



National Collaborating Centre
for Indigenous Health

Centre de collaboration nationale
de la santé autochtone



National Collaborating Centre
for Methods and Tools

Centre de collaboration nationale
des méthodes et outils



School of Nursing



Rapid Review: What factors may help protect Indigenous peoples and communities in Canada and internationally from the COVID-19 pandemic and its impacts?



Prepared by: The National Collaborating Centre for Methods and Tools and The National Collaborating Centre for Indigenous Health

Date: October 16, 2020

Suggested Citation:

National Collaborating Centre for Methods and Tools & National Collaborating Centre for Indigenous Health. (2020, October 16). *Rapid Review: What factors may help protect Indigenous peoples and communities in Canada and internationally from the COVID-19 pandemic and its impacts?* <https://www.nccmt.ca/knowledge-repositories/covid-19-rapid-evidence-service>.

Please Note: An update of this review may be available. Access the most current version of this review by visiting the National Collaborating Centre for Methods and Tools COVID-19 Rapid Evidence Service at the above link.

© 2020. National Collaborating Centre for Methods and Tools, McMaster University. All rights reserved. The National Collaborating Centre for Methods and Tools (NCCMT) is hosted by McMaster University and funded by the Public Health Agency of Canada. The views expressed herein do not necessarily represent the views of the Public Health Agency of Canada.

This Rapid Review is for general information purposes only. The information provided in this Rapid Review is provided “as is” and McMaster University makes no warranties, promises and/or representations of any kind, expressed or implied, as to the nature, standard, accuracy, completeness, reliability or otherwise of the information provided in this Rapid Review, nor to the suitability or otherwise of the information to your particular circumstances. McMaster University does not accept any responsibility or liability for the accuracy, content, completeness, legality, reliability or use of the information contained in this Rapid Review.

The authors declare they have no conflicts of interest to report.

October 16, 2020

Executive Summary

Background

The COVID-19 pandemic has exacerbated pervasive socio-economic and health inequities, creating challenges for Indigenous peoples and communities in Canada¹ and around the world. Indigenous peoples and communities are responding to COVID-19 using practices, knowledges and assets that may provide some protection from the pandemic and its impacts.

This rapid review was produced to support public health decision makers' response to the coronavirus disease 2019 (COVID-19) pandemic. This review identifies, appraises, and summarizes emerging evidence to support evidence-informed decision making.

This rapid review includes evidence available up to October 8, 2020 to answer the question: **What factors may help protect Indigenous peoples and communities in Canada and internationally from the COVID-19 pandemic and its impacts?**

Key Points

- Indigenous peoples and communities have experience with pandemics and disease outbreaks and have learned effective ways of responding and protecting family and community members, despite socio-economic challenges and pervasive inequities resulting from historic and ongoing colonization.
- Indigenous peoples and communities in Canada and internationally draw on community strengths and protective factors to reduce the risk of COVID-19 outbreaks and impacts. Indigenous community resilience in the face of the COVID-19 pandemic is exemplified through many factors, most of which can be found across evidence from Canada and the USA, Australia, New Zealand and other international jurisdictions. Prominent protective factors (described in more detail under Overview of Evidence) include:
 - Community strengths
 - Indigenous knowledges and practices
 - Caring for family and community members
 - Community-centred communication
 - Community-driven and controlled public health measures

Overview of Evidence and Knowledge Gaps

- Protective factors are multifaceted and likely work in combination. The identification of specific factors in this review is not meant to suggest that they operate independently from other community assets and actions.
- The specific relationships between certain protective factors and COVID-19 outcomes remain under-explored in the research literature. Most of the available evidence is of moderate quality, in the form of published expert opinion or grey literature sources. Sources that describe and analyze the effectiveness of the protective factors to influence COVID-19-related outcomes would add to the knowledge base in this field.

¹ In Canada the term 'Indigenous' is a collective term used to refer to the original inhabitants of Canada and their descendants, including First Nations, Inuit and Metis peoples as defined under Section 35 of the Canadian Constitution of 1982.
October 16, 2020

- Specific protective factors include:
 - Community strengths
 - Community leadership, in roles as advocates, trusted messengers and coordinators.
 - Self-determination and community autonomy, as a basis for community decision-making about appropriate ways to share messages and implement protective practices.
 - Elder and youth engagement in decision making and communication.
 - Working with chosen partners, including health services and governments, to ensure appropriate care, provide access to protective equipment and resources, and to address inequities.
 - Data sovereignty, to oversee the collection and uses of relevant, community owned and controlled data for decision-making during the pandemic.
 - Indigenous workforce development and deployment.
 - Humour as a way of managing distress and delivering communication about the pandemic.
 - Indigenous knowledges and practices
 - Indigenous knowledges and practices (e.g., ceremonies and protocols) are protective. Distanced and virtual approaches are being explored in creative ways.
 - Traditional medicines continue to be used to maintain health.
 - Food sharing, gardening, hunting, harvesting and protection of food sources is critical for Indigenous communities.
 - Traditional arts and dance are used for healing and community expression.
 - Caring for family and community members
 - Caring for family and community members, including special attention for Elders, children, those with underlying health concerns and those isolating or quarantining, using kinship practices and traditional ways of caring, delivered through distanced and sometimes virtual means.
 - Community-centred communication
 - Consistent, culturally relevant public health messaging developed in and with communities and delivered in community languages by trusted leaders and health professionals.
 - Community-driven and controlled public health measures
 - Isolation is a traditional practice for some Indigenous communities that has increased relevance in response to the pandemic.
 - Rules on community entry, checkpoints, roadblocks, travel restrictions and curfews have been employed through community coordination to maintain boundaries against transmission of COVID-19.
 - Contact tracing has been facilitated, when required, through community connections.
 - Places and spaces provide the space for individuals to self-isolate by living on the land and/or a place for trailers or housing within a community for people who are isolating.

