

**Community food security and wellbeing: Evaluation  
of the Nutrition North Canada cooking circle program in Paulatuk, NWT**

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in partial fulfillment of the requirements for the  
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## Abstract

Limited research exists on the role of community food programs, such as cooking circles, in Canadian Arctic communities. This research investigates the Nutrition North Canada cooking circle program in the Inuvialuit (Inuit) hamlet of Paulatuk, NWT. The objectives are to 1) collaboratively evaluate the program's impact on healthy food intake, and awareness/knowledge accumulation regarding healthier eating and meal preparation techniques; 2) assess the program's intangible (e.g., social, cultural, and mental health) benefits to participants and community wellbeing; and 3) analyze the potential for consistent country food integration; 4) to generate a culturally relevant logic model; 5) to evaluate program implementation in terms of key enablers and barriers – namely, funding, space and equipment, and human resources.

This research applies a Community-Based Participatory Research approach to implementing a collaborative process and outcome program evaluation, with necessary modifications due to the Covid-19 pandemic. Methods include logic model co-design, document analysis of NNC annual reports (n = 9) and proposals (n = 2), a series of regular/weekly iterative videoconference conversations with the Paulatuk cooking circle facilitator out of which two were transcribed and analyzed (n = 2), videoconference semi-structured interview with a regional program manager (n = 1), telephone semi-structured interviews with cooking circle facilitators from other communities (n = 4), telephone (n = 1) and in-person (n = 12) semi-structured interviews with Paulatuk cooking circle participants.

The Mukluk Logic Model played an instrumental role in the conceptualization of the process evaluation, recognizing the specificity of location, program facilitation, and culture. The process evaluation results indicated that the long-standing sustainability of Paulatuk's cooking circle program is directly related to the consistency of program funding, community-engaged facilitation practices, and creative utilization of the community's multi-purpose space for program activities. However, significant barriers to program implementation limit program sustainability. These include funding amounts and distribution, limitations related to space and equipment, and a challenging human resources context (hiring and retention). The cooking circle participants reported an increase in intake of healthy food, awareness of healthy eating/cooking, and positive social and mental health aspects of the program. A considerable effort from local and regional stakeholders is required to integrate country food into program activities. This study provides insight into cooking circle program implementation in a Canadian Arctic community, illustrating the utility of qualitative process evaluation research in this context and generating important knowledge and insights to better support northern community-based food preparation programs. Additionally, this research highlights the role of local-scale initiatives in supporting food security, overall wellbeing, and integration of country food in program activities in remote, Arctic communities.

## **Ethics**

Research presented in this thesis conforms to all ethical standards of work with humans. Informed consent was obtained from all participants.

A certificate of ethics approval for *Learning from and enhancing Community Capacity for Climate Change and Food Security (C4FS) action in the NWT* research project and the community-based work in the Inuvialuit Settlement Region was granted by the University of Ottawa Social Sciences and Humanities Research Ethics Board (file number S-11-20-6256).

Scientific research licenses for the *C4FS* community-based work (licenses no. 16697 and no. 16832) in the Inuvialuit Settlement Region were granted by the Aurora Research Institute (Inuvik, Northwest Territories).

A letter of support from the Paulatuk Community Corporation was obtained for the *C4FS* research project (March 20th, 2019, signed by Lawrence Ruben).

Appendices A - D contain copies of the certificate of ethics approvals (Appendix A), scientific research licenses (Appendices B and C), and letter of support (Appendix D).

## **Author's Declaration**

This thesis consists of material all of which I authored or co-authored: see Statement of Contributions included in the thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

## Statement of contributions

This research was conducted by Lena Dedyukina under the supervision of Dr. Sonia D. Wesche and Dr. Kelly Skinner, bridging the “Learning from and Enhancing Community Capacity for Climate Change and Food Security Action in the NWT” (C4FS) project supported by the Canadian Institutes of Health Research (CIHR) and the “Country Foods in Community Programming” (CFCP) (University of Waterloo) project funded by the Canadian Northern Economic Development Agency (CanNor). The C4FS project is led by Principal Investigator Dr. Skinner and Co-Principal Investigators Drs. Sonia Wesche and Andrew Spring.

Lena Dedyukina was the sole author for Section 1 (Introduction and Study Context), 2 (Literature Review), 3 (Methodological Framing), and 6 (Conclusion) which were written under the supervision of Dr. Sonia D. Wesche and were not written for publication.

This thesis consists in part of two manuscripts written for publication. Exceptions to sole authorship of material are as follows:

**Manuscript 1 (Section 4): Community food security and wellbeing: Evaluation of the Nutrition North Canada cooking circle program in Paulatuk, NWT**

Dr. Tiff-Annie Kenny conceptualized the study in collaboration with Dr. Sonia Wesche and ISR Food Security Coordinator Celina Wolki. Lena Dedyukina designed the study with consultations from Drs. Wesche and Skinner, and Celina Wolki. Lena Dedyukina worked collaboratively with Celina Wolki, and Lead Community Researcher Denise Wolki to recruit interview participants (cooking circle) and conduct interviews. Lena Dedyukina engaged in conversations with Celina Wolki (Paulatuk NNC cooking circle facilitator). Lena Dedyukina led participant recruitment and conducted telephone and videoconference interviews with the regional program manager and cooking circle facilitators from other ISR communities. Lena Dedyukina completed the coding and analysis of all data and worked collaboratively with Celina Wolki and Denise Wolki in data verification. Lena Dedyukina wrote the draft manuscript with feedback from Celina Wolki, Denise Wolki, and Drs. Wesche, Skinner, and Kenny. Lena Dedyukina prepared the manuscript for submission to *Canadian Food Studies / La Revue canadienne des études sur l'alimentation* (Research Article).

**Manuscript 2 (Section 5): Process evaluation of a cooking circle program in the Arctic: Developing the Mukluk Logic Model and identifying key enablers and barriers for program implementation**

Dr. Tiff-Annie Kenny conceptualized the study in collaboration with Dr. Sonia Wesche and Celina Wolki. Lena Dedyukina designed the study with consultations from Drs. Wesche and Skinner, and Celina Wolki. Lena Dedyukina worked collaboratively with Celina Wolki, and Lead Community Researcher Denise Wolki to recruit interview participants (cooking circle) and conduct interviews. Lena Dedyukina led participant recruitment and conducted telephone and

videoconference interviews with the regional program manager and cooking circle facilitators from other ISR communities. Lena Dedyukina worked collaboratively with Celina Wolki, Denise Wolki, community Elder Anne Thrasher, and two community traditional seamstresses in the co-design of the Mukluk<sup>1</sup> Logic Model. Lena Dedyukina completed the coding and analysis of all data and worked collaboratively with Celina Wolki and Denise Wolki in data verification. Lena Dedyukina wrote the draft manuscript with feedback from Celina Wolki, Denise Wolki, and Drs. Wesche, Skinner, and Kenny. Lena Dedyukina prepared the manuscript for submission and submitted it on May 22, 2023, to the *Canadian Journal of Program Evaluation / La Revue canadienne d'évaluation de programme* (Research Article).

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<sup>1</sup> Traditional Inuit winter boots, mukluks are known for their maneuverability, versatility and warmth in northern environments. They are soft, usually high (about knee-height), ... with a soft leather sole. This footwear is super comfy. It protects your feet from the cold, but also, you can easily walk, tip-toe, run, hunker down, and so on in these shoes. Inuit hunters could move very quietly in mukluks (“Traditional mukluks”, n.d.; “How to”, 2020).

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And I thank you my friends for your continuous support for everything I do.

Miigwech! Thank you! Quyanainni! Merci! Spasibo! Mahtal!

## **Dedication**

I want to dedicate this work in memory of my dear mother who always believed in me but whom I lost too soon, my older brother, an incredible ping-pong player and artist who left this world too early, and my father for teaching me to never give up and be honest and generous. Everything I do and try to achieve I do in your memory, and it gives me strength and perseverance to move forward. All of you are always with me in my thoughts and actions.

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# 1. Introduction

## 1.1. Background

Food insecurity<sup>2</sup> in Canada among Indigenous Peoples<sup>3</sup> is a critical public health issue. Inuit, one of the three legally recognized Indigenous groups in Canada, have the highest documented prevalence of food insecurity with 68.8% of food insecure adults in Nunavut, 45.7% in Nunatsiavut, and 43.4% in the Inuvialuit Settlement Region (ISR), Northwest Territories (NWT), (Kenny, Fillion, MacLean, et al., 2018; Rosol et al., 2011). In the ISR, store-bought food is two to three times more expensive than for the average Canadian (Kenny, Fillion, MacLean, et al., 2018; Pakseresht et al., 2014). In addition to the high cost of store-bought food, the high cost of harvesting, remoteness, insufficient income, and predominance of high-energy/low-nutrient market food are among the factors that result in food insecurity for Inuit living in Arctic communities in Canada (CCA, 2014; Thériault, 2011).

A variety of programs, strategies, and policies address food insecurity in northern communities (Galloway, 2017; Kenny, Wesche, et al., 2018; Ramirez Prieto et al., 2023). Nevertheless, little attention has been given to understanding community-organized food preparation programs and their capacity to support food security at the local level (Galloway, 2017; Kenny, Wesche, et al., 2018). Studies in other contexts show that community-organized food preparation programs such as community kitchens enable the transfer of knowledge, new experiences, and confidence to promote healthy eating habits and overall wellbeing (Wriden et al.,

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<sup>2</sup> Food insecurity as a converse concept of food security here defined as “an outcome of inadequate or uncertain access to an acceptable amount and quality of healthy food” (CCA, 2014).

<sup>3</sup> “Indigenous Peoples” is an umbrella term referring to people who “have been subjected to the colonization of their lands and cultures, and the denial of their sovereignty, by a colonizing society that has come to dominate and determine the shape and quality of their lives”. The term, coined in the 1970’s by the American Indian Movement and the Canadian Indian Brotherhood, is commonly used in a global context, and is now increasingly favoured when referring to more than one of the constitutionally-defined ‘Aboriginal’ groups in Canada, namely: First Nations, Metis, and Inuit (Smith, 2012).

2007). Several studies evaluating community kitchens showed that they can play a valuable role in improving cooking skills and social interactions while enhancing the nutritional intake of participants (Iacovou et al., 2012; Lee et al., 2010; Marquis et al., 2001). Concurrently, community kitchens support food security by increasing awareness regarding the nutritious value of food while decreasing the need for charitable food sources, thus improving participants' dignity (Engler-Stringer & Berenbaum, 2007; Iacovou et al., 2012). However, the majority of existing studies have been conducted in urban settings (Iacovou et al., 2012). As a result, limited research attention has been focused on evaluating community kitchen programs in remote northern communities.

Traditionally, Inuit relied on and continue to rely on food from hunting, fishing, gathering, and food sharing (Kolahdooz et al., 2014). Food is not only a source of energy and nutrients, but part of Inuit culture and traditions, requiring intense physical activity and a rich knowledge base of the environment, plant/animal species, food preparation, and storage techniques (Council of Canadian Academics (CCA), 2014; Kolahdooz et al., 2014; Kuhnlein & Humphries, 2017). The nutrition transition away from nutrient-rich country food toward greater reliance on a "Western" diet high in saturated fats, sugar, and processed foods has contributed to high levels of overweight adults (58% in NWT) and a variety of health complications, including diabetes and heart disease, among others (Kolahdooz et al., 2014; Sheehy et al., 2015). Studies show that reliable country food programs and country food sharing practices improve the overall food security, nutritional intake, and wellbeing of Indigenous Peoples (Kuhnlein & Receveur, 2007; Kuhnlein et al., 2009; Sheehy et al., 2015; Thompson et al., 2012). As such, the incorporation of country food in community-led food preparation programs in northern communities is essential.

The majority of existing evaluation studies on community kitchens have been conducted in urban settings (Lee et al., 2010; Marquis et al., 2001; Wrieden et al., 2007) highlighting the impact

of the program on its participants without significant attention to the program's implementation details (process evaluation) implying a uniform 'black box' approach (Saunders et al., 2006, p. 352). The 'black box' approach evaluation tendency overlooks a variety of factors influencing program implementation, including the motivation and skill of the implementers, access to resources, and others (Saunders et al., 2006). Concurrently, there is a significant gap in process evaluations of community kitchens' in the Indigenous context. This gap can be explained by the imposition of Western post-positivist approaches such as a preference for quantitative data (Cavino, 2013, p. 349) and value judgments, as well as a disregard for colonial impacts such as suppression of Indigenous languages and cultural ways of knowing and being (Cram, Tibbetts, & LaFrance, 2018). In many Indigenous communities, evaluation "is seen as something done 'to them' rather than 'with them' or even 'for them'" (Shepherd & Graham, 2020, p. 392). Additionally, there is a lack of culturally-relevant program evaluation tools such as logic models (a diagram representing how a program works and what the program is trying to achieve in the long run) (Gresku, Jones, & Kurtz, 2022; Julian, 1997; Kuiper et al., 2020; Taylor-Powell & Henert, 2008). Thus, more attention to the factors influencing program implementation in the Indigenous context is necessary to fully comprehend how a specific program works, what challenges it faces, and what can be done to better support it using culturally-relevant evaluation methods.

In addition to the Nutrition North Canada (NNC) food retail subsidy program to isolated northern communities, the NNC nutrition education initiative was launched by the Government of Canada in 2011. Since 2020, the NNC has broadened its mandate and launched additional initiatives aimed at strengthening food security and food sovereignty in eligible northern communities (Government of Canada, 2020; Government of Canada, 2022). In 2012 based on

community input, a locally run cooking circle (community kitchen) program, was implemented in the five remote ISR communities (Aklavik, Paulatuk, Sachs Harbour, Tuktoyaktuk, and Ulukhaktok) supported by NNC nutrition education funding to improve healthful food preparation skills and increase knowledge about healthy eating for participants (IRC, 2013; Kenny, Wesche, et al., 2018). The cooking circle program runs annually in all five communities, dependent on available funding and human resources. The cooking circle in Paulatuk, one of the five participating communities, has been facilitated for the past six years by the same community champion and proved successful until the Covid-19 pandemic forced a temporary transformation to a food hamper program.

Recognizing the existing context where Inuvialuit (Inuit) live in dispersed small communities, there is a role for federally funded programs in supporting self-determined, local food systems. This thesis examines the impact of cooking circles (community kitchens) on participants' food security, overall wellbeing, and the possibility for increased country food integration in program activities through a process and outcome evaluation of a federally funded cooking circle program in Paulatuk, NWT. Additionally, program implementation was analyzed through the collaborative co-design of a culturally relevant logic model, focusing on key enablers and barriers, namely funding, space and equipment, and human resources. This thesis addresses gaps in research relating to the culturally relevant evaluation of community food programs in remote northern communities and the integration of country food in federally funded food-related programs. Concurrently, this research adds to qualitative research in the ISR by documenting community perspectives and priorities. It discusses the impact and significance of community food initiatives in northern communities and provides an example of collaborative research and

alignment with the National Inuit Strategy on Research (Inuit Tapiriit Kanatami (ITK), 2018), as well as Inuvialuit Knowledge and values.

## 1.2. Study context and research objectives

### 1.2.1. Regional profile and study location

According to the Inuvialuit Final Agreement (IFA)<sup>4</sup> that came into effect on July 25, 1984, the Inuvialuit Settlement Region (ISR) covers about 435,000 square kilometers in the Mackenzie Delta, Beaufort Sea, and Amundsen Gulf area (Government of Northwest Territories (GNWT),



**Figure 1.1:** Location of the Inuvialuit Settlement Region and its six communities. (Map created by Sarah Simpkin; Map data from Natural Resources Canada (2016), licensed under the Open Government Licence – Canada)

n.d.a). Its total population of 5,998 (GNWT, 2020) lives in the regional hub Inuvik and the five more remote Inuvialuit communities: Aklavik, Paulatuk, Sachs Harbour, Tuktoyaktuk, and Ulukhaktok (Figure 1.1).

Paulatuk (traditionally called Paulatuq: “place of coal”), a fly-in community of 323 people (84% Indigenous), is located on

Darnley Bay on the coast of the Beaufort Sea about 402 km east of Inuvik and 885 km northwest of Yellowknife (GNWT, n.d.b). In 2019, 79.2% of Paulatuk households reported consuming country food, 70.7% of residents hunted or fished, and 6.5% of residents trapped (See Table 5.1 in *Section 5 Study location and population*). The prevalence of traditional activities in Paulatuk is significantly higher than the NWT average, where, for example, only 22.5% of residents reported

<sup>4</sup> Inuvialuit Final Agreement (IFA) is the “first comprehensive land claim agreement signed north of the 60th parallel and only the second in Canada at that time. In the IFA, Inuvialuit agreed to give up their exclusive use of their ancestral lands in exchange for certain other guaranteed rights from the Government of Canada. The rights came in three forms: land, wildlife management and money” (Inuvialuit Regional Corporation (IRC), n.d.c.).

consuming country food. At the same time, in 2018, more than half (54.2%) of Paulatuk residents reported being worried about having sufficient money for food, and in 2019 the community's price index was almost double (187.4) that of the territorial capital Yellowknife (100) (GNWT, n.d.b). In addition to subsistence activities (hunting, fishing, and trapping), in 2019, 65% of Paulatuk residents were involved in wage labor to varying degrees, primarily in the following sectors: local government, social and health services, and education (Lede et al., 2021).

The hamlet of Paulatuk is accessible by air year-round, with regular flights connecting the community with the town of Inuvik, NWT (Lede et al., 2021; Northwest Territories Tourism, 2021). Paulatuk has only one small Northern<sup>5</sup> grocery store centrally located in the Paulatuk Visitors Centre. The food is delivered to the store through air-shipment year-round and once per year in summer by barge (Kenny, Fillion, MacLean, et al., 2018; "Paulatuk," 2012). Due to the nature of food delivery, the quality, nutrient value, and variety of foods available at the store vary with a prevalence of nonperishable, low-nutrient, and energy-dense foods (Kenny, Little, et al., 2020).

### **1.2.2. Research details**

The Nutrition North Canada (NNC) cooking circle research project is part of a long-standing research program on food security with Inuvialuit Settlement Region communities and the "Learning from and enhancing Community Capacity for Climate Change and Food Security action in the NWT" (C4FS) project funded by the Canadian Institutes of Health Research (CIHR). Further funding was obtained from the Canadian Northern Economic Development Agency (CanNor) for the "Country Foods in Community Programming" (CFCP) project. The priorities guiding these

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<sup>5</sup> Northern is the original core store banner of The North West Company and today consists of 122 food and general merchandise stores serving remote, Northern Canadian communities ("Northern", 2022).

research project objectives were determined from a series of previous community engagement sessions that identified the following key themes as being important to community members:

- promote healthy cooking and eating,
- support community food programs,
- and reinforce country food skills, knowledge, and sharing practices.

This research addresses community-identified concerns around strengthening the local food system, building community capacity, promoting community action and self-determination, and informing programs and policies. While this primarily uses the term food security to reflect the focus of the Inuvialuit Regional Corporation and the mandate of NNC, which have only recently shifted to conversations about food sovereignty, we conceptualize this term in a holistic way and recognize that food security and food sovereignty are interwoven in this context.

### **1.2.3. Research objectives**

The research objectives are:

1. to collaboratively evaluate the cooking circle regarding its impact on participants' intake of healthy food, awareness, and knowledge accumulation regarding healthy eating and healthier cooking/meal preparation techniques,
2. to assess the cooking circle in terms of its intangible (e.g., social, cultural, and mental health) benefits to the wellbeing of its participants and the community,
3. to analyze the potential for consistent country food integration into the cooking circle,
4. to generate a culturally relevant logic model,
5. to evaluate program implementation in terms of key enablers and barriers – namely, funding, space and equipment, and human resources.

#### **1.2.4. Manuscript overview**

This thesis includes two co-authored manuscripts (see the *Statement of Contributions* section of this thesis).

In Section 4 (first manuscript) I address the first three objectives of the study. This manuscript is based on document analysis, semi-structured interviews with the regional program manager, cooking circle/hamper program facilitators from other ISR communities, cooking circle/hamper program participants, and conversations with the Paulatuk cooking circle/hamper program facilitator. The findings showed that the impacts of the community kitchens (cooking circles) on participants' knowledge of healthy eating, cooking, and social, cultural, and mental health dimensions in remote northern community context differ somewhat from those identified in similar studies conducted mostly in southern urban settings. In the northern remote community context, more attention should be paid to the community food environment, recognizing the physical, social, economic, cultural, and political factors that impact the accessibility, availability, and adequacy of food, as well as cultural aspects of existing programs such as traditional language use and traditional knowledge sharing during program activities. In terms of consistent country food incorporation into program activities, the cooking circle program needs not only financial support, but also logistical, managerial, and infrastructure inputs including increased staffing, regulating and monitoring food cutting, portioning, distribution, storage, and food processing.

In Section 5 (second manuscript) I address study objectives 4 and 5. This manuscript is based on logic model co-design, document analysis, and semi-structured interviews with the regional program manager, cooking circle facilitators from other ISR communities, and cooking circle program participants. Through this work, we collaboratively generated a culturally relevant Mukluk Logic Model (MLM) - a program evaluation tool integrating Inuvialuit knowledge and

values. The MLM played an instrumental role in the conceptualization of the process evaluation approach that was informed by the specificity of location, program facilitation, and culture. Thus, the cooking circle program was evaluated through an understanding of the relational approach to program implementation, where cultural, personal, and community-specific aspects make one cooking circle program slightly different from another. Process evaluation results showed that the relative stability of program funding, the central location of the cooking circle facility, available cooking equipment, and consistent facilitation act as enablers of the program implementation. However, several barriers were identified in each aspect of program implementation. Considering our findings, significant attention should be paid by federal and territorial governments to nutrition education funding amounts, allocation, and distribution, and the hiring and retention of human resources to improve cooking circle program sustainability.

#### **1.2.5. Positionality**

Positionality implies that researchers belong to the social world they are studying and that various social actors have already interpreted this world. Positionality is informed by reflexivity (See 3.3.2. *Reflexivity* section), and it challenges the idea that social research can be separated from broader society and the researcher's biography (Holmes, 2020). In this context, my positionality as a researcher plays a central role in writing this thesis. I grew up in a small Soviet Union town above the Arctic circle in a predominantly 'white' community being only one girl in a class (one of the few others in a school) with distinct "Asian" features. I belong to Sakha (Yakut) ethnicity, which represents about 478,085 people according to the 2010 census (Russian Federation, 2020). I was raised following the communist ideological stance of friendship between the nations, the mightiness of socialism, and the Soviet Union, the preparedness to protect the country, and always being ready to fight for communism. Most of my cultural upbringing was based on bi-annual

family trips to communities to visit our relatives. However, being unable to speak the language of my culture made me feel like an outsider there. At the same time, I have never felt myself fully belonging in a ‘Soviet’ Russian-speaking country either being an Indigenous young woman. At that time, I could not critically analyze my situation besides accepting or trying to accept what I could hear, read, and see from my surroundings.

I lost my mother when I was 19 and experienced the fall of the Soviet Union, where everything I was taught prior turned out to be questionable. These experiences played a significant role in the development of my identity<sup>6</sup> as I struggled to find the balance being tossed in a turbulent time of uncertainty, highs, and lows of self-discovery, adaptation, and practical learning. An opportunity to travel around the world while following my husband and encounter the lives of people in France, Thailand, Singapore, and Australia offered me a chance to expand my experiences. These various moments and memories are pieces of my identity. From the Arctic circle to the Southern shores of Australia, my positionality as a Yakut (Sakha) woman and a graduate student writing this thesis is influenced by these moments. Many things changed in my life from that time. Currently, I can examine my own experiences through various theoretical lenses as a graduate student at the University of Ottawa. The chance to continue my university studies not only introduced me to the world of critical analysis, continuous learning, and new opportunities but also stimulated my curiosity and thirst for knowledge. I am approaching this thesis with the “baggage” of my personal experiences, which includes a Social Science Bachelor

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<sup>6</sup> I understand that “identity is an ambiguous and slippery term... On the one hand, identity is something unique to each of us that we assume is more or less consistent (and hence the same) over time... Yet on the other hand, identity also implies a relationship with a broader collective or social group of some kind. When we talk about national identity, cultural identity, or gender identity, for example, we imply that our identity is partly a matter of what we share with other people. Here, identity is about identification with others whom we assume are similar to us (if not exactly the same), at least in some significant ways” (Buckingham, 2008).

(BSocSc) Honours degree in Sociology and Indigenous Studies, and my role as a mother, wife, and graduate student (Ortlipp, 2008).

## **2. Literature review**

In the literature review, I examine three interconnected themes that are significant for understanding the role of community food programs in supporting participants' food security, overall wellbeing, and the possibility of consistent country food integration in the program activities in Canadian Arctic communities. First, I explore food security from a community perspective, acknowledging the complex social, economic, cultural, and environmental factors shaping aspects of food security and community wellbeing. Second, I examine the role of community kitchens as more than just emergency food relief initiatives, highlighting their potential to address various dimensions of participants' food security and wellbeing through the development of participants' cooking skills, nutritional knowledge, and improved social interactions. Finally, I analyze the significance of country food and country food-sharing practices for Inuit as an essential part of cultural continuity, a practice to support Inuit food security, and an integral aspect of communities' cohesion, health, and wellbeing. By critically analyzing the existing research on these topics, I aim to identify the research gaps and build a foundation for this thesis.

### **2.1. Food security in the Canadian Arctic: a community perspective**

Food security is a complex phenomenon that depends on whether it is considered globally, nationally, or locally (Jarosz, 2014; Maxwell, 1996). It is determined by an intricate system of social, political, economic, cultural, and environmental factors differentiated through space and time (Cameron, 2012; Friendship, 2014; Hamelin et al., 2008). The current definition of food security proposed by the Food and Agriculture Organization (FAO) Committee on World Food

Security in 2013 states that food and nutrition security exists “when all people at all times have physical, social and economic access to food, which is safe and consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services, and care, allowing for a healthy and active life” (CCA, 2014, p. xiv). Food security is based on four components (pillars): availability (food supply), access (affordability and distribution), utilization (food quality, nutritional knowledge, and cultural preferences), and stability (permanency and durability of the food supply) (Committee on World Food Security (CFS), 2014). In the context of Inuit food systems<sup>7</sup> that incorporates three sub-systems, namely country food, market food, and locally produced (locally grown) food systems, the concept of food security represents an increasingly complex phenomenon (Kenny, Wesche, et al., 2018; Walker et al., 2014).

“Community food security is defined as a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice” (Hamm & Bellows, 2003, p. 37). The concept of community food security provides a more nuanced perception of place-based aspects affecting households or individual food security as not separate units but as a system of relations differentiated by a variety of factors such as geographical location, size, environmental quality, demographics, and others (Hamm & Bellows, 2003). This place-specific approach emphasizes the importance of community-based food systems as a web of food-related functions, including local food procurement activities, food production, processing, distribution, marketing, recycling, and

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<sup>7</sup> Food system (FS) here defined as a system that “encompass the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption and disposal of food products that originate from agriculture, forestry or fisheries, and parts of the broader economic, societal and natural environments in which they are embedded” (Nguyen, 2018).

others based with equal importance on environmentally sustainable practices, health, and economic strengths (McCullum, 2005; Sattanno et al., 2017; Slater, 2011). At the same time, community food security supports consumer-producer networks promoting consumption of locally produced foods, thus reducing the dependence on fossil fuels and encouraging stewardship of the land, air, and water (Slater, 2011).

These community food security aspects align with one of the latest Food Secure Canada (FSC) policy action plan priorities in the context of Covid-19 to “Support communities to design new models, and support and reinvigorate Indigenous foodways like community kitchens, gardening programs, greenhouses, other community-led infrastructure, hunter support programs and goose camps” (2020, p. 16). An emphasis on local-scale food security initiatives is one of the principal objectives of this action plan. FSC points out that Indigenous communities know what is necessary today while building foundations for a better tomorrow (FSC, 2020). Addressing food insecurity with charitable initiatives for Indigenous communities is very problematic as it enforces paternalism when solutions are not developed or implemented with Indigenous people’s involvement (FSC, 2020; Levi & Robin, 2020). As such, there is a need to support community-led initiatives that strengthen food security, empower communities and individuals, promote social capital and community pride, and enhance local communication channels (Amobi et al., 2019; Parkhill et al., 2015).

In this context, the existence and combination of community-led initiatives will vary by community. A comprehensive study in the ISR showed that local-scale economic, social, and cultural dynamics play an important role in the implementation and viability of community initiatives, thus indicating the importance of place-specific circumstances (Kenny, Wesche, et al., 2018). Limited research is available on community food programs and their impact on food

security among the program's users in Arctic communities in Canada (Ford et al., 2013). Studies in Iqaluit, NU, and Inuvik, NWT showed that community food programs such as food banks and soup kitchens are used mainly by marginalized community members, such as single parents (predominantly women), unemployed or low-income people, those experiencing housing insecurity, and lacking high school education (Ford et al., 2012; Ford et al., 2013). A majority of programs target age-specific groups such as children and young mothers, thus overlooking the middle age group of the population that is affected by the residential school experience and associated trauma, which impacts their socioeconomic status (CCA, 2014; Ford et al., 2013; Huet et al., 2012). Both studies identified that community food programs became the only reliable source of food for housing-insecure and unemployed participants, thus in some sense creating a cycle of dependence without an opportunity to exit undesirable situations (Ford et al., 2013). The abovementioned emergency food relief programs though imperative in supporting participants' food security, do not address relational/intangible benefits that are observable in other participant-engaged programs.

