VISIONING THE FUTURE:
FIRST NATIONS, INUIT, & MÉTIS POPULATION AND PUBLIC HEALTH

National Collaborating Centre
for Indigenous Health

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LIST OF CONTRIBUTORS

National Indigenous Organizations:
Assembly of First Nations; Métis National Council;
Inuit Tapiriit Kanatami

Dr. Evan Adams, Deputy Chief Medical Officer,
Indigenous Services Canada

Dr. Marcia Anderson, Medical Officer of Health,
Winnipeg Regional Health Authority

Donna Atkinson, Manager, National Collaborating
Centre for Indigenous Health

Dr. Danièle Behn Smith, Deputy Provincial Health
Officer, Indigenous Health, Province of BC

Dr. Sarah Funnell, Associate Medical Officer of
Health, Ottawa Public Health; Founding Director,
Centre for Indigenous Health Research and Education
(CIHRE), Faculty of Medicine, University of Ottawa;
Indigenous Health Director, Department of Family
Medicine, Queen's University

Dr. Margo Greenwood, Academic Leader, National
Collaborating Centre for Indigenous Health, Vice
President of Indigenous Health, Northern Health,
Professor First Nations Studies, UNBC

Theresa Koonoo, Department of Health, Nunavut,
with contributions from:
Rebecca Lonsdale (Registered Inuk Nurse); **Sarah
MacRury** (Registered Nurse); **Igah Sangoya**
(Community Health Representative, Clyde River,
NU); **Meeka Kiguktak** (Community Health
Representative, Grise Fiord, NU); **Janice Panimera**;
and **Jeanie Aulaqiaq**

Dr. Shannon McDonald, Acting Chief Medical
Officer at the First Nations Health Authority in
British Columbia

Ms. Clara Morin Dal Col, Minister of Health, Métis
National Council

Dr. Christopher Mushquash, C.Psych., Canada
Research Chair in Indigenous Mental Health and
Addiction, Professor, Department of Psychology,
Lakehead University and Northern Ontario School of
Medicine; Psychologist, Dilico Anishinabek Family
Care; Director, Centre for Rural & Northern Health
Research; Associate Vice President Research, Thunder
Bay Regional Health Sciences Centre, and; Chief
Scientist, Thunder Bay Regional Health Research
Institute

Dr. Janet Smylie, Director, Well Living House
Action Research Centre for Indigenous Infant, Child
and Family Health and Wellbeing and Staff Physician,
Department of Family and Community Medicine
(St. Michael's Hospital); Professor, University of
Toronto, Dalla Lana School of Public Health and
Department of Family and Community Medicine,
Faculty of Medicine; Tier 1 Canada Research Chair in
Advancing Generative Health Services for Indigenous
Populations in Canada

Dr. Shannon Waters, Medical Health Officer for the
Cowichan Valley Region at Island Health - Vancouver
Island Health Authority

Dr. Eduardo Vides, Senior Health Policy Advisor,
Métis National Council

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Maheswaran for their contributions to the creation of this document.*

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INTRODUCTION

When the Chief Public Health Officer (CPHO) was envisioning her report for 2021, she knew the importance of engaging First Nations, Inuit, and Métis peoples in Canada, thereby ensuring their visions were articulated and their voices included. As a result, this complementary report, entitled *Visioning the Future: First Nations, Inuit, & Métis Population and Public Health*, represents a multi-faceted vision as articulated by Indigenous peoples from coast to coast to coast. This report is intended not only to inform the CPHO's vision for public health but also to privilege Indigenous knowledge(s). It lays out an achievable public health vision that acknowledges Indigenous peoples' multiple systems for public health and ensures that Indigenous peoples' knowledge(s) permeate the Canadian public health system.

A determinants of health approach offers a framework through which to address inequities experienced by Indigenous peoples across the spectrum of population and public health challenges written about below. This holistic framework gives a much more comprehensive and inclusive look at the realities that Indigenous peoples live on a daily basis. Each of the topics in this compendium could be recognized as an independent determinant (e.g., racism), or as deeply influenced by multiple determinants, or as intersecting with other determinants to create an even greater impact on peoples' well-being (e.g., gender, employment, and geographic locale). From this perspective, each report element sheds a light on the inequitable realities experienced by Indigenous peoples.

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INFORMATION GATHERING

Indigenous knowledge is not a generalizable concept. It is diverse and context-specific, and its base units of knowledge generation and transmission are "participatory, communal, experiential, and [...] local" (Smylie et al., 2004, p. 141; see also Battiste & Henderson, 2000; Kovak, 2009; Kuptana, 2005; Little Bear, 2000; Wilson, 2008). Knowledge is encoded in stories and is generated through retelling as an experiential distilling of wisdom—as a transfer from wisdom-keepers to new generations. Circles, cycles, and webs figure heavily in Indigenous knowledge, as does respect for knowledge as a community resource. Indigenous knowledge is generated through experience and dialogue, reflection, and collaboration.

