficult for many families to afford healthy food, even with the NNC program (Government of Canada, n.d.c., paras. 62-67). In addition, the NNC subsidy was criticized for not "having a big enough effect on the price of food" (ibid, paras. 62-67). Essentially, the report found that healthy food choices, even with food subsidies, are not accessible and remain too expensive for many people in Northern Indigenous communities. In response to feedback gathered in the 2016 report, among other changes, the government expanded the items subsidized under the NNC program. It also increased subsidies from \$0.15 to \$1.00 per kilogram for some staple items like frozen fruits, vegetables, milk, infant formula, flour, cooking oil, butter, and lard (Murray, 2018, paras. 2-6). This government response demonstrates that there can be policy changes resulting from suggestions and critiques raised by recipients of food security programs in Northern Canada.

CHANGING FOOD LANDSCAPE

Climate change has been an important contributing factor to food insecurity in the North as prolonged higher temperatures and melting ice have made it more difficult for Northern Indigenous communities to maintain access to healthy traditional food. Winter roads are also vulnerable to climate change as warming temperatures have increased the frequency and duration of warm winters, which in turn cause winter roads to close. Industrial mining in the North is yet another contributing factor that hinders the ability of subsistence hunters to sustain themselves and their families. More recently the COVID-19 pandemic has also contributed to the economic hardship in the North and to increased food insecurity. Below, I describe in more detail these contributing factors to food insecurity.

CLIMATE CHANGE

Traditional food systems in Northern Indigenous communities have "close cultural and spiritual ties to the land" and are reliant on harvesting and gathering (Spring et al., 2018, p. 111). Socioeconomic and environmental impacts, such as climate change, have reduced Indigenous people's accessibility to traditional foods and have increased reliance on purchased foods, which can be less healthy and more expensive compared to more traditional foods like caribou, fish, and whale (Spring et al., 2018; Dahm, 2015). Prolonged higher temperatures and melting ice have made it more difficult to maintain access to healthy traditional food. Accordingly, climate change has been contributing to higher rates of food insecurity and an overreliance on unhealthy food items for many Northern Indigenous communities (Spring et al., 2018).

The Arctic, especially Northern Canada, is vulnerable to "some of the earliest and most profound climate-induced changes" that are putting a strain on ecosystems that local hunters rely on for their sustenance (Prowse et al, 2009, p. 282). For instance, rising temperatures in the

Arctic have resulted in an increasingly reduced area covered by ice and for shorter periods of time, which has put pressure "on sea-ice-dependent wildlife and hunters, both of whom are having difficulties in adapting "to a swiftly changing polar ecosystem" (Struzik, 2016, para. 1). The icy landscape is becoming less predictable and less reliable as a sustainable food source as there are increasingly less traditional food sources available to local hunters, such as "whales, seals, fish, and land mammals" (ibid, paras. 1-3).

WINTER ROADS

Winter roads are an important means of transportation for remote Northern communities to access food and needed supplies. Currently, it is estimated that there "are approximately 10,000 km of winter roads" in Northern Canada (Barrette & Charlebois, 2018, p. 2). However, winter roads are vulnerable to climate change. Climate change (i.e. warming temperatures) has increased the frequency and duration of warm winters, which in turn cause winter roads to close. These roads are only used in winter conditions when the ice is thick enough to drive over with a vehicle. In order to do so, the ice needs to support the weight of the vehicle since winter roads "run over land and across frozen" bodies of water (ibid). Winter roads can range "from a few hundred meters to 100's of kilometers" and are managed by "local communities, provincial/territorial governments or the industrial sector", including the mining and energy sector (ibid). Winter roads are vulnerable to climate change, which influences whether and for how long winter roads are used for transportation of goods via vehicles (ibid). This can be disruptive for those who rely on winter roads for provisions, such as fuel, construction material, and food (ibid). Without winter roads, remote Northern communities could be left stranded since air transportation of supplies is very costly, roughly 4 to 9 times per pound more expensive than supplies transported through winter roads (ibid).

In response to the increasingly unpredictability of winter roads, the government of Ontario committed to invest over \$5.8 million in 2019 to 2020 winter roads program "to build and maintain 3,160 kilometers of temporary winter roads" "for 31 First Nations and the Town of Moosoness" (Ontario Government, 2019, paras.1-2). The Minister of Energy, Mines, Northern Development and Indigenous Affairs, Greg Rickford, supported the construction of temporary winter roads for its economic benefits as well as to expedite services. Rickford stated that the winter roads network is an "economic lifeline" for Northern communities and that temporary winter roads provide vital connections to all-season roads that would bring in essential services and goods like food, medical and construction supplies (ibid). According to the Government of Ontario's Newsroom website, "[c]onnecting Northern communities [through winter roads] was part of the government's agenda... [to create] more jobs and opportunities in the North" (ibid, paras. 3-4).

Although increased predictability of transportation is expected to increase economic opportunities, there is a risk that further development will worsen negative impacts on the ecosystem and wildlife in the North. Subsistence hunters may come to completely depend on imported supplies (via winter roads and/or airlifted) for their daily dietary needs. Such a situation will hinder food sovereignty in remote Northern communities and will limit sustainable access to a traditional diet and way of life.

INDUSTRIAL DEVELOPMENT: MINING

Beyond climate change and food related policies, industrial mining in the North is another contributing factor that hinders the ability of subsistence hunters to sustain themselves and their families. Subsistence hunting, according to a 2018 report, is not a contributing factor

for the high decline of prey species, such as the caribou in the North (Parlee et al., 2018). Subsistence hunting has a "negligible effect on the caribou population" (McDonald, 2018, para.

3). Rather, traditional subsistence hunting practices have been historically responsible harvesting practices of prey species (ibid). For instance, voluntarily adjusting the number of caribou hunted to account for natural fluctuations in numbers in order to preserve the health of the herd (ibid). Traditionally, Indigenous hunters and communities have used caribou not only as a food source, but also as a source for clothing and other materials (ibid, para. 2).

A 2018 report, *Undermining subsistence: Barren-ground caribou in a "tragedy of open access*," claims that open access mining in Northern Canada is the main reason for the dramatic declines of barren-ground caribou herds (McDonald, 2018, para. 1; Parlee et al., 2018). This is due to the disruption and degradation of habitat caused by road construction as well as mining exploration and operation (McDonald, 2018, para. 3). Caribou are sensitive to mining exploration and operations because these disrupt the caribou's food sources, habitat, and natural behaviours. Studies have found that the population of Barren-ground caribou has declined by more than 70% and a part of the Bathurst caribou herd, north of Great Slave Lake, has declined by more than 95% (McDonald, 2018, para. 2). Mining and associated construction have been expanding in the North while at the same time the caribou populations have collapsed (ibid, para. 3). As species like caribou have declined drastically, traditional hunting and lifestyles are increasingly inaccessible, which can lead to higher rates of hunger and food insecurity.

COVID-19 AND FOOD INSECURITY

The Covid-19 pandemic reached Canada in early 2020: the first Canadian case was reported by Health Canada on January 25, 2020 (Bronca, 2020, para. 1). Covid-19 is an

infectious disease "that can cause respiratory infections in humans," which can range from mild flu-like symptoms (ex. fever, fatigue, and dry cough) to more serious "symptoms similar to "Middle East Respiratory Symptom (MERS) and the Severe Acute Respiratory Syndrome (SARS)" (ex. shortness of breath, chest pain, loss of movement or speech, and respiratory failure) (Universidad de Monterrey, n.d., paras.1-4; World Health Organization (WHO), 2019; WHO, 2020b).

By mid-August 2020, there were roughly 117,792 reported cases of Covid-19 in Canada (Government of Canada, n.d.d.). Although the majority of reported cases were in the South, primarily in Quebec (59,845) and Ontario (39,628), there were some cases reported in the North as well. There were 14 cases reported in the Yukon, 5 in the Northwest Territories, and 0 in Nunavut (Government of Canada, n.d.d.). The lower rate of reported cases could be due to underreporting and smaller population in the North compared to the South, as well as to strict travel controls between the Northern territories and Southern Canada. According to the 2016 census from Statistics Canada, there were an estimated 113,604 people living in the Yukon, the Northwest Territories, and Nunavut (CBC News, 2017, paras. 1-2) while an estimated 13,448,494 people lived in Ontario and 8,164,361 in Quebec (Statistics Canada, n.d.b.; Statistics Canada, n.d.c.).

However, another explanation for the relatively low number of cases in the North could be due to the region's relative isolation compared to the rest of Canada (Haig, 2020). Some commentators anticipate that it will only be a matter of time before Covid-19 spreads like wildfire in the North as it has done in the South (ibid). The severity of Covid-19 could be exacerbated in the North due to cramped living conditions (i.e. many people living in the same

house) and limited access to medical care (ibid). Travel bans, social distancing, and lockdowns (ex. closing non-essential businesses and working from home) have been used in an effort to halt the spread of the virus (Canadian Nurses Association, n.d.). These efforts to contain Covid-19 have had an impact on the economy and on the food supply chain in the country.

Even if medical ramifications have not currently been felt by Northern residents, the economic impacts have been prevalent. For instance, the economy shutting down due to Covid-19 compounds the factors contributing to food insecurity in the North, such as increasing unemployment, disruption to the food chain, and worsening accessibility to food (Wirzba, 2020). Although there have been efforts made by the government to help alleviate food insecurity in the North (i.e. expanding Nutrition North subsidy program and allocating Covid-19 specific funding for Northern communities), these have not been adequate enough to address "the root causes of food insecurity" in the North (ibid, para. 9). The adverse impact of "Covid-19 on the economy and on food insecurity" could partially explain the reason why *Feeding My Family* Facebook group members could be redirecting their attention away from their online activities (i.e. Facebook) towards other activities that require their immediate attention (i.e. their offline lives) (Levi & Robin, 2020).

Compared to the general Canadian population, Indigenous peoples and communities have been disproportionately affected by COVID-19 due to "long-term systemic social and economic inequalities (ibid, para. 3). Namely, pre-existing economic vulnerabilities that include a higher prevalence of poverty and food insecurity and a reduced capability to cover unexpected expenses (Arriagada et al., 2020, p.3). For example, Statistics Canada released an article titled, *Economic impact of COVID-10 among Indigenous people*, which is a part of the survey, *The Impacts of*

COVID-19 on Canadians: Trust in Others (ibid). This article used crowdsourcing data to explore the extent to which First Nations, Inuit, and Métis peoples may be more susceptible to the socioeconomic effects of COVID-19 (ibid). The researchers interviewed 35,000 people between May 26 to June 8, 2020 for this article. While findings generated from crowdsourcing data cannot be applied to the overall Indigenous population, they can still provide useful insights for the purposes of my Capstone. These findings suggest that Indigenous participants were generally slightly or more severely affected by the economic effects of the novel Covid-19 virus compared to non-Indigenous participants. Indigenous participants were also more likely to experience levels of financial distress due to Covid-19. The study notes that this difference between Indigenous and non-Indigenous participants could be due to the increased socioeconomic vulnerabilities that Indigenous peoples living in Canada typically experience compared to the general population. Overall, the study concludes that Indigenous participants (36%) reported being more severely affected by COVID-19 compared to non-Indigenous participants (25%), for example being unable to afford basic necessities like food (ibid).

Lockdown measures and social distancing between people have been imposed in an effort to contain the spread of the Covid-19 virus in Canada (Young, 2020). It is assumed that this distrust amongst participants is rooted in the fear that lockdown measures may be lifted too soon, placing the public's health at risk. If lockdown measures are lifted too soon, there could be new Covid-19 outbreaks in Canada, including in the North (Miller, 2020). In addition, there appeared to be a greater level of distrust amongst Indigenous participants towards government entities (i.e. federal, provincial, territorial, and/or municipal) concerning making the right decisions regarding Covid-19, particularly about when lockdown measures across the country should be lifted (ibid, p.5). Only 46% of the Indigenous participants had a relatively high degree of trust in the

provincial and territorial governments' decisions about reopening, compared to 56% of non-Indigenous participants (ibid). Overall, there were higher rates of trust in the federal government. Fifty (50%) "of Indigenous and 62% of non-Indigenous participants" reported having trust in the federal government about reopening decisions (ibid).

In response to the impacts from Covid-19 on Canada's food supply chain, the federal government provided \$22 million in mid-August 2020 to Second Harvest and the Canadian Produce Marketing Association to purchase and redistribute perishable food across Canada. However, only 10% of this support was directed to Northern communities (GlobeNewswire, 2020). The acquired food was to be made available in late August through FoodRescue.ca, a digital platform and mobile app created by Second Harvest to connect community groups with food resources (ibid). However, criteria used to make decisions on the distribution of acquired food was not publicly available (ibid). In summary, people living in rural and remote Northern communities face several challenges related to food security, which are increasing due to a variety of pressures including climate change, industrial research extraction, and Covid-19. Researchers have pointed to limitations in existing policy solutions, from the NCC program to emergency food distribution during the time of Covid-19. At the same time, people in these communities are working to address these challenges through several initiatives. In the next section of my literature review, I will discuss one of these proposed solutions to food security: the food sovereignty movement.

FOOD SOVEREIGNTY MOVEMENT TO PROMOTE FOOD SECURITY

The Indigenous food sovereignty movement offers insight into one way that Indigenous peoples are addressing food-related challenges. While there is no single definition for the food

sovereignty movement, "it can be described as the newest and most innovative approach to achieving the end goal of long term food security" (Indigenous Food Systems Network, n.d., para. 1). This is especially relevant for Indigenous peoples living in Canada as they tend to experience higher rates of food insecurity compared to the general population, which leads to poorer health outcomes like diabetes. As noted by the Indigenous Food Systems Network, "Indigenous food sovereignty is a specific policy approach to [address] the underlying issues impacting Indigenous people" and the desire for accessible, "healthy and culturally adapted Indigenous foods" (ibid). The philosophy of Indigenous food sovereignty is holistic in nature and looks at food from the mental, emotional, spiritual and intellectual perspectives. This approach acknowledges the harmony between food and nature (Martens et al., 2016).

Recently, the notion of food sovereignty has aimed at addressing pervasive food-related problems in many Indigenous communities in Canada. Establishing food security (i.e. accessibility) and control over food is important for improved health outcomes, preserving culturally relevant food (i.e. traditional foods), and also for asserting sovereignty over food practices that have been threatened under Canada's colonial legacy (Robin, 2019, p. 85). Specifically, Canada's colonial legacy has negatively impacted and restricted access to wildlife, waterways, and Indigenous connections to traditional lifestyles (Robin, 2019; Kelm, 1999; Lux, 2001; McCallum, 2017; McLachlan, 2014; Shewell, 2004; Truth and Reconciliation Commission, 2015).

Generally, sovereignty involves an authorized entity, whether it is a group of people or an appointed representative, setting the terms for how things will be run within their domain. At the core of sovereignty is control; food sovereignty amongst Indigenous peoples living in Canada

concerns their ability to exert control over the food environment. Fundamentally, Indigenous peoples in Canada advocating for food sovereignty wish to assert their authority to decide and make decisions about how their food environment will look like, what foods would be accessible to the local community and at what prices. Currently, many Indigenous leaders and researchers argue that the Canadian government sets the terms and makes decisions for Indigenous communities (e.g. Palmater, 2011). Many Indigenous communities have limited ability to be a part of the decision-making process on what they can eat (i.e. what is accessible) and how much it will cost.

Implementing lasting change in the North requires a change in government policy that supports food sovereignty as a meaningful contributor to addressing the challenges related to food insecurity. Several studies "[o]ver the past 50 years" have suggested that improvement in living conditions and circumstances for Indigenous peoples in Canada requires "self-determination, supported by changes to the fiscal and jurisdictional relationship between Canada" and Indigenous peoples (Beedie et al., 2019, p. 5). In the case of food insecurity, self-determination in the food sovereignty movement has emerged as a means of addressing pervasive food-related problems prevalent in many Indigenous communities in Canada (Robin, 2019, p. 1). The food sovereignty movement is based upon the belief that individuals should be able to be self-determinant in their own food and cultural traditions (ibid). Self-determination in the food sovereignty movement should assist in overcoming the various barriers in place in order to access healthy food.

Traditional and cultural practices are integral to Indigenous food sovereignty. An Indigenous diet empowers Indigenous communities by reclaiming their food legacy and treaty rights (Maresca, n.d.). The loss of traditional food increases reliance on imported foods and a loss of food knowledge, increasing the cultural loss in understanding of issues such as the relationship of food to health and wellbeing. Proponents of traditional Indigenous food movements argue that a fully decolonized food system will materialize through the food sovereignty movement (Coté, 2016). This food sovereignty movement must be defined locally. Food distribution, food conceptualization and food control must rest with those being affected (i.e. Indigenous communities), in places where the food consumption takes place (Rural Policy Learning Commons (RPLC), n.d.). Community collaboration to increase access to traditional foods, physical activity, and social support has the potential to advance health initiatives and reduce the high rate of diabetes amongst Indigenous peoples in Canada. Likewise, sustainability of these activities is strengthened by self-determination and are deeply influenced by cultural significance and emotional attachment (Satterfield et al., 2016). To do this, there are several initiatives, one of which aims to "support community-led projects like greenhouses, community freezers, and skills training to strengthen Indigenous food systems" (Coppes, 2019, para. 6). While not all these initiatives are regarded as a viable solution by *Feeding My Family* members (i.e. greenhouses), they could help alleviate food insecurity in the North. For example, high expenses involved with implementation, operation, and maintenance of greenhouses limit their use in Northern communities as does the lack of sunshine for half the year.

To address the issue of food insecurity in the North, Indigenous individuals and organizations are advocating for food sovereignty. An example of such entities includes the Indigenous Food Sovereignty Coalition, which is made up of "a handful of Grassroots Indigenous families" seeking knowledge about traditional Indigenous food practices, such as hunting, fishing, and utilizing plants as medicine (Indigenous Food Sovereignty Coalition, n.d.,

para. 3). This group's efforts are aimed at regaining control over their food environment while eliminating the existing dependence on processed foods that lead to illnesses (such as diabetes) (ibid, paras. 3-4). In the next section, I explore the role that social media platforms (such as Facebook) might play in supporting the food sovereignty movement and in raising awareness about food insecurity.

HOW SOCIAL MEDIA PLATFORMS RELATE TO THE FOOD SOVEREIGNTY MOVEMENT

Although extensive research has been conducted to analyse the incidence, prevalence and determinants of health and how they relate to food insecurity and food sovereignty, there is still a need to explore how social media platforms can be leveraged by people living in rural, remote and Northern communities as a tool to increase awareness and promote advocacy for healthy food in the North. In this regard, groups such as the Indigenous Food Sovereignty Coalition, described above, are using social media platforms like Facebook to "[c]ollectively seek" and "obtain traditional training on Indigenous Food System", including hunting, fishing, and agriculture (Indigenous Food Sovereignty Coalition. (n.d.); Nutrition Resource Center, 2016, para. 2). Several other organizations are using Facebook to support food sovereignty, including:

- Indigenous Food Sovereignty Circle;
- Native Food Sovereignty Fellows (focus on Shakopee Mdewakanton Sioux Community);
- Indigenous Food Sovereignty + Security;
- Indigenous Food and Agriculture Initiative; and

• Food Secure Canada ("a pan-Canadian" alliance of organizations and individuals")².

Events about food sovereignty are also disseminated by people on Facebook. For instance, Dr. Priscilla Settee, a member of Cumberland House Swampy Cree First Nations and Professor of Indigenous Studies and Women and Gender Studies at the University of Saskatchewan, organized an event on Indigenous Food Sovereignty (Aka artist run center, n.d., para. 3). Another event held in 2018 about food sovereignty was called, *Lunch & Learn:*Indigenous Food Sovereignty, hosted by McGill Food Law Society and Indigenous Law Association (McGill Food Law Society & Indigenous Law Association, n.d.). During this event, two professors, Stephen R. Penner and Konstantia Koutouki, discussed Indigenous Food Systems (ibid). Yet another event in 2018 disseminated on Facebook dealt with the Growing Indigenous Food Sovereignty Conference, which was hosted by Urban Indigenous Education Centre (Urban Indigenous Education Food Sovereignty Conference, n.d.).

Other online platforms, like blogs, are also being used to promote food sovereignty. For example, Indigenous Food Sovereignty Circles has a link on their Facebook page to their blog, Indigenous Food Systems Network. Other organizations with links to external websites on their Facebook pages include Native Food Sovereignty Fellowship, the Indigenous Food and Agriculture Initiative, and Food Secure Canada. Other blogs that promote food sovereignty and access to healthy foods include the following:

- One Meal A Day (OMD) For The Planet;
- The Local Kitchen;

² (Indigenous Food Sovereignty Circle, n.d.; Native Food Sovereignty Fellows, n.d.; Indigenous Food Sovereignty + Security, n.d.; Aka artists run center, 2018; & Food Secure Canada (FSC), n.d.b.).

- MakeWay (formerly Tides Canada); and
- Our Food SENB³.

The primary medium that these organisations use to disseminate information about this topic is through Facebook, Twitter, blogs, or some other form of website. However, there are currently also some events and/or hashtags on Facebook and Twitter promoting and disseminating content about Indigenous Food Sovereignty which include the following:

On Facebook:

- Indigenous Food Sovereignty Initiative Challenge 2020;
- Labrador Land Protectors; and
- Community Learning Session: Indigenous Food Sovereignty⁴.

On Twitter:

- Journal of Agriculture, Food Systems, and Community Development (JAFSCD) with hashtage #foodsystems;
- Organizations (i.e. Focus on the Global South, FoE Asia Pacific); and
- Individuals (i.e. Aveen Acuña-Gulo, Clipse, and Tubong Mindanao) use the hashtage #sulagad (Journal of Agriculture, Food Systems, and Community Development (JAFSCD), n.d.).

³ (One Meal A Day (OMD) For the Planet, n.d.; Olauson, 2016; Tides Canada, n.d., & Our Food SENB, 2019)

⁴ (Legacy Cultural Learning Community, n.d.; Labrador Land Protectors, n.d.; Engineers Without Borders—UofT Chapter, n.d.).

This review of online tools focused on food security and food sovereignty including social media, websites, blogs and hashtags illustrates a vibrant online community of people and organisations who are dedicated to raising awareness about food insecurity in the North. The factors influencing food insecurity and the degree it influences people varies across geographical regions and communities in Canada. Therefore, understanding the nature of participation by people most actively engaged in addressing food insecurity (ex. NGO organizations, governmental bodies, advocacy groups, etc.) is fundamental in appreciating how social media platforms (i.e. Facebook) can be used to assist in improving access to nutritious food and supporting the food sovereignty movement.

It is important to stress that these online activities are grounded in an understanding of the significant 'offline' structural factors impacting food insecurity. As illustrated in my literature review, factors influencing food insecurity in Northern communities in Canada, include ongoing impacts of settler colonialism alongside social determinants of health such as poverty, the lack of access to minimally processed healthy food, and a changing food landscape that limit access to healthy food. Proponents of food security and food sovereignty in Indigenous and Northern communities are using social media to raise awareness of these structural barriers, as well as to promote and support potential solutions such as the food sovereignty movement.

In the next chapter, I turn my focus to an example of people living in Northern communities using social media (Facebook) to raise awareness of food insecurity in the North and promote online activism. My research design is focused on a case study on how one particular group, *Feeding My Family*, is using Facebook to support food security and the food sovereignty movement. Building on the findings of my literature review, this research is

exploratory and is aimed at contributing to the understanding of the role that social media platforms can play in raising awareness about food insecurity and in advocating for improved government policies as a means to support food security and healthy eating in the North.

CHAPTER 3: METHODOLOGY

Food security and food sovereignty are discussed widely on the Internet, including on social media platforms like Facebook, YouTube, Twitter, and on individual websites. However, the scope of this capstone research project is limited to Facebook. I chose to focus on Facebook because this platform not only has a large volume of publicly accessible data, but also has high numbers of members that actively engage in discourse about food insecurity and sovereignty in the North, including discussions to seek solutions for food inaccessibility through sharing of experiences and collective action, building community support and increasing awareness both online and offline.

Research in this study refers to investigate, document, demonstrate, analyse, or interpret matters to create knowledge for the benefit of society or of particular groups (Castellano, 2004, p. 99). Taking a strengths-based approach to explore how people are using social media tools to raise awareness about challenges related to food insecurity, I chose to examine a case study that demonstrates how Facebook group members interested in food related issues in Northern regions of Canada are using social media platforms aimed at raising broader awareness about food insecurity and food sovereignty. This illustrates how sharing experiences and promoting collective action through the dissemination of information via social media platforms, including Facebook, is helping raise awareness about important issues related to access to healthy food in their communities.

In this context, my Research Question (RQ) is divided into the following two subquestions:

- 1) How are Northern residents using social media platforms (i.e. Facebook) to improve food security and government policy, such as the Nutrition North Canada Program?
- 2) How are Northern residents using social media platforms (i.e. Facebook) to raise awareness of food sovereignty as a way to support food security, healthy eating, and exercise in a culturally appropriate way?

My original intention in this study was to use a multi-method approach to triangulate data collected in two phases of research. Phase I focused on content analysis of social media posts, while Phase II focused on semi-structured interviews (Carter et al, 2014; Patton, 1999). The use of triangulation, which refers to the use of multiple methods or data sources in qualitative research, was intended to deepen and develop a comprehensive understanding of the discourse surrounding my chosen case study, *Feeding My Family*. However, as described in more detail below, I was not able to conduct the semi-structured interviews planned for Phase II of my capstone research project because Facebook group members did not respond to my request for interviews. Therefore, I focused my research on a qualitative content analysis to explore how and why Facebook group members engaged with social media as well as the meaning that was attached to their experiences with social media (Snelson, 2016, p. 3). I recognize that the combination of qualitative and a multi-method research approach could have helped reaffirm new insights through the complementary combination of methods to address the RQs (ibid).

Below, I describe my content analysis methodology in more detail, after introducing my case study, the *Feeding My Family* Facebook group.