## **2.2. Community kitchens: more than emergency food relief**

Community-based food preparation programs generally aim to improve food security by addressing its different components such as availability, access, utilization, and the overall wellbeing of their participants, who mainly belong to vulnerable groups (Engler-Stringer & Berenbaum, 2005; Tarasuk & Reynolds, 1999). These programs, also known as community kitchens, are recognized as self-help and community development initiatives that address the public issue of food insecurity (Tarasuk & Reynolds, 1999). A wide range of models of operation exist within this general concept of community kitchens including collective kitchens, communal meal programs, and cooking classes (Tarasuk & Reynolds, 1999). While these programs have

slight distinctions – e.g., collective kitchens involve a group pooling resources together to prepare a meal in large quantities, whereas communal meal programs use specific funding to prepare food for one-time use – program goals are generally the same (Engler-Stringer & Berenbaum, 2005; Tarasuk & Reynolds, 1999). They aim to develop participants’ resilience to “food insecurity and social isolation, rather than creating and supporting a cycle of dependency on emergency food relief” such as food banks (Iacovou et al., 2012, p. 535).

Several community kitchen evaluation studies showed that they play a valuable role in improving cooking skills and social interactions while at the same time enhancing the nutritional intake of the participants (Iacovou et al., 2012; Lee et al., 2010; Marquis et al., 2001). Increased food security, self-reliance, dignity, and meaningful engagement with community services, along with improved cooking and social skills, are the main themes reported by a systematic review of peer-reviewed articles on the social and nutritional impacts of community kitchens (Iacovou et al., 2012). The participants of a collective kitchen program evaluation study reported improvement in healthier eating patterns with an 18% increase in daily consumption of fruit and vegetables (Fano et al., 2004). In this sense, community kitchens not only contribute to supporting food security (availability and access) and increasing awareness regarding the nutritious value of food (utilization) but also provide social support<sup>8</sup> reducing the need for charitable food sources such as food banks, thus improving participants’ dignity and creating active, more empowered individuals and communities with improved cooking skills and nutritional knowledge (Engler-Stringer & Berenbaum, 2007; Iacovou et al., 2012). Even though community kitchens do not provide a long-

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<sup>8</sup> “Social support refers to the resources provided by a network of individuals and social groups. It is a process wherein people who share common experiences, situations, or problems can offer each other a unique perspective that is not available from those who have not shared those experiences” (Engler-Stringer & Berenbaum, 2007).

term solution to the socioeconomic factors that lead to food insecurity, they are essential in supporting multiple aspects of food security (Iacovou et al., 2012).

Additionally, community kitchen participants' cultural backgrounds and traditions require significant attention. As US Cook Together cooking curriculum study showed, the dietary acculturation process when refugees integrate into American society and try to adopt new food preparation practices and food choices led “to difficulties with cooking, shopping, accessing, and affording healthful foods” (McElrone et al., 2020, p. 599). Similarly, studies of dietary change and its health implications for Inuit show the significant impact of the nutrition transition<sup>9</sup> (Kuhnlein et al., 2004). A study conducted in Vancouver, BC, in collaboration with the participants and organizers of the Urban Aboriginal Community Kitchen Garden Project, emphasized that cooking and eating together was understood by Indigenous participants as a way to connect “with traditional practices of communal cooking and eating” (Mundel & Chapman, 2010, p. 172). Thus, cultural and distinct epistemological perceptions of Indigenous peoples bring forward the importance of cultural context and holistic perception of food security as a social determinant of health, highlighting different perspectives not only in the community kitchens themselves but in their role in supporting food security (ITK, 2014).

Mobilization of community-led, place-based initiatives such as community kitchens is essential for creating solutions to build food security in northern communities (Amobi et al., 2019; CCA, 2014). Whereas most studies on community kitchens have been conducted in urban settings, there is limited research on community kitchens in remote northern communities. The lack of

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<sup>9</sup> Nutrition transition here defined as a “move from traditional diets high in fibre and micronutrients, to more highly processed diets high in sugar, fat, salt, low in fibre and less nutrient dense— with these dietary changes accompanied by changes in eating behaviours and physical activity patterns” (Walls et al., 2018).

research on community kitchens and other local food initiatives directly affects policy-making and strategic planning regarding food security in northern communities.

### **2.3. Country food and country food sharing practices as significant aspects of Inuit food security**

Country food (sometimes called ‘traditional food’) refers to the wild foods harvested locally, including various marine mammals, fish, caribou, muskox, and berries (Kuhnlein et al., 2009; Newell et al., 2020). Country food is significant for Inuit as an integral part of culture, identity, and a fundamental aspect of the Inuit food system (Ford, 2009). Hunting, trapping, gathering, and sharing practices have long guaranteed survival and reinforced the Inuit social fabric (Kenny, Wesche, et al., 2018; Kuhnlein et al., 2009). Invaluable health benefits of nutrient-rich country food for Inuit are well-documented (Kenny, Fillion, Simpkin, et al., 2018; Kenny, Hu et al., 2019; Kuhnlein & Receveur, 2007; Kuhnlein et al., 2009; Sheehy et al., 2015). Alongside rich nutritional value, country food provides an opportunity for relationship building between generations, strengthening cultural ties, and establishing knowledge transfer connections necessary for cultural continuity (CCA, 2014; Kral et al., 2011). Concurrently, country food is an essential element of Inuit health and healing practices in that it enhances social bonds and creates links between the environment, people, and all living and non-living beings (Collings et al., 2016; Settee & Shukla, 2020). However, harvest quotas and bans, climate change, food contamination, and other economic, social, political, and environmental factors have significantly reduced Inuit ability to obtain country food, thus exacerbating the food insecurity situation in northern communities (Akande et al., 2015; Collings et al., 2016; Kenny, Fillion, MacLean, et al., 2018).

The traditional practice of country food sharing plays a significant role in the promotion of country food consumption. It establishes support networks through which individual hunters and

local Hunters and Trappers Associations can provide country food for Elders, vulnerable residents, and households without means for obtaining country food (e.g., those that lack harvesting equipment, skills, and knowledge, or the time to go out on the land) (Kuhnlein et al., 2009; Newell et al., 2020). At the same time, these social networks and sharing practices can be seen at informal gatherings and community feasts (Kuhnlein et al., 2009). In the mixed economy of Inuit communities, country food sharing has several social and economic functions built on reciprocity, trade, and responsibility that contribute to the wellbeing of individual community members and the community (Ready & Power, 2018). Sharing country food is perceived by Inuit as a significant part of cultural continuity, a practice to support food security, and an integral aspect of communities' cohesion, health, and wellbeing (Newell et al., 2020). At the same time, sharing practices provide necessary financial support for community members by alleviating the necessity to buy expensive food at the store (Newell et al., 2020). More research is needed to analyze the role of country food and country food sharing practices in community kitchens and how country food can be sustainably incorporated into the program activities on a more consistent basis.

### **3. Methodological framing**

#### **3.1. Community-Based Participatory Research approach**

This research applies a Community-Based Participatory Research (CBPR) approach that emphasizes community partnership as a fundamental and necessary element of the research process, building on assets and resources within the community and promoting capacity building and co-learning (Holkup et al., 2004; Kral & Allen, 2016; Oetzel et al., 2018). CBPR acknowledges the significance of engagement with the study participants as active and equal research project members (Holkup et al., 2004). Concurrently, CBPR provides an opportunity to unite people with varied expertise, knowledge, and skills such as community partners and

researchers to investigate community-defined problems in complex situations, thus enhancing the usefulness and credibility of the project (Holkup et al., 2004).

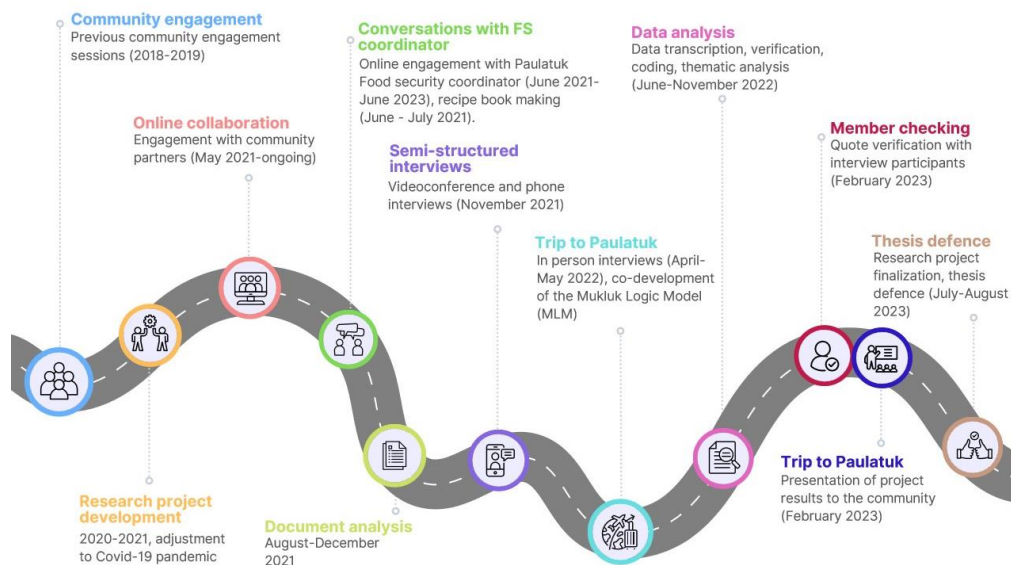
CBPR is widely considered by both researchers and Indigenous community members as a preferred practice for research with Indigenous communities (Castleden et al., 2012; Holkup et al., 2004; Rasmus, 2014). When done well, CBPR provides a profound sense of involvement and satisfaction for participating community members, allowing increasing communication between community members, youth, and Elders, sharing of knowledge and feelings, and application of traditional knowledge (Bird-Naytowhow et al., 2017; Koster et al., 2012; Rasmus, 2014). The involvement of Elders in the research contributes to a shared community experience of overcoming generational disconnection (Rasmus, 2014). CBPR accepts various forms of knowledge as equal, promoting unbiased knowledge application and intellectual integrity (Friendship et al., 2012; Ochocka & Janzen, 2014; Taylor & Ochocka, 2017).

This research is part of a long-standing research program on food security with ISR communities and “Learning from and enhancing Community Capacity for Climate Change and Food Security (C4FS) action in the NWT” (2019-2024) project funded by the Canadian Institute of Health Research (CIHR). Further funding was obtained from the Canadian Northern Economic Development Agency (CanNor) for the “Country Foods in Community Programming” (CFCP) project. The priorities guiding this research project questions emerged from a series of previous community engagement sessions. The plan for an NNC cooking circle evaluation was presented to the community of Paulatuk during a virtual meeting in June 2021. The letters of support from the Paulatuk Community Corporation (PCC) and Paulatuk Hunters and Trappers Committee (PHTC) were received following the June 2021 meeting. The regular virtual group meetings with regional and community partners during the period of 2020-2023 maintained previously

established research relationships. The CIHR grant supported a salaried Food Security coordinator position in Paulatuk (Celina Wolki). Celina Wolki is also a long-standing local cooking circle champion and a community researcher with whom I worked in close collaboration. She provided and continues to provide an invaluable contribution to this project and many other initiatives related to food security, climate change, and the wellbeing of her community. Additionally, a Community Research Lead was hired<sup>10</sup> who helped in conducting interviews with the cooking circle participants and collaborated in data analysis, interpretation, and communication of results. One Elder and two community traditional seamstresses were involved in the development of the Mukluk Logic Model as described later in the thesis.

The project timeline is represented in Figure 1.2, where the wavy line illustrates three years, which were full of ups and downs, uncertainties, hopes, struggles, detours, unexpected stops, and necessary sprints (See Section 3.2. *Reflections* of this thesis).

**Figure 1.2** NNC cooking circle program evaluation research project timeline.



<sup>10</sup> The Community Research Lead was hired on contract through the University of Waterloo to support several complementary food security and country food related projects being conducted in the ISR.

### **3.2. Reflections: Community-based research in times of Covid 19 pandemic - I spent a year building relationships online and hoping for the best**

In general, the CBPR approach is considered time-consuming and “daunting” (Castleden, Morgan, & Lamb, 2012, p. 163) taking into account the time necessary to build relationships and trust with Indigenous communities. The Covid-19 pandemic created another layer of complications and adjustments that slowed down the research process and significantly affected my experiences as a graduate student, limiting personal interactions, hands-on learning opportunities, and the immersive nature of community-based research. As a Geography Master’s student, I started my graduate studies journey at the University of Ottawa with an acceptance letter in February 2020. It was exciting as I was finishing my undergraduate studies in April and was already planning to go to the community as part of my supervisor’s research project later in the summer before the actual start of the program in September. However, the Covid 19 pandemic was declared in early March 2020, and we had to cancel our trip and move to the virtual format of learning and communicating.

The trip to Paulatuk was replaced with monthly Northern Food Systems (NFS) research group meetings for the students of a team of professors from the University of Waterloo, Wilfrid Laurier University, and the University of Ottawa who were working together on research related to food security in the Northwest Territories. The meetings started in May 2020 and provided some interaction and sharing between the students and professors during the Covid lockdowns. Of course, it would be unfair to say that Covid lockdowns had only negative aspects. With the necessity to stay at home and without commuting by public transportation, especially in winter, my family life became less hectic. It was convenient to always be at home and not rush out of the door to catch a bus. I could manage and oversee all the family responsibilities without leaving the

house, considering that my three children were independent enough to not disturb me when I was working.

Weekly C4FS Food Systems research group meetings were organized in the spring of 2021 for the research group working specifically in ISR communities. In addition to that, I started working with Celina in May 2021 using videoconferencing with regular weekly 1-2 hour meetings, occasional phone calls, texting, and social media communication. Initial meetings were used as conversations about Celina's experiences with the NNC cooking circle program necessary to gather information about the program facilitation practices (See *Section 4 Methods*). Regular videoconferencing was essential as a relationship and trust-building tool in the context of CBPR (Belone et al., 2016) considering my inability to be present in the community and meet with Celina in person. In this sense, regular conversations, collaborative work on the NNC cooking circle cookbook as a gift for the interview participants (Appendix O), systematic project updates for the transparency of the research process, additional questions and clarifications, necessary feedback, exchanges about topics outside of the research project replaced the 'drinking tea' (long-term relationship building) aspect of the CBPR approach (Castleden et al., 2012).

Of course, not everything was smooth and easy. Building research relationships online is substantially different compared to an in-person experience. In addition to regular adjustments to different time zones; meeting rescheduling due to unforeseen circumstances; technical difficulties with bad connectivity, software, and hardware issues; continuous adaptation to the new Covid reality with the necessity to stay at home for almost two years led to growing anxiety and stress (Goncharova et al., 2022). Pandemic-related lockdowns and social/physical isolation resulted in drastic changes in daily routine with prolonged sitting in front of the computer/laptop screen and lingering uncertainty. With my inner desire to visit Paulatuk which was an initial plan even before

the start of my program, this opportunity seemed less and less possible. CBPR and regular community visits as part of the research process were one of the main aspects that got me interested in applying for the program; however, this aspect was missing from my graduate study experience. The semi-structured interview process with the community researcher was constantly postponed, and painfully slow due to a variety of reasons. Virtual collaboration was not sufficient. This is not what I was looking for... more adjustments, and adaptation. After two years of adjustments and adaptation to the new realities of Covid lockdowns with masking, distancing, health regulations, uncertainty, highs, and lows, I started journaling on February 7, 2022, as a necessary coping tool. I had some experience with keeping a personal journal in my twenties as a coping mechanism and tool for personal growth, and it positively impacted my mental health. It was not hard to start again. Some of the reflections included in this thesis stem from my journaling.

Reflecting on the virtual collaboration and Covid impact on the CBPR approach, it is impossible to predict how this research project would have evolved if there was no Covid, or if Covid would have continued with more lockdowns and no fieldwork at all. However, I can try and imagine two different scenarios. The perfect scenario would have been without the Covid lockdown with the trip to Paulatuk in the summer of 2020. This scenario would involve getting to know community members in person - including Celina, enjoying country food and land activities, attending a cooking circle program, helping in any way, involving myself without Covid regulations and restrictions, learning, and sharing. The project and a Mukluk Logic Model would be developed with more input from community members. In-person experiences without Covid restrictions, including drinking tea, talking, laughing, collaborating, and learning from each other would be the best scenario.

Another scenario is when Covid is still here throughout my program timeframe, and there is no possibility to go to Paulatuk. How would this project evolve in this case? I most likely would continue working online with Celina and Denise. With their help, we would finish the semi-structured interviews. Unfortunately, the Mukluk Logic Model would not be the same, or might not exist. My reflective journal would form a significant part of this thesis. This is not the scenario I prefer. So, what conclusions can be made based on these different scenarios? In-person collaboration is important and necessary in CBPR. Virtual relationship building is not enough. It does help initially, but it cannot substitute for face-to-face interactions and the ability to communicate with people in real life. You are restricted to the screen size without the possibility of seeing a person in the context of their environment. In virtual relationship building you are limited to only what you can see on the screen and hear from your dialogue partner. The involvement of all sensory experiences is integral to learning, not only for children but for adults too (Biswas, 2021). Fortunately, I was able to go to Paulatuk twice, in April-May 2022 and February 2023. I can say that even though I have read and watched videos about the place and its people, all of this cannot compare to what I experienced when I was there. Starting from the preparation for the trip, continuing with several transfers on the way to the final flight on a tiny plane; people, places, food, atmosphere, and the environment – all that cannot be replaced by a computer screen. Thus, these experiences impact your research. I am certain that my thesis would have been different if I had not had the opportunity to go to Paulatuk.

### **3.3. Methodology**

This study uses qualitative and Indigenous research<sup>11</sup> methodology, incorporating aspects of the Indigenous research paradigm, such as “relational accountability, respectful representation,

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<sup>11</sup> Indigenous research referred to as “research by and for Indigenous peoples, using techniques and methods drawn from the traditions of those peoples. This set of approaches simply rejects research on Indigenous communities that

reciprocal appropriation, and rights and regulations” (Koster et al., 2012, p. 198). These aspects align with CBPR which is based on the principles of recognizing and addressing the power imbalance, concentrating research on community-identified issues, acknowledging Indigenous worldviews as equal to Western worldviews, working alongside community members, and learning from each other (ACUNS, 2018; Ikaarvik, 2019; Firestone et al., 2020). In the context of this research project, engagement with community members before the development of the evaluation project to determine the community priorities, regular online communication with the community collaborators, and transparency of the research process described in the previous section of the thesis, collaborative work on the Mukluk Logic Model, continuous reflection on evaluation approaches and methods in the context of space and time (LaFrance, Nichols, & Kirkhart, 2012) and conversations with Celina Wolki address the aspects of the Indigenous research (see *Sections 4 and 5*).

### **3.3.1. Evaluation**

According to the Canadian Evaluation Society, “Evaluation is the systematic assessment of the design, implementation or results of an initiative for the purposes of learning or decision-making” (2015). Program evaluations enhance program planning and delivery, determine the effectiveness and impact of programs, and assure communities and funders that programs are performing as they were intended (Chandna et al., 2019). In the Indigenous context, a critical component of the evaluation is to understand and engage with context-specific aspects of a place, including its history and the meanings and identities it holds for Indigenous peoples (Gillespie et al., 2020). In this sense, evaluation is a relationship-building process, with an application of

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use exclusively positivistic, reductionist, and objectivist research rationales as irrelevant at best, colonialist most of the time, and demonstrably pernicious as a matter” (Evans et al., 2009).

reflection/reflexivity exercise, for the empowerment of the community members (Gillespie et al., 2020).

This research implements process and outcome evaluation in a community-based context utilizing an evaluation matrix (see *Section 4*) approach to guide data collection and analysis based on the Organization for Economic Co-operation and Development (OECD) evaluation criteria such as relevance, coherence, effectiveness, efficiency, and sustainability (OECD, 2021). An evaluation matrix provides an opportunity to examine the consistency of findings across different data sources and collection methods (document analysis, conversation method, and semi-structured interviews) with evidence organized by program element rather than by source or method (Cooksy, Gill & Kelly, 2001; Denzin, 2006). As a result, the evaluation matrix simply facilitates the methodological and data triangulation<sup>12</sup> process. Evaluation matrix indicators were identified collaboratively with the community researcher based on The Evaluation Centre (EC) checklist (MacDonald, 2011).

Process evaluation synthesizes valuable information about the program's activities, participants, methods of implementation, strengths, and weaknesses to learn if the program serves the intended target population and if the service delivery is adequate with the program design (Rossi et al., 2019). In the context of the NNC cooking circle, the process evaluation examines the frequency of the program (weekly/monthly activities), the number of participants attending the program, any returning/regular participants, resources, funding, and facilities available, staffing, program organization, participants' level of satisfaction with the program, and any other questions relevant to the program delivery. Utilization of the logic model evaluation tool provides a linkage between program implementation and program outcomes. The logic model provides a reasonable

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<sup>12</sup> “Triangulation refers to using more than one particular approach when doing research in order to get richer, fuller data and/or to help confirm the results of the research” (Wilson, 2014).

visual explanation of the program's process or implementation in achieving program's outcomes (McLaughlin & Jordan, 1999). Taking into consideration the Indigenous context of this evaluation project and addressing the research gap in Canadian and American academic literature on Indigenous evaluation approaches (Gresku, Jones, and Kurtz, 2022; Maddox et al., 2021), we co-developed a culturally-relevant logic model as part of the NNC cooking circle process evaluation.

Outcome evaluation investigates the program outcomes for program participants compared to non-participants (Rossi et al., 2019). The Covid-induced transition of the cooking circle to a food hamper program in 2020-2021 offered an opportunity to examine how this transition influenced the cooking circle participants and any changes in the participants' food access, food choices, and overall wellbeing. At the same time, the outcome evaluation involves analyzing the experiences and perspectives of relevant individuals (e.g., the program participants, facilitator, and regional program manager) regarding the program's impact on awareness and knowledge accumulation regarding healthy eating and healthier cooking/meal preparation techniques, utilization of healthy food and overall wellbeing (Allen et al., 2014).

The overarching goal of the evaluation is to ensure relational accountability of the program to the community members as primary beneficiaries and identify the program's strengths and opportunities for improvement (DeLancey, 2020, p. 498; Firestone et al., 2020). Additionally, it acts as a helpful knowledge-creation tool for Paulatuk and other ISR communities to guide the cooking circle program "in a good way" (DeLancey, 2020, p. 499).

### 3.3.2. Reflexivity

Reflection and reflexivity<sup>13</sup> in qualitative research are now widely accepted (Ortlipp, 2008). As part of the research process, researchers are encouraged to explain their beliefs, choices, experiences, and actions to allow others to understand what they did and why (Mruck & Breuer, 2003). Thus, through reflective practice, the reader is made aware of the constructed nature of research outcomes derived from the preferences and decisions researchers make during the research process (Ortlipp, 2008). Concurrently, professional reflection is one of the evaluation practice competency domains critical to the evaluator's development as a process to learn, improve, and meaningfully engage in the evaluation process. Critical reflection involves consciously observing and assessing one's behavior, environment, emotions, and thoughts to improve evaluation practice (CES, 2018; Miciak, Lavoie, & Barrington, 2021; van Draanen, 2017). It's important to point out the difference between reflection and reflexivity. As Bolton states, "reflection is in-depth review of events, either alone – say, in a journal – or with critical support with a supervisor or group. ... It [reflection] is to bring experiences into focus from as many angles as possible... . Seemingly innocent details might prove to be key; seemingly vital details may be irrelevant" (2018, p. 13).

As Wallace points out, citing Laurel Richardson, "Self-reflexivity unmask[s] complex political/ideological agendas hidden in our writing" (2013, p. 40). We develop responsibility, and ethical actions through reflexivity, such as becoming aware that our ways of being are influenced by culture; other cultures have very different norms and expectations (Bolton & Delderfield, 2018). At the same time, through reflective practice, the reader is made aware of the constructed nature

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<sup>13</sup> Reflexivity and reflection are not the same concepts. Reflection and reflective practice can be used in conjunction with reflexivity and reflexive practice. Reflexivity implies deeper analysis (Bolton, 2018; Freda & Esposito, 2017; Ortlipp, 2008).

of research outcomes derived from the preferences and decisions researchers make during the research process (Ortlipp, 2008). A reflexive approach involves maintaining a critical attitude and questioning unspoken assumptions about the nature and effects of one's work and its intended and unintended influences (van Draanen, 2017).

Reflection and reflexivity are integral aspects of this research project including implementation of the personal journaling as a coping tool, the application of reflexivity through every step of the cooking circle evaluation from project development, collaboration, data collection, analysis, and interpretation, and continuous questioning and learning. In addition to the reflexive journal entries, I wrote an acrostic<sup>14</sup> poem during the first field trip to Paulatuk in April-May 2022. As I mentioned before in the *Positionality* section of this thesis, I grew up in a small Arctic town in the northeast part of Russia. In Yakut Sakha culture to which I belong some traditional practices are similar to the Inuvialuit culture in terms of food, ways of living, and environment. The possibility to fly over a frozen ISR landscape with thousands of lakes on the way to Paulatuk, experiencing once more refreshing Arctic air, an opportunity to eat a caribou soup generously prepared by Celina and realize how much I missed the taste of this meat brought back a lot of memories and emotions that became an inspiration in the writing of this poem.

“**P**lace of coal,” a place of vast open space,  
**A**rctic coast that’s full of beauty and grace.  
**U**nderstanding uniqueness is the ultimate goal,  
**L**et yourself integrate and be accepted as a whole.  
**A**mple landscape frees the mind, enriches your soul,  
**T**undra calls to reimagine your purpose and role.  
**U**nimportant desires better ‘gone with the wind,’

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<sup>14</sup> An "acrostic poem" is a poem in which the first letter of each line — read vertically — spells out a word or a message. The word “acrostic” comes from the Greek words “akros” (outermost) and “stichos” (line of verse). Usually, the word or message spelled out by the first letters of each line is the overall subject of the acrostic poem (Chang, 1999).

**Keep it close to your heart, Inuvialuit.**

Additionally, being an amateur photographer, I took many pictures while staying in Paulatuk. Some of these pictures, and the poem I used for the poster that I put together with Celina's advice, printed and sent to Celina as a keepsake and appreciation for her hard work, kindness, resilient nature, and incredible support of this research project (Appendix Q).

## **4. Community food security and wellbeing: Evaluation of the Nutrition North Canada cooking circle program in Paulatuk<sup>15</sup>, NWT**

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Keywords: Arctic, food security, community food programs, Inuvialuit, cooking circle, evaluation

### **Abstract**

Limited research exists on the role of community food programs (cooking circles) in Arctic communities within Canada. This research investigates the Nutrition North Canada (NNC) cooking circle program in the Inuvialuit (Inuit) hamlet of Paulatuk, NWT. The objectives were to: 1) evaluate the program's impact on healthy food intake, and awareness/knowledge accumulation regarding healthier eating and meal preparation techniques; 2) assess the program's intangible (e.g., social, cultural, and mental health) benefits to participants and community wellbeing; and 3) analyze the potential for consistent country food (CF) integration.

This research applies a Community-Based Participatory Research approach to implementing a collaborative process and outcome program evaluation, with necessary modifications due to the Covid-19 pandemic. Methods include document analysis of NNC annual reports (n = 9) and proposals (n = 2), a series of regular/weekly iterative online conversations with the Paulatuk cooking circle facilitator, telephone semi-structured interviews with cooking circle facilitators from other communities (n = 4), telephone (n = 1) and in-person (n = 12) semi-structured interviews with cooking circle participants, and an online semi-structured interview with a regional program manager (n = 1).

The cooking circle participants reported an increase in intake of healthy food, awareness of healthy eating/cooking, and positive social and mental health aspects of the program. A considerable effort from local and regional stakeholders is required to integrate CF into program activities. This research provides insight into the role of local-scale initiatives in supporting food security, overall wellbeing, and integration of CF in program activities in remote, Arctic communities.

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<sup>15</sup> "Paulatuk, or Paulatuuq, (meaning "place where one finds soot of coal") is the nearest community to Tukturnogait National Park and the Horton River. ... The community received its name from the nearby Smoking Hills, which have burned continuously for centuries due to the autoignition of sulfur-rich lignite deposits" (IRC, n.d.c.). Use of Paulatuk spelling instead of Paulatuuq was confirmed with community members.

## **Introduction**

Food insecurity in Canada among Indigenous Peoples is a critical public health issue. Inuit, one of the three legally recognized Indigenous groups in Canada, have the highest documented prevalence of food insecurity with 68.8% of food insecure adults in Nunavut, 45.7% in Nunatsiavut, and 43.4% in the Inuvialuit Settlement Region (ISR), Northwest Territories (Kenny, Fillion, MacLean, et al., 2018; Rosol et al., 2011). In addition to the high cost of store-bought food, remoteness, high cost of harvesting, insufficient income, and predominance of high-energy/low-nutrient market food are among the factors that result in food insecurity for Inuit living in Arctic communities in Canada (CCA, 2014; Thériault, 2011).

To address the growing food security challenge, some larger Arctic communities in Canada have developed community food programs, including food banks, soup kitchens, and friendship centers (Ford et al., 2013). Additionally, in the context of the Covid-19 pandemic, the Food Secure Canada (FSC) policy action plan emphasized the importance to support communities in designing new models and rebuilding Indigenous foodways like community kitchens, gardening programs, greenhouses, other community-led infrastructure such as hunter-support programs, and goose camps (FSC, 2020). Considering the diversity of Arctic communities in Canada variety of food-related community-led initiatives will depend on the individual community. As a comprehensive study in the Inuvialuit Settlement Region (ISR) showed, local-scale economic, social, and cultural dynamics play an important role in the implementation and viability of community initiatives, thus indicating the importance of place-specific circumstances (Kenny, Wesche, et al., 2018).

Limited research is available on community food programs and their impact on food security among program users in Arctic communities in Canada (Ford et al., 2013). Studies in Iqaluit (Nunavut) and Inuvik (NWT) showed that community food programs such as food banks and soup

kitchens are used mainly by marginalized community members, such as single parents (predominantly women), unemployed or low-income people, those experiencing housing insecurity, and those lacking a high school education (Ford et al., 2012; Ford et al., 2013). These charitable initiatives, though imperative in supporting participants' food security, do not always address nutritional aspects of food and their impact on the health and wellbeing of the program participants (Bazerghi, McKay, & Dunn, 2016; Simmet et al., 2017). Additionally, an international scoping review of the food banks in high-income countries showed people using food banks often feel shame, stigma, humiliation, and embarrassment (Middleton et al., 2018). Thus, addressing food insecurity with charitable initiatives in an Indigenous community context is very problematic as it enforces paternalism when solutions are not developed or implemented with Indigenous peoples' involvement (FSC, 2020; Levi & Robin, 2020).