Methods

Research Question

What factors may help protect Indigenous peoples and communities in Canada and internationally from the COVID-19 pandemic and its impacts?

Search

On October 8, 2020, the following databases were searched using key terms “Indigenous”, “Inuit”, “Métis”, “First Nations”, “Native”, “Aboriginal”, “American Indian”, “Alaskan Native” and “Maori”:

- Pubmed’s curated COVID-19 literature hub: [LitCovid](#)
- [Trip Medical Database](#)
- World Health Organization’s [Global literature on coronavirus disease](#)
- [COVID-19 Evidence Alerts](#) from McMaster PLUS™
- [Public Health +](#)
- [COVID-19 Living Overview of the Evidence \(L·OVE\)](#)
- [McMaster Health Forum](#)
- Cochrane Rapid Reviews [Question Bank](#)
- [Prospero Registry of Systematic Reviews](#)
- NCCMT [COVID-19 Rapid Evidence Reviews](#)
- [MedRxiv preprint server](#)
- NCCIH [Updates on COVID-19](#)
- NCCDH [Equity-informed Responses to COVID-19](#)
- NCCEH [Environmental Health Resources for the COVID-19 Pandemic](#)
- NCCHPP [Public Health Ethics and COVID-19](#)
- NCCID [Public Health Quick Links](#)
- NCCID [Disease Debrief](#)
- [Institute national d’excellence en santé et en services sociaux \(INESSS\)](#)
- [COVID-19 and Mental Health \(CMH\) Initiative](#)
- [Public Health Ontario](#)

A copy of the full search strategy is available at this [link](#).

In addition to the databases searched above, a list of evidence sources curated by the National Collaborating Centre for Indigenous Health (NCCIH) was screened for inclusion. This curated resource list was generated through the NCCIH’s search of webpages for relevant organizations and search for grey literature using the terms “COVID-19”, “Indigenous” and “resilience”.

Study Selection Criteria

The search results were first screened for recent guidelines and syntheses. Single studies and expert opinion sources were included if no syntheses were available. English-language, peer-reviewed sources and sources published ahead-of-print before peer review were included. Expert opinion sources were included as relevant to the question. Surveillance sources were excluded. Audio sources, such as podcasts and webinar recordings, were excluded.

	Inclusion Criteria	Exclusion Criteria
Population	Indigenous populations from any country	
Intervention	Protective factors, strengths, resiliency	Sources limited in focus to deficits, risks, concerns
Comparisons	-	
Outcomes	COVID-19 outbreaks and disease outcomes	

Data Extraction and Synthesis

Data relevant to the research question, such as study design, setting, location, population characteristics, interventions or exposure and outcomes were extracted when reported. We synthesized the results narratively due to the variation in methodology and outcomes for the included studies.

Appraisal of Evidence Quality

We evaluated the quality of included published and submitted research evidence using critical appraisal tools as indicated by the study design below. Sources of any design that drew on expert opinion for their presentation of protective factors were appraised using the JBI Text and Opinion tool, with modifications described below.

Study Design	Critical Appraisal Tool
Expert Opinion	Joanna Briggs Institute (JBI) Checklist for Text and Opinion
Qualitative	Joanna Briggs Institute (JBI) Checklist for Qualitative Research

Quality assessment was completed by one reviewer and verified by a second reviewer. Conflicts were resolved through discussion.

NCCIH identified most of the grey literature sources from their COVID-19-related database, with credibility of these sources identified at time of entry into the database. As such, grey literature sources were not critically appraised for this rapid review.

We adapted the JBI Text and Opinion tool for this review to reflect that the 'field of expertise' is knowledge of Indigenous peoples/community and the 'affiliations of interest' include affiliation with Indigenous peoples and community. Although this tool has been adapted to better reflect elements of knowledge relevant to Indigenous peoples, it is important to note that the tool is situated in a Eurocentric paradigm that does not necessarily reflect Indigenous knowledges and community experiences. Specific modifications to certain questions within the tool are noted below.

5. Is there reference to the extant literature and/or to Indigenous knowledges and/or other community-based evidence or knowledge?

If there is reference to the extant literature/knowledges, is it inclusive of or representative of community experiences, or is it a non-critical description of content specifically supportive of the line of argument being put forward? These considerations will highlight the robustness of how cited literature/Indigenous knowledges were managed. If there is no reference to Indigenous knowledges and/or other community-based evidence or knowledge, answer no.

6. Is any incongruence with the literature/sources logically defended?

Does the author(s)' perspective(s) align with the Indigenous knowledges/community-based evidence they provided? Is the author(s)' experience(s) and position clear? Is there any reference provided in the text to ascertain if the opinion expressed has wider community support? Consider also if the author demonstrated awareness of alternate or dominant opinions in the literature and how it relates to other or similar discourses. If the author differs from literature, Indigenous knowledges, or other cited evidence, but does not explain why, answer no.

Completed quality assessments for each included study are available on request.

Findings

Summary of Evidence Quality

This document includes one single study, 18 expert opinion sources and 22 grey literature sources, for a total of 41 publications included in this review. The overall quality of evidence is summarized below.

	Total	Quality of Evidence
Single studies	1	Moderate
Expert opinion sources	18	4 High 9 Moderate 5 Low
Grey literature	22	Not appraised

Warning

Given the need to make emerging COVID-19 evidence quickly available, many emerging studies have not been peer reviewed. As such, we advise caution when using and interpreting the evidence included in this rapid review. Where possible, make decisions using the highest quality evidence available.