With this in mind, and with the aim of making this Indigenous public health vision a meaningful, distinctions-based report that is truly representative of First Nations, Inuit, and Métis peoples, this document was co-constructed with all three national Indigenous organizations—Assembly of First Nations, Métis National Council, and Inuit Tapiriit Kanatami—as well as leading First Nations, Inuit, and Métis public health experts representing a range of regions in Canada. These expert organizations and individuals have drawn not only on research and data but also on Indigenous systems of knowledge about public health that we have possessed since time immemorial and which we have passed down to each generation.
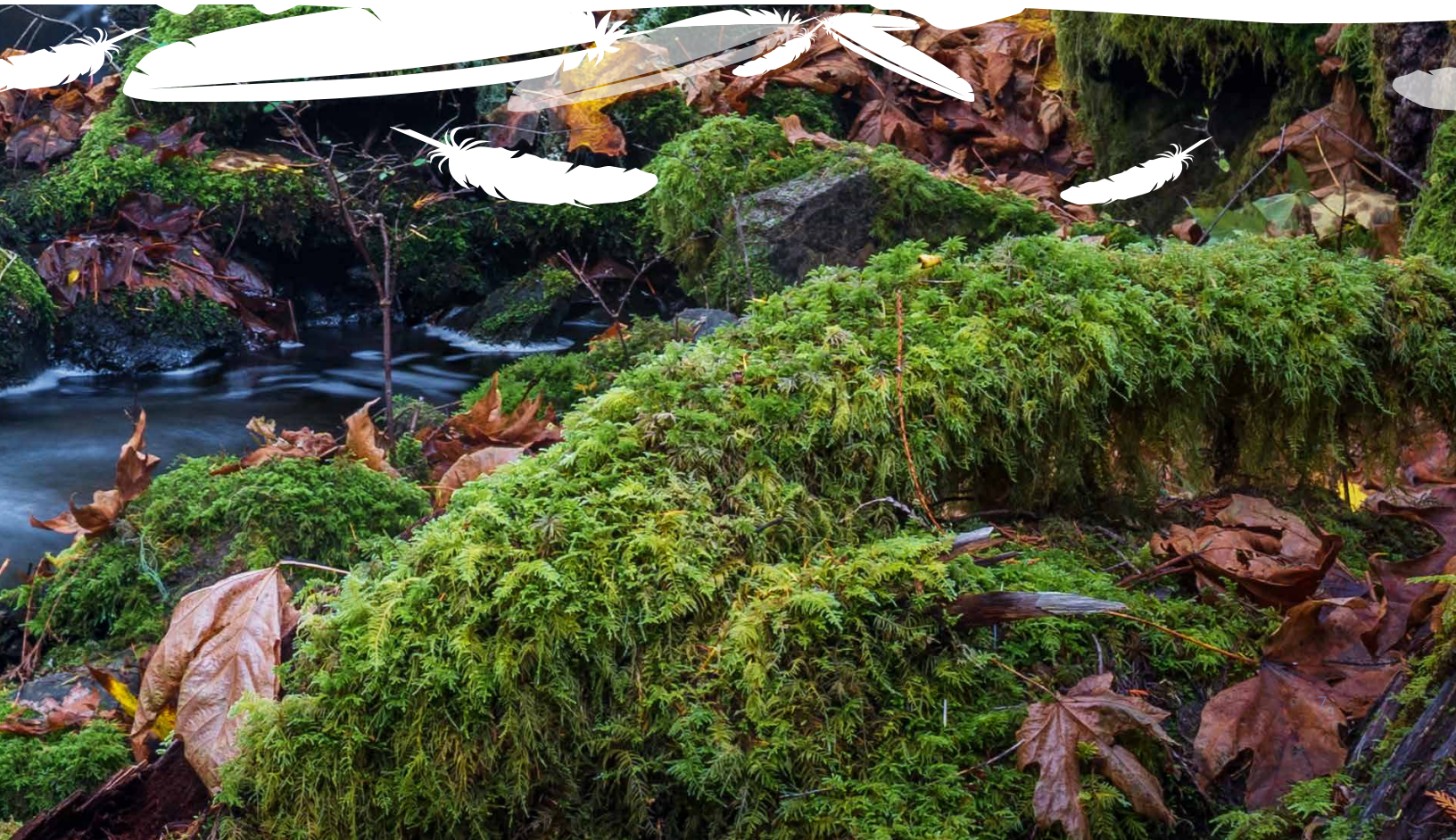
NATIONAL INDIGENOUS ORGANIZATIONS: PUBLIC HEALTH VISIONS FROM THE ASSEMBLY OF FIRST NATIONS, MÉTIS NATIONAL COUNCIL, AND INUIT TAPIRIIT KANATAMI