CASE STUDY: FEEDING MY FAMILY FACEBOOK GROUP

The Feeding My Family Facebook group was created by Leesee Papatsie of Iqaluit in 2012 to disseminate information about the "enormous burdens...peoples in the Northern regions of North America" carry to feed their families (George, 2013). The creation of the group was inspired by her experience growing up hungry and food insecure, as well as her exposure to more traditional Inuit lifestyle, which included hunting, camping, eating traditional Inuit foods, and practicing the sharing culture (Food Secure Canada, n.d.b., paras. 5-7). Papatise believes in the power of collective action and believes the Inuit can come together as one voice to address the issue of food insecurity (ibid, para. 6). This Facebook group, Feeding My Family, brought up a movement to overcome "complex challenges, structural barriers and associated compounding factors that" impact living costs in the North (Feeding My Family, n.d.a., para. 2). The Feeding My Family campaign allowed the Inuit (and others) to engage with the general public and raise awareness about food insecurity in Northern communities (George, 2013). The campaign demonstrated the effectiveness of taking an unexpected and non-traditional approach, from a critical perspective: "that is, Inuit voices speaking up for their rights, and being heard" (ibid, para. 20).

Working together is an important tradition for the Inuit and by doing so they are driving change in Nunavut through increased self-awareness and advocacy (Davidson, 2016, para. 12). In February 2016, with over 35,000 views and a robust social media campaign geared toward policymakers and public figures, public attention towards the longstanding food security crisis in

Nunavut was renewed by calling for supporters of the *Feeding My Family* initiative to #endthepricehike (ibid, para.4). The movement has since widened to cover a larger geographical span, which ranges from Northern Labrador (east) to Northern Alaska (west) (Feeding My Family, n.d.a., para. 3). As of May 2020, this Facebook group had 22,760 members aimed at creating "a more sustainable future" in the North (ibid, para. 2).

This capstone research project examines how members of the Feeding My Family Facebook group used this social media platform to raise awareness and encourage collective action on issues related to food insecurity and inaccessibility. This online community may serve as an example of on-line activism – also known as digital activism – which refers to the use of digital tools such as social media platforms as a means to bring about "social and/or political change" offline (Rees, n.d., para. 3). Often the big picture objective of such activism is to raise awareness amongst the general population and/or intended audience(s). This often involves the creation of "a specific messaging campaign about a particular issue" – in this case, the Feeding My Family slogan and wording alluding to food inaccessibility (United Nations (UN) Women, n.d., para. 1). Generating awareness can be an essential part in building "community support for changes" in the judicial system and in changing perspectives regarding food inaccessibility in Canada, especially for those most marginalized in society (ibid). In this context, my analysis explored how Facebook group members were using Facebook to raise awareness about food sovereignty to support food security and improve government policy. I explored questions such as, for instance, how members are using Facebook to improve food insecurity in the North of Canada as a way to support food security and healthy eating in a culturally appropriate way. What are their insights and motivations? How are members communicating? How are their emotionally-charged stories aiding food security?

DATA COLLECTION

To determine how members of *Feeding My Family* used social media as a tool for digital activism, this capstone research project examined textual interactions in Facebook posts, comments and reactions. The content analysis explored in this project relies on publicly accessible data posted on the Facebook group page, *Feeding My Family*. Privately shared content was inaccessible; and as such, it was excluded from analysis. Also, excluded are demographics of members in the Facebook group, *Feeding My Family*, given that the identity of members can only be drawn from publicly disclosed content that may or may not accurately reflect their offline identities, such as nationality, community membership, and location. Instead, this capstone research project examined the online discourse surrounding group members' posts and their on-line activities on *Feeding My Family*'s Facebook page, focused on what they were talking about and their posted reactions to those online conversations.

Feeding My Family is a public group on Facebook that is set up to only enable authorized Facebook members to post messages onto the group's Facebook page (Feeding My Family, n.d.b.). Group members are approved by the group's administrators, who either grant approval or deny it (ibid). As a Facebook group, Feeding My Family, is designed as a gathering place for group discussion, dissemination of commonly shared interests, and as an avenue to express opinions (Moreau, 2019, para. 1). The common cause or issue that has brought these group's members together is food insecurity in the North of Canada (ibid).

To study the *Feeding My Family* group, I conducted content analysis of text from Facebook users, adapting qualitative research methods "to capture the visual, virtual, and textual interactions on social media" (Franz e al., 2019, pp.1-2). Social media research has been

increasing over time, particularly for studies involving Facebook. However, some researchers argue that there is a need for a more cohesive framework for social media research that integrates interpretative and evaluative approaches (Snelson, 2016). Therefore, content analysis of text from Facebook users requires adaptation of research methods used for traditional sources of qualitative data in order to best capture the visual, virtual, and textual interactions on social media (Franz et al., 2019).

The approach I used for social media consists of adaptation of research methods by using codes to identify larger patterns. Coding is a common technique in qualitative analysis for simplifying data into identifiable topics, and is used to identify larger themes in the data (Mihas & Odum Institute, 2019, p.2). A list of codes alongside code definitions make up a Codebook used to keep track of codes and how they are being used to interpret data. In short, the Codebook assists in organizing the data, essentially making sense of it (ibid). In this capstone, I conducted content analysis of public message posts shared on social media through the *Feeding My Family* Facebook group. This was inclusive of user-generated textual and visual data on Facebook, which comprised of posts, comments and reactions.

I focused my analysis on 100 posts made in the Facebook Group. These 100 posts were published at different time periods in 2019. The exact months and dates of the post are as follows⁵:

• February: 13th

• <u>June</u>: 6th, 11th, and 24th

• July: 4th, 8th, 16th, 17th, 23rd, 24th, 26th, and 30th

⁵ Some of the 100 posts were published on the same date in 2019.

- August: 3rd, 8th, 9th, 10th, 14th, 19th, 21st, 23rd, 26th, and 31st
- September: 2nd, 6th, 8th, 13th, 16th, 20th, and 25th
- October: 2nd, 3rd, 5th, 7th, 8th, 11th, 12th, 22nd, 25th, and 27th
- November: 5th, 7th, 8th, 11th, 12th, 13th, 15th, 17th, 19th, 25th, 27th, and 28th
- <u>December</u>: 5th

The data set included a total of 100 posts and associated comments. After an initial review of these 100 posts, I then focused on 30 of them for more in-depth coding. First, I organized the 100 posts according to the following information:

- **Date**: when the comment was posted.
- **Text**: textual information in the post.
- **Photo**: description of photo(s), if applicable.
- Video: description of video, if applicable.
- **Comments**: number of comments.
- **Shares**: number of shares.
- Emotional Reaction: like/thumbs up, sad face/crying face, love/heart, angry face, and laughing face. See table on page 68 for further details.

Next, I subsequently conducted a deeper analysis of 30 posts (including associated comments and discussion). Data drawn from these posts were analysed by first identifying codes (patterns in the data) and then exploring the connections amongst these codes and identifying common themes (Snelson, 2016; Franz et al., 2019). The codes I used were both identified from the literature review and defined by how participants referred to a topic (Mihas & Odum Institute, 2019). That is, my coding process was driven by "both concept, defined in advance,

and data derived during coding" (Snelson, 2016, p.5). Since my capstone research project deals primarily with comments and opinions from group members of the *Feeding My Family*Facebook page, I am mainly using deductive inductive codes drawn from my literature review, supported by inductive codes that emerged from my analysis of online conversations. In order to explain my coding rationale, for each code, I provided information about the definition, origin and importance, an example and counterexample, and a reflection (Mihas & Odum Institute, 2019). These terms, drawn from the process outlined by the Mihas & Odum Institute (2019), are defined below:

- **<u>Definition</u>**: defines a code, which should offer some guidance regarding its application towards data.
- Origin: refers to the first time a code is used in the capstone research project.
- <u>Importance</u>: refers to reasoning behind why a code is used in the capstone research project, that is, "why it matters".
- **Example:** is a segment of data that a code is applied to. Examples may also be described as criteria for inclusion.
- <u>Counterexample</u>: is a segment of data that is seen as an example where a code might be applied, but is not. A counterexample may also be known as criteria for exclusion.
- **Reflection:** refers to my thoughts on how a code develops as more data is coded.

After determining the codes and using them to sort through my data, I combined them to construct larger themes. Themes refer to patterns in the data that are described and organised into the observations for interpretation (Boyatzis, 1998, p. 161). Themes emerge from in-depth coding of the data, which showcases patterns present in the data (Fereday & Muir-Cochrane, 2006, p.82). Please refer to Appendix A for more details of how I developed themes in this capstone project. In the next chapter, I describe the themes I found in my content analysis.

DATA COLLECTION PLAN FOR SEMI-STRUCTURED INTERVIEWS (WITHDRAWN)

As noted above, my original research plan included conducting semi-structured interviews with administrators and/or members of the *Feeding My Family* Facebook group. However, despite my efforts to reach out to these participants, it was not possible to conduct the semi-structured interviews because Facebook group members did not respond to my request for interviews. However, I describe here the methodology I planned for this Phase of my project, in the event that future researchers would like to adopt this approach as a means to triangulate research data. Data obtained during these semi-structured interviews would have included the following information:

- Explore the participants' purpose in using social media platforms (i.e. Facebook), including their opinions about why they thought the Facebook Group, *Feeding My Family*, was created.
- Examine the participants' perceptions about the impact social media platforms (i.e. Facebook) has on raising awareness and/or promoting on-line activism.

- Identify the Facebook posts that have had a greater impact on raising awareness
 and promoting food security in the North of Canada; and advocacy related to food
 security and food sovereignty in the North.
- Deepen understanding about the relationship between on-line activism and offline advocacy.
- Inquire about whether participants thought social media platforms were exerting enough pressure on the Canadian government to improve and/or change current government food related policies, such as Nutrition North Canada.

Participation in the semi-structured interviews was to be voluntary and the participants (approximately 6 to 10 interviewees) were to retain the right to refuse to participate in this capstone research project or to decline responding to any questions they did not wish to answer. Participation was to be limited to the first 10 participants who expressed interest in participating in the interviews. In addition, an incentive, namely a Gift Certificate valued between \$10 to 20 (CAD), was to be provided to all 10 participants to encourage the rate of participation.

Participants were to be given the ability to withdraw their participation at any given time before July 15th, 2020. If a participant wished to withdraw, he or she would have had the ability to do so before July 15th, 2020, which was predetermined and was to be disclosed during the Ethical Consent process. The plan to conduct interviews was reviewed and approved by the Research Ethics Board at the University of Alberta. Participants would have been informed via consent form documentation that they could contact the Research Ethics Office at the University of Alberta if they wished to inquire further about their rights as participants. Furthermore,

participants would have been informed about any changes to the conditions of participation that occurred, which was disclosed in the consent form documentation. Any changes to the conditions of participants required explicit consent of the participants involved.

To encourage participants in this phase of the study, I sent an invitation to participate in this capstone research project to the four administrators of the Facebook group, *Feeding My Family*, via Facebook messenger. I used my personal Facebook account for this initial contact over Facebook. Given that I did not receive a response from the four administrators of the Facebook group by mid-July 2020, I requested approval from the Research and Ethics Board at the University of Alberta to contact Facebook group members directly. To do so, I submitted an amendment of my original submission to the Research and Ethics Board. This amendment sought permission to contact the Facebook group, *Feeding My Family*, directly via Facebook. Once the amendment was approved by the Research and Ethics Board, I requested to be added as a member of the Facebook group because only members can post on the group's Facebook page. However, as of early August 2020 I had still not received a response to my request. In consultation with my capstone supervisor, we decided to drop this component of my research and focus instead on qualitative content analysis of available Facebook posts. Please see Appendix B to E for further details of this process.

CHAPTER 4: DATA ANALYSIS APPROACH AND FINDINGS

GROUNDED THEORY

My content analysis followed the process outlined in Chapter 3. I used Grounded Theory because it provides a systematic process to develop theory from simultaneous data collection and analysis, the construction of analytical codes and categories from data, and a constant comparison to advance theory development during each step of the analysis (Pearce, 2018, pp. 35-36; Charmaz, 2014, pp.5-6). In this capstone, data gathering and analysis were conducted simultaneously while the interpretation of data was guided by the inquiry process (Pearce, 2018). This helped me examine how Facebook group members construct, share and discuss messages (i.e. the 100 Facebook posts), and determine the extent to which themes in these messages influence online activism. The following codes and themes were identified through my literature review, which guided the initial steps of the data analysis process:

CODES

- High Cost / Pricing: lack of accessibility to food due to inflated pricing compared to income.
- Contrasting Opinions: differing opinions about ideal solutions for food insecurity in the North.
- 3. **Sharing Knowledge**: disseminating stories about food insecurity to raise awareness.
- 4. **Sovereignty**: how the ability of individuals and groups are infringed upon as the ability to make choices for themselves and as a collective group are undermined by external bodies. Namely, how others are making choices for them without consultation or consent.

Whether participants perceive that choices regarding food security and food sovereignty are being imposed upon them.

THEMES

- 1. Lack of Choice: limited available options, which range from food to relocation.
- 2. <u>Increase Awareness to Promote Unity and Activism</u>: the platform is a forum for sharing similar experiences, creating bonds with others, and educating those that may be unaware of the circumstances involved with food insecurity in the North. Likewise, there is strength in numbers, promoting collective action to accomplish more in addressing food insecurity as a group rather than alone as individuals (ex. protesting, placing pressure on relevant individuals and government bodies, etc.).

In the next section, I describe my two phases of content analysis: First, a general examination of 100 posts; and second, a deeper analysis of 30 posts (including commentary and reactions).

PHASE I: INITIAL CONTENT ANALYSIS OF 100 FACEBOOK POSTS

I started my analysis by examining 100 posts from members of the Facebook group, *Feeding My Family*, based on the coding process described in the research methods section (Chapter 3: Methodology). First, I manually collected 100 Facebook posts from the *Feeding My Family* Facebook page from the time period between July 17, 2019 and November 25, 2019. (In Phase 2 of my process, I focused on 30 of these posts for in-depth coding). To collect these data, I browsed the group's public Facebook page and manually copied and pasted 100 public posts (i.e. text, emotion reactions, etc.) into Microsoft Word and into an Excel spreadsheet. In the Microsoft Word, I recorded the content of each post on a separate Word document, which

follows the systematic coding process described in the previous chapter. In the Excel spreadsheet, I manually copied and pasted the content from the 100 posts to better organize the data. Also, throughout this process, I read through the posts to identify codes and patterns or common themes by immersing myself with the data before formal coding began, which helped in "deepening the understanding and depth to strengthen the context for interpretation" (Franz et al., 2019, p. 3). My initial analysis of the 100 posts reflects the following information:

FACEBOOK USERS

Facebook users, via their personal Facebook account engage with the group, *Feeding My Family*, and its other members (Moreau, 2019, para. 5). *Feeding My Family*, is set up as a public Facebook group: this means that anyone can see who is a part of the group and what is posted, unless the posts are made private by the members themselves (ibid, para. 14). Setting up a Facebook group is free and anyone can create and manage one. It is an easily accessible process for anyone with an Internet connection (ibid, para. 1). Anyone can use Facebook and social media to launch campaigns, disseminate information, and spread awareness about socioeconomic issues for social change.

There were 66 active members on the *Feeding My Family* Facebook group page who had posted messages from March 31st 2019 to April 2nd 2019 (Feeding My Family, n.d.b.). Out of the 66 active members, 65 were individual/personal accounts and 1 was a non-profit organization called Feeding Nunavut (Feeding My Family, n.d.c.; Feeding My Family, n.d.b.). However, the group, *Feeding My Family*, and its members appear to have become inactive since May 23, 2019 (Feeding My Family, n.d.b.). At the time of completion of this capstone research project (August

2020), there had not been any new posts in 2020. Covid-19 could be a contributing factor in the group's recent inactivity.

While *Feeding My Family* has recently become inactive, the group could pick up again in the future. *Feeding My Family* can recharge its efforts to push for change regarding the status quo (i.e. to food insecurity) in the North via social media (i.e. Facebook). Facebook has the capacity to reach a large audience, which could help sustain online social campaigning. There are an estimated 19 million Facebook users in Canada and 2.4 billion globally (Algonquin College, n.d.; Ortiz-Ospina, 2019). Building networks with Facebook users and launching campaigns via social media has become such a standard practice that Facebook is being increasingly used for political and marketing communication campaigns (Kim et al., 2018; Turnbull & Jenkins, 2016).

FACEBOOK POST DATES

The posts were extracted in the spring and summer of 2020. The extracted posts analysed in this capstone were published from July 17, 2019 to November 25, 2019 (Feeding My Family, n.d.b.). Facebook posts tend to be organized in direct, reverse chronological order (that is, newest posts first) (Moreau, 2019, para. 17). Although the posts on *Feeding My Family*'s Facebook page appeared to be organized in chronological order, there was a possibility that one post between November 25 and July 2019 may not have been organized in chronological order (Feeding My Family, n.d.b.). I found that inconsistences in the dates of posts: for instance, some posts had a date that did not align with subsequent posts, and the month and date varied and tended to be out of order (ibid). In another notable case, one post was dated as being posted on October 8, 2018 (i.e. the 56th post out of 100 starting from November 25th), despite every other post I examined being posted in 2019 (ibid). In summary, posts appeared to have an inconsistent date sequence

(ex. from various years despite being in the same month). This could have been due to technical error with the social media platform (i.e. Facebook), faulty account settings that did not accurately capture the date of post publication, posts that could have been hidden from the public, or the different timezone settings (Smashballoon, n.d.). I note these issues here as something for other researchers to explore in projects with similar focus.

FACEBOOK TEXT

Research suggests that Facebook generates significant engagement to promote social and political movements. Facebook posts and commentary can be used by *Feeding My Family* members as a powerful tool to generate engagement and attention about food insecurity (Peters, 2019, para. 5). Buffer Blog, a social media marketing blog, and colleagues at BuzzSumo, a "research and monitoring tool," collaborating together to compile a data set from 2018 of "more than 777 million [Facebook] posts" (Buffer Blog, n.d.; Razor Social, n.d., para.5; Peters, 2019, para. 5) found that out of these 777 million Facebook, 500 posts were closely analysed and that these 500 posts represented more than 1 "billion engagements across Facebook" (Peters, 2019, para. 5). Buffer Blog identified common elements amongst the most successful Facebook posts with the highest levels of engagement. The common elements included the use of videos, humour or inspirational storytelling, and/or practical advice (ibid, paras. 7-19). These elements apply to posts made by *Feeding My Family*'s members, who are continuously seeking ways to improve access to food and basic necessities in the North (ibid, para. 67). Members want solutions to their food related concerns that they can implement in their lives.

FACEBOOK PHOTOS

Photos posted alongside detailed information and informative content about the images being shared can be just as engaging as videos for Facebook users (ibid, para. 82). Likewise, to increase engagement on the platform, *Feeding My Family* members utilized photos and curated content that had already been shared (ibid, paras. 91-92). Posting curated content creates "new insights" and shares values (ibid, para. 91).

Photos were most commonly used by *Feeding My Family* members to showcase the high prices in the North (i.e. showing the expensive prices in stores that made items inaccessible) (Feeding My Family, n.d.b.). Photos only showed the prices of food and/or miscellaneous items available in grocery stores and/or also showed these prices alongside receipts for the items photographed (ibid). Often, discussion and comments about prices in Canada were accompanied by such photos (ibid). Essentially, the use of photos in this manner was putting into practice the saying: 'seeing is believing'. Photos with or without text were used as a powerful tool to demonstrate how difficult it could be to access basic necessities like food due to high costs. Photos captured experiences of Northern residents. Photos provided little to no room for interpretation about price. Those who saw the price could not dispute high prices were not happening in the North. Photos were used as cold hard facts, where no other member could say food inaccessibility in the North was not real. Likewise, photos were not only being used to showcase food inaccessibility due to pricing but also as a recruitment tool for the cause, to fight food insecurity in the North.

Photos are a useful tool for online advocacy regarding social change (Thackeray & Hunter, 2010). Photos can be used to recruit people to join a cause, assist in organizing collective

action, help raise awareness and shaping attitudes about food insecurity in the North, and be used as a means to communicate with decision makers (ibid). This strategy, combining technology and advocacy, gave a voice to group members to air their concerns to a larger audience via image sharing. It was primarily conducted by group members to get attention to their cause as a means to disclose relevant content, share information, generate a greater presence in food insecurity in Canada, and to exert pressure on the government to act upon the issue of food insecurity in the North (Malik et al. 2016). Facebook can help increase the effectiveness of disseminating information and can also help enhance advocacy skills (Thackeray & Hunter, 2010).

FACEBOOK VIDEOS

According to research conducted by Buffer Blog and BuzzSumo, Facebook posts with videos usually get 59% more engagement, compared to posts without videos (Peters, 2019, para. 24). However, embedded and/or linked videos were less common in the 100 posts I analysed when compared to photos and linked material posted on *Feeding My Family* (ex. embedded and/or reposted articles, news stories, etc.). The 100 posts I looked at included only one (1) that had been reposted from another post, which was shared on September 4th, 2019 (Feeding My Family, n.d.b.). This video post was requesting Inuit recipes for Tungasuvvingat Inuit (ibid). It did not receive much engagement; little to no reaction was expressed from fellow group members. While the one video posted on *Feeding My Family* was not politically charged, it was not humorous either. The group, *Feeding My Family*, follows a political agenda that aims to change the status quo when it comes to food insecurity in the North. The political undercurrent within the group does not leave much room for purely humorous videos or posts, which tend to be most popular amongst Facebook users.

In fact, the posts that received the most engagement from fellow members of the Facebook group, *Feeding My Family*, focused on issues of sovereignty and cost. These two topics appeared to resonate the most among group members. It appears that the audience for *Feeding My Family* is a niche, appealing to people specifically interested in addressing Northern food insecurity in Canada.

FACEBOOK SHARES

Facebook posts are often shared via the platform to disseminate information (Weir, 2020). In the data set I examined, posts were shared from 0 to 386 times (Feeding My Family, n.d.b.). The post with the highest number of shares (386) was published on June 23, 2017 and was about the high cost of a pack of blueberry muffins (12 of them) being sold for \$68.99 in an Arctic Bay Northern grocery store; a picture showcases the price and text states the location (ibid).

In the case of *Feeding My Family*, posts are commonly shared as a means to share information about food insecurity in the North (Weir, 2020, para. 3). The post about the blueberry muffins was shared to disseminate evidence on high food prices on the platform (i.e. Facebook), and to educate others who may be unaware about how high food prices can go in the North. Also, sharing posts can provide emotional support for those reading them (ex. others suffering though food insecurity) as well as an avenue for group members to discuss events and/or activities related to food insecurity in the North of Canada. Lastly, sharing posts via *Feeding My Family* can provide members with an opportunity to ask for help for those dealing with food insecurity (ex. with providing food packages, aiding in identifying implementable solutions, etc.), either for themselves or on the behalf of others.

FACEBOOK EMOTIONAL REACTIONS

Facebook allows people to react to posts (i.e. by indicating a like/thumbs up, sad face, love/heart, wow face, angry face, haha/laughing face). Such reactions can affirm the identity of Facebook users, who use them a means to express empathy online (Seiter, 2016; Smith, 2014; Youyou et al., 2015). Posts on Facebook via *Feeding My Family* had a range of 0 to 386 emotional reactions per post (Feeding My Family, n.d.b.). Facebook emotional reactions can include six (6) options that range from like/thumbs up, an angry face, a wow face, a sad face, love/heart, and haha/laughing face. The most common emotional reaction that Buffer Blog and BuzzSumo identified in their analysis of Facebook posts (777 million, 500 of which were closely analysed), was love/heart and haha/laughing face (Peters, 2019, para. 33). While the emotional reaction, like/thumbs up, was excluded, the most common emotional reactions to Facebook posts, in general, were positive reactions, which far outweighed negative ones (ibid).

Although interpretation of content is subjective (ibid, para. 35), the emotional reaction per post on *Feeding My Feeding* was different from the general reactions found in research conducted by Buffer Blog and BuzzSumo. Generally, the most common emotional reactions per post (excluding like/thumbs up) on the Facebook group *Feeding My Family* were negative (i.e. angry face, sad face, and wow face). To depict the posts with the highest number of emotional reactions, I created Table 1.

| 6 Types of Emotional Reactions | Like/thumbs up | Sad face | Love/heart | Wow face | Angry | Haha/laughing face |
|--|--|---|--|---|--|--|
| Range of Emotional Reactions per Post | 0-284 | 0-123 | 0-94 | 0-88 | 0-81 | 0 |
| Commentary about Emotional Reactions | The highest # of like/thumbs up per post, 284, was for a post informally addressing Caucasians and Southerners in Canada. Refer to Post 6 in Appendix E: Codebook for exact post. (Feeding My Family, n.d.c.). | The highest # of sad faces per post, 123, was for a post discussing (via phots and text) the high cost of sliced watermelon and green table grapes in the North, which were being sold for \$20.95 and \$23.43. | The highest # of love/heart per post, 94, was for the same post that had the highest # of like/thumbs up emotional reactions (i.e. Post 6 in Appendix E: Codebook) (ibid). | The highest # of wow faces per post, 88, was for a post showcasing the high price of a dozen (12) blueberry muffins in the North. These 12 muffins were being sold for \$68.99 in an Arctic Bay Northern Store. | The highest # of angry faces per post, 81, was for the same post that had the highest # of wow faces emotional reactions (i.e. the 12 blueberry muffins) | There were 0 haha/laughing faces per post identified during the extraction and coding process, Mach 31, 2019-April 2, 2019. |

Table 1 Posts with Highest Emotional Reactions from 100 Facebook Posts Analysed

The post with the highest number of emotional reactions was focused on "sovereignty" and directed at "Caucasians" and/or those living in Southern regions of Canada. This post implied that the suggestion for relocation made by others, namely by non-Indigenous Canadians, demonstrated a lack of respect, understanding, empathy, compassion, and sensitivity for the complexities related to Northern food insecurity and equality of Indigenous peoples in Canada (refer to Table 1 commentary) (Feeding My Family, n.d.b.). Perceived indifference for

Indigenous concerns and discrimination, or outright racism is prominently discussed in the Facebook comments section of this post.