Table 1: Single Studies

Reference	Date Released	Study Design	Population	Setting	Summary of findings	Quality Rating:
Iwuoha, V.C. & Aniche, E.T. (2020). Covid-19 lockdown and physical distancing policies are elitist: towards an indigenous (Afro-centred) approach to containing the pandemic in sub-urban slums in Nigeria . <i>Local Environment</i> , 25(8), 631-640.	Aug 5, 2020	Qualitative Descriptive	Low-income workers and households in suburban slums	Nigeria	<p>This article presents reasons for which lockdown and physical distancing are not productive in preventing COVID-19 transmission in Nigeria and calls for an Indigenous Afro-centred approach.</p> <p>The authors also highlight traditional Indigenous herbal mixtures for prevention and treatment of COVID-19 and recommends that these remedies be validated and encouraged.</p>	Moderate

Table 2: Expert Opinion

Reference	Date Released	Population	Setting	Summary of findings	Quality Rating:
Moodie, N., Ward, J., Dudgeon, P., Adams, K., Altman, J., Casey, D., ... Yap, M. (2020). Roadmap to recovery: Reporting on a research taskforce supporting Indigenous responses to COVID-19 in Australia. <i>Australian Journal of Social Issues</i> . Epub ahead of print.	Sep 22, 2020	Aboriginal and Torres Strait Islander communities	Australia	<p>Four key recommendations were made specific to the needs of Aboriginal and Torres Strait Islander peoples and their communities. These recommendations included:</p> <ul style="list-style-type: none"> • Self-determination and coordination as key attributes of the success of the COVID-19 Indigenous response. This includes use of local task groups that developed local and culturally relevant response plans that included protective activities such as prohibiting access permits for non-essential travel, social distancing messages, local, community developed preparedness plans, travel restrictions, mental health supports and use of isolation facilities where housing stock was limited. • Equitable needs-based funding to support local/community-based responses to the pandemic. This includes collaboration between governments and the Indigenous community health sector and recognition of the need for sustainable funding to Indigenous organizations. Of immediate importance is access to housing. • COVID-19 Indigenous data sovereignty principles to support data sharing and decision making • Workforce review and development (increasing and retaining Indigenous health practitioners, upscaling of Indigenous public health and infectious disease expertise and surge planning. 	High
Akuhata-Huntington, Z., Foster, S., Gillon, A., Merito, M., Oliver, L. Parata, N., ... Naepi, S. (2020). COVID-19 and Indigenous resilience. <i>Higher Education Research & Development</i> . Epub ahead of print.	Sep 22, 2020	Māori	Aotearoa New Zealand	<p>This report highlights the challenges of Indigenous students at the personal, institutional and national level. It highlights protective measures utilized to build resilience including:</p> <ul style="list-style-type: none"> • Online/virtual meetings to share and provide support • Seeking of support from colleagues, supervisors and peers • Providing support to communities with clarity, and empathy • Care packages to support community members with correct supplies • Creation of check-points within communities • Shift to the “digital sphere” to stay connected with communities 	Moderate

Richardson, L. & Crawford, A. COVID-19 and the decolonization of Indigenous public health . <i>Canadian Medical Association Journal</i> , 192(38), E1098-1100.	Sep 21, 2020	Indigenous peoples	Canada	<p>Indigenous self-determination, leadership and knowledge have been successful in protecting Indigenous communities in Canada during the COVID-19 pandemic. Examples of protective measures implemented include:</p> <ul style="list-style-type: none"> • Articulating and enforcing rules on who can enter their communities • Strict measures on closures and checkpoints • Indigenous-specific COVID data with clear data sovereignty agreements related to access, control, ownership and possession of data. <p>Indigenous public health must be self-determined, adapted for the needs of specific nations and grounded in local Indigenous language, culture and ways of knowing; developed, implemented and led by Indigenous peoples and informed by ongoing monitoring of data as governed by appropriate data sovereignty agreements.</p>	Moderate
Saini, A. (2020). The Bru redemption: group work during the covid-19 pandemic in an internally displaced people's relief camp in Tripura, India . <i>Social Work with Groups</i> . Epub ahead of print.	Sep 18, 2020	Bru people	Ashapara, India	<p>This study reports on how displaced Indigenous people in a makeshift relief camp protected their members from COVID-19. Factors that were identified as contributing to positive outcomes included:</p> <ul style="list-style-type: none"> • Organization of a task group to coordinate and provide education, support, and supplies (clean water, firewood, and food) to the community consistently • Cooperation and community goal setting • Access to government support: relief rations/cash dole • Consistent communication strategies and messaging (including messaging to counter rumors and superstition) • Places to isolate • Psychosocial factors (resilience, enhancing dignity, trust-building) 	Low
The Lancet Diabetes & Endocrinology. (2020). Indigenous peoples: resilience in the face of adversity . <i>The Lancet Diabetes & Endocrinology</i> , 8(9), P731.	Sep 1, 2020	Indigenous peoples	Global	<p>This editorial highlights the successful strategies that Indigenous peoples all over the world have implemented to prevent the spread of COVID-19 in their communities and resilience in the face of the grave threat of COVID-19. Examples include closing borders, imposing curfews, testing, making face masks, providing sanitation, and providing education in local languages.</p>	Low