The Assembly of First Nations

First Nations Public Health Priorities for the Future: Seven Generations of Care

First Nations health systems follow a natural continuum of care that is based on the cycle of life, from pre-pregnancy to death, that weaves in our medicines and teachings. While there is no single definition of First Nations wellness, there is a shared understanding of the interconnectedness between the physical, mental, emotional, and spiritual realms and the understanding that these are shaped by the environment in which we live.

First Nations health is synonymous with mental health challenges and intergenerational trauma, a greater incidence of communicable diseases, and an elevated burden of chronic conditions. First Nations health is further compromised by continuing deficits across the social determinants of health: poverty, overcrowded housing, food insecurity, and a piecemeal approach to health services and programming that can be difficult or impossible to access, in addition to being inadequate or culturally unsafe. These issues are a part of our reality, but our story and path to wellness is one of resilience and strength. While these disparities have been magnified and exacerbated during the COVID-19 pandemic, the pandemic has also emphasized that when First Nations are leading the work to protect their communities with support from provinces, territories, and the federal government, greater success can be achieved.

Despite many national conversations about improving First Nations health status by successive federal governments and throughout numerous government inquiries, the short-term remedies that have been offered are obscured by complicated and colonial health system polices and practices that uphold disparities in population health. First Nations participation in national and regional dialogues has articulated that true health and wellness systems are strengths-based, culturally rooted, and recognize Treaty and inherent rights to health as foundations to encourage resilience. Increased exposure and attention given to systemic racism within health care systems highlight the fact that drastic changes are required, and that First Nations are best positioned to lead that change. As the United Nations Declaration

on the Rights of Indigenous Peoples (UNDRIP) (Article 23) emphasizes:

> Indigenous peoples have the right to determine and develop priorities and strategies for exercising their right to development. In particular, indigenous peoples have the right to be actively involved in developing and determining health, housing and other economic and social programmes affecting them and, as far as possible, to administer such programmes through their own institutions. (UN General Assembly, 2007, p. 18)

Bill C-15, which aims to align Canadian law with UNDRIP, received royal assent in June 2021, resulting in exploratory discussions about distinctions-based Indigenous health legislation between First Nations and the federal government and a focus on "building back better" after the pandemic. First Nations have an opportunity to evaluate current models of health care services and programming, examine funding formulas, and revive First Nations-determined solutions that stimulate a continuum of care system that invests and follows in individuals' and communities' wellness needs. As the Government of Canada has committed to develop distinctions-based Indigenous health legislation, First Nations must be provided with the necessary tools and resources to implement a successful process for legislation and health governance. Beyond this, First Nations will define the systems that meet their distinct needs by combining First Nations traditional approaches with the Western modality of health. We envision a transformative system that is grounded in culture and led by First Nations to inspire, protect, and support individual and collective wellness.

Fortifying the momentum of transferring health to First Nations, the Assembly of First Nations' (AFN) Chiefs-in-Assembly passed Resolution 19/2019, *Developing* a *Seven Generations Continuum of Care for First Nations*, *by First Nations of Health*, *Economic and Social Services* (2019). This resolution calls upon Indigenous Services Canada to support a holistic Continuum of Care approach—one that works across sectors to support First Nations communities and individuals as they move through all stages of life, and also one that will be carried forward to benefit seven generations in the future. This approach seeks to coordinate, integrate, consolidate,

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We envision a transformative system that is grounded in culture and led by First Nations to inspire, protect, and support individual and collective wellness.

or align existing programs and services across sectors and applies a comprehensive definition of health that integrates a First Nations lens reflecting holistic, culturally based paths to wellness. This work to transform health systems, governance, and engagement for First Nations must be facilitated by First Nations.

The *First Nations Health Transformation Agenda (FNHTA)*, an AFN foundational report with numerous recommendations to transform health systems for First Nations, articulates three overarching goals to self-determined health governance and service delivery:

- Getting the Relationships Right:
  - E.g., removing jurisdictional ambiguities and ensuring that in all collaborative or co-developed initiatives, First Nations are equal partners from the very beginning.
- First Nations Capacity First:
  - E.g., supporting community-based workforces to reduce high human resource turnover rates. This includes equitable pay, access to professional development, accreditation, and access to technologies, as well as ensuring support for data capacity and sovereignty.

