COVID-19 Pandemic Responses and Programs in Canada's Northern and Indigenous Communities: Understanding Implementation and Implications

by
Katherine Fleury

A thesis submitted in partial fulfillment of the requirements for the degree of
Master of Science
in
Health Policy Research

School of Public Health
University of Alberta

© Katherine Fleury, 2021

Abstract

The quick onset of COVID-19 left countries and communities worldwide in need of emergency management procedures. Analysis from previous pandemics, such as H1N1, showed that blanket approaches to health policy and public health messaging were not effective for Indigenous groups in Canada; rather, community-level voices needed to be integrated (Driedger et al., 2013). The Canadian Institute of Health Research (CIHR)'s Institute of Health Services and Policy Research (IHSPR) and local leaders in regional health authorities identified the need to document and compare health policy responses to COVID-19. The need to compare responses in Northern and Indigenous zones was deemed a priority as health systems in these areas have unique features to which they must adapt, including remote geographies and Indigenous values. Therefore, the purpose of this work was to describe and summarize the changes to health policy and programming in Canada's northern and Indigenous regions that were implemented in response to the pandemic, as well as the impact living with restrictions had on community members.

A sequential mixed methods research (MMR) project was consequently developed. This method was chosen as sequential mixed designs allow for the procedures from the later objective to build off the former. Therefore, the purpose of the mixed methods approach was for both complementarity and development, as defined by (Greene et al., 1989). Using MMR in this way increased the validity and interpretability of the results. While typically reserved for projects which combine both qualitative and quantitative data, MMR can be used within one field exclusively (Mayan, 2009). In this project, qualitative data generation strategies were used.

First, a scoping review of grey literature was conducted to better understand health policy and program responses in Canada's north. This project focused on the 18 northern health regions defined by Young et al. (2019). The review looked at policy and program adaptations relating to preventing viral transmission, ensuring workforce capacity, providing health services effectively, health financing, economic protections, and other measures. It was found that all regions, with the exceptions of Region du Saguenay-Lac-Saint-Jean, Région de la Côte-Nord, and Région du Nord-du-Québec, had pandemic responses adapted for Indigenous populations. The Indigenous populations within these three regions were 5, 16, and 6 percent, respectively.

Following the scoping review, a case study approach was used to evaluate health policies and programs for their potential impacts on community members in the community of Behchokǫ̀, which is based in the Tłı̨chǫ region of the Northwest Territories (NWT). This project involved in-depth, semi-structured interviews with Elders, community members, and local Tłı̨chǫ policy and health care service delivery staff. Audio-recorded interviews were transcribed and analyzed to understand how community members felt about pandemic responses, including restrictions and new programs that were developed, how involved the Tłı̨chǫ government (TG) and the Tłı̨chǫ Community Service Agency (TCSA) were in the planning of the pandemic response, and what participants felt would serve their community better in the future when it comes to emergency preparedness. Latent content analysis revealed three themes, including:

1. Uncertainty in the uptake of public health restrictions and implemented programs
2. A discrepancy between national and territorial health policy and Tłı̨chǫ way of life
3. The strength of community connection and knowledge

Future studies evaluating program effectiveness will prove vital for the development of emergency preparedness procedures. Zoonotic diseases comprise an estimated 60% of emerging human infections and are influenced by factors including climate change and urbanization (Rahman et al., 2020). With more public health crises on the horizon, being prepared to employ effective emergency management strategies early will mitigate disastrous effects. COVID-19 responses can act as a case study to evaluate what kept communities safe, evaluated from local, regional, and national perspectives. Current policy development has utilized a top-down approach, with implementation having been altered to ensure cultural relevancy. Moving forward, we must ensure that traditions are acknowledged and respected as health policies and programs are developed.

Preface

This thesis is an original work by Katherine Fleury. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name "Policy vs. Practice: Perceptions and Implications of COVID-19 responses in the Northwest Territories", No. Pro00105223, October 30th, 2020 (Appendix A). The project also received a Northwest Territories Scientific Research Licence (No. 16769) from the Aurora Research Institute (Appendix B), and a research agreement was signed between Ms. Fleury and the Tłı̨chǫ Community Service Agency (Appendix C).

Some of the research conducted for this thesis was done with community consultation with members of the Tłı̨chǫ government. The manager of research operations, Tyanna Steinwand, and the Tłı̨chǫ research advisor, Tee Lim, were consulted prior to the study start date to develop the goals and objectives of the inquiry, focusing on Indigenous health policy. The project arose as a priority due to COVID-19 impacts in the Tłı̨chǫ region. Steinwand and Lim ensured community fit and helped develop the interview guides (Appendix D, E) and methods to ensure cultural relevancy.

Analysis of the community-based work was done with ongoing collaboration with key community members, including Steinwand, Lim, and Tammy Steinwand-Deschambeault, the Director of the department of Culture and Lands Protection for the Tłı̨chǫ government. The initial content analysis provided key insights into the impacts of COVID-19 restrictions in the area which were co-presented by Fleury and Steinwand at the workshop on Indigenous Governance in Health Care and Health Systems: Applying Lessons Learned and Best Practices in the Tłı̨chǫ region (Appendix G). This workshop, developed in consultation with the Tłı̨chǫ Research and Training Institute, allowed for the dissemination of knowledge to occur across territorial, provincial, and international borders; participants included key interviewees, policymakers, and researchers from various health care centres and the government of NWT, as well as individuals in similar roles from other northern jurisdictions. A review of the findings was discussed, and additional meetings were scheduled, including an opportunity to present results to the National, Self-governing, and Modern Treaty COVID-19 Call.

Acknowledgements

This thesis was a labour of love during one of the most uncertain of times. There are many individuals who I would like to thank:

First, I would like to thank my supervisor Dr. Susan Chatwood. Dr. Chatwood has always greeted me with kindness and understanding, providing me with support for all the adventures I chose to go on throughout my masters. From Greenland to New Zealand, Susan pushed me to expand my knowledge of Indigenous health systems and allowed me to become a resilient, independent researcher. Susan's knowledge of and network within the circumpolar world allowed me to change thesis topics smoothly despite experiencing a global pandemic. I would not have been able to complete this work without her strong connection to the Tłı̨chǫ community.

I would also like to thank Dr. Stephen Hodgins, who joined my thesis committee as we attempted to navigate working remotely in the spring of 2020. Through his connections to healthcare leaders in northern Alberta, we were able to define my first thesis objective. Dr. Hodgins always provided new perspectives and questions to consider as I developed the various pieces of this thesis.

The community-based work would not have been possible without the help of my steering committee, composed of Dr. Nathaniel Pollock, Tyanna Steinwand, and Tee Lim. These individuals helped in various capacities, from developing my interview guides, organizing my interviewees, and providing feedback as I summarized and analyzed interview data. In addition to my steering committee, the interviews conducted in Behchokò would not have been possible without my interpreter, Harriet Paul. To everyone, thank you so much.

Finally, I would like to thank my family and friends who have had to listen to me complain and stress and wonder out-loud as I composed this document. Much of this work was done from my parents' back deck as I moved home during the first wave of the pandemic; thank you for letting me come home and stay safe. I would especially like to thank Emma Garlock, an old lab partner who has continued to be my academic rock as we both navigate post-grad life. I owe you a million document edits and a redo in our organic chem lab.

Thank you to the University of Alberta, School of Public Health, for providing an excellent foundation to complete this work within.

Table of Contents

List of Tables

List of Figures

List of Abbreviations

CIHR	Canadian Institute of Health Research
IHSPR	Institute of Health Services and Policy Research
MMR	Mixed Methods Research
NWT	Northwest Territories
TG	Tłı̨chǫ Government
TCSA	Tłı̨chǫ Community Service Agency
ISC	Indigenous Services Canada
CIHI	Canadian Institute for Health Information
PAR	Participatory Action Research
RHA	Regional Health Authority
NAO	North American Observatory
WFSW	Wholistic Framework for Self-Wellness
ARI	Aurora Research Institute
GNWT	Government of the Northwest Territories
HSS	Health and Social Services
CPHO	Chief Public Health Officer
CMOH	Chief Medical Officer of Health

Chapter 1: Introduction

COVID-19

Coronavirus disease (COVID-19) is caused by SARS-CoV-2, a member of the coronavirus pathogen family that mainly targets the human respiratory system (Rothan & Byrareddy, 2020). First reported in December 2019, the World Health Organization (WHO) officially declared the COVID-19 outbreak a pandemic on March 11th, 2020 (World Health Organization, 2020). The COVID-19 infection is spread through person-to-person transmission, with exposure to coughing, sneezing, respiratory droplets, or aerosols (Shereen et al., 2020). Aerosol transmission is especially likely in crowded, poorly ventilated indoor settings (Tang et al., 2020). Common symptoms include fever, cough and fatigue, though severe and lethal complications may arise (Rothan & Byrareddy, 2020). Within a year of being declared a pandemic, COVID-19 had taken 2.5 million lives (World Health Organization, 2021). Segments of the population vulnerable to complications include older individuals, those with underlying medical conditions including but not limited to heart disease, hypertension, obesity, diabetes, certain chronic respiratory diseases, cancer, and those with compromised immune systems (Public Health Agency of Canada, 2020). Due, in part, to historical socio-political exclusion, Indigenous populations experience a high prevalence of underlying chronic diseases (Power et al., 2020).

Within Canada, assimilation policies impacted Indigenous health in multiple ways, including impacts on determinants of health such as housing and food security (Mosby & Swidrovich, 2021). Such determinants have been linked to several infections and chronic diseases. Canada's colonial legacy has also impacted the cultural relevancy of health systems, resulting in mistrust and poor access to care. This combination of factors has placed Indigenous populations in an environment where there is an increased risk of severe and lethal complications from COVID-19. For example, within Manitoba, the First Nation's population comprised 50% of patients in the intensive care unit in January 2021, despite making up just 10% of the province's population (Manitoba First Nations COVID-19 Pandemic Response Coordination Team, 2021). While Indigenous Services Canada (ISC) did not have a breakdown for off-reserve populations, as of February 2021, case fatality rates for Indigenous people on reserve were 42% higher than

the general Canadian population (Indigenous Services Canada, 2020). Though causal factors for these rates have not yet been identified, the need to access health services is demonstrated. The inability or unwillingness for ISC to track off-reserve cases of COVID-19 led to community-based reporting. For example, the WeCountCOVID project developed a customized Indigenous COVID-19 database that collected demographic, housing, and testing information for First Nation, Metis, and Inuit in Toronto (Dewar et al., 2021). Health Authorities throughout Canada have also ensured that regional data is available and up to date.

Indigenous Populations and Pandemics

The disproportionate effect of pandemics on Indigenous peoples is not new; historically, Indigenous peoples have suffered higher rates of infection and traumatic loss during pandemics. Beginning with first contact, European colonizers brought tuberculosis (TB), smallpox, influenza, and whooping cough, which decimated Indigenous peoples who did not have pre-established immunity (Ward & MacDonald, 2021). While COVID-19 is more equal in the sense that no one had prior exposure, pandemics have continuously impacted Indigenous populations at a greater rate than non-Indigenous people. For example, during the 1918 influenza, Canadian First Nations people were eight times more likely to die than non-First Nations, and during the 2009 H1N1 pandemic, First Nations people were three times more likely to be hospitalized and six and half more times likely to be admitted to an intensive care unit (Boggild et al., 2011). Ethnic disparities in the incidence, burden, and severity are associated with adverse social determinants of health (Boggild et al., 2011). Unfortunately, while more likely to experience severe cases, Indigenous peoples within Canada have reported avoidance of western health services due to a long history of mistreatment and abuse. A report conducted by the Health Council of Canada on empathy, dignity, and respect found that fear of mainstream/Western health services is a common feeling among Indigenous peoples. This included fears of stereotyping and racism and feelings of alienation from western health care services (Health Council of Canada, 2012).

Problems also arise when Indigeneity is communicated as the leading factor for increased health services, such as vaccine distribution, as it exacerbates the feeling of being treated like a "guinea pig" or a problem that needs to be solved (Driedger et al., 2013). Vaccine hesitancy has been described and, in some cases, attributed to mistrust due to limited and late information about their efficacy and why Indigenous populations are being prioritized for distribution (Mosby & Swidrovich, 2021). The answer to this issue is to discuss risk attributes at an individual level and increase health communication from local leaders (Mosby & Swidrovich, 2021). Fortunately, with an increasing number of land claims, self-government, and health policy reformations, Indigenous communities have taken greater control over their health systems (Lavoie et al., 2016). The capacity to provide culturally safe, responsive care is pertinent in a time when cultural practices and physical community connections have been limited. The national response to the H1N1 pandemic showed that a one-size-fits-all approach is not helpful;

health communication regarding pandemics and significant health crises must be community-engaged (Driedger et al., 2013). For example, vaccine efforts for First Nations in 2009 were found to be successful when there was community awareness, support at the chief and council level, and additional teaching and fiscal resources (Boggild et al., 2011). This work aims to help summarize the responses in Canadian northern/Indigenous communities to determine effective health communication strategies, policies, and program implementation approaches in areas with similar values.

Canada's North

Northern and remote communities share many features to which their health systems must adapt, including harsh climates and small populations over large geographic areas; they also strive to reflect Indigenous values. Within Canada's 18 Northern regions (Table 1), just under 25% of the population identify as Indigenous (Young et al., 2019). These proportions vary from <5% to >95 % (Young et al., 2019). While the Canadian territorial and provincial norths are varied, it has been found that health systems in Nunavut and northern regions in Quebec, Manitoba, and Saskatchewan performed the worst in respect to the Canadian Institute for Health Information (CIHI)'s performance framework (Young et al., 2019). This framework is composed of four quadrants: (1) social determinants of health, including postsecondary education, annual income, employment, current smoking, heavy drinking, and physical activity; (2) health system inputs and characteristics, including inflow/outflow, density (per 100,000) of general practitioners or family practitioners in population, density of specialists, and proportion of the population (12yrs +) who have a regular doctor; (3) health system outputs, including ambulatory care sensitive conditions (ACSC), medical readmission, obstetrical readmission, surgical readmission, and young patient readmission; and (4) health system outcomes, including rates of potentially avoidable mortality, hospitalization for new acute myocardial infarction, injury, suicide, and the proportion of the population (12yrs+) who perceive their health as excellent or very good (Young et al., 2019). It is important to note here that this framework does not include indicators that have been recognized as contributing factors to the success of Indigenous primary health care services, identified in a scoping review conducted by Harfield et al. (2018). These factors include culture, community participation, continuous quality improvement, culturally appropriate and skilled workforce, flexible approach to care, holistic health care, and self-determination and empowerment. Only one indicator overlaps between the CIHI framework and those identified by Harfield et al.: accessible health services.

Indigenous-led health systems are more likely than western systems to improve the health of Indigenous communities due to their incorporation of community values and principles and their holistic approach to health and treatment (Harfield et al., 2018). Alignment with cultural values has been connected with a health system's responsiveness, thus improving access to care. This is often possible because the health services are controlled by local communities. Within Canada, there are three models of Indigenous Health governance: 1) a public government model,

2) a tripartite agreement model, and 3) systems emerging from federal agreements (Marchildon et al., 2021). Comparing COVID-19 responses in northern and Indigenous health regions, some of which encompass self-governing communities, will provide insight into what policies and programs were most effective. At the same time, the analysis will allow for a better understanding of which health indicators were considered in program development and implementation. Many northern communities fared very well during the first wave of COVID-19 (approx. March 2020 - June 2020); great policy lessons can be learned from listening to those who have had historically dire relationships with pandemics.

Table 1: Northern Health Regions in Canada*

Province/Territory	Health Region	Total Population	% Aboriginal
Newfoundland	Labrador-Grenfell Regional Health Authority	36,233	34
Quebec	Region du Saguenay-Lac-Saint-Jean	275,625	5
	Région de la Côte-Nord	93,640	16
	Région du Nord-du-Québec	14,185	6
	Région du Nunavik	12,638	91
	Région des Terres-Cries-de-la-BaieJames	16,748	96
Ontario	Northwestern Health Unit	75,598	34
	Porcupine Health Unit	84,220	15
	Thunder Bay District Health Unit	149,618	16
Manitoba	Northern Regional Health Authority	71,158	71
Saskatchewan	Mamawetan/Keewatin/Athabasca (Saskatchewan Regional Health Authorities)	35,065	87
Alberta	Alberta North Zone	429,455	17
British Columbia	North West Health Service Delivery Area	71,960	32
	Northern Interior Health Service Delivery Area	139,725	16
	Northeast Health Service Delivery Area	66,678	15
Yukon	Yukon	34,885	23
Northwest Territories	NWT	41,623	51
Nunavut	Nunavut	34,885	86

*adapted from Young et al., 2019. Original data from Statistics Canada

Chapter 2: Research Purpose and Objectives

The COVID-19 pandemic has had dramatic consequences in every aspect of life worldwide. Along with the pressure it placed on health systems and care, COVID-19 impacted how we prioritized access to and delivery of health services. The Canadian government's top priority as we navigated living with COVID-19 was to keep Canadians healthy and safe, in part by working with health researchers (McMahon et al., 2020). The Canadian Institute of Health Research (CIHR)'s Institute of Health Services and Policy Research (IHSPR) identified COVID-19 health services and policy research priority areas through a rapid-cycle identification process. One area recognized was the need for rapid synthesis and comparative policy analysis of the COVID-19 response and outcomes (McMahon et al., 2020). Moreover, the need to support the health of Indigenous Peoples and inform culturally safe healthcare policies was identified (McMahon et al., 2020). This work aimed to fill the identified gap; although national and regional policy response monitors exist, the shared experiences of the North, including remote geographies, health equity, and Indigenous values, demand that Northern and Indigenous policy responses be documented and translated to identify best practices that are responsive to the populations they serve. Therefore, the purpose of this work was to describe and summarize the changes to health policy and programming in Canada's Northern and Indigenous regions and the impact it has had on community members. The research was conducted in two parts to achieve these goals.

The first thesis objective was consequently defined as the following and will be hereafter referred to as "part one":

- To compare COVID-19 health policy and program responses in Northern/Indigenous communities in order to summarize strategies, both similar and unique, used to mitigate the effects of the pandemic.

To support evidence-informed policy changes in the future, best practices in Canadian remote and Indigenous communities must be understood within a framework that is reflective of the values community stakeholders share. Therefore, along with an understanding of what is being done in similar regions, implemented health policy must be evaluated to recognize

potential impacts on community members. Specifically, COVID-19 policy responses must be understood at a community level to gain insight into the health system's responsiveness; this will ensure beneficial policy recommendations are developed in the future regarding both content and implementation. As discussed by Yin (2009), embedding a case study approach within a larger research project can be useful when one aims to illustrate experiences in greater depth. However, during a crisis such as the COVID-19 pandemic, community-based work was challenging. After consultation with members of the Tłı̨chǫ government, with whom my supervisor, Dr. Susan Chatwood, has a long-standing relationship, it was determined that the insight that would come from community members was invaluable. With this in mind, and the Tłı̨chǫ region being identified as a community with whom a case study could be developed and implemented, the following objective was outlined. It will be hereafter referred to as "part two":

- To understand the impacts and perceptions of COVID-19 policy and program changes in the Tłı̨chǫ region on Elders, community members, and local Tłı̨chǫ policy and service delivery staff.

Following a mixed methods research (MMR) approach, the data generated from the two components must be integrated. In this project, the point of integration occurred within the data analysis stage. Analysing the data as a whole allowed for the final research objective to be answered:

- To discover if, and to what extent, the values held between community members and policy and service delivery staff differed as they related to the implementation of policy/programs.

Chapter 3: Methods

Methodology

The research conducted for this thesis was completed as a sequential mixed methods project; descriptive qualitative methods combined with a case study design that utilized aspects of participatory action research (PAR) allowed for all thesis objectives to be reached.

Mixed methods research (MMR) is often thought of as a combination of qualitative and quantitative approaches; however, they can combine qualitative with qualitative data (Mayan, 2009). The overarching purpose of combining research components is to increase knowledge and strengthen the study's conclusion (Schoonenboom & Johnson, 2017). As defined by Greene et al. (1989), there are five further nuanced classifications of purposes: triangulation, complementarity, development, initiation, and expansion. This project used MMR for complementarity and development; complementarity seeks elaboration and illustration of the results from one method with the results of another, while development uses the results from one method to help develop and inform the other. In this project, the results from the scoping review, described below, were used to develop the community-based case study approach, which in turn served as an illustration/example of the programs and policies that were developed in response to COVID-19 within a Northern, Indigenous community. Key to MMR is the point of integration; without integration, a study simply has multiple parts (Schoonenboom & Johnson, 2017). Along with driving the development of the project, data was integrated in the analysis phase.

It was determined that a descriptive qualitative method was the most appropriate to describe and compare COVID-19 health policy and program responses in Northern/Indigenous communities, as the goal was to describe and summarize (objective 1) (Mayan, 2009). Descriptive qualitative work results in a basic presentation of facts without internal interpretation (Sandelowski, 2000). Thus, it is an accurate description of what is there, more easily applicable to researcher consensus, without interpretative spins (Sandelowski, 2000). The data gathering strategy followed a scoping review framework with areas of focus adapted from the North American Observatory's (NAO) COVID-19 response monitor. This framework guided the analysis and was used to capture key themes and components of COVID-19 health policy. Scoping reviews differ from traditional systemic reviews as they address broader topics and do not assess the quality of included material (Arksey & O'Malley, 2005). Arksey and O'Malley

(2005) note that there are four main reasons why a scoping study may be conducted: to example the range of research activity, to determine the value of undertaking a full review, to summarize and disseminate research findings, or to identify research gaps in the existing literature. The purpose of the scoping review for which this thesis is a part falls under the third category: to summarize and disseminate findings. It must be noted that the review was conducted during the first wave of COVID-19 in Canada, which ranged from approximately March 2020 - June 2020. Data was not updated after this point. This choice was made to set boundaries on the data set; due to the ongoing nature of COVID-19, new updates would come out daily. For analysis, a specific range had to be defined.

Following the scoping review, an exploratory community-based case study within the Tłı̨chǫ region was completed using semi-structured interviews to look at the impacts of COVID-19 related policy and programming "on the ground." The Wholistic Framework for Self-Wellness (WFSW) developed by the Women's College Hospital (Figure 1) guided the project; this framework, grounded in Indigenous knowledge, is to be used for wellbeing during the time of COVID-19. (Richardson & Crawford, 2020; Women's College Hospital, 2020a).

Yin (2009) describes case studies as a preferred method when how or why questions are being posed, the research has little control over the events, and the focus is on a current phenomenon within a real-life context. Understanding the effects of COVID-19 in a community fits all these descriptions. While there are different types of case study designs, a single case study within the Tłı̨chǫ region was decided upon for a multitude of reasons. First, the safety of those involved in the study was pertinent to all decisions made. While comparisons of the impacts and perceptions of COVID-19 policy and program changes between communities would be advantageous, the increased risk to both researcher and participants by entering remote, fly-in communities during an active pandemic would not outweigh the benefit. Secondly, single case study designs are beneficial for revelatory cases, wherein the analysis of previously inaccessible phenomena is being undertaken (Yin, 2009). Understanding the impact of COVID-19 responses has been talked about as a *need* for such studies, but little work has been undertaken due to the restrictions on travel and field research. The ability to do community-based work during a pandemic was a privilege; this decision was not made lightly and followed all ethical and public health guidelines (see section Ethical and Licensing Considerations / Appendices A-C, F). Finally, a single case study design also allowed for embedded units of analysis (Yin, 2009); in

this project, community members and Elders were initially designed to constitute one unit of analysis, while those involved in policy and program implementation were a second.

Most importantly, the work with the Tłı̨chǫ community would not have been conducted without community support and input. PAR techniques have been developed with and used among Tłı̨chǫ researchers for decades, with an understanding that it includes the sharing of experiences and observations (Legat, 2012). PAR is vital when working with Indigenous groups as the communities are not subjects but rather experts of their own knowledge (Mayan, 2009). Within this project, consultation with key community members was done while developing the project scope and interview guide. This was an ongoing process that included feedback which was used to ensure internal validity of the results. Detailed data collection and analysis techniques are summarized for all objectives below.