FACEBOOK COMMENTS

Facebook users also comment on posts to not only express their opinions regarding the post, but also to participate in discourse (Seiter, 2016). Such participation can take the form of commentary that could either affirm, disagree, question, expand upon the original post, and/or be used as a marker to showcase presence. Facebook comments are also "powerful emotional drivers" that can establish bonds and further causes (ibid, para. 23).

The 100 posts I examined contained between 0 to 220 comments. The post with the highest number of comments (220) was posted on November 25th, 2019 and was an informal message to Caucasians and/or those living in Southern regions of Canada. This informal message conveyed an Inuit perspective (the author self-identities as an Inuk living in Nunavut) regarding food inaccessibility, the high cost associated with living in the North of Canada (i.e. Nunavut), and the lack of sympathy and understanding for those who choose to remain in the North as opposed to relocating to less expensive regions (ex. the south) in the country. The informal message is signed off with a nod to Indigenous sovereignty, "Inuit Power".

I identified the following recurrent codes in the messages present in the 100 posts that I examined:

- **food cost** (ex. inquiries about prices in other regions);
- high cost of food;

- lack of choices in accessing food and miscellaneous items, (ex. there is only one store in the community);
- **low quality food** present in local grocery stores, (ex. spoiled perishable food);
- high cost of living in the North;
- ramifications and legacy of Canada's colonial past being felt today by
 Indigenous communities living in the country;
- perceived indifference of non-Indigenous Canadians for Northern food insecurity, Indigenous concerns, and Indigenous peoples in general (ex. expressions that "they don't care about us"); and
- **frustrations with the status quo** in the country, which is regarded as undermining the ability for Northern residents to access healthy food.

In my initial phase of content analysis of 100 posts, I learned that group members were interested in using social media (i.e. Facebook) to generate attention to raise awareness about food insecurity in the North; especially in the Yukon, Nunavut, and Northwest Territories. This dynamic combines the use of technology with campaigning for political results. *Feeding My Family* appears to recruit people and encourage off-line activism related to food insecurity in the North through the sharing and posting of content that discusses food concerns. For example, posts with the highest number of comments dealing with food inaccessibility and high costs of living in the North had a nod to Indigenous sovereignty as "Inuit Power".

Written reactions to posts mostly reflected negative emotions. Members expressed a feeling of urgency for action, demonstrated by using the Facebook group as a means to establish their own networks, open channels of communication, and disseminate information about their

concerns. Discourse expressed by the group seemed to suggest that government, due to longstanding inaction regarding Indigenous concerns, was not trusted to act on behalf of Indigenous peoples or to support their wellbeing. Generally, posts indicated that the government was not regarded as the solution; rather, the government was seen as resistant to implementing real change to the status quo. In short, it was seen as the problem.

Longstanding frustrations over the lack of change to the status quo and the perceived failure of the federal government to honour treaty rights and obligations boiled over in the Facebook group, *Feeding My Family*, in the form of name-calling and internal disputes amongst members over what solutions were the most appropriate (Marshall, 2013, para.5). Frustrations and expressed sentiments appeared to be rooted in long-term marginalization and disregard for Indigenous issues in Canadian society. Members were upset not only for being ignored by the Canadian government but also by the resistance to changing the current status quo. Group members wanted to see change that improved food accessibility in the North. Below are highlights of the discourse occurring in discussions taking place in the posts:

- Discussions about government inaction and perceived disregard as well as disinterest for implementing real change to the status quo in the North, especially in relation to food insecurity, food accessibility, and environmental conservation in the North of Canada.
- Some members were advocating for collective action to support food security (ex. "fight for"). For instance, to seek support from relevant entities that could alter the food environment in the North (i.e. help improve food accessibility), and/or place pressure on the government to implement government policy that support Indigenous titles and rights as well as repealing policies that undermine it.

- Calls for food donations. Some members requested the support of others who could ship food and needed items to the North for them (ex. people asking "could someone help me by shipping me this particular item?"). The majority of group members were also requesting the opinions of other members about what they could do to improve their access to food (ex. order online, make this food item at home, grow this plant at home, etc.).
- A large portion of group members were also inquiring about food pricing in different regional areas in Canada; primarily, asking about what was considered "normal pricing" in other members' local areas. Most commonly, inquiring about price differences was done via photos. Photos showcasing the pricing (i.e. showing the price tag) of food and/or miscellaneous items available in grocery stores were shared, where often were the only option to buy food in remote Northern communities. Photos were also the main tool members used to show others in the group how high prices could be (i.e. look at this image and see how expensive this item is) in the North vs. South of Canada.

FINDINGS DERIVED FROM PHASE 1 DATA ANALYSIS OF 100 POSTS

My analysis identified relevant attitudes, common/divergent opinions, and shared emotions present in the data drawn from posts and comments (Provalis Research, n.d., para.3). To garner support, *Feeding My Family* members posted content (i.e. text, photos, articles, videos, etc.) to share stories, and/or disseminate information as well as to engage others in discussion about food insecurity in the North. Besides cost, other prominent topics discussed by Facebook group members included sovereignty, dissatisfaction with the status quo, and the pursuit of

potential realistic remedies for food insecurity in the North. The following sections describe in detail the themes identified through my analysis.

SOVEREIGNTY AND ON-LINE ACTIVISM

The theme of fostering Indigenous empowerment and empowering those suffering from food insecurity in the North of Canada appears throughout the posts I analysed. Empowerment is often accompanied by efforts to generate awareness not only amongst group members suffering similar experiences, but also amongst the general Canadian population that may be unaware about the severity of the problem (i.e. northern food insecurity). Generating awareness, ideally, should result in placing increased pressure on government bodies and political figures dealing with food inaccessibility issues in the North; primarily focusing on those involved in the decision-making process and those with the authority to alter the food environment in the North (i.e. the Canadian government).

The Facebook group *Feeding My Family* provides an avenue for those who feel ignored and want to be heard, acknowledged, validated, and have their voices amplified through the world wide web via social media platforms (i.e. Facebook). Likewise, the platform enables members to partake in food accessibility discourse, which also enables them to request others to partake as well. There appears to be a commonly expressed desire to break the status quo and break the cycle of continuous ineffective "band-aid" solutions for those living in the North.

Facebook members advocated for continuous access to healthy food all year round.

Essentially, group members want their voices to be heard not only within the Facebook page,

Feeding My Family, but also by wider Canadian society, and especially by those that could make

a difference to food insecurity in the North (ex. the Canadian government and others who could support the cause of food insecurity in Northern Canada).

DISSATISFACTION WITH STATUS QUO

"Band-aid" solutions for Northern food insecurity will not help address the core issues causing the problem in the first place (i.e. food insecurity in the North of Canada). While the group, *Feeding My Family*, has not yet identified a solution for Northern food insecurity, members indicated that the present status quo is not helping to alleviate Northern food insecurity. Having access to healthy and culturally appropriate food is the main solution that *Feeding My Family* members have rallied around. Ineffective assistance, support, and infrastructure from the Canadian government and wider Canadian public have not been effective in improving food insecurity in the North; rather, Northern food security appears to be worsening or at best is stagnant.

There was general consensus within the group that the current status quo was not working for Northern residents. At the same time, most group members, especially members who were Northern residents, viewed relocation as an illegitimate option that infringed upon their sovereignty as Indigenous peoples living in Canada have the right to choose where they live (ex. the North). Essentially, many group members expressed their opinion that the food security system is broken; it does not nor is it designed to work for Northern residents. The difficulty for the group was finding an implementable solution to food insecurity. As a result, there were disagreements on the best course of action. I even observed exchanges with heated in-fighting between members.

Commentary was focused on insufficiencies pertaining to food policy implementation and related food infrastructure. For instance, discussions or remarks made about Nutrition North Canada's shortcomings in making food and/or miscellaneous items affordable for Northern residents, as well as about the lack of infrastructure options for accessible transportation (i.e. the "25 separate communities of Nunavut are not connected to each other by highway" railway, road, or rail "to any other Canadian cities further South") (Feeding My Family, n.d.b.; Travel Nunavut, n.d., para. 1). Northern residents in the territories often have to rely on airplanes to transport goods, which are typically more expensive than other forms of transportation (Smith, 2009, para. 14; Garfield, 2017; The World Bank, 2009, para. 5). Transporting goods via airplanes costs Northern residents roughly 4 to 5 times more than road transportation and 12 to 16 times more than sea transportation (The World Bank, 2009, para. 5).

There was discontent with the current status quo, namely with Nutrition North Canada, and also with perceived band-aid solutions (ex. relocating to another region in Canada) that do not account for Indigenous identity, Indigenous ways of life, familial connections or spiritual ties to the land. Most remedies for food insecurity in the North appeared to be imposed on communities in the North by outsiders (i.e. Southerners, Caucasians, and/or government bodies), who are regarded as being largely ignorant and deaf to food-related concerns in the North. Those living in the North suffering from food insecurity feel their insights are not being considered in the decision-making process or food discourse by mainstream Canadian society or Canadian political institutions. They feel like they are not being listened to; rather, the general sense amongst *Feeding My Family* members is that their concerns are being ignored and that when concerns are acknowledged, the only remedies provided are "band-aid" and unrealistic solutions that do not meet the needs of Northern residents. Likewise, there was a sense that there is a lack

of consultation taking place. Instead of being involved and taking equal part in the decision-making process, Northern residents feel like they are being told what to do and that *solutions* are being imposed.

This process of being told what to do as opposed to consultation to develop mutually-agreed upon decisions was seen to infringe upon Indigenous sovereignty and individual rights and freedoms (i.e. namely the rights and freedoms of Inuit, Métis, and First Nations). Those living in Northern Canada (i.e. the Yukon, Nunavut, and Northwest Territories), regardless of their Northern residency, should have access to the same living standards (ex. clean drinking water, adequate housing, affordable food, etc.) as Southern residents. Everyone living in Canada, which is a country with one of the highest standards of living in the world, should have access to first world living standards as opposed to third world conditions (Shepert, 2019; Farooqui, 2019; CBC News, 2007).

HIGH COST AND LACK OF CHOICE

The situation in the North of Canada is difficult, but it is made worse due to high costs and ineffective government policy as well as inefficient transportation infrastructure (i.e. limited highways and roads). Meeting basic necessities of life is difficult in the North without a relatively high income, which most Indigenous peoples living in the North are unlikely to have. Affordability is a fundamental issue and core concern. There is a sense of struggle involved in accessing basic necessities like food. Overall, basic necessities are inaccessible due to high cost. In cases where Northern residents are able to access food, it is often restricted due to cost (i.e. accessed with a relatively high degree of financial burden). This suffering related to accessibility

may be magnified due to lack of choice. There may be only one grocery store in some Northern remote and isolated communities. This situation limits choice for Northern residents.

Cost is another recurring issue of discussion for members of *Feeding My Family*. For example, cost could encompass discussions about pricing of items, inquiries about the pricing of items, lack of accessibility due to expense, reduced capacity to access local resources because of industrial development. Essentially, cost on *Feeding My Family*'s Facebook page was most often referred to as going without due to lack of choice rather than by choice. Namely, the lack of access to food and miscellaneous items being sold in local grocery stores was due to high costs. This is problematic given the persistent low income earned in Indigenous Northern communities.

Another recurring issue being expressed by members of *Feeding My Family* was the virtual monopoly local grocery stores have in the North. Members felt there was no accessible alternative to purchasing the necessities they needed; especially in remote and isolated communities in the Yukon, Nunavut, and Northwest Territories. Accessibility to traditional diets may also be hindered due to depletion of local prey animals, high costs in accessing supplies required for hunting, and climate change. Some Northern residents may only be able to buy food available in their local grocery store that may not be healthy nor accessible due to high cost. The prices in the North do not, normally, reflect those in the South. Prices tend to be high and products can be of substandard quality. The majority of prices disseminated through public sources were astronomically high. *Feeding My Family* members were frustrated, angry, and confused as to why government food policy, like Nutrition North Canada, was not having a greater impact on reducing prices. Essentially, the majority of prices in the North defied

expectations set by theories regarding rational choices, which outline typical economic patterns and consumer behaviour (Gourville & Soman, 2002).

Relocation was also dismissed by *Feeding My Family* members as a realistic solution to challenges around food inaccessibility. Moving away from the North is seen within the group as equivalent to abandoning the land, which would not make the North more affordable; rather, what members are seeking via *Feeding My Family* were implementable solutions that could address the contributing factors causing food insecurity in the North.

Emotions were also expressed in the 100 Facebook posts. According to research conducted by Buffer Blog and BuzzSumo (Peters, 2019), sharing emotionally-charged content on Facebook has been well-received in this platform. There were primarily negative emotions expressed by Facebook group members. Excluding likes/thumbs up, hate, outrage, shock, sadness, and frustration dominated. Negative emotions were especially more prominent when discussing food pricing and proposed solutions for food insecurity in the North. Positive emotions, such as love, were strongly associated with Indigenous sovereignty, identity, way of life, and traditional connections to the land (i.e. the North).

Additionally, Indigenous sovereignty has been linked to a power struggle within Canada. This power struggle is most commonly expressed when discussing obstacles in accessing food due to cost. The prices of food in the North have been influenced by government food policies like Nutrition North Canada and have been imposed on Northern communities. The majority of the Facebook posts I examined disseminated photos as photographic evidence of high prices to demonstrate how unaffordable food can be in the North. Some *Feeding My Family* members support greater food sovereignty for Indigenous Canadians to have a greater influence and

autonomy in food related decision-making for the North. Essentially, this refers to empowering Indigenous Canadians in reclaiming their power and authority within the decision-making process regarding food policies for the North. Likewise, photographic evidence of food prices also raises awareness and understanding about food insecurity in the North. Greater understanding is likely to foster empathy and comradery for addressing Northern food insecurity.

Expressed attitudes (i.e. sustained outrage about systemic inequalities in accessibility, anger about high food prices, lack of choices, substandard product/services, government inaction, etc.) in the *Feeding My Family* Facebook page resonated with those of the *Idle No More* movement. *Idle No More* began in 2012 as a form of "protest against the introduction of Bill C-45," also known as Jobs and Growth Act (Marshall, 2013, para. 1). At the heart of this online movement was protecting Indigenous sovereignty and the environment (Marshall, 2013, para. 2). Facebook was used to protest against Bill C-45 and build opposition to the bill from online to offline protests (ex. flash mobs, rallies, dances, hunger strikes, and teach-ins) (ibid, para. 4). Enough pressure was placed on the Canadian government that a meeting took place between the then "prime minister Stephen Harper and a delegation of the Assembly of First Nations," which included national chief Shawn Atleo (ibid, para. 6).

PHASE II: FINDINGS DERIVED FROM IN-DEPTH CONTENT ANALYSIS OF DISCUSSIONS HELD IN 30 FACEBOOK POSTS

After completing my initial analysis of 100 Facebook posts, I decided to undertake detailed analysis on the discussions that took place in 30 Facebook posts gathered from *Feeding My Family*. This second, more in-depth examination of the data revealed that discourse reflected an overarching theme of a "broken system". During the data analysis process, certain codes and

themes emerged, some of which aligned with the anticipated codes and themes identified during the literature review, such as high cost and lack of choice, as well as dissatisfaction with the status quo.

I created the following two tables, Table 2 and Table 3, to summarize my in-depth analysis of the 30 posts. For further information about the process I undertook during this indepth analysis, please see Appendix F.

Table 2 In-Depth Analysis of the 30 Facebook Posts—Total # of Posts Analysed.

| Post # | Response/Comment # | Total # of Posts Analysed Per | | |
|----------------------|--------------------|----------------------------------|--|--|
| | | Post | | |
| 1 | 61 | 62 | | |
| 2 | 43 | 44 | | |
| 3 | 25 | 26 | | |
| 4 | 45 | 46 | | |
| 5 | 32 | 33 | | |
| 6 | 223 | 224 | | |
| 7 | 45 | 46 | | |
| 8 | 7 | 8 | | |
| 9 | 63 | 64 | | |
| 10 | 28 | 29 | | |
| 11 | 36 | 37 | | |
| 12 | 34 | 35 | | |
| 13 | 26 | 27 | | |
| 14 | 71 | 72 | | |
| 15 | 13 | 14 | | |
| 16 | 38 | 39 | | |
| 17 | 24 | 25 | | |
| 18 | 92 | 93 | | |
| 19 | 64 | 65 | | |
| 20 | 83 | 84 | | |
| 21 | 3 | 4 | | |
| 22 | 1 | 2 | | |
| 23 | 12 | 13 | | |
| 24 | 21 | 22 | | |
| 25 | 47 | 48 | | |
| 26 | 27 | 28 | | |
| 27 | 80 | 81 | | |
| 28 | 4 | 5 | | |
| 29 | 85 | 86 | | |
| 30 | 12 | 13 | | |
| Number of post analy | 1,375 | | | |

Table 3 In-depth Analysis of the 30 Facebook Posts—How Many Facebook

Comments Fit Into the Following Theme(s) and Codes

| Post # | Total # of Posts Analyzed Per Post | Story Sharing | Cost | Proposed Solutions | Sovereignty | Advocacy | Broken System | Unity | Support |
|--------|---|------------------|------|-----------------------|-------------|----------|------------------|-------|---------|
| 1 | 62 | 1 | 8 | 4 | 5 | 5 | 27 | 2 | 2 |
| 2 | 44 | 1 | 10 | 11 | 0 | 1 | 11 | 0 | 1 |
| 3 | 26 | 0 | 22 | 2 | 0 | 0 | 2 | 0 | 0 |
| 4 | 46 | 0 | 15 | 2 | 0 | 0 | 14 | 0 | 3 |
| 5 | 33 | 1 | 20 | 1 | 1 | 0 | 5 | 0 | 0 |
| 6 | 224 | 9 | 32 | 16 | 22 | 5 | 45 | 12 | 2 |
| 7 | 46 | 1 | 21 | 0 | 0 | 1 | 7 | 0 | 1 |
| 8 | 8 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 |
| 9 | 64 | 4 | 44 | 2 | 0 | 0 | 6 | 1 | 0 |
| 10 | 29 | 0 | 15 | 0 | 0 | 1 | 2 | 0 | 0 |
| 11 | 37 | 0 | 3 | 0 | 0 | 1 | 2 | 2 | 0 |
| 12 | 35 | 1 | 11 | 3 | 0 | 1 | 3 | 0 | 1 |
| 13 | 27 | 0 | 14 | 3 | 0 | 0 | 1 | 1 | 0 |
| 14 | 72 | 2 | 22 | 4 | 6 | 4 | 19 | 1 | 2 |
| 15 | 14 | 0 | 8 | 3 | 0 | 0 | 0 | 0 | 3 |
| 16 | 39 | 0 | 23 | 3 | 0 | 0 | 3 | 0 | 0 |
| 17 | 25 | 0 | 19 | 1 | 0 | 0 | 3 | 0 | 1 |
| 18 | 93 | 0 | 41 | 19 | 2 | 0 | 12 | 0 | 1 |
| 19 | 65 | 1 | 37 | 6 | 1 | 1 | 5 | 0 | 0 |
| 20 | 84 | 1 | 32 | 11 | 2 | 0 | 9 | 1 | 2 |
| 21 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 |
| 22 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 23 | 13 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 | 22 | 0 | 4 | 3 | 3 | 2 | 1 | 3 | 2 |
| 25 | 48 | 1 | 13 | 4 | 0 | 2 | 10 | 1 | 1 |
| 26 | 28 | 0 | 16 | 4 | 0 | 0 | 3 | 0 | 0 |
| 27 | 81 | 0 | 51 | 2 | 0 | 0 | 2 | 0 | 0 |
| 28 | 5 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 29 | 86 | 3 | 27 | 5 | 1 | 0 | 26 | 2 | 2 |
| 30 | 13 | 0 | 8 | 2 | 0 | 0 | 1 | 0 | 0 |

In my second round of analysis of the 30 Facebook posts, I excluded those posts with no Facebook comments (i.e. 0 comments per post). This exclusion was made because of my focus on exploring two-way conversations on Facebook as a means to disseminate and share information among group members (i.e. via Facebook comments). Further details from my analysis are provided below.

BROKEN SYSTEM: THE OVERARCHING THEME

The overarching theme identified through my close analysis of discourse taking place on 30 posts was determined to be a "Broken System". The coding I used to determine the "Broken System" refers to how group members perceive that the Canadian governing system (ex. food chain, food policies, etc.) is not working for Northern residents – and particularly for Indigenous Canadians living in the North. Essentially, the system is seen to have run awry, particularly when comparing food prices and different resources available in the North to the South of Canada. The system from the perspective of *Feeding My Family* members is fundamentally broken.

Members of *Feeding My Family* also believe there is not enough accountability being placed on the government to ensure that resources being spent to improve Northern food security, such as food subsidies, are reaching the intended recipients (i.e. recipients of North Nutrition Canada). This belief also feeds into a general perception that Indigenous and Northern residents are not receiving the benefits to which they are entitled. Rather, Southerners, non-Indigenous Canadians, and those higher up in the socio-economic food chain are perceived as receiving greater benefits and superior accessibility to high quality food.

This belief has fostered an environment of extreme distrust amongst group members.

Some appear to believe that there is an ulterior motive or hidden agenda for supporting Northern

food insecurity in Canada. These assumptions and hostilities brought to light divisions within the group, which undermined unity amongst group members and people from various backgrounds (i.e. different ethnic and socio-economic backgrounds). My analysis revealed instances of infighting amongst group members. At the heart of these assumptions, hostilities, divisions, and infighting were arguments over privileges. Namely, those with privilege (i.e. access to healthy food) and those without it.

Furthermore, some members of the group, *Feeding of My Family*, perceived the Canadian system as not only broken but as a system that has been designed to not work for all Canadians; and in particular, not for Indigenous Canadians. Canada's colonial legacy was often referred to as being a reason or the cause for the present inequities between Indigenous and non-Indigenous Canadians. As discussed in my literature review, statistically, Indigenous Canadians often experience worse outcomes (ex. poorer health outcomes, lower incomes, lower educational achievement, restricted access to healthy food, etc.). Likewise, racism and discrimination towards Indigenous peoples living in Canada was mentioned within the group as a contributing factor for the resistance and inaction to change the food landscape in the North by the Canadian government and wider Canadian society.

In general, the discourse expressed by members of *Feeding My Family* revolved around a belief that the present status quo in Canada is working against Indigenous Canadians and their interests. The majority of *Feeding My Family* group members appeared to express this belief. Indigenous Canadians are being set up to fail and are being blamed for when they do fail (i.e. blaming the victim).

DISSATISFACTION WITH STATUS QUO

Expanding on the grievances described in the overarching theme "Broken System", my in-depth analysis of 30 conversations undertaken by *Feeding My Family* members also identified several structural barriers that undermine access to food security in Northern communities. These barriers are as follows:

- Contaminated Water,
- Climate Change (i.e. warming temperatures), and
- Limited Choice.

CONTAMINATED WATER.

While the Government of Canada, affirms the right of everyone in Canada to "have access to safe, clean drinking water," some Indigenous communities (87% in 2019) have either limited or no access to local clean water (i.e. tap water, well water, etc.), primarily due to industrial pollution (Government of Canada, n.d.e., para 1; Lui, 2015; Government of Canada, 2020., para. 7). In 2019, Canada committed to investing \$4.5 billion dollars towards Indigenous peoples, including in the North, and to help clean up environmental contamination (Indigenous and Northern Affairs Canada, n.d.b., paras.1-46). However, despite these recent government commitments and funding, past activities indicate that not much appears to be changing. For example, one study found that the poor quality of drinking water in many "rural and Indigenous communities" has compelled residents to either "boil [their] water, pay for water" deliveries, or haul their water "from a water filling station" (Daley, 2019, para. 5). Contamination has also made it impossible for some to make use of the local ecosystem to supplement their diets (i.e. vegetation and local habitation). While additional funding and attention to this matter is an important step, the long-term impacts remain to be seen.

CLIMATE CHANGE.

As discussed in my literature review, rising temperatures can restrict the opportunity for Indigenous peoples living in the North to exercise subsistence hunting (United Nations (UN) Department of Economic and Social Affairs: Indigenous Peoples, n.d., para. 6). Indigenous communities make up "half of the residents" in the Northern territories, the Yukon, Northwest Territories, and Nunavut, which are also the most vulnerable to climate change (Ratelle & Paquette, 2019, para. 3). Climate change is having an impact on the local ecosystem in the North, namely, in altering the availability of species (i.e. changing them) and of traditional food sources (UN Department of Economic and Social Affairs: Indigenous Peoples, n.d., para. 6). Some of the species being negatively impacted by climate change include polar bears, walrus, seals, caribou, herding reindeer, fish, and traditional vegetation (UN Department of Economic and Social Affairs: Indigenous Peoples, n.d., para. 6). Further changes brought about by climate change include permafrost thaw and changes in water and food quality (Ratelle & Paquette, 2019, para. 4). These changes place additional obstacles in accessing locally available food sources. This can increase the reliance on store-bought food, which may not be the most nutritious. Consuming large amounts of highly processed food can contribute to poor health outcomes like diabetes and high blood pressure.

Likewise, climate change is altering seasonal patterns. The ice in the North is melting faster than before. This makes it harder to predict weather conditions and limits the span of time ice can be used either for hunting and gathering and for the transportation of goods via ice roads (UN Department of Economic and Social Affairs: Indigenous Peoples, n.d., para. 6). While Northern residents are doing their part to adapt to climate change (i.e. making the most out of local natural resources, sharing capital, and adopting a community based approach to local

issues) they are often excluded from the decision-making processes related to Northern food security (Ratelle & Paquette, 2019, para. 5). Northern residents should not have to rely on themselves or social networks (i.e. their local neighbours and Facebook connections via *Feeding My Family*) to address Northern food insecurity (ibid, paras. 6-9).

To adequately address the various factors involved in Northern food insecurity, which includes climate change, greater collaboration is required between government and Indigenous parties, incorporating Indigenous peoples in the decision-making process to find potential solutions that are sustainable, culturally appropriate, and responsive to changing circumstances in the North. While Canada's climate framework does recognize that the North is particularly vulnerable to climate change, Canada's policy framework needs to go further to address the concerns, needs, and demands expressed by *Feeding My Family* members (ibid, para. 19).

LIMITED CHOICE.