- Sustainable Investments:
  - E.g., ensuring predictable and sustained funding envelopes to meet needs proactively and with flexibility, with reduced reporting requirements that restrict holistic solutions.

Combined, these three goals are intended to address the structural limitations of funding agreements. The COVID-19 pandemic exposed the pre-existing need to strengthen First Nations capacity, modernize jurisdictional obstacles, and formulate sustainable investments while emphasizing what can be possible when provincial, territorial, federal governments, and First Nations work together to respond to crises.

A *Seven Generations Continuum of Care* approach to wellness offers an alternative vision for health and well-being that is grounded in First Nations ways of knowing. The path toward First Nations health legislation must recognize that in order for the process to be successful, Western practices and systems need to shift toward fundamental changes. This vision is only made possible through fulfilling the foundational goals outlined by the *First Nations Health Transformation Agenda*, implemented with supportive health legislation, respectful of Treaty and inherent rights, and affirmed with the United Nations Declaration on the Rights of Indigenous Peoples.
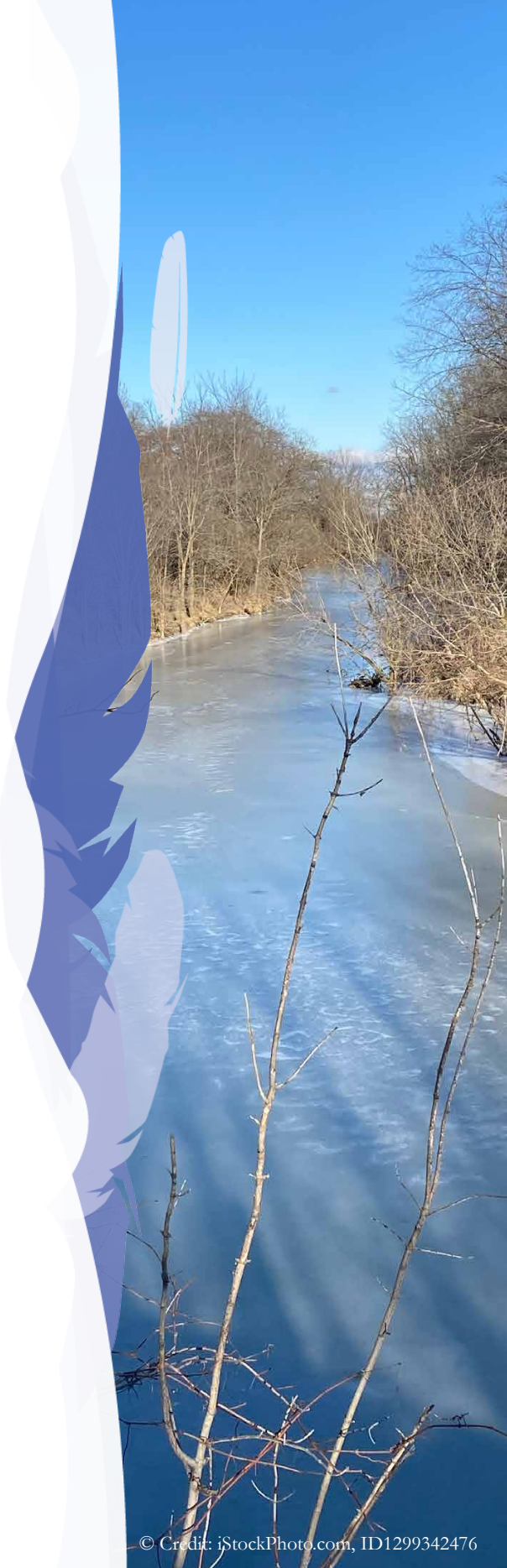
Métis National Council

Métis Public Health Vision

Dr. Eduardo Vides, Senior Health Policy Advisor, Métis National Council; **Ms. Clara Morin Dal Col**, Minister of Health, Métis National Council

The health and well-being of Métis individuals and communities are interdependent and equally important. Taking a holistic view of health, Métis public health incorporates its mental, physical, spiritual, emotional, and social aspects (Allard, 2007). However, there is a lack of comprehensive data detailing the Métis population's health and well-being—a point expanded on below. Even with a lack of disaggregated data, it is known that the Métis Nation's population has poorer health outcomes than non-Indigenous Canadians. For example, Métis people have significantly higher rates of chronic diseases such as diabetes, lung cancer, heart disease, and stroke. Métis individuals are also especially vulnerable to mental health disorders. What is more, many Métis live in poverty: Métis are more likely to live in low-income households and food-insecure households. Additionally, the high cost of prescription drugs, as well as travel costs to distant medical centres to pick up prescriptions, prevents many Métis individuals from accessing necessary prescriptions; this is particularly true of those living in remote areas (Métis National Council [MNC], 2016). The primary causes of Métis health inequities are poor social determinants of health, such as crowded, poor-quality housing, food insecurity, and barriers to health care access.