Community kitchens are community food preparation programs that enable the transfer of nutritional knowledge, new food-related experiences, and increased confidence to promote healthy eating habits and overall wellbeing (Wrieden et al., 2007); they are also self-help and community development initiatives that address the public issue of food insecurity (Tarasuk & Reynolds, 1999). The term can refer to different operation models, but they generally have the same goals of developing participants' resilience to food insecurity and social isolation (Engler-Stringer & Berenbaum, 2005; Iacovou et al., 2012; Tarasuk & Reynolds, 1999). Existing evaluation studies of community kitchens conducted in urban settings highlighted their valuable role in improving cooking skills and social interactions while at the same time enhancing the nutritional intake of participants (Iacovou et al., 2012; Lee et al., 2010; Marquis et al., 2001). A systematic review of the social and nutritional impacts of community kitchens identified the following key impacts: increased food security, self-reliance, dignity, and meaningful engagement with community

services, along with improved cooking and social skills (Iacovou et al., 2012). In this sense, community kitchens not only contribute to supporting food security (availability and accessibility of food) and increasing awareness regarding the nutritious value of food (utilization) but also provide social support which reduces the need for charitable food sources such as food banks, thus improving participants' dignity and creating active, more empowered individuals and communities with improved cooking skills and nutritional knowledge (Engler-Stringer & Berenbaum, 2007; Iacovou et al., 2012). Even though community kitchens do not provide a long-term solution to the socioeconomic factors that lead to food insecurity, they are essential in supporting multiple aspects of food security (Iacovou et al., 2012).

A variety of operation models exist within the general concept of community kitchens (Tarasuk & Reynolds, 1999). One of them is community kitchens as a nutrition intervention program supported by nutrition education initiatives “to facilitate the voluntary adoption of eating and other nutrition-related behaviours, conducive to health and well-being” (Contento et al., 1995). This type of community kitchen provides information to participants about healthy food choices, cooking practices, and shopping habits (Abbott et al., 2012; Kagie et al., 2019; Schembri et al., 2016; Vincze et al., 2021). In the context of the Arctic communities in Canada, the majority of nutrition education programs target age-specific groups such as children and young mothers, thus overlooking the older age group of the population that is affected by the residential school experience and associated trauma impacting their socioeconomic status (CCA, 2014; Ford et al., 2013; Huet et al., 2012). Additionally, studies of dietary change and its health implications for Inuit show the significant impact of nutrition transition<sup>16</sup> away from nutrient-rich CF toward

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<sup>16</sup> Nutrition transition here defined as a “move from traditional diets high in fibre and micronutrients, to more highly processed diets high in sugar, fat, salt, low in fibre and less nutrient dense— with these dietary changes accompanied by changes in eating behaviours and physical activity patterns” (Walls et al., 2018).

greater reliance on a “Western” diet high in saturated fats, sugar, and processed foods that contributed to high levels of overweight adults (58% in NWT) and a variety of health complications, including diabetes and heart disease, among others (Kuhnlein et al., 2004; Kolahdooz et al., 2014; Little et al., 2020; Sheehy et al., 2015).

With the variety of programs, strategies, and policies aiming to address food insecurity in northern communities (Galloway, 2017; Kenny, Wesche, et al., 2018), little attention has been given to understanding community-organized food preparation programs and their capacity to support food security at a local level in the Arctic context (Galloway, 2017; Kenny, Wesche, et al., 2018). To date, community kitchen evaluation studies have primarily been conducted in urban settings; thus it is unclear to what extent the outcomes are also relevant to remote northern communities (Iacovou et al., 2012; Kenny, Wesche, et al., 2018; Wallerstein, Polascek, & Maltrud, 2002).

A cooking circle program is a type of community-based cooking program or community kitchen where individuals meet regularly to prepare meals (Tarasuk & Reynolds, 1999). Since 2012 with community consultation, a locally run cooking circle program was implemented in the five smaller ISR communities to improve healthful food preparation skills and increase knowledge about healthy eating for participants, supported by Nutrition North Canada (NNC) nutrition education funding (IRC, 2013; Kenny, Wesche, et al., 2018). The program runs annually; however, the number and frequency of sessions depend on the availability of funding and human resources in each community<sup>17</sup>. The cooking circle in Paulatuk, one of the five participating communities,

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<sup>17</sup> In this context the concept of ‘human resources’ is adopted as a widely used terminology. The author understands the ideological dimension of the concept that is “recognizing people are an active resource may be superior to one that simply sees them as passive subjects. However, it also suggests that, as with any other resources, they should be deployed and dispensed with in line with perceived organizational priorities, rather than as individuals who should be treated with a degree of empathy, in both their interests and for the longer-term sustainability of the organization” (Collings et al., 2018).

has been coordinated since 2014 by the same community champion and proved successful until the Covid-19 pandemic forced a temporary transformation to a food hamper program<sup>18</sup>.

This research investigates the Nutrition North Canada (NNC) cooking circle program in the Inuvialuit (Inuit) hamlet of Paulatuk, NWT. The objectives were to: 1) evaluate the program's impact on healthy food intake, and awareness/knowledge accumulation regarding healthier eating and meal preparation techniques; 2) assess the program's intangible (e.g., social, cultural, and mental health) benefits to participants and community wellbeing; and 3) analyze the potential for consistent CF integration. We first describe the relevance, coherence, effectiveness, efficiency, and sustainability of the NNC cooking circle program in Paulatuk. Then we discuss the significant aspects of the cooking circle program in the northern remote community context focusing on the objectives of the study and providing recommendations that can contribute to better program support.

## **Methodology**

### **Research approach**

This research utilizes a Community-Based Participatory Research (CBPR) approach that is informed by Indigenous research methodologies; these emphasize community partnership as a fundamental element of the research process, building on assets and resources within the community and promoting capacity building and co-learning (Drawson, Toombs, & Mushquash, 2017; Holkup et al., 2004; Kral & Allen, 2016; Oetzel et al., 2018). CBPR is widely considered by both researchers and Indigenous community members as a preferred practice for research in

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<sup>18</sup> The hamper program in Paulatuk was implemented in September 2020 due to the Covid-19 pandemic restrictions for physical distancing. Instead of the cooking circle activities, the cooking circle facilitator packed food boxes for 10 families weekly based on the chosen recipe and food availability at the store. Considering the limited number of families per week that could get the hamper box, the families were chosen rotationally based on the list of participants. Instead of cooking and eating together in one place, people had to prepare their meals at home using hamper box products.

Indigenous community contexts (Castleden et al., 2012; Holkup et al., 2004; Rasmus, 2014). This approach provides an opportunity to unite community partners and researchers with varied expertise, knowledge, and skills to investigate community-defined problems in complex settings, thus enhancing the usefulness and credibility of the project (Friendship et al., 2012; Holkup et al., 2004; Ochocka & Janzen, 2014; Taylor & Ochocka, 2017).

This cooking circle evaluation project is part of a long-standing research program on food security with the community and regional partners in the Inuvialuit Settlement Region. More specifically, it was funded through the “Learning from and Enhancing Community Capacity for Climate Change and Food Security action in the NWT” (C4FS) team project supported by the Canadian Institutes of Health Research (CIHR) (Spring et al., 2020) and the Country Foods in Community Programming (CFCP) project funded by the Canadian Northern Economic Development Agency (CanNor). C4FS aimed to address community-identified priorities around strengthening the local food system, building community capacity, promoting community action and self-determination, and informing programs and policies, whereas CFCP aimed to identify and support pathways to incorporate more CF into existing food programming, including in-school food programs, daycares, and cooking circles in two ISR communities – Paulatuk and Tuktoyaktuk. The CIHR and CanNor grants supported the hiring of co-author Celina Wolki in a salaried ISR Food Security Coordinator (ISR FSC) position in Paulatuk (Celina is facilitating the NNC cooking circle program since 2014 in addition to her work as a community researcher); and co-author Denise Wolki in a contract community Lead Researcher position.

Following CBPR and Indigenous research methodologies (Maar et al., 2017), we only initiated this project after engaging with community members to understand local priorities. Likewise, we established regular communication, and knowledge-sharing conversations with

Celina Wolki and Denise Wolki as community research collaborators, transparency of the research process, and iterative reflection on evaluation approaches and methods acknowledging and recognizing the Inuvialuit cultural community context (LaFrance, Nichols, & Kirkhart, 2012).

## **Evaluation**

“Evaluation is the systematic assessment of the design, implementation or results of an initiative for the purposes of learning or decision-making” (CES, 2015). Program evaluations can enhance program planning and delivery, determine the effectiveness and impact of programs, and assure communities and funders that programs are performing as they were intended (Chandna et al., 2019; Rossi, Lipsey, & Henry, 2019). In the Indigenous context, a critical component of the evaluation is to understand and engage with context-specific aspects of a place, including its history and the meanings and identities it holds (Gillespie et al., 2020). Cultural and distinct Indigenous epistemological perspectives forefront the importance of cultural context and holistic understandings of food security as a social determinant of health, not only relating to community kitchens themselves but also regarding their role in supporting food security (ITK, 2021).

This research utilizes an evaluation matrix (Table 4.1) approach in a community-based context to guide data collection based on the Organization for Economic Co-operation and Development (OECD) evaluation criteria, which include relevance, coherence, effectiveness, efficiency, and sustainability (2021). The implementation of intervention (process evaluation) and its outcomes (outcome evaluation) can be viewed through the criteria as a set of lenses that provide complementary perspectives (OECD, 2021). Evaluation priorities, questions, and indicators were developed collaboratively with the Paulatuk cooking circle facilitator (ISR FSC) based on the OECD evaluation criteria and The Evaluation Centre (EC) indicators checklist (MacDonald, 2011; OECD, 2021).

**Table 4.1** Paulatuk NNC cooking circle program evaluation matrix\*

Evaluation questions	Indicator	Data source	Methods	Feasibility
<b>1. RELEVANCE: How is the NNC cooking circle program relevant?</b>				
1.1. In which ways is the program relevant to the needs (priorities) of the community, region, and participants?	Participants priorities Community priorities NNC priorities IRC <sup>19</sup> priorities	Participants/facilitators Regional (IRC) program manager <sup>20</sup> NNC annual reports NNC nutrition education project proposals	Document analysis Semi-structured interviews Conversational method	High
1.2. What, if any, similar programs or services are already being offered in the community?	List of food-related external services and programs available in Paulatuk	Regional (IRC) program manager Participants/facilitators	Semi-structured interviews Conversational method	High
1.3. How were participant priorities met when the cooking circle transformed into the food hamper program?	Extent to which participants priorities were met when the cooking circle transformed into the food hamper program	Regional (IRC) program manager Participants/facilitators	Semi-structured interviews Conversational method	High
<b>2. COHERENCE: Is the NNC cooking circle program compatible with other programs in the community?</b>				
2.1. How does the program complement other existing food programs in the community? Is there any duplication of efforts?	Other community food programs' goals/objectives	Regional (IRC) program manager Participants/facilitators	Semi-structured interviews Conversational method	High
<b>3. EFFECTIVENESS: What are the effects of the program?</b>				
3.1. In what ways does the program increase participants' knowledge of healthy eating/cooking/shopping?	Participants with increased knowledge of healthy eating/cooking/shopping	Participants	Semi-structured interviews	High
3.2. In what ways does the program support participants' social, cultural, and mental health?	Participants reporting program contributed to their social, cultural, and mental health	Participants	Semi-structured interviews	High
3.3. In what ways does the program support participants' CF consumption?	Participants reporting increased consumption of CF due to the program	Participants	Semi-structured interviews	High
3.4. What are the unintended effects (positive or negative) of the program, if any?	List of unintended effects	Regional (IRC) program manager Participants/facilitators	Semi-structured interviews Conversational method	Medium

<sup>19</sup> “Established in 1984 to manage the settlement outlined in the Inuvialuit Final Agreement (IFA), Inuvialuit Regional Corporation (IRC) represents the collective interests of Inuvialuit. IRC's goal is to continually improve the economic, social and cultural well-being of the Inuvialuit through implementation of the IFA and by all other available means” (IRC, n.d.a.).

<sup>20</sup> Regional (IRC) program manager has expertise as a dietician and in supporting food security initiatives in the ISR.

<b>4. EFFICIENCY: How well were resources used in the program (funding, space, equipment, staff, etc.)?</b>				
4.1. How well did resource use align with program goals and plans?	Resources available (funding, space, equipment, staff, volunteers, marketing materials, etc.). Extent to which the resources are used	Regional (IRC) program manager Participants/facilitators NNC annual reports NNC nutrition education project proposals	Document analysis Semi-structured interviews Conversational method	High
4.2. How were resources redirected as needs changed?	Resources available (funding, space, equipment, staff, volunteers, marketing materials, etc.) List of program modifications Extent to which the resources were reallocated	Regional (IRC) program manager Participants/facilitators NNC annual reports NNC nutrition education project proposals	Document analysis Semi-structured interviews Conversational method	High
<b>5. SUSTAINABILITY: How can the program be sustained through future program modifications/transitions?</b>				
5.1. What can be done to improve program sustainability in case of change (change in funding, staff turnover, etc.)?	Level of succession planning <sup>21</sup> The extent of COVID-related program adjustments	Regional (IRC) program manager Participants/facilitators NNC annual reports NNC nutrition education project proposals	Document analysis Semi-structured interviews Conversational method	High

*\*Matrix format adapted from the OECD evaluation criteria framework (OECD, 2021)*

**Methods**

Three methods were used in this research project: (1) document analysis of Nutrition North Canada (NNC) annual reports from 2012 to 2021 (n = 9) and NNC funding proposals from 2020 and 2021 (n = 2); (2) a series of conversations with the Paulatuk cooking circle facilitator (ISR FSC) (n = 2); and (3) semi-structured interviews with cooking circle facilitators from Tuktoyaktuk and Ulukhaktok (n = 2), hamper program facilitators from Aklavik and Ulukhaktok (n = 2), Paulatuk cooking circle/hamper program participants (n = 13), and one regional program manager/dietitian.

**Document analysis**

We examined Nutrition North Canada (NNC) annual reports for all five ISR communities implementing the cooking circle program from 2012-2021 (n = 9) and NNC NWT Promoting

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<sup>21</sup> “Succession planning is a conscious decision by an organization to foster and promote the continual development of employees, and ensure that key positions maintain some measure of stability, thus enabling an organization to achieve business objectives” (Public Service Secretariat, 2008).

Healthy Eating in Nutrition North Communities funding proposals for five ISR communities from 2020 and 2021 (n = 2) submitted by the regional program manager to identify, select, and achieve an understanding of the cooking circle history, objectives, activities, and other important content necessary to evaluate the program (Bowen, 2009; Prior, 2008). Specifically, this analysis identified the following for all five ISR communities (Aklavik, Paulatuk, Sachs Harbor, Tuktoyaktuk, and Ulukhaktok) implementing the cooking circle program:

- objectives of the program,
- operating period,
- frequency of the program activities,
- the number of participants attending the program.

#### ***Conversations with the Paulatuk cooking circle facilitator***

Beginning in June 2021, the lead author engaged in frequent informal videoconferencing conversations with the Paulatuk cooking circle facilitator (ISR FSC). These conversations represent relationship-building dialogues that are essential to the collaborative research approach and which aimed to establish a connection between the student-researcher located in Ottawa (Ontario) and the cooking circle facilitator in Paulatuk (NWT) (Kovach, 2010). The conversational method aligns with Indigenous research methodologies and provides an opportunity to gather knowledge in the form of oral storytelling. Oral storytelling involves a dialog with the profound purpose of sharing a story to inform others and learn through the process of talking, listening, responding, questioning, and reflecting (Feldman, 1999; Kovach, 2010). Conversations in the Indigenous context are somewhat distinctive from conversations as typical qualitative research methods, as they emphasize the relationship-building process; linkages to Indigenous knowledges; and the informal nature of conversations (Anderson, 2012; Koster, Baccar, & Lemelin, 2012;

Kovach, 2011). Additionally, considering the impossibility of the academic team being present in the community due to the Covid-19 pandemic regulations and lockdowns, virtual relationship-building conversations were necessary to establish trust between research partners and transparency in the research process.

Regular videoconferencing conversations with the Paulatuk cooking circle facilitator (ISR FSC) continued weekly as part of the collaborative research project design until June 2023. Two unstructured conversations from June 2, 2021 (1.15 hrs.), and June 15, 2021 (2.50 hrs.) were used as a more formalized cooking circle-related information-gathering activity and were recorded, transcribed, collaboratively reviewed, coded, and analyzed using NVivo® qualitative analysis software.

### *Semi-structured interviews*

Between August and October 2021, three sets of interview guides and consent forms were developed for cooking circle/hamper facilitators, Paulatuk cooking circle participants, and the regional program manager. The interview guides and consent forms were revised and modified collaboratively with the Paulatuk cooking circle facilitator (ISR FSC). The Paulatuk cooking circle interview participants were selected using nonprobability purposive sampling in collaboration with the Paulatuk cooking circle facilitator (ISR FSC). The list of the participants was based on recruitment criteria that included regular participation in the cooking circle program from 2017 to 2020 with a period of three years to reduce the impact of time that had elapsed since they had participated in the program and participation in the hamper program during the Covid-19 pandemic. The interviewee list was revised and finalized collaboratively to include a variety of genders and ages (n = 13) (Table 4.2). The regional program manager coordinating all five cooking

circle/hamper programs in the ISR, and the cooking circle/hamper program facilitators from other ISR communities were contacted by email with an invitation to participate in the project.

**Table 4.2** Age and gender of NNC cooking circle participants

Category	Number of participants
<b>Age</b>	
18 - 30	2
31 - 49	4
50 +	7
<b>Gender</b>	
Male	3
Female	10

Between November 2021 and September 2022, four telephone semi-structured interviews were conducted with two cooking circle facilitators from Tuktoyaktuk and Ulukhaktok, and two hamper program facilitators from Aklavik and Ulukhaktok, as well as one videoconference interview with the regional program manager. With the help of Denise Wolki and Celina Wolki, we conducted in-person (n = 12) and telephone (n = 1) semi-structured interviews with Paulatuk cooking circle participants. Certain administrative, logistical, community-related, Covid-19 pandemic and medical constraints such as delayed funding, hiring of additional community researcher, Covid travel restrictions, community Covid outbreaks, and other challenges extended the implementation of the semi-structured interviews. Interviews lasted from 25 minutes to 2 hours and were audio-recorded with participants’ permission.

**Data analysis**

The lead author transcribed the interviews and conversations data using online speech-to-text software considering the project’s time constraints. The lead author revised the transcripts collaboratively with the community co-researchers Celina Wolki and Denise Wolki to make sure of the correct spelling and representation of Inuvialuit-specific words and phrases. The lead author

analyzed the transcripts and documents following Braun and Clarke's (2022) six phases of reflexive thematic analysis (RTA) and Saldaña's (2016) first and second cycle coding methods. The lead author used NVivo® qualitative analysis software for this process, and while the lead author introduced NVivo to the community co-researchers, their full participation in all phases of the data analysis was constrained due to their workload and Internet connectivity limitations. Braun and Clarke's (2022) six phases of RTA include a non-linear recursive process. In this sense, the path from the data sets to developed analyses involved trajectories of going sideways, backward, or even in circles as integral parts of the RTA (Braun & Clarke, 2022). The phases are data familiarization, initial coding, themes generation, themes development and revision, themes definition and naming, and report production (Braun & Clarke, 2022; Campbell et al., 2021).

The first phase of the RTA involves familiarization of the researcher with the dataset or immersive process of transcript reading and re-reading, and listening to the recordings (Braun & Clarke, 2022). Considering that the interviews were conducted by Celina Wolki (n = 3), Denise Wolki (n = 7), and the lead author (n = 3), the lead author did not personally participate in some of the interviews. This phase of data analysis allowed the lead author to familiarize herself with the available data. Additionally, the utilization of the transcription software that sped up the transcription process required checking for inaccuracies and misspellings, thus representing the first phase of the RTA. The lead author maintained a personal journal to record ideas, insights, and notes relevant to the interviews and the trip. Additionally, the notes were taken during and after the videoconference (n = 1) and phone interviews (n = 4) and during the first phase of data analysis (Braun & Clarke, 2022; Miles et al., 2020).

The second phase of the RTA guide – initial coding – involved an application of Saldaña's (2021) first cycle and second cycle coding methods. For the first cycle (initial) coding stage, the

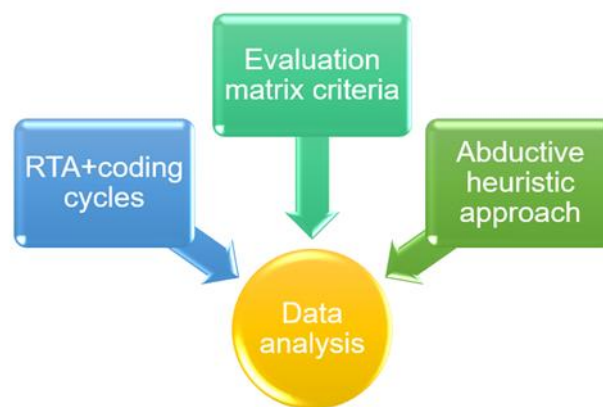
lead author utilized content-based or conceptual structural coding, a suitable method for interview transcripts. This method involves data coding and categorization as a “labeling and indexing device” allowing relatively quick data retrieval relevant to a specific analysis from a large data set (Saldaña’s, 2021, p. 130). Considering that structural coding is “framed and driven by specific research questions and topics” this stage of analysis involved a deductive approach (Saldaña, 2021, p. 133). However, following the RTA that recommends data-driven meaning-making, an inductive coding approach was implemented along with the deductive analysis (Braun & Clarke, 2022). The inductive approach aimed to represent the “qualitative richness of the phenomenon” (Fereday & Muir-Cochrane, 2006, p. 83) by generating additional codes. The codes generated during the first coding cycle (second RTA phase) were revised by Sonia Wesche to ensure the reliability and rigor of the process (Nowell et al., 2017). For the second cycle coding method (second RTA phase) the lead author used pattern coding as explanatory and inferential coding that involves grouping initially generated codes (first cycle) “into a smaller number of condensed categories” (Miles et al., 2020; Saldaña’s, 2021, p. 322).

In the third RTA phase, the lead author employed a deductive approach using the evaluation matrix criteria as data themes, namely relevance, coherence, effectiveness, efficiency, and sustainability. This phase of analysis consisted of compiling structural codes that shared a core concept or idea around evaluation matrix criteria questions (Braun & Clarke, 2022). During the fourth RTA phase, the lead author re-engaged with coded data in a recursive process to ensure the richness and diversity of the themes and as a validity check (Braun & Clarke, 2022). Considering that evaluation matrix criteria were developed and defined prior to the data analysis, the fifth RTA phase involved refining and polishing the analysis. In this RTA phase, the lead author mapped preliminary results and started the writing-up process of the last phase of data analysis (sixth

phase). The report produced during the sixth RTA phase was reviewed by Sonia Wesche and formed the basis of the thesis manuscript.

Concurrently, an abductive heuristic approach (Thompson, 2022) was used as a serendipitous analysis of the cooking circle program outside of the RTA and evaluation matrix criteria (Earl Rinehart, 2021). In this sense, abductive analysis occurred externally from the formal research work as a process of “wandering and wondering” (Earl Rinehart, 2021, p. 306), involving such things as thinking of idea while watching a movie, reading a book, listening to a podcast, walking, during field trip activities ‘out on the land’, or when engaging with community partners in “other than research” activities (Earl Rinehart, 2021, p. 306). Figure 4.1 represents the data analysis process as a combination of induction (reflexive thematic analysis [RTA] and coding cycles), deduction (evaluation matrix criteria), and abduction (heuristic/serendipitous approach).

**Figure 4.1** Data analysis approach used in the NNC Paulatuk cooking circle evaluation research project.



## Findings

In this section, we present the study findings highlighting research participant perspectives and document analysis results. The study findings based on the evaluation matrix criteria such as *relevance*, *coherence*, *effectiveness*, *efficiency*, and *sustainability* are summarized in Table 4.3, and key points for each criterion are discussed in turn with an emphasis on the *effectiveness* criterion

that addresses the research objectives. Representative verbatim quotes are used in this section representing ideas expressed by several participants

**Table 4.3** Paulatuk NNC cooking circle program evaluation findings.

Evaluation matrix questions	Evaluation findings
<b>1. RELEVANCE: How is the NNC cooking circle program relevant?</b>	
1.1. In which ways is the program relevant to the needs (priorities) of the community, region, and participants?	<ul style="list-style-type: none"> <li>• Extra source of nutritious food (participants and their families).</li> <li>• Space for gathering and social interaction (everyone is welcome).</li> <li>• Space that supports cultural continuity, knowledge sharing, and intergenerational connection.</li> <li>• Safe environment that promotes mental wellbeing.</li> <li>• Provides volunteer opportunities (youth/adults).</li> </ul>
1.2. What, if any, similar programs or services are already being offered in the community?	<ul style="list-style-type: none"> <li>• NWT Housing Corporation Homelessness Kitchen (community members experiencing homelessness).</li> <li>• Canada Prenatal Nutrition Program (CPNP) (pregnant women/young mothers).</li> <li>• School breakfast program (school children).</li> <li>• Elders meals-on-wheels (Elders aged 50+).</li> <li>• Food bank (people in need)</li> </ul>
1.3. How were participant priorities met when the cooking circle transformed into a food hamper program?	<ul style="list-style-type: none"> <li>• Weekly healthy meal boxes (NNC cooking circle recipes, 10 families/week, rotational).</li> <li>• Priorities met: Extra source of nutritious food (participants and their families).</li> <li>• Priorities NOT met:               <ul style="list-style-type: none"> <li>✓ gathering and social interaction (everyone is welcome).</li> <li>✓ cultural continuity, knowledge sharing, and intergenerational connection.</li> <li>✓ safe environment that promotes mental wellbeing.</li> <li>✓ volunteer opportunities (youth/adults)...</li> </ul> </li> </ul>
<b>2. COHERENCE: Is the NNC cooking circle program compatible with other programs in the community?</b>	
2.1. How does the program complement other existing food programs in the community? Is there any duplication of efforts?	<ul style="list-style-type: none"> <li>• Provides nutrition education.</li> <li>• Open to anyone willing to attend.</li> <li>• No age, socio-economic, or other restrictions.</li> <li>• No duplication of efforts.</li> </ul>
<b>3. EFFECTIVENESS: What are the effects of the program?</b>	
3.1. In what ways does the program increase participants' knowledge of healthy eating/cooking/shopping?	<ul style="list-style-type: none"> <li>• Obtained skills: food portioning, food safety, and healthier cooking methods/less oil and salt.</li> <li>• Healthful program/foods less associated with chronic diseases, like diabetes.</li> <li>• Introduction to novel foods: turkey, tropical fruits, peppers, and a variety of grain products.</li> <li>• From 'simple cook' to cooking more complex dishes/improved taste of food.</li> <li>• Increased confidence in cooking.</li> </ul>
3.2. In what ways does the program support participants' social, cultural, and mental health?	<ul style="list-style-type: none"> <li>• Positive impact on community cohesion (working together).</li> <li>• Intergenerational connection between Elders, adults, and youth.</li> <li>• Improved social skills, new/reinforced friendships.</li> <li>• Increased self-confidence and self-esteem.</li> <li>• Opportunities for communication in a safe/'neutral' environment.</li> <li>• Positive impact on children (learning opportunities).</li> <li>• Opportunities to use traditional language and share knowledge/stories about ways of living, hunting, fishing, and preparing food.</li> <li>• Indirect mechanism for substance addiction recovery support.</li> </ul>
3.3. In what ways does the program support participants' CF consumption?	<ul style="list-style-type: none"> <li>• The NNC cooking circle program supports CF consumption through:               <ul style="list-style-type: none"> <li>✓ occasional use as a substitute for store-bought meat products (personal donations/barter for non-perishable market food products).</li> <li>✓ encouragement to incorporate in cooking circle recipes (home cooking) as a substitute (store-bought meat/fish products).</li> <li>✓ bi-annual visit of the IRC dietitian</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Lack of CF formalized inclusion leads to minimal program impact on participants' CF consumption patterns.</li> <li>• Some concerns about CF quality (if received from non-Paulatuk hunters).</li> <li>• Use of CF in the cooking circle program is limited by the: <ul style="list-style-type: none"> <li>✓ necessity to follow federal health regulations,</li> <li>✓ financial difficulties associated with payments for hunters,</li> <li>✓ mixed opinions regarding payment for CF as sharing is deemed more culturally-acceptable.</li> </ul> </li> </ul>
<p>3.4. What are the unintended effects (positive or negative) of the program, if any?</p>	<ul style="list-style-type: none"> <li>• Increased self-confidence and public speaking skills for a cooking circle facilitator.</li> <li>• Acts as a food service facility in a town with no restaurants.</li> <li>• Indirect financial offset to participants and their families.</li> </ul>
<p><b>4. EFFICIENCY: How well were resources used in the program (funding, space, equipment, staff, etc.)?</b></p>	
<p>4.1. How well did resource use align with program goals and plans?</p>	<p>Funding is fully utilized as planned with a sustainable regional distribution model through the regional Inuvialuit governance organization.</p> <ul style="list-style-type: none"> <li>• Considerable challenges related to the limited amount of funds/lack of indexation.</li> <li>• Administrative loss of 10% due to hierarchical funding distribution through GNWT.</li> </ul> <p>Space/equipment was fully utilized as planned, despite significant challenges related to limited community infrastructure and funding.</p> <ul style="list-style-type: none"> <li>• Space and schedule limitations of the board room (multi-purpose space), impossible to accommodate all interested participants (led to the introduction of capacity limits).</li> <li>• Lack of adequate storage space for cooking circle equipment; increased logistics with multiple, improvised storage locations.</li> <li>• Environmental concerns related to the use of Styrofoam plates and plastic cutlery; lack of dishwasher/no paper plates available.</li> <li>• Inadequate response to large kitchen equipment breakage (long wait times for repair or replacement).</li> </ul> <p>Marketing materials were used as planned and fully utilized.</p> <ul style="list-style-type: none"> <li>• Implementation of several advertisement techniques (posters, brochures, flyers, radio, social media announcements, and informal communication).</li> <li>• Unsuccessful implementation of the Cooking Session Feedback Form; preference for oral feedback.</li> </ul> <p>Human resources were fully utilized as planned despite challenges related to staff hiring and retention.</p> <ul style="list-style-type: none"> <li>• Challenges in finding “the right person”; a limited pool of qualified staff.</li> <li>• Frequent facilitator/co-facilitator turnover (regional level); difficult to maintain full-time employment in addition to part-time facilitator responsibilities.</li> <li>• When facilitators turn over, negative impact on organizational, managerial, and logistical aspects of the cooking circle (program sustainability/number of participants).</li> <li>• Significance of facilitator’s characteristics, social skills, and ongoing commitment to program delivery.</li> <li>• Overload of facilitation tasks and responsibilities for one facilitator without extra payment with high program attendance.</li> <li>• Importance of volunteers to assist in program delivery.</li> <li>• Succession planning is unavailable.</li> </ul> <p>Food and transportation were utilized as planned despite significant challenges in variability and availability of fresh produce, and transportation infrastructure.</p> <ul style="list-style-type: none"> <li>• Market food: <ul style="list-style-type: none"> <li>✓ weather and program logistics/limitation of available shippers/no road access;</li> <li>✓ limited availability/variability/overall inadequate quality of fruits and vegetables at the local store (Northern);</li> <li>✓ high food prices impacting the program’s delivery despite the NNC subsidy;</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>✓ Stanton<sup>22</sup> phone order complications (no website or online order);</li> <li>✓ Food order complications due to inconsistent availability of products in Stanton/frequent substitutions without customer notification, and delivery delays;</li> <li>• CF (see Effectiveness).</li> </ul>
4.2. How were resources redirected as needs changed?	<p>Resources were redirected as federal, regional, and local requirements changed during the Covid-19 pandemic.</p> <p>Challenges:</p> <ul style="list-style-type: none"> <li>✓ lack of employee training (Covid health regulations);</li> <li>✓ infrequent flights; negative impact on food quality/availability of ingredients;</li> <li>✓ increased cost due to inability to gather/cook together; decreased number of participants;</li> <li>✓ Increased logistical burden of household food box deliveries;</li> <li>✓ Attempt to implement summer outdoor program<sup>23</sup>/inability to deliver necessary supplies on time.</li> </ul>
<b>5. SUSTAINABILITY: How can the program be sustained through future program modifications/ transitions?</b>	
5.1. What can be done to improve program sustainability in case of change (change in funding, staff turnover, etc.)?	<ul style="list-style-type: none"> <li>• Contingency planning.</li> <li>• Succession planning.</li> <li>• Funding amount increase.</li> </ul>

**Relevance and coherence**

Combined data from the complementary methods showed that the cooking circle program is relevant to the needs and priorities of the region, community, and participants and coherent with other existing food programs in the community. All cooking circle participants pointed out the importance of the program as an extra source of nutritious food, not only for the participants themselves but for their families,

“... only meal, nutritious meal that some of the community members [participants and their family members] do eat when they are here.” (Anne Thrasher, Elder)

Concurrently, the social aspect of the program was emphasized by all the interview participants as the cooking circle provides a welcoming space for any community member willing to participate or volunteer. This community gathering space provides an opportunity for social interaction, supporting participants’ mental wellbeing, Inuvialuit cultural continuity, knowledge-

<sup>22</sup> “Stanton Group Ltd. Is an Inuvik-based food distribution company along with retail stores in Tuktoyaktuk and Aklavik” (“About”, 2022). There is no Stanton store in Paulatuk, only a Northern store. The food can be ordered by phone and delivered by plane.