Feeding My Family's Facebook group was created to be a place for people in remote Canadian communities to communicate and organize around the excessively high food prices in the North, especially in Nunavut (Dahm, 2015, para. 3). The Facebook platform enabled group members to share content, coordinate dialogue and action, create a record of food prices in the North, and disseminate photos and posts about food prices in their area (ibid). Feeding My Family members have not only compiled photos of overpriced food and miscellaneous items, members have also discussed their experiences with food insecurity in the North (ibid, para. 4). The cost of food tends to be higher in rural and remote communities compared to urban communities (Wright, 2019, para. 6). The higher costs of food restricts accessibility or even

completely eliminates accessibility (ibid). Health is compromised without access to healthy food (ibid, para. 7).

The lack of infrastructure, in particular roads, exacerbates the cost of food, which contributes to high rates of food insecurity that Indigenous households experience in Northern Canada. Also, air shipping is more expensive than transportation of food by roads. However, given that building more roads in the North is time consuming, expensive, and a relatively low priority for the government, it is unlikely to happen in the foreseeable future without political pressure. Greater government involvement to help improve food accessibility is needed. A 10-year study, *First Nations Food, Nutrition and Environment Study*, concluded "that Indigenous communities struggle with extremely high rates of food insecurity" (Wright, 2019, para. 4) and that the Government of Canada should be doing more to remove obstacles hindering accessibility to traditional food sources, not only for cultural reasons but for health as well (Wright, 2019, paras. 10-13).

Feeding My Family members also expressed concern about the quality of food to which they had access. The majority of members of the Facebook group, Feeding My Family, discussed the lack of fresh produce, lack of accessible food choices, and/or high food costs. The lack of real choice was a commonly expressed opinion. Alongside poor-quality food items (ex. near spoilage), there was also the issue of high price. Food is often expensive in the North. Essentially, many group members deal with inaccessibility on a constant basis.

Much of the discussion taking place in the Facebook group, *Feeding My Family*, focused on pricing. Particularly, members compared local prices to those at other geographical locations (ex. North vs. South) in order to determine whether prices were reasonable or not. Many used the

group as a means to raise awareness about high prices in the North, and to discuss realistic solutions for which individuals could advocate to lessen food insecurity in the North. Images of prices in grocery stores were often used to not only connect with others in the group with similar experiences, but also as a means to bond with others that deal with inaccessibility due to high prices. Show and tell via the Facebook group about particular circumstances involved with food insecurity in the North fulfills another purpose: raising awareness by addressing the lack of knowledge that is prevalent amongst the general Canadian population.

As noted above, members expressed divisive comments: Those who have access to higher earning jobs, greater access to higher quality food, greater access to higher education vs. those without such access and have to contend with less. This is problematic because unity supports consensus building to work together in developing strategies that can work for the majority; particularly, those most affected. Individuals need to work together to address larger issues like structural barriers.

The high prices of food and miscellaneous items are not the only factors contributing towards food insecurity in the North. While the high prices of food and miscellaneous items is a large obstacle, there are structural barriers that also contribute to food insecurity in the North.

PERCEPTION OF FEELING SILENCED OR IGNORED

Negative emotions appeared to be expressed in the group's discourse more often than positive ones. This sentiment could be due to deep rooted frustration resulting from perceived inaction by the government and relevant entities (ex. the public) that could help change the food landscape in the North. There was a high probability that group members felt silenced.

Essentially, the group exists because they feel their voices were not being heard and their struggles were not seen as a priority by the government or wider Canadian society.

This sentiment of feeling ignored is conveyed by the majority of group members through expressed emotions via *Feeding My Family*. Negative emotions appeared to be expressed more often than positive ones. This sentiment could be due to deep rooted frustration resulting from perceived inaction by the government and relevant entities (ex. the public) that could help change the food landscape in the North. It is likely that group members feel silenced. Essentially, the group exists because they feel that their voices are not being heard and their struggles are not seen as a priority by the government or wider Canadian society. The group is a virtual forum for members to share information, learn from others about how they can practically improve their food-related circumstances, connect with others with similar experiences, and educate others about food insecurity. As a group, there is a hope that not only realistic solutions can be developed but also implemented. Another hope is that the group will be sufficient in size and presence to place sufficient pressure on the government and the public to make a concrete difference for Northern communities.

While food insecurity in the North of Canada is not a new issue, it does not appear to be seen as a high priority for political entities (ex. the government), news outlets, or the Canadian public. So little media coverage has been given to food insecurity in the North that some *Feeding My Family* members were not even aware of the severity of food insecurity or unique circumstances being faced by Northern residents.

In addition, systematic marginalization has made it more difficult for the voices of Northern residents to be heard. Historically, Indigenous peoples of Canada have faced colonization and its long-lasting legacy is still being felt today. Indigenous peoples of Canada are overrepresented amongst the most marginalised in Canada, being the poorest, un[der]employed, politically disenfranchised, low educational achievements, high incarceration rates, and high rates of police brutality. Essentially, it is difficult for Northern residents to pursue sovereignty in food-related concerns. As a result, solutions for Northern food insecurity are often culturally insensitive and are not adapted for life in the North. Living in such an environment makes it not only difficult to access basic necessities but also it does not allow Northern residents to be heard by those in power to make a difference.

LACK OF TRUST DUE TO COLONIAL HISTORICAL LEGACY

The persisting colonial historical legacy of Canada is still present in the data and its negative effects are still being felt by communities in the North. Racism and discrimination towards Indigenous peoples living in Canada is expressed in some of the group's discourse. It is implied that racism and discrimination are considered to be a possible reason for the resistance and inaction by the government and wider Canadian society to change the food landscape in the North.

Given the current context where there has been lack of government support for Northern residents for food security for a prolonged period of time, Facebook group members feel that the system is "out to get" people like them for a number of reasons, including historical colonial legacy, perceived profits from current food policy in the North at the expense of Northern residents, general distrust for government authority, and perceived disregard by the government and wider Canadian society for food insecurity in the North. Government is seen as the problem rather than the solution. Facebook group members also feel that the system is designed to not

work for them. There is distrust for the government to do the right thing; as a result, Facebook group members feel that there are no other palatable options other than to take Northern food insecurity into their own hands. Northern advocacy for leadership and sovereignty in food discourse is the option the Facebook group, *Feeding My Family*, is generally proposing to alleviate food insecurity.

TRADITIONAL CUSTOMS AND TIES TO THE LAND

There was also a strong sentiment expressed by members of *Feeding My Family* via their Facebook group, about traditional and familial (ex. community) ties to the land. Maintaining connections to cultural identity and practices was given as the main reason, besides high cost, for the rejection of relocation away from the North of Canada. Also, the reluctance to move away from the North is based on Canada's colonial past with Indigenous Canadians. The Government of Canada has forcibly relocated Indigenous peoples (ex. Inuit) away from their traditional lands. Relocation can undermine the ability for individuals to maintain their connection to cultural identity and exercise culturally sensitive practices; all of which hinder sovereignty. Given this, relocation away from the North of Canada is not regarded as a legitimate solution for Northern food insecurity. Instead, participants seem to express support for culturally appropriate solutions, such as those expressed in the food sovereignty movement.

INCREASED AWARENESS TO PROMOTE UNITY AND ACTIVISM

The group (i.e. *Feeding My Family* via Facebook) is a virtual forum for members to share information, learn from others about how they can practically improve their food-related circumstances, connect with others with similar experiences, and educate others about food insecurity. *Feeding My Family* members primarily used photos, which could be accompanied by

text, to disseminate food prices in the North. An aim of sharing this content online was to increase awareness about the complexities involved with food insecurity and its severity in the North. Increased awareness could foster alliances and willingness for others to support Northern residents in the struggle to address food insecurity.

However, generating awareness can be difficult. Overall, the group contended with a general lack of awareness about food insecurity in the North. There was a generally expressed belief (via *Feeding My Family*) that individuals were often disinterested in discussing remedies to address food insecurity if they are not directly impacted by it or have a personal interest (ex. an academic or political interest about food insecurity in Canada). There appeared to be, via *Feeding My Family*, a general lack of knowledge amongst those not experiencing Northern food insecurity; for instance, about pervasive socio-economic and infrastructure challenges involved. Some opinions about what solutions could work for food insecurity in the North work were based on the assumption that food related circumstances in the North were either similar or the same as in the South of Canada.

Some group members encouraged independent research (ex. "Google it") about food insecurity in the North or took it upon themselves to educated those with lack of knowledge via the Facebook group (i.e. *Feeding My Family*). However, some responses were negative. There were some tensions over differing opinions regarding effective solutions for food insecurity, perceived privileges experienced by Northerners compared to everyone else (ex. Southerners), and the responsibilities Northern residents have in resolving food insecurity.

Additionally, the perceived lack of progress was another contentious issue discussed on the group's Facebook page. Frustrations over perceived lack of progress in combating food insecurity in the North resulted in some hostile Facebook responses between members; namely, in the form of name-calling, accusations of racism, disputes over long-term ramifications related to Canada's colonial past, and the purpose of the *Feeding My Family* via Facebook.

The dissemination of content related to Northern food insecurity via Facebook could help in reducing such incidences and hostilities about what should or can be done. Disseminating stories is an effective means of spreading awareness about food insecurity in the North.

STORY TELLING

While the Facebook group, *Feeding My Family*, primarily disseminated information about food prices via images and/or text, stories were also used to spread awareness. Sharing and telling about experiences was a means used by *Feeding My Family* members to disseminate content via Facebook. Storytelling was mostly used to raise awareness about Northern realities linked to food insecurity and to dispel assumptions and negative stereotypes. For instance, group members were trying to dispel the assumption that Indigenous peoples living in Canada were receiving benefits inaccessible to non-Indigenous Canadians, such as not being required to pay taxes and being recipients of government subsidies. Those who thought this assumption was true could be more resistant in supporting increased funding for food insecurity in the North. Ultimately, this could result in a lack of empathy, compassion, and desire to aid Northerners experiencing food insecurity. The group (i.e. *Feeding My Family*) made use of Facebook's platform to disseminate content in an attempt to overcome such obstacles impeding support for addressing Northern food insecurity.

CHALLENGES IN IMPLEMENTING POTENTIAL SOLUTIONS

One Facebook post (i.e. 15th post out of the 30 posts, posted on October 7, 2019) on the *Feeding My Family* page proposed growing hydroponic gardens as a means to alleviate hunger in the North. However, this could be difficult to implement for several reasons. Firstly, there are high start-up costs, which could be higher depending on what types of plants are grown. Certain types of plants require more lighting to grow (ex. tomatoes, oranges, and basil) (Osmon, n.d.; University of Minnesota Extension, n.d.). More lighting consumes more electricity, which results in higher electricity bills – particularly in communities that rely on imported diesel for electrical power. High start-up and maintenance costs could be the reason this (15th) post received relatively little interest – only 13 Facebook responses/comments in total from other group members.

Without a firm understanding about the unique food related circumstances occurring in the North, it is difficult to implement effective and sustainable solutions for food insecurity. Although some *Feeding My Family* members supported the development of greenhouses in the North to reduce the reliance on imported goods, greenhouses could only be used for a limited time in the year due to a lack of sunlight. Effective solutions that are sustainable need to be adapted to local needs and concerns (i.e. to the North).

The dissemination of information via Facebook by *Feeding My Family* members was partly meant to raise awareness about the Northern plight involved with accessing food and to foster unity in addressing food insecurity in the North. Raising awareness was especially important as the present current status quo is not working for Northern residents. The supports

in place to help address Northern food insecurity are not effective enough. People in the North are going hungry and this is undermining the wellbeing of Northern residents.

STRUCTURAL BARRIERS

Expressed tensions via *Feeding My Family* were amplified by an overall sense of marginalization. Northern residents experiencing long-term food insecurity generally felt that their voices were ignored by the Canadian government, entities involved in the food chain, and wider Canadian society. Likewise, government subsidies (i.e. Nutrition North Canada) do not appear to be making a difference in making food more accessible for Northern residents. There was also a sense that Northern concerns were not only politically irrelevant, but could also be ignored by the government. The Government of Canada did not appear to be under sustained pressure to implement long-term effective solutions for Northern food insecurity. Overall, the current food chain and food environment in the North is more expensive than in the South. There were limited options discussed on *Feeding My Family*. The most commonly expressed options were relocation, further education (i.e. re-education), or securing employment with higher earning potential (i.e. 'make more money'). In the next chapter – the conclusion to my capstone – I consider some of these proposed solutions while summarizing what I have learned through this research project.

CHAPTER 5: CONCLUSION – WHERE TO PROCEED FROM HERE?

The current status quo in Canada is not working for Northern residents as government food related subsidies, according to the Facebook group *Feeding My Family*, have not had long-term meaningful impact on reducing food prices in the North. Rather, many *Feeding My Family* members contend with food inaccessibility on a constant basis. Among group members there was a sense of perceived lack of accountability by the government in ensuring Northern residents had access to food (i.e. ensuring choice, affordability, etc.). The perceived lack of government accountability is based on the ongoing and prolonged food insecurity experienced by Northern residents and on the absence of government policy for sustained and effective solutions.

In response to government inaction, the Facebook group members have been helping themselves and each other via the social media platform; namely, through the dissemination and exchange of information. It is important for the Facebook group, *Feeding My Family*, to reach out to people who are otherwise unaware about food insecurity and its unique circumstances in the North. A lack of understanding is perceived by Pam Palmater, Mi'kmaw lawyer and chair in Indigenous Governance at Ryerson University, as a primary cause for why non-Indigenous Canadians are generally less supportive of policies that are aimed at improving the lives of First Nations, Métis, and Inuit people compared to Indigenous Canadians (Andrew-Gee, 2019, paras.2-5). Additionally, a survey conducted by the Environics Institute found that 29% of non-Indigenous Canadians thought the "biggest obstacle" for achieving equality for Indigenous peoples were Indigenous peoples themselves (ibid, para.4).

The belief that the greatest cause for Northern food insecurity is those people who are experiencing it, Indigenous Canadians, undermines the development of a unified response and

political will to effectively address food insecurity in the North. Fundamentally, there is a sense in the Facebook group, *Feeding My Family*, that there is public resistance in changing the status quo, which impedes the implementation of effective and sustainable solutions to food insecurity in the North. The dissemination of information online (i.e. Facebook) is essential in generating greater support in Canada for food security solutions that are relevant to and led by those affected by food insecurity (ibid, para.18).

Although raising awareness via online methods (i.e. Facebook) alone is not enough to address Northern food insecurity in Canada, there are benefits associated in doing so (LastWeekTonight, 2020). Notably, raising awareness is one of the most important things individuals can do for a cause – specifically, they are paying attention to it. Furthermore, awareness about food insecurity is a necessary pre-condition for further action (ibid). Raising awareness will help make food insecurity in the North of Canada a more prominent issue in Canadian society; particularly in the case of government decision-making in a context of multiple, diverse and competing political priorities. Currently, competing political priorities for the Canadian government include addressing the global Covid-19 pandemic and the associated economic recession (i.e. massive job losses for Canadians resulting from Covid-19), as well as current public unrest (i.e. protests about prolonged societal inequalities like race-based discrimination). Northern food insecurity requires increased awareness to become a priority for the Canadian government in order to take action towards addressing it effectively.

Increased awareness has the potential to support action and assist in exerting pressure on the government to address the needs of Northern residents and include them into the decisionmaking process about food insecurity. Sustained pressure to increase food accessibility for Northern residents could also strengthen food sovereignty and greater independence for Northern residents. For instance, securing a leading position in the decision-making process about food insecurity would assist in addressing systemic barriers for Northern residents (i.e. access to clean water and access to healthy foods), reducing the gap between the haves and have nots (i.e. privileges), and combating other forms of marginalization.

The first precondition required to address the structural barriers associated with Northern food insecurity is the increased dissemination of information (i.e. raising awareness). This study has demonstrates how *Feeding My Family* members have successfully undertaken this step. A shared understanding about what is happening is also fundamental in developing and implementing long-term successful strategies to addressing food insecurity in the North. While some conflicting opinions have been expressed about who has the right to partake in discourse via *Feeding My Family*, group members were interested in raising awareness of as many people as they could about food insecurity in the North. Awareness is essential since attention to the problem of food insecurity is needed to produce fundamental change in the status quo.

My research found that dissemination of information via Facebook has indeed resulted in increased attention and awareness about Northern food insecurity. For instance, some group members indicated in their posts on *Feeding My Family* that they have become more aware about the unique circumstances surrounding Northern food insecurity since joining the group. However, the average Canadian (i.e. people in wider Canadian society) is probably not aware about food insecurity in the North.

While digital ICTs can support the sharing of information through social media platforms and help Indigenous and other community members raise awareness about food insecurity,

barriers to solutions include broader social issues, such as lack of effective government policy and socioeconomic determinants of health (Government of Canada, 2018; Beedie et al., 2019). The overarching theme identified through my content analysis was that of a "Broken System." This finding highlights the challenges that Northern and Indigenous communities endure as they work to address food insecurity in the North. Facebook discourse on *Feeding My Family* conveys a common desire to break the status quo and the cycle that is only providing "band-aid" solutions for access to healthy food for Northern communities. Affordability is a fundamental issue and core concern. There was a sense of struggle shared by group members in accessing basic goods and life necessities. There is little to no choice. Northerners have to buy food from their local store at prohibitive prices.

Recognition of this is expressed in negative emotions (hate, outrage, shock, hate, sadness and frustration) seen in posts on *Feeding My Family*, particularly when group members were discussing food pricing and unrealistic solutions for food insecurity in the North. In contrast, positive emotions, such as love, were strongly associated with posts about Indigenous identity, Indigenous way of life, and traditional land. Sharing photos appeared to be an effective way to raise awareness about barriers to accessing minimally processed healthy food as well as to promote advocacy associated to Indigenous identity and sovereignty to encourage off-line activism. As discussed in my literature review, access to traditional foods has been impacted by socioeconomic factors and climate change, resulting in increased reliance on less healthy and more expensive processed foods (Spring et al., 2018; Dahm, 2015). However, access to healthy food is one of the best means to prevent illness, including the development of diabetes.

Traditional practices are an integral part of Indigenous approaches to illness prevention. An Indigenous diet empowers Indigenous communities by reclaiming their food legacy and treaty

rights (Maresca, n.d.). Therefore, policymakers and future researchers might consider looking to proposals such as the Indigenous food sovereignty movement as a way to help address the challenges of food insecurity in ways that involve and respect the affected people, encourage positive forms of online engagement and discuss, and recognise substantial Indigenous participation in the development of public policies that impact their communities.

APPENDIX A: CODEBOOK

Many of the Facebook posts that I analysed could be categorized under the different codes mentioned below. For instance, portions of the same Facebook comment might discuss multiple codes such as: Cost, Broken System, and Proposed Solutions to alleviate northern food insecurity. To address this potential coding overlap, I determined codes based on individual coding frequency in the posts as opposed to portions in it (i.e. per word and/or per sentence). Essentially, I developed and assigned codes based on the overall message conveyed in the posts.

CODE: STORY SHARING

Story Sharing Definition. Creating meaning and two-way communications through "active listening and having valuable dialogues" (acook, 2012, para. 2). Story sharing can also enrich understanding about the discourse surrounding food insecurity in the North of Canada.

Story Sharing Origin. The coding for Story Sharing was first used for post 1 in the 30 Facebook detailed analysis and the discourse surrounding this post (i.e. comments), which was taken from 100 Facebook posts gathered, collected, and analysed via *Feeding My Family*. This first (1st) message was posted on the Facebook group *Feeding My Family* on November 25, 2019 and has had 61 comments.

Story Sharing Importance. Story Sharing is relevant to this capstone research project as this code can describe the type of two-way communications occurring via Facebook and being sought on the *Feeding My Family*'s Facebook group by group members.

Story Sharing Example 1. Below are 3 Facebook comments to the first (1st) post in the detailed analysis of the 30 posts. In total there were 61 comments to this post. Facebook user names were excluded from the examples.

- 29th Comment to Post 1: Response 1 from Facebook User A⁶: "what have the feds ever done for you be honest have no faith in feds" (0 emotion reaction).
- 30th Comment to Post 1: Response 2 from Facebook User B: "they keep my fed when I was in jail when I was younger. Use to go to jail so I can eat better lol" (1 like/thumbs up and 1 sad face).
- 31st Comment to Post 1: Response 3 from Facebook User A: "You guys want action tell Canada if your issues are not resolved you will be seeking help from Russia agencies for help on the food crisis bet their assess would do something" (1 like/thumbs up).

While portions of this two-way communication via. the comments sections on Facebook, can be categorized as others codes (i.e. Advocacy, Broken System, and Proposed Solutions); overall, this Facebook communication can be coded as Story Sharing as User A is disclosing their experience with northern food insecurity and the lengths they have gone to secure their access to food in the North.

Story Sharing Example 2. There is a more explicit Facebook comment from the sixth (6th) post in the 30 Facebook posts detailed analysis, which states the function of Story Sharing via Facebook. The following Facebook comments were also a part of a subconversation to the

 $^{^{6}}$ Responses 1 and 3 are from the same Facebook user, the same individual on the social media platform.

seventy fifth (75th) Facebook comment to the sixth (6th) Facebook post analysed. Facebook has an option to not only respond or comment to the initial post but Facebook users can also respond to comments, which results in subconversation occurring within comment sections.

- 76th Comment to Post 6: Response 1 from Facebook User C⁷: "this isn't a new phenomenon" (4 likes/thumbs up).
- 77th Comment to Post 6: Response 2 from Facebook User D: "its all fallen on deaf ears" (1 thumbs up).
- 78th Comment to Post 6: Response 3 from Facebook User E: "Thanks for your responses.

 I ask because I have only started hearing about this because I joined this group. Which means there's a lot of people that don't know about it. Or in some cases choose to turn a blind eye" (0 emotional reaction).
- O 75TH Comment to Post 6: Response from Facebook User E⁸: "I have an honest question. Is it just in recent years that prices have been so grossly inflated or has this been going on for years? Also, what is the number 1 thing people can do to help? Is it petitioning the government? The companies that sell up north? What can be done to help fix this?" (0 emotional reaction).

⁷ All the responses above are from different Facebook users. These examples drawn from the comment section are responding to the 75th comment, which is asking, out of curiosity, about price inflation over the years and what others can do to improve food security in the North of Canada. This comment, the 75th comment, is provided above.

⁸ Facebook User E is the same Facebook user as the one referred to in Story Sharing Example 2 above, it is the same individual.

Story Sharing Counterexample.

- 9th Comment to Post 4: Response 1 from Facebook User F: "OMG "(0 emotional reaction).
- 10th Comment to Post 4: Response 2 from Facebook User G: "Sad \(\omega \)" (0 emotional reaction).
- 11th Comment to Post 4: Response 3 from Facebook User H: "Had one about 1 ½ foot long for \$10 in Manitoba and sold not by weight" (0 emotional reaction).

The 3 responses above are comments to the fourth (4th) Facebook post analysed out of the 30. This fourth (4th) post was discussing the high cost of fresh fruit, namely sliced watermelon and table green grapes. An image was two packets of these fruits being sold for \$20.95 and \$23.43. This fourth (4th) post had 45 comments and was posted on June 6, 2019.

The 3 responses above rather than being a part of a two-way communication are affirmations of agreement about the high cost of food in the North. These Facebook Users (User A to C) agree that prices of food in the north of Canada are too high. In addition, these 3 responses have no emotional reactions nor do they engage other group members in discourse.

Story Sharing Reflection. The code, story sharing, was first developed with the primary purpose of sharing Facebook posts to educate recipients. However, coding for story sharing was expanded to include generating awareness about food insecurity in the North and/or related concerns. Likewise, coding for story sharing was conducted to capture discourse where Facebook participants were actively engaging in two-way communications.

CODE: COST

Cost Definition. The financial and/or effort used up to acquire a desirable outcome. This can range from using money, water, electricity, and/or time to get access to nutritious food.

Cost Origin. The coding for Cost was first used for post 1 in the 30 Facebook detailed analysis and the discourse surrounding this post (i.e. comments), which was taken from 100 Facebook gathered, collected, and analysed via *Feeding My Family*. This first (1st) post was posted on the Facebook group *Feeding My Family* on November 25, 2019 and had 61 comments.

Cost Importance. Coding for Cost is of importance as this code can categorize data that refers to pricing and/or circumstances that contribute towards food inaccessibility in the North of Canada. These circumstances can range from money to the inability of making use of the local ecosystem due to industrial pollution.

Cost Example 1. Below is the eight (8th) response to the first (1st) post for the 30 posts detailed analysis. In total there were 61 comments for this post.

• 8th Comment to Post 1: Response 1 from Facebook User I: "There are many factors that cause the high costs in the North or isolated communities. Shipping of course, once it hits an airplane lookout—the further north the worse it gets and is substantial. Then you have the high costs of constructing or purchasing your buildings—amongst the highest Canada. Now you have to maintain these buildings and pay the highest utility costs in the country. So we move onto staffing—many of the employees are flown up on turn around rotations and placed into staff housing—another expense—and finally trying to get

delays, blizzards, mechanical problems list goes on. And really I've only touched a small part of the big picture. IMO" (0 emotional reaction).

The first (1st) example for Cost lists some of the factors that contribute towards high food costs in the North. Food insecurity in the North is complex and there are many factors involved; some of these factors are outside the scope of this capstone research project. Other posts also discuss the potential factors involved in associated financial inefficiencies (i.e. needlessly high costs in the North).

Cost Example 2. The second (2^{nd}) example for Cost is one of the most common ways Feeding My Family members disseminate content about high costs, which is via photos that capture the prices within local grocery stores. These photos may or may not be accompanied by text describing the context of the photo(s). While most of these photos are about food prices, some are about the cost of miscellaneous items.

The second (2nd) example for Cost is the second (2nd) post from the 30 posts detailed analysis. This post had 43 comments and was posted on December 5, 2018.

• Post 2: Response from Facebook User J: "Water kind of exspensive, we need it though for mixing our baby's formala" (2 likes/thumbs up, 16 wow faces, 17 sad faces, and 27 angry faces).

This Facebook post also was accompanied by an image, pasted below:



<u>Description of image above</u>: BV Spring Water bottles 12 x 500 ml being sold for \$33.99 (CAD).