An additional public health challenge among the Métis Nation is that jurisdictional disputes exclude the Métis to a certain degree from both mainstream and Indigenous-specific health systems. First Nations and Inuit access some of their programming through the First Nations and Inuit Health Branch of Indigenous Services Canada, which does not have a mandate to work with the Métis (Chartrand, 2011, p. 6). Métis must therefore access mainstream provincial services; however, these services often do not meet the specific cultural or geographical needs of Métis communities (Chartrand, 2011, p. 6). As a result, many Métis experience racism, discrimination,
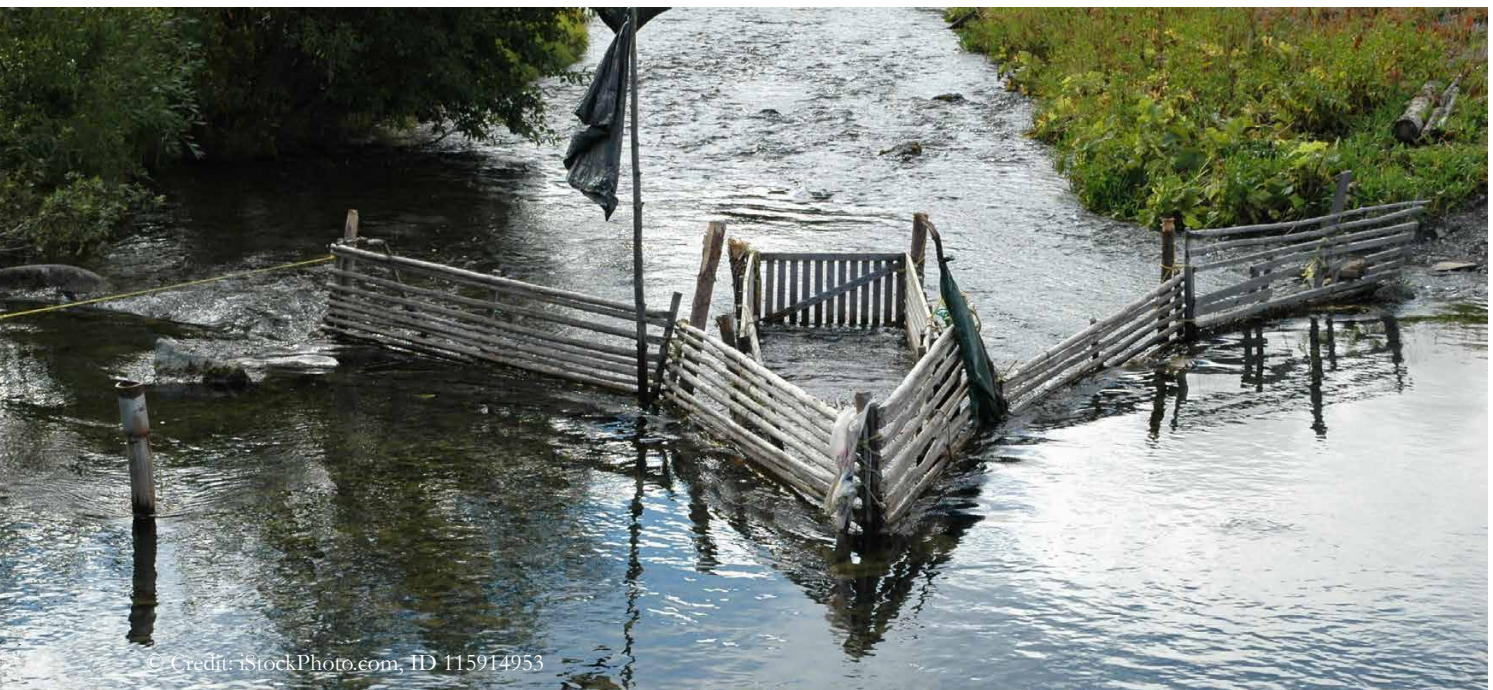
and a lack of compassion or understanding from health care professionals and the mainstream health care system. Moreover, although place (household, community, and region) is critical for Métis in maintaining physical, emotional, mental, and spiritual health (Allard, 2007, p. 22), Métis patients in rural and northern places are often transported to urban and southern-based hospitals for medical emergencies, hospitalization, and appointments. This often results in financial hardships, loneliness, and emotional stress (Allard, 2007, p. 22). The Métis Nation's population is also vulnerable to mental illness due to the growing loss of traditional roots and the Michif language, as well as to the breakdown of the family unit (Morin Dal Col, 2017). In fact, one in five Métis over 18 (19.6%) reported having ever had suicidal thoughts in the 2012 Aboriginal People's Survey (APS) (Statistics Canada, 2016).