Saini, A. (2020). “A stitch in time”: group work during the covid-19 scare in the Nicobar Islands, India. Social Work with Groups. Epub ahead of print.	Aug 26, 2020	Nicobarese	Nicobar Islands, India	<p>This study reports on how the tribespeople of the isolated Nicobarese archipelago protected their communities from COVID-19. Factors that were identified as contributing to positive outcomes included:</p> <ul style="list-style-type: none"> • Natural protection due to remoteness of the Nicobar Islands; adoption of a strict travel policy with screening and contact tracing, and restriction to essential travel only • Imports restricted to essential commodities only • Organization of a group to sew masks and provide them to the most vulnerable in the communities • Accurate and simplified communication 	Moderate
Morrissey, P. (2020). COVID-19 Pandemic: The Circus is Over, for the Moment. <i>Journal of Bioethical Inquiry</i> . Epub ahead of print.	Aug 25, 2020	Indigenous peoples	Global	<p>This paper offers an Australian Aboriginal scholar’s perspective on Indigenous history and resilience in the context of the COVID-19 pandemic.</p> <p>The author describes finding respite in the traditional dances performed by First Nations dancers in North America and shared online.</p>	Low
Jardim, P.T.C., Dias, I.M.A.V., Grande, A.J., O’keeffe, M., Dazzan, P., & Harding, S. (2020). COVID-19 experience among Brasil’s indigenous people. <i>Revista da Associação Médica Brasileira</i> , 66(7), 861-863.	Aug 24, 2020	Indigenous peoples	Brazil	<p>There are 305 tribes speaking 274 languages in the Brazil’s Amazon. To effectively disseminate information regarding the COVID-19 pandemic, ethnic support groups have translated information into Indigenous languages. Indigenous students have created videos and shared them with Indigenous communities online.</p> <p>Several communities have established blockades where volunteers screen visitors for symptoms.</p>	Moderate

<p>Banning, J. (2020). Why are Indigenous communities seeing so few cases of COVID-19? <i>Canadian Medical Association Journal</i>, 192(34), E993-E994.</p>	<p>Aug 24, 2020</p>	<p>First Nations peoples</p>	<p>Canada</p>	<p>This article highlights the actions that First Nations communities have taken proactively in response to COVID-19. Many of these were strength-based strategies that mobilized communities, including:</p> <ul style="list-style-type: none"> • Staying connected virtually • Setting up trailers for self-isolation • Making roadblocks to control access to their communities • Putting out special public health messages recognizing Indigenous strengths and sacrifices made by communities during lockdown • Putting on hold or modifying ceremonies, funerals and rites of passage • Going back to their “roots”, to the way it was years ago, with emphasis on caring about neighbors like they are family • Delivering of food hampers, prescriptions, and meals for Elders 	<p>Moderate</p>
<p>Zavaleta-Cortijo, C., Ford, J.D., Arontoma-Rojas, I., Lwasa, S., Lancha-Rucoba, G., Garcia, P., ... Harper, S. (2020). Climate change and COVID-19: reinforcing Indigenous food systems. <i>The Lancet Planetary Health</i>, 4(9), E381-E382.</p>	<p>Aug 7, 2020</p>	<p>Indigenous peoples</p>	<p>Global</p>	<p>Effects of climate change undermine Indigenous food security which in turn compromise the resilience of Indigenous populations to pandemics.</p> <p>This article highlights the need to support Indigenous populations by prioritizing the protection of key Indigenous food sources (e.g. tropical forests, Arctic ecosystems), by reinforcing and supporting the importance of Indigenous knowledge systems, in providing access to culturally safe health resources, and by safeguarding access and rights to land and natural resources.</p> <p>Addressing underlying structural inequalities and strengthening Indigenous knowledge systems offer opportunities for building resilience.</p>	<p>High</p>

<p>Eades, S., Eades, F., McCaullay, D., Nelson, L., Phelan, P., & Stanley, F. (2020). Australia's First Nations' response to the COVID-19 pandemic. <i>The Lancet</i>, 396(10246), 237-238.</p>	<p>Jul 25, 2020</p>	<p>Aboriginal and Torres Strait Islander Communities</p>	<p>Australia</p>	<p>This article highlights how Australia's First Nations health leaders, chief executive officers and the Aboriginal Community Controlled Health Services responded rapidly to COVID-19 and implemented protective measures to keep Indigenous communities safe. This included:</p> <ul style="list-style-type: none"> • Lobbying governments to close remote communities and help accessing personal protective equipment, testing and contact tracing • Using social media videos to provide education • Staff training • Organizing the homeless in safe accommodation • Focusing on Elders and those with serious illnesses • Partnerships with government and non-government agencies to provide culturally relevant and appropriate services <p>The success of Australia's First Nations-led response in managing COVID-19 demonstrates the effectiveness of giving power and capacity to Indigenous leaders.</p>	<p>Low</p>
<p>Close, R.M. & Stone, M.J. (2020). Contact Tracing for Native Americans in Rural Arizona. <i>The New England Journal of Medicine</i>, 283, e15.</p>	<p>Jul 2, 2020</p>	<p>Native Americans</p>	<p>Arizona, USA</p>	<p>This study reports on how a critical access hospital provided public health services to identify, provide services and support members of the Native American community exposed to COVID-19. Strategies that were identified as contributing to positive outcomes included:</p> <ul style="list-style-type: none"> • Working in partnership with tribal leaders to support social-distancing measures • Trust building with community members • Aggressive contact tracing activities • Focus on high risk persons with daily follow-up including point of care services in the home and clinical assessment of all individuals living in the setting with high risk persons • Inter-hospital referral for persons who require a higher level of care 	<p>Moderate</p>
<p>Finlay, S. & Wenitong, M. (2020). Aboriginal Community Controlled Health Organisations are taking a leading role in COVID-19 health communication. <i>Australian and New Zealand Journal of Public Health</i>, 44(4), 251-252.</p>	<p>Jun 24, 2020</p>	<p>Aboriginal and Torres Strait Islander Communities</p>	<p>Australia</p>	<p>This article outlines the role of Aboriginal Community Controlled Health Organizations in delivering scientifically valid, evidence-based, and culturally translated COVID-19 health communications messaging and measures to control the spread of infection among community members. A key factor in the success of their interventions is the trust placed in them by the communities they serve, as they are known and trusted to deliver culturally appropriate service.</p>	<p>Moderate</p>