Cost Counterexample. The counterexample for cost was taken from the analysis conducted for the 30 posts detailed analysis. Namely, the 19th comment for the 12th post. The 19th comment was part of a subconversation about another comment (17th) that asked group members what they thought could be done about the high cost in the North. These two comments, the 17th and 19th comments, were responses to the 12th post, which was about the high cost of cranberry juice. The 12th post had 34 comments, was posted on November 25, 2019, and was accompanied by a photo that showed *Ocean Spray* cranberry juice being sold in the local grocery store for \$27.99 (CAD).

• 19th Comment to Post 12: Response 1 from Facebook User A: "So in that case we should have government reform. Why should anyone profit off of basic necessitates like this?" (0 emotional reaction).

While the initial post (i.e. the 12th post) was about cost, the 19th comment was not. The 19th comment was coded for Broken System. While profit was discussed, the essence of the post touches upon how the current food environment was failing Northern residents.

Cost Reflection. Cost coding was first used in categorizing the financial expense involved with accessing food. However, the cost coding was expanded to include factors like time and natural resources need to be spent to obtain access to food. For instance, time and clean water as well as electricity is usually needed to prepare food at home.

CODE: PROPOSED SOLUTIONS

Proposed Solutions Definition. Ideas that were brought up as possible means for solving and/or addressing food insecurity in the North of Canada. Proposed solutions may not necessarily align or be complementary with one another.

Proposed Solutions Origin. The coding for Proposed Solution was first used for post 1 in the 30 Facebook detailed analysis and the discourse surrounding this post (i.e. comments), which was taken from 100 Facebook gathered, collected, and analysed via *Feeding My Family*. This first (1st) post was posted on the Facebook group *Feeding My Family* on November 25, 2019 and had 61 comments.

Proposed Solutions Importance. The code for Proposed Solutions helped in categorizing data that states or suggests it is in favour of, and/or discussed potential remedies for food insecurity in the North of Canada. However, general consensus for what should be regarded as viable solutions amongst group members (i.e. of *Feeding My Family*) does not necessarily have to be reached to be coded as a Proposed Solution.

Proposed Solutions Example.

◆ 32nd Comment to Post 12: Response from Facebook User K: "Buy frozen juice, it's subsidized and add local water. A lot cheaper and just as good or better." (0 emotional reaction).

This response above was the 32nd comment to the 12th post (i.e. post that was about cranberry juice).

Proposed Solutions Reflection. The coding for Proposed Solutions was first coded for ideas, thoughts, and otherwise content that recommend a certain course of action designed to alleviate food insecurity in the North of Canada. However, on closer reading (i.e. for the 30 Facebook posts) some codes overlapped. Essentially, certain segments of Facebook posts could be categorized into different codes, depending on interpretation. After this revelation, the coding approach changed. Rather than attempting to code posts based on smaller segments of data (i.e. words and sentences), coding was applied to the entire post.

CODE: SOVEREIGNTY

Sovereignty Definition. refers to "the right of self-government" (LaForme, 1991).

Broadly speaking, sovereignty is the capability to exert the right to make independent choices.

This can apply to groups, choices made by communities or individuals.

Sovereignty Origin. The coding for Sovereignty was first used for post 1 in the 30 Facebook detailed analysis and the discourse surrounding this post (i.e. comments), which was taken from 100 Facebook gathered, collected, and analysed via *Feeding My Family*. This first

(1st) post was posted on the Facebook group *Feeding My Family* on November 25, 2019 and had 61 comments.

Sovereignty Importance. Coding for Sovereignty provided an opportunity to capture data that made assertions to or referred to the independence of Indigenous peoples in Canada as well as to Indigenous human rights, equality amongst Indigenous and non-Indigenous Canadians, the right of self-governance, and to the perceived obstacles in the way of asserting sovereignty for those living in the North of Canada.

Sovereignty Example.

• Post 6: Response from Facebook User L: "This is for the southerners or white people, I don't know what to call you really BUT!!!! Don't tell us to move away from our own homes to afford the basic things every person needs. As a inuk I love living in the great white north. It's where I grew up && live. Nunavut won't get any better if every last one of us jus up and leaves. We all wanna make our land more affordable and worse part is. It's like \$2,000\$ one way to Ottawa for jus one person. It not as easy as you say it is Sincerely, Inuit Power" (284 likes/thumbs up, 94 heart/love, 3 wow faces, 3 haha/laughing faces, and 2 sad faces emotional reaction).

This example for sovereignty (i.e. example 1) is the sixth (6th) post analysed for the detailed analysis of the 30th Facebook posts. This post had 223 comments and was posted on November 25, 2019. It was one of the posts with the highest rates of engagement amongst members of *Feeding My Family*. While portions of the post above could also be coded for Cost, the overall content discussed the sovereignty Indigenous people should have in deciding for themselves where they would like to live and how they would like to live. It is implied that

Indigenous sovereignty is not respected by Canadians and neither are traditional values and cultural connections to the land and community (i.e. in the North).

Sovereignty Counterexample.

• 52nd Comment to Post 6: Response from Facebook User M: "I would like to apologize for the ignorance that made people say that. The solution is to make resources and food available and AFFORDABLE for people, not to corner a market and gouge people because they have no other options. And for people to say just move is so wrong. That is your home you shouldn't have to move to receive equal treatment" (1 heart/love and 14 like/thumbs up emotional reaction).

The counterexample Sovereignty was the 52nd response to the 6th post analysed from the 30 Facebook posts. This response was coded as content that belonged into Broken System. While there are portions that can fall into Story Sharing, Cost, and Sovereignty, the overall tone of the response discussed above on how the system, which is broken, established the conditions that failed Northern residents.

Sovereignty Reflection. Sovereignty coding grouped data that made reference to assertions of independence; Particularly with decision-making processes and outcomes that Indigenous peoples of Canada have a stake in. Overwhelmingly, data categorized into a sovereignty grouping contained negative connotations and feelings indicating that the voices of Indigenous Canadians are not being heard; essentially, insights, desires, or preferences, from the Indigenous peoples appear to have no impact nor do they appear to be reflected in the food security decision-making process in Canada.

CODE: ADVOCACY

Advocacy Definition. Date that states or otherwise comprises "any action "that is in favour" or "recommends, argues," supports, defends, or pleads for a cause" on behalf of others" (Alliance for Justice, n.d.). Essentially, a call for action.

Advocacy Origin. The coding for Advocacy was first used for post 1 in the 30 Facebook detailed analysis and the discourse surrounding this post (i.e. comments), which was taken from 100 Facebook gathered, collected, and analysed via *Feeding My Family*. This first (1st) post was posted on the Facebook group *Feeding My Family* on November 25, 2019 and had 61 comments.

Advocacy Importance. Advocacy coding enabled the categorization for data that was in favour of taking action that support food security in the North of Canada.

Advocacy Example.

• 93rd Comment to Post 6: Response from Facebook User N: "yup! I also write my MP and MPP about solutions and try to push about solutions and try to push to get proper help to them. The systemic issues of abuse are still occurring. I help when I can and encourage others to write "to powers that be" so we as a country stand up and demand change for our fellow citizens in need" (1 heart/love emotional reaction).

The post above encouraged advocacy (off-line) in the form of contacting government officials. Namely, in this case, making the transition from on-line to off-line activism in the attempt of addressing Northern food insecurity in Canada. To help combat food insecurity, Facebook User N contacted his/her local Member of Parliament (MP) and their Member of Provincial Parliament (MPP). The description of what Facebook User N did to help address

Northern food insecurity (i.e. contacting government officials), encouraged others to take the same course of action.

Advocacy Counterexample.

• 22nd Comment to Post 19: Response from Facebook User O: "This is BS is something the Trudeau gov't should be dealing with and taking care of. No one in Canada should ever have to pay this much money for food" (3 like/thumbs up emotional reaction).

The post used for the counterexample of Advocacy described a broken system where the Canadian government, to rectify Northern food insecurity, needed to do more. This is in favour of pressuring the government to take an active role in addressing food insecurity. Also, the post above talks about cost. Namely, about how the high cost of food in the North is restricting accessibility to healthy food for Northern residents.

Advocacy Reflection. Coding for advocacy was not as abundant in the data as anticipated. The data analysed (i.e. Facebook posts) dealt with discussions focused more on cost and potential attempts to develop implementable solutions for food security in the North.

CODE: UNITY

Unity Definition. Refers to a state of being that reflects collective mentality as opposed to individuality or individual attempts in addressing food insecurity. Likewise, Unity also supports bringing individuals and/or groups of people together for a cause rather than dividing them.

Unity Origin. The coding for Unity was first used for post 1 in the 30 Facebook detailed analysis and the discourse surrounding this post (i.e. comments), which was taken from 100

Facebook gathered, collected, and analysed via *Feeding My Family*. This first (1st) post was posted on the Facebook group *Feeding My Family* on November 25, 2019 and had 61 comments.

Unity Importance. Unity coding enabled the categorization of data that discussed unified action to combat Northern food insecurity in Canada, which often expressed support for efforts that would help strengthen food security in the North.

Unity Example.

• 152nd Comment to Post 6: Response from Facebook User P: "No one should ever be made to leave their home, especially in a country as rich as Canada. I've had the honour of spending time in Nunavut, loved the Inuit, their culture and their respect for family, elders and the land. It pains me when I see what you pay for food, it really is criminal. I'm sure many things have been attempted but could there be an opportunity to partner with families/people in larger centres so we could send food and supplies at a more affordable rate? Kind of like a network? This may have been attempted in the past, I've been following this group for a while so I can't remember. I would like to be part of a solution if we find one!? In the meantime we got your back and maybe if we work together we can have a greater impact with government?! ♥" (3 like/thumbs up emotional reaction).

While portions of the post above, example for Unity, made connections to Sovereignty, Cost, and Proposed Solutions; the use of **we** and **partner** transforms an individual pursuit in asserting sovereignty and in reducing high costs in the North into a call for unity; essentially, the post above supports collective attempts over individual action.

Unity Counterexample.

• 168th Comment to Post 6: Response from Facebook User Q: "There's always been "that" crowd that likes to tell people how to live their life, like you know..."if ya don't like it you can leave"...they're the same ones that would revolt if they had to move. Also government would love nothing better than to centralize everything...and I do mean everything...like "...ok people, we all want everyone in the country to move to Toronto because we'll save a whole bunch of money, and anyone who works far afield will just have to do the fly in—fly out thing..forever... (0 emotional reaction).

While the post above uses the term, **we**, it was used to refer to divisions in Canadian society. Facebook User Q discussed some common responses from those living in the South of Canada and not experiencing food insecurity. Likewise, frustration was being expressed about a status quo in Canada that was perceived as being supportive of common unsympathetic responses rather than being open to alternative viewpoints and solutions for Northern food insecurity.

Unity Counterexample. Unity was not prominent in the data analysed; when positive connotations were being expressed; rather, the lack of support regarding food security was expressed more frequently. Likewise, it was more common for members of the group, *Feeding My Family*, to express a desire for unity with others (i.e. group members, Indigenous, and non-Indigenous Canadians) in addressing food insecurity in the North of Canada.

CODE: SUPPORT

Support Definition. Refers to or expresses favour for and/or promotes a certain approach, strategy, and/or cause, which aims to alleviate food insecurity in the North of Canada.

Support Origin. The coding for Support was first used for post 1 in the 30 Facebook detailed analysis and the discourse surrounding this post (i.e. comments), which was taken from 100 Facebook gathered, collected, and analysed via *Feeding My Family*. This first (1st) message was posted on the Facebook group *Feeding My Family* on November 25, 2019 and had 61 comments.

Support Importance. Coding for Support provided an opportunity to identify data that expressed in one way or another the support for or advancement of a particular routine in addressing Northern food insecurity in Canada.

Support Example.

• 21st Comment to Post 25: Response from Facebook User R: "for your next kids birthday join the group the northern birthday box project. you apply a few months before their birthday and your child gets matched with a sponsor to help send party supplies at no cost to you.. I'm pretty sure moonsonee qualifies for the project.." (2 likes/thumbs ups and 2 heart/love emotional reaction).

The above post was an example of Support as one group member of *Feeding My Family* encouraged another group member to join a recommended group as a means to reduce costs.

Namely, Facebook User R recommended Facebook User B to join Northern Birthday Box

Project so the cost for their child's next birthday would be less compared to the previous birthday party.

Support Counterexample.

12th Comment to Post 25: Response from Facebook User S: "you get sold expired food? Can I PM you?" (Facebook User T⁹) "you as well? I'm reaching out to my professional association and MP. I want to help" (1 heart/love emotional reaction).

The post above did not describe or explicitly state a cause that could be promoted or otherwise advanced in support of food security in the North; rather, this post (i.e. 12th comment to post 25) made refere to Cost (i.e. about food), Advocacy (i.e. reaching out to government officials and professional associations), and to express a desire to Support the cause of Northern food security in Canada.

Support Reflection. Coding for Support, namely, for data that demonstrated to favour the advancement of a particular cause (i.e. for Northern food security), was not as abundant as anticipated; rather, when support was remarked it was most often in a negative manner (i.e. the lack of support and the resulting negative emotions related to the lack of support). Overall, Support in general was less prominent compared to other codes like Cost.

CODE: BROKEN SYSTEM

Broken System Definition. Refers to or expresses concerns about a failing approach, strategy, and/or cause, which is intended to alleviate food insecurity in the North of Canada.

Broken System Origin. The coding for Broken System first emerged after being applied to all the previous codes in the 30 Facebook detailed analysis. Broken System, after reviewing

⁹Facebook username (i.e. for Facebook User T) was omitted.

the data generated from coding, was identified to be the overarching theme that ties the other codes together.

Coding for Broken System was first applied to the first (1st) post in the 30 Facebook detailed analysis and the discourse surrounding this post (i.e. comments), which was taken from 100 Facebook gathered, collected, and analysed via *Feeding My Family*. This first (1st) post was posted on the Facebook group, *Feeding My Family*, on November 25, 2019 and had 61 comments.

Broken System Importance. Coding for Broken System was identified to be the connection tying all codes together; essentially, coding for Broken System was the overarching theme or category where all other codes could be grouped together.

Broken System Example.

• 55th Comment to Post 1:Response from Facebook User R: "I am sorry that happened to you and if that doesn't indicate a broken system then I don't know what does" (1 heart/love emotional reaction).

The example above used for Broken System made the connection between the current status quo in the north of Canada and a broken system, which is not designed to work for all Canadians. Thus it is broken, not working for Northern residents.

Broken System Counterexample. As Broken System has been identified as the overarching theme for the Facebook posts analysed, there was no counterexample. All analysed posts fit under the Broken System code.

Broken System Reflection. Coding for Broken System emerged after an initial reading and analysis of the Facebook posts. Broken System was not an anticipated code; rather it was identified as an important connection later on in the data content analysis process.

APPENDIX B

Exploring Food Insecurity with *Feeding My Family* Facebook Group Members:

Interview Protocol

Interview Format:

The interviews follow a semi-structured approach. This means that the ten (10) questions asked by the Principal Investigator (also known as the researcher) during the interview are open questions, which allow new ideas to be brought up during the interview process. This provides an option to respond in "your own words". Due to the Covid-19 pandemic in Canada, interviews will be held online (i.e. Google Hangouts).

Participant Recruitment:

The Principal Investigator will send an e-mail and/or Facebook Message to the four (4) administrators of the Public Facebook group, *Feeding My Family*, to ask if they could post a message about this study on the Facebook group site and to invite interested members to contact the researcher by email (UAlberta email address). The message posted on the group will provide a brief summary of the study and invite Group members, including administrators, to contact the Principal Investigator by email to express interest to participate.

The Principal Investigator will then select 6-10 participants to interview. Priority will be given to administrators and interested participants living in the North. These individuals will be contacted by the research through Facebook messenger and/or e-mail to confirm their interest. If a Group member confirms interest in participating, the Principal Investigator will send him/her the Consent form to review, sign and send back the researcher's contact information, and three suggested days/times for the interview. The Principal Investigator will then follow up with the

participants to schedule the specific interviews and ask if they have any questions about the Consent form or study. At the scheduled day/time, participants will be interviewed using a set of ten (10) questions in a semi-structured interview focused on the role that social media plays to raise awareness of food security and sovereignty in Northern Canada. This approach will enable the participants to respond to the questions and express their opinions and thoughts regarding food security in the North of Canada.

Potential Interview Themes¹⁰:

- Purpose for using social media, including the creation of a Facebook Group;
- Impact of social media on raising awareness and/or promoting on-line activism;
- Identify the posts that have a greater impact to raise awareness and promote advocacy related to food security and food sovereignty in the North;
- Relationship between online activism and off-line advocacy; and
- Inquire whether participants think that social media is exerting pressure on the Canadian government to improve government policy, such as Nutrition North Canada.

 $^{^{10}}$ Note: The researcher, myself (Larissa Koplyay), will define the Interview Themes through a semi-structured interview .



FACULTY OF EXTENSION

MASTER OF ARTS IN COMMUNICATIONS AND TECHNOLOGY (MACT)

APPENDIX C

Enterprise Square
10230 Jasper Avenue
Edmonton, Alberta, Canada T5J 4P6
extnregistration@ualberta.ca
https://www.ualberta.ca/extension
Human Study # - Pro00101356

Research Study Consent Form

Title of the study: How are Individuals using Social Media in the context of supporting Food Security and Food Sovereignty in Northern Canada?

Human Participant Study #: Pro00101356

Principal Investigator: Larissa Koplyay

Graduate Student

Master of Arts in Communications and Technology (MACT)

Faculty of Extension

University of Alberta

Edmonton, AB

koplyay@ualberta.ca

Principal Supervisor: Dr. Rob McMahon, PhD

Associate Professor

Master of Arts in Communications and Technology (MACT)

Faculty of Extension

University of Alberta

Edmonton, AB

780-248-1110

rob.mcmahon@ualberta.ca

| Research Participant's name [PRINT]: | |
|--------------------------------------|--|
|--------------------------------------|--|

Thank you for agreeing to be interviewed as part of this capstone research project. You have been asked to participate in this capstone research project because you are a member of the Facebook group, *Feeding My Family*, which is the case study for this project.

According to the University of Alberta's ethical procedures regarding academic research involving human participants (interviews), participants need to be in agreement to be interviewed and provide their agreement as to how the information created in the interviews will be used.

This Research Study Consent From is needed to ensure that you, the participant, understand not only the purpose of your involvement with this project, but also establishes your agreement with the conditions of your participation. Please see the accompanying document, *Information Letter for Research Study Consent Form*, to read the conditions of your participation in this capstone research project. If you have any questions about this study, please email koplyay@ualberta.ca. After reviewing this document, **please sign this form to confirm your agreement** with the following conditions:

- The interview for this capstone research project will be recorded with the consent from participants and a transcript will be also made.
- If any information you provided during the interview needs further clarification, the Principal Investigator may contact you after the interview to request clarification.
- Access to the information you provide during the interview, which includes the transcripts, will be limited to the Principal Supervisor (Dr. Rob McMahon) and the Principal Investigator (Larissa Koplyay).

- Digital copies of the information gathered and created from the interviews will be kept on a password protected computer with the Principal Investigator and with the University of Alberta.
- Hard copies of the information gathered and created from the interviews will be stored in a filing cabinet in a locked room.
- Your name and personal information will not be disclosed in the capstone research project unless you consent to do so. This means that the information created from the interviews and used in the project will be anonymous unless you would like to be named in the study's 'Acknowledgements' section.
- Digital and hard copies of the information gathered and created from the interviews will be kept for 5 years and destroyed after this time period. The digital copies will be permanently deleted and hard copies shredded.
- Any changes to the conditions of participation above will only happen with your explicit consent.

By signing this form I agree to the following:

1. My participation is voluntarily in this capstone research project. I am aware that I do not have to participate and that I can stop the interviews at any given time.

2. After July 15th, 2020 I can no longer withdraw my participation in this capstone research project nor can I request the information gathered and created from the interviews to be deleted. 3. The interview transcripts or information from the interviews may be used and/or published as described in the accompanying Information Letter for Research Study Consent Form. 4. There is no expectation from me that I will receive any benefit or payment for my participation in this capstone research project. 5. I have been able to ask any questions that I have regarding my participation and I understand that I can contact the Principal Investigator (Larissa Koplyay) with any questions/concerns I may have in the future about this capstone research project. **Printed Name** Participant's Signature Date (YES / NO) I would like my name to be included in the "Acknowledgements" section of the research report.

Please print, sign and scan/take a photo of this form, and email a copy to: koplyay@ualberta.ca

Date

Researcher's Signature



FACULTY OF EXTENSION MASTER OF ARTS IN COMMUNICATIONS AND TECHNOLOGY (MACT)

Edm

Enterprise Square 10230 Jasper Avenue Edmonton, Alberta, Canada T5J 4P6 extnregistration@ualberta.ca https://www.ualberta.ca/extension Human Study # - Pro00101356

Title of the study: How are Individuals using Social Media in the context of supporting Food Security and Food Sovereignty in Northern Canada?

APPENDIX D

Information Letter for Research Study Consent Form

Human Participant Study #: Pro00101356

Principal Investigator: Larissa Koplyay

Graduate Student

Master of Arts in Communications and Technology (MACT)

Faculty of Extension

University of Alberta

Edmonton, AB

koplyay@ualberta.ca

Principal Supervisor: Dr. Rob McMahon, PhD

Associate Professor

Master of Arts in Communications and Technology (MACT)

Faculty of Extension

University of Alberta

Edmonton, AB

780-248-1110

rob.mcmahon@ualberta.ca

Invitation to Participate: You are invited to participate in a semi-structured interview for a capstone research project about how social media helps raise awareness of food security and food sovereignty in Northern Canada. You have been invited to participate because of your participation in the public Facebook group, *Feeding My Family*, as well as your experience as a resident of Northern Canada. As a member of this Facebook group, your views on this topic would greatly assist in helping me understand how people are using social media to promote the accessibility of healthy, affordable food in Northern regions of Canada.

If you have any questions about this study or this Consent Form, please contact the Principal Investigator, Larissa Koplyay at: koplyay@ualberta.ca.

Purpose of the Capstone Study: To explore how individuals and communities in Northern Canada are using social media platforms like Facebook to share and exchange information about food sovereignty and to raise awareness about concerns related to food accessibility and food security.

Participation: If you wish to participate in the interview for this capstone research project, please complete the attached Consent Form. The interview will be conducted by Google Hangouts and should take approximately 30-45 minutes to complete.

You do not need to answer any questions that you do not wish to answer. The interview will not disclose your name or ask personal information. Your name will only be disclosed with your consent. Once you have completed and signed the attached Consent form, please send a scanned image or photo of the form and submit it to the following electronic address:

koplyay@ualberta.ca

Dates for the interviews will be scheduled by email before **July 5th**, **2020**. An e-mail reminder for your interview will be sent by e-mail and/or Facebook messenger one day before your scheduled interview.

Benefits: There are no personal benefits from participating in this interview. Your participation will help contribute towards our understanding about areas of strength and weaknesses in food security in the North; and specifically, the role that communications and social media play in this regard.

Risks: This study has been designated 'minimal risk' by the University of Alberta's research ethics review board. Some potential risks from participating in this capstone project include emotional upset resulting from responding to the ten (10) interview questions. While your name will not be recorded in the capstone project without your consent, there is some potential that information gathered through the interview could be accessed without authorization.

However, participants can refuse to answer any questions or share information.

Confidentiality and Anonymity: The information that you will share in the interview will be used for my graduate capstone research project. The only individuals who will have access to the raw data (i.e. interview responses) are Dr. Rob McMahon and Larissa Koplyay. Your responses to the ten (10) interview questions may be used in presentations and publications. However, you will not be personally identified unless you consent to do so. With your consent, I will include your name in the 'Acknowledgements' section of my capstone project.

In order to schedule the interviews, your name and contact information (e-mail and/or Facebook messenger contact information) will be available to the Principal Investigator (Larissa Koplyay) and her supervisor (Dr. Rob McMahon).

Data Storage: Interviews will be audio recorded and transcribed either by the Principal Investigator or a transcription service. Should participants not feel comfortable having their interview audio recorded, with their permission, the Principal Investigator will take notes during the interview and use those. Electronic copies of the audio recording and transcription will be stored on a personal password protected computer.

Costs of Participation: As the interviews will be conducted online, there are no direct costs associated with conducting the interview.

Compensation (or Reimbursement): Participants will not receive compensation (financial or otherwise) for time spent participating in the interview. However, a small token of appreciation, such as a gift card (\$10-20 per participant), will be provided.

Voluntary Participation: There is no obligation from you to participate in this study. If you choose to participate, you can choose not to respond to any questions that you may not wish to answer. Likewise, if you no longer wish to participate midway, you may withdraw your participation at any point in time.

If you wish to withdraw participation, it will be possible to do so until **July 15, 2020**. To withdraw, send an email to the Principal Investigator (koplyay@ualberta.ca). Upon receipt of this email, the Principal Investigator will remove your information from the study. After this date, it will no longer be possible to withdraw your response from this capstone research project.

Information about the Capstone Project Results: This capstone research project will be made available on the University of Alberta's Education and Research Archive (ERA) website.

Contact Information: If you have any questions or need further information about this capstone research project, please contact the Principal Investigator, Larissa Koplyay, at koplyay@ualberta.ca

This project has been reviewed and approved by the Research Ethics Board at the University of Alberta. If you have any questions or concerns related to your rights as a participant in the interviews for this capstone research project or how the research is being conducted, please contact the Research Ethics Office at 780-492-2615.

Please print this form for your personal records.

APPENDIX E

Capstone Participation Invitation (Posted on Feeding My Family Public Facebook Group)

To Members of the Feeding My Family public Facebook group:

My name is Larissa Koplyay. I am a second-year graduate student in the University of Alberta MA in Communications and Technology. I would like to invite you to participate in a capstone research project that I am conducting, entitled "How are Individuals using Social Media in the context of supporting Food Security and Food Sovereignty in Northern Canada?