While the following has been said for the last five decades, it bears repeating as it has not changed: There continues to be a general lack of comprehensive health data for Métis peoples. Research underpinning disaggregated data is often hindered by uncertainty over the identity and jurisdiction of Métis individuals and communities. This challenge results in government health policies, legislation, and services that

overlook Métis health issues and, in some cases, produce a total absence of relevant or available data (Allard, 2007). A lack of Métis-specific research capacity (Allard, 2007) exacerbates this challenge. Currently, there are very few Métis researchers and health practitioners with knowledge and training in health research. Relatedly, most non-Indigenous health professionals do not have the opportunity to access expertise or training in Métis-specific care practices, including Métis ways of knowing. In addition, effectively addressing Métis Nation's health needs would include better monitoring and surveillance of the demographic, social, and health status of the Métis population.

The inequities outlined above cannot be understood in isolation from the historical processes of colonization, forced assimilation, and social exclusion (Morin Dal Col, 2017). Current efforts to improve Métis public health must recognize the distinct history of the Métis and address Métis social determinants of health. The Métis National Council (MNC) identifies the following immediate priorities to improve Métis public health: enhancing the affordability, accessibility, and appropriate use of prescription drugs; improving care in the community, home care, and mental health care; and advancing Métis health research (MNC, 2016).

The Métis National Council's public health vision involves inclusive, community-based, holistic health programming and research focused on prevention and improved health outcomes in the Métis population (Allard, 2007). Specifically, the MNC calls for the affordable, accessible, and appropriate use of prescription drugs for the Métis population. In addition, the MNC calls for a shift from predominantly institutionalized health care to specialized care in the home and community (MNC, 2016). The MNC would like to see particular attention placed on mental health. Mental health policy should recognize the role of colonialism and ongoing discrimination in the Métis mental health crisis. Equally, mental health interventions should take a social determinants approach by addressing issues such as housing and food insecurity amongst the Métis population (Morin Dal Col, 2017). Mental health programming for Métis people should consider the Métis-specific cultural framework (MNC, 2016). With this in mind, mental health services at home should be prioritized.

The Métis public health vision also requires collaborative partnerships between federal, provincial, and territorial (FPT) health departments and Métis communities to identify culturally competent research strategies and

The Métis public health vision also requires collaborative partnerships between federal, provincial, and territorial (FPT) health departments and Métis communities to identify culturally competent research strategies and health interventions to decrease current Métis health disparities.

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health interventions to decrease current Métis health disparities (Allard, 2007). Specifically, improvements to PharmaCare for Métis require targeted spending to subsidize prescriptions and innovation in service delivery. One existing example of innovative service delivery is the Manitoba Métis Federation Prescription Drug Program, which focuses on Métis Elders, seniors, and other vulnerable citizens who face daily challenges in procuring prescription drugs. Likewise, health services provided at home or in the community require additional resources and involvement from Métis community members (MNC, 2016). Moreover, targeted spending on housing for people

with mental health issues, addictions, or those experiencing homelessness is needed (MNC, 2016). This has been discussed for half a century and yet we are still struggling to realize change. Part of the challenge is determining who is responsible to fund and implement comprehensive strategies to address these housing needs. These strategies are multi-layered and complex, requiring coordinated efforts across sectors and levels of government, including Métis government.

Additionally, significant investments in research and surveillance infrastructure are needed to address the lack of Métis health data. The MNC

would like to grow the Métis Nation's research capacity through targeted spending to support community-based research programs and training programs for Métis in health research. While the Métis Nation builds research capacity, the MNC would like to see the following Métis-specific information collected:

- prevalence of diabetes, cancer, cardiovascular disease, chronic obstructive pulmonary disease (CODP), musculoskeletal disorders, arthritis, osteoporosis, mental health, as well as morbidity rates and other health indicators

- data set based on variables including age and sex, household income, continuity of care, geography, and other social determinants of health

- insight into the comparative health of Métis to non-Métis across jurisdictions

- health care utilization

Data collection methods should be consistent with Métis worldviews. They should respect cultural differences and recognize the moral, historic, and legal rights of Indigenous peoples to self-determination (Allard, 2007, p. 36). All Métis health information should also be under the ownership and control of the Métis Nation, in accordance with the OCAS (ownership, control, access, stewardship) principles, to which the Métis National Council subscribes. The MNC supports knowledge translation agreements with FPT governments that lead to evidence-based interventions to benefit Métis health and well-being.