Banning, J. (2020). How Indigenous people are coping with COVID-19 . <i>Canadian Medical Association Journal</i> , 192(27), E787-788.	Jun 18, 2020	Indigenous peoples	Canada	<p>This study reports on strategies that Indigenous community members are utilizing to prevent COVID-19. These strategies include:</p> <ul style="list-style-type: none"> • Returning to the land – setting up and living in tents (individual and supply) in bush areas and returning to traditional practices • Providing support to those self-isolating at home (on and off-reserve) including food hampers and cleaning supplies • Sharing of food sources (purchasing of food, hunting, and gathering) • Offering incentives for children to stay home (craft supplies, online puppet show competitions etc.) • Provision of 24-hour support (phone and online) • Use of traditional arts in creative ways (making masks, prayer and healing dances offered via social media, comedy, and story-telling videos) 	Low
Fischer-Mackey, J., Batzin, B., Culum, P., & Fox, J. (2020). Rural public health systems and accountability politics: insights from grassroots health rights defenders in Guatemala . <i>The Journal of Peasant Studies</i> , 47(5), 899-926.	May 31, 2020	Tz'utujil people	Guatemala	Interviews with Tz'utujil activists highlight how Indigenous rights groups have advocated for their communities during the COVID-19 pandemic. This includes monitoring the enforcement of quarantine and curfews by federal police, reporting of human rights violations and distribution of food baskets.	Moderate
Kerrigan, V., Lee, A.M, Ralph, A.P., & Lawton, P.D. (2020). Stay Strong: Aboriginal leaders deliver COVID-19 health messages . <i>Health Promotion Journal of Australia</i> . Epub ahead of print.	May 19, 2020	Aboriginal communities in the Northern Territory	Australia	<p>This article highlights how health communications messages that are delivered by trusted members of the community, who can act as cultural brokers between the medical advice and the community, have been shown to be more effective than mainstream public health campaign messaging.</p> <p>Having Aboriginal leaders provide reliable information is recommended in order to reassure communities, deliver supportive health advice and address community anxiety in culturally appropriate ways.</p>	Moderate

<p>Kaplan, H.S., Trumble, B.C., Stieglitz, J.S., Mamany, R.M., Cayuba, M.G., Moye Lic, L.M., ... Gurven, M.D. (2020). Voluntary collective isolation as a best response to COVID-19 for indigenous populations? A case study and protocol from the Bolivian Amazon. <i>The Lancet</i>; 1727-1734.</p>	<p>May 15, 2020</p>	<p>Tsimane of Bolivia</p>	<p>Amazon Rainforest</p>	<p>Indigenous communities in Bolivia may be more vulnerable to COVID-19 for a variety of reasons, including health vulnerabilities and socioeconomic conditions. Specific collective cultural practices, such as sharing beverages, may also pose risk of infection. As part of a COVID-19 response, these issues were discussed with community leadership and members, increasing their knowledge about COVID-19 and building local control of responses. A COVID-19 strategy is presented, based on two principles: 1) preventative measures before mass infection; 2) collaborative effort among all stakeholders, involving Indigenous populations. This prevention and containment plan has two phases: 1) awareness and prevention; 2) COVID19 containment and patient management. The plan outlines detailed implementation strategies along with local considerations (see Table in document). Collective isolation of Indigenous communities has been effective in response to past pandemics and may be an effective response for COVID-19, if movement into and out of communities can be restricted before cases are present. Isolation supports would be needed to make this strategy workable.</p>	<p>High</p>
<p>Power, T., Wilson, D., Best, O., Brockie, T., Bourque Bearskin, L., ... Lowe, J. (2020). COVID-19 and Indigenous Peoples: an imperative for action. <i>Journal of Clinical Nursing</i>, 29(15-16), 2737-41.</p>	<p>May 15, 2020</p>	<p>Indigenous peoples</p>	<p>Global</p>	<p>This article describes examples of resiliency in Indigenous peoples.</p> <p>Tribes in New Zealand have distributed food to older people isolated in their homes.</p> <p>First Nations in Canada have gathered bundles for medicine, food, childbirth and death. They have also made protective facemasks.</p>	<p>High</p>

Table 3: Grey Literature

Reference	Date Released	Population	Setting	Summary
Revisiting Indigenous Peoples' resilience . (2020, August 9). The Morung Express.	Aug 9, 2020	Naga Indigenous peoples	Nagaland, India	Community elders have revived traditional practices, including self-isolation, quarantine and observation of traditional taboos related to activities that may spread disease.
The Human Rights Commission of Malaysia (Suhakam). (2020, August 9). LETTER: Covid-19 and Indigenous people's resilience . Malaysiakini.	Aug 9, 2020	Indigenous peoples	Malaysia	Indigenous communities have voluntarily isolated and restricted access to their territories, some imposing fines for outsiders.
Global Environment Facility Communications. (2020, August 7). Global Environment Facility. (2020). Indigenous peoples and COVID-19: Response and resilience .	Aug 7, 2020	Indigenous peoples	Global	This article highlights examples of how Indigenous peoples' rights, values and traditions are guiding their responses to the COVID-19 challenge in the Americas. In Peru, Indigenous rural farmers have revived the ancestral tradition of helping family, friends and community members get the support they need by providing shipments of nutritious food to families living in major Peruvian cities through the Apachicuy Initiative, while a nonprofit organization involved in conservation work helps an isolated community in northern Peru acquire cleaning supplies and seeds to grow its own food. In Mexico, an alliance between two Indigenous communities helps address food insecurity through an exchange of locally grown products. In Guatemala and Belize, Indigenous rights and control over their natural resources helps bolster livelihoods and maintain community well-being.
IUCN, International Union for Conservation of Nature. (2020, August 7). Strengthening Indigenous rights and leadership in the face of global challenges – COVID-19, climate change and environmental degradation .	Aug 7, 2020	Indigenous peoples	Global	The article highlights innovative solutions from Indigenous organizations and communities to address COVID-19 related challenges, including use of Indigenous medicine to boost the immune system; increasing care and protection of community members who are more susceptible to severe health outcomes from COVID-19; local solutions to address violence against Indigenous women; local restrictions on travel, self-quarantining, social distancing and self-isolation across Indigenous organizations and communities globally; Indigenous public health communication initiatives to ensure culturally relevant COVID-19 messaging; Indigenous youth activism as agents to convey prevention messages; Indigenous efforts to strengthen traditional food systems of food production, exchange and reciprocity; and Indigenous responses to build economic resilience, address existing gaps in infrastructure and pandemic preparedness, and strengthen traditional governance systems to manage natural resources.