<sup>23</sup> Summer outdoor program was thought as a modification to the regular cooking circle program indoor activities during the Covid-19 pandemic. The summer outdoor program could provide the social aspect of the program with gathering, communication, and learning opportunities that were limited during Covid lockdowns.

sharing opportunities, and intergenerational connection with people of different age-groups. Participants from children to Elders eat, laugh, have conversations, and share their stories (see *Effectiveness*). Despite the variety of existing food-related programs in Paulatuk (Appendix P), the NNC cooking circle program is distinctive with its ‘neutral’ welcoming environment and nutrition education approach in the context of limited food-service facilities infrastructure of northern fly-in communities. The modification of the cooking circle to the hamper program with Covid-19 pandemic regulations increased the ‘extra source of food’ aspect of the program. This modification interrupted regular cooking circle activities with gatherings, and knowledge sharing, thus limiting social interaction.

### **Effectiveness**

The evaluation results show an increase in participants’ cooking skills and consumption of novel foods. Participants stated that they regularly apply the skills they learned during the NNC cooking circle program such as food portioning, food safety, and healthier cooking methods with less oil and salt.

“We [family members] use a new way of using ingredients, different kinds of rice, other groceries that we mostly find whatever we find at the Northern.” (Andy Kudlak, Elder).

The healthful aspect of the program such as its orientation towards ‘foods associated less with chronic disease’ as, for example, diabetes was emphasized by some participants. Additionally, through the cooking classes, participants were introduced to novel foods such as turkey, tropical fruits, peppers, and a variety of grain products. One of the participants mentioned that she never had an opportunity to learn how to cook as a child. By attending the cooking circle program, she now can cook simple meals for herself and her family members, and her confidence in cooking was increased. Some participants pointed out being a ‘simple cook’ before the cooking

circle and learning more about cooking techniques and a variety of ingredients that can improve the taste of food.

“I’m a real simple cook, but since I’ve been coming to these classes you know, you have all these different foods that, ... I never ever thought of adding to like my dinner or my supper. And I noticed that family members ... really enjoy it when I’m adding different stuff because I’m a real plain cook.” (Participant 6, Elder).

Participants pointed out that the cooking circle provides a welcoming, positive space for interaction, storytelling, and community support. Several participants stated that the cooking circle provides volunteering opportunities for community members. Middle-age interview participants pointed out the improvement of social skills that led to better social interactions with others (“not shy anymore”). The younger population considered the cooking circle program as an asset in developing new friendships,

“So, one of the ways of coming out of my own shell was being here and being around people and hearing different perspectives on culture, food. ... I really enjoyed it. So, I started coming every time when there was good company, always good company and the stories.” (Participant 13)

Concurrently, the cooking circle program promotes cultural health and traditional knowledge transfer from Elders to the younger generation through informal storytelling activities. Interview participants pointed out that many Elder participants often use Inuvialuktun to communicate with each other. Traditional language immersion even in such informal settings as the cooking circle program is necessary because the majority of young people in Paulatuk speak English, and cannot understand Inuvialuktun. These occurrences of story sharing and the use of traditional language in the cooking circle program promote the transfer of knowledge and cultural learning opportunities for young people participating in the program. This aspect of knowledge sharing integrates into the “it takes a village to raise a child” (Reupert et al., 2022) concept that was emphasized by Elder Anne Thrasher:

“In the Inuit culture, the child is the nucleus of the community because of the Inuit system. Everyone in the community has to assist in raising that one little child as a big part of the community.”

Interview participants stated that CF was sometimes used in place of store-bought meat products in the cooking circle, but the instances were rare. CF was received via personal donation by the cooking circle facilitator or participants, or via barter for non-perishable market food products. However, these substitutions did not significantly impact program participants' CF consumption patterns. Certain concerns about the reindeer meat quality from the reindeer herd currently owned by the IRC (IRC, 2021; CBC News, 2021) were raised when it was bought from non-Paulatuk hunters. However, reindeer as a domesticated animal is not considered wild thus a CF (Rincker, et al., 2006). Monetary payment for caribou meat is considered not culturally acceptable,

“... people are not comfortable with exchanging money for caribou..., caribou has a very important [cultural] significance.” (regional program manager)

The use of CF in the cooking circle program is limited by the requirement to follow federal health regulations, financial difficulties associated with payments for hunters, and mixed opinions regarding payment for CF as sharing is deemed more culturally-acceptable. Participants of the cooking circle program are encouraged to incorporate CF in cooking circle recipes in home cooking as a substitute for store-bought meat and fish products.

Evaluation findings show certain positive unintended effects of the cooking circle program such as the development of self-confidence and public speaking skills by the Paulatuk cooking circle facilitator. Even with extensive work experience, the cooking circle provided continuous learning opportunities for the Paulatuk cooking circle facilitator. Additionally, the cooking circle program became like a food service program for its participants providing healthy nutritious food, opportunities for socialization, and a positive environment.

“I never missed a session at all being home alone. It was like going out to a restaurant, even better than that [emphasized by the researcher]. We actually watched the food that was cooking, and how healthy it was, and gave pointers on also healthy eating and socializing. Above all, the atmosphere has always been very encouraging, welcoming, and relaxing.” (Anne Thrasher, Elder)

Concurrently, the cooking circle program in Paulatuk was described as not just a nutrition education program but “something more.” It became a “place where people can feel safe” and welcomed. In addition to healthy meals, nutrition education, cooking/shopping skills, social interaction, and cultural and mental health, the cooking circle program provides indirect financial support to its participants and their families. The cooking circle participants not only prepare, and eat food during cooking circle sessions, but have an opportunity to bring food cooked during the session to their families.

### **Efficiency**

The evaluation findings show that funding, available space and equipment, and human resources involved in the program implementation were utilized as planned with considerable challenges in each of the efficiency criterion aspects. Despite the relative stability of program funding, several barriers were identified such as the annual renewal process at the regional level, hierarchical funding distribution, and insufficient funding. Regarding space and equipment, although the current use of the board room and kitchen was identified as an enabler of the cooking circle program, limited space, and storage facilities pose a barrier to the program's sustainability. In terms of human resources, our findings show that even though the consistency of the cooking circle facilitator was identified as an enabler of the program's viability, the local-scale co-facilitation is necessary for knowledge retention and program sustainability (Dedyukina et al., 2023).

## **Sustainability**

The program evaluation results identified strong cooking circle program consistency over the years due to consistent funding and the Paulatuk cooking circle facilitator's dedication to program delivery. However, the sustainability of the program could be improved with the implementation of succession planning to foster and promote continuous employee development, and to maintain the program's stability (Public Service Secretariat, 2008). Additionally, there is a need for the funding amount increase as it stayed the same without indexation for the last ten years.

## **Discussion**

This study evaluated the NNC cooking circle program in Paulatuk, NWT to examine the impact of the cooking circle on participants' knowledge of healthy eating and cooking; social, cultural, and mental health dimensions; and the role of and opportunities for consistent integration of CF into the program activities. The study results identified that the cooking circle program is *relevant* to the needs and priorities of the region, community, and participants, and *coherent* with other existing food programs in the community. There is no duplication of effort. Evaluation of *efficiency* identified that funding, available space and equipment, and human resources involved in program implementation were utilized as planned with considerable challenges in each of the criterion aspects. Additionally, the *sustainability* of the program could be improved with the implementation of succession planning and by increasing the funding amount.

Regarding the *effectiveness* of the NNC cooking circle, research findings showed that the program increased participants' knowledge of healthy eating, cooking, and shopping. In addition to the healthful aspect of the program, participants obtained food skills such as food portioning, food safety, and healthier cooking methods with less oil and salt. Additionally, participants were introduced to novel foods and learned to cook more complex dishes with a variety of ingredients

thus improving the taste of food. Obtained cooking skills and knowledge about healthy cooking and eating increased participants' confidence in cooking. These findings are similar to previous results identified by Iacovou et al., (2012) who systematically reviewed the social health and nutrition impacts of community kitchens in terms of supporting an increased variety of food in participant diets; reduced consumption of processed foods; positive effects on participants' family members; increased enjoyment in cooking and eating; improved food hygiene; and improved cooking, shopping, and budgeting skills. However, as our findings show there are barriers to the utilization of regularly obtained healthy cooking skills and knowledge due to the limited availability, variability, overall inadequate quality of fruits and vegetables at the local store (Northern), and high food prices despite the NNC subsidy. These barriers point to the differences between food environments, as the physical, social, economic, cultural, and political factors impacting the accessibility, availability, and adequacy of food (Rideout, Mah, & Minaker, 2015), in northern fly-in communities and urban southern locations that were highlighted in Skinner et al. (2016) paper. Arctic fly-in communities face challenges with grocery store oligopolies (limited competition), limited transportation infrastructure, and a paucity of resources (Prentice, 2022; Skinner et al., 2016; Terragni, Arnold, & Henjum, 2020). If healthy choices are not available for purchase, community kitchens as nutrition education programs are unlikely to succeed in supporting participants' food security (Schembri et al., 2016).

In relation to the social, mental, and cultural benefits of the program our research findings identified a positive impact of the program on community cohesion; participants' social skills, development of new and reinforcement of old friendships; increased self-confidence and self-esteem. The cooking circle program was described as a welcoming space for gathering, social interaction, and cultural knowledge sharing. These findings support previous results identified by

Iacovou et al., (2012) systematic review on social health and nutrition impacts of community kitchens that highlighted improvements in participants' social interactions and skills, the significance of a safe environment, opportunities for breaking social isolation and having access to social and emotional support and making new friends. Concurrently, our research findings identified that the social aspects of the cooking circle program with regular gatherings, interaction, and knowledge-sharing opportunities were missed the most by program participants during Covid-19 lockdowns that forced modification of the cooking circle to the hamper program. These findings indicate the importance of the social aspects of the program. In line with these findings, previous research shows a correlation between social isolation and mental health especially in older people (Jaremka et al., 2013; Liu, Gou, & Zuo, 2016). This is consistent with evidence that loneliness, depression, and suicidal thoughts have increased with the onset of the pandemic (Lewis, 2020). Even though our research did not specifically evaluate the impact of the NNC cooking circle modifications due to the Covid-19 physical distancing requirements on the mental wellbeing of the program participants, the importance of the program's social aspects and their connection to the participants' mental wellbeing are highlighted by our findings.

Regarding the impact of the cooking circle program on participants' cultural wellbeing, our findings show that the program activities provide informal opportunities for participants (adults, young people, and children) to be introduced to the traditional language (Inuvialuktun) and learn about traditional ways of living through storytelling and knowledge sharing. These findings are similar to the McElrone et al. (2020) refugee-focused research that showed that the dietary acculturation process when refugees integrate into American society and try to adopt new food preparation practices and food choices requires cultural adaptation to reduce food security barriers and support food security facilitators. Considering the lasting effects of oppression, systemic

racism, and the impact of the residential school system on Inuit and all Indigenous peoples in Canada, an opportunity to use the Inuvialuktun language and pass it on to the younger generation is significant (Fraser, 2020; Mundel & Chapman, 2010). Inuvialuktun is an endangered language spoken by less than half of the ISR residents, including many Elders, with the majority of the population using English (IRC, n.d.b.). Our study findings support this statistic with each Elder who still can use Inuvialuktun bringing an important cultural aspect to the cooking circle program.

Our findings about informal opportunities to learn traditional ways of living through storytelling and knowledge sharing provided by the NNC cooking circle program support Vincze et al. (2021) claim that nutrition-related interventions for Indigenous populations should include strategies beyond nutrition education that address social determinants of health. Considering the dominance of the Western system of knowledge production as a legitimate system of “prestige and confidence” that is enforced through Western ideas, language, and a set of practices (Cortes-Ramirez, 2015; Wade & Rossi, 2019) decolonizing approach to food security interventions is necessary (Mundel & Chapman, 2010). Indigenous knowledge, in the context of this research project, Inuvialuit Knowledge, presents a viable tool for reclaiming context-specific ways of knowing and being that have been suppressed by Western knowledge and are often labeled backward, inferior, and superstitious (Akena, 2012). The illusion of social stability that is established through one and only “correct reading” that undermines other language interpretations and instills a “hegemonic message into the consciousness of Indigenous peoples” (Settee, 2011, p. 435) can be challenged by untangling the power relations that have led to the dominance of particular forms of knowledge. In this sense, informal traditional knowledge sharing during cooking circle activities is critical to the wellbeing and sustainability not only of the program participants but the community (Akena, 2012; Dei & James-Wilson, 2000). Thus, the NNC

cooking circle program provides not only a space for cooking and eating together but a place of cultural continuity (Mundel & Chapman, 2010).

Our findings show that CF was used as a substitute for store-bought meat products in terms of personal donations or barter for non-perishable market food products in program activities. Additionally, participants were encouraged to incorporate CF at home in cooking circle recipes. However, these occurrences had a minimal program impact on participants' CF consumption patterns. These findings align with Ford et al. (2013) study which found that access to CF for community food program users was “irregular, infrequent, and in many cases becoming more challenging” (p. 10) due to trends such as decreasing numbers of full-time hunters, increasing costs of hunting, and climate change. Likewise, our findings highlight several barriers to more consistent CF incorporation into the program activities such as lack of formalized inclusion of CF and the necessity to follow federal health regulations, concerns about CF quality when CF is obtained from non-Paulatuk hunters, financial difficulties associated with payments for hunters, and mixed opinions regarding payment for CF as sharing is deemed more culturally-acceptable. Despite the barriers, all project participants pointed out the importance of CF incorporation and its significance not only in terms of nutritional value but as an integral aspect of Inuvialuit culture. These findings support Tod-Tims and Stern's (2022) study results highlighting the importance of CF for Inuit as for food to be considered “good to eat” (p. 271) it must nourish people's beliefs, traditions, and values. CF is most definitely “good to eat” food that is connected to the epistemologies, identities, reciprocity, and notions of peoples' wellbeing in remote northern communities such as Paulatuk (Tod-Tims & Stern, 2022).

Additionally, our NNC cooking circle evaluation showed that the program has become ‘something more’ for program participants than a nutrition education initiative, a “place where

people can feel safe” and welcomed. This research finding ties well with Mundel and Chapman's (2010) Urban Aboriginal Community Kitchen Garden Project study results that highlighted the importance of the project in the creation of “a safe space for people to talk and get support” (p. 170). Mundel and Chapman stated that the Garden Project is focused not only on developing food skills but also on cultivating relationships that would support health and wellness (2010). The NNC cooking circle in Paulatuk is such a place where people gather not only to learn how to cook nutritious healthy meals and access meals for themselves and their families, but for conversations, sharing, and pure enjoyment (Oldenburg, 1999). In this sense, the program can be associated with the concept of the ‘third place’ introduced by American sociologist Ray Oldenburg in 1989. Third places provide a “neutral ground”, a welcoming and comfortable space for people to get together without attendance restrictions based on specific socio-economic categories or memberships. Even with the utilization of rented space, a cooking circle in Paulatuk is a place where individuals gather regularly, informally, and joyfully beyond the confines of their own homes and work places (Oldenburg, 1999).

From this standpoint, the NNC cooking circle is a social gathering place that hosts “engaging conversation, enhancing the sense of community” (Campbell, 2017, p. 157), considering the limited infrastructure of fly-in northern communities such as Paulatuk. This social gathering place provides people with an opportunity to interact socially, foster relationships, build supportive networks, and take part in activities that add significant meaning to their lives (Alidoust, Bosman, & Holden, 2019; Meshram & O’Cass, 2013). As our findings show networking opportunities and connections with improved access to community services and resources facilitated by participation in the cooking circle program activities act as an additional community support system. These findings are similar to the Engler-Stringer and Berenbaum (2007) findings that pointed to

community kitchen participants increased engagement with community services regarding improved access to community services and resources and increased self-reliance and dignity in terms of not having to access charitable resources like food banks.

In light of these findings, significant attention should be given to market food prices and increasing subsidization of healthier, low energy-dense foods, as the current NNC subsidy does not provide adequate support (Burnett et al., 2017; Galloway, 2017; Powell & Chaloupka, 2009). Concurrently, the conversation around nutrition education as an integral aspect of the NNC cooking circle program for Inuit has to consider aspects of the nutrition transition and its health implications for Inuit (Kuhnlein et al., 2004; Little et al., 2020; Sheehy et al., 2015), and social, economic, and environmental disparities of northern fly-in communities. In this sense, the role of the cooking circle program in supporting participants' food security can be understood through a holistic understanding of food security as a social determinant of health alongside other key aspects such as culture and language, income distribution, housing, education, availability of health services, mental wellness, and others (ITK, 2014; Vincze et al., 2021). An emphasis on CF integration as an important aspect of cultural relevance in cooking circle programs, especially in the context of fly-in northern communities, is necessary. Concerning CF integration into the cooking circle program activities, significant attention has to be given to the gap between federal regulations and local community priorities with the necessity to strengthen and support local CF infrastructure thus promoting sustainable local food systems and food sovereignty (Settee & Shukla, 2020). Additionally, considering the importance of hands-on activities for younger generations participating in the cooking circle, each stage of CF processing from the land to the table has to be included in the program as part of the experience. This could be achieved through

collaboration with other CF-related programs in the community such as on-the-land camps (Ollier, et al., 2020; Wesche et al., 2016).

## **Conclusion**

The findings of this research project showed that the impacts of the community kitchens (cooking circles) on participants' knowledge of healthy eating, cooking, and social, cultural, and mental health dimensions in remote northern community context are somewhat different compared to the similar studies conducted mostly in southern urban settings. In the northern remote community context, more attention is required to the community food environment such as physical, social, economic, cultural, and political factors impacting the accessibility, availability, and adequacy of food. Additionally, significant attention must be given to the cultural aspects of the program such as traditional language use and traditional knowledge sharing during program activities. Incorporation of CF in community kitchens will require not only financial, but logistical, managerial, and infrastructure inputs in terms of hiring additional people and regulating and monitoring food cutting, portioning, distribution, storage, and food processing space. Consequently, the programs' role in supporting participants' food security can be understood by considering food security as a social determinant of health in conjunction with other factors like culture and language, income distribution, housing, education, access to health services, mental wellness, and others.

This study has illustrated the importance of qualitative evaluation using a CBPR approach that is aligned with both the National Inuit Strategy on Research and Inuvialuit Knowledge and values. Despite challenges presented by Covid-19 health regulations and lockdowns, significant aspects of CBPR such as the collaborative nature of the research process, relationship and capacity building, and co-learning were successfully implemented in this study. In terms of qualitative

research, the perspectives of stakeholders are essential to insightful analysis of the topic to ensure that community food-related programs address community perspectives and priorities. The cooking circle evaluation results have the potential to significantly influence regional, territorial, and federal policies by providing valuable evidence and insights to inform decision-making in terms of effective resource allocation and implementation of targeted interventions to address food security concerns and promote food sovereignty in northern communities.

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## **5. Process evaluation of a cooking circle program in the Arctic: Developing the Mukluk Logic Model and identifying key enablers and barriers for program implementation**

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### **Abstract**

There is limited qualitative culturally relevant process evaluation research of community-based food preparation initiatives in Arctic communities within Canada. This study investigates the implementation of the Nutrition North Canada (NNC) cooking circle (CC) program in the Inuvialuit (Inuit) hamlet of Paulatuk, Northwest Territories. The objectives of this study are: 1) to co-generate a culturally relevant logic model; 2) to evaluate program implementation in terms of funding, space and equipment, and human resources (enablers and barriers).

Three methods were used in this study: (1) logic model co-design (n = 5); (2) document analysis of NNC annual reports (n = 9) and proposals (n = 2); and (3) semi-structured interviews with a regional program manager (n = 1), Paulatuk CC participants (n = 13), and regional CC facilitators (n = 3).

The Mukluk Logic Model played an instrumental role in the conceptualization of the process evaluation, recognizing the specificity of location, program facilitation, and culture. The process evaluation results indicated that the long-standing sustainability of Paulatuk's CC program is directly related to the consistency of program funding, community-engaged facilitation practices, and creative utilization of the community's multi-purpose space for program activities. However, significant barriers to program implementation limit program sustainability. These include funding amounts and distribution, limitations related to space and equipment, and a challenging human resources context (hiring and retention). This study provides insight into CC program implementation in a Canadian Arctic community, illustrating the utility of qualitative process evaluation research in this context and generating important knowledge and insights to better support northern community-based food preparation programs.

## **Introduction**

Community kitchens as communal food preparation programs that aim to improve participants' nutritional knowledge and promote healthy eating habits and overall wellbeing are ubiquitous across urban centers and communities of all sizes (Wrieden et al., 2007; Tarasuk & Reynolds, 1999), including in the remote Canadian Arctic. The term can refer to different operation models, but they generally have shared goals of developing participant resilience to food insecurity and social isolation (Engler-Stringer & Berenbaum, 2005; Iacovou et al., 2012; Tarasuk & Reynolds, 1999). Studies have shown that community kitchens not only improve cooking skills and increase nutritional intake, leading to better food security (Iacovou et al., 2012; Lee et al., 2010; Marquis et al., 2001) but provide social support through shared experiences and situations (Engler-Stringer & Berenbaum, 2007). These benefits reduce the need for charitable food sources and empower individuals and communities with improved cooking skills and nutritional knowledge (Engler-Stringer & Berenbaum, 2007; Fridman & Lenters, 2013; Iacovou et al., 2012). The majority of existing evaluation studies on community kitchens have been conducted in urban settings (Lee et al., 2010; Marquis et al., 2001; Wrieden et al., 2007) highlighting the impact of the program on its participants without significant attention to the program's implementation details (process evaluation) implying a uniform 'black box' approach (Saunders et al., 2006, p. 352). In order to maintain an effective program's design and objective from conception to full implementation, it is critical to understand how successful programs operate and what can be done to support them more effectively (Rossi, Lipsey, & Henry, 2019). The 'black box' approach evaluation tendency overlooks a variety of factors influencing program implementation, including the motivation and skill of the implementers, access to resources, and others (Saunders et al., 2006). Concurrently, there is a significant gap in process evaluation of community kitchens' in the

Indigenous context. This gap can be explained by the imposition of Western post-positivist approaches such as a preference for quantitative data (Cavino, 2013, p. 349) and value judgments, as well as a disregard for colonial impacts such as suppression of Indigenous languages and cultural ways of knowing and being (Cram, Tibbetts, & LaFrance, 2018). In many Indigenous communities, evaluation “is seen as something done ‘to them’ rather than ‘with them’ or even ‘for them’” (Shepherd & Graham, 2020, p. 392). Additionally, there is a lack of culturally-relevant program evaluation tools such as logic models (a diagram representing how a program works and what the program is trying to achieve in the long run) (Gresku, Jones, & Kurtz, 2022; Julian, 1997; Kuiper et al., 2020; Taylor-Powell & Henert, 2008). Thus, more attention to the factors influencing program implementation in the Indigenous context is necessary to fully comprehend how a specific program works, what challenges it faces, and what can be done to better support it using culturally-relevant evaluation methods.

In each of the five smaller, remote communities of the Inuvialuit Settlement Region (ISR), NWT, the western-most Inuit region in Canada, cooking circle (CC) facilitators have been coordinating a locally-run CC program (a type of community kitchen) since 2012, supported by Nutrition North Canada (NNC) nutrition education funding (Kenny, Wesche, et al., 2018). The program aims to improve healthful food intake and increase knowledge about healthy food preparation and consumption for participants. Considering the community observations of the NNC CC program success in Paulatuk over the years, community’s preference for culturally-relevant evaluation tools, and the research gaps the study objectives are: 1) to generate a culturally relevant logic model; 2) to evaluate program implementation in terms of key enablers and barriers – namely, funding, space and equipment, and human resources. In the small northern community context, aspects of community food program implementation such as funding, kitchen facility

infrastructure, human resources, and others are integral for program sustainability and require close examination. To the best of our knowledge, this is the first process evaluation study of a community kitchen (CC) in Arctic Canada that adds to the broader academic literature on food security support programs in the region (Ford et al., 2013; Ford et al., 2012; Lardeau et al., 2011).

## Methodology

### Study location and population

Paulatuk (or Paulatuuq: “place of coal”), is a fly-in community of 323 people (84% Indigenous) located on Darnley Bay on the Beaufort Sea coast (GNWT, n.d.). Paulatuk community members are highly reliant on country foods with a high prevalence of traditional activities such as hunting, fishing, and trapping compared to the NWT average (Table 5.1) (GNWT, n.d.). At the same time, in 2018, more than half (54.2%) of Paulatuk residents reported being worried about having sufficient money for food, and in 2019 the community’s price index was almost double (187.4) that of the territorial capital Yellowknife (100) (GNWT, n.d.).

**Table 5.1** Paulatuk and Northwest Territories rates of harvesting activity, consumption of country foods, and economic access to food in 2018-2019 (GNWT, n.d.)

	% Residents hunted & fished (2019)	% Residents trapped (2019)	% Households consumed country foods (2019)	% Residents worried about having enough money for food (2018)
Paulatuk	70.7	6.5	79.2	54.2
Northwest Territories	36.3	4.7	22.5	23.1

Paulatuk is accessible by air year-round, with regular flights connecting the community to the town of Inuvik, NWT (Northwest Territories Tourism, 2021; Lede et al., 2021). The community has only one small Northern<sup>24</sup> grocery store centrally located in the Paulatuk Visitors

<sup>24</sup> Northern is the original core store banner of The North West Company and today consists of 122 food and general merchandise stores serving remote communities in northern Canada (“Northern”, 2022).

Centre. Market food is delivered year-round via air shipment and once per year in summer by barge (“Paulatuk,” 2012; Kenny, Fillion, et al., 2018). Due to the nature of food delivery, the quality, nutrient value, and variety of foods available at the store vary, and nonperishable, low-nutrient, and energy-dense foods are prevalent (Kenny et al., 2020).

### **Research approach**

The NNC CC evaluation research project is part of a larger, long-standing research program on food security with ISR communities that aims to address community concerns related to strengthening the local food system, building community capacities, and promoting community action and self-determination. We used a qualitative Community-Based Participatory Research (CBPR) approach informed by the Indigenous research paradigm and National Inuit Strategy on Research (ITK, 2018) for this study. Our research approach fostered an active and equitable research collaboration with Paulatuk community research partners. We built on assets and resources within the community and promoted intellectual integrity and unbiased knowledge application by accepting different forms of knowledge as equal and abiding by principles of reciprocity, respect, and relational accountability (Holkup et al., 2004; Koster et al., 2012; Kral & Allen, 2016; Ochocka & Janzen, 2014; Taylor & Ochocka, 2017).