Inuit Tapiriit Kanatami

The national voice for protecting and advancing the rights and interests of Inuit in Canada

The Canadian Inuit Public Health Vision

Introduction

In Inuit Tapiriit Kanatami's (ITK) vision for the future, Inuit are healthy, thriving, and prospering through unity and self-determination. To achieve this vision, long-standing equity gaps in social determinants of health between Inuit and other Canadians must be closed. Moving forward, Inuit self-determination in public health programs, services, and policies promoting health and preventing injury, illness, and premature death will be essential for confronting the systemic discrimination and racism that created and perpetuate unacceptable health equity gaps for Inuit.

Context

There are 65,000 Inuit in Canada, the majority of whom live in four Inuit regions: the Inuvialuit Settlement Region (Northwest Territories); Nunavut; Nunavik (Northern Québec); and Nunatsiavut (Northern Labrador). Collectively, these four regions make up Inuit Nunangat, the Inuit homeland in Canada. Inuit Nunangat includes 51 communities and encompasses roughly 35% of Canada's landmass and 50% of its coastline. Except for a short summer shipping season, Inuit communities are only accessible by air. In general, provincial and territorial governments are responsible for implementing public health programs and collecting public health data in Inuit regions. There are also rapidly growing communities of Inuit within urban centres across Canada.

Health outcomes for many Inuit lag behind other Canadian populations on several fronts. Some indicators commonly used to evaluate population health are life expectancy, infant mortality, and the prevalence of certain causes of death. When compared with data for Canadians as whole, the life expectancy for Inuit living in Inuit Nunangat is on average 12.2 years shorter, infant mortality is almost three times higher, and deaths due to respiratory disease, injury, cancers, and suicide are also higher (ITK, 2018a). As an example, the rate of active tuberculosis (TB) disease among Inuit living in Inuit Nunangat is more than 300 times that of the non-Indigenous Canadian-born population (LaFreniere et al., 2019). These and other health gaps are directly caused by and symptomatic of socio-economic conditions in Inuit communities that include the following:
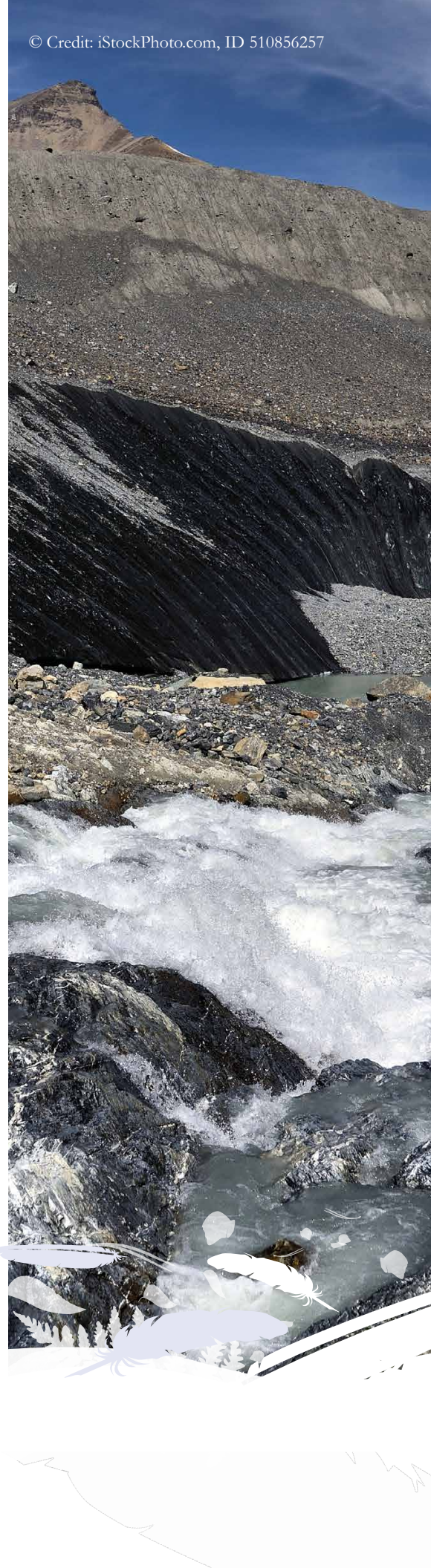
high rates of poverty; limited access to affordable, nutritious, and culturally acceptable food; inadequate, overcrowded, and unsafe housing; and increased rates of problematic substance use.