Tribal Link. (2020, August 7). <u>A day to recognize the resilience of Indigenous peoples.</u>	Aug 7, 2020	Indigenous peoples	Global	To commemorate the 2020 International Day of the World's Indigenous peoples, this article recognizes the resilience of Indigenous peoples during the COVID-19 pandemic and briefly highlights unique Indigenous solutions to prevent and limit the spread of COVID-19. This includes village closures implemented by the Karen people of Thailand and several Lenca and Maya Chortí communities in Honduras; media prevention campaigns in Indigenous languages; and Indigenous youth engagement in community decision-making, enforcement of restrictions and lockdowns, and distribution of essentials and health equipment.
<u>Hard hit by COVID-19 pandemic. Indigenous peoples' input must be part of response, recovery strategies. Secretary-General says in observance message.</u> (2020, August 3). Reliefweb.	Aug 3, 2020	Indigenous peoples	Global	In this press release for the International Day of the World's Indigenous peoples, the UN Secretary-General acknowledges the extraordinary resilience of Indigenous peoples to the many threats that the COVID-19 pandemic imposes on their lives and livelihoods. This resiliency is rooted in Indigenous peoples' autonomy over the management of their lands, territories and resources, enabling them to ensure food security and care through traditional crops and medicine.
Task Group on Healthy Living. (2020, July). <u>Core principles for good healthy living messages in First Nations, Inuit and Métis remote and isolated northern communities.</u>	Jul 2020	First Nations, Inuit and Métis	Canada	This report documents findings from an environmental scan of First Nations, Inuit and Métis communications material focused on COVID-19. It recommends utilizing the strengths of Indigenous peoples and communities, including traditions, land knowledge, cultural knowledge and teachings, and supportive families and communities, in developing health communication resources. It also highlights the need for a distinctions-based approach that involves local communities in the design of resources to ensure they are culturally appropriate, relevant, accessible, and reflect the diversity and wealth of Indigenous traditional knowledge on health and wellness, to ensure they are more effective in preventing the spread of COVID-19.
Schacter, S.R. (2020, June 30). <u>The importance of space, place, and protecting Elders: Indigenous communities' responses to COVID-19.</u>	Jun 30, 2020	Indigenous peoples	Global	This article emphasizes the need to incorporate Indigenous voices and perspectives into COVID-19 recovery planning. The author highlights community strengths as foundational for Indigenous community sovereignty in responding to the pandemic including community connectivity, local knowledge of community issues and concerns, and the importance of cultural and spiritual teachings of Elders.
Hughes, G. 2020, June 11). <u>Resilience in a time of crisis: Indigenous communities and COVID-19.</u> Samuel Centre for Social Connectedness.	Jun 11, 2020	First Nations, Inuit and Métis	Canada	This article highlights the collective strengths of Indigenous peoples in working together to respond to the pandemic. These strengths are reflected in Indigenous community knowledge and expertise, their reconnection to the land, virtual social connections with communities, Elders sharing teachings online, and Indigenous communities asserting their sovereignty and responding to the pandemic with innovative solutions.

Thunderbird Partnership Foundation. (2020, June 5). Growing wellness through gardening during COVID-19.	Jun 5, 2020	First Nations	Canada	This fact sheet draws on Indigenous peoples' strong connection to culture and to the natural environment to promote mental wellness during the COVID-19 pandemic. Specifically, it provides tips for gardening success, including connecting with Elders to learn from their experiences.
Woods, J. (2020, May 28). Indigenous communities come together virtually during coronavirus despite barriers and inequities. The Conversation.	May 28, 2020	Indigenous peoples	Canada	This article summarizes examples of how Indigenous peoples have come together through virtual communities to promote connections and wellness during this time of crisis. This includes jingle dress dancers bringing virtual healing to communities, videos showcasing traditional foods and cooking, a website showcasing Indigenous stories of uncertain times, Indigenous youth building and inspiring community through a TikTok-based challenge, and Indigenous authors and podcasters bringing people together through dialogue.
Eghenter, C. (2020, May 22). How Indigenous Peoples practices can guide our recovery from COVID-19. IMPAKTER.	May 22, 2020	Indigenous peoples	Global	This article calls for a new economic model that values nature and people over economics. Drawing on Indigenous peoples' strengths in overcoming previous epidemics, including practice of sustainable management of natural resources, traditional knowledge, cultural practices and values, innovation and social solidarity, addressing issues of food security, and strengthening social relations and mutual support mechanisms.
Campbell, L. (2020, May 16). Native American Farm Working to Keep Community fed during pandemic. Modern Farmer.	May 16, 2020	Native Americans	United States	This article profiles an Indigenous initiative to reconnect Native American peoples to traditional foods, medicines and lifestyles as a way of improving health and well-being during the COVID-19 pandemic. Led by Dream of Wild Health, the initiative involves an expansion of farming native crops in the Twin Cities region of Minnesota to fill gaps in food insecurity caused by COVID-19 and keep Indigenous food traditions alive.
Marwing Walsh, A., & Rademaker, L. (2020, May 5). Why self-determination is vital for Indigenous communities to beat coronavirus. The Conversation.	May 5, 2020	Aboriginal and Torres Strait Islander Communities	Australia	Drawing on the experience of previous responses to pandemics in Indigenous communities, this article makes the case for self-determination as critical to the resiliency of Indigenous communities during COVID-19. It highlights various innovative examples of Indigenous peoples' self-determination in responding to and managing COVID-19, including restricting access to communities, implementing "Return to Country" programs, and producing community-driven educational materials.
Thunderbird Partnership Foundation. (2020, April 29). Staying connected to culture without the sweat lodge during COVID-19.	Apr 29, 2020	First Nations	Canada	Connections to the land and culture are acknowledged as vital to facilitating healing and wellness in this fact sheet on how to support Indigenous wellness during COVID-19 without the ceremonial practice of sweat lodges.