Integration of CBPR included engagement with community members before the development of the evaluation project to determine community priorities and establish project parameters, including regular communication with local collaborators, transparency of the research process, iterative reflection on evaluation approaches and methods, and knowledge sharing through regular conversations with research partners at different scales (e.g., community research leads, community governance leaders, regional leadership, etc.) (Kenny et al., 2021; LaFrance, Nichols, & Kirkhart, 2012; Maar et al., 2017). Due to Covid-19 pandemic regulations

that limited the lead author's initial in-person presence in Paulatuk, Lena Dedyukina engaged in one-on-one informal virtual relationship-building conversations with Inuvialuit research partners Celina Wolki and Denise Wolki to establish trust and transparency in the research process. The lead author is an Indigenous woman belonging to the Yakut (Sakha) nation from the northeast part of Russia. While she is neither Inuvialuit nor from Paulatuk, she was able to approach this study and work with the community using an Indigenous research lens.

This project received the support of local community organizations, ethical approval from the University of Ottawa (file number S-11-20-6256), and a Scientific Research License (No. 16832) from the Aurora Research Institute (Inuvik, Northwest Territories).

### **Process evaluation**

Process evaluation that documents how programs are implemented can be instrumental in understanding the mediating factors that influence the outcomes of community-based programs (Saunders et al., 2005). Knowing how successful programs operate and what can be done to better support them is critical, considering the effort made to maintain a program's design and purpose from conception to full operation (Rossi, Lipsey, & Henry, 2019). A variety of factors can influence the implementation of a program, including the implementers' level of motivation and skill, access to resources, and other enablers and barriers that may not have been anticipated. As shown in a program's logic model, these factors create a link between program implementation and outcomes to improve the understanding of program effects (Saunders et al., 2006). The logic model provides a reasonable visual explanation of the program's process or implementation to resolve identified issues (McLaughlin & Jordan, 1999). In this study, process evaluation planning occurred iteratively with the generation of the culturally relevant Mukluk Logic Model (MLM). In

this sense, the logic model co-design method used in this study informed and was informed by process evaluation data analysis and results.

It is significant to point out the importance of recognizing the history of distorted, corrupted, and racially biased evaluation practices (Waapalaneexkweew, 2018). Considering that evaluation practices are linked to particular social and institutional structures and practices, understanding the origins of the ‘authority structure’ within which Indigenous peoples are evaluated is critical (Waapalaneexkweew, 2018). Thus, relationship-building and engagement with context-specific aspects of a place, including its history, meanings, and identities it holds for Indigenous peoples are necessary for reciprocal, respectful, and relevant evaluation in the Indigenous context (Gillespie et al., 2020; Nichols & LaFrance, 2006; Shepherd & Graham, 2020).

## **Methods**

Three methods were used in this study: (1) logic model co-design (n=5); (2) document analysis of NNC annual reports from 2012 to 2021 (n = 9) and NNC funding proposals from 2020 and 2021 (n = 2); and (3) semi-structured interviews with regional program manager (n=1), Paulatuk CC participants (n=13), and regional CC facilitators (n = 3). While our case study focused on program implementation in Paulatuk, we drew on information from program facilitators in other ISR communities and the regional program manager to better understand the regional context.

### ***Logic model co-design***

A logic model is a program evaluation tool in the form of a diagram representing how a program works and what the program is trying to achieve in the long run. The logic model helps to identify program resources, program activities, and intended program outcomes and specifies a chain of causal (if-then) assumptions linking components of the model (Hulton, 2007; Julian, 1997). However, in the Indigenous context, a logic model can be considered as not culturally

sensitive or appropriate, representing a “linear and Eurocentric” evaluation approach (Taylor-Powell & Henert, 2008, p. 28). At the same time, considering the flexibility of the logic model as a tool, the creation of a culturally sensitive model that is relevant and understandable for Indigenous communities is preferred (Meyer, Louder, & Nicolas, 2022; Taylor-Powell & Henert, 2008). The CC logic model was developed in collaboration with the community researcher in the Fall 2021. However, during data collection, initial analysis, and conversations with community researchers it became apparent that the general ‘boxes-arrows’ design of the logic model did not fully convey the CC implementation in the Inuvialuit context. To develop a culturally relevant evaluation tool, we co-designed a more place-specific logic model informed by the Indigenous research paradigm which accounted for Inuvialuit knowledge in the context of space and time. This method involved a community Elder, two community researchers, and two community traditional seamstresses. The method included: (1) an introductory 50-minute logic model mini-workshop; (2) brainstorming; (3) mukluk pattern inquiry; (4) model drafting; and (5) model finalization.

### ***Document analysis***

NNC annual reports from 2012-2021 (n = 9) and NNC NWT Promoting Healthy Eating in Nutrition North Communities funding proposals from 2020-2023 (n = 2) were analyzed to identify, select, and achieve an understanding of the CC history, objectives, activities, and other important content necessary to evaluate the program (Bowen, 2009; Prior, 2008). This analysis identified the objectives of the CC program, its operating period, the frequency of program activities, and the number of program participants for all five ISR communities (Aklavik, Paulatuk, Sachs Harbor, Tuktoyaktuk, and Ulukhaktok).

### *Semi-structured interviews*

Dedyukina and Celina Wolki worked collaboratively to develop three sets of interview guides and consent forms for Paulatuk CC participants, the CC facilitators, and the regional program manager. Dedyukina, Celina Wolki, and Denise Wolki worked collaboratively to recruit Paulatuk CC interview participants using nonprobability purposive sampling, based on regular participation in the CC program between 2017 and 2020. The CC facilitators from all five ISR communities and the regional program manager coordinating all five CC programs in the ISR were contacted by email with an invitation to participate. Three CC facilitators from Paulatuk, Ulukhaktok, and Tuktoyaktuk participated in the study.

### **Data analysis**

Qualitative data from the documents and interviews were transcribed, collaboratively reviewed by Dedyukina, Celina Wolki, and Denise Wolki, coded, and analyzed following six phases of reflexive thematic analysis (Braun & Clarke, 2022; Campbell et al., 2021) and Saldaña's (2021) first and second-cycle coding methods. The data sources were analyzed focusing on funding, space and equipment, and human resources as major factors that affect program implementation. These factors were collaboratively determined through the MLM co-design. Additionally, an abductive heuristic approach (Thompson, 2022) was used as a serendipitous analysis of the CC program outside of the reflexive thematic analysis and program implementation factors (Earl Rinehart, 2021). Abductive analysis occurred informally as a process of "wandering and wondering" during other than research activities such as watching a movie, reading, walking, or participating in community events (Earl Rinehart, 2021).

## **Results and discussion**

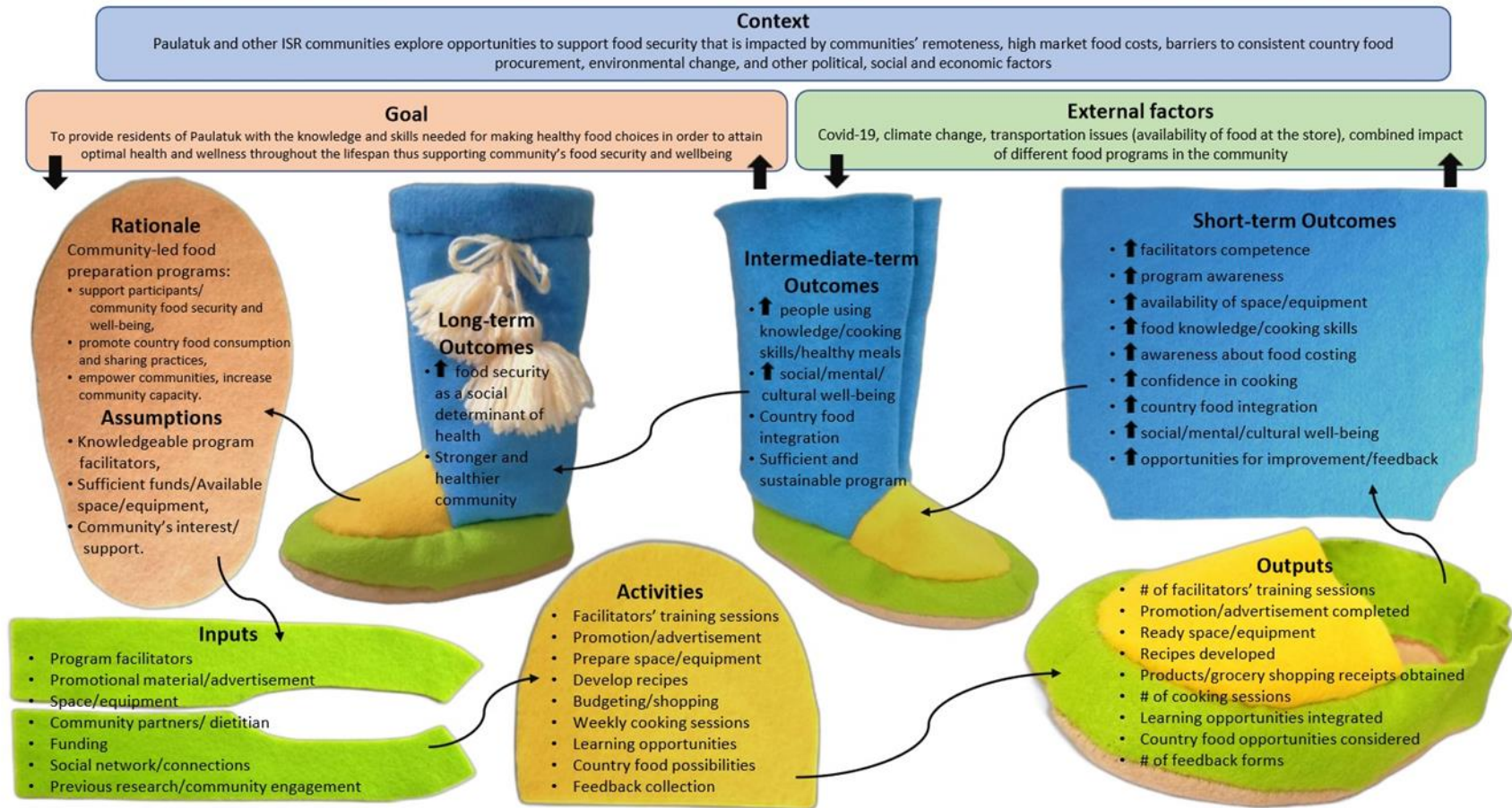
In this section, we present and discuss the results of the NNC CC process evaluation, which included the generation of a culturally relevant logic model and an evaluation of program implementation in terms of funding, space and equipment, and human resources.

### **Mukluk Logic Model**

Working collaboratively with a community Elder, two community researchers, and two skilled traditional community seamstresses, we co-designed a culturally relevant logic model which we named the Mukluk Logic Model (MLM) (Figure 5.1). Mukluks are Inuit traditional footwear made from seal or reindeer skin; they are usually about knee height, soft, warm, and comfortable (“How to”, 2020). Similar to the process of preparing animal skins, which requires time, skill, and hard work (“How to”, 2020), preparation, management, and longevity of the CC program are the result of the hard work of not only the facilitators and volunteers, but of the regional and local stakeholders, and the whole community. Likewise, in mukluk workmanship which involves practiced skills in working with fur and leather, the Inuvialuit approach to the CC program facilitation is skillful and unique. Each pattern piece of the mukluk and the local, place-based abilities of the seamstresses who properly sew them together are critical to creating sturdy and long-lasting boots; similarly, both the physical components and skill of the facilitator are requisite to developing an effective and sustainable CC program that responds to locally-identified needs in a culturally appropriate way.

As our study findings show, with the utilization of similar inputs and activities, each community’s approach to the facilitation of the CC program depends on local traditional practices, community dynamics, facilitator personal characteristics, and many other factors that are often not represented in prevalent logic models. Considering the relational approach to program

**Figure 5.1** Mukluk Logic Model of the Nutrition North Canada (NNC) cooking circle program in the Inuvialuit Settlement Region, Northwest Territories



implementation, where cultural, personal, and community-specific aspects make one CC program slightly different from another, 'if-then' logical causal connections had to be modified. Instead, the arrows in the MLM leading from one pattern piece to another represent not only 'if-then' causation but entail deeper traditional meaning embedded in the process of sewing together the pattern pieces. These arrows-threads connect the mukluk pieces, implying the specificity of location, program facilitation, and culture. Instead of a flow chart, the MLM presents a mukluk pattern, where each diagram box of the logic model is replaced by a mukluk pattern piece, evolving from the sole to the ready-to-wear boot. Our culturally relevant MLM addresses the need identified by Maddox et al.'s (2021) systematic review of health service program evaluation in the Indigenous context to integrate local Indigenous Ways of Knowing and Being in evaluation logic models, frameworks, and designs.

Additionally, considering the gap in Canadian and American academic literature on Indigenous evaluation approaches identified by Gresku, Jones, and Kurtz (2022) our MLM provides an example of collaborative logic model co-design as a program evaluation tool that incorporates Inuvialuit Knowledge and values. The MLM's difference from the prevalent logic model is not only in the replaced boxes but in a culturally sensitive approach to the representation of the program logic model as a symbolic reference to the people and culture of Paulatuk (LaFrance, Nichols, & Kirkhart, 2012). At the same time, the MLM provides generalizability through the flexibility of the logic model arrows-threads interpretation applicable to the CC programs in other communities. Thus, considering the significance of the research findings generalization, the MLM can be applied to the evaluation toolkit of a variety of programs.

## **Program evaluation**

This section presents the study findings related to funding, space and equipment, and human resources, followed by a discussion about key program enablers and barriers. The verbatim quotes used in this section represent ideas expressed by several participants.

### ***Funding***

CCs in the ISR are financed by Indigenous Services Canada and the Public Health Agency of Canada fund supporting nutrition education activities as part of the Government of Canada's NNC program, which together with the NNC retail subsidy and other initiatives aims to strengthen food security and food sovereignty in eligible northern communities in Canada (Government of Canada, 2020; Government of Canada, 2022). While a comprehensive examination of nutrition education funding is beyond the scope of this study, we share information provided by the regional program manager to understand how funding distribution and allocation influence program implementation. The nutrition education funding for the ISR flows from the federal government (Indigenous Services Canada and the Public Health Agency of Canada) (Government of Canada, 2020) to the territorial government (GNWT), which then distributes it to the IRC. An IRC manager coordinates hiring, training, and fund allocation to all five communities. The funding is renewed annually once reports and a new funding proposal are submitted by IRC. Our results show that the regional distribution model has generally been efficient and enabled sustained programming over time. The funding is used for CC facilitator contracts, CC activities (food), food demonstrations, space rental, cooking equipment, and periodic facilitator training. Our findings show that consistent program funding is a key enabler of program sustainability.

There were several funding barriers identified. First, there is a loss of potential purchasing power due to a 10% administrative fee charged by the GNWT. Second, the funding amount has

not been indexed for the past decade. The limited funding was one of the factors in addition to the CC available space limitations (see *Space and equipment*) leading to the introduction of a cap of 25 CC participants per session in Paulatuk, which negatively impacted participation.

... we had to put this limit of 25 people. And... two weeks after... a lot of people quit coming.... They're really shy people,... that don't like to be rejected or embarrassed. So, when I asked them, "How come you didn't come this week? We missed you." [they would reply] "I didn't want to go because I thought there would be too many people, and I didn't want to get turned away." (Celina Wolki)

Third, the funding distribution structure adds an administrative burden to the IRC as annual reports and funding proposals are required, and delays in funding transfers interrupt CC activities.

Multi-year funding is imperative to improve NNC education initiatives in the ISR. Each community's NNC programs regress because there is a temporary halt of funding in the spring and summer. Multi-year funding would also resolve the disruption caused by late funding receipt (IRC, 2018).

### ***Space and equipment***

In Paulatuk, the CC is organized in the community boardroom (37 x 19 feet), centrally located in the same building as local organization offices and the Northern, the only grocery store in town. It is a public space used for a variety of community activities including board meetings of local organizations, community gatherings, research presentations, court sessions, and others. It has an adjoining kitchen (16 x 13 feet) with one fridge, two stoves, a double sink, and a cupboard storage space. The majority of the CC participants stated that this space is convenient in terms of its central location and proximity to the local grocery store (enabler).

However, several barriers were identified in terms of space and equipment. First, keeping the boardroom kitchen clean and organized was identified as a challenge, considering the variety of activities it supports. Second, the space is insufficient to accommodate all interested CC participants.

Kitchens are very small and halls very small and we have more people who want to participate than we can actually manage. Like at one point we actually had to have cut-offs

like 25 is max, which wasn't popular, but we didn't really have a choice. (regional program manager)

Third, there is a lack of adequate storage space for CC equipment, requiring the use of multiple, improvised storage locations, and adding logistical pressures. Fourth, the lack of a dishwasher in the kitchen complicates the operational aspect of the program. Participants are encouraged to provide personal containers and cutlery to bring food to their families at the end of the session; however, it does not always happen. In this case, styrofoam plates/bowls and plastic cutlery are used (the only option available at the local store), which creates an environmental concern, particularly due to the limited waste management infrastructure in fly-in northern communities (Keske et al., 2018). Fifth, the boardroom kitchen equipment is old, and the space requires a major renovation, including counter space renewal and expansion, and stove and fridge replacement, among others. Such expenses would not be covered by NNC nutrition education funding.

### ***Human resources***

Our results show that the consistency of the CC facilitator is a key factor in Paulatuk's program success and sustainability (enabler). The Paulatuk CC facilitator brings extensive local knowledge, and an outgoing and hard-working personality, in addition to several years of experience working with a variety of local food-related programs. As the regional program manager and all CC participants pointed out, there were no complaints related to program facilitation, rather only positive feedback and encouragement to continue.

She [Celina Wolki] has a beautiful attitude, never excludes anyone, smiles, offers everything, and also helps the Elders to balance their meals (Anne Thrasher).

The CC facilitator is a part-time contract position that offers a \$200 lump sum payment per CC session, which covers shopping, food preparation, program facilitation, and cleaning. This work requires dedication and passion from the CC facilitator.

I don't think people really understand the amount of work that goes in there [CC facilitation]. ... it sounds simple like you're just shopping and then sorting it out, but it's a lot of work. (Celina Wolki)

Some ISR communities have two CC facilitators due to high program attendance depending on funding availability.

In some communities, we have hired two workers which has been highly successful. Some communities have very high attendance (30+ participants). Having two workers makes high attendance more manageable. Moreover, having two workers makes it easier to retain capacity when there is worker turnover (IRC, 2020).

However, our results show that the co-facilitation is not consistent. On a regional level facilitators often leave the position to continue their education or work full-time. Maintenance of both a full-time job and part-time CC facilitator position was identified as a challenge. Inconsistency of co-facilitation with high attendance leads to the overload of tasks and responsibilities for one facilitator without extra payment.

Additionally, partway through this study, the regional program manager left the position, and while this staff change was not considered in our evaluation plan, it became evident that the transition was complicated and created additional limitations to program implementation. The manager had held this position for several years and had established stable work relationships and trust, which facilitated effective communication and improved overall program management. More specifically, expertise was lost during this transition, which impacted many aspects of the program. This led to challenges related to the following: financial matters related to program facilitation and facilitator contracts, support for facilitators around logistical and nutritional aspects of the program, availability of training for facilitators, and occurrence of regular community visits, among others.

### *Key program enablers and barriers*

Our findings show that consistent funding of the CC program over the years and the regional distribution model where the IRC manages the program for all five eligible ISR communities are key enablers of program sustainability. However, several barriers such as hierarchical NNC funding allocation through GNWT (incurring administrative fees), lack of indexation for the past decade, and an annual funding renewal model that increases the IRC's administrative burden and interrupts CC program activities threaten the sustainability of the program. These results align with those of Kavanagh et al. (2022), which examined how the funding of community programs in Australia connects with and activates local community capacities. This study's results pointed out that communities express concerns about funding amounts and instability that mostly undermine rather than strengthen communities' capacity, citing time-limited funding as an ongoing threat where the risk of funding removal is similar to bullying, which "undermines the foundations for health improvement" (p. 6) and erodes trust. Likewise, our results show that the annual funding renewal model undermines the foundation of community-based nutrition education activities that aim to increase knowledge of healthy eating and develop healthy eating and cooking skills in the context of complex, multi-faceted Inuit food systems (Government of Canada, 2020; Kenny, Wesche, et al., 2018). Furthermore, hierarchical funding distribution and insufficient funding undermine the sustainability of the program and trust between federal, territorial, regional, and local organizations, and the individuals who make program delivery possible.

In terms of space and equipment, our findings show that even though the current utilization of the board room and kitchen is considered an enabler of the CC program considering the central location and proximity to the grocery store, there are barriers related to the limited space and storage facilities. These barriers create additional challenges related to increased logistical and

operational aspects of program implementation. These findings align with “The Role of Community Infrastructure in Building Strong Neighborhoods” report by the Family Service Association of Toronto (2005), which states that well-designed facilities promote social relations, community cohesion, and civic engagement in communities. These aspects are part of social infrastructure, which includes “physical spaces, services, or programs, and the networks across and within physical and social spaces where people come together” (City of Vancouver, 2023). The challenges related to social infrastructure identified by our study create barriers not only to the sustainability and effectiveness of the CC program but also to community well-being (Sharp et al., 2002; Rothman, 2005). In a small northern community context social infrastructure limitations are system-level factors in the chain of CC implementation that require considerable attention, as they impact program effectiveness and sustainability.

In terms of human resources, our findings indicated that a consistent Paulatuk program facilitator (from 2014 forward) acts as an enabler of program sustainability. However, the inconsistency of co-facilitators results in an overload of responsibilities for one facilitator, who does not receive additional compensation. Additionally, the departure of the regional manager impacted communication between the Paulatuk CC facilitator and the IRC. Furthermore, our results show that there are challenges in staff recruitment and retention due to the small pool of qualified individuals in small Arctic communities who are not already employed. Kavanagh et al. (2022) found similar trends in their Australian study, pointing out the importance of soft infrastructure that includes human capital in terms of relationships, trust, and the ‘right people’ as “cognitive, emotional, social, and relational resources” (p. 7) that enable program success. The importance of soft infrastructure can be linked to the CC program funding results highlighting the significance of adequate monetary compensation and any additional benefits as crucial aspects of

employment satisfaction required for better employee retention (Urbancová & Linhartová, 2011; McConnell, 2011).

## **Recommendations**

In light of our findings, significant attention by the federal and territorial governments should be paid to nutrition education funding amounts, allocation, and distribution, including indexing funds in line with inflation and implementing multi-year funding. Additional funding is necessary to support successful community programs such as CCs to improve relationships and trust between federal, territorial, regional, and local agencies as a foundation for strengthening community food security and well-being. Additional funding can improve community social infrastructure concurrently positively impacting soft infrastructure in terms of people who make the successful programs possible as certain personal characteristics, social skills, and ongoing commitment to program delivery that cannot be measured or documented play a significant role in the program's success. Considering the recent federal funding allocation of "\$2.3 million to design and build a community hall that will hold up to 150 people" in Paulatuk, these challenges could be mitigated after the community hall completion (Williams, 2022). However, it can take several years, and the challenges that CC facilitators face are happening now.

Furthermore, we recommend succession planning at both regional and local scales to maintain program sustainability. Fostering and promoting the continuous development of employees in case of staff change, shortage, or other circumstances can ensure appropriate and efficient modification and adaptation of program management and facilitation as needed (Lee, 2017; Mann, 2014; Public Service Secretariat, 2008). Training of additional support personnel not only on the local facilitation but the regional managerial level is another crucial aspect for the operational efficiency of the CC program (Ban, Drahnak-Faller, & Towers, 2003). Considering the

logistical challenges we identified, ensuring local co-facilitation of the CC program would not only reduce the workload and responsibility for the CC facilitator but also act as a training and backup opportunity in case of the facilitator's absence or departure. In this sense, co-facilitation is crucial for knowledge retention and program sustainability (Urbancová & Linhartová, 2011). In terms of managerial turnover, the transparency of all aspects related to the NNC CC program organization, management, communication, and facilitators' training is essential.

## **Conclusion**

To address the first study objective, we collaboratively generated using an iterative co-design method a culturally relevant Mukluk Logic Model (MLM). As a program evaluation tool in the Indigenous context, the MLM integrates local Inuvialuit community Ways of Knowing and Being and addresses the call for culturally relevant evaluation approaches. Concurrently, the MLM played an instrumental role in the conceptualization of the process evaluation through the interpretation of arrows-threads connecting the mukluk pieces. In this sense, our approach to the CC evaluation was informed by the specificity of location, program facilitation, and culture through an understanding of the relational approach to program implementation, where cultural, personal, and community-specific aspects make one CC program slightly different from another. As an Inuvialuit (Inuit)-specific evaluation tool the MLM contributes to Indigenous research methodologies.

Concerning the second objective, the results showed that despite the relative stability of program funding, several barriers were identified such as the annual renewal process at the regional level, which undermines the foundation for strengthening community food security and well-being; hierarchical funding distribution; insufficient funding that undermines the success of the program and trust between federal, territorial, regional, and local organizations, and people who

deliver the program, and impacts community social and soft infrastructure. Regarding space and equipment, although the current use of the board room and kitchen was identified as an enabler of the CC program, we have found that limited space and storage facilities pose a barrier to the program's sustainability. As part of social infrastructure, these barriers create additional logistical and operational challenges to program implementation. In terms of human resources, our findings identified that local-scale co-facilitation of the program is necessary for knowledge retention and program sustainability. Training of additional support personnel, as well as transparency of all aspects related to the NNC CC program organization, management, and communication, is required. In a small northern community context social and soft infrastructure challenges are significant factors in the chain of CC implementation requiring significant attention from federal, territorial, regional, and local governments.

This study has demonstrated the importance of qualitative process evaluation, considering stakeholder perspectives and priorities as essential to insightful analysis of the topic. These perspectives are necessary for aligning local food-related programs with regional, territorial, and federal priorities, policies, and resources for better program support to ensure their continuous success. Despite Covid-19 regulations and lockdowns, this study successfully implemented significant aspects of the CBPR such as collaboration in the research process, relationship and capacity building, and co-learning in alignment with the National Inuit Strategy on Research, and Inuvialuit Ways of Knowing and Being.

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## **6. Conclusion**

### **Overview**

The objectives of this thesis were to (1) to collaboratively evaluate the cooking circle regarding its impact on participants' intake of healthy food, awareness, and knowledge accumulation regarding healthy eating and healthier cooking/meal preparation techniques; (2) to assess the cooking circle in terms of its intangible (e.g., social, cultural, and mental health) benefits to the wellbeing of its participants and the community; (3) to analyze the potential for consistent country food integration into the cooking circle; (4) to generate a culturally relevant logic model; and (5) to evaluate program implementation in terms of key enablers and barriers – namely, funding, space and equipment, and human resources. Document analysis, a series of conversations with the Paulatuk cooking circle facilitator, semi-structured interviews with cooking circle/hamper program facilitators from ISR communities, Paulatuk cooking circle/hamper program participants, and regional manager, and logic model co-design contributed to addressing the research objectives. Below is a summary of the key findings by manuscript.

The findings of manuscript 1 (Section 4) revealed that the impact of cooking circles (community kitchens) on participants' knowledge of healthy eating, cooking, and social, cultural, and mental health dimensions differ somewhat in remote northern communities compared to similar studies conducted mostly in the southern urban context. In relation to remote northern communities, there is a greater need to focus on the community food environment, which includes physical, social, economic, cultural, and political factors that affect the accessibility, availability, and adequacy of food. Moreover, it is crucial to emphasize cultural aspects of the program, such as traditional language use and traditional knowledge sharing during program activities. To incorporate country food into cooking circles, significant financial, logistical, managerial, and

infrastructure inputs are required, such as hiring additional personnel, regulating and monitoring food preparation, portioning, distribution, storage, and food processing space. The role of the cooking circle program in supporting participants' food security as a social determinant of health should be viewed in the context of other factors such as culture and language, income distribution, housing, education, access to health services, mental wellness, and others.

In manuscript 2 (Section 5) process evaluation planning occurred iteratively with the co-design of the culturally relevant Mukluk Logic Model (MLM). The MLM represents a program evaluation tool in the Indigenous context integrating Inuvialuit knowledge and values. The MLM informed and was informed by process evaluation data analysis and findings considering cultural, personal, and community-specific factors that make one cooking circle program slightly different from another. The process evaluation findings showed that despite the relative stability of program funding, there are barriers to program sustainability such as the annual renewal process at the regional level, which undermines the foundation for strengthening community food security and well-being; hierarchical funding distribution; insufficient funding that undermines the success of the program and trust between federal, territorial, regional, and local organizations, and people who deliver the program, and impacts community social and soft infrastructure. Regarding space and equipment, the process evaluation findings identified barriers related to limited space and storage facilities despite the central location of the space used for the cooking circle activities as an enabler of the program's sustainability. We have found that limited space and storage facilities pose a barrier to the program's sustainability. As part of social infrastructure, these barriers create additional logistical and operational challenges to program implementation.

In terms of human resources, the process evaluation findings showed that facilitation consistency is a major factor in program sustainability. However, reliance on one person is not

viable, pointing to the need for local-scale co-facilitation of the program to ensure knowledge retention and improved program sustainability. Program co-facilitation proved to be challenging pointing to the specificity of the northern small community context in terms of the limited pool of qualified individuals who are not already employed. Additionally, the consistency of regional management is significant in the establishment of stable working relationships and trust, which facilitate effective communication and improve overall program management. Training of additional support personnel (facilitation and management), as well as transparency of all aspects related to the NNC cooking circle program organization, management, and communication, is required. In small northern communities, social and soft infrastructure challenges are significant factors that must receive immediate attention from federal, territorial, regional, and local governments throughout the chain of cooking circle implementation.