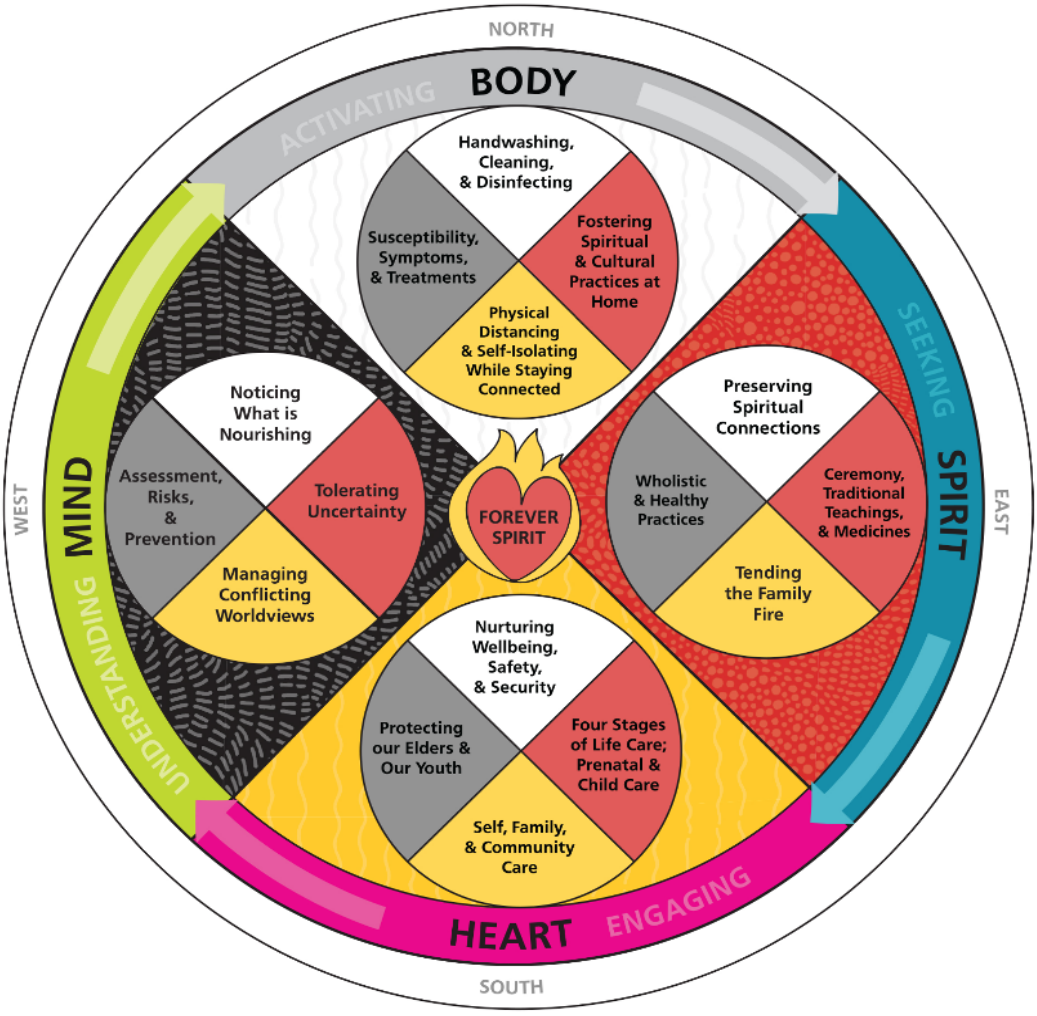


Figure 1: Women's College Hospital's Framework for Wellness: Body, Mind, Heart, and Spirit

Four Direction Concept Application: Banakonda Kennedy Kish (Bell), ShoShona Kish. Overall Collaboration: Diane Longboat, Dr. Chase Everett McMurren, Elisa Levi, Lindsey Fechtig, Dr. Lisa Richardson, Rosary (Spence) Pavica, Selena Mills, Bryn Ludlow (graphic design). Image available for digital sharing at: https://www.womenscollegehospital.ca/assets/pdf/IndigenousHealth/8.5X11-RGB.pdf

Data Collection

Part One: Scoping Review and Summary

A scoping review of grey literature was used to determine the extent of COVID-19 policy and program changes in Canada's northern health regions. This method was chosen as scoping reviews allow one to quickly map areas within the evidence base and disseminate research findings so that key stakeholders can use them (Arksey & O'Malley, 2005). The health regions identified by Young et. al (2019) were used as defining limits for the scoping review, with one modification. The "Northern Health" website supplies information for Northern B.C. residents in three service delivery areas, the North West Health Service Delivery Area, the Northern Interior Health Service Delivery Area, and the Northeast Health Service Delivery Area (Government of British Columbia, n.d.). Thus, the three health regions were combined to understand the response to COVID-19 in northern B.C.; therefore, analysis was completed on 16 regions in total. Table three summarizes the health regions included in the review and their shorthand's.

As previously mentioned, there are three models of Indigenous Health governance in Canada: 1) a public government model, 2) a tripartite agreement model, and 3) systems emerging from federal agreements (Marchildon et al., 2021). All three are covered within the scoping review. The first, a public government model, is exemplified by the Nunavut Government, whereby an Indigenous self-government acts as a public government and delivers health services (Marchildon et al., 2021). The Cree Board of Health and Social Services of James Bay (covered within Baie-James [QC]), the Nunavik Regional Board of Health and Social Services (Nunavik [QC]), the Athabasca Health Authority (Ma-Ke-At [SK]), the Weeneebayko Area Health Authority (included in Porcupine [ON]), the Sioux Lookout First Nations Health Authority (included in Northwestern [ON]), and the Nunatsiavut Government (not included in scan) are all examples of systems emerging from Tripartite agreements services (Marchildon et al., 2021). These type two models exist with a range of community control. Other examples of type two models include hospitals under First Nations government; however, these were not included in this review. Finally, the BCFNHA and the Tłı̨chǫ Government are systems that have emerged from Federal agreements (Marchildon et al., 2021).

It is important to note that there have been many efforts from individual Indigenous groups and bodies such as the Northern Inter-Tribal Health Authority in Saskatchewan and the First Nations Health and Social Secretariat of Manitoba that have created Indigenous-led

COVID-19 responses and resources. Due to scope, these initiatives were not included in the scan. Limiting the jurisdictional scan to the 16 northern health regions was necessary for time and transferability.

Data was compiled from territorial, regional health authority (RHA), and community level websites. Peer-reviewed academic literature was excluded in the data collection and analysis. General web searches on Google search engine were also utilized. Search terms for each northern region included but were not limited to "COVID", "Ventilators", "ICU capacity", "PPE calls", "Travel Restrictions" and "Health Workforce" as necessary to reach data saturation. The search strategy is highlighted in Table 2. These sources were valuable to explore government documents, news blasts, and practice guidelines consisting of policy and program adaptations relating to preventing viral transmission, ensuring workforce capacity, providing health services effectively, health financing, economic protections, and other measures. These focus areas were adapted from the areas outlined by the North American Observatory's (NAO) response monitor (NAO: North American Observatory on Health Systems and Policies, 2020). Adaptations made following provincial/national regulations that were not specific to a northern region were not included, for example, increasing sanitation measures and guidelines on how to do so effectively. While important in mitigating the spread of COVID-19, the inclusion of these measures would not accurately reflect changes made that were particular to the north. Data for the Northwest Territories (NWT) was extracted from the North American COVID-19 Policy Response Monitor, completed by the NAO (NAO: North American Observatory on Health Systems and Policies, 2020). This was done as a summary report for the NWT had already been completed at the time of data collection.

Due to the ongoing nature of the pandemic, data was collected from the first mentioning of the pandemic in each health region (generally mid-March 2020) until phased re-opening plans were announced (generally end of June 2020). This first phase of policy responses highlighted the effects taken to mitigate the initial spread of COVID-19. An exception to this timeline exists for the Tłı̨chǫ region, where data on programs and policies implemented was gathered until November 2020. This was used as preparatory information before interviews began for part two to better understand what had been done in the region as it pertained to COVID-19.

Inclusion/ Exclusion Criteria

Inclusion criteria for policy and program changes included:

- Specific to the region
- Current at time of review (from WHO announcement to phased re-opening of the region)
- Described a policy or program change relevant to preventing viral transmission, ensuring workforce capacity, providing health services effectively, health financing, economic protections, or other health communication/wellbeing measures

Exclusion criteria:

- General provincial measures
- Changes to specific working environments
- Changes occurring after July 2020*

*exception for Tłı̨chǫ region

Table 2: Grey Literature Search Strategy

Method	Tools	Used to Find
Grey literature repositories	- Government websites - RHA websites - Indigenous and Regional websites	- Government policies, regional news updates - program and health service changes - health financing information
Targeted and general web searches	- Google search engine	- Health infrastructure and workforce capacity - regional restrictions - media platforms/ health communication

Data for each health region was summarized in a more extensive report (Appendix H). Adaptations that occurred due to COVID-19 in each northern region were summarized by category and used to guide the data extraction: prevention of viral transmission, including health communication, physical distancing measures, isolation and quarantine guidelines, monitoring and surveillance efforts, and testing; ensuring workforce capacity, including physical infrastructure and workforce capacity; providing health services effectively, including planning services, managing cases, and maintaining essential services; paying for services, including health financing, entitlement and coverage, governance and exit strategy, and other measures including mental health services, financial relief, Indigenous health and wellness, and food security. The summary reports for each health region were then imported into QSR International's NVivo software (released March 2020) for organization and analysis in these broader public health categories. NVivo is a data management tool that allows for structured qualitative analysis (QSR International Pty Ltd., 2020). Summary tables for the policy and program adaptations can be found in chapter four, including an additional table on data specific to Indigenous health. This was to decolonize the discussion of what effective health service planning and modification looked like in the time of COVID-19.

Limitations

Scoping review methodology is strongest when multiple people select sources and extract data (Levac et al., 2010). In this review, all steps were completed by one individual; the potential impact this may have had on consistency and bias is unknown. For example, recall bias of key search strings is indeterminate. Moreover, the use of the review conducted by the North American Observatory on Health Systems and Policies on the Northwest Territories as opposed to independent data extraction may have resulted in inconsistent data selection; although the same categories for policy and program adaptations were used to summarize each jurisdiction, the difference in authorship could result in data discrepancies. Additionally, program changes may have been overlooked as experts were not consulted from any of the regions. In the future, a team approach, systemic documentation of search strings, and community consultation should be included to improve coverage uniformity.

Part Two: Case Study and Analysis

The Tłı̨chǫ region is comprised of four communities: Behchokò, Gamètì, Wekweètì, and Whatì. Behchokò, located ~100km northwest of Yellowknife, is the only community connected to the territorial highway system (Figure 2). It was here that the case study was conducted. The justification for conducting research in person during a time when person-to-person contact was limited was twofold, considering both Tłı̨chǫ ways of knowing and Indigenous methodologies. Tłı̨chǫ Elders recognize that knowledge cannot be removed from context and that information is converted from stories to knowledge through personal experience (Legat, 2012). They also recognize that stories and knowledge from the past are essential for the present and future; their knowledge of past pandemics would therefore be helpful to understand the implications of COVID-19 in the region. Thus, it was important to hear their stories and understand their perspectives firsthand.

Similarly, the fluidity that comes from storytelling could not be replicated over tele or video interviews; when we tell a story, we do so by weaving in and out of linear history, describing key components as they come to us (Tachine et al., 2016). Storytelling is a fundamental Indigenous methodology that was permissible through semi-structured interviews within the case study.

Finally, conducting work in person allowed respondents who may not use modern technology and/or those who did not speak English to be interviewed. Using close community consultation and an interpreter identified by community contacts, Elders from Behchokò were identified as key participants and were able to answer questions in the Tłı̨chǫ language.

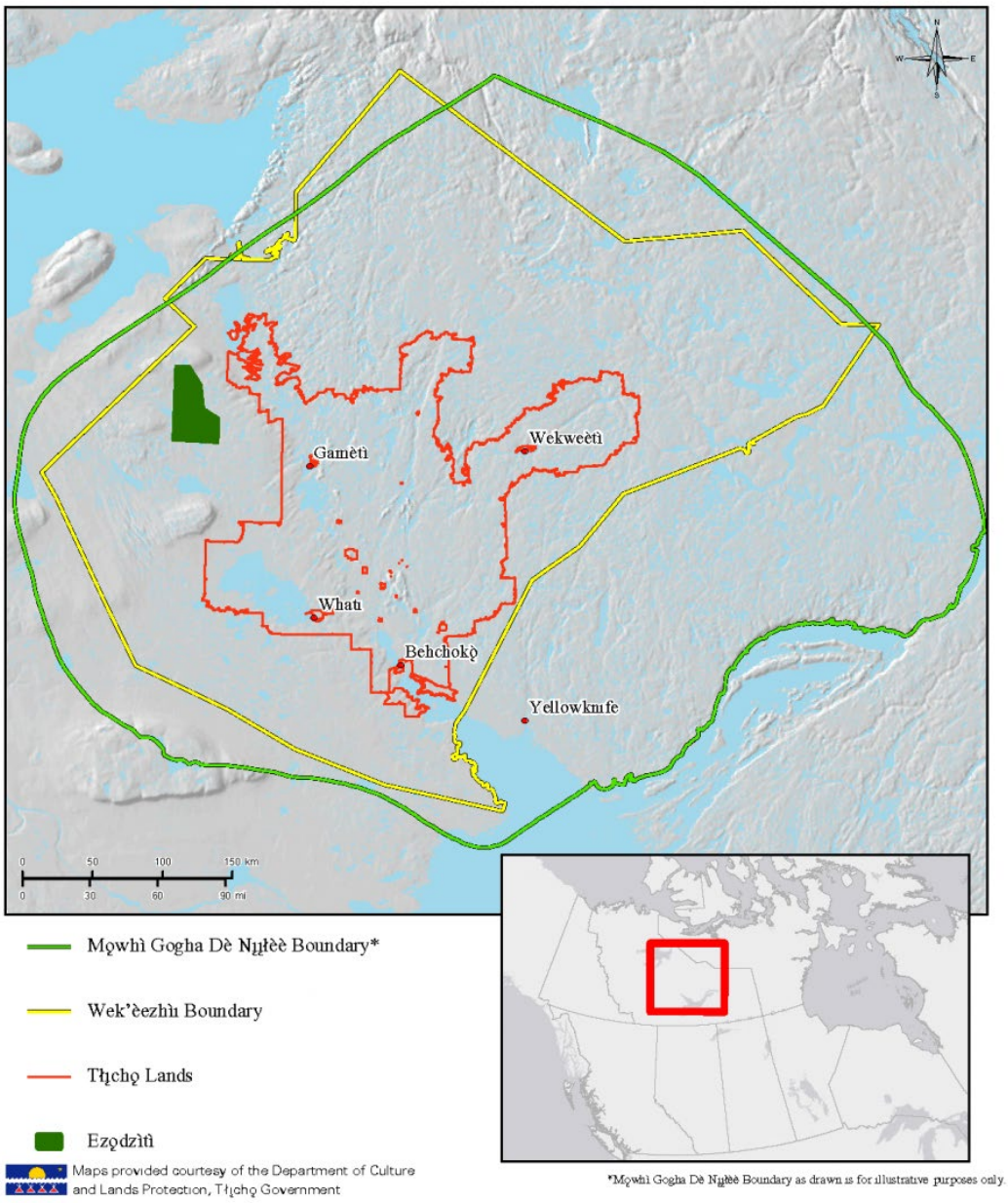


Figure 2: Tłı̨chǫ Agreement Boundaries

Green boundary is the traditional area of the Tłı̨chǫ as described by Chief Mǫwhì during the signing of Treaty 11. Yellow boundary is the Wek'èezhìı Boundary, the area of land for which regulatory management boards under the provisions of the Tłı̨chǫ Agreement and the Mackenzie Valley Resource Management Act are established. Red boundary includes the Tłı̨chǫ lands owned by each Tłı̨chǫ community government. Map available online from: https://www.wrrb.ca/about-wrrb/map

Participant Identification

Common sampling strategies utilized in single case study designs include convenience, politically important, critical, and typical case (Crabtree & Miller, 1999). For this project, critical and convenience cases were used, along with opportunistic cases. The definition of a case when referring to sampling in this instance is a participant.

Critical case sampling occurs when a researcher purposefully searches out information-rich data sources that will permit logical generalization, as what is true for them is likely to be true for other, similar cases (Crabtree & Miller, 1999). Critical case sampling was used to identify those involved in program and policy adaptations within both the Tłı̨chǫ Government and the Tłı̨chǫ Community Service Agency (TCSA). This was a necessary approach due to the desire to keep sampling size small for health and safety reasons, as well as the nature of COVID-19 work; those who are the most involved in policy and program implementation during a crisis are also the busiest and least likely to be available for interviews. By ensuring that we identified all critical cases, we were able to get insight from key stakeholders despite the drop-out of some participants.

Convenience cases are used when time is an issue, which was a concern in this project. Due to the timing of ethical and public health approvals, I was only able to enter the NWT for three weeks before the Tłı̨chǫ Government went on their holiday break in mid-December. With two weeks dedicated to quarantine in Yellowknife, I had one week free to conduct interviews in Behchokò. Thus, community participants were chosen by the manager of research operations for the Tłı̨chǫ Government and my community contact before I entered the community. The community research lead had previously worked closely with many of the community members and Elders they identified on a project relating to a caribou monitoring camp and knew they would be more likely to participate in this project.

Opportunistic sampling was also used when convenience cases failed to show up for their pre-established interview time. The Tłı̨chǫ interpreter, hired to help with the interview process, was an integrated and knowledgeable community member who was able to identify and bring additional participants in. This highlights the importance of close community collaboration again.

Within homogenous groups, the ideal sample size is between 5-8, and when attempting to achieve maximum variation, 12-20 (Crabtree & Miller, 1999). The sample sizes used in the project fell perfectly within these ranges: In total, twelve critical cases who worked for either the TG or TCSA were identified, with six agreeing to participate and an additional opportunistic case joining. The sample size for TG/TCSA representatives was thus equal to seven. Ten Elders/harvesters and three general community members were also identified as potential cases; three Elders, two general community members, and one additional opportunistic case were interviewed. The sample size for community members was thus equal to six. The distinction between someone who worked for the local government or health services versus those considered community members (including Elders) was necessary as two different interview guides were developed.

Interview Guide Development

The Wholistic Framework for Self-Wellness (WFSW) developed by the Women's College Hospital was used as a guiding framework to formulate questions for the semi-structured interviews held in Behchokò. This framework has been highlighted as a recommended COVID-19 resource that builds upon the guidelines set out by public health institutions but is grounded in traditional and Elder knowledge (Richardson & Crawford, 2020). This First-Nation's framework includes areas relating to the body, mind, heart and spirit (Figure 1). The WFSW is centered around the belief in spirit and connectedness (Women's College Hospital, 2020a). It was developed by the Center for Wise Practices in Indigenous Health at the Women's College Hospital, which works to develop educational opportunities that can lead to reconciliation in healthcare for Indigenous peoples (Women's College Hospital, 2020b). Along with the organization and development of interview questions, this framework was also used to map areas for future policy development.

Two different interview guides were developed: one for those involved in policy/decision making in the community (TG and TCSA employees) and one for community members/Elders (Appendices D, E). Both guides were formatted with a flow starting with measures that involved the body (such as staying healthy) to the spirit (such as impacts on traditional ceremony), followed by the heart (including adaptations to health services), and ending with the mind (including mental health). However, the interview guide aimed at those involved in policy and program work was more technical and included questions relating to program implementation and collaboration with the GNWT. The interview guide for community members was less formal and included more space for storytelling and personal experience.

Interviews followed the interview guide format; however, in cases where time was an issue, participants were asked about their general experiences living with COVID-19 restrictions and were given space to speak freely. Two interviewees requested they respond to questions together as they worked closely on health policy and program implementation and felt they could give more complete answers together. One interview was done entirely in Tłı̨chǫ with the interpreter asking the questions on the interview guide. In this case, translation of responses was done after the interview was completed. Other times, participants would ask for clarification and/or responded to interview questions in Tłı̨chǫ intermittently, and the translation was done in real-time.

Ethical and Licensing Considerations

This project was approved by the Aurora Research Institute (ARI), Licence number No. 16769 (Appendix B). ARI ensures that research conducted in the NWT follows the NWT Scientist Act and that proper community consultation is conducted. This project followed all appropriate ethical conduct for research with Indigenous communities, including engagement, respect for governing authorities, the inclusion of communities of interest, recognition of diverse interests, recognition of Knowledge Holders, and respect for community customs (I. A. P. on R. E. Government of Canada, 2019). Collaborative research for mutual benefit was conducted with planned knowledge translation activities. A research agreement was facilitated by the territorial research manager at the GNWT-DHSS and was signed between the PI and the TCSA (Appendix C).

All participants gave verbal and/or written consent prior to interview commencement (Appendix F). The consent form was approved by the University of Alberta Research Ethics Board (REB) as part of the research project entitled "Policy vs. Practice: Perceptions and Implications of COVID-19 responses in the Northwest Territories", No. Pro00105223 (Appendix A). Most participants agreed to be quoted with all identifying information removed; the anonymity of participants was of utmost importance in this project as it took place in a small and connected community. All identifying information was removed during the transcription process as participants were assigned unique numbers.

As noted, this research was conducted during the global COVID-19 pandemic. Safety of the research team and participants was paramount, and territorial, community, and University of Alberta guidelines were followed at all times. Interviews were conducted in person at the Tłı̨chǫ Government, Department of Culture and Lands Protection office in Behchokò, over the phone, and via Zoom, depending on the respondent's availability and comfort. Before interviews began, I isolated in Yellowknife for two weeks; approval to enter the Northwest Territories (NWT) to conduct this work was granted by Protect NWT (Self Isolation Plan (SIP) #23176). All public health measures were followed for in-person interviews, including daily symptom checks by the researcher, sanitation between participants, and a six-foot distance between the researcher, interviewee, and interpreter. The researcher wore masks at all times, and while not mandatory, were encouraged among participants. The health and safety precautions taken were in accordance with both territorial public health regulations and approved by the University of

Alberta's public health response team(K. Schaerer et al., personal communication, November 13, 2020)

Analysis Techniques

Semi-structured interviews allow for subsequent analysis (Mayan, 2009), which was vital to the time constraints. Audio files of recorded interviews were initially transcribed using Otter.ai software (*Otter*, 2021). Transcripts were then imported into QSR International's NVivo (released March 2020) for analysis; latent content analysis with an editing technique was used. As described by Crabtree and Miller (1999), editing includes "cutting, pasting, and rearranging until the reduced summary reveals a helpful interpretation." The transcribed interview data was combed through for meaningful units of text that helped explain what life in the Tłı̨chǫ region was like when COVID-19 hit, including feelings towards program implantation and their implications. An intermediate approach was taken here: while a formal code manual was not developed, some initial codes came from concepts within the WFSW and were modified throughout the analysis process. Once sorted into preliminary categories, cross-comparison was completed to find connecting themes. This technique is appropriate when the research question is exploratory and participatory in nature (Crabtree & Miller, 1999). Described as a dance of interpretation (Crabtree & Miller, 1999), the process of organizing, connecting, and making sense of emerging themes occurred many times through the analysis phase.

Limitations

Case study methodologies have been criticized for their lack of generalizability, especially single case study designs. However, all case studies allow for interpretations across theoretical propositions (Yin, 2009). In this sense, by exploring the impacts of COVID-19 within one northern, Indigenous community, we can extrapolate policy implications for other regions. Moreover, a single case study was beneficial for this project due to the increased health risks associated with including multiple sites during an active pandemic. Limitations also exist for interviews as a form of data collection. Participants may have poor recall or give statements that they believe the interviewer wants to hear (Yin, 2009). On the other hand, poorly articulated questions from the interviewer can lead to bias or leading. While recall cannot be remedied, the latter limitations were mitigated through thoughtful conversations with all participants and a clear understanding that the data collected would go back to the community itself. Finally, no participants who worked for the Behchoko community government were able to participate in interviews due to conflicting schedules. While this perspective is missing, data saturation on the impacts to community life was still reached.

Chapter 4: Findings

Part One - Documenting Policy/Program Changes in Canada's North

This chapter provides summaries of the adaptations made in each region as they pertain to preventing transmission, including health communication, physical distancing measures, travel restrictions, isolation and quarantine guidelines, maintaining essential services, law enforcement, and monitoring and surveillance efforts; cases, including testing capacity, COVID-19 case count, and managing cases; maintaining health services, including planning services; financial support, including economic relief and food security; and exit strategies. Indigenous-specific responses are also summarized. Table 3 shows the health regions included in the study and their abbreviations. Data has been extracted and summarized from a more extensive report (appendix H). All dates are of the year 2020.

Table 3: Northern Health Regions in Canada included in Scoping Review

Province/Territory	Health Region	Shorthand
Newfoundland and Labrador	Labrador-Grenfell Regional Health Authority	NL
Quebec	Region du Saguenay-Lac-Saint-Jean	Saguenay [QC]
	Région de la Côte-Nord	Côte-Nord [QC]
	Région du Nord-du-Québec	Nord [QC]
	Région du Nunavik	Nunavik [QC]
	Région des Terres-Cries-de-la-BaieJames	Baie-James [QC]
Ontario	Northwestern Health Unit	Northwestern [ON]
	Porcupine Health Unit	Porcupine [ON]
	Thunder Bay District Health Unit	Thunder Bay [ON]
Manitoba	Northern Regional Health Authority	Northern [MB]
Saskatchewan	Mamawetan/Keewatin/Athabasca (Saskatchewan Regional Health Authorities)	Ma-Ke-At [SK]
Alberta	Alberta North Zone	North Zone [AB]
British Columbia	North West Health Service Delivery Area	BC
	Northern Interior Health Service Delivery Area	
	Northeast Health Service Delivery Area	
Yukon	Yukon	Yukon
Northwest Territories	NWT	NWT
Nunavut	Nunavut	Nunavut

Preventing Transmission

Transmission prevention strategies included in the scoping review included public health communication efforts, physical distancing measures, travel restrictions, isolation and quarantine guidelines, efforts to maintain essential services, law enforcement, and monitoring and surveillance efforts.

Health communication was one of the most crucial aspects of the early public health response and continues to be as the second and third waves hit. The need to provide clear and fact-based information while being honest about the uncertainty and dangers of COVID-19 was and is critical (Finset et al., 2020). Younger generations preferred getting their information through social media, while older adults preferred news broadcasts and papers (Finset et al., 2020). This review found that most regions had dedicated COVID-19 updates for their area and population in various forms.

Health Communication

Public health communications for all jurisdictions were centralized on dedicated COVID-19 webpages except for the Mamawetan/Keewatin/Athabasca RHA's. Video updates were also standard, through live broadcasts, live streams on social media, and dedicated YouTube pages. These were utilized in NL, Saguenay [QC], Baie-James [QC], Northwestern [ON], Thunder Bay [ON], Yukon, NWT, and Nunavut. Other common sources to relay public health messaging included social media use (Twitter, blogs, Facebook), guidebooks/posters/downloadable documents, radio broadcasts, information hotlines, and radio updates. Two jurisdictions created surveys for their population to complete on different COVID-19 topics; Northwestern [ON] conducted their survey in early May asking residents about where they got their information related to COVID-19, how they were protecting themselves, and what their main concerns were. BC released a survey allowing respondents to share how COVID-19 was affecting them. The results of the Northwestern survey surrounded preventative measures and did not touch on where residents were getting their information. Table four summarizes the health communication efforts in each Northern Health Region.

Table 4: Summary of Health Communication Efforts by Northern Health Region

Health Region	Health Communication
NL	Webpage, Twitter, online webinars
Saguenay [QC]	Webpage (French only), press releases, YouTube
Côte-Nord [QC]	Webpage, self-care guide
Nord [QC]	Webpage (French only)
Nunavik [QC]	Press releases, Info-Health line, FM radio, webpage, posters
Baie-James [QC]	Webpage, videos, memes, GIFs, social media, posters, guideline documents, weekly updates, livestream services, Cree radio broadcasts
Northwestern [ON]*	Webpage, public Q&A with MOH (livestream), Facebook, hotline, survey
Porcupine [ON]*	Webpage, hotline
Thunder Bay [ON]	Webpage, hotline, Q&A with MOH, YouTube, blog, posters
Northern [MB]	Webpage, shared links for provincial and Indigenous resources
Ma-Ke-At [SK]	Links to provincial website, Athabasca RHA released one newsletter
North Zone [AB]	Provincial website, links to Indigenous resources
BC*	Survey, webpage, online clinic, information line, health guide
Yukon	Webpage, updates with Premier and Chief Medical Officer of Health (CMOH) on YouTube and Facebook, support line
NWT*	Social media, webpage, news releases published online and over cable, radio, and satellite, radio updates with Premier, hotline
Nunavut	Posters, webpage, social media, media briefings, support line

*Jurisdiction covers or includes an Indigenous health authority, summarized in Indigenous Specific Information

One of the most common preventative measures that has been utilized around the world is physical distancing. These efforts were discussed at global, national, regional, and local levels. Within health communication hubs and broadcasts, including those analyzed in this scan, health authorities recommended staying six feet/two meters apart. This recommendation comes from historical studies that show the majority of droplets emitted from speech and/or coughing and sneezing do not travel past two meters (Jones et al., 2020). While not a perfect reference due to the inability to consider airborne droplets or airflow patterns (Jones et al., 2020), it is effective when combined with other preventative measures.