National Collaborating Centre for Indigenous Health. (2020, April). <i>Maintaining the health and well-being of First Nations, Inuit and Metis children and teens during COVID-19,</i>	Apr 2020	First Nations, Inuit and Metis	Canada	This fact sheet provides suggestions for how to maintain health and well-being of Indigenous children that are rooted in Indigenous cultures and values during the COVID-19 pandemic. This includes ways to maintain community connectedness, cultural identity, and physical health.
Forester, B. (2020, March 26). <i>'Stay calm and move forward': Indigenous doctors on strength, resilience in the face of pandemics.</i> APTN National News.	Mar 26, 2020	Indigenous peoples	Canada	This article emphasizes how despite colonization and intergenerational trauma, Indigenous peoples continue to be resilient and can draw on their strengths to help them navigate the COVID-19 pandemic. This resilient strength is rooted in communities coming together and utilizing their cultural and community assets and resources, such as using humour to help mitigate any distress individuals may feel, taking stock of and using locally available resources to help get public health messaging out, partnering with non-Indigenous organizations to address long-term health and infrastructure inequities, and exercising self-determination over how they are going to respond to the pandemic.
Idle No More and Indigenous Climate Action. (2020, March 21). <i>Highlights from a COVID-19 Fireside Chat with Indigenous health professionals.</i>	Mar 21, 2020	Indigenous peoples	Canada	This document highlights how various Indigenous strengths can be protective factors during the COVID-19 pandemic. This includes using traditional medicines to strengthen immune systems; participating in gatherings and ceremonies to deal with stresses on well-being; eating traditional foods to give the body maximum strength to fight the virus; drawing on the strength of relationships with family and community to provide support and guidance; and the important role of Elders for their traditional teachings.
Indigenous Motherhood. (2020, March 16). <i>Traditional Indigenous kinship practices at home: Being child-centered during the pandemic.</i>	Mar 16, 2020	First Nations	Canada	This article highlights the strengths of traditional Indigenous kinship practices to family functioning and emphasizes the need for families to be mindful of these as they deal with the challenges of having children at home as a result of COVID-19. The article offers tips for disrupting colonial narratives of the role of children in families, drawing on strengths of cultural values, relationships to the land and strong family and community connections.
First Peoples Wellness Circle. (2020). <i>Mental wellness during COVID-19: For community.</i>	2020	First Nations	Canada	Drawing on the many cultural strengths of First Nations people, this fact sheet provides tips for maintaining mental wellness among community members during COVID-19. These tips are situated within the context of supportive families and communities, Indigenous perspectives of health and well-being, and connection to land and culture.

First Peoples Wellness Circle. (2020). <i>Mental wellness during COVID-19: For Elders and seniors.</i>	2020	First Nations	Canada	Drawing on the many cultural strengths of First Nations people, this fact sheet provides tips for maintaining mental wellness among Elders and seniors during COVID-19. These tips are situated within the context of supportive families and communities, Indigenous perspectives of health and well-being, and connection to land and culture.
First Peoples Wellness Circle. (2020). <i>Mental wellness during COVID-19: For parents and children.</i>	2020	First Nations	Canada	Drawing on the many cultural strengths of First Nations people, this fact sheet provides tips for maintaining mental wellness among parents and children during COVID-19. These tips are situated within the context of supportive families and communities, Indigenous perspectives of health and well-being, and connection to land and culture.

References

- Akuhata-Huntington, Z., Foster, S., Gillon, A., Merito, M., Oliver, L. Parata, N., ... Naepi, S. (2020). [COVID-19 and Indigenous resilience](#). *Higher Education Research & Development*. Epub ahead of print.
- Banning, J. (2020). [How Indigenous people are coping with COVID-19](#). *Canadian Medical Association Journal*, 192(27), E787-788.
- Banning, J. (2020). [Why are Indigenous communities seeing so few cases of COVID-19?](#) *Canadian Medical Association Journal*, 192(34), E993-E994.
- Campbell, L. (2020, May 16). [Native American Farm Working to Keep Community fed during pandemic](#). Modern Farmer.
- Close, R.M. & Stone, M.J. (2020). [Contact Tracing for Native Americans in Rural Arizona](#). *The New England Journal of Medicine*, 283, e15.
- Eades, S., Eades, F., McCaullay, D., Nelson, L., Phelan, P., & Stanley, F. (2020). [Australia's First Nations' response to the COVID-19 pandemic](#). *The Lancet*, 396(10246), 237-238.
- Eghenter, C. (2020, May 22). [How Indigenous Peoples practices can guide our recovery from COVID-19](#). IMPAKTER.
- Finlay, S. & Wenitong, M. (2020). [Aboriginal Community Controlled Health Organisations are taking a leading role in COVID-19 health communication](#). *Australian and New Zealand Journal of Public Health*, 44(4), 251-252.
- First Peoples Wellness Circle. (2020). [Mental wellness during COVID-19: For community](#).
- First Peoples Wellness Circle. (2020). [Mental wellness during COVID-19: For Elders and seniors](#).
- First Peoples Wellness Circle. (2020). [Mental wellness during COVID-19: For parents and children](#).
- Fischer-Mackey, J., Batzin, B., Culum, P., & Fox, J. (2020). [Rural public health systems and accountability politics: insights from grassroots health rights defenders in Guatemala](#). *The Journal of Peasant Studies*, 47(5), 899-926.
- Forester, B. (2020, March 26). [‘Stay calm and move forward’: Indigenous doctors on strength, resilience in the face of pandemics](#). APTN National News.
- Global Environment Facility Communications. (2020, August 7). [Global Environment Facility. \(2020\). Indigenous peoples and COVID-19: Response and resilience](#).