These findings informed the recommendation to the federal and territorial governments to pay significant attention to funding allocation and distribution for nutrition education programs, including multi-year funding and indexation. Additional funding is required to support successful community programs like the cooking circle to improve relationships and trust between federal, territorial, regional, and local agencies and help strengthen community food security and well-being. Improving community social and soft infrastructure through additional funding is essential to the sustainability of the program. Furthermore, the findings informed the recommendation to implement succession planning at both regional and local levels to maintain program sustainability. This includes fostering continuous employee development to ensure efficient modification and adaptation of program management and facilitation, training additional support personnel at both local and regional levels, and ensuring local co-facilitation of the cooking circle program for knowledge retention and backup. Transparency of all aspects related to the NNC

cooking circle program organization, management, communication, and facilitators' training is crucial in terms of managerial turnover.

## **Contributions**

This thesis makes a valuable contribution towards understanding the potential role of federal government programs in supporting self-determined, local food systems in the context of small, remote, Arctic communities. Through a process and outcome evaluation of a federally funded cooking circle program in Paulatuk, NWT, we highlight the impact of cooking circle (community kitchen) program on participants' food security and overall well-being while also identifying both opportunities and challenges around integrating country food in program activities. The research findings provide insights into the deeply entrenched settler-colonial mechanisms of federally funded community food programs that in some sense perpetuate food insecurity concerns in isolated northern communities and limit the realization of genuine food sovereignty and self-determination for Inuit communities. That said, this study also contributes to the process evaluation literature, highlighting critical program implementation factors that impact the effectiveness and sustainability of such programs. While the identified barriers show once again ingrained settler-colonial structures in which Inuit communities are bound to live and operate, the evaluation also highlights how, when local capacity is nurtured and sufficiently supported, communities can influence and drive externally-funded programs to better suit their needs, with culturally appropriate, place-based outcomes. The study contributes essential knowledge that can inform policy improvements and interventions to promote sustainable and culturally relevant community food initiatives in remote northern regions in ways that move toward more self-determined food systems.

This study also offers some methodological contributions. Through the collaborative design of the Mukluk Logic Model, I address a methodological gap concerning culturally relevant evaluation tools in Inuit contexts. Even though the MLM is a Paulatuk-specific cooking circle logic model, I hope that it can be useful not only in the ISR but in the broader Indigenous evaluation methodology context. Finally, considering that the CBPR approach of this research project was modified due to the Covid-19 pandemic, I engaged virtually in the research from the summer of 2020 to the spring of 2022. Virtual collaboration helped initially to establish the connection between myself and community researchers, and enabled more consistent, ongoing interactions over the research period, which would not have been possible previously when there was limited Internet capability and familiarity with video-conferencing programs in the community. That said, the depth and sensory experiences of in-person interactions cannot be replaced virtually. I was fortunate to combine the virtual engagement with two community visits and feel strongly that in-person collaboration is an essential component of community-based research, as virtual relationship building alone cannot fully replace face-to-face interactions.

## **Limitations**

It is important to note that the Covid-19 lockdowns significantly impacted the application of a CBPR approach in this study. Recognizing the importance of face-to-face interaction and community engagement in the implementation of CBPR, we had to adjust the mechanisms through which we collaborated with community partners and members. The need to balance both community interests related to the research itself and the risk of COVID-19 transmission brought on by in-person engagement created additional layers to the CBPR approach (Salma & Giri, 2021). Although the use of virtual options such as online conferencing helped gain trust between partners and transparency in the research process building on previously established research partnerships,

virtual collaboration was not always efficient due to the unstable Internet connectivity in northern communities. Additionally, this study would benefit from incorporating observation as a data collection method, which was not possible due to Covid-19 regulations. However, even though Covid-19 constraints prevented this study from fully utilizing the critical aspects of CBPR in the Indigenous context with continuous engagement over a longer period, I participated in field research activities in April – May 2022 and had an opportunity to share the project results with the community in February 2023, thus strengthening relationships initially built virtually.

### **Directions for future research**

Building on this study, future research can continue to develop culturally relevant Inuit-led evaluation approaches based on local knowledge and practices. Considering limited existing culturally relevant evaluation tools and frameworks, future researchers must work collaboratively with Inuit knowledge holders, not only engaging them in the research processes but recognizing that each Inuit Nunangat community's ways of knowing and being must be central in all aspects of evaluation. This can be achieved through consistent communication between researchers and northern research partners and an established network of relationship building, trust, and integrity. Anyone who is involved in research with northern research partners benefits greatly from spending time living with people in the community, learning from them, listening to their stories, and experiencing what it means to live in Arctic Canada. Without a full appreciation of its complexity, values, benefits, and challenges, meaningful research will not be possible. These networks must promote local knowledge and expertise, thus not only supporting northern research capacity but working towards cultural revitalization, research decolonization, and reconciliation (ITK, 2018; Thambinathan & Kinsella, 2021; TRC, 2015). All these points apply not only to the research with

Arctic communities within Canada but to any research involving Indigenous peoples within Canada or globally.

Considering the study findings, future research can concentrate more on how to eliminate barriers to consistent country food integration, not only in community kitchens but in any food-related programming, thus working towards strengthening Inuit food sovereignty. This will require not only analysis of financial, but logistical, managerial, and infrastructure inputs in terms of hiring additional people, regulating and monitoring food cutting, portioning, distribution, storage, and food processing space. These aspects of country food integration in federally funded food-related programs must consider local knowledge, and the significance of country food to people's wellbeing as an integral part of Inuit epistemologies, values, and identities. Additionally, future research must examine the local food environments of small northern communities as physical, social, economic, cultural, and political factors impacting the accessibility, availability, and adequacy of market food. Considering challenges with grocery store oligopolies, limited transportation infrastructure, and paucity of resources more research is needed to examine possibilities and opportunities to overcome these challenges.

### **Closing thoughts**

Looking back to 2020 when my excitement for future work with Paulatuk was withered with the Covid-19 lockdowns, I think that we managed to do incredible work collaborating, adapting, thinking, reflecting, supporting each other, and moving this project forward. Even though Covid created another layer of complications and adjustments, slowing down the research process and affecting my experiences as a graduate student by limiting personal interactions, hands-on learning opportunities, and the immersive nature of community-based research, the struggles of the first two years of this project seem insignificant compared to what we accomplished together. I have

learned so much during this journey. Everything that I have read, what I have thought about, what we have achieved with Celina and Denise, while talking and sharing online and in-person, what I have learned from students and professors involved in northern research, numerous webinars, several conferences, unforgettable trips to Paulatuk, engagement with the community members as much as was possible, and so much more are now part of me. I am incredibly grateful to everyone who was involved in this process. I want to say heartfelt thank you again (see *Acknowledgment*) to everyone I have met, with whom I have worked, and with whom I have crossed paths along the way for everything that you did or did not do. I hope to keep my friendship with Celina and Denise, developed during this project, and I genuinely hope to visit Paulatuk again to get a chance to enjoy the unpretentious Arctic beauty and engage in community activities, including talking, sharing, and laughing with the most amazing people. Till we meet again...

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# Appendices

## Appendix A - Ethics Certificate for the C4FS project

18/02/2021

**Université d'Ottawa**  
Bureau d'éthique et d'intégrité de la recherche

**University of Ottawa**  
Office of Research Ethics and Integrity

### CERTIFICAT D'APPROBATION ÉTHIQUE | CERTIFICATE OF ETHICS APPROVAL

<b>Numéro du dossier / Ethics File Number</b>	S-11-20-6256
<b>Titre du projet / Project Title</b>	Learning from and enhancing Community Capacity for Climate Change and Food Security (C4FS) action in the NWT
<b>Type de projet / Project Type</b>	Recherche de professeur / Professor's research project
<b>Statut du projet / Project Status</b>	Approuvé / Approved
<b>Date d'approbation (jj/mm/aaaa) / Approval Date (dd/mm/yyyy)</b>	18/02/2021
<b>Date d'expiration (jj/mm/aaaa) / Expiry Date (dd/mm/yyyy)</b>	17/02/2022

### Équipe de recherche / Research Team

<b>Chercheur / Researcher</b>	<b>Affiliation</b>	<b>Role</b>
Sonia WESCHE	Département de géographie / Department of Geography	Chercheur Principal / Principal Investigator
Mathieu KIM	Département de géographie / Department of Geography	Étudiant-chercheur / Student-researcher

### Conditions spéciales ou commentaires / Special conditions or comments

550, rue Cumberland, pièce 154 550 Cumberland Street, Room 154  
Ottawa (Ontario) K1N 6N5 Canada Ottawa, Ontario K1N 6N5 Canada

613-562-5387 • 613-562-5338 • [ethique@uOttawa.ca](mailto:ethique@uOttawa.ca) / [ethics@uOttawa.ca](mailto:ethics@uOttawa.ca)  
[www.recherche.uottawa.ca/deontologie](http://www.recherche.uottawa.ca/deontologie) | [www.recherche.uottawa.ca/ethics](http://www.recherche.uottawa.ca/ethics)

**CERTIFICAT D'APPROBATION ÉTHIQUE | CERTIFICATE OF ETHICS APPROVAL**

<b>Numéro du dossier / Ethics File Number</b>	S-11-20-6256
<b>Titre du projet / Project Title</b>	Learning from and enhancing Community Capacity for Climate Change and Food Security (C4FS) action in the NWT
<b>Type de projet / Project Type</b>	Recherche de professeur / Professor's research project
<b>Statut du projet / Project Status</b>	Renouvelé / Renewed
<b>Date d'approbation (jj/mm/aaaa) / Approval Date (dd/mm/yyyy)</b>	18/02/2021
<b>Date d'expiration (jj/mm/aaaa) / Expiry Date (dd/mm/yyyy)</b>	17/02/2023

**Équipe de recherche / Research Team**

<b>Chercheur / Researcher</b>	<b>Affiliation</b>	<b>Role</b>
Sonia WESCHE	Département de géographie / Department of Geography	Chercheur Principal / Principal Investigator
Lena DEDYUKINA	Département de géographie / Department of Geography	Étudiant-chercheur / Student-researcher
Camille SLACK	Département de géographie / Department of Geography	Étudiant-chercheur / Student-researcher

**Conditions spéciales ou commentaires / Special conditions or comments**

550, rue Cumberland, pièce 154    550 Cumberland Street, Room 154  
Ottawa (Ontario) K1N 6N5 Canada    Ottawa, Ontario K1N 6N5 Canada

613-562-5387 • 613-562-5338 • [ethique@uOttawa.ca](mailto:ethique@uOttawa.ca) / [ethics@uOttawa.ca](mailto:ethics@uOttawa.ca)  
[www.recherche.uottawa.ca/deontologie](http://www.recherche.uottawa.ca/deontologie) | [www.recherche.uottawa.ca/ethics](http://www.recherche.uottawa.ca/ethics)

## Appendix B - Research license for the C4FS project no. 16697

*License No. 16697  
File Number: 12 410 1157  
February 17, 2020*

2020  
**Northwest Territories Scientific Research Licence**

---

**Issued by:** Aurora Research Institute - Aurora College  
Inuvik, Northwest Territories

**Issued to:** Dr. Kelly Skinner  
University of Waterloo  
200 University Ave W  
School of Public Health and Health Systems  
Waterloo, ON  
N2L 3G1  
Phone: (519) 888-4567 x38164  
Email: kskinner@uwaterloo.ca

**Affiliation:** University of Waterloo

**Funding:** Canadian Institutes of Health Research

**Team Members:** Mylene Ratelle, Deborah Simmons, Brian Laird, Andrew Spring, Jennifer Fresque-Baxter, Gina Bayha, Julian MacLean, Melaine Simba, John B. Zoe, Sonia Wesche, Warren Dodd, Myriam Fillion, Tiff-Annie Kenny, Sonja Ostertag, Alex Latta

**Title:** Food Security Initiatives across the Northwest Territories

**Objectives:** To address priorities and inform both climate change and food security action and support-structures at local, regional, and territorial scales.


**Dates of data collection:** February 18, 2020 to December 31, 2020

**Locations:** Tuktoyaktuk, Déline, Tukit'a, Yellowknife, Paulatuk

Licence No. 16697 expires on December 31, 2020  
Issued in the Town of Inuvik on February 17, 2020

---

Pippa Seccombe-Hett  
Vice President, Research  
Aurora Research Institute



## Appendix C - Research license for the C4FS project no. 16832



AURORA RESEARCH INSTITUTE  
A U R O R A C O L L E G E

Aurora Research Institute  
PO Box 1450, Inuvik, NT X0E0T0  
Tel: (867) 777-3298 Fax: (867) 777-4264

[www.nwtresearch.com](http://www.nwtresearch.com)

May 26, 2021

### Notification of Research

I would like to inform you that Northwest Territories Scientific Research Licence No. 16832 has been issued to:

Dr. Kelly Skinner  
University of Waterloo  
200 University Ave W  
School of Public Health and Health Systems

Phone:  
Email:

to conduct the following study:  
Food Security Initiatives across the Northwest Territories (4936)

Please contact the researcher if you would like more information about this research project.

#### Summary of Research

The proposed research aims to learn from and enhance community capacity to address priorities and inform both climate change and food security action and support-structures at local, regional, and territorial scales.

Sincerely,

\_\_\_\_\_  
Jonathon Michel  
Manager, Scientific Services

#### Distribution

- Inuvialuit Community Development Division
- Hamlet of Paulatuk
- Hamlet of Tuktoyaktuk
- Sahtu Renewable Resources Board
- Deline Got'ine Government

- Tulita Metis Land Corporation
- Hamlet of Tulita
- North Slave Métis Alliance
- Akaitcho Territory Government
- City of Yellowknife
- Northwest Territory Métis Nation
- Tulita District Land Corporation Limited
- Sahtu Secretariat Incorporated
- Wek'èezhii Renewable Resources Board
- Inuvialuit Joint Secretariat
- Yellowknives Dene First Nation

## Appendix D - Letter of Support for the C4FS project

March 8th, 2019

**Re: Support for “Enhancing Community Capacity for Climate Change and Food Security Planning and Policy in the NWT” Proposal (PI: Skinner)**

To Whom it May Concern:

I am writing this letter in support of the “Enhancing Community Capacity for Climate Change and Food Security Planning and Policy in the NWT” proposal led Dr. Kelly Skinner. We have a history of working with Principal Applicant Dr. Sonia Wesche, and Knowledge User Jullian MacLean on projects related to climate change and food security. MacLean has been working directly with a local coordinator (Celina Wolki) to implement weekly Nutrition North cooking circles for the past four years, and together Wesche and MacLean have engaged in community-based research projects driven by community food security priorities. These include a Harvest and Sharing Survey in 2017, and a Food Security Engagement process in 2018 to inform the development of a regional Food Security Strategy. Wesche and MacLean recently visited Paulatuk (February 2019) to verify the engagement data in a public forum.

Paulatuk is a small (pop. 312), coastal, fly-in community in the Inuvialuit Settlement Region, where residents are strongly tied to the land, relying on a combination of both country food and market food. Despite the Nutrition North Canada subsidy for certain perishable market foods, our community experiences high levels of food insecurity. Changes in climate continue to impact our food system, and we are keen to work on projects that will help support our community food initiatives and contribute to our efforts to adapt to climate change. Through the recent Community Engagement process led by Wesche and MacLean, the community has identified a number of areas that may help residents adapt to change, including capacity-building and infrastructure related to a) the community freezer, b) harvesting, with a focus on youth, c) healthy eating and cooking, and d) food preservation and storage, with a country food focus. We are interested in developing an action plan and implementing actions around these themes.

In supporting this project, we are aware that community members will be invited to participate in research activities, either as community coordinators, or as participants in workshops and sharing circles or other evaluation methods. We very keen to have a Community Coordinator hired to serve as a local navigator for the project, and who can incorporate Indigenous knowledge of climate change and its relationship to northern food systems. Having the opportunity to help shape the project direction and methods is particularly important to us and will help ensure that local knowledge is being captured in appropriate ways. We are glad that the research team is dedicated to capacity-building, and to providing us with tools to enable us to make our own informed decisions about how to continue moving forward with community food and climate change initiatives once the funding ends. We also recognize the importance of sharing what we learn at the local level with other case study communities involved in this project and are excited to learn from others as well.

The Paulatuk Community Corporation will support the implementation of this research, and our members will engage in research activities, as needed. We look forward to continued collaboration with Dr. Skinner, Dr. Wesche, Mr. MacLean, and their team over the 4 years of this research and

anticipate that the project will contribute to improved health and well-being of the people of Pualtuk. This research comes at a critical time, and we are hopeful that the funding agency can clearly see the significance of supporting this important project.

Sincerely,

Lawrence Ruben  
Paulatuk Community Corporation, Chair  
Paulatuk, NWT

## Appendix E - Nutrition North Canada (NNC) cooking circle study participant recruitment flyer



### Nutrition North Canada (NNC) cooking circle study

- Have you attended NNC cooking circles between 2017-2020?
- Are you willing to share your experience with the program?

**Celina Wolki, the new ISR Food Security Coordinator, and Denise Wolkie, the Community Research Lead are working with University of Ottawa researchers to evaluate the NNC Cooking Circle program. They are arranging interviews with participants who attended the program regularly.**

Participants will receive a grocery gift card and a NNC cooking circle recipe book

**Please contact Celina Wolki or Denise Wolkie to arrange an interview!**

- 
- 



## **Appendix F - Nutrition North Canada (NNC) cooking circle study participant recruitment Facebook post**

**Facebook Post to be shared on the Paulatuk Community Events and Daily news Facebook page, and cross-posted on other community pages such as:**

*Paulatuk Community Corporation page*

*Hunters and Trappers of Paulatuk page*

*Hamlet of Paulatuk page*

*Northern Paulatuk page*

Have you attended NNC cooking circles between 2017-2020? Are you willing to share your experience with the program? Celina Wolki, the new ISR Food Security Coordinator, and Denise Wolkie, the Community Research Lead are working with University of Ottawa researchers to evaluate the NNC Cooking Circle program. They are arranging interviews with participants who attended the program regularly. If you are a cooking circle participant who wants to share your stories about food, cooking, and your experience with the program, please contact Celina Wolki or Denise Wolkie to arrange an interview! To recognize and value the time and knowledge sharing of each participant, we are offering a grocery gift card and NNC cooking circle recipe book to all those who are interviewed.

Covid health measures are in place. You don't have to participate if you are not comfortable considering the health regulations.

We are looking forward to your participation! Don't miss the chance to be heard and make your voice count!

Please contact:

*Celina Wolki* by phone:

*Denise Wolkie* by phone:

## Appendix G - Regional program manager consent form



Université d'Ottawa | University of Ottawa

Faculty of Arts  
Department of Geography, Environment & Geomatics  
Simard Hall  
60 University Pvt.  
Ottawa ON, Canada, K1N 6N5  
Phone: 613-562-5725  
Fax: 613-562-5145

**Consent Form – regional representative:  
Nutrition North Canada (NNC) cooking circle program  
evaluation in Paulatuk, ISR, NWT**

**Lead Researchers:**

**Celina Wolki**  
ISR Food Security Coordinator

**Lena Dedyukina**  
Master's Student, Geography  
University of Ottawa

**Sonia Wesche, Ph.D.**  
Associate Professor  
Dept. of Geography, Environment and Geomatics  
University of Ottawa

**Invitation to Participate:** You are invited to contribute to the research called "Community food security and wellbeing: Evaluation of the Nutrition North Canada cooking circle program in Paulatuk, NWT." This study is a part of *Community Capacity for Climate Change and Food Security Action in the NWT (C4FS)* project funded by the Canadian Institute for Health Research (CIHR). The study is led by Celina Wolki, Lena Dedyukina, and Dr. Sonia Wesche.

**Purpose of the Study:** The purpose of the study is to evaluate the NNC cooking circle program and gather the cooking circle participants', cooking circle facilitators', and community organization representatives' perspectives regarding the process and outcomes of the program. The evaluation results will be shared with the other five ISR communities and help support and inform the program management decisions.

**Participation:** Your participation will involve one semi-structured interview with Lena Dedyukina that is expected to last between one or one and a half hours. During the interview, you will be asked to contribute your knowledge and opinion about the NNC nutrition education funding, NNC cooking circle program, and hamper program. The interview will be audio-recorded.

**Photograph:** You will also be asked to share a photo of yourself or have your photo taken. Should you consent to do so, your photo will help to communicate the research. You may choose not to provide a photo (details are stated below).

**Timeline:** Following the conversations, Celina Wolki and/or Lena Dedyukina will transcribe the recording. You will be provided with an opportunity to review the quotes and your photograph used in any format for public or academic purposes, such as thesis, presentations, posters, and others. The complete transcription of the interview will be available upon request. You may make changes to your data and/or withdraw your data at any time.

**Risks:** The risks to participating in this study are expected to be minimal.

**Benefits:** By participating in this study, you will be contributing important knowledge about the impact and significance of community food initiatives in northern communities to policymakers and regional/community corporations. With the stories you share, we will support the development of better programs to improve access to affordable market foods and country foods.

**Confidentiality and anonymity:** You may choose (below) how you would like to protect your personal information. Your information will not be shared without your written permission.

**Use of data:** The information you share will be used in Lena Dedyukina's research thesis, presentations, publications, and research reports to support decision-making about food security in the ISR. You can also choose whether to share your data with the Paulatuk Community Corporation (PCC) and Inuvialuit Regional Corporation (IRC) for future use (the details can be found on the last page of this document).

**Conservation of data:** The data collected (the audio recording of the interview, its transcript, and your photograph) will be kept on a password-protected hard drive and shared with your permission with the PCC and IRC. This data will be kept indefinitely for community use unless you indicate otherwise. If you choose to withdraw a certain part of your data for research use, it will be securely deleted from all hard drives.

Lena Dedyukina and Sonia Wesche will keep a copy of the data on a password-protected hard drive in Ottawa and will delete the data after 5 years.

**Additional questions:** If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5; Tel.: (613) 562-5387; Email: [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

**Please CHECK ONE - choose the type of participation you are most comfortable with:**

- I would like to be identified by name when the researchers refer to my words in the study documents, reports, etc.
- I would like my identity to be kept confidential, but the researchers may refer to me using my job title or role in the community only in study documents, reports, etc.
- I would like my identity to be kept confidential (no identifying information will be included next to my words in the study documents, reports, etc.)

**Please CHECK ONE - use of your photographs by the study team:** Photographs taken of you would be used to add interest and exemplify the research findings. For example, they may be used as illustrations in website summaries, research reports, summary leaflets, newspapers articles, and/or conference presentations.

- I give the study team permission to use my photographs
- I **DO NOT** give the study team permission to use my photographs

**Please CHECK ONE – PCC and IRC Data Use:**

With your permission, data collected for this study will be sent to the Paulatuk Community Corporation (PCC) and the Inuvialuit Regional Corporation (IRC) once the C4FS project has ended (approx. 2025) for possible future use. Please be aware that if you agree to this, your data will be linked with your personal information: the PCC and IRC will know which data is from your participation.

I give permission for the following to be sent to the PCC and IRC for the purpose stated above:

- audio-recording
- interview transcript
- my photographs

**Please note:** the PCC and IRC will ask permission from you for any future data use.

**By signing below OR giving verbal consent, I confirm the following:**

- Full details of the study have been explained to me.
- My questions about the study have been answered.
- I understand that I can choose to stop participating at any time and that I can choose not to answer any specific questions.
- I understand that if I have questions about the study in the future, I may contact the researchers.
- I understand that my identity will be kept confidential unless I agree to share it.
- I understand that there are two copies of the consent form, one of which is mine to keep.

**ACCEPTANCE:** I, \_\_\_\_\_ (*Name*), agree to participate in the above research study conducted by Celina Wolki (Paulatuk), Lena Dedyukina (University of Ottawa), and Dr. Sonia Wesche (University of Ottawa).

_____	_____
Participant's signature	Date
_____	
Researcher's signature	

**Verbal Consent**

Name of person providing consent: \_\_\_\_\_

Name of person obtaining consent: \_\_\_\_\_

Signature of person obtaining consent: \_\_\_\_\_ Date: \_\_\_\_\_

<b>Coded participant ID:</b> _____
------------------------------------

3

## Appendix H - NNC cooking circle participants (Elders) consent form



Université d'Ottawa | University of Ottawa

Faculty of Arts  
Department of Geography, Environment & Geomatics  
Simard Hall  
60 University Pvt.  
Ottawa ON, Canada, K1N 6N5  
Phone: 613-562-5725  
Fax: 613-562-5145

### Consent Form - NNC cooking circle participants (Elders): Nutrition North Canada (NNC) cooking circle program evaluation in Paulatuk, ISR, NWT

#### Lead Researchers:

##### **Celina Wolki**

ISR Food Security coordinator

Tel:

Email:

##### **Lena Dedyukina**

Master's Student, Geography

University of Ottawa

Tel:

Email:

##### **Sonia Wesche, Ph.D.**

Associate Professor

Dept. of Geography, Environment, and  
Geomatics

University of Ottawa

Tel:

Email:

**Invitation to Participate:** You are invited to contribute to the research called "Community food security and wellbeing: Evaluation of the Nutrition North Canada cooking circle program in Paulatuk, NWT." This study is a part of *Community Capacity for Climate Change and Food Security Action in the NWT (C4FS)* project funded by the Canadian Institute for Health Research (CIHR). The study is led by Celina Wolki, Lena Dedyukina, and Dr. Sonia Wesche.

**Purpose of the Study:** The purpose of the study is to evaluate the NNC cooking circle program and gather the cooking circle participants', cooking circle facilitators', and community organization representatives' perspectives regarding the process and outcomes of the program. The evaluation results will be shared with the other five ISR communities and help support and inform the program management decisions.

**Participation:** Your participation will involve one semi-structured interview with a community researcher that is expected to last between one or one and a half hours. During the interview, you will be asked to contribute your knowledge and opinion about NNC cooking circle program and hamper program. The interview will be audio-recorded. We will also ask for demographic data, such as your age, occupation, and other relevant demographic information necessary to analyze the data.

**Timeline:** Following your interview, Celina Wolki and/or Lena Dedyukina will transcribe your recording. You will be provided with an opportunity to review the quotes used in any format for public or academic purposes, such as thesis, presentations, posters, and others. The complete

transcription of the interview will be available upon request. You may make changes to your data and/or withdraw your data at any time.

**Risks:** The risks to participating in this study are expected to be minimal.

**Benefits:** By participating in this study, you will be contributing important knowledge about the impact and significance of community food initiatives in northern communities to policymakers and regional/community corporations. With the stories you share, we will support the development of better programs to improve access to affordable market foods and country foods.

**Compensation:** A \$200 gift card to your local grocery store and an NNC cooking circle recipe book will be provided. If you choose to withdraw in the middle of the conversation, you may keep these items.

**Confidentiality and anonymity:** You may choose (below) how you would like to protect your personal information. Your information will not be shared without your written permission.

**Use of data:** The information you share will be used in Lena Dedyukina's research thesis, presentations, publications, and research reports to support decision-making about food security in the ISR. You can also choose whether to share your data with the Paulatuk Community Corporation (PCC) and Inuvialuit Regional Corporation (IRC) for future use (the details can be found on the last page of this document).

**Conservation of data:** The data collected (the audio recording of the interview and its transcript) will be kept on a password-protected hard drive and shared with your permission with the PCC and IRC. This data will be kept indefinitely for community use unless you indicate otherwise. If you choose to withdraw a certain part of your data for research use, it will be securely deleted from all hard drives.

Lena Dedyukina and Sonia Wesche will keep a copy of the data on a password-protected hard drive in Ottawa and will delete the data after 5 years.

**Voluntary Participation:** You are under no obligation to participate. If you consent to participate, you may withdraw from the study at any time and/or refuse to answer any questions without suffering any negative consequences. You may request your data to be removed from the study before the research results are published by contacting the researchers. However, once the results have been submitted for publication, it will not be possible to remove your data from the study.

**Additional questions:** If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5; Tel.: (613) 562-5387; Email: [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

**Please CHECK ONE - choose the type of participation you are most comfortable with:**

- I would like to be identified by name when the researchers refer to my words in the study documents, reports, etc.
- I would like my identity to be kept confidential, but the researchers may refer to me using my job title or role in the community only in study documents, reports, etc.
- I would like my identity to be kept confidential (no identifying information will be included next to my words in the study documents, reports, etc.)

**Please CHECK ONE - IRC Data Use:**

With your permission, data collected for this study will be sent to the Inuvialuit Regional Corporation (IRC) once the C4FS project has ended (approx. 2025). The IRC intends to store this information for future use. Please be aware that if you agree to this, your data will be linked with your personal information: the IRC will know which data is from your participation.

I give permission for the following to be sent to the IRC for the purpose stated above:

- audio-recording
- interview transcript

**Please note:** the IRC will ask permission from you for any future data use.

**By signing below OR giving verbal consent, I confirm the following:**

- Full details of the study have been explained to me.
- My questions about the study have been answered.
- I understand that I can choose to stop participating at any time and that I can choose not to answer any specific questions.
- I understand that if I have questions about the study in the future, I may contact the researchers.
- I understand that my identity will be kept confidential unless I agree to share it.
- I understand that there are two copies of the consent form, one of which is mine to keep.

**ACCEPTANCE:** I, \_\_\_\_\_ (Name), agree to participate in the above research study conducted by Celina Wolki (Paulatuk), Lena Dedyukina (University of Ottawa), and Dr. Sonia Wesche (University of Ottawa).