Physical Distancing

Physical distancing measures in most jurisdictions did not differ from the provincial mandates. In Northwestern [ON], information posted included notes to cabin and cottage owners to avoid interacting with local businesses or services unless necessary. Northern [MB] saw individual Indigenous communities close their borders to non-residents. The Manitoba First Nations COVID-19 Pandemic Response Coordination Team published a response to the Manitoba Restart Strategy in which they discuss the implications it may have for First Nations Communities. This document included the recommendation that communities who have their own travel bans or lockdowns consider the number of cases in each region when assessing risk regarding lifting their distancing measures (Manitoba First Nations COVID-19 Pandemic Response Coordination Team., 2020). The BC First Nations Health Authority (FNHA) published guidelines on sharing the harvest safely under their Self-Isolation and Physical Distancing webpage with tips for safe food distribution, delivery/pickup instructions, cleaning supplies to have on hand, and cleaning guidelines.

Physical distancing measures in the territories included information similar to those enforced in southern Canada. This information was gathered for the report as each Territory is considered a northern health zone. School closures, work from home orders, limitations and prohibitions on gatherings, restaurant, bar and service closures, park and camp closures, and limited visitation in hospitals and long-term care homes were put into effect. Table five provides a summary of the physical distancing requirements by RHA and dates of announced closures. See exit strategies (table 16) for information on when phased re-opening occurred.

Table 5: Summary of Physical Distancing Requirements by Northern Health Region

Health Region	Physical Distancing
NL	Reiteration of provincial/ national mandates
Saguenay [QC]	Reiteration of provincial/ national mandates
Côte-Nord [QC]	Reiteration of provincial/ national mandates
Nord [QC]	Reiteration of provincial/ national mandates
Nunavik [QC]	Reiteration of provincial/ national mandates
Baie-James [QC]	Reiteration of provincial/ national mandates
Northwestern [ON]*	Provincial regulations plus information directed towards camp and cottage owners to not use local services unless an emergency
Porcupine [ON]*	Reiteration of provincial/ national mandates
Thunder Bay [ON]	Reiteration of provincial/ national mandates
Northern [MB]	Border closure to non-residents (select Indigenous communities)
Ma-Ke-At [SK]	Reiteration of provincial/ national mandates
North Zone [AB]	Reiteration of provincial/ national mandates
BC*	BCFNHA included fact sheets on how to share harvest safely
Yukon	Closure of schools recreational facilities, libraries, personal services announced on March 18th; suspension of non-urgent surgeries announced March 23rd restaurants limited to 50% capacity and advised to provide takeout only as of March 26th, gatherings limited to 10 people on March 22nd, Health and Social Services developed culturally relevant distancing messages (stay "one caribou" apart)
NWT*	Social media effort "Our Home is Our Camp" dedicated to social distancing, school closure and suspended visitation in hospitals and long-term care centers announced March 16th, work from home orders announced March 19th, prohibition of all indoor gatherings and prohibition of outdoor gatherings over 10 people as of April 10th, closure of recreational facilities and youth centers as of April 10th.

Nunavut	Work from home order on March 18th, school cancelations as of March 17th, bars and restaurants limited capacity as of March 20th, closure of parks and playgrounds, and cancellation of camps and after-school programs as of March 24th.

*Jurisdiction covers or includes an Indigenous health authority, summarized in Indigenous Specific Information

Along with social distancing efforts, suspensions, and closures, some regions restricted entry to residents and essential workers. These travel restrictions were mandated at provincial, territorial, and/or local levels.

Travel Restrictions

Restricted access to regions, territories, and communities were common efforts to reduce transmission and are summarized in table six. These could be mandated at the provincial or territorial level and by individual Indigenous communities who have the right to restrict access to their land. None of the health regions in Northern Ontario nor the Alberta North Zone had any travel restrictions.

Table 6: Summary of Travel Restrictions in each Northern Health Region

Health Region	Travel Restrictions
NL	Entry was restricted to residents, asymptomatic workers, and those with exceptions as granted by the CMOH issued on April 29th and in effect May 4th.
Saguenay [QC] Côte-Nord [QC] Nord [QC] Nunavik [QC] Baie-James [QC]	Provincial travel restriction to the north was put in place March 28th including Bas-Saint-Laurent, Saguenay—Lac-SaintJean, Abitibi-Témiscamingue, Côte-Nord, Nord-du-Québec, Gaspésie — Îles-dela-Madeleine, Nunavik and Terres-Cries-de-la-Baie-James health regions. Residents, essential service providers, persons who transport goods, travel for medical care, persons travelling due to a judgment of court, and persons who arrive directly from an access-restricted region would be allowed entry. The order stated that anyone entering these regions to return to their principal residence, except for those who must travel for work, medical care, or because of a court decision, must self-isolate for 14 days. Anyone who showed COVID-19 symptoms was prohibited from entering the regions. Travel restrictions eased at different times: May 15th: Bas-Saint-Laurent and Gaspésie — Îles-dela-Madeleine. June 9th: Nord-du-Québec. Travel restrictions to other regions were still in place at the time of writing. Nunavik: Flight ban for anyone returning to Canada from an international location or who had been in contact with a positive COVID-19 case. Official lockdown, including travel between communities, was put in place on April 3rd.
Northwestern [ON]*	No travel restrictions
Porcupine [ON]*	No travel restrictions
Thunder Bay [ON]	No travel restrictions

Northern [MB]	Travel restrictions for northern and remote communities north of the 53rd parallel as of May 1st. Exceptions were in place for residents returning home, individuals delivering goods, individuals providing essential services, accessing medical treatment, and facilitating child custody. These restrictions were updated June 3rd to allow travel into the northern region for those going to a cottage, cabin, provincial park, campground, or hunting or fishing lodge. Additionally, there was a "buffer zone" into northwestern Ontario where Manitoba residents could travel without isolating upon return. Some Indigenous communities chose to close their borders to non-residents.
Ma-Ke-At [SK]	Non-critical travel restricted into and out of the Northern Saskatchewan Administrative District. Travel restricted between communities from April 30th-June 8th.
North Zone [AB]	No travel restrictions
BC*	Individual communities restricted access to residents only.
Yukon	As of April 17th, only Yukon residents, family members of Yukon residents, travelers passing through within 24 hours, those exercising an Aboriginal or treaty right, and those delivering a critical or essential service were able to enter the territory. Exceptions existed for individuals who resided in designated Yukon-BC border areas such as Jade City, Pleasant Camp, Fireside, Atlin, Fraser, and areas between those locations and the Yukon border. Additional exceptions to mandatory isolation measures for individuals participating in traditional activities were put into order on April 7th.

NWT*	On March 21st, travel into NWT was restricted to residents. Exceptions existed for persons providing services for the importation/exportation of goods and other supply chain transportation; flight crews; essential workers such as health and social service providers, and postal service workers; persons travelling from Nunavut for medical travel; persons participating in traditional harvesting and on the land activities who may cross the NT border but do not enter communities; transient workers in the mineral and petroleum resources industry; workers on territorial government capital infrastructure projects; and corrections officers and inmates in transit. Exceptions were also made for residents of two northern Alberta communities to travel to the NT border community of Fort Smith for essential services.
Nunavut	Travel restricted to residents and critical workers as of March 24th.

*Jurisdiction covers or includes an Indigenous health authority, summarized in Indigenous Specific Information

In combination with travel restrictions, isolation measures were also put into place for some northern RHA's. A two-week timeline was used based on the understood incubation period of COVID-19; 90% of symptomatic infected individuals could be suspected to show symptoms within 14 days (Qin et al., 2020).

Isolation and Quarantine

Anyone with symptoms of COVID-19 is required to self-isolate in all jurisdictions throughout Canada. The summaries provided below (table 7) describe the self-isolation requirements for those entering each region if asymptomatic. Some regions did not have individual isolation and quarantine requirements, as the provincial legislature was followed. Exceptions for isolation and quarantine requirements exist for individuals such as flight crew members but were not summarized below.

Table 7: Summary of Isolation and Quarantine Requirements in each Northern Health Region

Health Region	Isolation and Quarantine
NL	Same as provincial wide information
Saguenay [QC]	In addition to the provincial-wide information, people in residential and long-term care centers and private seniors' residences were confined.
Côte-Nord [QC]	Same as provincial wide information
Nord [QC]	Exceptions to mandatory isolation upon entry for those travelling to/from the Abitibi-Temiscamingue region, Saguenay-Lac-Saint-Jean, or the Eeyou-Istchee territory for mandatory services as of May 15th.
Nunavik [QC]	Same as provincial wide information
Baie-James [QC]	Mandatory isolation for anyone returning from outside Eeyou Istchee, including any mine site, Hydro-Quebec site, and forestry camps. This isolation was lifted in the first phase of reopening for those travelling within Eeyou Istchee, Nord-du-Quebec, Abitibi, and Saguenay-lac-St-Jean. An outbreak in Saguenay resulted in its removal from this exception. If individuals traveled home on a Cree Health Board charter flight, the 14-day isolation period would be split: 7 days in the region individuals are travelling from and seven days in their home community. Individuals could be tested on day 5 of self-isolation. Isolation was not required for inter-community travel though it was strongly discouraged. Students returning from academic institutions in other regions would require a letter from the Cree School Board to pass border checkpoint controls. A letter from the Public Health Director for Eeyou Istchee was also supplied, informing returning students that they must isolate and inform their Cree First nation of their return.

Northwestern [ON]*	Same as provincial-wide information. The Keewatin Arena in Kenora was available for individuals to self-isolate as a temporary measure if necessary.
Porcupine [ON]*	Same as provincial-wide information
Thunder Bay [ON]	Same as provincial-wide information
Northern [MB]	Same as provincial-wide information
Ma-Ke-At [SK]	Same as provincial-wide information. Within the La Loche breakout, trailers were used to house those unable to isolate themselves at home.
North Zone [AB]	Same as provincial-wide information
BC*	Same as provincial-wide information
Yukon	Quarantine for anyone entering the territory as of March 22nd. Anyone with symptoms arriving in Canada from international destinations was to complete isolation at their arrival destination as of March 27th. Support staff available to help those who did not think they could safely isolate themselves at home. Self-isolation facilities were available in Whitehorse and most rural Yukon communities.
NWT*	Isolation with self-monitoring checks was required for anyone entering the territory as of March 21st in one of four communities: Yellowknife, Inuvik, Hay River, or Fort Smith. A self-isolation plan was required to be submitted and verified by a public health official. The territorial government covered the cost for residents living in communities other than the designated self-isolation sites. The territorial government provided up to $5 million to secure temporary housing units for homeless people with no self-isolation options, including CA$1.4 million to create 61 units in Yellowknife and CA$3.6 million to set up 130 units in the communities of Fort Simpson and Inuvik.

Nunavut	Self-isolation required before entry to the territory at designated facilities in Ottawa, Winnipeg, Edmonton, or Yellowknife as of March 24th. The government of Nunavut would cover the cost of isolation. Residents undergoing southern isolation do not have contact with other residents or the general population and receive daily health check-ins with on-site nurses. Anyone completing quarantine at one of the predetermined facilities was required to sign a self-isolation agreement.

*Jurisdiction covers or includes an Indigenous health authority, summarized in Indigenous Specific Information

Though travel restrictions and quarantine are an important measure to mitigate the disastrous effects of COVID-19, exceptions existed for those who provided essential services. This information is summarized in table 8.

Maintaining Essential Services

Essential service providers were exempt from travel and isolation requirements in regions where applicable.

Table 8: Exemptions to Isolation Requirements to Ensure the Continuity of Essential Services in each Northern Health Region

Health Region	Measures to Maintain Essential Service Provision
NL	Travel/ Isolation exemptions for asymptomatic workers who are essential to the maintenance of trade, transportation, mining, agriculture, hydro-electric and oil and gas sectors, asymptomatic rotational workers who reside in the province but work elsewhere, asymptomatic healthcare workers who provide critical care, medical flight specialists and crew on any plane serving as an air ambulance or medivac operation (provided they wear full PPE and travel directly from the airport to the hospital), and workers who cross the Labrador-Quebec border for work, school, or health care reasons. All exempt workers are expected to self-isolate when not working, and all exempt individuals are to practice social distancing and self-monitor for symptoms.
Saguenay [QC]	No specific information published for the region. See provincial travel restriction exemption.
Côte-Nord [QC]	No specific information published for the region. See provincial travel restriction exemption.
Nord [QC]	No specific information published for the region. See provincial travel restriction exemption.

Nunavik [QC]	The Kativik Regional Government (KRG) and the Nunavik Regional Board of Health and Social Services (NRBHSSS) worked to identify essential workers, such as police officers, health care workers, maintenance crews, and others. They allowed these workers to travel on flights in Nunavik. If an essential worker had traveled outside of Canada within 14 days of their intended flight to Nunavik, or if they had been in contact with someone who had tested positive for COVID-19, they would not be allowed to fly. Regularly scheduled cargo planes and supply shipments were also maintained despite the travel ban, and travel for medical appointments and medevacs could run when necessary. However, escorts were no longer permitted unless the patient was a minor. Food assistance programs run by community organizations received funding when isolation measures were first put in place to help bring food to households in need. Additional funding was announced on April 23rd to continue these programs for two more months.
Baie-James [QC]	The only traffic allowed in the territory, beyond residents, was that for essential services, food and fuel distributions, humanitarian reasons, registered volunteers, and travel for medical purposes.

Northwestern [ON]*	No specific information published for the region; no travel restrictions in place. Due to the remote and northern locations of the WAHA hospitals and nursing stations, it is common for staff from outside the region to come and work. The Occupational Health and Safety team completed screening with the Weeneebayko Area HA before staff arrived in a community, and daily screenings were completed before each workday. New and returning staff coming into the region were also tested for COVID-19 and were required to wear masks until a negative test result came back.
Porcupine [ON]*	No specific information published for the region; no travel restrictions in place.
Thunder Bay [ON]	No specific information published for the region; no travel restrictions in place.
Northern [MB]	Persons travelling to northern Manitoba to deliver goods or provide services are exempt from the mandatory 14-day self-isolation period defined Under the Order Prohibiting Travel to Northern Manitoba and Remote Communities.
Ma-Ke-At [SK]	No specific information published for the region.
North Zone [AB]	No travel restrictions in place. Therefore, no necessary exemptions for goods and services.

BC*	A framework was developed in collaboration with the First Nations Health Authority, Northern Health, and Provincial Health Services Authority to ensure that those living in rural, remote, and Indigenous communities throughout BC will have access to health services during the COVID-19 pandemic. This framework outlines improved medical transportation, housing options for self-isolation, options closer to larger centers with more robust medical centers, faster COVD-19 testing, culturally safe contact tracing that respects privacy, access to the Virtual Doctor of the Day program, and increased mental health support. As of April 20th, BC Emergency Health Services (BCEHS) had added 55 ground ambulances throughout the province, including 6 in the Northern Health region and seven fixed-wing aircraft and helicopters for medical transport. Northern Health has an Emergency Operation Centre (EOC) responsible for the RHA's response to COVID-19. They are to oversee potential risks and issues and continue to work for the safety of all northern residents.

Yukon	Exceptions for workers who deliver critical services and border areas are subject to adherence of health and safety guidelines, including isolating when not required at their workplace, avoiding travel unless necessary for the delivery of their critical service, self-monitoring for symptoms of illness, and following all other health and safety orders and recommendations put forth by the CMOH and those which are federally mandated. Guidelines put in place by the CMOH for those providing services to rural communities include that all service providers engage with local, municipal, and First Nations governments before entering the community. Entities that provide services to rural communities are expected to implement companywide physical distancing measures, ensure that gatherings of more than ten people are avoided, increase scheduled cleaning, support hand hygiene measures, and support rapid response and monitoring of symptomatic workers. Works are expected to follow all protocols for infection prevention and avoid any unnecessary public establishments.

NWT*	Exemptions to mandatory isolation include those working in import/export, supply chain and flight crew workers, and essential workers; these individuals must self-monitor and contact public health officials if they present with symptoms. Daycares and in-home babysitting services are exempt from the health order on gatherings to ensure the children of essential service providers are taken care of. ECE department working with education bodies to ensure continued availability of remote counseling services, food programs, and support to individuals and schools. The TG provided emergency childcare in Behchokò for children of essential workers. This was in response to a need highlighted by essential and critical service workers; regular daycare centres across the NWT were not closed as they were classified as essential services.
Nunavut	Canada North ensured that the changes to flight paths resulting from the pandemic would not affect their cargo operations. Necessary food, medical supplies, and essential goods were to continue to all communities. See section on Financial Support, Economic relief, and Food Security for the help provided within Nunavut to maintain other services.

*Jurisdiction covers or includes an Indigenous health authority, summarized in Indigenous Specific Information

Public health orders, including and especially those related to travel and self-isolation are enforceable by law. Table 9 summarized the law enforcement efforts in each northern RHA.

Law Enforcement

Many public health orders are enforceable at the provincial and territorial level. Summaries are provided for Yukon, NWT, and Nunavut. Above and beyond provincial measures, the region of Nunavik in Quebec imposed a curfew from May13th-June 16th. Travel restrictions, curfews, and alcohol restrictions were also imposed in the Dene village of La Loche, located in the Keewatin Yatthė Regional Health Authority's district (Saskatchewan). Prohibition orders were also put in place in select communities in the NWT and Nunavut.

Table 9: Summary of Law Enforcement Efforts in each Northern Health Region

Health Region	Law Enforcement
NL	Not reported
Saguenay [QC]	Not reported
Côte-Nord [QC]	Not reported
Nord [QC]	Not reported
Nunavik [QC]	Curfew from March 29th between 9 pm-6 am, modified May 13th to run between 11 pm-4 am, and lifted June 16th. Enforced by police with the support of the mayors in each northern village.
Baie-James [QC]	Not reported
Northwestern [ON]*	Not reported
Porcupine [ON]*	Not reported
Thunder Bay [ON]	Not reported
Northern [MB]	Not reported
Ma-Ke-At [SK]	During the breakout in La Loche, where 182 cases had been detected as of June 8th, travel restrictions, alcohol restrictions, and curfews were imposed in the area. These were created in collaboration between the province, local health authorities such as the Northern Inter-Tribal Health Authority, communities, and Indigenous Services Canada.
North Zone [AB]	Not reported
BC*	Not reported
Yukon	All orders put in place by the Yukon CMO were and are enforceable by law. Failure to comply can result in a $500 fine, six months in jail, or both.

NWT*	A 24-hour hotline is available to report non-compliance through the 811 Protect NWT line. In response to nearly 200 complaints, a compliance and enforcement task force was introduced. The task force included ~30 redeployed territorial government enforcement officers who were to be back up by the RCMP and members of the municipal enforcement as needed. Taskforce officers could issue written warnings, tickets up to $1,500, and court summons. The maximum fine for disobeying a public health order is $10,000 and six months in jail. Temporary prohibition order in Behchokò from May 9th to May 28th. The territorial government announced on April 9th that it would not close liquor stores due to the hardships it may cause those living with addiction and consequent strains closure could have on the health system.

Nunavut	Non-compliance with isolation requirements could result in a fine of up to $50,000 or six months in jail. Under orders issued by the CPHO, enforcement officers have the authority to enter public facilities without a warrant for enforcement purposes. To enter a private home, enforcement officers, consisting of the RCMP and all peace officers appointed under territorial law, would need permission or a warrant from the court. Orders filed in the territory include the State of Emergency, travel restrictions, order respecting social distancing and gatherings, order to airlines to ensure that no traveler with COVID-19 symptoms may fly within the territory, mandatory self-isolation order, mandatory isolation agreement, and the communicable disease order. Temporary prohibition order from May 5th-May18th and again from May 21st-June 3rd in Grise Fiord. Non-compliance could result in a fine between $500-$5000, a jail sentence of up to 30 days, or both.

*Jurisdiction covers or includes an Indigenous health authority, summarized in Indigenous Specific Information

Along with preventing transmission through public health communication efforts, physical distancing measures, travel restrictions, isolation and quarantine guidelines, efforts to maintain essential services, and law enforcement, the monitoring and surveillance of cases was crucial to keep on top of contact tracing efforts. Table 10 summarizes the surveillance efforts in each RHA.

Monitoring and Surveillance Efforts

Most regions followed provincial regulations and guidelines regarding monitoring and surveillance of cases. Common tools include an online self-assessment and/or a public-health hotline. Additionally, patients were required to call ahead before visiting a health facility. Contact tracing was completed in all regions. There were some individualized efforts: In Nunavik, epidemiological linkage was used in place of testing for those with symptoms and confirmed contact with a known case. In the Yukon, pre-existing influenza monitoring systems were adapted and used.

Table 10: Summary of Monitoring and Surveillance efforts in each Northern Health Region

Health Region	Monitoring and Surveillance
NL	All patients must call before visiting a health facility, including the ER, Laboratory and Diagnostic Imaging departments. Moreover, those who feel unwell are instructed to use the 811 Health line or online self-assessment if they have symptoms of fever, cough, or difficulty breathing before contacting a health facility. Staff will also provide COVID-19 screening before the public may present on-site.
Saguenay [QC]	The epidemiological investigations completed in Saguenay–Lac-St-Jean follow national and provincial guidelines. A survey is carried out with the person infected and potential contact cases in which they must complete a detailed list of those they may have been in contact with. Nurses, doctors, public and community health workers, and qualified support staff are completing this contact tracing.
Côte-Nord [QC]	Follows provincial regulations
Nord [QC]	Follows provincial regulations
Nunavik [QC]	As of April 13th, case confirmation by epidemiological linkage was utilized in the region. This means that if someone presented with COVID-19 symptoms AND has been identified as a close contact of a confirmed case, they would be considered a confirmed case and no longer be tested.
Baie-James [QC]	Contact tracing and test capacity in the region and surrounding neighbouring regions is the responsibility of the Public Health Department.
Northwestern [ON]*	Each case detected in the NWHU is investigated thoroughly to determine community risk; confirmed information is published on their webpage and Facebook page. A COVID-19 hotline was available.
Porcupine [ON]*	Follows provincial regulations
Thunder Bay [ON]	Follows provincial regulations
Northern [MB]	Follows provincial regulations

Ma-Ke-At [SK]	Follows provincial regulations
North Zone [AB]	Follows provincial regulations, including the ABTraceTogether app for smartphone users and an online self-assessment tool.
BC*	Provincial wide regulations followed in the north (BCCDC). The BCFNHA website provides links to the provincial self-assessment tool. It informs individuals that they should call their primary care provider, local public health office, or 811 if they experience any symptoms.
Yukon	An online self-assessment tool and 811 phone line were available. Contact tracing was used to monitor any potential community transmission; the Yukon Communicable Disease Control (YCDC) was in charge of contacting anyone who had contact with a positive case. Before any positive cases were noted in Yukon, pre-existing influenza surveillance systems were utilized to monitor potential outbreaks. The territorial website included a new page dedicated to Potential COVID-19 exposure notices; individuals who attended any location on the list were advised to self-monitor for COVID-19 symptoms and phone 811 if any develop. The names of both infected persons and the communities they belong to remain confidential in compliance with Yukon's Health Information Privacy and Management Act.
NWT*	An online self-assessment tool and 811 phone line were available. NT Health and Social Services Authority, Hay River Health and Social Services Authority, and the Tłı̨chǫ Community Services Agency conducted surveillance and reporting as organized and directed by the CPHO. Forms available on an HSS website were to be used to report cases to the office of the CPHO. Contact management would be completed, and those who are considered "high-risk" contacts were advised to self-isolate and self-monitor. The community's name would not be shared if the population was small enough that personal privacy became a concern, a decision that angered local leaders.

Nunavut	Online self-assessment tool available in all four official languages. Monitoring occurred within the territory and at pre-established isolation facilities, discussed above.

*Jurisdiction covers or includes an Indigenous health authority, summarized in Indigenous Specific Information

Cases

While preventing and monitoring transmission is essential, testing efforts and documentation of cases was vital to know where cases occurred and how the spread was changing.

Testing

Testing capacity in each region is different, but in general, individuals must complete a pre-assessment before presenting for a test. Assessments could be done over the phone, online, or by a health care provider. Requirements for testing often included at least one symptom, history of travel, or fear of contact. Table 11 summarizes the testing strategies utilized in each RHA. Table 12 shows the number of COVID-19 cases that were documented during the first wave in each region.

Table 11: Summary of Testing efforts in each Northern Health Region

Health Region	Testing/Screening Efforts
NL	The first Assessment and Testing centre in the region was established on March 18th within the Labrador Health Centre by appointment only. Individuals could request an appointment via the 811 Health Line where they would be assessed.
Saguenay [QC]	Five designated screening clinics were set up in the region to reduce the burden on hospitals and family medicine clinics. These screening clinics were by appointment only and set up to evaluate patients who wished to have a medical consultation and who had flu-like symptoms, similar to gastroenteritis or similar to COVID-19. Those with moderate or severe symptoms would be referred to an emergency department, while those with mild symptoms would have an appointment arranged at the designated COVID-19 clinic. The clinics are located in Chicoutimi, Alma, and Roberval.
Côte-Nord [QC]	Individuals with symptoms of COVID-19 were asked to contact the region's COVID-19 line and not go to an emergency department unless critical. If a test was recommended, an individual would be given an appointment at one of the region's designated evaluation clinics located in Escoumins, Forestville, Baie-Comeau, Port-Cartier, Sept-Iles, Minganie, Basse-Cote-Nord, or Fermont. Other testing sites were established on March 20th in Blanc-Sablon, Havre-Saint-Pierre, Fermont, Port-Cartier, Forestville, and Les Escoumins; these sites were attached to the ambulance garages of the Integrated health and social services centers (CISSS) facilities, except for the Fermont location, and tests could be done while the patient remained inside their vehicle. In Fermont, patients could walk through the garage to be tested.