The purpose of this capstone research project is to explore how individuals living in communities in Northern Canada are using social media platforms, such as Facebook, to share and exchange information to advocate for food sovereignty and to raise awareness about concerns related to food accessibility and food security. The research involves a 10-question semi-structured interview.

If you are interested in participating in an interview, please email me at: koplyay@ualberta.ca and I will contact you with more details.

I thank everyone for your interest in this study, and will be recruiting the first 10 participants who respond to this invitation.

All participants in this study will receive a Gift Certificate as a token of appreciation.

Thank you for your consideration. Sincerely,

Larissa Koplyay
Graduate Student, University of Alberta
koplyay@ualberta.ca

APPENDIX F

Table 4 In-depth Analysis of the 30 Facebook Posts— Exclusion Due to Repetition

| Post # | Corresponding | Total # of | Excluded | Repeating |
|--------|-----------------------|----------------------|----------|------------------|
| | Post # from | Posts | Post # | Comment Post # |
| | Appendix G (above) | Analyzed Per Post | | |
| | (above) | Per Post | | |
| 1 | 1 | 62 | 6 | 1 |
| 2 | 2 | 44 | 8 | 0 |
| 3 | 3 | 26 | 1 | 1 |
| 4 | 4 | 46 | 11 | 0 |
| 5 | 5 | 33 | 5 | 0 |
| 6 | 6 | 224 | 76 | 0 |
| 7 | 7 | 46 | 11 | 0 |
| 8 | 8 | 8 | 4 | 0 |
| 9 | 10 | 64 | 14 | 0 |
| 10 | 12 | 29 | 10 | 0 |
| 11 | 13 | 37 | 29 | 0 |
| 12 | 14 | 35 | 10 | 0 |
| 13 | 15 | 27 | 8 | 0 |
| 14 | 16 | 72 | 11 | 0 |
| 15 | 20 | 14 | 0 | 0 |
| 16 | 33 | 39 | 9 | 111 |
| 17 | 35 | 25 | 1 | 0 |
| 18 | 46 | 93 | 16 | 2 |
| 19 | 21 | 65 | 13 | 111 |
| 20 | 28 | 84 | 23 | 0 |
| 21 | 8 | 4 | 0 | 0 |
| 22 | 11 | 2 | 0 | 0 |
| 23 | 40 | 13 | 5 | 0 |
| 24 | 17 | 22 | 5 | 0 |
| 25 | 18 | 48 | 12 | 0 |
| 26 | 19 | 28 | 1 | 111 |
| 27 | 22 | 81 | 18 | 111 |
| 28 | 26 | 5 | 1 | 0 |
| 29 | 27 | 86 | 17 | 111 + 2 12& 1= 4 |
| 30 | 30 | 13 | 2 | 0 |

 10 These Facebook comments (for Post # 3, 16, 19, 26, 27, and 29) were the same.

 $^{^{11}\,\}text{These}\ 2$ (two) recurrent Facebook comments were the same as comment 1 for Post #1.

There were 2 recurrent Facebook comments. Duplicate Facebook comments were excluded from the detailed analysis of the 30 Facebook posts.

Facebook comments were also excluded from analysis if they did not partake in discourse. For instance, Facebook comments that simply responded with simple terms like: "ok", "haha", "sounds good", etc., were excluded. Most of these Facebook comments were short affirmations for either support or disapproval with the particular Facebook post receiving comments.

REFERENCES

- accok. (2012, August 20). *Story Sharing Vs. Story Telling. Nonprofit Suite*. Retrieved July 16, 2020, from https://nonprofitsuite.com/story-sharing-vs-story-telling/
- Aka artist run center. (n.d.). Indigenous Food Sovereignty with Dr. Priscilla Settee [Facebook event]. Retrieved February 15, 2020, from https://www.facebook.com/events/aka-artist-run-centre/indigenous-food-sovereignty-with-dr-priscilla-settee/170935807081352/
- Algonquin College. (n.d.). *Facebook Stats*. Retrieved August 5, 2020, from https://www.algonquincollege.com/ac-social-media/facebook-stats/#:~:text=There%20are%20more%20than%2019,a%20tablet%20or%20a%20smartp hone.
- Alliance for Justice. (n.d.). *What is Advocacy?: Definitions and Examples*. Retrieved February 15, 2020, from http://fto1.emiweb.es/medias/files/afj-what-is-advocacy.pdf
- Andrew-Gee. (2019, October 15). *Non-Indigenous Canadians show less support for policies that improve the lives of Indigenous Peoples, survey shows*. The Globe and Mail. Retrieved August 6, 2020, from https://www.theglobeandmail.com/canada/article-non-indigenous-canadians-show-less-support-for-policies-that-improve/
- Arriagada, P., Frank, K., Hahmann, T., & Hou, F. (2020). *Economic impact of COVID-19 among Indigenous people*. Statistics Canada: StatCan COVID-19: Data to Insights for a Better Canada. Retrieved August 4, 2020, from https://www150.statcan.gc.ca/n1/en/pub/45-28-0001/2020001/article/00052-eng.pdf
- Barrette, P.D., & Charlebois, L. (2018). Winter roads and climate adaptation: Prospective solutions through R&D. Transportation Association of Canada (TAC): TAC 2018

 Conference Paper for 'Climate Change Adaption and Mitigation Solutions for Transportation Design and Construction' Session. Retrieved from https://www.tac-atc.ca/sites/default/files/conf_papers/barrettep_winter_roads_and_climate_adaptation.pdf

- Beedie, N., Macdonald, D., & Wilson, D. (2019). *Towards Justice: Tackling Indigenous Child Poverty in Canada*. Retrieved from https://www.afn.ca/wp-content/uploads/2019/07/Upstream report final English June-24-2019.pdf
- Boyatzis, R. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Brake, J. (2018, October 17). 'Literally life and death': Indigenous climate leaders critical of Canada's response to climate change report. National News. Retrieved February 9, 2020, from https://www.aptnnews.ca/featured/literally-life-and-death-indigenous-climate-leaders-critical-of-canadas-response-to-climate-change-report/
- Bronca, T. (2020, April 8). *COVID-19: A Canadian timeline. Canadian Healthcare Network*.

 Retrieved February 9, 2020, from https://www.canadianhealthcarenetwork.ca/covid-19-a-canadian-timeline
- Buffer Blog. (n.d.). Resources. Retrieved August 8, 2020, from https://buffer.com/resources/
- Canadian Feed The Children. (2019, November 7). *Did you know that food insecurity is 74% higher in Indigenous communities in Canada?* [Video]. YouTube. Retrieved February 7, 2020, from https://www.youtube.com/watch?v=MNAz1hYER80
- Canadian Feed the Children. (n.d.). *Why is there food insecurity in Canada?*. Retrieved February 7, 2020, from https://canadianfeedthechildren.ca/the-feed/why-food-insecurity/
- Canadian Geographic: Indigenous Peoples Atlas of Canada. (n.d.). *Climate Change*. Retrieved February 9, 2020, from https://indigenouspeoplesatlasofcanada.ca/article/climate-climate-change/
- Canadian Nurses Association. (n.d.). *Coronavirus Disease (COVID-19): Timeline*. Retrieved August 5, 2020, from https://cna-aiic.ca/en/coronavirus-disease/timeline

- Carter, N., Bryant-Lukosius, D., DiCenso, A. Blythe, J., & Neville, A.L. (2014). The Use of Triangulation in Qualitative Research. *Oncology Nursing Forum*, 41(5). https://doi.org/10.1188/14.ONF.545-547
- Castellano, M.B. (2004). Ethics of Aboriginal Research. *Journal of Aboriginal Health*, 1(1). https://doi.org/10.3138/ijih.v1i1.28935
- CBC News. (2007, February 6). Living conditions for First Nations 'unacceptable': Fontaine.

 Retrieved August 8, 2020, from https://www.cbc.ca/news/canada/living-conditions-for-first-nations-unacceptable-fontaine
 1.680540#:~:text=First%20Nations%20people%20in%20Canada%20live%20in%20%22

 Third%20World%22%20conditions,of%20First%20Nations%20said%20Tuesday.&text=

 As%20well%2C%20on%20average%2C%20there,First%20Nations%20home%2C%20F

 ontaine%20said.
- CBC News. (2017, February 8). *Census 2016: Canada's North sees population bump*. Retrieved August 13, 2020, from https://www.cbc.ca/news/canada/north/canada-population-north-census-2016-1.3971969
- CBC News: The National. (2020, January 20). Food insecurity can shorten lifespan [Video]. YouTube. Retrieved January 21, 2020, from https://www.youtube.com/watch?v=dD74NmTIDVM
- Charmaz, K. (2006). Constructing Grounded Theory: A Practical Guide through Qualitative Analysis. SAGE Publications. Retrieved from http://www.sxf.uevora.pt/wp-content/uploads/2013/03/Charmaz 2006.pdf
- Committee on World Food Security (CFS). (2012). *Committee on World Food Security: Final Report*. 39 Session. Retrieved from http://www.fao.org/3/a-mf115e.pdf

- Coppes, M. (2019, June 21). Canada has released its first ever National Food Policy and it has specific impacts for the Canadian North. High North News. Retrieved January 24, 2020, from https://www.highnorthnews.com/en/canada-has-released-its-first-ever-national-food-policy-and-it-has-specific-impacts-canadian-north
- Coté, C. (2016). "Indigenizing" Food Sovereignty. Revitalizing Indigenous Food Practices and Ecological Knowledges in Canada and the United States. *Humanities*, 5(3). Retrieved from https://doi.org/10.3390/h5030057
- Council of Canadian Academies. (2014). *Aboriginal Food Security in Northern Canada: An Assessment of the State of Knowledge*. Science Advice in the Public Interest. Retrieved August 8, 2020, from https://cca-reports.ca/reports/aboriginal-food-security-in-northern-canada-an-assessment-of-the-state-of-knowledge/
- Crowshoe, L., Dannenbaum, D., Green, M., Henderson, R., Hayward, M.N., & Toth, E. (2018). Type 2 Diabetes and Indigenous Peoples: Diabetes Canada Clinical Practice Guidelines Expert Committee. *Canadian Journal of Diabetes*, 42(1), S296-S306. https://doi.org/10.1016/j.jcjd.2017.10.022
- Dahm, J. (2015, January 12). Food for the North: Indigenous peoples n Northern Canada face severe food insecurity. The McGill Daily. Retrieved January 20, 2020, from https://www.mcgilldaily.com/2015/01/food-north/
- Daley, B. (2019, March 28). *How Canada can solve its emerging water crisis*. The Conversation. Retrieved August 13, 2020, from https://theconversation.com/how-canada-can-solve-its-emerging-water-crisis-114046
- Daschuk, J. (2013). Clearing the plains: Disease, politics of starvation, and the loss of Aboriginal life. Regina, Saskatchewan: University of Regina Press.

- Davidson, J. (2016, February 22). Renewed calls to end Nunavut food crisis bolstered by #endthepricehike campaign. Rabble. Accessed on 2020,. Retrieved from January 28, 2020, https://rabble.ca/news/2016/02/renewed-calls-to-end-nunavut-food-crisis-bolstered-endthepricehike-campaign
- Engineers Without Borders—UofT Chapter. (n.d.). *Community Learning Session: Indigenous Food Sovereignty* [Facebook event]. Retrieved February 17, 2020, from https://www.facebook.com/events/lm123/community-learning-session-indigenous-food-sovereignty/2696823147029371/
- Farooqui, S. (2019, October 21). *UN reports highlights 'abhorrent' housing conditions for Indigenous people*. CTV News. Retrieved August 8, 2020, from https://www.ctvnews.ca/canada/un-report-highlights-abhorrent-housing-conditions-for-indigenous-people-1.4647433
- Feeding My Family. (n.d.a.). *About This Group* [Facebook group]. Retrieved February 13, 2020, from https://www.facebook.com/groups/239422122837039/about/
- Feeding My Family. (n.d.b.). *Discussion* [Facebook group]. Retrieved March 31, 2020, from https://www.facebook.com/groups/239422122837039/
- Feeding My Family. (n.d.c.) *Members* [Facebook group]. Retrieved February 13, 2020, from https://www.facebook.com/groups/239422122837039/members/
- Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development. *International Journal of Qualitative Methods*, 5(1).

 https://doi.org/10.1177/160940690600500107
- Fontaine, T. (2017). Digital Divides in Canada's Northern Indigenous Communities: Support and Barriers to Digital Adoption. University of Alberta. Retrieved from https://era.library.ualberta.ca/items/f6dcc43c-32c1-43f9-bcc6-2f26b27a25a0/view/6808f505-b306-42fc-8b86-f95f86769737/Fontaine.pdf

- Food Banks Canada. (2016). *Is Nutrition North Canada on Shifting Ground?: A Food Banks Canada Report*. Retrieved from https://www.foodbankscanada.ca/getmedia/b9aa8a8f-b66b-4efc-b7d6-03f54dc77427/Is-Nutrition-North-Canada-on-Shifting-Ground.pdf.aspx
- Food Secure Canada (FSC). (n.d.a.). *Affordable Food in the North*. Retrieved January 19, 2020, from https://foodsecurecanada.org/resources-news/news-media/we-want-affordable-foodnorth
- Food Secure Canada (FSC). (n.d.b.). Feeding My Family—A Story of Grassroots Organizing in Northern Canada. Retrieved February 14, 2020, from https://foodsecurecanada.org/resources-news/webinars-podcasts/feeding-my-family-story-grassroots-organizing-northern-canada
- Franz, D., Marsh, H.E., Chen, J. I.& Teo, A.R. (2019). Using Facebook for Qualitative Research: A Brief Primer. *Journal of Medical Internet Research*, 21(8). https://doi.org/10.2196/13544
- Garfield, L. (2017, September 21). Food prices are insanely high in rural Canada, where Ketchup costs \$14 and Sunny D costs \$29. Business Insider. Retrieved August 15, 2020, from https://www.businessinsider.com/food-prices-high-northern-canada-2017-9?r=MX&IR=T
- George, J. (2013, April 22). *Nunavut's Feeding My Family teaches education for empowerment:*"We need to be teaching ourselves to move forward." Nunatasiaq News. Retrieved

 January 28, 2020, from

 https://nunatsiaq.com/stories/article/65674nunavuts_feeding_my_family_teaches_educati

 on for empowerment/
- German, A. (2019, June 7). *How Nutrition North increased poverty-driven hunger in the North*. Nation News. Retrieved January 2, 2020, from http://nationnews.ca/health/how-nutrition-north-increased-poverty-driven-hunger-in-the-north/

- GlobeNewswire. (2020, August 13). Second Harvest and Canadian Produce Marketing

 Association approved for \$22 million to purchase and redistribute surplus food through

 Canadian community groups. Retrieved August 15, 2020, from

 https://www.globenewswire.com/news-release/2020/08/13/2078019/0/en/Second
 Harvest-and-Canadian-Produce-Marketing-Association-approved-for-22-million-topurchase-and-redistribute-surplus-food-through-Canadian-community-groups.html
- Gourville, J.T., & Soman, D. (2002, September). *Pricing and the Psychology of Consumption*. Harvard Business Review. Retrieved August 9, 2020, from https://hbr.org/2002/09/pricing-and-the-psychology-of-consumption
- Government of Canada. (2018). *Canada's First Poverty Reduction Strategy*. Retrieved January 26, 2020, from https://www.canada.ca/en/employment-social-development/programs/poverty-reduction/reports/strategy.html#h2.10
- Government of Canada. (2019, June 17). "Everyone at the Table!" Government of Canada announces the first-ever Food Policy for Canada. Retrieved January 24, 2020, from https://www.canada.ca/en/agriculture-agri-food/news/2019/06/everyone-at-the-table-government-of-canada-announces-the-first-ever-food-policy-for-canada.html
- Government of Canada. (2020, July). *Drinking water advisories*. Retrieved August 13, 2020, from https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/drinking-water-advisories.html
- Government of Canada. (n.d.a.). *How Nutrition North Canada works*. Accessed on 2020, January 24. Retrieved from https://www.nutritionnorthcanada.gc.ca/eng/1415538638170/1415538670874#tpc1
- Government of Canada. (n.d.b.). *Nutrition North Canada: Results*. Retrieved January 24, 2020, from https://www.nutritionnorthcanada.gc.ca/eng/1415649594068/1415649613120

- Government of Canada. (n.d.c.). *Nutrition North Canada Engagement 2016: Final report of what we heard*. Retrieved January 24, 2020, from https://www.nutritionnorthcanada.gc.ca/eng/1491505202346/1491505247821
- Government of Canada. (n.d.d.). *Coronavirus disease (COVID-19): Outbreak update*. Retrieved August 4, 2020, from https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html
- Government of Canada. (n.d.e.). *Ending long-term drinking water advisories*. Retrieved August 13, 2020, from https://www.sac-isc.gc.ca/eng/1506514143353/1533317130660
- Haig, T. (2020, March 12). Fist Nations leaders in northern Canada warn of COVID-19 time bomb. Radio Canada International (RCI). Retrieved from https://www.rcinet.ca/en/2020/03/12/first-nations-leaders-in-northern-canada-warn-of-covid-19-time-bomb/
- Hay, T. (2018). Commentary: The Invention of Aboriginal Diabetes: The Role of the Thrifty Gene Hypothesis in Canadian health Care Provision. *Ethnicity & Disease*, 28(1), 247-252. https://doi.org/10.18865/ed.28.S1.247
- Indigenous Food Sovereignty Coalition. (n.d.). *About* [Facebook page]. Retrieved February 15, 2020, from https://www.facebook.com/pg/IndigenousWomenLeadership/about/?ref=page_internal
- Indigenous Food Sovereignty Circle. (n.d.). *About* [Facebook page]. Retrieved February 15, 2020, from https://www.facebook.com/pg/indigenousfoodsovereigntycircle/about/?ref=page_internal
- Indigenous Food Sovereignty + Security. (n.d.). *About* [Facebook page]. Retrieved August 15, 2020, from https://www.facebook.com/pg/indigenousfoodsovsec/about/
- Indigenous Food Systems Network. (n.d.). *Indigenous Food Sovereignty* [Facebook page]. Retrieved January 26, 2020, from https://www.indigenousfoodsystems.org/foodsovereignty

- Indigenous and Northern Affairs Canada. (n.d.a.). *Climate change in Indigenous and Northern communities*. Retrieved February 9, 2020, from https://www.aadnc-aandc.gc.ca/eng/1100100034249/1100100034253
- Indigenous and Northern Affairs Canada. (n.d.b.). *ARCHIVED—Budget 2019 Highlights Indigenous and Northern Investments*. Retrieved August 13, 2020, from https://www.aadnc-aandc.gc.ca/eng/1553716166204/1553716201560
- Intergovernmental Panel on Climate Change, The (IPCC). (n.d.). *The Intergovernmental Panel on Climate Change*__. Retrieved February 9, 2020, from https://www.ipcc.ch/
- Journal of Agriculture, Food Systems, and Community Development (JAFSCD). (n.d.). *JAFSCD* [Twitter page]. Retrieved February 17, 2020, from https://twitter.com/jafscd?lang=en
- Kelm, M.-E. (1999). *Colonizing bodies: Aboriginal health and healing in British Columbia,* 1900-50. Vancouver: University of British Columbia Press.
- Kim, Y.M., Hsu, J., Neiman, D., Kou, C., Bankston, L., Kim, S. Y., Heinrich, R., Baragwanath, R., & Raskutti, G. (2018). The Stealth Media? Groups and Targets behind Divisive Issue Campaigns on Facebook. *Political Communication*, (35)4, 515-541. https://doi.org/10.1080/10584609.2018.1476425
- Labrador Land Protectors. (n.d.). *About* [Facebook page]. Retrieved February 17, 2020, from https://www.facebook.com/pg/labradorlandprotectors/about/?ref=page_internal
- LaForme, H. S. (1991). *Indian Sovereignty: What Does it Mean?*. Canadian Journal of Native Studies, 11(2), 253-266. Retrieved February 17, 2020 from http://www3.brandonu.ca/cjns/11.2/laforme.pdf
- LastWeekTonight. (2020, July 26). *China & Uighurs: Last Week Tonight with John Oliver* (HBO) [Video]. YouTube. Retrieved from https://www.youtube.com/watch?v=17oCQakzIl8

- Legacy Cultural Learning Community. (n.d.). *Indigenous Food Sovereignty Initiative Challenge* 2020 [Facebook event]. Retrieved February 17, 2020, from https://www.facebook.com/events/legacy-cultural-learning-community/indigenous-food-sovereignty-initiative-challenge-2020/489455115253981/
- Levi, E., & Robin, T. (2020, April 29). *COVID-19 Did Not Cause Food Insecurity In Indigenous Communities But It Will Make It Worse*. Yellowhead Institute. Retrieved August 5, 2020 from https://yellowheadinstitute.org/2020/04/29/covid19-food-insecurity/
- Lewis, J. (2019, April 2). Canada not doing enough to fight climate change, federal environment commissioner warns. The Global and Mail. Retrieved August 13, 2020, from https://www.theglobeandmail.com/canada/article-canada-isnt-doing-enough-to-fight-climate-change-federal-environment/
- Lui, E. (2015). *On Notice For a Drinking Water Crisis in Canada*. The Council of Canadians. Retrieved from https://canadians.org/sites/default/files/publications/report-drinkingwater-0315_0.pdf
- Lux, M. K. (2001). *Medicine that walks: Disease, medicine, and Canadian plains native people,* 1880-1940. Toronto: University of Toronto Press
- Malik, A., Dhir, A., & Nieminen, M. (2016). Uses and Gratification of digital photo sharing on Facebook. *Telematics and Information*, 33(1), 129-138. Retrieved from https://doi.org/10.1016/j.tele.2015.06.009
- Maresca. (n.d.). *Applying Indigenous Approaches to Reduce Diabetes Risk Factors*. Retrieved February 15, 2020, from https://www.ihs.gov/MedicalPrograms/Diabetes/HomeDocs/Training/WebBased/Seminar s/Handout_AIARDRF_508c.pdf
- Marshall, T. (2013, April 12). *Idle No More*. The Canadian Encyclopedia. Retrieved August 5, 2020, from https://www.thecanadianencyclopedia.ca/en/article/idle-no-more

- Martens, T., Cidro, J., Hart, M.A., & McLachlan, S. (2016). Understanding Indigenous Food Sovereignty through an Indigenous Research Paradigm. *Journal of Indigenous Social Development*, 5(1), 18-37. Retrieved from https://umanitoba.ca/faculties/social_work/media/V5i1-02martens cidro hart mclachlan.pdf
- McCallum, M. J. L. (2017). Starvation, experimentation, segregation, and trauma: Words for reading Indigenous health history. *The Canadian Historical Review*, 98(1), 96–113. https://doi.org/10.3138/chr.98.1.McCallum
- McDonald, B. (2018, March 2). *Mining activities, not hunting, responsible for northern caribou declines*. CBC News. Retrieved January 21, 2020, from https://www.cbc.ca/radio/quirks/blog/mining-activities-not-hunting-responsible-for-northern-caribou-declines-1.4559410
- McGill Food Law Society & Indigenous Law Association. (n.d.). *Lunch & Learn: Indigenous Food Sovereignty* [Facebook event]. Retrieved February 15, 2020, from https://www.facebook.com/events/303378120256238/
- McLachlan, S. M. (2014). Water is a living thing: Environmental and human health implications of the Athabasca Oil Sands for the Mikisew Cree First Nation and Athabasca Chipewyan First Nation in Northern Alberta. Retrieved from https://landuse.alberta.ca/Forms%20and%20Applications/RFR_ACFN%20Reply%20to%20Crown%20Submission%206%20-%20TabD11%20Report_2014-08_PUBLIC.pdf
- Mihas, P., & Odum Institute (2019). *Learn to Build a Codebook for a Generic Qualitative Study:*SAGE Research Methods Datasets Part 2. SAGE Research Methods.

 https://doi.org/10.4135/9781526496058
- Miller, A. (2020, May 13). What Canada can learn from other counties about lifting lockdown measures too soon. CBC News. Retrieved August 5, 2020, from https://www.cbc.ca/news/health/south-korea-germany-lessons-lifting-lockdown-1.5566485

- Missing and Murdered Indigenous Women and Girls (MMIWG). (2019). Reclaiming Power and Place: The Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls 1a. Retrieved from https://www.mmiwg-ffada.ca/final-report/
- Moreau, E. (2019, November 10). Everything You Need to Know About Facebook Groups.