_____	_____
Participant's signature	Date
_____	
Researcher's signature	

3

**Verbal Consent**

Name of person providing consent: \_\_\_\_\_

Name of person obtaining consent: \_\_\_\_\_

Signature of person obtaining consent: \_\_\_\_\_

Date: \_\_\_\_\_

**Coded participant ID:** \_\_\_\_\_

## Appendix I - NNC cooking circle participants consent form



Université d'Ottawa | University of Ottawa

Faculty of Arts  
Department of Geography, Environment & Geomatics  
Simard Hall  
60 University Pvt.  
Ottawa ON, Canada, K1N 6N5  
Phone: 613-562-5725  
Fax: 613-562-5145

### Consent Form – NNC cooking circle participants: Nutrition North Canada (NNC) cooking circle program evaluation in Paulatuk, ISR, NWT

#### Lead Researchers:

##### **Celina Wolki**

ISR Food Security coordinator

Tel:

Email:

##### **Lena Dedyukina**

Master's Student, Geography

University of Ottawa

Tel:

Email:

##### **Sonia Wesche, Ph.D.**

Associate Professor

Dept. of Geography, Environment and Geomatics

University of Ottawa

Tel:

Email:

**Invitation to Participate:** You are invited to contribute to the research called “Community food security and wellbeing: Evaluation of the Nutrition North Canada cooking circle program in Paulatuk, NWT.” This study is a part of *Community Capacity for Climate Change and Food Security Action in the NWT (C4FS)* project funded by the Canadian Institute for Health Research (CIHR). The study is led by Celina Wolki, Lena Dedyukina, and Dr. Sonia Wesche.

**Purpose of the Study:** The purpose of the study is to evaluate the NNC cooking circle program and gather the cooking circle participants’, cooking circle facilitators’, and community organization representatives’ perspectives regarding the process and outcomes of the program. The evaluation results will be shared with the other five ISR communities and help support and inform the program management decisions.

**Participation:** Your participation will involve one semi-structured interview with a community researcher that is expected to last between one or one and a half hours. During the interview, you will be asked to contribute your knowledge and opinion about NNC cooking circle program and hamper program. The interview will be audio-recorded. We will also ask for demographic data, such as your age, occupation, and other relevant demographic information necessary to analyze the data.

**Timeline:** Following your interview, Celina Wolki and/or Lena Dedyukina will transcribe your recording. You will be provided with an opportunity to review the quotes used in any format for public or academic purposes, such as thesis, presentations, posters, and others. The complete transcription of the interview will be available upon request. You may make changes to your data and/or withdraw your data at any time.

**Risks:** The risks to participating in this study are expected to be minimal.

**Benefits:** By participating in this study, you will be contributing important knowledge about the impact and significance of community food initiatives in northern communities to policymakers and regional/community corporations. With the stories you share, we will support the development of better programs to improve access to affordable market foods and country foods.

**Compensation:** A \$150 gift card to your local grocery store and an NNC cooking circle recipe book will be provided. If you choose to withdraw in the middle of the conversation, you may keep these items.

**Confidentiality and anonymity:** You may choose (below) how you would like to protect your personal information. Your information will not be shared without your written permission.

**Use of data:** The information you share will be used in Lena Dedyukina's research thesis, presentations, publications, and research reports to support decision-making about food security in the ISR. You can also choose whether to share your data with the Paulatuk Community Corporation (PCC) and Inuvialuit Regional Corporation (IRC) for future use (the details can be found on the last page of this document).

**Conservation of data:** The data collected (the audio recording of the interview and its transcript) will be kept on a password-protected hard drive and shared with your permission with the PCC and IRC. This data will be kept indefinitely for community use unless you indicate otherwise. If you choose to withdraw a certain part of your data for research use, it will be securely deleted from all hard drives.

Lena Dedyukina and Sonia Wesche will keep a copy of the data on a password-protected hard drive in Ottawa and will delete the data after 5 years.

**Voluntary Participation:** You are under no obligation to participate. If you consent to participate, you may withdraw from the study at any time and/or refuse to answer any questions without suffering any negative consequences. You may request your data to be removed from the study before the research results are published by contacting the researchers. However, once the results have been submitted for publication, it will not be possible to remove your data from the study.

**Additional questions:** If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5; Tel.: (613) 562-5387; Email: [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

**Please CHECK ONE - choose the type of participation you are most comfortable with:**

- I would like to be identified by name when the researchers refer to my words in the study documents, reports, etc.
- I would like my identity to be kept confidential, but the researchers may refer to me using my job title or role in the community only in study documents, reports, etc.
- I would like my identity to be kept confidential (no identifying information will be included next to my words in the study documents, reports, etc.)

**Please CHECK ONE - IRC Data Use:**

With your permission, data collected for this study will be sent to the Inuvialuit Regional Corporation (IRC) once the C4FS project has ended (approx. 2025). The IRC intends to store this information for future use. Please be aware that if you agree to this, your data will be linked with your personal information: the IRC will know which data is from your participation.

I give permission for the following to be sent to the IRC for the purpose stated above:

- audio-recording
- interview transcript

**Please note:** the IRC will ask permission from you for any future data use.

**By signing below OR giving verbal consent, I confirm the following:**

- Full details of the study have been explained to me.
- My questions about the study have been answered.
- I understand that I can choose to stop participating at any time and that I can choose not to answer any specific questions.
- I understand that if I have questions about the study in the future, I may contact the researchers.
- I understand that my identity will be kept confidential unless I agree to share it.
- I understand that there are two copies of the consent form, one of which is mine to keep.

**ACCEPTANCE:** I, \_\_\_\_\_ (Name), agree to participate in the above research study conducted by Celina Wolki (Paulatuk), Lena Dedyukina (University of Ottawa), and Dr. Sonia Wesche (University of Ottawa).

<hr style="border: none; border-top: 1px solid black; margin-bottom: 5px;"/> <b>Participant's signature</b>	<hr style="border: none; border-top: 1px solid black; margin-bottom: 5px;"/> <b>Date</b>
<hr style="border: none; border-top: 1px solid black; margin-top: 20px;"/> <b>Researcher's signature</b>	

**Verbal Consent**

Name of person providing consent: \_\_\_\_\_

Name of person obtaining consent: \_\_\_\_\_

Signature of person obtaining consent: \_\_\_\_\_ Date: \_\_\_\_\_

<b>Coded participant ID:</b> _____
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## Appendix J - NNC cooking circle facilitator consent form



Université d'Ottawa | University of Ottawa

Faculty of Arts  
Department of Geography, Environment & Geomatics  
Simard Hall  
60 University Pvt.  
Ottawa ON, Canada, K1N 6N5  
Phone: 613-562-5725  
Fax: 613-562-5145

**Consent Form - cooking circle facilitators (other ISR communities):  
Nutrition North Canada (NNC) cooking circle program  
evaluation in Paulatuk, ISR, NWT**

**Lead Researchers:**

**Celina Wolki**

ISR Food Security coordinator

Tel:

Email:

**Lena Dedyukina**

Master's Student, Geography

University of Ottawa

Tel:

Email:

**Sonia Wesche, Ph.D.**

Associate Professor

Dept. of Geography, Environment and Geomatics

University of Ottawa

Tel:

Email:

**Invitation to Participate:** You are invited to contribute to the research called "Community food security and wellbeing: Evaluation of the Nutrition North Canada cooking circle program in Paulatuk, NWT." This study is a part of *Community Capacity for Climate Change and Food Security Action in the NWT (C4FS)* project funded by the Canadian Institute for Health Research (CIHR). The study is led by Celina Wolki, Lena Dedyukina, and Dr. Sonia Wesche.

**Purpose of the Study:** The purpose of the study is to evaluate the NNC cooking circle program and gather the cooking circle participants', cooking circle facilitators', and community organization representatives' perspectives regarding the process and outcomes of the program. The evaluation results will be shared with the other five ISR communities and help support and inform the program management decisions.

**Participation:** Your participation will involve one semi-structured interview with Lena Dedyukina that is expected to last between one or one and a half hours. During the interview, you will be asked to contribute your knowledge and opinion about the NNC nutrition education funding, NNC cooking circle program, and hamper program. The interview will be audio-recorded. We will also ask for demographic data, such as your age, occupation, and other relevant demographic information necessary to analyze the data.

**Timeline:** Following your interview, Celina Wolki and/or Lena Dedyukina will transcribe your recording. You will be provided with an opportunity to review the quotes used in any format for public or academic purposes, such as thesis, presentations, posters, and others. The complete transcription of the interview will be available upon request. You may make changes to your data and/or withdraw your data at any time.

**Risks:** The risks to participating in this study are expected to be minimal.

**Benefits:** By participating in this study, you will be contributing important knowledge about the impact and significance of community food initiatives in northern communities to policymakers and regional/community corporations. With the stories you share, we will support the development of better programs to improve access to affordable market foods and country foods.

**Compensation:** A \$150 gift card to your local grocery store will be provided. If you choose to withdraw in the middle of the conversation, you may keep it.

**Confidentiality and anonymity:** You may choose (below) how you would like to protect your personal information. Your information will not be shared without your written permission.

**Use of data:** The information you share will be used in Lena Dedyukina's research thesis, presentations, publications, and research reports to support decision-making about food security in the ISR. You can also choose whether to share your data with the Paulatuk Community Corporation (PCC) and Inuvialuit Regional Corporation (IRC) for future use (the details can be found on the last page of this document).

**Conservation of data:** The data collected (the audio recording of the interview and its transcript) will be kept on a password-protected hard drive and shared with your permission with the PCC and IRC. This data will be kept indefinitely for community use unless you indicate otherwise. If you choose to withdraw a certain part of your data for research use, it will be securely deleted from all hard drives.

Lena Dedyukina and Sonia Wesche will keep a copy of the data on a password-protected hard drive in Ottawa and will delete the data after 5 years.

**Voluntary Participation:** You are under no obligation to participate. If you consent to participate, you may withdraw from the study at any time and/or refuse to answer any questions without suffering any negative consequences. You may request your data to be removed from the study before the research results are published by contacting the researchers. However, once the results have been submitted for publication, it will not be possible to remove your data from the study.

**Additional questions:** If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5; Tel.: (613) 562-5387; Email: [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

**Please CHECK ONE - choose the type of participation you are most comfortable with:**

- I would like to be identified by name when the researchers refer to my words in the study documents, reports, etc.
- I would like my identity to be kept confidential, but the researchers may refer to me using my job title or role in the community only in study documents, reports, etc.
- I would like my identity to be kept confidential (no identifying information will be included next to my words in the study documents, reports, etc.)

**Please CHECK ONE - IRC Data Use:**

With your permission, data collected for this study will be sent to the Inuvialuit Regional Corporation (IRC) once the C4FS project has ended (approx. 2025). The IRC intends to store this information for future use. Please be aware that if you agree to this, your data will be linked with your personal information; the IRC will know which data is from your participation.

I give permission for the following to be sent to the IRC for the purpose stated above:

- audio-recording
- interview transcript

**Please note:** the IRC will ask permission from you for any future data use.

**By signing below OR giving verbal consent, I confirm the following:**

- Full details of the study have been explained to me.
- My questions about the study have been answered.
- I understand that I can choose to stop participating at any time and that I can choose not to answer any specific questions.
- I understand that if I have questions about the study in the future, I may contact the researchers.
- I understand that my identity will be kept confidential unless I agree to share it.
- I understand that there are two copies of the consent form, one of which is mine to keep.

**ACCEPTANCE:** I, \_\_\_\_\_ (*Name*), agree to participate in the above research study conducted by Celina Wolki (Paulatuk), Lena Dedyukina (University of Ottawa), and Dr. Sonia Wesche (University of Ottawa).

<hr/> Participant's signature	<hr/> Date
<hr/> Researcher's signature	

**Verbal Consent**

Name of person providing consent: \_\_\_\_\_

Name of person obtaining consent: \_\_\_\_\_

Signature of person obtaining consent: \_\_\_\_\_ Date: \_\_\_\_\_

<b>Coded participant ID:</b> _____
------------------------------------

## Appendix K - Paulatuk NNC cooking circle facilitator consent form



Université d'Ottawa | University of Ottawa

Faculty of Arts  
Department of Geography, Environment & Geomatics  
Simard Hall  
60 University Pvt.  
Ottawa ON, Canada, K1N 6N5  
Phone: 613-562-5725  
Fax: 613-562-5145

### Consent Form – Paulatuk NNC cooking circle facilitator: Nutrition North Canada (NNC) cooking circle program evaluation in Paulatuk, ISR, NWT

#### Lead Researchers:

##### **Celina Wolki**

ISR Food Security Coordinator

Tel:

Email:

##### **Lena Dedyukina**

Master's Student, Geography

University of Ottawa

Tel:

Email:

##### **Sonia Wesche, Ph.D.**

Associate Professor

Dept. of Geography, Environment and Geomatics

University of Ottawa

Tel:

Email:

**Invitation to Participate:** You are invited to contribute to the research called "Community food security and wellbeing: Evaluation of the Nutrition North Canada cooking circle program in Paulatuk, NWT." This study is a part of *Community Capacity for Climate Change and Food Security Action in the NWT (C4FS)* project funded by the Canadian Institute for Health Research (CIHR). The study is led by Celina Wolki, Lena Dedyukina, and Dr. Sonia Wesche.

**Purpose of the Study:** The purpose of the study is to evaluate the NNC cooking circle program and gather the cooking circle participants', cooking circle facilitators', and community organization representatives' perspectives regarding the process and outcomes of the program. The evaluation results will be shared with the other five ISR communities and help support and inform the program management decisions.

**Participation:** Your participation will involve conversations with Lena Dedyukina about various aspects of the cooking circle organization, implementation, and management that will take place for the duration of the study. During the conversations, you will be asked to contribute your knowledge and opinion about the NNC cooking circle program. The conversations will be audio-recorded. We will also ask for demographic data, such as your age, occupation, and other relevant demographic information necessary to analyze the data.

**Photograph:** You will also be asked to share a photo of yourself or have your photo taken. Should you consent to do so, your photo will help to communicate the research. You may choose not to provide a photo (details are stated below).

**Timeline:** Following the conversations, Lena Dedyukina will transcribe the recordings. You will be provided with an opportunity to review the quotes and your photograph used in any format for public or academic purposes, such as thesis, presentations, posters, and others. The complete transcription of the

conversations will be available upon request. You may make changes to your data and/or withdraw your data at any time.

**Risks:** The risks to participating in this study are expected to be minimal.

**Benefits:** By participating in this study, you will be contributing important knowledge about the impact and significance of community food initiatives in northern communities to policymakers and regional/community corporations. With the stories you share, we will support the development of better programs to improve access to affordable market foods and country foods.

**Compensation:** The conversations will be part of the Food Security Coordinator position during regular working hours.

**Confidentiality and anonymity:** You may choose (below) how you would like to protect your personal information. Your information will not be shared without your written permission.

**Use of data:** The information you share will be used in Lena Dedyukina's research thesis, presentations, publications, and research reports to support decision-making about food security in the ISR. You can also choose whether to share your data with the Paulatuk Community Corporation (PCC) and Inuvialuit Regional Corporation (IRC) for future use (the details can be found on the last page of this document).

**Conservation of data:** The data collected (the audio recordings of the conversations, their transcripts, and your photograph) will be kept on a password-protected hard drive and shared with your permission with the PCC and IRC. This data will be kept indefinitely for community use unless you indicate otherwise. If you choose to withdraw a certain part of your data for research use, it will be securely deleted from all hard drives.

Lena Dedyukina and Sonia Wesche will keep a copy of the data on a password-protected hard drive in Ottawa and will delete the data after 5 years.

**Additional questions:** If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5; Tel.: (613) 562-5387; Email: [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

**Please CHECK ONE - choose the type of participation you are most comfortable with:**

- I would like to be identified by name when the researchers refer to my words in the study documents, reports, etc.
- I would like my identity to be kept confidential, but the researchers may refer to me using my job title or role in the community only in study documents, reports, etc.
- I would like my identity to be kept confidential (no identifying information will be included next to my words in the study documents, reports, etc.)

**Please CHECK ONE - use of your photographs by the study team:** Photographs taken of you would be used to add interest and exemplify the research findings. For example, they may be used as illustrations in website summaries, research reports, summary leaflets, newspapers articles, and/or conference presentations.

I give the study team permission to use my photographs

I **DO NOT** give the study team permission to use my photographs

**Please CHECK ONE – PCC and IRC Data Use:**

With your permission, data collected for this study will be sent to the Paulatuk Community Corporation (PCC) and the Inuvialuit Regional Corporation (IRC) once the C4FS project has ended (approx. 2025) for possible future use. Please be aware that if you agree to this, your data will be linked with your personal information: the PCC and IRC will know which data is from your participation.

I give permission for the following to be sent to the PCC and IRC for the purpose stated above:

audio-recording

conversation transcript

my photographs

**Please note:** the PCC and IRC will ask permission from you for any future data use.

**By signing below OR giving verbal consent, I confirm the following:**

- Full details of the study have been explained to me.
- My questions about the study have been answered.
- I understand that I can choose to stop participating at any time and that I can choose not to answer any specific questions.
- I understand that if I have questions about the study in the future, I may contact the researchers.
- I understand that my identity will be kept confidential unless I agree to share it.
- I understand that there are two copies of the consent form, one of which is mine to keep.

**ACCEPTANCE:** I, \_\_\_\_\_ (*Name*), agree to participate in the above research study conducted by Celina Wolki (Paulatuk), Lena Dedyukina (University of Ottawa), and Dr. Sonia Wesche (University of Ottawa).

_____	_____
Participant's signature	Date
_____	
Researcher's signature	

**Verbal Consent**

Name of person providing consent: \_\_\_\_\_

Name of person obtaining consent: \_\_\_\_\_

Signature of person obtaining consent: \_\_\_\_\_ Date: \_\_\_\_\_

**Coded participant ID:** \_\_\_\_\_

## Appendix L - Regional program manager interview guide

- ✓ *Turn on the recording once you get the verbal OK.*
- ✓ *Read through the consent form to explain the project (the consent form can be send in advance by email).*
- ✓ *Ask: “Do you have any questions?”*
- ✓ *Get signature (electronic – email) or verbal consent if a participant prefers to consent verbally (remember, if they want to give verbal consent, you have to record both the verbal consent and yourself reading through the consent document).*

*I will start by asking some broad questions about the NNC nutrition education funding and the cooking circle program in particular.*

**Q1:** I would like to hear more about the NNC nutrition education funding history, and more specifically, the cooking circle program. Can you please describe the decision-making process regarding funding allocation and how the cooking circle program came about?

- What other activities are supported by the NNC nutrition education funding?

**Q2:** Can you share your opinion regarding the NNC program priorities and how they align with regional/community priorities? (the difference between *healthy food* could be discussed, colourful/country food).

**Q3:** Can you tell us more about your role in managing the program? What do you have to do to keep the program running? (funds, etc.) What happens if you leave or are unable to fulfill your role – is there a backup?

- If someone else were to take your position at IRC, would they be expected to continue to do everything you do currently, or does that depend on IRC's decision?

**Q4:** What are the biggest challenges to running the program?

- What challenges do you experience in your role supporting the NNC cooking circles in the ISR communities?
- To your knowledge, what are the challenges for those implementing the program, for example facilitators?
- Are there any opportunities to make the program run more smoothly or increase program sustainability?

**Q5:** Can you please explain how the funding model for the cooking circle program and distribution to communities works? Does each community receive the same amount of funding?

- Is there a specific person who monitors distribution and spending?
- What mechanisms or tools are used to conduct program monitoring, for example, documentation or a survey of participants? (feedback form?)

**Q6:** How sustainable is the program funding? Do you anticipate that the program will continue far into the future? Why/why not?

- Do you have ideas about how to improve the sustainability of program funding?

**Q7:** What kinds of infrastructure/equipment or other resources are provided in each community?

- How do maintenance and upgrades work? Where do the funds come from?

**Q8:** What kind of training is offered for the cooking circle facilitators (type, how often, certification, who provides the training)?

**Q9:** What kind of commitment is required from the NNC representatives (contracts for certain time period, do they visit communities/region, if yes – how often)?

- What are your reporting requirements back to NNC?
- What are the reporting requirements of each of the facilitators? Is this sufficient, or could it be improved?

*I would now like to focus on some details about the cooking circles themselves, both in relation to Paulatuk and the other ISR communities.*

**Q10:** How successful is the program across the region?

- How does program implementation differ between communities?

**Q11:** Would you consider the Paulatuk cooking circle program to be successful? If yes, why?

- In your opinion, what are the underlying mechanisms for how and why the program works? (role of Celina, who was before her, and why the change of coordinators happened)

**Q12:** What happens to the money is not used by certain communities? Is it redistributed? How?

- According to the 2018-2019 report, Paulatuk had cooking circle activities in September 2018 every day for almost a month (from September 9 until the end of the month). What happened there – did this actually take place, or was this a reporting error/anomaly?
- Can you explain how the funding works in this situation?

**Q13:** Can you talk about the introduction of the 25 participants limit for the cooking circle (when it was introduced, and why)? Was this limit introduced only in Paulatuk?

- Have you received any feedback from participants or facilitators about this limit (either positive or negative)?

**Q14:** How feasible would it be to incorporate country food in the cooking circle activities in Paulatuk or the other communities (barriers/opportunities)?

**Q15:** To your knowledge, are there any other food-related community programs that incorporate country food? Are there any lessons to be learned to support better inclusion of country food in the cooking circles (barriers/opportunities)?

*Now I would like to ask some questions about the Food Hamper Program.*

**Q16:** Can you explain the decision to change the NNC cooking circle activities to a food hamper program during the Covid pandemic?

- What were the main objectives of the program?
- How did the funding amounts or funding model change (compared to the cooking circle)?
- Were the same people involved in implementing the food hamper as those who implemented the cooking circles?

**Q17:** Can you please describe the hamper program from your perspective and how it is being carried out in Paulatuk and the other communities (similar implementation)?

- How are households selected (selection process, criteria, management)?

**Q18:** In your opinion, how does the hamper program compare to the cooking circle program? Does the hamper program address the same priorities as the cooking circle? Explain.

- In your opinion would the communities benefit if both programs were available at the same time (cooking circle and hamper program)? Why/why not?

**Q19:** Please describe the Best Chef competition and how it relates to the hamper program. When was it implemented? Is it still running? What were the program objectives?

- What happens to the money if no one participates (sends images)? Can this money be used towards food?
- Has it been successful? Why or why not?

**Q20:** Do you have any additional thoughts you would like to share about the impact of the cooking circle, the food hamper program, or about food availability and access in Paulatuk or the other ISR communities?

Thank you for your time!

## Appendix M - NNC cooking circle participants interview guide

Checklist before starting the interview (print this out):

### Space:

- I am in a **safe, quiet, and comfortable** space for both myself and the participant.
  - This space is free of distraction – a sign “please do not disturb” is on the door.
- Surfaces have been disinfected with a wipe and/or spray (table, chairs, doorknobs...)
- I am wearing a mask
- Mask and hand sanitizer is available for the participant (they must also wear a mask)
- Refreshments are available (tea, cookies, etc.)

### Tech:

- I have tested both audio recorders today and in this room (I spoke and listened back to my voice – it came out clear and free of distracting noises).
- I have my phone/tablet also on the table, ready for a double recording (second recorder)
- My cellphone is turned to “do not disturb.”
- I checked my memory cards on both devices, and they have enough space (the memory cards are build-in in the recorders).
- My devices are not recording until the participant agrees to be recorded.

### Paperwork:

- I have printed copies of:
  - Consent form (2 copies)
  - The University of Ottawa Ethics approval
  - Interview guide
- I am ready to explain how they can get the gift card or have the gift card (gift card voucher) with me and a NNC recipe book.

### Self:

- I am feeling safe and in control.
- I do not have any particular worries about interviewing this participant.
- I took a deep breath and am feeling calm, ready, and prepared for this interview.
- I have the support that I need and know who to call if I need help, have questions, need assistance, feel unsafe, or if the interview or participant makes me uncomfortable.

**Contact information for researchers** (please feel free to reach out to us if there are any issues or if you have questions):

	Name	Phone	E-mail
1	Celina Wolki		
2	Lena Dedyukina		
3	Sonia Wesche		

## **Introduction:**

- 1- *Greet the participant warmly.*
- 2- *Explain that they must wear a mask and sanitize their hands.*
- 3- *Invite them to settle in comfortably.*
- 4- *Ask if they need anything and explain that you will be here for approximately one hour.*

“Thank you for participating in this interview. My name is Denise Wolki, and I’m from Paulatuk. I’m working with Jullian MacLean at the IRC and researchers at the University of Ottawa to evaluate the Nutrition North Canada cooking circle. Before we begin, I would like to walk through the project with you and ensure that you know exactly how the information that you chose to share with me will be used and for what purpose. As I walk through this consent form with you, is it OK if I turn on my audio recording device?”

- 5- *Turn on the recording once you get the verbal OK.*
- 6- *Read through the consent form to explain the project.*
- 7- *Ask: “Do you have any questions?”*
- 8- *Get signature or verbal consent if a participant prefers to consent verbally (remember, if they want to give verbal consent, you have to record both the verbal consent and yourself reading through the consent document).*

“Before we begin the interview, I just wanted to clarify a few extra things. In this interview, I will:

- Only ask you to speak about your own experiences and opinions; we are not asking you to speak on behalf of others.
- We also understand that many things have changed in the past two years with Covid. While we are interested in learning about all your experiences, we want to make sure that the information we discuss today is still relevant and useful after the Covid pandemic. For questions about the cooking circle, please think back to your participation before Covid. Questions about the food hamper program, which replaced the cooking circle during the Covid pandemic, will focus more on the last year and a half. These questions will help us compare the programs and understand any differences in how the programs affect people’s lives in Paulatuk.

Participant's name \_\_\_\_\_ (coded ID \_\_\_\_)

Date \_\_\_\_\_

### **Section 1: The NNC cooking circle program, healthy eating, and cooking**

“I would like to start by discussing the NNC cooking circle program that has been running in the community for several years. We would like to learn how the program has affected you, your household and the community. We are also interested to know what you have learned from the cooking circle, and how you feel about the program”.

#### **Q1: First I would like to ask you about your participation in the cooking circle program.**

- How did you learn about the cooking circle program? (*bulleted questions can be skipped if the participant has already answered it*)
  - ✓ *Prompt: advertisement, friends suggestion, family member, other (prompts are used to assist the participants in their answers, you don't have to read them out loud, just use them to try to help the participant if they hesitate in answering the question).*
- When did you start participating, and how often did you participate before the Covid pandemic?
- What are the main reason(s) that you attend the cooking circle program? Please explain.
  - ✓ *Prompt: an extra meal for yourself and your family, an opportunity of cooking/eating in a different environment, learning new recipes, new cooking techniques, how to use the cooking equipment, budgeting/shopping, friends, meet new people, get out of the house, chance to get together, etc.*
- Who do you tend to go with to the cooking circle?
  - ✓ *Prompt: alone, family member, friend.*

#### **Q2: How has the cooking circle influenced the lives of you and your family?**

- How do you feel about the program?
  - ✓ *Prompt: happy/satisfied, not happy/satisfied, meets your/your family needs, needs improvement.*
- What are some of the positive aspects of the cooking circle?

- ✓ *Prompt:* access to nutritious market food, healthy food consumption, cooking (new recipes), food safety, meeting/making friends, learning/teaching/educational aspect, community engagement.
- Do you feel that the cooking circle program helped you to learn and develop skills to cook and eat in a healthy way? Please explain.
- Would you consider the program important to you and to your family? If yes, why?
  - ✓ *Prompt:* access to nutritious market food, different food choices/variety, healthy food consumption, cooking (new recipes), learning opportunities, meeting people, connection with Elders, sharing practices.
- How important is the program to your community?
  - ✓ *Prompt:* serves everyone (everyone is welcome to participate), supports food access/availability, less junk food consumption/healthy options, venue for country foods integration.
- Are there any negative aspects of the program, and if yes, what are they?
  - ✓ *Prompt:* 25 people limit, not enough country foods, small space, not enough funding, consistency of programming, etc.
- How do these negative aspects affect the program?
- How can the program be improved?
  - ✓ *Prompt:* more funding, no participation limit, additional equipment, more country foods/traditional cooking, increased consistency throughout the year, etc.

**Q3: Do you notice any difference in your or your household's eating, cooking or shopping patterns since you started participating in the program?**

- Have you learned any new cooking skills, new recipes, or new ways to use ingredients? Please explain.
- How often do you use recipes or cooking techniques that you learned from the cooking circle? If you don't use what you learned in your home, why not?
  - ✓ *Prompt:* complicated recipes, no printed version/cannot remember, no time/no ingredients/no equipment.
- What have you learned about nutrition and food labels?

- ✓ *Prompt:* important to check (serving size, calories, nutrients), pay attention to less saturated fat/sodium/added sugars, more fibre, vitamin D/calcium/iron/potassium.
- Has this changed the type of ingredients you shop for or how you shop for groceries? Please explain.
  - ✓ *Prompt:* shopping frequency, more targeted ingredients shopping, cooking techniques, eating habits.

## **Section 2: The NNC cooking circle program, social/mental/cultural benefits**

“We’ve also heard from other studies that food-related programs such as cooking circle have certain social/ mental health benefits; for example, meeting new people, making new friends, eating together, communicating, etc. We’ve also heard that the cultural aspect of the program is very important such as traditional cooking practices, incorporation of storytelling, and local language in the program activities.”

### **Q4: In your opinion, what are the social/mental benefits of the cooking circle?**

- Please describe how you feel when you are participating in the cooking circle.
  - ✓ *Prompt:* anticipation, happiness, anxiety, satisfaction, increased confidence/self-esteem.
- How has the program helped you connect with other community members? Please explain.
  - ✓ *Prompt:* new friends/get to know community members, sense of belonging, stronger ties, opportunity to connect with Elders, sharing/emotional support.
- During the pandemic, what did you miss most about the cooking circle?
  - ✓ *Prompt:* friends, change in daily routine, communication, sharing, sense of belonging, an opportunity to cook/eat together, positive environment.

### **Q5: How well do you feel that the cooking circle supports culture and traditions?**

- How well is the Inuvialuktun language incorporated into the program? How important do you think this is?
- How much do Elders participate in the program? How do they share their knowledge/cooking skills?
- Are any traditional practices (cooking, storytelling, singing, etc.) used during the cooking circle program? Please explain.

- ✓ *Prompt:* traditional cooking practices, country food, sharing, eating together, storytelling, Inuvialuktun.
- Do you prefer the cooking circle as it is, or would you like to see more cultural practices or Inuvialuktun language in the program?
  - If you would like to see more culture and local language in the program, do you have any ideas about how this could be done?