Nord [QC]	The CRSSS webpage did not list testing facilities. Instead, individuals were re-directed to the province-wide screening and testing guidelines. Turnaround time was listed as three days, suggesting testing was being completed at the health facilities within the district.
Nunavik [QC]	The regional health and social service network set up two external spaces dedicated to triage and testing within each of the 14 communities.
Baie-James [QC]	When the outbreak began, only those with symptoms and close contacts could be tested, but criteria were expanded to include patients, students returning from the south, and healthcare workers on May 14th. As of June 9th, the testing capacity was ~20 tests per day.
Northwestern [ON]*	Anyone who wished to get tested could do so if they had at least one symptom of COVID-19, was concerned they may have been exposed to COVID-19, or if they were at risk of contracting COVID-19 through their employment. This was done by calling their local assessment center. There were nine assessment centers in the region servicing Atikokan, Dryden / Machin, Fort Frances/ Emo, Kenora, and the surrounding areas Pickle Lake, Rainy River, Red Lake/ Ear Falls, and Sioux Lookout.
Porcupine [ON]*	Though the PHU can recommend whether an individual receives testing, healthcare providers' final decision would be made after a clinical assessment. Swabbing was completed by primary care providers in either hospitals, assessment centers, or EMS in the home, by appointment only. Assessment centers existed in Timmins, Cochrane, Iroquois Falls, Kapuskasing, Hearst, Hornepayne, and Smooth Rock Falls.

Thunder Bay [ON]	Assessment centers for the region were located in Thunder Bay, Nipigon, Terrace Bay, Marathon, Manitouwadge, and Greenstone. Testing was by appointment only for individuals who had been directed by TBDHU district offices, their health care provider, or Telehealth to be screened. Those without symptoms concerned that they may have been exposed to COVID-19 could also get tested but must call an assessment centre before presenting themselves. Individuals in remote, isolated rural and/or First Nations Communities were advised to contact their local nursing station, band office, or the TBDHU to get information about testing.
Northern [MB]	Traditional testing locations in Northern Manitoba include Thompson, Flin Flon, and The Pas. However, four GeneXpert machines were also procured for rapid testing in a combined effort from the Public Health Agency of Canada, the First Nations Inuit Health Branch, and the Manitoba First Nation Pandemic Response Coordination Team. These machines were sent to Thompson, The Pas, Norway House Cree Nation, and the Percy E. Moore Hospital at Peguis First Nation for patients who may not easily self-isolate. Only those with symptoms were eligible for testing.
Ma-Ke-At [SK]	There were no Assessment and Treatment Sites for COVID-19 in the Northern Saskatchewan Administration District; all 24 locations existed in the south of the province. The most northern sites were in Nipawin, Prince Albert, and Meadow Lake (considered to be in the North Zone by the provincial government, distinguished from the NSAD, which covers the Far North). These sites provided in-person intermediate care, assessment, and treatment for those with symptoms of COVID-19, persons with confirmed cases and other health conditions, or those who were self-isolating. Patients requireded a referral before they arrived on-site either through Health Line 811, a family physician, or ER staff.

North Zone [AB]	No individual testing information available for the North Zone; testing and assessment followed provincial guidelines.
BC*	he NHRHA has a COVID-19 Online Clinic and Information Line (1-844-645-7811), which launched in March 2020 to ensure that Northern BC residents had access to accurate information about the pandemic. The service also provided virtual screenings if required. Testing locations were operational in all communities covered by the Northern Health region by appointment.
Yukon	On Thursday March 19th, the government of Yukon announced that they would set up a respiratory assessment center in Whitehorse for those with acute respiratory illness, including COVID-19. It was possible to receive testing at the Whitehorse Respiratory Assessment Clinic, the Yukon CDC, or a Yukon hospital emergency room. All patients who suspected they might have COVID-19 were advised to either phone 811, use the online assessment tool, or phone their local health care center before calling to ask for an appointment. Same-day appointments were available for symptomatic individuals. On April 24th, the criteria for who could be tested for COVID-19 changed in Yukon to include anyone who had symptoms including fever, chills, cough, difficulty breathing, a sore throat or hoarse voice, headache, runny nose or nasal congestion, unexplained vomiting or diarrhea, fatigue or muscle aches, or loss of smell or taste, regardless of travel history. This included those in long-term care facilities. Test swabs were flown to BC for laboratory screening.

NWT*	Online self-assessment was available. Tests were initially restricted to those with symptoms and a history of travel outside the territory but expanded to those without travel history. Testing was available in Yellowknife, Behchokò, Fort Smith, and Inuvik, including a drive-through testing site in Yellowknife. Swabs were collected and sent to Alberta Precision Laboratories in Edmonton to be processed. GeneXpert devices were also in use in the Yellowknife hospital for high-risk patients who required rapid testing. Fort Smith opened an offsite clinic for screening that moved to an appointment-based service in May 2020.
Nunavut	Testing in the territory was initially restricted to those with travel history or contact with a person who had travelled. Still, as of April 3rd, 2020, changes in the order from the CPHO allowed nurses to test patients without travel history or approval from a physician. Test swabs were flown to BC with result turnaround between 4-8 days.

*Jurisdiction covers or includes an Indigenous health authority, summarized in Indigenous Specific Information

COVID Case Count

The following table provides a breakdown of case numbers in each northern health region at the end of the first wave of COVID-19 in Canada. As cases increased, so too did the importance of contact tracing for management.

Table 12: COVID-19 cases by Northern Health Region at Beginning of re-opening plans (end of Wave 1)

Health Region	Total Cases	Total Population	Cases as % population	Date updated
NL	6	36,233	0.017	June 22nd
Saguenay [QC]	330	275,625	0.120	June 23rd
Côte-Nord [QC]	119	93,640	0.127	June 24th
Nord [QC]	8	14,185	0.056	June 24th
Nunavik [QC]	16	12,638	0.127	June 29th
Baie-James [QC]	10	16,748	0.060	June 18th
Northwestern [ON]	36	75,598	0.048	July 2nd
Porcupine [ON]	92	84,220	0.109	July 3rd
Thunder Bay [ON]	67	149,618	0.045	July 3rd
Northern [MB]	3	71,158	0.004	June 22nd
Ma-Ke-At [SK]	285	35,065	0.813	June 18th
North Zone [AB]	265	429,455	0.062	June 15th
BC	66	278,363	0.024	June 12th
Yukon	11	34,885	0.032	June 9th
NWT	5	41,623	0.012	May 21st
Nunavut	0	34,885	0.000	June 5th

Managing Cases

The management of cases relied heavily on contact tracing in all regions. Some jurisdictions created guideline documents for their health centres though most followed provincially mandated management efforts. As discussed above, travel restrictions and isolation requirements served as the primary measure to decrease the spread of COVID-19. How and where information was published was often centralized provincially/territorially.

Table 13: Summary of Case Management in each Northern Health Region

Health Region	Case Management
NL	Followed provincial measures
Saguenay [QC]	Followed provincial measures
Côte-Nord [QC]	Followed provincial measures
Nord [QC]	Followed provincial measures
Nunavik [QC]	A toolbox was created for health professionals by the Regional Public Health Department with information on screening, evaluation and monitoring protocols used in the two health centres in Nunavik. Along with guidelines for intra and inter-regional patient transfers, there were also recommendations for patients returning to their community available in English and Inuktitut. The decision algorithm for healthcare professionals to manage a suspected COVID-19 case was available in French, while home-isolation and self-monitoring directions for people under investigation were available in English, Inuktitut, and French. Tables to monitor the symptoms of probable or confirmed cases were also available within the toolbox.
Baie-James [QC]	One patient, a youth with underlying health issues, was transferred by air ambulance from Chisasibi to Montreal to be isolated and receive the special care required. All other cases were managed within the territory. Monitoring followed provincial measures.
Northwestern [ON]*	Followed provincial measures
Porcupine [ON]*	The PHU published age, gender, exposure category (international travel, community exposure, contact with case, institutional outbreak) and status of each confirmed case in their area on their website. Confirmed cases were required to self-isolate and could stop until cleared by the PHU. Health care providers were to notify the PHU when they had patients being tested. The health unit automatically received the lab results for all positive cases living in their area.

Thunder Bay [ON]	Followed provincial measures
Northern [MB]	Followed provincial measures
Ma-Ke-At [SK]	Followed provincial measures
North Zone [AB]	Reporting requirements for AHS and the First Nations Inuit Health Branch were the same; the MOH of the zone where the case resided was to forward a mutually agreed upon reporting system to the CMOH within 24 hours of initial laboratory notification.
BC*	Followed provincial measures
Yukon	Anyone tested for COVID-19 had to self-isolate and was followed up by either the YCDC (Whitehorse) or their local health center (rural Yukon). No patient who had tested positive for COVID-19 in Yukon had required hospitalization at the time of data collection; however, they would be placed in a separate room for contact and droplet precautions if it were to occur. As of May 8th, no known community transmission had occurred in Yukon; all cases (11) had been traced back to an origin.
NWT*	A specific algorithm for assessment was created by the office of the CPHO, including management of cases and their contacts.
Nunavut	As of May 11th, there were no known or confirmed cases in Nunavut. When a case in Pond Inlet was thought to be a true positive, a rapid response plan was initiated in the hamlet. A rapid response team arrived in Pond Inlet on April 30th to begin containment measures, contact tracing, and monitor the person's health on isolation orders. Moreover, travel in and out of Pond Inlet was suspended, and all non-essential businesses were closed.

*Jurisdiction covers or includes an Indigenous health authority, summarized in Indigenous Specific Information

COVID-19 required that many services be shut down or altered, including health services. Various restrictions were put into place, which reduced health system capacity to essential services and/or limited the number of patients that could be seen. The restrictions and efforts made to provide health services while staying safe are documented in table 14.

Maintaining Health Services

Changes to Health Service Provision

Many non-urgent care services were suspended during the first wave of the COVID-19 pandemic. The information available on each health authority website is summarized below, including information from the Sioux Lookout First Nations Health Authority (SLFNHA) (covered by the Northwestern Health Unit [ON)], the Weeneebayko Health Authority (covered by the Porcupine Health Unit [ON]), the BC First Nations Health Authority (FNHA), and the Tłı̨chǫ Community Service Agency (TCSA) [NWT]. The health of the Canadian population remained a priority; therefore, appointments were moved to virtual or teleconferencing platforms where possible. Visitation rights were suspended in each jurisdiction in hospitals and Eldercare residences. These restrictions were eased and adapted as regions moved towards an exit plan (see section: exit strategy).

Table 14: Affected Health Services in each Northern Health Region

Health Region	Providing Health Services
NL	Beginning March 17th only emergent surgeries were operating, and all elective surgeries were being re-booked. Where possible, telehealth and virtual care were implemented for consultations and care delivery. Blood collection services had continued, by appointment only. Other ongoing services included cancer services, renal dialysis, urgent medical imaging and laboratory services, urgent therapeutic services, mobile crisis response teams, inpatient rehabilitation services, community-based services for priority services, select primary care appoints, and urgent specialist appointments. As of March 18th, only scheduled appointments were available at the Mani Ashini Clinic. Visitors were not permitted in long-term care homes or to wait in any health facilities as of March 14th. Designated visitors were only allowed for palliative care patients, labour and delivery patients, admitted children, and interpretation services.
Saguenay [QC]	All visits to facilities within the CIUSSS du Saguenay–Lac-St-Jean were prohibited. Non-emergent surgeries were postponed, and sampling centers were accessible by appointment only. Four centers were set up outside of hospitals in the Saguenay sector (La Baie- Chicoutimi-Jonquière), Alma, Roberval, and Dolbeau, to meet the needs of the population aged 70 and above. These centers would not admit anyone with flu-like systems and remained accessible for medical imaging, follow-ups, and analysis deemed necessary by a health professional. As of April 17th, blood collection services were made possible through appointment or in the case of urgent care.
Côte-Nord [QC]	All visitors to all health facilities were prohibited. Information on service provision not provided.

Nord [QC]	All visitors to health centers in the region were prohibited, except for an adult accompanying a child, end-of-life care, and childbirth. Patients were asked not to go to any health center unless in need of urgent care. Most services became available by appointment only. Some, such as those provided in schools, prevention and promotion services, elective services, smoking cessation clinics, follow-ups on healthy lifestyles, specialist doctor visits, and day centers, were suspended. Psychosocial services were offered via telephone and teleconsultation, and post-delivery home visits moved to telephone follow-up. For services that continued to be provided by appointment only, such as oncology services, hemodialysis, obstetrics, vaccination, birth planning and sexual health services, and essential lab services, a professional would welcome patients at the health center entrance and accompany them to their place of service. All services at the Rene-Ricard Health Center were moved to appointment only, and Chibougamau oncology services were offered in Chapais until further notice.
Nunavik [QC]	All visitors to the health centres, Ullivik and Elder homes were suspended. Information on service provision not provided.
Baie-James [QC]	The CBHSSJB provided psychosocial services to Cree persons outside of their area, Eeyou Istchee. Dental care was restricted to emergency cases only. Most other services were switched to telehealth and appointment services. The population was reminded that services were still being delivered and care was still accessible by the Cree Nation Government and the Grand Council of the Cree.

Northwestern [ON]*	As of April 1st, the physical offices of the NWHU were closed though essential services continued to be provided with various modifications. The health promotion, education and awareness services, dental health services, speech-language pathology services, and tick collection and identification services were suspended, while sexual health clinics and services, needle exchange services, the Healthy Babies Healthy Children program, family health services, and immunization services were ongoing. Service provision for some programs offered by the SLFNHA were altered due to COVID-19. The Nodin Child and Family Intervention Services were still operational, with mental health services being provided over the phone or in-person if safe to do so. The Outpatient Mental Health Services run by Nodin stopped community transfers and instead connected patients to counsellors/psychologists and Expressive Arts Therapists over the phone. Travelling mental health workers and crisis Response teams were no longer deployed in the area though telephone counselling could be organized upon request for those affected by a tragedy. Youth School counsellors were also available for teleworking, as were Children's Mental Health and Addictions Workers. At the time of data collection, Nodin was in the process of launching a 24/7 support line to help alleviate the stress and anxiety that the pandemic has caused. The Approaches to Community Wellbeing (ACW) has continued their essential services, including harm reduction supply distribution, providing health promotion resources, maintaining the immunization repository, and continuing case and contact management for tuberculosis. Developmental services such as pediatric complex care coordination, speech-language pathology, occupational therapy, physiotherapy -

	transitional age youth worker and adult developmental services were offered via phone. The Northwestern Ontario Fetal Alcohol Spectrum Disorder diagnostic clinic and autism diagnostic hub were on hold during the pandemic. Physicians continued with essential services, including ER, inpatient care, obstetrics, and Day Medicine. Non-essential outpatient appointments were discontinued. The Northern Clinic operated as usual, with the following restrictions in place: escorts were required to wait outside the clinic, all clients would be screened for symptoms of COVID-19, and the hours were restricted to 9 am-5 pm. Clients requesting an appointment with their family physician were advised to call the Northern Clinic to be assessed and then provided with either a phone consultation, telehealth appointment, or on-site appointment
Porcupine [ON]*	As of March 18th, the Weeneebayko urgent care clinics closed to regular appointments, providing only emergency dental, medical, and mental health care. Visitors were no longer permitted into buildings, and outpatient clinics were closed. Information about service closures in the Hearst, Iroquois Falls, Matheson, Kapuskasing, Chapleau, Smooth Rock Falls, and Timmins hospitals was not posted on their respective websites.

Thunder Bay [ON]	The offices of the TBDHU remained open during the pandemic though visitors were by appointment only. The Tobacco Cessation & Enforcement, Community Food Access, Breastfeeding Support, Environmental Health Services, Harm Reduction/Needle Exchange, and Infectious Disease Programs continued to be offered, as well as the Sexual Health Clinics, Street Nursing, and Branch Office Nursing services. Additionally, the Healthy Babies, Healthy Children program, excluding home visits, was operational. The Ontario Seniors Dental Care Program and the Healthy Smiles Ontario Emergency Stream program had application assistance by telephone. The following programs were suspended: Immunization and travel health clinics, Prenatal classes, Parenting sessions, workshops and events, Flu clinics, Food Literacy & Cooking Programs, School Health programming, Physical Literacy program, Workplace health program, Oral Health & Dental hygiene clinics, Vision Screening, and the Ontario Seniors Dental Care Program and Healthy Smiles Ontario Program regular dental services.

Northern [MB]	Many services within the northern region remain open, including services for community mental health, families first programs, community dieticians, sexual health, tobacco cessation counselling (not available in Thompson), the insight mentoring program, community health development/promotion, immunizations, harm reduction, prenatal and postpartum services, teen health, diabetes programs, FASD diagnostic services, and mental health promotion. However, some programs have moved to telephone/video conferencing platforms. Additionally, the Hope North Recovery Center for Youth Services in Thompson was still open and accessible at various hours seven days a week. Services include the mobile crisis team, the crisis stabilization unit, the youth addictions stabilization unit, and youth addictions services centralized intake. The Northern Patient Transport Program also continued its normal approval process and criteria for transportation and temporary accommodation for patients and essential medical escorts. Non-essential escorts stopped being permitted on Medevac trips as of April 9th.
Ma-Ke-At [SK]	Service provision as determined at the provincial level
North Zone [AB]	Service provision as determined at the provincial level

BC*	A guideline was published at the provincial level regarding the ongoing overdose emergency and what pharmacists could do to help, including supporting safe prescription alternatives to illegal drugs. Some rapid-access addiction clinics were equipped to provide support via telehealth, including consultation for prescribers. On March 16th, all hospitals in the region moved to "Outbreak Response Phase 2," meaning that only urgent and emergency procedures would go forward. Non-urgent surgeries were postponed. Visitors were suspended on March 17th, except one adult caregiver/support person for patients in the perinatal unit, neonatal ICU, inpatient pediatric and adult areas, inpatient areas, primary and urgent care, outpatient clinics, primary and urgent care, and long-term care homes. Family needs for patients in palliative/end-of-life care were accommodated with infection prevention and control measures. On March 23rd, further restrictions were put in place; visitors were only allowed for essential visits, including the critically ill, those receiving end-of-life care, and those who may need an escort for their safety. Northern Health connections, a transportation service for patients needing travel for out-of-town medical, also restricted passenger travel beginning March 20th. Only those requiring travel for essential care would continue to be booked for the service. The FNHA provided news updates for various health providers regarding COVID-19, including physicians, mental health providers, and vision providers. Where possible, telehealth services were to be used in place of in-person appointments. Changes were also made regarding transportation to health appointments; transportation was only available for urgent appointments as of March 19th. Travel-in mental health providers were to suspend travel into communities as of March 20th, and non-urgent appointments were to be cancelled or moved to telehealth services.

Yukon	All health centers remained open in Yukon at the time of data collection. All patients were asked to phone ahead prior to their appointment to be screened for COVID-19 symptoms. Non-urgent surgeries and care, including bloodwork and lab tests, x-rays, CT scans and other imaging services, physiotherapy and occupational therapy, and specialists' appointments, were suspended as of March 23rd. In-patient visitations were no longer permitted in Yukon's three hospitals, with limited exceptions for maternity patients, sick children, end of life care, and caregivers. Virtual health appointments had become more accessible through the pandemic; utilizing doxy.me web addresses, physicians offering virtual care would supply patients with a unique URL that would allow them to check-in to a virtual waiting room. Clinicians who use this service were published on Yukon.ca.
NWT*	One of the two laboratories in Yellowknife was closed on March 16th and dedicated to the COVID-19 response. Other laboratory testing and diagnostic services were redirected to the lab within the territorial hospital. Non-essential medical travel was reduced, and virtual appointments were increased. The NTHSSA announced a reduction in services at community health centres on March 19th, though sick clinics, emergency care, immunizations, sexually transmitted infection screening, Well Child Clinics, and pre- and post-natal services were prioritized. Elective surgeries and rehabilitation services were suspended. Walk-in appointments were converted to same-day appointments to avoid waiting inside the facilities. The Yellowknife day shelter and sobering centre were closed in April to all but 30 adults who agreed to isolate there.

On March 18th the TCSA announced reduced services, including limited non-essential medical travel, the replacement of in-person appointments with virtual and telephone appointments, the cancellation of non-urgent and non-emergent endoscopy procedures, restricted visitation to long-term care homes, and the cancellation of Elder day programs and special events along with group counselling sessions. On March 20th further adjustments were made, including reduced scheduled appointments with community nurses, postponement of Well Adult appointments, and a reduction in lab services requiring an appointment. The prenatal and Well Child programs were still running. Mental health and Wellness Services for Behchokò, Whati, Gameti and Wekweeti were available over the phone. The TCSA also posted links to NWT-wide mental health supports, addiction counselling, and women's shelters, along with Child and Youth Care Counselling that was being run through schools in the region. Only one person could accompany a patient who required assistance or was a minor, and only a patient's next-of-kin was to accompany them in the case of an emergency. Primary care visits by Community Health Nurses and Family Physicians to communities continued at this time.

Nunavut	Non-essential medical travel out of the territory was postponed in March, though at this time, physicians were continuing to complete community visits. If travel was not possible, telehealth was used. Anyone who had a non-urgent situation was asked to call ahead of their arrival to be assessed over the phone and treated if possible. Visitors were limited to one person per patient. Specialty clinics and rehab appointments were cancelled and postponed, respectively. Lab and Diagnostic Imaging services began reduced services as of March 20th, with upcoming appointments being triaged. Mental Health Services moved to telephone check-ins as of March 24th, and community radio shows hosted by the Mental health Program ran across the territory where possible. Appointments could be made for medication pick-up, and those in crisis could still present at a health center. Dental services were postponed as of March 20th, though emergency cases could be addressed in Iqaluit, Rankin Inlet, and Cambridge Bay.

*Jurisdiction covers or includes an Indigenous health authority, Summarized in Indigenous Specific Information

The prevention and management of COVID-19 paired with prioritization of health services allowed northern RHA's to keep their populations as safe as possible while the world awaited vaccine development. Along with these strategies, the Canadian Government provided financial support for First Nations, Metis, and Inuit groups in each province and territory. This information is summarized below. Other financial supports and food security efforts for each northern RHA are summarized in Table 15.

Financial Support, Economic Relief, Food Security

On March 18th, the Government of Canada announced the COVID-19 Economic Response Plan, including $305 million for an Indigenous Community Support Fund. Regional breakdown is as follows:

- BC: $39,567.000 for First Nations, $3,750,000 for Metis
- Alberta: $26,267,000 for First Nations, $7,500,00 for Metis
- Saskatchewan: $30,188,000 for First Nations, $7,500,000 for Metis
- Manitoba: $35,910,000 for First Nations, $7,500,000 for Metis
- Ontario: $37,571,000 for First Nations, $3,750,000 for Metis
- Quebec: $24,883,000 for First Nations, $11,250 for Inuit
- Atlantic: $10,559,000 for First Nations, $5,355,000 for Inuit
- Yukon: $2,901,000 for First Nations
- NWT: $6,144,000 for First Nations, $5,850,000 for Inuit
- Nunavut: $22,545,000 for Inuit
- Other Indigenous Organizations: $15,000,000 for urban and off-reserve Indigenous organizations and communities

Other aid provided within each northern health region is summarized below.

Table 15: Financial Support Provided in each Northern Health Region

Health Region	Financial Support, Economic Relief, and Food Security Efforts
NL	No regionally specific information available
Saguenay [QC]	A fundraising effort led by the regional department of general medicine of the CIUSSS du Saguenay–Lac-St-Jean raised $79 000. It would be supplying iPads to 94 private residences for older adults and other intermediate resources. The iPads would be used to increase telemedicine efforts, but the head of DRMG also noted their capacity to help break social isolation, allowing residents to communicate with their families.
Côte-Nord [QC]	No regionally specific information available
Nord [QC]	No regionally specific information available
Nunavik [QC]	Food assistance programs run by community organizations received funding when isolation measures were first put in place to help bring food to households in need. Additional funding was announced on April 23rd to continue these programs for two more months. Funding available for on-the-land activities; funding was provided to give each family one voucher for gas and another voucher for food supplies to go out on the land.
Baie-James [QC]	No regionally specific information available
Northwestern [ON]*	On May 21st, the Nuclear Waste Management Organization (NWMO) made a one-time donation of $50,000 to the NWHU, which was put towards emergency food access and care packages for those in isolation without support as well as hand sanitizer and disinfecting supplies for organizations in the area which required assistance.

Porcupine [ON]*	Information for emergency food access in Timmins, Cochrane, Hearst, Hornepayne, Iroquois Falls, Kapuskasing, Matheson, Moosonee, and Smooth Rock Falls was published on the PHU website along with information for buyers on what to buy and how much when going to the grocery store. Local food banks remained open during the pandemic, and many grocery stores in the area were providing free grocery delivery for the elderly and those with disabilities.
Thunder Bay [ON]	No regionally specific information available
Northern [MB]	No regionally specific information available
Ma-Ke-At [SK]	The government of Saskatchewan announced $350,000 funding to help combat the spread of COVID-19 in the Northern Saskatchewan Administrative District, with an additional $20,000 dedicated to La Loche to help with food security and educational programs.
North Zone [AB]	No regionally specific information available
BC*	Following an increased awareness of the stress that COVID-19 has caused many individuals increasing anxiety, depression, and feelings of disconnection, the provincial government announced $5 million in funding to expand and create new mental health programs in BC.

Yukon	On March 16th, Premier Silver announced a $4 million stimulus package to support local workers and businesses within Yukon affected by COVID-19. Some actionable items include waiving, reimbursing, or delaying government fee collection, such as airport landing fees, establishing a grant program to address expenses related to cancelled events, and deferring Yukon Workers' Compensation Health and Safety Board premium payments and reimburse those that paid upfront. Issued on March 26th, the Leave (COVID-19) Regulation ensured that any employee outside federal, territorial, municipal, or First Nations governments would be entitled to leave without pay for up to 14 days if required. The leave without pay regulation was complemented with a new Paid Sick Leave Rebate, which covered a maximum of 10 days of wages per employee to allow for sick leave and/or isolation periods. The Yukon Business Relief Program was announced on April 4th. It provided non-repayable grants to cover fixed costs for Yukon businesses that had experienced a minimum of 30% loss in gross revenue due to the pandemic. The program would provide between 75-100% of fixed costs up to a maximum of $30,000/month for expenses incurred from March 23rd to May 22nd. The program was expected to cost up to 10 million for the territory. On April 14th, the federal government announced $18.4 million in COVID-19 funding to help with health care and business in Yukon, along with $3.6 million for Yukon airlines. The Canadian Northern Economic Development Agency (CanNor) also provided $5million for the territory.