 Lifewire. Retrieved August 5, 2020, from https://www.lifewire.com/facebook-groups-4103720#:~:text=A%20Group%20does%20not%20use,unique%20feature%20for%20Group%20accounts.
- Murray, N. (2018, December 10). Flour, frozen fruit gets increased subsidies in major Nutrition North update. CBC News. Retrieved January 24, 2020, from https://www.cbc.ca/news/canada/north/nutrition-north-update-1.4938219
- National Indigenous Economic Development Board (NIEDB), The. (2019). *The Indigenous Economic Progress Report 2019*. Retrieved from http://www.naedb-cndea.com/wp-content/uploads/2019/06/NIEDB-2019-Indigenous-Economic-Progress-Report.pdf
- Native Food Sovereignty Fellows. (n.d.). *About* [Facebook page]. Retrieved February 15, 2020, from https://m.facebook.com/NativeFoodSovereigntyFellows/about/?ref=page_internal&mt_n av=0
- Nutrition Resource Center. (2016, November). Resetting the Table with National Food Policy on the Menu. Retrieved January 28, 2020, from https://opha.on.ca/Nutrition-Resource-Centre/News/Nutrition-Resource-Centre-Blog/November-2016/Resetting-the-Table-with-National-Food-Policy-on-t.aspx
- Office of the Auditor General of Canada. (2014). Chapter 6—Nutrition North Canada—Aboriginal Affairs and Northern Development. In 2014 Fall Report of the Auditor General of Canada. Retrieved January 24, 2020, from https://www.oagbvg.gc.ca/internet/English/parl oag 201411 06 e 39964.html

- Olauson, C. (2016, September 15). What is "Food Sovereignty" and why does it matter. The Local Kitchen. Retrieved February 16, 2020, from https://www.thelocalkitchenyxe.com/blog/foodsovereignty
- One Meal A Day (OMD) For The Planet. (n.d.). *Changing Food Systems: Making plant-based food accessible for all*. Retrieved February 16, 2020, from https://omdfortheplanet.com/what-is-omd/the-movement/
- Ontario Government. (2019). *Newsroom: Ontario Investing in Far North Winter Roads Network*. Retrieved January 24, 2020, from https://news.ontario.ca/mndmf/en/2019/12/ontario-investing-in-far-north-winter-roads-network.html
- Ortiz-Ospina, E. (2019, September 18). *The rise of social media*. Our World Data. Retrieved August 22, 2020, from https://ourworldindata.org/rise-of-social-media
- Osmon, C. (n.d.). Everything You Need to Know About Growing Plants Under Lights. Backyard Boss. Retrieved August 12, 2020, from https://www.backyardboss.net/lights-forgrowing-plants-indoors/
- Our Food SENB. (2019, June 11). *Indigenous Food: REC*... .Retrieved February 16, 2020, from https://www.ourfoodsenb.ca/en/2019/06/11/indigenous-food-rec/
- Palmater, P.D. (2011). Stretched Beyond Human limits: Death by poverty in First Nations. *Canadian Review of Social Policy*, 65-66. Retrieved from https://crsp.journals.yorku.ca/index.php/crsp/article/view/35220
- Parlee, B.L., Sandlos, J., & Natcher, D.C. (2018). Undermining subsistence: Barren-ground caribou in a "tragedy of open access". *Science Advances*, 4(2). http://dx.doi.org/10.1126/sciady.1701611
- Patton, M.Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Sciences Research*, 34, 1189–1208. Retrieved from https://pdfs.semanticscholar.org/d85c/b284822ebcfea711c9e340c61c8df033cd1c.pdf

- Pearce, H. (2018). Capturing the Library: Investigating Perceptions and Perspectives in Library Instagram. University of Alberta. Retrieved from:

 https://era.library.ualberta.ca/items/4c614bab-7d32-4a30-aace251b934379e6/download/4ee00f30-adba-42ba-9741-8dc78a521774
- Peters, B. (2019). What 77,367, 063 Facebook Posts Tell Us About Successful Content in 2019 (New Research). Buffer Blog. Retrieved August 8, 2020, from https://buffer.com/resources/facebook-marketing-2019/
- Provalis Research.(n.d.). *Solutions*. Retrieved August 8, 2020, from https://provalisresearch.com/solutions-2/applications/social-media-content-analysis-tool/
- Prowse, T.D., Furgal, C., Wrona, F.J., & Reist, J.D. (2009). Implications of Climate Change for Northern Canada: Freshwater, Marine, and Terrestrial Ecosystems. *Climate Impacts on Northern Canada*, 38(5), 282-289. Retrieved from https://doi.org/10.1579/0044-7447-38.5.282
- Query, J.J.L., Wright, K.B., Amason, P., Eichhorn, K.C., Weathers, M.R., Haun, M.W., Gilchrist, E.S., Klein, L.B., & Pedrami, V. (2009). Using quantitative methods to conduct applied communication research. In Frey, L.R. & Cissna, K.N. (Eds.), *Routledge Handbook of Applied Communication Research*, 81-105. New York, NY: Taylor & Francis Group.
- Ratelle, M., & Paquette, F. (2019, November 25). *Climate policy needs to reflect resilience of northern indigenous communities*. Climate Home News. Retrieved August 13, 2020, from https://www.climatechangenews.com/2019/11/25/climate-policy-needs-reflect-resilience-northern-indigenous-communities/
- Razor Social. (n.d.). *The Ultimate Guide to Using BuzzSumo for Content Research*. Retrieved August 8, 2020, from https://www.razorsocial.com/buzzsumo/
- Rees, A. (n.d.). *Digital and Online Activism*. Reset Digital For Good. Retrieved April 16, 2020, from https://en.reset.org/knowledge/digital-and-online-activism

- Robin, T. (2019). Our hands at work: Indigenous food sovereignty in Western Canada. *Journal of Agriculture, Food Systems, and Community Development*, 9(2). https://doi.org/10.5304/jafscd.2019.09B.007
- Rural Policy Learning Commons (RPLC). (n.d.). *Indigenous Food Sovereignty in Canada:**Policy Paper 2019. Retrieved from http://rplc-capr.ca/wp-content/uploads/2019/02/Penner-Kevany-Longboat-2019-Indigenous-Food-Sovereignty-in-Canada-Policy-Brief.pdf
- Satterfield, D., DeBruyn, L., Santos, M., Alonso, L., & Frank, M. (2016). Health Promotion and Diabetes Prevention in American Indian and Alaska Native Communities—Traditional Foods Project, 2008-2014. *Morbidity and Mortality Weekly Report (MMWR)*, 65(1). http://dx.doi.org/10.15585/mmwr.su6501a3
- Seither, C. (2016, April 23). *The Secret Psychology of Facebook: Why We Like, Share, Comment and Keep Coming Back.* Buffer. Retrieved August 6, 2020, from https://buffer.com/resources/psychology-of-facebook/#:~:text=69%25%20said%20they%20share%20information,or%20issues%20th ey%20care%20about.
- Shepert, E. (2019, January 23). *Study ranks Canada #1 in the wold for quality of life. Vancouver Courier*. Retrieved August 8, 2020, from https://www.vancourier.com/news/study-ranks-canada-1-in-the-world-for-quality-of-life-1.23609916
- Shewell, H. (2004). 'Enough to Keep Them Alive': Indian Social Welfare in Canada, 1873-1965.

 Toronto; Buffalo; London: University of Toronto Press. Retrieved January 26, 2020,
 from www.jstor.org/stable/10.3138/j.ctt1287s0k
- Smashballoon. (n.d.) My Facebook event times ae displaying incorrectly or using the wrong timezone. Retrieved August 5, 2020, from https://smashballoon.com/facebook-event-times-displaying-incorrectly-using-wrong-timezone/

- Smith, R. (Director). (2009). Transportation in the North. Bordt, M., & Wang, J. (Eds). *EnviroStats*, 3(1). Retrieved August 4, 2020, from https://www150.statcan.gc.ca/n1/pub/16-002-x/2009001/article/10820-eng.htm
- Smith, A. (2014, February 3). *What people like and dislike about Facebook*. Pew Research Center. Retrieved August 6, 2020, from https://www.pewresearch.org/fact-tank/2014/02/03/what-people-like-dislike-about-facebook/
- Snelson, C.L. (2016). Qualitative and Mixed Methods Social Media Research: A Review of the Literature. *International Journal of Qualitative Methods*, 15(1). https://doi.org/10.1177/1609406915624574
- Spring, A., Carter, B., & Blay-Palmer, A. (2018). Climate change, community capitals, and food security: Building a more sustainable food system in a northern Canadian boreal community. *Canadian Food Studies*, 5(2), 111-141. https://doi.org/10.15353/cfs-rcea.v5i2.199
- Statistics Canada. (n.d.a.). *Income*. Retrieved February 21, 2020, from https://www150.statcan.gc.ca/n1/pub/89-645-x/2010001/income-revenu-eng.htm
- Statistics Canada. (n.d.b.). *Census Profile, 2016 Census*. Accessed on 2020, August 5. Retrieved from https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/Page.cfm?Lang=E&Geo1=PR&Code1=35&Geo2=&Code2=&Data=Count&SearchText=Ontario&Sear
- Statistics Canada. (n.d.c.). *Census profile, 2016 Census*. Accessed on 2020, August 5. Retrieved from https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=PR&Code1=24&Geo2=PR&Code2=01&Data=Count&SearchText=24&SearchType=Begins&SearchPR=01&B1=All&Custom=&TABID=3

- Struzik, E. (2016, March 17). Food Insecurity: Arctic Heat Is Threatening Indigenous Life.

 YaleEnvironment360. Retrieved January 21, 2020, from

 https://e360.yale.edu/features/arctic_heat_threatens_indigenous_life_climate_change
- Suneson, G. (2019, July 7). *These are the 25 richest countries in the world*. USA Today. Retrieved February 7, 2020, from https://www.usatoday.com/story/money/2019/07/07/richest-countries-in-the-world/39630693/
- Thackeray, R., & Hunter, M. (2010). Empowering Youth: Use of Technology in Advocacy to Affect Social Change. *Journal of Computer-Mediated Communication*, 5(1), 57-591. Retrieved from https://academic.oup.com/jcmc/article/15/4/575/4067628
- Tides Canada. (n.d.). Building Sustainable Local Food Solutions in Northern Manitoba.

 Retrieved February 16, 2020, from https://tidescanada.org/blog/food/building-sustainable-local-food-solutions-in-northern-manitoba/
- Travel Nunavut. (n.d.). *How to get Here*. Retrieved August 15, 2020, from https://travelnunavut.ca/plan-and-book/how-to-get-here/#:~:text=Transportation-,There%20are%20no%20roads%20to%20Nunavut.,and%20between%20its%20distant%20communities.
- Truth and Reconciliation Commission of Canada. (2015). *Canada's residential schools: The legacy*. Montreal: McGill-Queen's University Press.
- Turnbull, S., & Jenkins, S. (2016). Why Facebook Reactions are good news for evaluating social media campaigns. *Journal of Direct, Data and Digital Marketing Practice*,17, 156-158. https://doi.org/10.1057/dddmp.2015.56
- Urban Indigenous Education Food Sovereignty Conference. (n.d.). *Growing Indigenous Food Sovereignty Conference* [Facebook event]. Retrieved February 16, 2020, from https://www.facebook.com/events/urban-indigenous-education-centre/growing-indigenous-food-sovereignty-conference/445818642508780/

- Universidad de Monterrey. (n.d.). *Questions about COVID-19*. Retrieved August 4, 2020, from https://www.udem.edu.mx/en/institutional/questions-about-covid-19
- University of Minnesota Extension. (n.d.). *How much light do houseplants need*. Retrieved August 12, 2020, from https://extension.umn.edu/planting-and-growing-guides/light-requirements-houseplants#high-light-plants-1622112
- United Nations (UN) Department of Economic and Social Affairs: Indigenous Peoples. (n.d.). *Climate Change*. Retrieved August 13, 2020, from https://www.un.org/development/desa/indigenouspeoples/climate-change.html
- United Nations (UN) Women. (n.d.). *Raise public awareness*. Retrieved April 16, 2020, from http://www.endvawnow.org/en/articles/967-raise-public-awareness.html
- Weir, M. (2020, March 12). How to allow people to shar your posts on Facebook without changing your settings. Business Insider. Retrieved August 8, 2020, from https://www.businessinsider.com/how-to-allow-people-to-share-your-post-on-facebook?r=MX&IR=T#:~:text=People%20share%20posts%20for%20all,GoFundMe%2 0for%20a%20good%20cause.
- Wilson, D., & Macdonald, D. (2010). The Income Gap Between Aboriginal Peoples and The Rest of Canada. *Canadian Centre for Policy Alternatives*. Retrieved from https://www.policyalternatives.ca/sites/default/files/uploads/publications/reports/docs/Ab original%20Income%20Gap.pdf
- Wright, T. (2019, November 6). 10 year study finds 'extremely high' rates of First Nations food insecurity. Global News. Retrieved August 13, 2020, from https://globalnews.ca/news/6136161/first-nations-food-insecurity-study/
- Wirzba, S. (2020, June 23). *COVID-19 is Worsening Food Insecurity in Nunavut*. The McGill International Review. Retrieved August 3, 2020, from https://www.mironline.ca/covid-19-is-worsening-food-insecurity-in-nunavut/

- World Bank, The. (2009). *Air Freight: A Market Study with Implications for Landlocked Countries*. Retrieved from https://www.worldbank.org/en/topic/transport/publication/air-freight-study
- World Health Organization (WHO). (2019, March 11). *Middle East respiratory syndrome coronavirus (MERS-CoV)*. Retrieved August 3, 2020, from https://www.who.int/news-room/fact-sheets/detail/middle-east-respiratory-syndrome-coronavirus-(mers-cov)
- World Health Organization (WHO). (2020a, June 29). *Timeline of WHO's response to COVID-19*. Retrieved August 3, 2020, from https://www.who.int/news-room/detail/29-06-2020-covidtimeline
- World Health Organization (WHO). (2020b, April 17). *Q&A on coronaviruses (COVID-19*). Retrieved August 4, 2020, from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/q-a-coronaviruses#:~:text=symptoms
- Young, L. (2020, April 11). *Timeline: How Canada has changed since coronavirus was declared a pandemic*. Global News. Retrieved April 15, 2020, from https://globalnews.ca/news/6800118/pandemic-one-month-timeline/
- Youyou, W., Kosinski, M., & Stillwell, D. (2015). Computer-based personality judgements are more accurate than those made by humans. *Proceedings of the National Academy of Sciences of the United States of America*, 112(5), 1036-1040. https://doi.org/10.1073/pnas.1418680112
- Zgibor, J.C., & Songer, T.J. (2001). External Barriers to Diabetes Care: Addressing Personal and Health Systems Issues. *Diabetes Spectrum*, 14(1), 23-28. https://doi.org/10.2337/diaspect.14.1.23

ADDITIONAL BIBLIOGRAPHY

- Abidi, S., Vallis, M., Paccinini-Vallis, H., Imran, S. A., Aidi, & Syed S. R. (2018). Diabetes-Related Behavior Change Knowledge Transfer to Primary Care Practitioners and Patients: Implementation and Evaluation of a Digital Health Platform. *Journal of Medical Internet Research: Medical Informatics*, 6(2). https://doi.org/10.2196/medinform.9629
- Akinkuotu, A. C., Hamilton, J. K., Birken, C., Toulany, A., Strom, M., Noseworthy, R.,...Langer, J. C. (2019). Evolution and Outcomes of a Canadian Pediatric Bariatric Surgery Program. *Journal of Pediatric Surgery*, 54(5), 1049-1053. https://doi.org/10.1016/j.jpedsurg.2019.01.038
- Albury, K., Byron, P., & Shaw, F. (2019). Introduction: The Will to App: digitising public health. *Media International Australia*, 171(1), 3-8. https://doi.org/10.1177/1329878X19850233
- Amenabar, T. (2020, June 18). D.C. chefs raising money to fight racism have possibly created the world's biggest bake sale. The Washington Post. Retrieved August 5, 2020, from https://www.washingtonpost.com/lifestyle/2020/06/18/bakers-against-racism-dc-chefs-fundraiser/
- Amend, Elyse. (2018). The Confused Canadian Eater: Quantification, Personal Responsibility, and Canada's Food Guide. *Journal of Canadian Studies*, 52(3), 718-741. https://doi.org/10.3138/jcs.52.3.2017-0074.r2
- American Diabetes Association. (2018). 4. Lifestyle Management: Standards of Medical Care in Diabetes—2018. *American Diabetes Association Diabetes Care*, 41(1), S38-S50. https://doi.org/10.2337/dc18-S004
- Au, K.W-F. (2018). *The Philosophy of movement: Using Affect Theory and Existentialism to Negotiate Difference Online*. University of Alberta. Retrieved March 4, 2020, from https://era.library.ualberta.ca/items/e2543874-6c35-4de2-b131-4631c0918f52/download/59e908e1-0556-4507-a956-b54fc8eb5ada

- Awoyemi, O. (2019). Factors that Influence the Prevalence of Type 2 Diabetes among

 Aboriginals in Canada. Walden Dissertations and Doctoral Studies. Retrieved from https://scholarworks.waldenu.edu/dissertations/6162/
- Baijius, W., & Patrick, R.J. (2019). "We Don't Drink the Water Here": The Reproduction of Undrinkable Water for First Nations in Canada. *Water*, 11(50). https://doi.org/10.3390/w11051079
- Batal, M., Johnson-Down, L., Moubarac, J., Ing, A., Fediuk, K., Sadik, T., ... & Willows, N. (2018). Quantifying associations of the dietary share of ultra-processed foods with overall diet quality in First Nations peoples in the Canadian provinces of British Columbia, Alberta, Manitoba and Ontario. *Public Health Nutrition*, 21(1), 103-113. https://doi.org/10.1017/S1368980017001677
- Bond, G.G., Aiken, L.S., & Somerville, S.C. (1992). The health belief model and adolescents with insulin-dependent diabetes mellitus. *Health Psychol*, 11(3), 190-198. https://doi.org/10.1037//0278-6133.11.3.190
- Borgatti, S.P., & Halgin, D. S. (2011). On Network Theory. *Organization Science*, 22(5). https://doi.org/10.1287/orsc.1100.0641
- Borges, G., Angst, J., Nock, M.K., Ruscio, A.M., Walters, E.E., & Kessler, R.C. (2006). A risk index for 12-month suicide attempts in the National Comorbidity Survey Replication (NCS-R). *Psychol Med*, 36(12), 1747–1757. https://doi.org/10.1017/S0033291706008786
- Bourne, J.E., Little, J.P., Beauchamp, M.R., Barry, J., Singer, J., & Jung, M.E. (2019). Brief Exercise Counseling and High-Intensity Interval Training on Physical Activity Adherence and Cardiometabolic Health in Individuals at Risk of Type 2 Diabetes: Protocol for a Randomized Controlled Trial. *JMIR Research Protocols*, 8(3). https://doi.org/10.2196/11226

- Bourne, J. E., Ivanoca, E., Gainforth, H.L., & Jung, M.E. (2019). Mapping behavior change techniques to characterize a social cognitive theory informed physical activity intervention for adults at risk of type 2 diabetes mellitus. *Translational Behavioral Medicine*. https://doi.org/10.1093/tbm/ibz008
- Brownlee-Duffeck, M., Peterson, L., Simonds, J.F., Goldstein, D., Kilo, C., & Hoette, S. (1987). The role of health beliefs in the regimen adherence and metabolic control of adolescents and adults with diabetes mellitus. *Journal of Consulting Clinical Psychology*, 55, 139-144. https://doi.org/10.1037//0022-006x.55.2.139
- Bruhn, J. (2014). Identifying Useful Approaches to the Governance of Indigenous Data. *The International Indigenous Policy Journal*, 5(2). https://doi.org/10.18584/iipj.2014.5.2.5
- Buckley, E.S. (2019, June 4). 'This is genocide': The final report of Canada's inquiry into MMIWG. High Country News. Retrieved August 6, 2020, from https://www.hcn.org/articles/tribal-affairs-this-is-genocide-the-final-report-of-canadas-inquiry-into-mmiwg
- Bui, V. (2020, July 28). A decade after UN declared water a human right, it's time for Canada to make it law. The Narwhal.. Retrieved August 13, 2020, from https://thenarwhal.ca/unwater-human-right-canada-law/
- Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council. (2019). *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans*. Retrieved from https://ethics.gc.ca/eng/policy-politique_tcps2-eptc2_2018.html
- Canadian Poverty Institute (CPI). (n.d.). *Poverty in Canada*. Retrieved January 26, 2020, from https://www.povertyinstitute.ca/poverty-canada
- Centre for Suicide Prevention. (2013). *Indigenous Suicide Prevention*. Retrieved July 28, 2019, from https://www.suicideinfo.ca/resource/indigenous-suicide-prevention/

- Chen, M., Yang, J., Shou, J., Hao, Y., Zhang, J., & Youn, C.H. (2018). 5G-Smart Diabetes:

 Toward Personalized Diabetes Diagnosis with Healthcare Big Data Clouds. *IEEE Communications Magazine*, 56(4) 16-23. https://doi.org/10.1109/MCOM.2018.1700788
- Christensen, R. (2006). *Waterproof 2: Canada' Drinking Water Report Card: Sierra Legal Defence Fund*. Retrieved from https://www.ecojustice.ca/wp-content/uploads/2015/02/Waterproof-2.pdf
- Christakis, N.A., & Fowler, J.H. (2012). Social contagion Theory: examining dynamic social networks and human behavior. *Statistics in Medicine*, 32(4), 556-577. https://doi.org/10.1002/sim.5408
- Clarke, P., Evans, S., & Neffa-Creech, D. (2018). Mobile app increases vegetable-based preparations by low-income household cooks: A randomized controlled trial. *Public Health Nutrition*, 22(4), 1-12. https://doi.org/10.1017/S1368980018003117
- Coda, A., Sculley, D., Santos, D., Girones, X., & Acharya, S. (2017). Exploring the Effectiveness of Smart Technologies in the Management of Type 2 Diabetes Mellitus. *Journal of Diabetes Science and Technology*, 12(1). https://doi.org/10.1177/1932296817711198
- Commissariat, P., & Delamater, A. M. (2018). Child and Family Interventions. In *Principles and Concepts of Behavioral Medicine*. New York, NY: Springer https://doi.org/10.1007/978-0-387-93826-4_21
- Crowshoe, L., Han, H., Calam, B., Henderson, R., Jacklin, K., Walker, L., Green, M. E. (2018). Impacts of Educating for Equity Workshop on Addressing Social Barriers of Type 2

 Diabetes With Indigenous Patients. *The Journal of Continuing Education in the health Professions*, 38(1), 49-59. https://doi.org/10.1097/CEH.0000000000000188

- Crowshoe, L., Henderson, R., Jacklin, K., Calam, B., Walker, L., & Green, M. E. (2019).

 Educating for Equity Care Framework: Addressing social barriers of Indigenous patients with type 2 diabetes. *Canadian Family Physician*, 6(1), 25-33. Retrieved from https://www.cfp.ca/content/65/1/25.abstract
- Department of Indian Affairs and Northern Development. (2011). *National Assessment of First Nations Water and Wastewater Systems: National Roll-up Report Final*. Neegan Burnside Ltd: Orangeville, ON, Canada, 2011.
- Desveaux, L., Shaw, J., Saragosa, M., Soobiah, C., Marani, H., Hensel, J., ... Jeffs, L. (2018). A Mobile App to Improve Self-Management of Individuals with Type 2 Diabetes:

 Qualitative Realist Evaluation. *Journal of Medical Internet Research*, 20(3). http://dx.doi.org/10.2196/jmir.8712
- Dimova, E, D., Ward, A., Swanson, V., & Evans, J, M, M. (2019). 'Patients' Illness Perceptions of Type 2 Diabetes: A Scoping Review. *Current Diabetes Reviews*, 15(1), 15-30. https://doi.org/10.2174/1573399814666171227214845
- Eggertson, L. (2008). Despite federal promises, First Nations' water problems persist. *Canadian Medical Association Journal*, 178(8). https://doi.org/10.1503/cmaj.080429
- Eggertson, L. (2008). Investigative report: 1766 boil-water advisories now in place across Canada. *Canadian Medical Association Journal*, 178(10), 1261-1263. https://doi.org/10.1503/cmaj.080525
- Eggertson, L. (2006). Safe drinking water standards for First Nation communities. *Canadian Medical Association Journal*, 174(9). https://doi.org/10.1503/cmaj.060399
- Elamoshy, R., Bird, Y., Thorpe, L.U., & Moraros, J. (2018) Examining the association between diabetes, depressive symptoms, and suicidal ideation among Aboriginal Canadian peoples living off-reserve: a cross-sectional, population-based study. *Diabetes Metabolic Syndrome Obesity: Targets and Therapy*, 11, 767-780. https://doi.org/10.2147/DMSO.S184058

- Facebook. (n.d.). *Company Info*. Retrieved August 5, 2020, from https://about.fb.com/company-info/#:~:text=More%20than%20one%20billion%20people%20are%20active%20on%20F acebook.&text=More%20than%20100%20million%20people%20use%20Instagram%20e very%20month.
- Fiordelli, M., Diviani, N., & Schulz, P.J. (2013). Mapping mHealth Research: A Decade of Evolution. *Journal of Medical Internet Research*, 15(5). https://doi.org/10.2196/jmir.2430
- First Nations Information Governance Centre. (2014). Barriers and Levers for the Implementation of OCAP. *The International Indigenous Policy Journal*, 5(2). http://ir.lib.uwo.ca/iipj/vol5/iss2/3
- Fogg, B.J. (n.d.). *Fogg Behavior Grid*. Retrieved December 9, 2019, from https://www.behaviorgrid.org/
- Fogg, B.J. (n.d.). *Stanford Persuasive Technology Lab*. Stanford University. Retrieved December 9, 2019, from https://captology.stanford.edu/go/welcome?from=
- Food Secure Canada (FSC). (n.d.). *About*. Retrieved February 15, 2020, from https://www.facebook.com/pg/foodsecurecanada/about/?ref=page_internal
- Food Secure Canada (FSC). (n.d.). *What We Do*. Retrieved from February 15, 2020, https://foodsecurecanada.org/who-we-are/what-we-do?fbclid=IwAR3-yGd2MW-L7u8cYtWM8CHs_Hk_fuqpR2RJpPGAdNZJrRuDDb3qQtURYvY
- Forgeron, P., King, S., Reszel, J., & Fournier, K. (2018). Psychosocial interventions to improve social functioning of children and adolescents with chronic physical conditions: A systematic review. *Children's Health Care*, 47(3). https://doi.org/10.1080/02739615.2017.1328600

- Fractl. (n.d.). *Facebook Motivations Study: Why We Share*. Retrieved August 6, 2020, from https://www.frac.tl/work/marketing-research/facebook-sharing-motivation-study/
- Fractl. (n.d.) We Drive Organic Growth. Retrieved August 6, 2020, from https://www.frac.tl/
- Gavard, J.A., Lustman, P.J., & Clouse, R.E. (1993). Prevalence of depression in adults with diabetes: an epidemiological evaluation. *Diabetes Care*, 16(8), 1167-1178. https://doi.org/10.2337/diacare.16.8.1167
- Glasgow, R.E., McCaul, K.D., & Schafer, L.C. (1986). Barriers to regimen adherence among persons with insulin dependent diabetes. *Journal of Behavioral Medicine*, 9(1), 65-77. https://doi.org/10.1007/BF00844645
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597-606. Retrieved from https://nsuworks.nova.edu/tqr/vol8/iss4/6/
- Government of Canada. (n.d.). *Actions taken by the Government of Canada since the launch of the inquiry*. Retrieved August 6, 2020, from https://www.rcaanccirnac.gc.ca/eng/1559566331686/1559566355192
- Government of Canada. (n.d.). Household Food Insecurity In Canada in 2007-2008: Key Statistics and Graphics. Retrieved from https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/health-nutrition-surveys/canadian-community-health-survey-cchs/household-food-insecurity-canada-overview/household-food-insecurity-canada-2007-2008-key-statistics-graphics-food-nutrition-surveillance-health-canada.html
- Government of Canada. (n.d.). *National Inquiry into Missing and Murdered Indigenous Women and Girls*. Retrieved August 6, 2020, from https://www.rcaanccirnac.gc.ca/eng/1448633299414/1534526479029
- Government of Canada. (1996). Volume 1: Looking Forward, Looking Back. In *Report of the Royal Commission on Aboriginal People (RCAP)*. Retrieved from https://www.bac-