**Q6: To your knowledge, which populations in the community are best served by the cooking circle, and which ones are less well-served (or included)?**

- Do you think everyone feels comfortable participating in the program? If so, why? If not, why not?

**Section 3: The NNC cooking circle program and country food**

“We know that country food is an important element of healthy and nutritious diets for Inuvialuit. There’s been a lot of effort to strengthen the role of country food in people’s diets and support harvesters in going out on the land. At the same time, many youth are consuming more market foods than ever before. I am now going to ask you questions about country food and the idea of using it more in the NNC cooking circle.”

**Q7: How do you feel about the idea of incorporating more country food from hunting, fishing, and gathering in the cooking circle activities?**

- How often was country food incorporated in the existing cooking circle program, if at all?
- Did the cooking circle either increase or decrease your level of country food consumption? (if country food was used in the cooking circle/you had more access to the country food/more variety)
- If country food was used more often in the cooking circle recipes, would it change your level of participation? How so?
- To your knowledge, what are the challenges in using country food in the cooking circle on a more consistent basis?
- What opportunities, if any, do you see for using more country food in the program? How could this work?

## **Section 4: Modification to the food hamper program during Covid-19**

“We know that due to the Covid 19 pandemic the cooking circle program was temporarily changed to the food hamper program. I will now ask a few questions about this and how you feel about the shift to the food hamper program.”

**Q8: To the best of your knowledge, please describe how the food hamper program works in your community?**

- Have you used the hamper program products to make any recipes from the cooking circle? If not, why? Please explain.
- How do you feel about the food hamper program? Did it meet your expectations?
- Is the hamper program a good substitute for the cooking circle? Why/why not?
  - ✓ *Prompt:* social aspect, meeting friends, cooking, communication, setting, convenience, etc.
- Are you aware of a Best Chef competition as part of the hamper program? If yes, have you participated in it or do you consider participating? If yes, what recipe did/would you use for the submission?

**Q9: If you had a choice, would you prefer to be a part of the hamper program or a cooking circle? Why?**

- In your opinion would your community benefit if both programs were available at the same time (cooking circle and hamper program)? Why/why not?

## **Section 5: General perspectives**

“In this section of our interview, I want to talk with you about food security. When we say ‘food security’, we mean that *all people at all times have access to enough safe, good quality, and culturally acceptable food to meet their needs.*”

**Q10: What does food security mean to you?**

**Q11: What would you want to see happen in Paulatuk to improve food access and availability?**

**Q12: Do you have any additional thoughts you would like to share about the impact of the cooking circle, or related to food availability and access in Paulatuk or the ISR more generally?**

“Before we wrap up, I will ask you to please provide some additional information about you and your household, by filling out a short questionnaire. This information is important for the researchers to better understand and contextualize your answers. I know some of these questions might be sensitive, so you can fill them out on your own and slip the sheet into this envelope and seal it – I will not look at the answers, but will rather pass them on to the researchers. If you prefer, we can fill out the form together.”

Participant’s name \_\_\_\_\_ (coded ID \_\_\_\_\_)

Date \_\_\_\_\_

### Section 6: Food security status

“To better understand the cooking circle participants’ food security status, we will ask you to respond to a few statements that may describe the food situation at the household level. Please indicate if the statement was **often true**, **sometimes true**, or **never true** for you and your family in the past 12 months.

1. The first statement is, “The food that we bought just didn’t last, and we didn’t have the money to get more.” Was that statement **often**, **sometimes**, or **never true** for your household in the past 12 months?
  - Often true
  - Sometimes true
  - Never true
  - Don’t know
  - Refused
  
2. Next statement: “We couldn’t afford to eat balanced meals.” Was that statement **often**, **sometimes**, or **never true** for your household in the past 12 months? *Note:* Balanced meals contain a variety of food groups, for example, a selection of protein, grains, vegetables and fruits, and dairy products.
  - Often true
  - Sometimes true
  - Never true

- Don't know
  - Refused
3. In the past 12 months, did you or other adults in your household ever cut the size of your meals or skip meals because there wasn't enough money for food?
- Yes
  - No - If you answered no, go to question 5.
  - Don't know
  - Refused
4. If you answered yes to skipping meals, how often did this happen – **almost every month, some months but not every month, or only 1 or 2 months** in the past year?
- Almost every month
  - Some months but not every month
  - Only 1 or 2 months
  - Don't know
  - Refused
5. In the past 12 months, were you ever hungry but didn't eat because there wasn't enough money for food?
- Yes
  - No
  - Don't know
  - Refused
6. In the past 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?
- Yes
  - No
  - Don't know
  - Refused

## Section 7: Demographics

1. **Your age (please circle):**

12-17

18-30

31-54

55+

2. **How do you prefer to self-identify? (please circle):**

Female

Male

Other

Prefer not to answer

3. **What pronoun do you prefer? (please circle):**

She

He

They

Pronoun not listed (please indicate) \_\_\_\_\_

No preference

4. **With which cultural group do you identify? (select all that apply):**

Inuvialuit

Gwich'in

Dene

Métis

other

5. **How long have you been living in Paulatuk? If relevant, where did you live before?**

\_\_\_\_\_

6. **Prior to Covid, how many times in a year did you participate in the cooking circle program?**

- I participated all the time (every cooking circle/year)
- I participated most of the time (more than half of the time, more than once a month)
- I participated occasionally (once every 1-3 months)
- I participated rarely (once or twice a year)

7. **Number of youth (under 18) in your household:** \_\_\_\_\_

8. **Number of adults (18 and above) in your household:** \_\_\_\_\_

9. For each adult in the household check a box suitable to their employment status.

	Not working for pay	Full-time pay	Part-time pay	Seasonal work	Owns a business	Other
Adult 1						
Adult 2						
Adult 3						
Adult 4						
Adult 5						
Adult 6						
Adult 7						

10. To the best of your knowledge, what is the approximate annual income of your household (please circle)?

0 - 29,999    30,000 - 59,999    60,000 - 89,999    90,000 - 119,999    120,000 +

11. How many times a month do the members of your household buy groceries at the Northern store (please circle)?

Less than once a month (once in 2-3 months)                      once a month

2-3 times in a month                      every week                      several times a week

12. Do you or the other members of your household get groceries from other sources (other than the Northern store)? If “yes” please list where and how often.

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13. Do you or the other members of your household participate in other food related programs in the community? If “yes” please list where and how often.

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**14. How often do you eat country foods?**

Every day      several times/week      once/week      1-2/month

less than once a month      never

**Quyainni! Thank you!**

## Appendix N - NNC cooking circle facilitator interview guide

### Introduction:

9- *Greet the participant warmly.*

10- *Ask them if they feel comfortable.*

11- *Ask if they need anything and explain that you will be here for approximately one hour and a half.*

“Thank you for participating in this interview. My name is Lena Dedyukina, and I’m a Master’s student from the University of Ottawa. I’m working closely with Jullian MacLean at IRC, the recently hired IRC Food Security coordinator Celina Wolki, and other community researchers to evaluate the Nutrition North Canada cooking circle program in the ISR, including a more detailed case study of Paulatuk. We are interested in learning from you as an NNC cooking circle facilitator what works and what does not work in your community and what kind of impact the cooking circle program has had on your community. Before we begin, I would like to walk through the project with you and ensure that you know exactly how the information that you chose to share with me will be used and for what purpose. As I walk through this consent form with you, is it OK if I turn on my audio recording device?”

12- *Turn on the recording once you get the verbal OK.*

13- *Read through the consent form to explain the project.*

14- *Ask: “Do you have any questions?”*

15- *Get signature (electronic – email, the package will be sent in advance) or verbal consent if a participant prefers to consent verbally (remember, if they want to give verbal consent, you have to record both the verbal consent and yourself reading through the consent document).*

“Before we begin the interview, I just wanted to clarify a few extra things. In this interview, I will:

- Only ask you to speak about your own experiences and opinions; we are not asking you to speak on behalf of others.
- We also understand that many things have changed in the past year-and-a-half with Covid. While we are interested in learning about all your experiences, we want to make sure that the information we discuss today is still relevant and useful after the Covid pandemic. For questions about the cooking circle, please think back to your participation before Covid. Questions about the food hamper program, which replaced the cooking circle during the Covid pandemic, will focus more on the last year and a half. These questions will help us compare the programs and understand any differences in how the programs affect people’s lives in your community.

Community \_\_\_\_\_

Participant's name \_\_\_\_\_ (coded ID \_\_)

Date \_\_\_\_\_

*As I mentioned, we are evaluating the NNC cooking circle, with Paulatuk as a case study, as an opportunity to share knowledge and lessons learned across the region. I will start by asking some broad questions about the NNC cooking circle program, and then later will ask a few questions about the food hamper program. Do you have any questions before I begin?*

**Q1: Can you please describe how the cooking circle worked in your community (before pandemic)?**

- What program activities are part of your role as a facilitator? (e.g. food purchasing, recipe determination, etc.)
- In what program activities participants engage in? (e.g. room set-up/take-down/cleaning, food prep, cooking, eating, washing up, packing food up for distribution, distributing food to households, etc.)
- How often did the cooking circle run?
- What kind of marketing materials did/do you use to promote the program, if any? What works best (personal communication/word of mouth, social media posts on Facebook, radio announcements, etc.)?
- What do you like about the program? What works well?
- In terms of resources available (space, equipment), are these sufficient for running the program in the best way possible? If not, what changes would you like to happen?
- What are some challenges in running the cooking circle?
- How would you improve it?
- What can you tell us about cooking circle program participation (how many people participate on average, is it the same people who come to the program, is there a limit of how many people can attend at the same time, which type of people tend to participate – e.g. age ranges, genders, etc.)? Does everyone participate in all activities?

**Q2: Tell me more about your role as a cooking circle facilitator (all aspects). What are the challenges with this role? What can be improved?**

- How long have you been doing this? How many people facilitated the cooking circle before you? If the turnover of the facilitators is high, how does it affect the program?
- Why did you take on the role? Did you have prior interest/knowledge about cooking/food/nutrition?
- Are you involved in other food-related programs/activities?
- Do you feel supported in your role? What could be improved? Does anyone help you to facilitate the cooking circle (volunteers, co-facilitator)?
- What training did you receive/or regularly receive necessary to facilitate the cooking circle?

- Can you tell us more about the cooking circle funding? For example, how much do you receive, how often, and are you expected to use the total amount for purchasing food?
- Does the funding seem adequate? If you had access to more funding, what would you want to add to the program?

**Q3: What can you tell us about the NNC cooking circle in terms of its relationship to other food-related programs in the community (is it similar/different, how similar/different)? Is there a duplication of efforts?**

*As we know, the NNC cooking circle program has been running in the community for several years. We are interested to know what impact the cooking circle program has on participants and the community as a whole, what participants have learned from the cooking circle, and how they feel about the program. We've also heard that the cultural aspect of the program is very important such as traditional cooking practices, incorporation of storytelling, and local language in the program activities.*

**Q4: What can you tell us about the impact of the cooking circle on the participants' lives and the community as a whole?**

- To your knowledge, which population(s) is/are best served by the cooking circle, and which one(s) are less served? Do you think everyone feels comfortable participating in the program – if not, why not?
- From your understanding, how do participants feel about the program?
- Do you feel that the cooking circle program helps participants increase knowledge and develop skills they need to cook and eat in a healthy way? Please explain.
- During the pandemic, what have you missed most about the cooking circle?

**Prompt:** cost of market food, budgeting, shopping/access to nutritious market food, healthy food consumption, cooking (new recipes), cooking more at home, meeting/making friends, learning/teaching/educational aspect, anticipation, happiness, community engagement.

**Q5: How well do you feel that the cooking circle supports culture and traditions in your community?**

- Does the cooking circle program mostly take place in English? How well is the Inuvialuktun language or another local dialect incorporated into the program? How important do you think this is? Do you have suggestions for improving the use of Inuvialuktun or another local dialect as part of the program?
- How much do Elders participate in the program? How do they share their knowledge/cooking skills? Do any youth participate in the program?
- Are any traditional practices (cooking, storytelling, singing, etc.) used during the cooking circle program? Please explain.
- Do you prefer the cooking circle as it is, or would you like to see more cultural practices, Inuvialuktun language, or another local dialect in the program?

- If you would like to see more culture and local language in the program, do you have ideas about how this could be done?

**Prompt:** traditional cooking practices, country food, sharing, eating together, storytelling, Inuvialuktun.

*We know that country food is an important element of healthy and nutritious diets for Inuvialuit. There's been a lot of effort to strengthen the role of country food in people's diets and support harvesters in going out on the land. At the same time, many youth are consuming more market foods than ever before. I am now going to ask you questions about country food and the idea of using it more in the NNC cooking circle.*

**Q6: How do you feel about the idea of incorporating more country food from hunting, fishing, and gathering in the cooking circle activities?**

- How often is country food incorporated in the cooking circle program, if at all?
- If country food was used more often in the recipes, would it change the level of participation? How so?
- To your knowledge, what are the challenges in using country food in the cooking circle on a more consistent basis?
- What opportunities, if any, do you see for using more country food in the program? How could this work?
- To your understanding, how does the cooking circle program influence the participants' country food consumption (if country food is used in the cooking circle/people have more access to the country food/more variety)?

*We know that the cooking circle program was modified due to the Covid 19 pandemic to the food hamper program. I will now ask a few questions about this modification and how you feel about the shift to the food hamper program.*

**Q7: Can you please tell me more about your role as a food hamper program facilitator (all aspects)? What are the challenges of the hamper program facilitator role? What can be improved?**

- Can you please tell us how and when the hamper program started in your community? How are the participants of the hamper program chosen?
- What do you like about the program and/or what works well?
- What are some challenges in running the hamper program? How would you improve it?
- Do you feel supported in your role? What could be improved? Does anyone help you to facilitate the hamper program (volunteers, co-facilitator)?
- Can you tell us more about the hamper program funding? For example, how much do you receive, how often, and are you expected to use the total amount?

**Q8: To the best of your knowledge, please describe how the food hamper program works in your community?**

- To your knowledge, do people use the hamper program products to make the recipes from the cooking circle? Please explain.
- Are you aware of a Best Chef competition as part of the hamper program? Do you know of anyone who participated in the Best Chef competition? If yes, can you tell me more about it (how many people participated, what recipes they used, how they submitted their photo, who chose the winner)?

**Prompt:** social aspect, meeting friends, cooking, communication, setting, convenience, etc.

- In your opinion, is the hamper program a good substitute for the cooking circle? Why/why not?
- In your opinion, would your community benefit if both programs were available at the same time (cooking circle and hamper program)? Why/why not?

**Q9: To your knowledge, which population(s) is/are best served by the hamper program, and which one(s) are less served?**

- Do you think everyone feels comfortable participating in the program – if not, why not?

*In this section of our interview, I want to talk briefly about food security. When we say 'food security,' we mean that all people at all times have access to enough safe, good quality, and culturally acceptable food to meet their needs.*

**Q10: What does food security mean to you?**

**Q11: What do you want to see happen in your community in terms of food access and availability?**

**Q12: Do you have any additional thoughts you would like to share about the impact of the cooking circle, the food hamper program, or food availability and access in your community or in the ISR more generally?**

Community \_\_\_\_\_

Participant's name \_\_\_\_\_ (coded ID \_\_\_\_)

Date \_\_\_\_\_

### Food security status

To better understand the project participants' food security status, we will ask you to respond to a few statements that describe the food situation at the household level. Please indicate if the statement was **often true**, **sometimes true**, or **never true** for you and your family in the past 12 months.

7. The first statement is, "The food that we bought just didn't last, and we didn't have the money to get more." Was that statement **often**, **sometimes**, or **never true** for your household in the past 12 months?
  - Often true
  - Sometimes true
  - Never true
  - Don't know
  - Refused
  
8. Next statement: "We couldn't afford to eat balanced meals." Was that statement **often**, **sometimes**, or **never true** for your household in the past 12 months? *Note:* Balanced meals contain a variety of food groups, for example, a selection of protein, grains, vegetables and fruits, and dairy products.
  - Often true
  - Sometimes true
  - Never true
  - Don't know
  - Refused
  
9. In the past 12 months, did you or other adults in your household ever cut the size of your meals or skip meals because there wasn't enough money for food?
  - Yes
  - No - If you answered no, go to question 5.
  - Don't know
  - Refused
  
10. If you answered yes to skipping meals, how often did this happen – **almost every month**, **some months but not every month**, or **only 1 or 2 months** in the past year?

- Almost every month
- Some months, but not every month
- Only 1 or 2 months
- Don't know
- Refused

11. In the past 12 months, were you ever hungry but didn't eat because there wasn't enough money for food?

- Yes
- No
- Don't know
- Refused

12. In the past 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?

- Yes
- No
- Don't know
- Refused

## Demographics

**1. Your age (please circle):**

18-30

31-54

55+

**2. How do you prefer to self-identify? (please circle):**

Female

Male

Non-binary

Prefer not to answer

**3. What pronoun do you prefer? (please circle):**

She

He

They

Pronoun is not listed (please indicate)\_\_\_\_\_

No preference

**4. With which cultural group do you identify? (select all that apply):**

Inuvialuit

Gwich'in

Dene

Métis

other

5. How long have you been living in the community? If relevant, where did you live before?

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6. Number of youth (under 18) in your household: \_\_\_\_\_

7. Number of adults (18 and above) in your household: \_\_\_\_\_

8. For each adult in the household check a box suitable to their employment status.

	Not working for pay	Full-time pay	Part-time pay	Seasonal work	Owens a business	Other
Adult 1						
Adult 2						
Adult 3						
Adult 4						
Adult 5						
Adult 6						
Adult 7						

9. To the best of your knowledge, what is the approximate annual income of your household (please circle)?

0 - 29,999    30,000 - 59,999    60,000 - 89,999    90,000 - 119,999    120,000 +

10. How many times a month do the members of your household buy groceries at the local store (please circle)?

Less than once a month (once in 2-3 months)                      once a month

2-3 times in a month                      every week                      several times a week

**11. Do you or the other members of your household get groceries from other sources (other than the local store)? If “yes” please list where and how often.**

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**12. Do you or the other members of your household participate in other food related programs in the community? If “yes” please list where and how often.**

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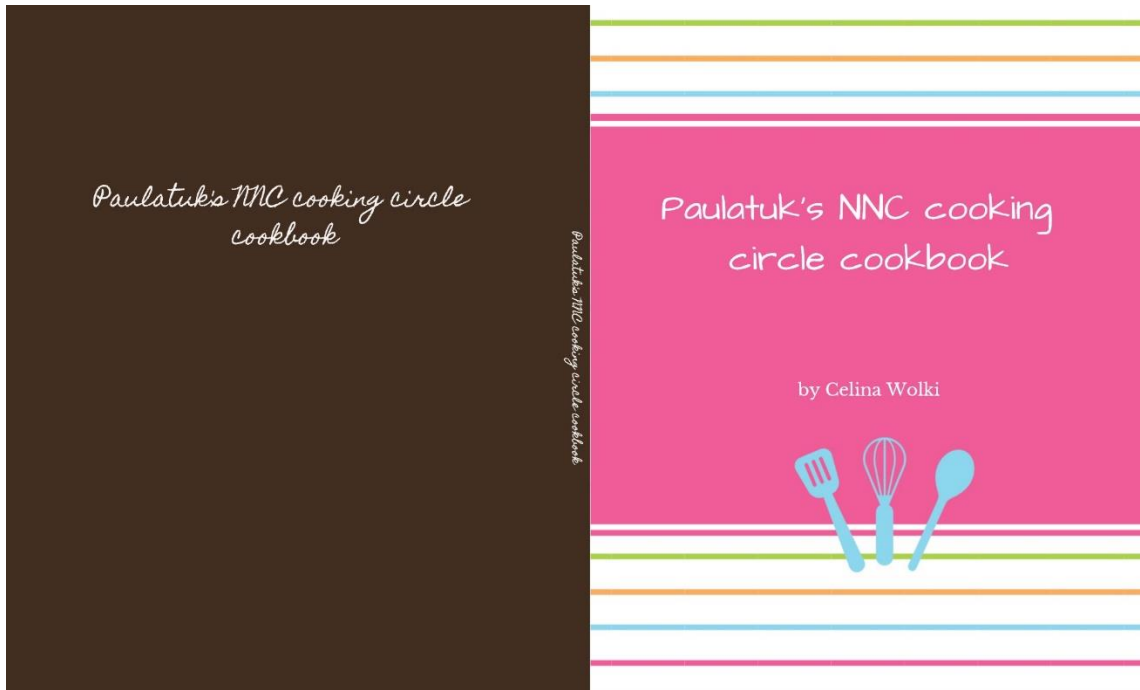
**13. How often do you eat country foods?**

Every day      several times/week      once/week      1-2/month

less than once a month      never

**Quyanainni! Thank you!**

## Appendix O - Paulatuk's NNC cooking circle cookbook



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## Paulatuk's NNC cooking circle cookbook

*This cookbook features a collection of NNC (Nutrition North Canada) cooking circle program recipes selected and prepared by Celina Wolki (cooking circle coordinator) with the help of Lena Dedyukina (Master's student from the University of Ottawa). We hope you'll enjoy making these recipes with your family!*

### Dedication

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This book is dedicated to NNC cooking circle evaluation project participants living in the hamlet of Paulatuk, NWT. Thank you all for your support, willingness to share, and immense contribution to the success of this project! May this cookbook bring happiness to everyone in the kitchen and out.

## Notes

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1. The recipes can be adjusted to personal preference in terms of ingredients, portion size, and equipment available.
2. All meat and fish used in the recipes can be substituted by country food such as caribou meat, musk ox, char, trout, and any other meat/fish available. The market food used in these recipes is not intended to replace traditional food. Traditional food is more nutritious, healthier, better preserved, without any artificial additives/preservatives, and culturally significant to your wellbeing.
3. Please be careful with the recipe ingredients if you have any allergies/gluten or any other ingredient intolerance. The recipes can be modified to your personal needs.



## Appendix P - List of Paulatuk food programs 2021

Program's name	Facilitator	Contact information	General information	Goals/objectives	Notes
NNC (Nutrition North Canada) cooking circle and Food Demo	Celina Wolki		<p><i>Frequency:</i> Consistent, weekly while funding is available (or twice a week on approval)</p> <p><i>How long:</i> Runs for more than 7 years.</p> <p><i>Funding:</i> government through IRC</p> <p><i>Eligibility:</i> open to everyone (not based on employment)</p>	To provide residents of Paulatuk with the knowledge and skills needed for making healthy food choices in order to attain optimal health and wellness throughout the lifespan.	Modification to the Best Chef hamper program due to Covid 19 pandemic
Food Bank (Our Lady of Lourdes; Society of Saint Vincent de Paul)	Jacinta Illasiak	Health centre - 867-580-3231	<p><i>Frequency:</i> Based on availability of food (seasonal), not consistent</p> <p><i>How long:</i> Runs for 4 years</p> <p><i>Funding:</i> donations from different sources</p> <p><i>Eligibility:</i> everyone, based</p>	Food items for people in need	

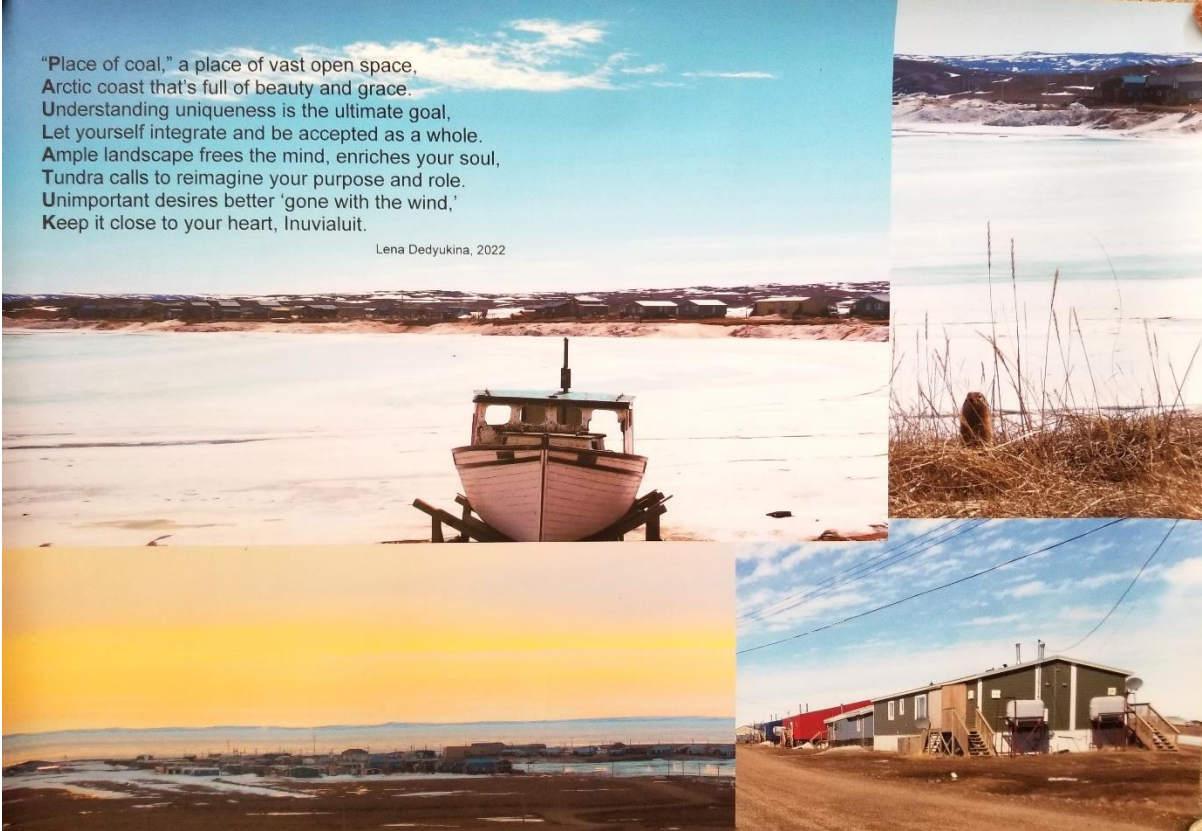
			on need		
Elders meals-on-wheels	Donna Ruben	PCC - 867-580-3601	<p><i>Frequency</i> to be determined. Seasonal</p> <p><i>Funding</i> from Brighter Futures and government</p> <p><i>Eligibility:</i> Elder (from 50 up based on community's consideration)</p>	Promotes health and independence by providing quality, nutritious and affordable meals to Elders	New program
CPNP (Canada Prenatal Nutrition Program)	Natasha Green	IRC, Alecia Lennie 867-777-7012 ajlennie@inuvialuit.com	<p><i>Frequency:</i> weekly</p> <p><i>How long:</i> Runs for more than 13 years</p> <p><i>Funding:</i> government through IRC</p> <p><i>Eligibility:</i> pregnant women, new mothers and their babies</p>	<p>Improve the health of women and their babies by increasing the number of babies born at a healthy weight and promoting and supporting breastfeeding.</p> <p>Promote and create partnerships within communities and ensure culturally sensitive prenatal support.</p>	
School breakfast program		School in Paulatuk 867-580-3201	<i>Frequency:</i> every school day morning depending on the cooks availability		

			<p><i>How long:</i> Runs for about 15-17 years</p> <p><i>Funding:</i> Brighter futures, government</p> <p><i>Eligibility:</i> children attending school (school-age children)</p>		
Healthy Family Program Collective Kitchen			HFPCK is delivered by HFPCK coordinators in each ISR community through the Beaufort Delta Health and Social Services authority. The program aims to help parents learn skills and knowledge to provide healthy foods for their children aged 0-6.		*added by Julia G.
Project Jewel	Jimmy Ruttan	IRC Health & Wellness Division. Manager, On-The-Land (OTL) Wellness Programs. Tel: (867) 777-7084 Email: jruttan@inuvialuit.com	Funded and delivered by IRC offering on-the-land after care support and healing for individuals experiencing stress, grief, trauma, or any other emotional burdens. Examples of programming include on-the-land harvesting trips with Elders.		*added by Julia G.

References:

1. Kenny, T., Wesche, S., Fillion, M., MacLean, J., & Chan, H. (2018). Supporting Inuit food security: A synthesis of initiatives in the Inuvialuit Settlement Region, Northwest Territories. *Canadian Food Studies*, 5(2), 73–110.  
<https://canadianfoodstudies.uwaterloo.ca/index.php/cfs/article/view/213/281>
2. <https://www.canada.ca/en/public-health/services/health-promotion/childhood-adolescence/programs-initiatives/canada-prenatal-nutrition-program-cpnp.html>
3. Government of Northwest Territories (GNWT). (2017). *Seniors' Information Handbook*.  
[https://www.hss.gov.nt.ca/sites/hss/files/seniors\\_information\\_handbook.pdf](https://www.hss.gov.nt.ca/sites/hss/files/seniors_information_handbook.pdf)

**Appendix Q - Paulatuk acrostic poem and photo collage poster**



# Appendix R - NNC cooking circle program evaluation project public meeting brochure

So, one of the ways of coming out of my own shell was being here [cooking circle program] and being around different people, and hearing different perspectives on culture, food. ... I really enjoyed it. So, I started coming every time when there was good company, always good company and the stories (Participant 13).



## NNC cooking circle as "something more"

... it's [cooking circle program] become a kind of place where people can feel safe. Or people could expect to bring food home, ... that will make their family happy... for those couple of days. And they don't have to take money out of their pockets, they can use it to pay their bills (Celina Wolki).



## NNC COOKING CIRCLE PROGRAM EVALUATION PROJECT

"Place of coal," a place of vast open space, Arctic coast that's full of beauty and grace. Understanding uniqueness is the ultimate goal, Let yourself integrate and be accepted as a whole. Ample landscape frees the mind, enriches your soul, Tundra calls to reimagine your purpose and role. Unimportant desires better 'gone with the wind,' Keep it close to your heart, Inuvialuit.

Lena Dedyukina, 2022

### Contact Us

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## NNC COOKING CIRCLE PROGRAM MUKLUK LOGIC MODEL