NWT*	$2.6 million was announced on March 20th from the territorial government and Indigenous Services Canada to support individuals going out on the land during the pandemic. On April 24th, $5.1 million was announced from the territorial government for childcare for essential and healthcare workers. The money would go towards subsidizing the cost for parents, topping up wages for staff, purchasing PPE/cleaning supplies, and subsidizing fixed costs for the centres themselves. $8.7 million was provided from the federal government to be distributed among the five airlines in the territory. $21.459 million from the GNWT was announced as an economic relief package, much of which went to waived fees or deferred loan payments. Other breakdowns are as follows: $5 million allocated to temporary self-isolation housing for the homeless; $1.5 million in low-interest emergency loans to businesses; $1.617 million to a one-time emergency allowance for income assistance recipients; and $270,000 to additional benefits to income assistance clients. Up to $6.2 million was allocated by the GNWT to top up wages for those making less than $18/hour. Specific sectors also received funding not summarized here.

	On March 26th the TG announced that they would be delivering Hamper/Care packages to assist Tłı̨chǫ families-in-need. Individuals could call their respective Community Programs/Community Directors for more information. The following day (March 27th), the COVID-19 Families On-The-Land Assistance Program for Tłı̨chǫ Citizens in the Mǫwhì Gogha Dè Nı̨ıtłèè area was announced. This program would cover $175 of gas and $225 of groceries for citizens on the land up to 10 days; those who stayed out longer could reapply. Moreover, families who had already been out on the land could have expenses reimbursed upon submission of receipts. An additional TG COVID-19 aid program that was launched included Emergency Requests. This program was for individuals/families directly affected by the pandemic and consequently faced economic hardships. The Dǫtaàts'eedı Program was launched, which utilized 15 harvesters to distribute traditional foods during the pandemic. The Hotıì ts'eeda bursary was announced on July 15th for students of the NWT who could demonstrate how COVID-19 impacted their post-secondary education timeline and goals. This bursary was valued at $5000 for two semesters for students without dependents, with an additional supplement available for students with dependents.

Nunavut	On March 19th, the GN approved $25,000 to each Hunter and Trapper Organization to provide food to their communities. To ensure water security, Nunavut Tunngavik invested 1.125 million to help bring clean water to Inuit communities to ensure that proper hand hygiene measures could be followed. The money went to hire more drivers, extend delivery hours, pay overtime, and order truck parts as needed. On March 27th, the Department of Economic Development and Transportation announced a one-time $5000 grant for eligible small businesses through the Small Business Opportunities Fund, the Entrepreneur Development Fund, and the Sustainable Livelihood Fund. The Department of Education provided funds to all licensed childcare facilities when they first closed in mid-March to ensure that parental fees would not have to be charged, but staff could still receive their pay as usual. This was then extended to April 21st, with a total of $885,000.00 provided. The GN and Nunavut Tunngavik Incorporated announced on April 3rd that they would each donate $1 million to community-based food programs for children and Elders during the pandemic. Communities under 1000 people would receive $40,000, those over 1,000 would receive $90,000, and Iqaluit would receive $200,000. Part of the funding came from the Federal Government's Indigenous Community Support Fund, of which Nunavut received $6 million. The Federal government also announced an additional $25 million for Nutrition North on April 14th, allowing the cost of essential food and supplies to lower in Arctic Co-operatives Ltd. Stores On April 13th, the federal government announced $35.8 million in funding for Nunavut's health system, airlines, Nutrition North, and small businesses.

	The federal government also announced $45 million for Inuit communities, with $22.5 million allocated for Nunavut Inuit. This money had been further allocated to regional Inuit organizations in the following manner: $2,505,000 for Nunavut Inuit living outside of the territory, $6,012,000 for Nunavut Tunngavik Incorporated, $6,132,544 for the Qikiqtani Inuit Association, $4,341,223 Kivalliq Inuit Association, and $3,554,233 Kitikmeot Inuit Association. On April 20th, the GN announced $2 million in funding to municipalities to cover costs associated with COVID-19, such as cleaning supplies, custodial staff, signage and translations, and lost revenues, among others.

*Jurisdiction covers or includes an Indigenous health authority, summarized in Indigenous Specific Information

Exit Strategies

Finally, as the first wave eased in Canada, regions began to re-open various sectors and ease restrictions. Table 16 describes published re-opening plans that existed for each region at the time of data collection.

Table 16: Resumption of Services and Published Exit Strategies in each Northern Health Region

Health Region	Resumption of Health Services and Economic Re-opening
NL	On May 13th, the Labrador-Grenfell Health Authority released that services including medical imaging, endoscopy, cardiac diagnostic, and select surgical services would begin to resume. June 10th also saw the resumption of rehabilitation services, physiotherapy, audiology, and appointments in ambulatory clinics and community health. All patients admitted to the hospital would require a COVID-19 test, and specific procedures would require that the results were received prior to commencement.
Saguenay [QC]	No regionally specific information available; provincial mandates followed.
Côte-Nord [QC]	As the first wave eased, visitors were once again allowed in residential and long-term care centers (CHSLDs), elderly residences (RPA), intermediate resources (RI) and family-type resources (RTF) for the elderly beginning June 26th. A maximum of ten visitors from three different households would be permitted to visit elders in the RI-RTF establishments. However, if the establishments housed more than ten individuals, the maximum number of visitors would be restricted to two people from the same household.
Nord [QC]	No regionally specific information available; provincial mandates followed.

Nunavik [QC]	On May 26th, the Nunavik Regional Board of Health and Social Services (NRBHSS) and Kativik Regional Government (KRG), announced that they, along with the Kativik Ilisarniliriniq (KI), the Kativik Municipal Housing Bureau (KMHB) and the Northern Villages, were working on a gradual re-opening plan for the region. Committees were put in place to review all aspects of reopening that included regional representatives. The phased plan for Nunavik was seasonal, with mid-May to mid-June seeing the first re-openings in community living, economic, and travel sectors. Some non-urgent health services were planned to re-open between mid-June and mid-August, and education services were intended to resume between mid-August and Mid-Fall. Past Mid-Fall, restriction lifting was to be based on the success of the previous seasonal re-openings. Sealift and transportation of fuel were authorized on June 9th, and the maintenance staff of Nunavik Parks were given access to the sites. Air Inuit re-opened on June 12th for regional flights and began operation on June 18th. Daycares, restaurants, Landholdings, and private and public workplaces opened on June 15th. On June 16th, curfew and restrictions on the sale of alcohol were lifted. Day camps opened on June 22nd. June 23rd saw the resumption of outdoor sports, bingo, ecotourism, and access to Nunavik parks with preventative measures. Work offices re-opened on June 29th.

Baie-James [QC]	The CBHSSJB noted that they would not be lifting any public health restrictions until at least 14 days after Goose Break. All deconfinement measures will be decided in consultation with the Cree Nation Government. The lifting of public health restrictions in Eeyou Istchee began on June 8th in a phased approach. In phase one, the mandatory self-isolation requirement for those travelling within Eeyou Istchee and nearby communities was lifted, depending on the number of cases present. Phase one also included the opening of parks, playgrounds, and camps, allowed for small-scale outdoor gatherings, the opening of non-essential healthcare, including medical specialists' services and dentistry, as well as public services based on local priorities. Phase two of the deconfinement process would include reopening local businesses, allowing small indoor private gatherings, and a resumption of all healthcare services. Phase three would see personal services, restaurants, daycares, and schools reopening as well as the allowance of medium-scaled private and public gatherings. Phase four would allow for even larger public gatherings and the re-opening of all other businesses, including those for recreational and entertainment activities. Phase five would include removing all remaining measures, including community checkpoints, though each phase would depend on the success of each preceding phase. Phases would not progress if adverse effects, such as an increase in cases, resulted from lifting confinement measures. Each phase would be monitored for 14 days before moving to the next.
Northwestern [ON]*	No regionally specific information available; provincial mandates followed.
Porcupine [ON]*	No regionally specific information available; provincial mandates followed.

Thunder Bay [ON]	No regionally specific information available; provincial mandates followed.
Northern [MB]	No regionally specific information available; provincial mandates followed.
Ma-Ke-At [SK]	The provincial re-opening plan affected northern Saskatchewan in a slightly different capacity than the rest of the province. The phased plan launched May 4th included the same information province-wide for the first two phases but differentiated geographically in the third. While large gatherings were not permitted due to COVID-19, effective June 8th, gatherings in the majority of the province were expanded to a maximum of 15 people indoors and 30 people outdoors. In contrast, gatherings in the northwest region were limited to 10 people indoors and 20 people outdoors and were not allowed until June 13th.
North Zone [AB]	No regionally specific information available; provincial mandates followed.
BC*	On May 12th, elective surgeries resumed, though care was modified. Fewer in-person visits before surgery were scheduled, and consultations increased. Beginning June 1st, passengers with medical appointments for non-urgent procedures could again use the service. However, eligibility was still restricted to those with appointments and those younger than 60 years of age. Other re-opening plans followed provincial mandates.

Yukon	The Yukon Government announced its phased reopening plan on May 15th. The three-phase strategy entitled "A Path Forward" included a combined household allowance in its first phase, along with allowing businesses and service providers that weren't ordered to close to operate with a COVID-19 plan and safety precautions in place. The first phase also planned to allow recreational programming, day camps, childcare services for the general public, and restaurants and personal services that were ordered closed to open up once again, so long as they had operational plans approved that follow the CMOH's guidelines (Government of Yukon, 2020v). Hospitals were also allowed to offer non-urgent and routine services in this phase. This phase was scheduled to last from May 15th to June 30th. The second phase, set to begin July 1st, would continue to see the opening of personal care, healthcare, and recreational services. Outdoor gatherings of 50 or less would be permitted once sufficient capacity to ensure physical distancing was in place. Phase two would also see a lift in travel restrictions between Yukon and BC, but only for residents of those regions. There would be continuous monitoring of migration, travel cases, and case contacts in preparation for easing border control measures that would occur in Phase 3.

NWT*	Elective surgeries, lower-priority diagnostic testing and medical travel were reinitiated as of April 29th. The Yellowknife stay shelter and sobering centre re-established normal operations as of May 4th. The territorial re-opening plan, titled "Emerging Wisely," was a five-phased approach that slowly removed containment measures. The plan also outlined when stricter measures would have to be reinstated. The first phase was entered on May 15th, where residents could have more interpersonal contact, including "social bubbles" consisting of a maximum of ten people in a home at any time and outdoor gatherings of up to 25 people. Some businesses were also able to open with restrictions. On August 18th, an update for employees was posted on the TG's website discussing the Exposure Control Plan and the Returning to the Workplace Plan developed to ensure safe working conditions. These guidelines included an array of forms to be completed by supervisors and site advisors as well as daily self-assessment forms for employees.

Nunavut	The first stage of reopening was announced on May 25th and would come into effect on June 1st. At this time, daycares would be allowed to open, the size limit for outdoor gatherings increased to 25, territorial parks were permitted to reopen for outdoor activities, and municipal playground could reopen. Entitled Nunavut's Path, the re-opening strategy included reassessment every two weeks in which the CPHO could decide to re-introduce restrictions, pause, or allow more programs, services, and activities to open. The original plan, published June 1st, aimed to have workplaces, retail outlets, galleries, museums, and libraries reopen starting on June 8th. Dental clinics, physiotherapy clinics, massage therapy, chiropractic treatments, gyms and pools could resume services beginning June 15th. The continuation of removing restrictions was dependent on reliable in-territory testing, the status of COVID-19 transmission in the territory, and the status of COVID-19 in bordering territories/provinces.

*Jurisdiction covers or includes an Indigenous health authority, summarized in Indigenous Specific Information

Indigenous Specific Responses

This section summarizes published information in each Northern Health Region pertaining to the health of Indigenous peoples. Some information is reiterated from previous sections of the report as they fit various COVID-19 response efforts.

Indigenous health responses were discussed in Northern health regions to varying degrees; some published COVID-19 information specific to Indigenous peoples, while others included general health responsiveness efforts. The most common efforts were translation of public health communication and financial support. Three regions did not report any Indigenous specific responses: Region du Saguenay-Lac-Saint-Jean, Région de la Côte-Nord, and Région du Nord-du-Québec. The percentage of Indigenous populations within each region is 5, 16, and 6 percent, respectively. The Labrador-Grenfell HA reported that they work with Indigenous bodies to ensure responsive care, however, they did not provide specifics for their COVID-19 response.

Table 17: Indigenous Health Efforts in response to COVID-19 in each Northern Health Region

Health Region	Indigenous Health Efforts
NL	The Labrador-Grenfell HA provides care to Innu First Nation, Inuit, and Southern Inuit populations. To provide responsive health care, the HA worked with the Nunatsiavut Department of Health and Social Development, two Innu Band Councils, NunatuKavut (the former Labrador Metis Nation, comprised of Inuit-Metis members), Health Canada and private practitioners.
Saguenay [QC]	No specific data published
Côte-Nord [QC]	No specific data published
Nord [QC]	No specific data published
Nunavik [QC]	Guidelines for those returning to their community, including home-isolation and self-monitoring directions, were available in Inuktitut. Funding was available for an on-the-land program (see Table 15: Financial Support Provided in each Northern Health Region). NRBHSS published guidelines for hunting and harvesting with the staged re-opening plan. This included a maximum of 8 people allowed on a single boat or charter plane and a maximum of 25 people together at one time. Guidelines were also published for the Hunter Support Program regarding the processing and sharing of country food in which the risk of wildlife contamination was deemed low. However, handwashing, hygiene, and physical distancing, including home delivery, were encouraged. Communities were advised to broadcast church services over the radio.

Baie-James [QC]	This health authority is specific to the Cree population within the James Bay area. In general, The Cree Board of Health and Social Services of James Bay (CBHSSJB) includes the Nishiiyu Department; this department works to ensure all programs and services are culturally appropriate to the Cree way of life. The CBHSSJB created a COVID-19 information website for the Eeyou Istchee population. On this site, public service announcements were downloadable in both English and Cree, along with stories from Elders about their thoughts on COVID-19. Moreover, in every community, daily Cree radio broadcasts included up-to-date public health information. The CBHSSJB was also providing psychosocial services to Cree persons outside of Eeyou Istchee during the pandemic. "This is the Cree Way" (ᐊᐆᒄ ᐄᔨᔨᐅᐃᔨᐦᑐᐎᐣ /AUUKW IIYIYIUITUWIN) was the title of a poster collection that was produced on May 5th, which highlighted the importance of passing along traditional practices and values to the next generation. One of the posters outlined adaptations that Cree hunters must take due to coronavirus. The poster recommended using verbal greetings instead of handshakes, keeping physical distance, and using a radio to check in on other camps. Hunters were not to enter camps other than their own. Moreover, they discourage the sharing of utensils and other lunch gear and encourage learning the old ways of hunting- sitting alone in your blind. The published poster also recommended ensuring that all game was cleaned, prepared, and stored properly during the harvest. Best practices for camp life were also listed. Finally, the CBHSSJB asked that Cree Hunters who may have planned to hunt outside of Eeyou Istchee territory would reconsider in compliance with COVID-19 prevention measures.

Northwestern [ON]*	Sioux Lookout falls within the catchment area of the NWHU. The Sioux Lookout First Nations Health Authority (SLFNHA) provides services to Anishinaabe people across the Sioux Lookout region. Their website included a COVID-19 information dashboard where press releases and video updates from Dr. Guilfoyle, a physician in the area, were published. Radio broadcasts regarding COVID-19 were also uploaded to their website The SLFNHA oversees culturally appropriate contract tracing, including using the Ojibway language, though there have been critiques on their efforts. They completed their own case management and contact tracing and reported directly to First Nations and Indigenous Health Canada rather than the NWHU. Service provision for some programs offered by the SLFNHA were altered due to COVID-19. The Nodin Child and Family Intervention Services were still operational, with mental health services being provided over the phone or in-person if safe to do so. The Outpatient Mental Health Services run by Nodin stopped community transfers and instead switched to phone appointments. Travelling mental health workers and crisis Response teams were no longer deployed in the area though telephone counselling could be organized upon request for those affected by a tragedy. Youth School counsellors were also available for teleworking, as were Children's Mental Health and Addictions Workers. The Approaches to Community Wellbeing (ACW) continued their essential services, including harm reduction supply distribution, providing health promotion resources, maintaining the immunization repository, and ongoing case and contact management for tuberculosis. Developmental services such as pediatric complex care coordination, speech-language pathology, occupational therapy, physiotherapy, transitional age youth worker

	and adult developmental services were offered via phone. The Northwestern Ontario Fetal Alcohol Spectrum Disorder diagnostic clinic and autism diagnostic hub were on hold during the pandemic. Physicians continued with essential services, including ER, inpatient care, obstetrics and Day Medicine. Non-essential outpatient appointments were discontinued. The Northern Clinic operated as usual, with the following restrictions in place: escorts were required to wait outside the clinic, all clients would be screened for symptoms of COVID-19, and the hours were restricted to 9 am-5 pm. Clients requesting an appointment with their family physician were advised to call the Northern Clinic to be assessed and then provided with either a phone consultation, telehealth appointment, or on-site appointment. The SLFNHA covers Eabametoong, a fly-in First Nation community that experienced a small but dangerous outbreak with potential lockdowns discussed. The community is under a long-term boil water advisory and has widespread overcrowding. The community had seven nurses, with one dedicated to COVID-19 cases. The nursing station itself was under partial shutdown for emergencies only.

Porcupine [ON]*	Urgent care clinics in the Weeneebayko area were closed to regular appointments, and visitors were no longer allowed entry. (See table 14: Affected Health Services in each Northern Health Region) Staff entering the region were screened before arrival and before each shift and were not allowed to start working until a negative test result was received (section: maintaining essential services).
Thunder Bay [ON]	General information about COVID-19 was available on the TBDHU website in Ojibwe, Oji-Cree, and Michif. They provided posters about infection prevention and control, such as covering sneezes and coughs and washing hands, in these Indigenous languages. Information about how to self-isolate was available in Oji-Cree, and information for how to prevent COVID-19 in the workplace was published in Ojibwe and Michif. The health unit linked YouTube videos published by Indigenous Services Canada for First Nations Communities to access, including information about self-isolation in Indigenous communities, how Indigenous peoples could access services and benefits, and community perspectives from Chief Leroy Denny. Mental Wellness information was also available created by and for Indigenous people in the area.

Northern [MB]	Northern community leaders who wished to have input on decision-making regarding the northern travel ban could do so during daily meetings with community leaders and Indigenous Services Canada (ISC). Community input could also be added during ongoing meetings with Senior Leadership of the Manitoba First Nations COVID-19 Coordinated Response Team, Shared Health, FNIHB, Manitoba Health, and the University of Manitoba Rady Faculty of Health Sciences. The Shared Health MB platform was linked on the Northern Health Region website, which had an Indigenous Health Resource section that contained Northern Health Region Public Service Announcements in Cree. Steph McLachlan, a recipient of the CIHR COVID-19 Rapid Response Program, used his funding to launch a health communication initiative that utilized First Nation knowledge in the province; information such as tips to mitigate the spread of COVID-19 and discussions about those who may be at higher risk of contracting the diseases, such as Elders, was relayed through a raven puppet, Kahkakiw, who speaks Cree. GeneXpert machines were also procured for rapid testing in Thompson, The Pas, Norway House Cree Nation, and the Percy E. Moore Hospital at Peguis First Nation for patients who may not be able to self-isolate easily.

Ma-Ke-At [SK]	The Government of Saskatchewan ensured that regular COVID-19 updates were provided on radio across the north in English, Cree, Dene, and Michif. The province, local health authorities such as the Northern Inter-Tribal Health Authority, communities, and Indigenous Services Canada worked to regain control of the outbreak in La Loche. Along with travel restrictions, alcohol restrictions, and imposed curfews (see Table 9: Summary of Law Enforcement Efforts in each Northern Health Region), increased bodies and testing occurred, as 50 additional health care workers were sent to the local health facility. Nurses completed Mobile Testing and swabbing at the facility as a portable GeneXpert testing unit was provided for use. Funding was also provided from the government of Saskatchewan, with $20,000 dedicated to La Loche (see Table 15: Financial Support Provided in each Northern Health Region). Unfortunately, not all Indigenous communities in the area surrounding La Loche had received the same amount of attention and aid. David Chartrand, the vice president of the Metis National Council, cited nearly 100 cases (as of May 8th) in a Metis village next to La Loche that was not receiving federal nor provincial support. A Sundance ceremony on Beardy's and Okemasis Cree Nation on May 10th prompted discussion as RCMP were notified that the gathering was breaking public health law. The premier of Saskatchewan stated that he did not believe anyone, including Indigenous communities, should be exempt from the provincial public health order, which limited gatherings to ten people. Despite these comments, Minister Marc Miller and Prime Minister Trudeau noted that they would not ban any Indigenous customs and practices, leaving the decision on how ceremonies may go ahead up to First Nations leadership.

North Zone [AB]	Alberta Health Services had a dedicated a web page to relay information for Indigenous peoples and communities, including individuals, healthcare workers, Indigenous leadership, and Indigenous innovations. Advice from Indigenous physicians was also linked on this web resource. AHS also produced an infographic on how to keep Elders safe. Additional resources developed by Indigenous groups were linked, including the Siksika First Nation Facebook page, where they shared local resources, discussions from community members and elders, and testing and isolation options. The First Nations telehealth network began a COVID-19 Virus Series on January 30th. They also linked to the Alberta/ NWT First National Health One Health Portal. Those with Indigenous-specific questions regarding information for healthcare workers were encouraged to email ahs.ecc.operations.ih@ahs.ca

BC*	A framework was developed to ensure that those living in rural, remote, and Indigenous communities throughout B.C. would have access to health services during the COVID-19 pandemic. This was done in collaboration with the First Nations Health Authority, Northern Health and Provincial Health Services Authority. Communities including Ahousat, Alerta Bay, Bella Bella, Kingcome Inlet, Tahltan and Heiltsuk restricted access to residents only. The BC Fishing and Hunting updates noted that some First Nations communities might have set up travel restrictions and borders to protect their community members; anyone who encountered these access restrictions needed to comply with the First Nation's community. Individuals could report the access restriction to the Conservation office Service. Indigenous Health, a subsection of Northern Health, worked to ensure that the health system is responsive to First Nations, Inuit and Metis patients living in Northern BC. Indigenous patients could request an Aboriginal Patient Liaison to assist with translation services, facilitate communication between themselves and their care providers, connect and coordinate care, disseminate knowledge about programs and treatment, and connect with non-insured health benefits. This program was in place before COVID-19.

The BCFNHA is the only provincial First Nations health authority in Canada. Funding for the FNHA was included in the $1.7 billion investment into social services by the BC government announced on March 23rd, 2020.

The FNHA website had a page dedicated to information about COVID-19 for BC First Nation individuals. This page provided updates and had information on prevention and protection, self-isolation and social distancing, testing and symptoms, medical support, mental health, substance use and hard reduction, and children, youth and families. The website also provided links to the provincial self-assessment tool and informed individuals that they should call their primary care provider, local public health office, or 811 if they experienced any symptoms.

The FNHA has its own app containing health care updates, wellness initiatives, and opportunities to connect with other First Nations people across BC. The FNHA highlighted this as a way to stay connected and supported during the pandemic. The FNHA health council also had a YouTube channel on which they published public health update videos.

Regarding mental health, Dr. Shannon McDonald published a message on the "Medicine of Resilience" in August 2020. This message noted that many Indigenous people had used resilience to survive adversity and continue to do so during the pandemic.

Under the section "Self-Isolation and Physical Distancing" on their COVID-19 webpage, the FNHA published a fact sheet on how to safely share harvest during the pandemic.

The FNHA provided news updates for various health providers regarding COVID-19, including physicians, mental health providers, and vision providers. Where possible, telehealth services were to be used in place of in-person appointments.

	Transportation was only available for urgent appointments as of March 19th. Travel-in mental health providers were to suspend travel into communities as of March 20th, and non-urgent appointments were cancelled or moved to telehealth services. Routine health services could re-open beginning mid-May following the BC Restart Plan. In addition to ongoing telehealth programs, the First Nations Virtual Doctor of the Day program was created to connect First Nations peoples with a doctor or nurse practitioner using videoconferencing.

Yukon	The Department of Health and Social Services released an illustration of a caribou spanning between two people, with the slogan "Stay one caribou apart" in an attempt to make the federally mandated 2m distance public health warning more relatable to Yukoners. Exceptions to mandatory isolation measures for traditional activities were put into order on April 7th. An individual would not be require to self-isolate upon entry to Yukon if they met the following conditions: 1) the purpose of entry was to engage in the exercise of aboriginal and treaty rights referred to in section 25 of the Constitution Act, 1982, as follows: i) the individual is an Inuvialik and the rights that they exercise while in Yukon are treaty rights under the Inuvialuit Final Agreement, ii) the individual is a Tetlit Gwich'in and the rights that they exercise while in Yukon are treaty rights under Appendix C of the Gwich'in Comprehensive Land Claim Agreement, or iii) the individual is a member of any of the Transboundary First Nations and the rights that they exercise while in Yukon are aboriginal rights that are exercised within the associated asserted traditional territories in Yukon of the Transboundary First Nation of which the individual is a member, 2) while in Yukon to exercise their rights they do not enter any Yukon Community or the Eagle Plains Hotel, and 3) Immediately after exercising their rights the individual leaves the Yukon.

NWT*	Help and advice regarding COVID-19 on the Government of NWT website was translated into the following indigenous languages: Chipewyan, Gwich'in, Inuinnaqtun, Inuktitut, Inuvialuktun, North Slavey, South Slavey, and Tłı̨chǫ A document on the continuation of Indigenous Language Learning was published in May 2020 with advice to teachers about how to help students who may not have an Indigenous language speaker at home or access to the internet. $2.6 million in federal funding was distributed among community-based and regional Indigenous governments to cover on-the-land programming (see Table 15: Financial Support Provided in each Northern Health Region). A border restriction exemption existed for persons participating in traditional harvesting and on-the-land activities who may cross the NT border but do not enter communities. Hotìì ts'eeda and FOXY (Fostering Open eXpression among Youth) launched a joint social media campaign dedicated to discussing the importance of social distancing in a culturally safe context to NWT residents entitled "Our Home our Camp".