- lac.gc.ca/eng/discover/aboriginal-heritage/royal-commission-aboriginal-peoples/Pages/final-report.aspx
- Halseth, R., & Greenwood, M. (2019). *Indigenous early childhood development in Canada:*Current state of knowledge and future directions. Prince George, BC: National
 Collaborating Centre for Aboriginal Health. Retrieved from https://www.nccah-ccnsa.ca/docs/health/RPT-ECD-PHAC-Greenwood-Halseth-EN.pdf
- Halseth, R. (2019). *The prevalence of Type 2 diabetes among First Nations and considerations for prevention*. Prince George, BC: National Collaborating Centre for Aboriginal Health. Retrieved from https://www.nccah-ccnsa.ca/docs/health/RPT-Diabetes-First-Nations-Halseth-EN.pdf
- Hamm, N.C., Pelletier, L., Ellison, J., Tennenhouse, L., Reimer, K., Paterson, J.M., ... & Lix, L.M. (2019). Original quantitative research Trends in chronic disease incidence rates from the Canadian Chronic Disease Surveillance System. *Health promotion and chronic disease prevention in Canada: research, policy and practice*, 39(6-7), 216–224. https://doi.org/10.24095/hpcdp.39.6/7.02
- Hanley, A.J.G., Harris, S.B., Gittelsohn, J., Wolever, T.M.S., Saksvig, B., Zinman, B. (2000). Overweight among children and adolescents in a Native Canadian community: prevalence and associated factors. *The American Journal of Clinical Nutrition*, 71(3), 693-700. https://doi.org/10.1093/ajcn/71.3.693
- Harris, S.B., Bhattacharyya, O., Dyck, R., Hayward, M.N., & Toth, E.L. (2013). Type 2 Diabetes in Aboriginal Peoples. *Canadian Journal of Diabetes*, 37, S191–S196. https://doi.org/10.1016/j.jcjd.2013.01.046
- Harvey, J.N., & Lawson, V.L. (2009). The importance of health belief models in determining self-care behavior in diabetes. *Diabetic Medicine*, 26, 5-13. https://doi.org/10.1111/j.1464-5491.2008.02628.x

- Health Agency of Canada. (2019). *The Human Face of Mental Health and Mental Illness in Canada 2006*. Government of Canada. Retrieved June 27, 2018, from https://cpa.ca/docs/File/Practice/human face e.pdf
- Henderson, R., Montesanti, S., Crowshoe, L., & Leduc, C. (2018). Advancing Indigenous primary health care policy in Alberta, Canada. *Health Policy*, 122(6), 638-644. https://doi.org/10.1016/j.healthpol.2018.04.014
- Herbert, L., Owen, V., Pascarella, L. & Streisand, R. (2013). Text Message Interventions for Children and Adolescents with Type 1 Diabetes: A Systematic Review. *Diabetes Technology and Therapeutics*, 15(5). https://doi.org/10.1089/dia.2012.0291
- Huang, T.T.K., & Goran, M.I. (2003). Prevention of type 2 diabetes in young people: a theoretical perspective. *Pediatric Diabetes*, 4(10), 38-56. https://doi.org/10.1034/j.1399-5448.2003.00022.x
- Human Rights Watch. (2019). *Freshwater Canada's Dirty Water Secret*. Retrieved August 13, 2020, from https://www.hrw.org/news/2019/04/04/freshwater-canadas-dirty-water-secret
- Huynh, E. (2018). The Mountain of Health: The Perceptions and Perceived Expectations of Youth Living With Type 2 Diabetes in Winnipeg, Manitoba, Canada, Through a Grounded Theory Study. *Canadian Journal of Diabetes*, 42(4), 344-349. https://doi.org/10.1016/j.jcjd.2017.09.006
- Jarke, H. (2018). mHealth Friend or Foe in Reducing Inequality? A Systematic Literature Review." *Thesis Commons*. Retrieved from https://thesiscommons.org/w8qgj/
- Jean, B.S., Jindal, G., & Chan, K. (2018). "You Have to Know Your Body!": The Role of the Body in Influencing the Information Behavior of People with Type 2 Diabetes. *Library Trends*, 66(3), 289-314. https://doi.org/10.1353/lib.2018.0004
- Johnson, R. (2020, June 4). 'We need to be here for each other,' say Indigenous supporters of Black Lives Matter.' CBC News. Retrieved August 15, 2020, from https://www.cbc.ca/news/indigenous/indigenous-support-black-lives-matter-1.5598570

- Kagie, R., Lin, S., Hussain, M.A., & Thompson, S.C. (2019). A Pragmatic Review to Assist Planning and Practice in Delivering Nutrition Education to Indigenous Youth. *Nutrients*, 11(3). https://doi.org/10.3390/nu11030510
- Kebede, M.M., Zeeb, H., Peters, M., Heise, T.L., & Pischke, C.R. (2018). Effectiveness of
 Digital Interventions for Improving Glycemic Control in Persons with Poorly Controlled
 Type 2 Diabetes: A Systematic Review, Meta-analysis, and Meta-regression Analysis.
 Diabetes Technology and Therapeutics, 20(11). http://doi.org/10.1089/dia.2018.0216
- Kordonouri, O., & Riddell, C. (2019). Use of apps for physical activity in type 1 diabetes: current status and requirements for future development. *Therapeutic Advances in Endocrinology and Metabolism*, 10. https://doi.org/10.1177/2042018819839298
- Kornfeld, I. (2017). The Impact of Climate Change on American and Canadian Indigenous Peoples and Their Water Resources: A Climate Justice Perspective. *SSRN Electronic Journal*, 17(32). http://dx.doi.org/10.2139/ssrn.2832879
- Knuth, L. (2009). The right to adequate food and indigenous peoples: How can the right to food benefit Indigenous peoples? Food and Agriculture Organization of the United Nations.
 Retrieved from: http://www.fao.org/3/a-ap552e.pdf
- Lavigne, S., Forrest, J.L., Doucette, H.J., Haslam, K.S., Zelmer, K.C., Brillant,
 M.S.,...Ashworth, A. (Eds.) (2018). Better than Ever Everedge 2.0. Canadian Journal of Dental Hygiene, 52(3), 163-165. Retrieved from https://files.cdha.ca/profession/journal/v52n3.pdf#page=50
- Lavigne-Robichaud, M., Moubarac, J.C., Lantagne-Lopez, S., Johnson-Down, L., Batal, M., Sidi, E.A.L., & Lucas, M. (2018). Diet quality indices in relation to metabolic syndrome in an Indigenous Cree (Eeyouch) population in northern Québec, Canada. *Public Health Nutrition*, *21*(1), 172-180. https://doi.org/10.1017/S136898001700115X

- Layeghifard, M., Hwang, D. M., & Guttman, D. S. (2016). Disentangling Interactions in the Microbiome: A Network Perspective. *Trends in Microbiology*, 25(3), 217-228. https://doi.org/10.1016/j.tim.2016.11.008
- Lee, M., Lee, H., Kim, Y., Kim, J., Cho, M., Jang, J., & Jang, H. (2018). Mobile App-Based Health Promotion Programs: A Systematic Review of the Literature. *International Journal of Environmental Research and Public Health*, 15(12). https://doi.org/10.3390/ijerph15122838
- Luca, P., Haugrud, B., Husband, A., Dawrant, J., & Pacaud, D. (2018). Evaluation of a Diabetes Coach Program Aimed to Improve the Care of Children and Youth with Type 1 Diabetes and with Compromised Control. *Canadian Journal of Diabetes*, 42(5), 540-544. https://doi.org/10.1016/j.jcjd.2018.01.005
- Lynden, C., Dannenbaum, D., Green, M., Henderson, R., Hayward, M.N., & Toth, E., (2018).
 Type 2 Diabetes and Indigenous Peoples: Diabetes Canada Clinical Practice Guidelines
 Expert Committee. *Canadian Journal of Diabetes*, 42, S296-S306. Retrieved from http://guidelines.diabetes.ca/Browse/Chapter38
- Madwar, S. (2018). Inui High Arctic Relocation in Canada. *The Canadian Encyclopedia*. Retrieved August 13, 2020, from https://www.thecanadianencyclopedia.ca/en/article/inuit-high-arctic-relocations
- Malik, F.S., Panlasigui, N., Gritton, J., Gill, H., Yi-Frazier, J.P., & Moreno, M.A. (2018).
 Adolescent Perspectives on the Use of Social Media to Support Type 1 Diabetes
 Management: Focus Group Study. *Journal of Medical internet Research*, 21(6).
 https://doi.org/10.2196/12149
- Mason, C.W., McHugh, T.F., Strachan, L., & Boule, K. (2018). Urban indigenous youth perspectives on access to physical activity programmes in Canada. *Qualitative Research in Sport, Exercise and Health*, 11(4). https://doi.org/10.1080/2159676X.2018.1514321

- McClearn, M. (2019, January 28). *Liberals cut reserves' boil advisories, but water-system problems lingers*. The Global and Mail. Retrieved August 13, 2020, from https://www.theglobeandmail.com/canada/article-ottawa-says-its-on-track-to-end-drinking-water-advisories-on-reserves/
- McGavock, J., Durksen, A., Wicklow, B., Malik, S., Sellers, E.A.C., Blydt-Hansen, T., ... & Dart, A. (2018). Determinants of Readiness for Adopting Healthy Lifestyle Behaviors Among Indigenous Adolescents with Type 2 Diabetes in Manitoba, Canada: A Cross-Sectional Study. *Obesity*, 26(5). https://doi.org/10.1002/oby.22148
- McGetrick, J.A., Raine, K.D., Wild, T.C., & Nykiforuk, C.I.J. (2018). Advancing Strategies for Agenda Setting by Health Policy Coalitions: A Network Analysis of the Canadian Chronic Disease Prevention Survey. *Health Communication*, 34(11). https://doi.org/10.1080/10410236.2018.1484267
- McMahon, R., LaHache, T., & Whiteduck, T. (2015). Digital Data Management as Indigenous Resurgence in Kahnawà:ke. *International Indigenous Policy Journal*, 6(3). https://doi.org/10.18584/iipj.2015.6.3.6
- Michail, O., & Spirakis, P.G. (2018) Elements of the Theory of Dynamic Networks. *Communications of the ACM*, 61(2), 72. https://doi.org/10.1145/3156693
- Michie, S., Abraham, C., Whittington, C., McAteer, J., & Gupta, S. (2009). Effective techniques in healthy eating and physical activity interventions: a meta-regression. *Health Psychology*, 28(6), 690-701. https://doi.org/10.1037/a0016136
- Miller, T. (2015. March 7). *Feeding My Family*. Feeding Nunavut. Retrieved February 13, 2020, from https://www.feedingnunavut.com/feeding-my-family/
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D.G. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analysis: The PRISMA Statement. *PLos Med*, 6(7). https://doi.org/10.1371/journal.pmed.1000097

- Mosdøl, A., Vist, G.E., & Straunmann, G.H. (2018). Adapted health information and patient education for persons with immigrant or minority ethnic background: an overview of systematic reviews. *Norwegian Institute of Public Health (Folkehelseinstituttet)*. Retrieved from https://r-bup.brage.unit.no/r-bup-xmlui/bitstream/handle/11250/2583941/Mosdol 2018 Ada.pdf?sequence=1
- Murgia, M. (2015, December 7). Facebook is "uncool" but teens still use it the most. The Telegraph. Retrieved August 6, 2020, from https://www.telegraph.co.uk/technology/facebook/12037792/Facebook-is-uncool-but-teens-still-use-it-the-most.html
- National Aboriginal Health Organization (NAHO). (2013). Governance of Aboriginal Health. *Journal of Aboriginal Health*, 1(1). Retrieved from https://jps.library.utoronto.ca/index.php/ijih/issue/view/1922
- National Storytelling Network. (n.d.). *What Is Storytelling?*. Retrieved April 16, 2020, from https://storynet.org/what-is-storytelling/
- Oka, R., Nomura, A., Yasugi, A., Kometani, M., Gondoh, Y., Yoshimura, K., & Yoneda, T. (2019). Study Protocol for the Effects of Artificial Intelligence (AI)-Supported Automated Nutritional Intervention on Glycemic Control in Patients with Type 2 Diabetes Mellitus. *Diabetes Therapy*, 10(3), 1151-1161. https://doi.org/10.6084/m9.figshare.7798436
- Olson, I. (2020). 'It's a': Missing and murdered Indigenous women honoured in Montreal. CBC News. Retrieved August 6, 2020, from https://www.cbc.ca/news/canada/montreal/missing-murdered-indigenous-womenmontreal-1.5465218
- Ownership Control Access and Possession (OCAP). (n.d.). *The First Nations Principles of OCAP*TM. Retrieved February 8, 2020, from http://www.fnigc.ca/ocap.html

- Paradies, Y. (2018). Racism and Indigenous Health. *Global Public Health*. https://doi.org/10.1093/acrefore/9780190632366.013.86
- Paré, G., Leaver, C., & Bourget, C. (2018). Diffusion of the Digital Health Self-Tracking Movement in Canada: Results of a National Survey. *Journal of Medical Internet Research*, 20(5). http://dx.doi.org/10.2196/jmir.9388
- Patrick, R.J. (2011). Uneven access to safe drinking water for First Nations in Canada: Connecting health and place through source water protection. *Health Place*, 17(1). https://doi.org/10.1016/j.healthplace.2010.10.005
- Peter, K., Chen, Y., Kaplan, A.M., Ognibeni, B., & Pauwels, K. (2013). Social Media Metrics— A Framework and Guidelines for Managing Social Media. *Journal of Interactive Marketing*, 27(4), 281-298. https://doi.org/10.1016/j.intmar.2013.09.007
- Petersen, F., Pather, S., & Tucker, W.D. (2018). *User acceptance of ICT for diabetes self-management in the Western Cape, South Africa*. Conference Paper. Retrieved from https://www.researchgate.net/publication/326368952_User_acceptance_of_ICT_for_diabetes_self-management_in_the_Western_Cape_South_Africa
- Petersen, F., Brown, A., Pather, S., & Tucker, W.D. (2019). Challenges for the adoption of ICT for diabetes self-management in South Africa. *Electronic Journal of Information Systems in Developing Countries*. https://doi.org/10.1002/isd2.12113
- Powell, J., Isom, S. Divers, J. Bellatorre, A. Johnson, M., Smiley, J., ... & Dabelea, D. (2019). Increasing burden of type 2 diabetes in Navajo youth: The SEARCH for diabetes in youth study. *Pediatric Diabetes*, 20(7). https://doi.org/10.1111/pedi.12885
- Powers, T. (1997). Conscious Choice of Convenience: The Relocation of the Mushuau Innu of Davis Inlet, Labrador. Retrieved from https://www.collectionscanada.gc.ca/obj/s4/f2/dsk2/ftp04/mq22808.pdf
- Press, J. (2019, July 9). *Nearly 50 per cent of Indigenous children in Canada live in poverty, study says*. The Globe and Mail. Retrieved January 26, 2020, from

- https://www.theglobeandmail.com/canada/article-half-of-indigenous-children-live-in-poverty-highest-rate-of-child/
- Redmond, L.C., Jock, B., Gadhoke, P., Chiu D.T., Christiansen, K., Pardilla, M., ... & Gittelsohn, J. (2019). OPREVENT (Obesity Prevention and Evaluation of InterVention Effectiveness in NaTive North Americans): Design of a Multilevel, Multicomponent Obesity Intervention for Native American Adults and Households. *Current Developments in Nutrition*, 3(2), 81-93. https://doi.org/10.1093/cdn/nzz009
- Reuters Events. (2013, March 8). Share matters: four reasons why people share on Facebook.

 Accessed on 2020, August 8. Retrieved from

 https://www.reutersevents.com/travel/social-media-and-marketing/sharing-matters-four-reasons-why-people-share-facebook
- Rice, K., Hiwi, B.T., Zwarenstein, M., Lavallee, B., Barre, D.E., Harris, S.B. (2016). Best Practices for the Prevention and Management of Diabetes and Obesity-Related Chronic Disease among Indigenous Peoples in Canada: A Review. *Canadian Journal of Diabetes*, 40(3), 216-225. https://doi.org/10.1016/j.jcjd.2015.10.007
- Rivera, J., McPherson, AC., Hamilton, J., Birken, C., Coons, M., Peters, M., ... Stinson, J. (2017). User-Centered Design of a Mobile App for Weight and Health Management in Adolescents With Complex Health Needs: Qualitative Study. *Journal of Medical Internet Research Formative Research*, 2(1). http://dx.doi.org/10.2196/formative.8248
- Robinson, D.J., Coons, M., Haensel, H., Vallis, M., & Yale, J.F. (2018). Diabetes and Mental Health. *Canadian Journal of Diabetes*, 42, S130-S141. https://doi.org/10.1016/j.jcjd.2017.10.031
- Rodger, C. (2018). Diabetes care and management in Indigenous populations in Canada Summary report of a pan-Canadian policy roundtable November 1, 2017. *Institute of Health Economics Alberta Canada*. https://doi.org/10.7939/R36T0H97M

- Rosecrans, A.M., Gittelsohn, J., Ho, L.S., Harris, S.B., Naqshbandi, M., & Sharma, S. (2007). Process evaluation of a multi-institutional community-based program for diabetes prevention among First Nations. *Health Education Research*, 23(2), 272-286. https://doi.org/10.1093/her/cym031
- Rosputni. C., Short, E., Rahim-Sepulveda, M., Howe, C.L., da Silva, V., Alvarez, K., & Hingle, M, D. (2019). Diabetes Prevention Programs in Rural North America: A Systematic Scoping Review. *Current Diabetes Reports*, 19(43). https://doi.org/10.1007/s11892-019-1160-3
- Ryerson Chair in Indigenous Governance. (n.d.). *Chair in Indigenous Governance: First.*Nations Poverty in Canada. Ryerson University. Retrieved March 4, 2020, from https://www.ryerson.ca/chair-indigenous-governance/research-projects/ongoing/first-nations-poverty-in-canada/
- Sahin, C., Courtney, K.L., Naylor, PJ., & Rhodes, R.E. (2019). Tailored mobile text messaging interventions targeting type 2 diabetes self-management: A systematic review and a meta-analysis. *Digital Health*, 5. https://doi.org/10.1177/2055207619845279
- Saldaña, J. (2016). *The Coding Manual for Qualitative Researchers* (3rd ed.). Thousand Oaks, CA: SAGE.
- Schierhout, G., Nagel, T., Si, D., Connors, C., Brown, A., & Bailie, R. (2013). Do competing demands of physical illness in type 2 diabetes influence depression screening, documentation and management in primary care: a cross-sectional analytic study in Aboriginal and Torres Strait Islander primary health care settings. *International Journal of Mental Health Systems*, 7(16). https://doi.org/10.1186/1752-4458-7-16
- Shazhan Amed, S., Islam, N., Sutherland, J., & Reimer, K. (2017). Incidence and prevalence trends of youth-onset type 2 diabetes in a cohort of Canadian youth: 2002-2013. *Pediatric Diabetes*, 19(4), 630-636. https://doi.org/10.1111/pedi.12631

- Si, D., Dowden, M., Kennedy, C., Cox, R. O'Donoghue, L., Liddle, H,...Bailie, R. (2011).

 Indigenous community care—documented depression in patients with diabetes. *Aust Fam Physician*, 40(5), 331-333. Retrieved from https://www.racgp.org.au/download/documents/AFP/2011/May/201105si.pdf
- Silver, M.P., & Cronin, S.M. (2019). Health Care Providers' Perspectives on Family Compliance and Behavior Change in a Childhood Obesity Program. *Health Education & Behaviour*, 45(4), 582-591. https://doi.org/10.1177/1090198119831053
- Spurr, S., Bally, J., Allan, D., Bullin, C., & McNair, E. (2019). Prediabetes: An emerging public health concern in adolescents. *Endocrinology, Diabetes & Metabolism*, 2(2). https://doi.org/10.1002/edm2.60
- Statistics Canada. (2016, January 19). *Aboriginal Peoples Survey, 2012: Lifetime suicidal thoughts among First Nations living off reserve, Métis and Inuit aged 26 to 59: Prevalence and associated characteristics.* Retrieved June 27, 2018, from https://www150.statcan.gc.ca/n1/pub/89-653-x/89-653-x2016008-eng.htm
- Statistics Canada. (n.d..) *Income*. Retrieved February 8, 2020, from https://www150.statcan.gc.ca/n1/pub/89-645-x/2015001/income-revenu-eng.htm
- Tarig, U. (2018). Analysis of Added Sugar Intake of Canadian Children and Adolescents: Findings from the Canadian Community Health Survey on Nutrition. *Electronic Thesis and Dissertations Repository*, 5683. Retrieved from https://ir.lib.uwo.ca/etd/5683
- Tasker, J.P. (2019, June 3). *Inquiry into missing and murdered Indigenous women issues final report with sweeping calls for change*. CBC News. Retrieved August 6, 2020, from https://www.cbc.ca/news/politics/mmiwg-inquiry-deliver-final-report-justice-reforms-1.5158223
- Tjepkema, M. (2002). The Health of the Off-reserve Aboriginal population. In *Canadian Community Health Survey 2002 Annual Report*. Retrieved from https://www150.statcan.gc.ca/n1/pub/82-003-s/2002001/pdf/82-003-s2002004-eng.pdf

- Towns, C., Cooke, M., Rysdale, L., & Wilk, P. (2014). Healthy Weights Interventions in Aboriginal Children and Youth: A Review of the Literature. *Canadian Journal of Dietetic Practice and Research*, 75(3), 125-131. https://doi.org/10.3148/cjdpr-2014-006
- University of Alberta. (n.d.). *Research Ethics Office*. Retrieved February 9, 2020, from https://www.ualberta.ca/research/support/ethics-office
- Vallacher, R. R., Read, S.J., & Nowak, A. (Eds.). (2002). *The Dynamic Perspective in Personality and Social Psychology*. New York: Psychology Press. https://doi.org/10.4324/9781410608772
- Wang, B., An, X., Shi, X., & Zhang, J.A. (2017). Management of Endocrine disease: Suicide risk in patients with diabetes: a systematic review and meta-analysis. *Eur J Endocrinol*. 177(4), R169–R181. https://doi.org/10.1530/EJE-16-0952
- WaterToday. (n.d.). *About*. Retrieved August 13, 2020, from https://www.watertoday.ca/about-contact.asp
- WaterToday. (n.d.). *Home*. Retrieved August 13, 2020, from https://www.watertoday.ca/index.asp
- WaterToday. (n.d.). *Water Advisory Information*. Retrieved August 13, 2020, from https://www.watertoday.ca/bwa.asp
- Weber, B. (2014, August 28). Hunger makes Quebec Inuit shorter than average: study. CBC
 News. Retrieved February 13, 2020, from https://www.cbc.ca/news/canada/north/hunger-makes-quebec-inuit-shorter-than-average-study-1.2749118
- Wiessner, S. (2008). Indigenous Sovereignty: A Reassessment in Light of the UN Declaration on the Rights of Indigenous Peoples. *Vanderbilt Journal of Transnational Law*, 41(4), 1141-1176. Retrieved from https://heinonline.org/HOL/LandingPage?handle=hein.journals/vantl41&div=34&id=&page=

- Weisman, A., Fazli, G.S., Johns, A., & Booth, G.L. (2018). Evolving Trends in the Epidemiology, Risk Factors, and Prevention of Type 2 Diabetes: A Review. *Canadian Journal of Cardiology*, 34(5), 552-564. https://doi.org/10.1016/j.cjca.2018.03.002
- Wherrett, D.K., Ho, J., Huot, C., Legault, L., Nakhla, M., & Rosolowsky, E. (2018). Type 1
 Diabetes in Children and Adolescents. *Canadian Journal of Diabetes*, 42. S234-S246. https://doi.org/10.1016/j.jcjd.2017.10.036
- Wicklow, B.A., Sellers, E.A.C., Sharma, A.K., Kroeker, K., Nickel, N.C., Philips-Beck, W. & Shen, G.X. (2018). Association of Gestational Diabetes and Type 2 Diabetes Exposure In Utero With the Development of Type 2 Diabetes in First Nations and Non–First Nations Offspring. *JAMA Pediatr*, 72(8), 724-731.
 https://doi.org/10.1001/jamapediatrics.2018.1201
- Wilk, P., Maltby, A., & Cooke, M. (2018). Changing BMI scores among Canadian children, youth and young adults: An assessment of age, period and cohort effects. *Revue d'Épidémiologie et de Santé Publique*, 66(5). https://doi.org/10.1016/j.respe.2018.05.376
- Willows, N.D., (2005). Determinants of Healthy Eating in Aboriginal Peoples in Canada: The Current State of Knowledge and Research Gaps. *Canadian Journal of Public Health*, *96(3)*, *S32-S36*. Retrieved from http://www.jstor.org/stable/41994470
- Zgibor, J.C., & Songer, T.J. (2001). External Barriers to Diabetes Care: Addressing Personal and Health Systems Issues. *Diabetes Spectrum*, 14(1), 23-28. https://doi.org/10.2337/diaspect.14.1.23
- Zhao, J., Freeman, B., & Li, M. (2016). Can Mobile Phone Apps Influence People's Health Behavior Change? An Evidence Review. *Journal of Medical Internet Research*, 18(11). http://dx.doi.org/10.2196/jmir.5692
- Zheng, Y., Ley, S.H., & Hu, F.B. (2018). Global aetiology and epidemiology of type 2 diabetes mellitus and its complications. *Nature Reviews Endocrinology*, 14, 88–98. Retrieved from https://www.nature.com/articles/nrendo.2017.151