[Hard hit by COVID-19 pandemic, Indigenous peoples' input must be part of response, recovery strategies, Secretary-General says in observance message.](#) (2020, August 3). Reliefweb.

Hughes, G. 2020, June 11). [Resilience in a time of crisis: Indigenous communities and COVID-19.](#) Samuel Centre for Social Connectedness.

Idle No More and Indigenous Climate Action. (2020, March 21). [Highlights from a COVID-19 Fireside Chat with Indigenous health professionals.](#)

Indigenous Motherhood. (2020, March 16). [Traditional Indigenous kinship practices at home: Being child-centered during the pandemic.](#)

Iwuoha, V.C. & Aniche, E.T. (2020). [Covid-19 lockdown and physical distancing policies are elitist: towards an indigenous \(Afro-centred\) approach to containing the pandemic in sub-urban slums in Nigeria.](#) *Local Environment*, 25(8), 631-640.

IUCN, International Union for Conservation of Nature. (2020, August 7). [Strengthening Indigenous rights and leadership in the face of global challenges – COVID-19, climate change and environmental degradation.](#)

Jardim, P.T.C., Dias, I.M.A.V., Grande, A.J., O'keeffe, M., Dazzan, P., & Harding, S. (2020). [COVID-19 experience among Brasil's indigenous people.](#) *Revista da Associação Médica Brasileira*, 66(7), 861-863.

Kaplan, H.S., Trumble, B.C., Stieglitz, J.S., Mamany, R.M., Cayuba, M.G., Moye Lic, L.M., ... Gurven, M.D. (2020). [Voluntary collective isolation as a best response to COVID-19 for indigenous populations? A case study and protocol from the Bolivian Amazon.](#) *The Lancet*; 1727-1734.

Kerrigan, V., Lee, A.M, Ralph, A.P., & Lawton, P.D. (2020). [Stay Strong: Aboriginal leaders deliver COVID-19 health messages.](#) *Health Promotion Journal of Australia*. Epub ahead of print.

Marwing Walsh, A., & Rademaker, L. (2020, May 5). [Why self-determination is vital for Indigenous communities to beat coronavirus.](#) The Conversation.

Moodie, N., Ward, J., Dudgeon, P., Adams, K., Altman, J., Casey, D., ... Yap, M. (2020). [Roadmap to recovery: Reporting on a research taskforce supporting Indigenous responses to COVID-19 in Australia.](#) *Australian Journal of Social Issues*. Epub ahead of print.

Morrissey, P. (2020). [COVID-19 Pandemic: The Circus is Over, for the Moment.](#) *Journal of Bioethical Inquiry*. Epub ahead of print.

National Collaborating Centre for Indigenous Health. (2020, April). [Maintaining the health and well-being of First Nations, Inuit and Metis children and teens during COVID-19](#)

[Revisiting Indigenous Peoples' resilience.](#) (2020, August 9). The Morung Express.

- Power, T., Wilson, D., Best, O., Brockie, T., Bourque Bearskin, L., ... Lowe, J. (2020). [COVID-19 and Indigenous Peoples: an imperative for action](#). *Journal of Clinical Nursing*, 29(15-16), 2737-41.
- Richardson, L. & Crawford, A. [COVID-19 and the decolonization of Indigenous public health](#). *Canadian Medical Association Journal*, 192(38), E1098-1100.
- Saini, A. (2020). ["A stitch in time": group work during the covid-19 scare in the Nicobar Islands, India](#). *Social Work with Groups*. Epub ahead of print.
- Saini, A. (2020). [The Bru redemption: group work during the covid-19 pandemic in an internally displaced people's relief camp in Tripura, India](#). *Social Work with Groups*. Epub ahead of print.
- Schacter, S.R. (2020, June 30). [The importance of space, place, and protecting Elders: Indigenous communities' responses to COVID-19](#).
- Task Group on Healthy Living. (2020, July). [Core principles for good healthy living messages in First Nations, Inuit and Métis remote and isolated northern communities](#).
- The Human Rights Commission of Malaysia (Suhakam). (2020, August 9). [LETTER: Covid-19 and Indigenous people's resilience](#). Malaysiakini.
- The Lancet Diabetes & Endocrinology. (2020). [Indigenous peoples: resilience in the face of adversity](#). *The Lancet Diabetes & Endocrinology*, 8(9), P731.
- Thunderbird Partnership Foundation. (2020, June 5). [Growing wellness through gardening during COVID-19](#).
- Thunderbird Partnership Foundation. (2020, April 29). [Staying connected to culture without the sweat lodge during COVID-19](#).
- Tribal Link. (2020, August 7). [A day to recognize the resilience of Indigenous peoples](#).
- Woods, J. (2020, May 28). [Indigenous communities come together virtually during coronavirus despite barriers and inequities](#). *The Conversation*.
- Zavaleta-Cortijo, C., Ford, J.D., Arontoma-Rojas, I., Lwasa, S., Lancha-Rucoba, G., Garcia, P., ... Harper, S. (2020). [Climate change and COVID-19: reinforcing Indigenous food systems](#). *The Lancet Planetary Health*, 4(9), E381-E382.