The Tłı̨chǫ government website had a page allocated for news updates with a subsection specifically dedicated to COVID-19 updates. Updates from the Tłı̨chǫ government (TG), the GNWT, the Canadian Federal government, and the Tłı̨chǫ Community Service Agency (TCSA) were included. The TCSA also posted their updates on their website and had videos on COVID-19 information available in Tłı̨chǫ. Grand Chief George Mackenzie was interviewed by CBC radio on March 18th to discuss TG's action and the importance of social distancing.

Announcements regarding service-wide cancellations were posted on the TCSA website and on the TCSA, TG, and various school Facebook pages.

Live streams of daily masses and special services were available on the Facebook Page of the Roman Catholic Diocese of Mackenzie-Fort Smith.

Individuals with severe symptoms were told to call 911 and their local health centre. Those who were well enough to stay home were advised to do so.

On March 18th, the TCSA announced reduced services, including limited non-essential medical travel, the replacement of in-person appointments with virtual and telephone appointments, the cancellation of non-urgent and non-emergent endoscopy procedures, restricted visitation to long-term care homes, and the cancellation of elder day programs and special events along with group counselling sessions. Further adjustments were made, including reduced scheduled appointments with community nurses, postponement of Well Adult appointments, and a reduction in lab services requiring an appointment. The prenatal and Well Child programs were still running. Mental health and Wellness Services for Behchokò, Whati, Gameti and Wekweeti were available over the phone.

	Programs implemented include Hamper/Care packages, Families on-the-land assistance, emergency assistance funding, Elder calls, mask-making, the Dǫtaàts'eedı Program, and The Hotıì ts'eeda bursary for post-secondary students (see Table 15: Financial Support Provided in each Northern Health Region). The Northern Store in Behchokò designated hours for Elder's shopping: 10 am-11 am Monday-Friday beginning March 31st. To maintain essential services, TG provided emergency childcare in Behchokò for children of essential workers. All individuals entering a TCSA facility would be required to wear a non-medical/cloth mask. In Whati, the community government office also included that customers must sanitize their hands upon entering and practice social distancing.

Nunavut	All COVID-19 updates were broadcasted and/or live-streamed in both English and Inuktitut. On March 19th, the GN approved $25,000 to each Hunter and Trapper Organization to provide food to their communities. Additionally, funding was allocated for Inuit communities, with $22.5 million of it being allocated for Nunavut Inuit. This money was further allocated to regional Inuit organizations in the following manner: $2,505,000 for Nunavut Inuit living outside of the territory, $6,012,000 for Nunavut Tunngavik Incorporated, $6,132,544 for the Qikiqtani Inuit Association, $4, 341,223 Kivalliq Inuit Association, and $3,554,233 Kitikmeot Inuit Association (see Table 15: Financial Support Provided in each Northern Health Region).

Part Two - Case Study in Tłı̨chǫ Territory

The case study in Behchokò was conducted to understand the impacts and perceptions of COVID-19 policy and program changes in the Tłı̨chǫ region on Elders, community members, and local Tłı̨chǫ policy and service delivery staff. The original hypothesis was that the values between these two units of analysis might differ. However, it was found that participants who work for the local government or health services often answered personally. Their insights on policy and program design were vital to help understand the changes that had occurred within the region. Still, their responses reflected what was told by those interviewed as general community members (including Elders). For this reason, analysis of interview data was combined. Consequently, unless relevant to policy or program implementation, quoted responses are not differentiated between the type of case; this is because of how similar responses were and ensures identities are protected. Finally, some quotes have been altered slightly for readability, including the removal of double words, “umms” and the phrase “you know?”.

Working closely with community consults and speaking with participants in person allowed for the act of storytelling through semi-structured interviews. Narrative based responses were especially common when participants discussed past illnesses in the area, for example:

> So even then [referring to the 1918 Flu pandemic], there was no outdoor or visiting’s whatsoever. The only thing people did then was to just go out on the land. So that's exactly that's what happened. People went out on the land to live for themselves. (Participant 333)

Elders and those with traditional knowledge knew that if COVID-19 were to get a hold in the community, the effects would be disastrous. Along with parallels drawn to the 1918 Flu pandemic, participants compared the situation to their experience with tuberculosis (TB) and the H1N1 pandemic. Community members and program developers utilized this knowledge to stay safe, most clearly exemplified in how on-the-land aide was embedded in the regional and territorial response (table 17). Another participant reported, "I think for families that have that traditional knowledge, those stories been passed on. Again, they're going back to the land because they know that's, that's a safe place to be" (Participant 132).

Knowing the severity and using the land to heal has helped dramatically during COVID-19, but that does not mean living with restrictions has been easy. The first central theme that came through from the interviews was uncertainty regarding the uptake of public health

restrictions and implemented programs, including concerns about the impact of restrictions on the community and how well people were following the rules, fears about the virus and the now-developed vaccines, and issues with economic responses such as the Canadian Emergency Response Benefit (CERB). The second theme that emerged from the data was a discrepancy between national and territorial health policy and Tłı̨chǫ way of life. This was most clearly exemplified by how travel restrictions and the inability to gather impacted death and dying rituals. Fortunately, the TCSA and TG worked to ensure culturally relevant implementation strategies. Finally, woven throughout interviews was the desire to keep the community safe and the traditional way of life strong. I called this theme "The strength of community connection and knowledge" as participants discussed how they communicated with each other to continue practicing their spirituality and gather traditional medicines. These themes are the final product of latent content analysis using an editing style described by Crabtree and Miller (1999). Initial categories were created using the concepts identified in the WFSW, including communication strategies (body), community concerns (mind), healthy practices (heart), Indigenous strength and practices (spirit), and policy and program development/roll-out (affecting all four directions). These categories were further broken down into a total of thirty-seven categories and subcategories to organize the intricacies of interview data. For example, communication strategies included where people were getting information (six subcategories), local voices, inter-governmental communication, and avoidance patterns. Meaningful units of texts were coded multiple times to all relevant categories. A thorough combing of texts and codes allowed for rearranging as necessary until a clear summary could be put together that accurately depicted the implementation and implications of COVID-19 restrictions in the Tłı̨chǫ region.

Theme 1: Uncertainty regarding the uptake of public health restrictions and implemented programs

Concern about how COVID-19 restrictions were impacting fellow community members was highlighted throughout interviews. Concern for vulnerable populations, such as those without houses, Elders, and youth, were discussed by most participants. This was partly due to a fear that vulnerable populations may not fully understand why restrictions were in place due to age, experiencing addiction, or language barriers, but mostly centered on how the restrictions affected their lives. One participant noted, "it's hard to visit the seniors because they're heartbroken. Their traditional way of life has been impacted due to covid" and later, "So little children, I'm sure they're really stressed with a lot of changes, as well as everybody. So much stress" (Participant 714).

Non-adherence to COVID-19 measures was also talked about by most participants, with a spectrum of opinions on the matter. The most common fears were that

1) people knew about the restrictions but didn't care to follow them,

or that

2) people didn't understand the severity of COVID-19 and what it may do if it were to enter the community.

Part of what made the COVID-19 rules difficult for community members was that restrictions "went against a lot of people's nature. That social aspect" (Participant 698). There were mixed feelings regarding the uptake of COVID-19 restrictions in the region, with some participants noting that they believed most people followed the rules and others stating that they did not find people took it very seriously. This finding resonates with experiences around the globe (Al-Hasan et al., 2020; Clark et al., 2020; Soveri et al., 2021). The latter was often discussed concerning vulnerable populations and understanding; it did not suggest a lack of accessible information. The TG and TCSA ensured that information regarding COVID-19 public health measures was available in Tłı̨chǫ through their radio station, CKLB. They also utilized print media, social media, and their own websites to communicate with community members (table 17). Other information sources that participants discussed included the territorial government's news blasts, national television broadcasts, and discussion with other community members. There was concern that the information available was not scientific enough and focused too much on restrictions without explaining why they were in place; some participants

wanted to see more details about what COVID-19 can do to the body relayed by their local government, "They didn't really explain what it can do. What can happen…they were saying to just keep you know, away, distant away, make sure your house is clean do this and that, you know, wear a mask" (Participant 164). This led to discussions about the virus itself, severity, spirituality, and potential vaccinations.

The severity of COVID-19 was not lost on those who participated in interviews; even those who may have been worried about others not following restrictions followed public health guidelines for the safety of others. Taking care of each other was a priority, and it seemed that their own safety was second to the protection of their families, their Elders, the frontline workers, all Tłı̨chǫ, and all Dene people. Elders passed down many important lessons during the COVID-19 pandemic, but they are, of course, knowledge holders at all times. One interviewee shared that "all our knowledge keepers, they're really important. One message that they always give us is we have to take good care of each other. So when things like this happened, we have to take care of them, as well" (Participant 132). Other participants talked about their children and grandchildren and how they would never want to see them die. One participant put this very blankly, stating, "I don't want to bring death here" (Participant 932). Helping others was also discussed in relation to spirituality.

Spirituality was defined in many different ways, with some perspectives being based in Indigenous traditions and others more in line with the Catholic church. While the inability to gather and pray together was dramatically affected, participants used prayer to ward off COVID-19, keep it out of the community, and provide peace to those affected. Spirituality is often relied upon in times of crisis; however, issues can arise if and when practices that uphold one's belief system leads to situations that could increase transmission (i.e., church gatherings that exceed indoor limits). Interviews showed that while a western, scientific understanding of COVID-19 may not have been common, the danger was understood through pandemic knowledge passed on through oral history. Participants seemed to use a combined approach of prayer and following guidelines to keep themselves and their families safe. Some felt that all they could do was pray, which would contradict their previous statements about the importance of listening to the public health rules but demonstrates the important role of faith in community-identified resources. Despite this concern, interviews showed that even with different belief systems and levels of understanding, most community members would work together for the greater good. This is

important in a pandemic where community responses are required to reduce opportunities for transmission.

While protecting the community was important to participants, vaccine hesitancy at the individual level for some participants was evident. The most important things that participants believed community members should know included what the vaccines were made of, what made it different from the flu shot, possible side effects, and efficacy. The narrative of being treated like a guinea pig came up in one interview with the participant believing that white people were studying First Nations. While this wasn't a common belief, it is concerning that historical colonial practices are still impacting trust within the health system. Such misinformation must be tackled delicately, and with a deep understanding of past aggressions the Canadian government has committed against Indigenous people. This may be addressed with the inclusion of local leaders and knowledge keepers discussing why Indigenous people are being prioritized for the COVID-19 vaccine, something underway in the NWT (Kandola, 2021). Others who did not want to get the vaccine discussed how traditional medicine had helped them; they were not anti-vaccination but instead believed it was not the best for their bodies. These beliefs must be respected and, if one needs a western lens to view it from, can be described through the medical ethics frame of bodily autonomy.

Finally, participants were wary of economic responses and feared that too much came too quickly. This was most evident when discussing CERB funding from the national government but was also brought up within the context of TG responses, such as the hamper program. One participant noted

> I hope they don't throw money at this. Like, I don't want that because money is not the answer to everything. In this case, I think that people need to take care of themselves. If they throw money into the community, it's going to create more problems (Participant 287).

Many problems were discussed, including ineligible applicants receiving CERB, inappropriate uses of financial aid, and increased illegal activities. Without further studies analyzing correlation, these concerns must be taken at face value. However, a clear takeaway is that relief without well-communicated dissemination and guidelines is prone to misuse. The

concern surrounding CERB funding is just one example of how a nationally implemented policy did not align with regional priorities. The discrepancy between national and territorial responses and the Tłı̨chǫ way of life was another important theme discussed in the interviews.

Theme 2: A discrepancy between national and territorial health policy and Tłı̨chǫ way of life.

> People don't know about alcohol, hand sanitizer, they don't know, they know about hand washing, but then I couldn't find a word for alcohol and hand sanitizer mix with them. You know, the liquid that's in there, so I still have to use the alcohol in English, but I have to kind of makeup the word so that people are comfortable with it and don't see it as a threatening thing because alcohol is powerful, and how come we're gonna put alcohol on your hand? (Participant 287).

The above quote gets to the heart of how easily cultural sensitivity can be lost in policy development. When guidelines and recommendations about cleaning were announced, the use of alcohol for good was an oversight not considered in national, provincial, and territorial responses. It was up to those involved in implementing said guidelines to find ways to communicate how hand sanitizer worked in culturally appropriate terminology. This is just one example of how health systems responded to the pandemic in a manner that did not consider Indigenous histories. Traditional ways of life were dramatically disrupted because of the pandemic; the most difficult restrictions to follow that participants discussed with me included the inability to travel, gather, and impact on funerals/palliatives care.

Participants spoke about how the border closure has affected them. Some were afraid to travel, some felt the restrictions kept them safe, and others noted a feeling of being trapped. Community members talked to me about how going south was a common occurrence to get supplies before COVID-19, and now they felt unable to do so. This was partly because of the perceptions of the isolation centres that were set up; participants told negative stories about poor food quality and a lack of enforceability within the hotels. While future studies will have to look into the quality of life within the quarantine hotels, an oversight in territorial policy was the lack of traditional foods available. This was also a concern for those with family members living in “Old Folks” (the Jimmy Erasmus Seniors Home) because they could not bring traditional food to their Elders with the visitation suspension. The inability to visit family within the territory was challenging for participants because of how close the four communities are: "The four Tłı̨chǫ region, Behchokò, Whati, Gameti and Wekweeti, you know, we're all related. The full region. So we can't even go out. There's no plane, no charter" (Participant 164). The impact of not being able to travel, therefore, directly relates to the inability to gather.

Participants noted that not being able to have people over to their homes was a disruption to their way of life. For example, the territorial response limited indoor gatherings to ten in the

second phase of their Emerging Wisely plan (Government of Northwest Territories, 2020); this doesn't give much room for multi-generational homes and mixed households, which are more common in Indigenous communities (S. C. Government of Canada, 2017). One participant noted that with their babysitter they would be over the legal limit since they are already 10 in the home. The inability to visit Elders in care homes and the inability to meet for ceremony and prayer were also commonly cited examples of how COVID-19 restrictions impacted the community. Not being able to go to church or have traditional ceremonies or feasts was upsetting to many participants, especially those related to death and dying rituals.

The most commonly cited example of public health measures that went against the Tłı̨chǫ way of life were those placed on funerals and the palliative care system that has been in Tłı̨chǫ culture since time immemorial:

> The palliative care for each other has always been there. And even with a new, you know, Western policies and procedures, we had it before them. People, when somebody is sick, and they're on the last stage of life, people are there to take turns. (Participant 287)

"We [are] all Dene people, when people die, we used support like, we used to go. It doesn't matter how many people, and we pray with them to be strong." (Participant 521)

"It's hard to say like on paper in black and white, people say immediate family. Well, that doesn't fly with Aboriginal communities" (Participant 698).

> You know, because we're also grieving. It's not just the parents, it's not just the nieces and nephews, you know, it's everybody. Cause I feel that in a tight community like this, everybody's closely related. And the bond that they have, when an incident or situation that happens like this, then they all come together to support one another, but during this whole COVID. It's, it's not like that. (Participant 398)

"It has never ever happened in our homeland, having to see just a small group of people attending service" (Participant 333)

"…her dad passed away and she commented that the hardest thing of all of that was not being able to hug her mom" (Participant 132).

While no COVID-19 related deaths have occurred in the NWT, the Tłı̨chǫ region, and especially Behchokò, experienced a higher incident of death in 2020 than recent years (G. Marion, personal communication, November 23, 2020). Objectively, the restrictions on gatherings in the territory and consequently the limitations on funeral and wake services make sense from a public health standpoint. Problems arise when you look at the emotional, historical, and cultural aspects. Even separate from ethnicity, the impact from not being able to grieve normally is an unintended consequence that must be studied in the future.

It is clear that public health restrictions created in response to COVID-19 disrupted life and tradition. The TCSA supported the guidelines put out from the CPHO's office, however, these were created through a clinical lens, not a cultural one. Fortunately, the TCSA and TG worked to implement restrictions and programs in a way that would honour the culture and language of the community. Participants who worked for both organizations discussed with me that there was direct and ongoing communication with the GNWT and that consultation had occurred when public health guidelines were created. Unfortunately, there was no room for general community member involvement in these discussions. Despite this, there were many examples from all participants about how the TG and TCSA made living with COVID-19 more community-friendly. This can be seen with communication efforts, discussed previously in theme 1, as information on COVID-19 and the resultant public health restrictions were broadcasted to community members in the Tłı̨chǫ language. The most commonly discussed effort to ensure cultural relevancy within the health system was on-the-land aide for families and children. The CPHO's office supported hunting and on-the-land programming, and it was relayed to community members as a safe and viable way to take care of their families. TG supported these efforts financially by providing $400 to families who applied to go out for ten days to two weeks. The $400 was to be spent on groceries and fuel, and after the allotted time, if the family could show proof that they had been on the land, they could re-apply (T. Steinwand-Deschambeault, personal communication, November 10, 2020). Participants appreciated these types of bi-cultural approaches to staying safe and healthy. For example, one noted, "I had to go to the store, you still have to put that mask on. It has to be, it's a law now they said. But you're in the bush. Do what you can do to survive, eat lots of fish" (Participant 184). While still following health guidelines when in town, this participant utilized the financial aid available to stay where he felt safe and healthy. Another noted:

> And in the past, when there was other types of sicknesses in our region, that's what people did, they stayed out in the bush, they didn't come to like the larger gathering places. So they stayed amongst themselves up there for long periods of time…So for Tłı̨chǫ government to be supporting that type of program, I think was really good (Participant 132).

Policy and program delivery staff indicated that their primary goal when COVID-19 hit was to help the community as much as they could as fast as they could: "How are people going to do this? How do we minimize people going out and so that they can stay home and stay safe? What can we do from Tłı̨chǫ Government to help support our people?" (Participant 132). The TCSA worked to ensure that on-the-land learnings were built into the school curriculum to allow for an easier transition for students in the fall of 2020. This included family-based camps in September to work as a transition mechanism. Finally, TG also supported harvesting for Elders and low-income families; the Tłı̨chǫ Dǫtaàts'eedı program supported harvesters and youth from the same family to harvest food from the land (plants or game, other than Caribou) and deliver it to Elders and families in need. The TG provided gas and honoraria (T. Steinwand-Deschambeault, personal communication, November 10, 2020).

Moving forward, it would be beneficial to see policies developed in tandem with community-level programs, guided by the knowledge of those who have to follow the restrictions. The current system mostly involved a top-down approach, with the implementation of pre-established policies being altered to ensure it was culturally appropriate. By establishing future emergency preparation that includes the capacity for intergovernmental conversations AND community input, we can ensure that traditions are built into health policy instead of being laid on top. That being said, community connection and the Tłı̨chǫ way of life remained strong during the pandemic, just altered.

Theme 3: The strength of community connection and knowledge

Living through the COVID-19 pandemic has been hard, but there have been a few spots of joy throughout. One participant noted

> It's good to hear because, yes, it has to do with COVID-19 too. But then the community continues to practice our traditional way of life, like the values that we believe in. You know the love the caring, respect, and be thankful. The gratitude that comes with it (Participant 287).

The Tłı̨chǫ spirit has not dimmed, even when gatherings have not been able to continue. In place, participants talked about using Zoom video calls to bead together and tell stories, and Elders spoke about how they prayed together over the phone. Adapting traditional practices to virtual platforms was vital to ensure that community spirit did not dim. One interviewee explained to me that "we don't want to lose our spirituality through the system [restrictions] that they put" (Participant 333).

Another practice that continued was a monthly feeding of the fire; while suspended for a short period of time, feeding the fire outside the community center resumed with COVID-19 appropriate protocols; participants could not sing, but they could drum. Thus, while altered, the community found ways to continue practicing their traditions. As discussed previously, many participants also noted that they went out on the land. Participants used Traditional knowledge to stay safe and healthy, from hunting traditional foods to gathering medicines, as it had been during past pandemics.

"Well, at first. No, I wasn't really worried. Like us, we're living up north. I know we can survive. You know, we harvest from the land. We take food from the land" (Participant 164).

> Well, we been up north for all our life. And before us it [referring to TB outbreaks in 1920 and 1949] was like I said, there was no doctor no nurse. What people did when the people were sick, they use from the bush, there's all kinds, not only one kind. The ones they know, which is good. The Elders they know, they know better than us. (Participant 421)

"We are Tłı̨chǫ. We live with that. Like you know, medicine, we will make our own. It's really important for us to use it." (Participant 521)

Participants also told me how TG supported the use of traditional medicines: spruce boughs were disseminated throughout the community to be used to cleanse the air and boiled to drink for holistic purposes. Guidelines on the use of traditional medicines for COVID-19 were not disseminated as it is not something that is written down but passed on:

> We don't, I don't have no manuals or teaching about traditional medicines and stuff like that. It's just all by learning from our grandparents, our parents. So those were the teachings that were taught to us and we're teaching our kids that (Participant 398).

Participants also showed community connection in how they discussed the ways they worked to help those close to them; participants discussed their fears and worries with friends and family to keep them safe. They often turned to each other to find out more information about COVID-19 restrictions or relief programs. Overall, a focus on community safety was vital to living through the COVID-19 pandemic in the Tłı̨chǫ region.

Chapter 5: Conclusion and Policy Recommendations

COVID-19 showed just how unprepared the world was for a crisis of this magnitude (Timmis & Brüssow, 2020), and the responses can serve as a case study to evaluate what kept communities safe, understood from local, regional, and national perspectives. With dramatic differences in testing, treatment, and health service staff capacity, the response to COVID-19 was a patchwork of policy, programs, and altered health service provision; this fragmented response can be seen within and between countries. Because healthcare systems are often fragmented, and within Canada, it is under provincial or territorial responsibility, the response to a crisis can be slow (Timmis & Brüssow, 2020). Within Canada's North, each health system adapted national and provincial/territorial responses to fit their geography and demographic to varying degrees. Public health communication is the clearest example of this (Table 4). RHA's in the North have the added challenge of being geographically isolated. While this has influenced health service capacity, both from an infrastructure and workforce standpoint, it provided the opportunity for most RHAs to implement strict border control measures (Table 6). Dr. Kami Kandola, the CPHO of the NWT, described how their ability to focus on the importation of cases rather than community-wide spread was critical to their COVID-19 response (Kandola, 2021).

The final objective of this thesis was to determine if, and to what extent, the values held between community members and policy and service delivery staff differed as they related to the implementation of policy/programs. The main values presented by community members and policy and service delivery staff interviewed, as well as what can be concluded from the responses summarized in part one, were those of teamwork, compassion, endurance, and most importantly, community. These values did not differ between units of analysis. Referring to the factors identified by Harfield et al. (2018) as being important to the success of Indigenous primary health care services, we can see that most northern RHA's included aspects of (traditional) culture in their COVID-19 responses (table 17). Analysed with the WFSW, health communication efforts covered factors relating to the body while bi-cultural approaches, such as going on the land, addressed spirituality. The adaptations made to health service provision ensured that communities stayed safe and healthy during the pandemic, addressing the factors grouped in the heart quadrant. So, where do we go from here? It is clear that communities in Canada's Northern health regions worked to provide relevant support for their population, but what got us here in the first place? The fast-paced nature of COVID-19 crisis management

means that even those jurisdictions with the ability to implement their own responses had to work with what they already had. Acting quickly was a requirement for these RAHs; going forward, policy and decision-makers must strengthen their emergency management procedures and develop contingency frameworks to employ in the future. This will require communication amongst governments at all levels. The development of such frameworks can be mapped to the fourth and final quadrant of the WFSW framework: the mind. Within this theme, the concepts of managing conflicting worldviews and assessment, risk, and prevention are mentioned. By conducting analysis on the crisis management policy that was implemented and giving space to hear different perspectives, Northern RHAs can ensure holistic approaches to future emergencies are developed.

The responses in each Northern region show that while the collective attitude of protecting their population was evident, the real issue is that the solutions presented were a kaleidoscope of what we can do now, quickly, and then evaluate later. For example, the TCSA and TG worked to develop communication strategies and implement programs and assistance to help their community members as fast as they could. This was stated to me by participants in their interviews. The issue is not how did the policies and procedures work, but why did they have to be rushed to be implemented in the first place? Crisis management requires contingency planning. We need to ensure that the lessons COVID-19 has taught us are not put to waste. Timmis and Brüssow (2020) describe the role the public has in contingency planning and highlight the importance of memory: expecting those who experienced loss during COVID-19 to forget the situation they were placed in and move on is human nature, according to the authors. They fear that the number of people who will hold institutions and governments accountable to create contingency plans will be few and far between. *There will be* another crisis, and it will require that "our collective memory retains the crucial need for crisis preparedness" (Timmis and Brüssow, 2020). Crisis management requires systems with four capabilities: 1) the ability to anticipate a disruption; 2) the ability to monitor and maintain control of their operations; 3) the ability to respond to the disturbance; and 4) the ability to learn from the disturbance (Hollnagel et al., 2008). Canada's Northern health systems did a great job handling the COVID-19 pandemic, but they also must learn from what challenged them.

Next Steps

Future studies evaluating program effectiveness will prove vital. Understanding what changes have occurred is just the first step; as climate crises and zoonotic diseases become more prevalent, communities, regions, and nations will need to have strong emergency preparedness and management plans. An estimated 60% of emerging human infections are zoonotic in origin and are influenced by factors such as climate change and urbanization (Rahman et al., 2020). Thus, COVID-19 responses can act as a case study to evaluate what kept communities safe as well as what didn't work and what received pushback from the public. There are different types of evaluation studies that will be required; process evaluation will be needed to look at how programs and public health guidelines were developed, which part two of this project did on a small scale, while summative/outcome evaluations will be needed to look at the efficacy of said programs and guidelines (Coyle et al., 1991). Doing studies on the efficacy of health system changes that occurred in response to the pandemic will allow future adaptations and implementations to go into effect more smoothly. Hodder and Corrigan (2020) discussed the steps required for emergency management independence and capacity in First Nations Communities, including having situational awareness, risk assessment, emergency management planning, training, validation, and after-action analysis. Presented as a cycle, the after-action analysis of COVID-19 responses can be used to increase awareness of how future incidents must be handled.

Outcome evaluation also lends itself to studying if consequences are attributable to the implementation (Coyle et al., 1991). This will be necessary as we begin to understand the long-term impacts of the pandemic and the health restrictions that came with it. Future studies will want to look at the impacts on mental health, socialization of children, economic impacts on family and businesses, and impacts on health systems worldwide.

Other areas for future work include analyzing communication strategies between and among governments, health systems, and the public. Participants from the interviews conducted in part two noted that there was, at some points, confusion about what communication had occurred between the TCSA, the TG, and the GNWT. Communication is vital when it comes to public health and having clear messaging with all involved reduces the risk of misunderstanding. This will also be important for future emergency preparedness measures, which require planned and understood communication strategies (Hodder & Corrigan, 2020).

Current policy development has utilized a top-down approach, with implementation being altered to ensure cultural relevancy. Moving forward, we must ensure that Indigenous traditions are acknowledged and respected as health policies and programs are developed. Individual communities must engage with community members of all ages and roles to determine what programs will work best for them. After such consultation, the capacity for emergency management outside the community can be looked into (Hodder & Corrigan, 2020). When discussing Indigenous health, the role of knowledge of past pandemics should be highlighted and used to develop program changes that consider community values. Traditional knowledge must be represented in the policies we develop to ensure both cultural relevancy and efficacy. Focusing on Western measures of health will lead to evaluations such as those presented in Young et al. (2019), where functionality is based on factors that do not capture the holistic framework that encompasses Indigenous health. Understanding, respecting, and embedding culture into emergency management will allow for safe practice with minimal unintended consequences.

Community Recommendations

Participants interviewed in the Tłı̨chǫ region had suggestions for their health system and its response to COVID-19 that they shared, including recommendations and solutions for health communication and feedback. As previously discussed, some participants were wary that the COVID-19 messaging in the community was not serious enough or that people may not have understood how dangerous it was. The solutions to these concerns were brought up in various ways: participants suggested that messaging be more severe and clinical, for example, by increasing knowledge of how COVID-19 affects the body. Having restrictions in place and enforcing them only works when people understand what they are following them for. However, this approach must be used with caution as fear-based messaging would also be damaging. A solution brought up by a few participants was to include more visualizations and videos on COVID-19, including information about transmission and what people can do to limit spread. The hope is that visuals would help those with limited literacy or those without reliable access to news and the internet. Hopefully, the videos would be much more interactive than posters, and explanations could be given in multiple ways. Production of health communication videos that are community-based would also allow for more community involvement. Seeing and hearing

about why restrictions must be taken seriously from those you already know and trust could increase community adherence. This method is currently being used in the NWT for vaccine rollout; Elders and community leaders are working with the NWT health and social services (HSS) to produce videos explaining the importance of getting vaccinated to their community members (Kandola, 2021).

Finally, I noted that there was no dedicated space for feedback or community concerns to be voiced during my interviews. While 811, the territorial line, had a grievance section, there was no Tłı̨chǫ specific variation. Participants mentioned they would go to the community government or health centre if they had questions, while others said they would try and talk to the Chief. Some also noted that Facebook was being used for complaints. Overall, when looking into the future for emergency preparedness, having a dedicated line for community members to talk about their concerns and provide feedback on restrictions would ensure that their voices are heard and included in policy and program development. At the time of writing, community government, TG, and TCSA staff were considering implementing the COVID-19 Indigenous app, created at the University of Manitoba, to receive community-specific feedback about health and health services during COVID-19 (T. Steinwand, personal communication, March 1, 2021).

Community Implications and Knowledge Translation

Community participation with the project steering committee is ongoing. To further engage local decision-makers, preliminary findings from the qualitative interviews were co-presented by Fleury and Steinwand at the workshop on *Indigenous governance in health care and health systems: Applying Lessons Learned and Best Practices in the Tłı̨chǫ region.* This workshop, developed in consultation with the Tłı̨chǫ Research and Training Institute, allowed for the dissemination of knowledge to occur across territorial, provincial, and international borders. The discussion focused on key insights regarding the impacts of COVID-19 restrictions in the area. Workshop participants included key interviewees, policymakers, researchers from various health care centres and the GNWT, and individuals in similar roles from other Northern jurisdictions. By engaging with the community throughout the project, we ensured that local voices were heard, and that decision-makers were aware of the conclusions and next steps. Additional meetings were scheduled with government and advisory officials involved in policy planning for self-governing agreements; Fleury was invited to present at the *National, Self-governing, and*

Modern Treaty COVID-19 Call. Finally, a copy of the final results will be given to the TG members of the steering committee for them to use as they see fit.

On the academic side, the insights from the scoping review were presented at the Arctic Frontiers 2021 - Building Bridges conference that ran digitally from February 1-4th, 2021. A corresponding article will be published in the fall of 2021 in a Supplement to the Scandinavian Journal of Public Health, based on the conference abstract and presentation. A digital presentation of the interviews' findings was presented at the COVID-19 and Public Health Forum on April 22nd, 2021.

End Note and Positionality Statement

The purpose of this work was to describe and summarize the changes to health policy and programming in Canada's northern and Indigenous regions that occurred in response to the COVID-19 pandemic, as well as the impacts restrictions have had on community members. It is hoped that this work has helped depict effective health communication strategies, policies, and program implementation approaches in areas with similar values that can be used in future evaluation studies.

Throughout this project, I myself experienced COVID-19 testing, mandatory quarantine, the inability to gather with family, and the loss of my grandfather, whose funeral I could not attend nor grieve with my family. As a Métis woman, the stories I heard during the interviews in part two resonated deeply. However, I do not believe one has to be of Indigenous ancestry to understand the unintended consequences and pain that COVID-19 has caused. With the increase of vaccinations arriving in our country, we are lucky to see the light at the end of the tunnel. Other countries that have not been prioritized for vaccine distribution are not so fortunate. We must work together and remember the lessons this pandemic has taught us to ensure that when a future crisis strikes, we are prepared.

Bibliography

Al-Hasan, A., Yim, D., & Khuntia, J. (2020). Citizens' Adherence to COVID-19 Mitigation Recommendations by the Government: A 3-Country Comparative Evaluation Using Web-Based Cross-Sectional Survey Data. *Journal of Medical Internet Research*, *22*(8), e20634. https://doi.org/10.2196/20634

Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, *8*(1), 19–32. https://doi.org/10.1080/1364557032000119616

Boggild, A. K., Yuan, L., Low, D. E., & McGeer, A. J. (2011). The Impact of Influenza on the Canadian First Nations. *Canadian Journal of Public Health*, *102*(5), 345–348. https://doi.org/10.1007/BF03404174

Clark, C., Davila, A., Regis, M., & Kraus, S. (2020). Predictors of COVID-19 voluntary compliance behaviors: An international investigation. *Global Transitions*, *2*, 76–82. https://doi.org/10.1016/j.glt.2020.06.003

Coyle, S. L., Boruch, R. F., & Turner, C. F. (1991). Design and Implementation of Evaluation Research. In *Evaluating AIDS Prevention Programs: Expanded Edition*. National Academies Press (US). https://www.ncbi.nlm.nih.gov/books/NBK235374/

Crabtree, B. F., & Miller, W. L. (1999). *Doing Qualitative Research* (2nd ed.). Sage Publications.

Dewar, J., Santos, M., Smylie, J., Skye, C., Rowe, R., & Wolfe-Roberge, P. (2021, January 27). *Data collection on COVID-19 cases in First Nations, Inuit and Métis populations and communities*. https://ncceh.ca/events/nccid-webinar-data-collection-covid-19-cases-first-nations-inuit-and-metis-populations-and

Driedger, S. M., Cooper, E., Jardine, C., Furgal, C., & Bartlett, J. (2013). Communicating Risk to Aboriginal Peoples: First Nations and Metis Responses to H1N1 Risk Messages. *PLOS ONE*, *8*(8), e71106. https://doi.org/10.1371/journal.pone.0071106

Finset, A., Bosworth, H., Butow, P., Gulbrandsen, P., Hulsman, R. L., Pieterse, A. H., Street, R., Tschoetschel, R., & van Weert, J. (2020). Effective health communication – a key factor in fighting the COVID-19 pandemic. *Patient Education and Counseling*, *103*(5), 873–876. https://doi.org/10.1016/j.pec.2020.03.027

Government of British Columbia. (n.d.). *Health Boundaries—Province of British Columbia*. Province of British Columbia. Retrieved June 12, 2020, from https://www2.gov.bc.ca/gov/content/data/geographic-data-services/land-use/administrative-boundaries/health-boundaries

Government of Canada, I. A. P. on R. E. (2019, April 1). *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2018) – Chapter 9: Research Involving the First Nations, Inuit and Métis Peoples of Canada*. https://ethics.gc.ca/eng/tcps2-eptc2_2018_chapter9-chapitre9.html

Government of Canada, S. C. (2017, August 2). *The Daily — Families, households and marital status: Key results from the 2016 Census*. https://www150.statcan.gc.ca/n1/daily-quotidien/170802/dq170802a-eng.htm?HPA=1

Government of Northwest Territories. (2020, May 12). *Emerging Wisely – Continued public health response to COVID-19 in the NWT* [Information]. Government of the Northwest Territories. https://www.gov.nt.ca/covid-19/en/emerging-wisely-%E2%80%93-continued-public-health-response-covid-19-nwt

Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a Conceptual Framework for Mixed-Method Evaluation Designs. *Educational Evaluation and Policy Analysis*, *11*(3), 255–274. https://doi.org/10.3102/01623737011003255

Harfield, S. G., Davy, C., McArthur, A., Munn, Z., Brown, A., & Brown, N. (2018). Characteristics of Indigenous primary health care service delivery models: A systematic scoping review. *Globalization and Health*, *14*(1). https://doi.org/10.1186/s12992-018-0332-2

Health Council of Canada. (2012). *Empathy, dignity, and respect Creating cultural safety for Aboriginal people in urban health care*. https://healthcouncilcanada.ca/files/Aboriginal_Report_EN_web_final.pdf

Hodder, C., & Corrigan, S. (2020, June 24). *Discovering the Path to Community Emergency Management Independence*. https://attendee.gotowebinar.com/recording/6754072738334550288

Hollnagel, E., Nemeth, C. P., & Dekker, S. (2008). *Resilience Engineering Perspectives: Preparation and restoration*. Ashgate Publishing, Ltd.

Indigenous Services Canada. (2020). *Confirmed cases of COVID-19* [Report]. https://www.sac-isc.gc.ca/eng/1598625105013/1598625167707

Jones, N. R., Qureshi, Z. U., Temple, R. J., Larwood, J. P. J., Greenhalgh, T., & Bourouiba, L. (2020). Two metres or one: What is the evidence for physical distancing in covid-19? *BMJ*, *370*, m3223. https://doi.org/10.1136/bmj.m3223

Kandola, K. (2021, February 9). *Panel #4: COVID-19 and the pandemic response in Tłı̨chǫ territory*. Indigenous governance in health care and health systems: Applying Lessons Learned and Best Practices in the Tłı̨chǫ region.

Lavoie, J. G., Kornelsen, D., Wylie, L., Mignone, J., Dwyer, J., Boyer, Y., Boulton, A., & O'Donnell, K. (2016). Responding to health inequities: Indigenous health system innovations. *Global Health, Epidemiology and Genomics*, *1*. https://doi.org/10.1017/gheg.2016.12

Legat, A. (2012). *Walking the Land, Feeding the Fire*. University of Arizona Press.

Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Implementation Science*, *5*(1), 69. https://doi.org/10.1186/1748-5908-5-69

Manitoba First Nations COVID-19 Pandemic Response Coordination Team. (2021). *Manitoba First Nations COVID-19 Pandemic Response Coordination Team Weekly Bulletin.* Assembly of Manitoba Chiefs.

Marchildon, G. P., Lavoie, J. G., & Harrold, J. (2021). *Typology of Indigenous Health System Governance in Canada* [Unpublished, working paper].

Marion, G. (2020, November 23). [Personal communication].

Mayan, M. J. (2009). *Essentials of Qualitative Inquiry*. Routledge. http://ebookcentral.proquest.com/lib/ualberta/detail.action?docID=4692156

McMahon, M., Nadigel, J., Thompson, E., & Glazier, R. H. (2020). Informing Canada's Health System Response to COVID-19: Priorities for Health Services and Policy Research. *Healthcare Policy*, *16*(1). https://doi.org/10.12927/hcpol.2020.26249

Mosby, I., & Swidrovich, J. (2021). Medical experimentation and the roots of COVID-19 vaccine hesitancy among Indigenous Peoples in Canada. *Canadian Medical Association Journal*, cmaj.210112. https://doi.org/10.1503/cmaj.210112

NAO: North American Observatory on Health Systems and Policies. (2020, May 21). *COVID-19 Policy Response Monitor*. Institute of Health Policy, Management and Evaluation,

University of Toronto. https://ihpme.utoronto.ca/research/research-centres-initiatives/nao/covid19/

Otter. (2021). Otter.ai. https://otter.ai/about

Power, T., Wilson, D., Best, O., Brockie, T., Bearskin, L. B., Millender, E., & Lowe, J. (2020). COVID-19 and Indigenous Peoples: An imperative for action. *Journal of Clinical Nursing*, *29*(15–16), 2737–2741. https://doi.org/10.1111/jocn.15320

Public Health Agency of Canada. (2020, July 20). *Vulnerable populations and COVID-19* [Education and awareness]. Aem. https://www.canada.ca/en/public-health/services/publications/diseases-conditions/vulnerable-populations-covid-19.html

Qin, J., You, C., Lin, Q., Hu, T., Yu, S., & Zhou, X.-H. (2020). Estimation of incubation period distribution of COVID-19 using disease onset forward time: A novel cross-sectional and forward follow-up study. *MedRxiv*. https://doi.org/10.1101/2020.03.06.20032417

QSR International Pty Ltd. (2020, March). *Qualitative Data Analysis Software | NVivo*. https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home

Rahman, M. T., Sobur, M. A., Islam, M. S., Ievy, S., Hossain, M. J., El Zowalaty, M. E., Rahman, A. T., & Ashour, H. M. (2020). Zoonotic Diseases: Etiology, Impact, and Control. *Microorganisms*, *8*(9), 1405. https://doi.org/10.3390/microorganisms8091405

Richardson, L., & Crawford, A. (2020). COVID-19 and the decolonization of Indigenous public health. *CMAJ*, *192*(38), E1098–E1100. https://doi.org/10.1503/cmaj.200852

Rothan, H. A., & Byrareddy, S. N. (2020). The epidemiology and pathogenesis of coronavirus disease (COVID-19) outbreak. *Journal of Autoimmunity*, *109*, 102433. https://doi.org/10.1016/j.jaut.2020.102433

Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health*, *23*(4), 334–340. https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G

Schaerer, K., Erbilgin, N., & Nykiforuk, C. (2020, November 13). *Human-Participant Research Field Activities Plan* [Personal communication].

Schoonenboom, J., & Johnson, R. B. (2017). How to Construct a Mixed Methods Research Design. *Kolner Zeitschrift Fur Soziologie Und Sozialpsychologie*, *69*(Suppl 2), 107–131. https://doi.org/10.1007/s11577-017-0454-1

Shereen, M. A., Khan, S., Kazmi, A., Bashir, N., & Siddique, R. (2020). COVID-19 infection: Emergence, transmission, and characteristics of human coronaviruses. *Journal of Advanced Research*, *24*, 91–98. https://doi.org/10.1016/j.jare.2020.03.005

Soveri, A., Karlsson, L. C., Antfolk, J., Lindfelt, M., & Lewandowsky, S. (2021). Unwillingness to engage in behaviors that protect against COVID-19: The role of conspiracy beliefs, trust, and endorsement of complementary and alternative medicine. *BMC Public Health*, *21*(1), 684. https://doi.org/10.1186/s12889-021-10643-w

Steinwand, T. (2021, March 1). *Results presentation for app* [Personal communication].

Steinwand-Deschambeault, T. (2020, November 10). *A listing of the programs that the Tłı̨chǫ Government offered related to COVID.* [Personal communication].

Tachine, A., Bird, E., & Cabrera, N. (2016). Sharing Circles An Indigenous Methodological Approach for Researching With Groups of Indigenous Peoples. *International Review of Qualitative Research*, *9*, 277–295. https://doi.org/10.1525/irqr.2016.9.3.277

Tang, S., Mao, Y., Jones, R. M., Tan, Q., Ji, J. S., Li, N., Shen, J., Lv, Y., Pan, L., Ding, P., Wang, X., Wang, Y., MacIntyre, C. R., & Shi, X. (2020). Aerosol transmission of SARS-

CoV-2? Evidence, prevention and control. *Environment International*, *144*, 106039. https://doi.org/10.1016/j.envint.2020.106039

Timmis, K., & Brüssow, H. (2020). The COVID-19 pandemic: Some lessons learned about crisis preparedness and management, and the need for international benchmarking to reduce deficits. *Environmental Microbiology*. https://doi.org/10.1111/1462-2920.15029

Ward, V., & MacDonald, J. P. (2021). *There is no vaccine for stigma: A Rapid Evidence Review of stigma mitigation strategies during past outbreaks among Indigenous populations living in rural, remote and northern regions of Canada and what can be learned for COVID-19*. 36.

Women's College Hospital. (2020a). *Women's College Hospital—Indigenous Wellbeing in The Times Of COVID-19*. Women's College Hospital. https://www.womenscollegehospital.ca/

Women's College Hospital. (2020b). *Women's College Hospital—The Centre for WISE Practices in Indigenous Health*. Women's College Hospital. https://www.womenscollegehospital.ca/

World Health Organization. (2020, March 11). *WHO Director-General's opening remarks at the media briefing on COVID-19*. https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020

World Health Organization. (2021). *WHO Coronavirus Disease (COVID-19) Dashboard*. https://covid19.who.int

Yin, R. K. (2009). *Case Study Research Design and Methods* (4th ed., Vol. 5). Sage Publications.

Young, T. K., Chatwood, S., Ng, C., Young, R. W., & Marchildon, G. P. (2019). The north is not all the same: Comparing health system performance in 18 northern regions of Canada. *International Journal of Circumpolar Health*, *78*(1), 1697474. https://doi.org/10.1080/22423982.2019.1697474

Appendices

Appendix A: Research Ethics Approval

Notification of Approval

Date:	October 30, 2020
Study ID:	Pro00105223
Principal Investigator:	Katherine Fleury
Study Supervisor:	Susan Chatwood
Study Title:	Policy vs. Practice: Perceptions and Implications of COVID-19 responses in the Northwest Territories
Approval Expiry Date:	Friday, October 29, 2021

Approved Consent Form:

Approval Date	Approved Document
10/30/2020	Consent and Confidentiality of Sharing Circles Form

Sponsor/Funding Agency: CIHR - Canadian Institutes for Health Research CIHR

Thank you for submitting the above study to the Research Ethics Board 1. Your application has been reviewed and approved on behalf of the committee. The following has also been approved:

- Recruitment Email (10/28/2020)
- Sharing Circle Questionnaire (10/27/2020)
- Research Proposal (10/27/2020)

Approval by the Research Ethics Board does not encompass authorization to recruit and/or interact with human participants at this time. Researchers still require operational approval as applicable (eg AHS, Covenant Health, ECSD etc) and where in-person interactions are proposed, institutional and operational requirements outlined in the *Resumption of Human Participant Research - June 24, 2020* ***must be met.*** Sincerely,

Anne Malena, Ph.D.
Chair, Research Ethics Board 1

Note: This correspondence includes an electronic signature (validation and approval via an online system).

Appendix B: Aurora Research Licence

January 22, 2021

Notification of Research

I would like to inform you that Northwest Territories Scientific Research Licence No. 16769 has been issued to:

Ms. Katherine Fleury
University of Alberta
1104- 9737 112 Street NW

Phone: (306) 262-5828
Email: kefleury@ualberta.ca

to conduct the following study:
Policy vs Practice: Perceptions and Implications off COVID-19 Responses in the Northwest Territories (4869)

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

Summary of Research
This study aims to support evidence-informed policy changes in the future by identifying best practice responses to COVID-19 and the processes through which they were created in Canada's Northwest Territories, understood in a matter that is reflective of the values held by community stakeholders. This project will seek to highlight the understanding of COVID-19 responses in the Tłı̨chǫ region and provide knowledge that will impact Indigenous and public legislation, policy creation and program and service delivery. Sincerely,

_____
Jonathon Michel
Manager, Scientific Services

Distribution

- Tłı̨chǫ Government
- North Slave Métis Alliance
- Akaitcho Territory Government
- Yellowknives Dene First Nation
- City of Yellowknife
- Northwest Territory Métis Nation
- Wek’èezhìi Renewable Resources Board
- Aurora College - Yellowknife/North Slave Campus

Appendix C: Research Agreement with TCSA

RESEARCH AGREEMENT

Dated the 07 day of
JANUARY, 2021

BETWEEN:

TŁĮCHǪ COMMUNITY SERVICES AGENCY
as represented by the Chief Executive Officer
(hereinafter called "[TCSA/Disclosing Party])

AND:

Katherine Fleury
(hereinafter called the "Researcher")

Whereas the purpose of this Agreement is to document the terms and conditions of the disclosure of personal health information to the Researcher, in compliance with the *Health Information Act* and other applicable legislation (if any).

THE PARTIES AGREE AS FOLLOWS:

1. DEFINITIONS

1.1 In this Agreement, unless expressly otherwise provided or where the context does not permit:

"agreement" means this Agreement, including all Schedules;

"*Health Information Act*" means the Northwest Territories *Health Information Act*, S.N.W.T. 2014, c. 2;

"personal health information" means information defined under Part 1 of the *Health Information Act*;

"party" means any party to this Agreement, as the context requires;

"record" means record defined under Part 1 of the *Health Information Act*;

"research" means research defined under Part 1 of the *Health Information Act;*

"research ethics committee" means a research ethics committee defined under Part 1 of the *Health Information Act*;

1.2 These definitions shall apply equally to both the singular and the plural forms of the terms defined, and words of any gender shall include each other gender when appropriate.

2. PURPOSE OF THE RESEARCH

Project title: Policy vs Practice: Perceptions and Implications of COVID 19 Responses in the Northwest Territories

This research is part of the Researcher's Master's work at the University of Alberta.

This study aims to support evidence-informed policy changes in the future by identifying best practice responses to COVID-19 and the processes through which they were created in Canada's Northwest Territories, understood in a matter that is reflective of the values held by community stakeholders. This project will seek to highlight the understanding of COVID-19 responses in the Tłı̨chǫ region and provide knowledge that will impact Indigenous and public legislation, policy creation and program and service delivery.

> *Instruction: Describe the purpose in general, and reference and attach approved research proposal by the Research Ethics Committee in Schedule A. If numerous research agreements are in place / expected with the Researcher, please provide Research Title, to which to refer to this Agreement / research proposal in future.*

2.2 The research requires the information as follows:

No identifiable personal health information will be disclosed to the researcher by TCSA / The disclosing party is allowing the researcher to conduct research with TCSA staff persons and/or being present in TCSA facilities. By interviewing TCSA staff and/or being present in TCSA facilities, the researchers may inadvertently become privy to personal health information of those receiving services from the TCSA.

No research data with personal health information will be collected as part of the research objectives and related methodology.

> *Instruction: Describe reason why the research needs to include health information. Specify if the health information will be personal health information – i.e. identifiable – or if the health information will be non-identifiable or de-identified). Include description how research data will be gathered, recorded, analyzed and reported. Issues that should be addresses in this section are: research methods; the extent or amount of data to be obtained (e.g. statistical variables, number of samples, etc.).*

3. AUTHORITY TO SHARE HEALTH INFORMATION FOR RESEARCH PURPOSES

3.1 The Disclosing Party is authorized to enter into this Agreement and to disclose personal health information in accordance with section 77 of the *Health Information Act*.

3.2 The Researcher is required to comply with section 81 of the *Health Information Act* and this Agreement. In particular, the Researcher must comply with any conditions set out by the Research Ethics Committee as per Schedule A, must not publish information in a form that could reasonably be expected to identify an individual the information is about, and must not contact an individual the information is about unless the Disclosing Party obtains the individual's express consent.

4. HEALTH INFORMATION TO BE DISCLOSED

4.1 The Disclosing Party shall disclose the following information to the researcher:

No identifiable personal health information will be disclosed to the researcher by TCSA / The disclosing party is allowing the researcher to conduct research with TCSA staff persons and on site at TCSA facilities. By interviewing TCSA staff and/or being present at TCSA facilities, the researchers may inadvertently become privy to personal health information of those receiving services from the TCSA.

Instructions: Insert description of information / data sets to be covered by this Agreement. List specific data (incl. format and type). Access will be allowed only to data identified here. Any changes or additions to this list after the agreement is signed must still fall within approved Research Ethics Committee proposal and should be made in writing and will require approval in written form.

4.2 The information will be collected during the following planned visits:

No identifiable personal health information will be disclosed to the researcher by TCSA / The disclosing party is allowing the researcher to conduct research with TCSA staff persons and on site at TCSA facilities. By interviewing TCSA staff and/or being present at TCSA facilities, the researchers may inadvertently become privy to personal health information of those receiving services from the TCSA.

Instructions: Describe if one-time only disclosure or ongoing disclosures. Include frequency of disclosures.

5. SECURITY AND CONFIDENTIALITY OF HEALTH INFORMATION

5.1 The disclosed health information will be transferred in a secure manner using the following method:

No personal health information will be transferred to the researcher by TCSA.

Instructions: Describe method of how the information will be shared, including e.g. electronically encrypted, using safe file transfer platforms etc.

5.2 The disclosed health information will be retained and stored by the researcher in a secure manner, using the following method(s):

No personal health information will be transferred to the researcher by TCSA.

Instructions: Describe method of how the information will be stored, e.g. electronically, encrypted / password protected, on secure network, in locked cabinet, etc. Include details on administrative, physical and technical safeguards, e.g. no generic accounts, use of passwords / passkeys, restricted drives. Specify if individual identifiers will be removed at the earliest reasonable time.

5.3 Any removal of individual identifiers will be done in a secure manner that protects against unauthorized data matching with other health information, which could lead to the identification of individuals the information is about.

5.4 The Researcher will not disclose or release information in a form that could reasonably be expected to identify an individual the disclosed health information is about.

5.5 The Researcher will as soon as reasonably possible return, dispose of, or destroy personal health information received from the Disclosing Party in such a way that unauthorized identification or re-identification is not possible.

5.6 The Researcher must comply with the Disclosing Party's standards, policies and procedures in respect of health information, privacy and confidentiality.

5.7 The Researcher is responsible for protecting the security, privacy and confidentiality of the disclosed health information against loss, theft, and unauthorized access, use, disclosure, and destruction, by maintaining safeguard measures proportionate to the threat to security and confidentiality, in accordance with the *Health Information Act*.

5.8 Apart from the Researcher, only the following persons will have access to the disclosed health information. By signing below, these named persons acknowledge they have read this Agreement and agree to comply with the *Health Information Act* and the terms and conditions set out in this Agreement.

Susan Chatwood
Name **Signature**

5.9 The Disclosing Party may determine it is necessary to carry out on-site visits and such other inspections that it deems necessary to ensure compliance with the conditions of this Agreement and applicable legislation. Such measures may include, but are not limited to:

a) on-site inspection of premises, databases, software and applications to confirm that stated safeguard measures are adequate and in effect;
b) receipt, upon request, of a copy of any written or published work based on research carried out under the terms of this Agreement;
c) written verification from the Researcher that the destruction of all information about identifiable individuals has been carried out according to this Agreement.

5.10 In the event the Disclosing Party suspects the Researcher may have failed to comply with a term or condition set out in this Agreement or may have failed to comply with section 81 of the *Health Information Act,* the Disclosing Party reserves the right to not disclose any further health information and/or demand the immediate return of previously disclosed health information, until such time as the Disclosing Party is satisfied the Researcher is in compliance with the above.

5.11 In the event of any privacy breach involving the loss, theft, or unauthorized access, use, disclosure, or destruction of the disclosed health information, the Researcher will immediately notify the Disclosing Party. The Disclosing Party is responsible for responding to the privacy breach.

5.12 The Researcher is familiar with section 192 of the *Health Information Act* and other applicable legislation setting out offences, and recognizes that upon being found guilty of an offence is liable upon summary conviction to punishment, including the possibility of fines and penalties.

5.13 The Researcher will ensure that all and any information related to the affairs of the Disclosing Party to which the Researcher becomes privy as a result of this Agreement, is confidential and will be treated as confidential during and after the term of this Agreement and shall not be divulged, released or published without prior written approval of the Disclosing Party.

6. LIMITATION OF LIABILITY AND INDEMNITY

6.2 The Disclosing Party, its servants and agents, shall not be liable to the Researcher, its officers, servants, or agents for any loss, damage or injury (including death) or for any loss or damages to the property of the Researcher, or property of others for which the Researcher is responsible, however arising or in any manner based upon, arising from or attributable to the performance of this Agreement; and the Researcher waives all rights and recourse against the Disclosing Party for any such loss, damage, or injury or lose or damage to the Researcher's property or property of others for which the Researcher s responsible.

6.3 The Researcher shall indemnify and hold harmless the Disclosing Party, officers, employees, servants and agents from and against all claims, actions, causes of action, demands, costs, losses, damages, expenses, suits or other proceedings brought or prosecuted in any manner based upon or related wholly or partially to the actions or omissions of the Researcher under this Agreement, provided that the claims, actions, causes of action, demands, costs, losses, damages, expenses, suits or other proceedings do not arise from the actions or omissions of the Disclosing Party or from the breach of any of the terms of this Agreement by the Disclosing Party.

7. TERM OF RESEARCH AGREEMENT

7.2 This Agreement shall come into effect on the day it is signed by the last Party to do so, and shall remain in effect for a period of 12 months.

8. TERMINATION

8.2 This Agreement may be terminated by the either Party by giving the other Party 30 days' notice in writing.

8.3 Upon termination of this Agreement by a Party, the Researcher shall immediately cease any activity specific to the disclosed health information and shall, as soon as reasonably possible and no later than ninety (90) days after termination, return, dispose of, or destroy the disclosed health information, including all copies.

9. NOTICE AND ADDRESS

9.2 In this Agreement, if any notice is required to be given by the Disclosing Party or the Researcher, it shall be in writing and deemed to have been received:

a) immediately, if delivered in person;
b) one day after transmittal, if sent by email or fax;
c) ten (10) days after mailing, if sent by registered mail;
to the following addresses:

To the Disclosing Party at:

Katie O'Beirne
Research Coordinator
Corporate Planning, Reporting and Evaluation
Department of Health and Social Services
Government of the Northwest Territories
Box 1320
Yellowknife, NT X1A 2L9
Email: HSS_Research@gov.nt.ca
Telephone: 867-767-9053 Ext.49054
Fax: 867-873-0484

Shannon Barnett-Aikman
Chief Executive Officer
Tlicho Community Services Agency
Government of the Northwest Territories
Bag #5
Behchokǫ, NT X0E 0Y0

To the Researcher at:

Name Katherine Fleury
Institution University of Alberta
Address 1104-9737 112 St. NW, Edmonton AB, T5K 1L3
Tel: 306-262-5828

10. AMENDING PROCEDURES

10.2 This Agreement may be amended on written agreement by the Parties.

10.3 Written approval from the Disclosing Party must be obtained prior to the transfer of this Agreement to another person, or a change in the access, collection, use or disclosure of the personal health information is implemented.

11. ASSIGNMENT

11.2 This Agreement may be assigned by the Disclosing Party and the assignee shall have all the rights and be subject to all the obligations of this Agreement in favour of or against the Disclosing Party. Notice of the assignment will be given in writing to the Researcher.

12. COUNTERPARTS

12.2 This Agreement may be signed in counterparts and each counterpart shall constitute an original.

13. CHOICE OF LAW

14.1 This Agreement shall be interpreted and governed by the laws of the Northwest Territories and Canada, and enforced in the courts of the Northwest Territories.

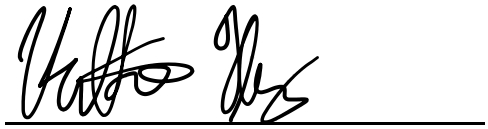
IN WITNESS WHEREOF this Agreement has been signed on behalf of the Disclosing Party by:

Shannon Barnett-Aikman, CEO

Witness

January 11, 2021
Date

IN WITNESS WHEREOF this Agreement has been signed on behalf of the Researcher by:



Katherine Fleury

Witness

Jan. 11, 2021

Date

SCHEDULE A

Provide a copy of the research proposal along with research ethics committee approval, interview guide and other relevant documents.

Research Proposal	p.
Research License	p.
Research Ethics Committee Letter of Approval	p.
Sharing Circle Questions	p.

Appendix D: Interview Guide for those involved in policy and program implementation

Interview questions for those involved in policy/decision making

Template: Women's College Hospital Wholistic Framework for Safe Wellness (Connecting the Essentials) available at: https://www.womenscollegehospital.ca/research,-education-and-innovation/indigenous-wellbeing-in-the-times-of-covid-19

Preamble:

- I want to start by saying thank you for participating in this project. This work will help build better Indigenous health policy and will support my masters thesis.
- The purpose of this project is to talk to people about what it has been like to live through the COVID-19 pandemic in the Tłı̨chǫ region. We'd like to hear from you about what the experience has been like being involved in the different programs that the community has put in place as well as your experience with COVID-19 restrictions.
- The study will provide knowledge that will impact Indigenous and public legislation, policy creation, and program and service delivery.
- Our interview is expected to last ~60 minutes and you may stop it at any time without consequence. If you choose to stop you may ask that the recordings and notes from the conversation be erased.
- With your permission, I'd like to record our conversation so I can remember all the thing you tell me. Your name will not be shared or linked to any information, meaning it is anonymous.
- I am very greatful for your openness to talk to me about what life has been like during the pandemic and the role you played in the community response. I would like to ask you some questions about how information and guidelines were built and disseminated, how spiritual and traditional practices were impacted, steps taken to ensure health and safety, and what collaboration was like with the GNWT.
- If I ask you anything that makes you feel uncomfortable or upset, or that you'd rather not answer, you can just pass or not answer. Also, if you need to take a break at any time, please just tell me.
- Do you have any questions?

Transition: I'd first like to talk to you about the types of information that has been communicated within the region, specifically aspects related to physical distancing and staying healthy.

Body: includes handwashing, cleaning, disinfecting, fostering spiritual and cultural practices at home, physical distancing and self-isolating while staying connected, susceptibility, symptoms, treatment

- What do you remember from when you first heard about the pandemic? What did you think was going to happen?
- How was information about public health guidelines and pandemic response shared with the public and organizations in NWT and Tłı̨chǫ communities?
    - E.g radio,Facebook, government websites, other?
- How well did community uptake of policy/restrictions occur?
- What strategies are in place to engage and involve community members in priority setting?
- I know there are an array of programs that have been developed and implemented in Tłı̨chǫ communities. What role did you play in these programs (and which ones)? Who monitors them?

Transition: I'd now like to talk about how spiritual or traditional practices have been affected in the past 8 months.

Spirit: includes preserving spiritual connections, ceremony, traditional teachings and medicines, tending the family fire, wholistic and healthy practices

- What role did traditional practices or activities play in the pandemic response?
- What guidelines or instructions were given about traditional medicine and teachings during the pandemic? What advice or guidelines were given in related to hunting and or being on the land?
- What role did indigenous traditional practices and community-based programs have in the development of pandemic responses? (TG and GWNT)
- How have funeral arrangements been impacted due to COVID-19? How were these changes decided upon, and have they been difficult to enforce?
    - Prompt: feelings around creating policy that is very restrictive

Transition: The next thing I would like to discuss is how the community has worked to keep community members safe from COVID.

Heart: includes nurturing wellbeing, safety, and security, four stages of life care. Prenatal and child-care, self, family and community care, protecting our elders and our youth

- What steps were taken to protect elders, youth and children in the region?
- Many of the current territorial and federal policies revolved around defense – i.e how to avoid getting COVID. What type of offensive strategy is in place in the event of an outbreak?
    - For example, What considerations were made to deal with housing and quarantine/isolation in the case of an outbreak?
    - What is the testing capacity like in the community?
- How were virtual health services (e.g. telephone or video call) used? What feedback did you hear from communities about access to health care during the pandemic?
- How have regular health services been affected?
- There has been a lot of recent news about potential vaccines for COVID. Have there been any discussions regarding how the vaccine will be disseminated in the community?
    - For example, I know the TCSA has been offering in-home flu shots and flu clinics. Would this strategy also be utilized for a COVID-19 vaccine?
    - What is community uptake for vaccines generally like?
    - What information do people in the community need to know about the COVID-19 vaccine to decide about whether it is right for them?
- A lot of the news about the pandemic has come from the south of Canada and major cities, where the number of people getting sick continues to grow. How has geographic isolation influenced COVID-19 responses in the North? How has it made things more difficult? How has it helped?
    - (E.g include quarantine measures, testing capability, medical transport, potential restriction of freedom of movement on Indigenous communities)
- What was the impact of CERB funding in the community?
    - E.g. funding uses and misuses, changes for elders who are used to being paid as traditional knowledge keepers

Transition: I would like to ask you a few questions about the implications of pandemic responses in the community and how they may have impacted mental health.

Mind: includes noticing what is nourishing, tolerating uncertainty, managing conflicting worldviews, assessment, risk, and prevention

- How were community concerns identified and addressed?
    - E.g. What ways were community members able to provide feedback or share concerns about public health guidelines?
- What were the most challenging restrictions or guidelines to implement for you personally? What concerns did you have about the precautions?
- What role did mental health support or care have in the pandemic response?

Transition: Finally, I would like to talk about some other aspects of policy and program development that has resulted from COVID.

Other: including health communication, workforce/workplace capacity, # of cases/ testing, economic protections and self determination

- What has your experience been like working with GNWT colleagues related to pandemic response?
- How did priorities and roles differ between TG and GNWT in pandemic response?
- What ways did community leaders and TG or TCSA provide input into territorial response?
- What unintended or secondary consequences did you observe with regards to the pandemic response policies?
    - E.g have there been any discriminatory effects observed?

Appendix E: Interview Guide for Community members

Interview questions and guide for community members/Elders

Template: Women's College Hospital Wholistic Framework for Safe Wellness (Connecting the Essentials) available at: https://www.womenscollegehospital.ca/research,-education-and-innovation/indigenous-wellbeing-in-the-times-of-covid-19

Preamble:

- I want to start by saying thank you for participating in this project. This work will help build better Indigenous health policy and my masters thesis.
- The purpose of this project is to talk to people about what it has been like to live through the COVID-19 pandemic in the Tłı̨chǫ region. We'd like to hear from you about what your experience has been like, how the changes have impacted you, and what things that have been done have been most helpful to get you through this difficult time. Our team's hope is that by talking to people in this community and others, we can better understand what made a positive difference for people, and what made life harder.
- Our conversation will take about ~60 minutes. If at anytime you decide that you don't want to continue, we can stop. If you change your mind about being involved in the project, you can ask me to erase the recording and notes about our conversation.
- With your permission, I'd like to record our conversation so I can remember all the thing you tell me. But, I will make sure that any information I share with others on our team or in our final report, won't include your name. This means it will be anonymous.
- I am grateful for your openness to talk to me about what life has been like in your community this year. I'd like to ask you questions about the pandemic and how it has impacted different parts of your life, like your relationships, your cultural or spiritual practices, and how you spend your time. Some questions may bring up emotions, and if I ask you anything that makes you feel uncomfortable or upset, or that you'd rather not answer, you can just pass or not answer. Also, if you need to take a break at any time, please just tell me.
- Do you have any questions?

Transition: I'd first like to talk to you about the types of information that you have been hearing since the pandemic started, especially anything related to physical distancing and staying healthy.

Body: includes handwashing, cleaning, disinfecting, fostering spiritual and cultural practices at home, physical distancing and self-isolating while staying connected, susceptibility, symptoms, treatment

- What do you remember from when you first heard about the pandemic? What did you think was going to happen?
    - E.g the first changes they noticed/mood around town
- What have been some of the challenges for the community in dealing with the restrictions?
    - Which public health guidelines were the most difficult to follow for people in the community or you personally?
- Where did you get information from regarding public health measures that were put in place in response to the pandemic? What about news about the pandemic in general?
    - E.g. the radio, Facebook, government websites, other
    - Was information available in the Tłı̨chǫ language?
- What people/sources did you trust the most for pandemic information?
- What has it been like for you to hear the warnings and instructions from community leaders and public health officials?
    - Do they make you worry? How serious do you feel the warnings have been?
- When you weren't sure about a public health guideline or restriction, who did you turn to for help?
- What role did community members have in planning the COVID-19 response?

Transition: I'd now like to talk about how you practiced any spiritual connections throughout the past 8 months.

Spirit: includes preserving spiritual connections, ceremony, traditional teachings and medicines, tending the family fire, wholistic and healthy practices

- What guidelines or instructions were given about traditional medicine and teachings during the pandemic? What advice or guidelines were given in related to hunting and or being on the land?
- Did you participate in a land-based program or go out on the land in response to COVID?
- How did COVID-19 pandemic responses effect any spiritual practices you might have? How did you continue them? Who were the people who supported you spiritually?
    - For example, how did the cancellation of church services impact you? How did the pause on the Feeding the Fire program impact you?
- Something a lot of people noticed was that funerals have had to change a lot this year. Would it be okay if I asked you about funerals?
    - What has it been like in the community when there has been a death?. What changes to funerals have been the most noticeable?
        - E.g. as a place for elders to gather

Transition: The next thing I would like to discuss is how the community has worked to keep community members safe from COVID.

Heart: includes nurturing wellbeing, safety, and security, four stages of life care. Prenatal and child-care, self, family and community care, protecting our elders and our youth

- What ways did the TG. TCSA, and GNWT work to make sure that Elders and children were safe and protected from the virus?
- How prepared do you feel the community is if an outbreak were to happen in your community?
    - For example, where would people quarantine?
- Since the pandemic started, a lot of doctor's appointments have been by phone or video. What do people in the community think about this way of having an appointment?
- Some appointments continued in person. If you had an appointment for any health-related condition, what felt different about accessing your appointment compared to non-covid times? What has it been like for people who have had to travel for medical appointments, especially down south?
- A lot of the news about the pandemic has come from the south of Canada and from cities, where the number of people getting sick continues to grow. How has the pandemic been different in the north? How has being far away from southern Canada made responding to the pandemic been diferent? (E.g include quarantine measures, testing capability, medical transport, potential restriction of freedom of movement on Indigenous communities)
    - Have you had to undergo a mandatory isolation after travel to the south?
        - What was that experience like? What was the food and accommodations like? How did you pass the time? Where did you isolate? What impact did it have on you?
- What was the impact of CERB funding in the community?
- There has been a lot of recent news about working on vaccines for COVID-19. How will people in the community respond when they are offered a vaccine? Do you plan to get the vaccine once it is available? Why or why not? What information do people in the community need to know about the COVID-19 vaccine to decide about whether it is right for them?

Transition: I would like to ask you a few questions about pandemic responses in the community and any programs you have used.

Mind: includes noticing what is nourishing, tolerating uncertainty, managing conflicting worldviews, assessment, risk, and prevention

- What were the most helpful programs or services in the community during the pandemic?
    - E.g. hamper care packages, on the land assistance, emergency assistance, elder calls, resources for daycare families, Tłı̨chǫ Dǫtaàts'eedı, elder activity packages, mask making
- How do people in the community share their concerns about the pandemic or public health guidelines?
    - E.g. Facebook
- I would like to ask you some questions about mental health. Are you okay with this?
    - How has COVID-19 impacted your mental health – and your family's mental health? After all this time and with so many changes that have happened, how are people in the community feeling this days? What are they major concerns or trouble you hear about.

Thank you!

Appendix F: Consent form

Information sheet and consent form

Study Title: Policy vs Practice: Perceptions and Implications of COVID 19 Responses in the Northwest Territories

Research Investigator:
Katherine Fleury
kefleury@ualberta.ca
306-262-5828

Supervisor:
Dr. Susan Chatwood
3-279 Edmonton Clinic Health Academy
11405 - 87 Ave NW
Edmonton AB, T6G 1C9
chatwood@ualberta.ca
780-492-9335

Background:

- We are inviting you to participate in the above-mentioned project. The researchers are conducting this project in response to a call made by the Canadian Institute of Health Research to support the health of Indigenous Peoples and inform culturally safe healthcare policies that have arisen due to the COVID-19 pandemic.
- The results of this study will be used in support of Katherine Fleury's master's thesis in partial fulfillment of the requirements for the degree of Master of Science in Health Policy Research.
- Before you make a decision, one of the researchers will go over this form with you. You are encouraged to ask questions if you feel anything needs to be made clearer. You will get a copy of this form for your records.

Study purpose: This study aims to support evidence-informed policy changes in the future by identifying responses to COVID-19 and the processes through which they were created in Canada's Northwest Territories. We must understand how COVID-19 has impacted community stakeholders and the values they hold. This project will seek to highlight the understanding of COVID-19 responses in the Tłı̨chǫ region and provide knowledge that will impact Indigenous and public legislation, policy creation, and program and service delivery.

Study Procedures: We are asking you to participate in a one-on-one interview to provide perspectives on your experience and views of COVID-19 health policy responses and program changes. Each interview will be conducted with the PI and will comply with all public health measures outlined in the Emerging Wisely plan. With your permission, the sessions will be audio-recorded. In the instance of an outbreak or other health-related circumstance, we will use the video messaging platform Zoom, and with your permission, will be video-recorded. Any participant with whom a virtual interview is conducted may turn off their camera at any point. The interviews will be conducted in English and take approximately 60 minutes of your time. Member checking will occur virtually over Zoom after the researchers completes initial data analysis. Member checking will entail response verification; the researcher will relay summarized data and preliminary results to the participants to check for accuracy and validity. These Zoom sessions will be recorded and are expected to last 60 minutes.

Benefits: The study will not have an immediate benefit to the participants other than providing them with an opportunity to reflect on their experience. However, the results of the study will generate knowledge that will provide tools and approaches to improve emergency preparedness measures within your community.

Risks: There are no major risks, discomforts, or inconveniences expected. Some participants may be concerned about the time required to take part in a qualitative interview. Some may be concerned about expressing negative views etc. The investigators will minimize these risks by ensuring that your participation in this research project remains confidential, anonymous, and completely voluntary. If you decide to withdraw before or during the course of the interview, you are free to do so.

The risks associated with COVID-19 will be mitigated through thorough public health safety measures. In compliance with the Emerging Wisely plan, Katherine Fleury will quarantine for 14 days in Yellowknife prior to beginning the study. All participants will be physically distanced from one another at six feet apart. Sanitizer will be provided, and participants will be asked to sanitize their hands before and after leaving the circle. All seats will be sanitized between participant sessions. The use of masks will be encouraged though is not mandatory.

Reimbursement or Remuneration:
Research participation from Tłı̨chǫ Government and Tłı̨chǫ Community Service Agency staff is voluntary and thus no reimbursement will be issued.
Participants identified as key community members will be offered a $50 gift card to NorthMart for their participation.
Participants who are identified as Elders and Indigenous Knowledge holders will be compensated according to the payment schedule outlined by the Government of the NWT, at a rate of $250/day. This amount reflects the advisory role that Elders and Indigenous knowledge holders have when involved in health research projects in the NWT.

Voluntary Participation: You are under no obligation to participate. If you choose to participate, you can withdraw from the study for any reason without consequences. You may withdraw at any time during the data collection phase. If you choose to withdraw after the interviews are complete, you must do so within two weeks post data transcription. If you choose to withdraw from the study, you may request that all data gathered until the time of your withdrawal be destroyed.

Confidentiality and Anonymity:
The researchers will keep all information collected (consent forms, audiotapes, interview transcripts, notes) on a password-protected computer. Any back-up media used (e.g. memory sticks) will be password protected and kept in a locked cabinet before destruction. Audio files, video files, and back-up media will also be encrypted. Zoom recordings will be stored on the PI's password protected computer and not in the Zoom cloud. The names of participants of organizations will not be recorded with responses or identified in any way. Each participant will be assigned a unique identification number. A master list linking identification numbers with participant names and contact information will be stored separately and securely from other data.

Audio files will be initially transcribed with the use of Otter.ai software. Otter.ai houses its data on U.S-based servers and thus Otter.ai data is subject to the US Patriot act. Otter.ai does not share data with any third party except for lawful requests. Segments of audio files may be used to train their technology but cannot be manually transcribed without consent.
Transcripts or computer databases may be sent electronically via e-mail to the project supervisor. Emails will be stored on password-protected computers. Transcripts and databases will contain no identifiable characteristics, and files will be both encrypted and password-protected before they are e-mailed. Participants' identities will not be revealed in any data shared.

Data will be used in the Principal Investigator's thesis in partial fulfillment of the requirements for the degree of Master of Science in Health Policy Research. Compiled data will be analyzed to inform the Tłı̨chǫ Government and the Tłı̨chǫ Community Services Agency stakeholders in a knowledge translation workshop that is part of a larger research initiative entitled "Banned from our Land: cultural survival, identity, and health adaptation in the face of environmental loss and change". This overarching project is being overseen by the Dedats'eetsaa: the Tłı̨chǫ Research & Training Institute.

Conservation of data:
All electronic data will be deleted from password-protected computers 5 years following study completion, including transcripts and master-list identifiers. Audio files will be deleted five years following transcription. Consent forms will be retained for as long as data is retained and will be destroyed when electronic data is deleted.

For more information:
If you have any other questions or require more information about the study itself, please contact the project lead: Katherine Fleury, kefleury@ualberta.ca
If you have any questions regarding the ethical conduct of this study, you may contact the University of Alberta, Office of Research Ethics:

Phone: 780-492-2615
Email: reoffice@ualberta.ca
https://www.ualberta.ca/research/research-support/research-ethics-office/contact.html

Consent Statement:
I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I agree to participate in the research study described above and will receive a copy of this consent form. I will receive a copy of this consent form after I sign it.

I (please print your name) _____, agree to participate in the above-mentioned study Policy vs Practice: Perceptions and Implications off COVID 19 Responses in the Northwest Territories

I agree to be audio-taped. Yes_____ No_____

Please initial one of the following:
I agree to be quoted but all personally-identifying information shall be removed to protect my anonymity _____
I do not agree to be quoted at all _____

Your signature in this form indicates that you have understood to your satisfaction the information regarding your participation in the research project and agree to participate. In no way does this waive your legal rights nor release the investigators, or resolved institutions from their legal and professional responsibilities.

Participant signature: _____ Date: _____

Participant contact information:
Tel: _____ Fax: _____
E-Mail: _____

Mailing address:
_____
_____
_____

Please fill out the above sections and EMAIL this page to:

Katherine Fleury
M.Sc. Student, School of Public Health
University of Alberta
kefleury@ualberta.ca

Phone (306) 262-5828

Pro00105223
version date Dec.1st 2020

Appendix G: Workshop Agenda

Indigenous governance in health care and health systems: Applying Lessons Learned and Best Practices in the Tłı̨chǫ region

Background

The workshop is a collaboration between the Tłı̨chǫ Government, Tłı̨chǫ Community Services Agency, University of Alberta's School of Public Health, and the North American Observatory on Health Systems and Policies. This event will bring together community and health policy leaders, Indigenous government representatives from across Canada, and invited guests from the US, Norway and Greenland. Participants will share their experiences designing and implementing agreements and policies that support Indigenous self-determination and governance in health care, and will provide a forum to discuss opportunities for applying lessons learned and best practices in the Tłı̨chǫ territory.

AGENDA

Day 1: Monday, January 25, 2021, 9:00am – 12:00 pm MT

9:00am	Welcome and overview
9:45am	Introductions
10:30am	Break
10:45am	Overview of Health and Social Services Systems in Tłı̨chǫ territory
11:15am	Facilitated Discussion
11:45am	Summary and closing

Day 2: Tuesday, January 26, 2021, 9:00am _ 12:00 pm MT

9:00am	Welcome
9:30am	Panel #1: Models of Indigenous Health System Governance in Canada
10:30am	Break
10:45am	Panel #2: Sharing Experiences of Self-Determination in Health Care
11:45am	Summary and closing

Day 3: Monday, February 8, 2021, 9:00am _ 12:00 pm MT

9:00am	Welcome
9:30am	Panel #3: Circumpolar Perspectives on Indigenous Health Systems
10:30am	Break
10:45am	Facilitated Discussion
11:45am	Summary and closing

Day 4: Tuesday, February 9, 2021, 9:00am – 12:00 pm MT

9:00am	Welcome
9:15am	Panel #4: COVID-19 and the pandemic response in Tłı̨chǫ territory
10:30am	Break
10:45am	Facilitated Discussion
11:45am	Summary and closing

Appendix H: Jurisdictional Scan of Northern Indigenous Health Policy Response to COVID-19

Data is accessible via the following link:
https://docs.google.com/document/d/1MPXwuYx8IYkaaVQMyTkSz7f5z5swKrmd-hUUYHd8Ol0/edit?usp=sharing