The living conditions experienced by Inuit magnified the impacts of the COVID-19 pandemic in Inuit communities. Overcrowded and poorly ventilated houses accelerated spread of the virus in homes. Poverty, food insecurity, pre-existing high rates of respiratory illnesses (e.g., chronic obstructive pulmonary disease [COPD], asthma, and TB), and high rates of smoking put Inuit at higher risk than other populations for experiencing severe COVID-19 illness once infected with SARS-CoV-2. As the pandemic progressed, the already fragile health care systems across Inuit Nunangat became even more precarious: The supply of rotational health care providers dwindled and health facilities in the south that were relied upon for tertiary care of Inuit became overburdened.

The federal government and Inuit organizations devoted significant resources during the pandemic to mitigate risks to Inuit. The Government of Canada spent almost $200 million on protecting Inuit communities from the impacts of the pandemic and prioritized Inuit communities for vaccination. In addition to these funds, tens of millions of dollars were expended on hotel-based isolation facilities to support compulsory quarantine programs, in part because it was not possible for returning residents—many of them travelling to access medical services—to quarantine safely in their homes because of many of the socio-economic conditions referred to above. Although well-intentioned, compulsory quarantine away from home, and other public health measures intended to protect Inuit, in some cases led to the creation of other harms—particularly for families with small children and those with mental health or substance use issues. In a future of health equity, it will not be necessary to prioritize the protection of Inuit or to implement expensive and potentially harmful stopgap measures to offset critical deficits in the social infrastructure of Inuit communities.

The COVID-19 pandemic has placed a spotlight on the human and economic cost of inequities in health and social infrastructure across the country. Canadians cannot afford not to address the systemic causes of these inequities and work together to ensure that all Canadians have the tools and opportunities to be actively involved in the health outcomes from themselves, their families, and their communities.

Foundations of a Healthy Future for Inuit

Equity

The Canadian Human Rights Commission (2014) defined systemic discrimination as "the creation, perpetuation or reinforcement of inequality among disadvantaged groups" (p 4). Such discrimination is "usually the result of seemingly neutral legislation, policies, procedures, practices or organizational structures" (p. 4). In a healthy future, the legislative, policy, program, and service gaps that perpetuate racial discrimination against Inuit are eliminated, enabling Inuit to enjoy a standard of living comparable to that enjoyed by most other Canadians.

Self-Determination

Self-determination means that public health policies, programs, and initiatives that are intended to benefit Inuit are truly accessible to Inuit and align with priorities identified by Inuit rights holders across Canada. Underrepresentation of Inuit in the health care professions contributes to culture and language barriers that jeopardize quality of care and increase the likelihood of Inuit experiencing interpersonal racism during interactions with non-Inuit health care professionals. Supporting

Inuit self-determination in public health would enable Inuit to oversee capacity development, staffing, quality standards, and the administration of health care services. In a healthy future, Inuktut is spoken within every sector of Inuit society, including public health services, and is a key measure of Inuit self-determination.

Policy Objectives for Achieving Health Equity and Self Determination in Public Health

The ITK *2020–23 Strategy and Action Plan* (ITK, 2020) outlines policy objectives with specific actions required to close health equity gaps and achieve self-determination. Four of these policy objectives—poverty reduction, building up infrastructure, access to research and data, and advancing health and social development initiatives—speak directly to the Inuit vision for the protection and promotion of health for Inuit, Inuit families, and Inuit communities.

Closing Equity Gaps: Poverty Reduction & Building Up Infrastructure

Poverty and overcrowded housing are complex problems that undermine many public health policies and programs. Steps towards reducing poverty and driving effective advocacy for

poverty reduction interventions include enhancing food security through the *Inuit Nunangat Food Security Strategy* (ITK, 2021) and developing tools to measure poverty and quantify associated social costs. Major investments in the *National Inuit Housing Strategy*[1] are still needed to ensure adequate, healthy housing is accessible to all Inuit. Closing equity gaps is a necessary condition for many Inuit families to meet their basic needs and achieve good health.

Furthering Self Determination: Access and Ownership of Inuit Data & Advancing Inuit-Specific Public Health Initiatives

National data and information about Inuit health status are needed to monitor progress on eliminating systemic discrimination and racism, as well as on reducing social and economic inequities faced by many Inuit. Provincial and territorial data collection and management systems and protocols vary, contributing to data gaps that include, in some jurisdictions, the complete absence of disaggregated, Inuit-specific data. In the absence of public health data in many areas, including comprehensive communicable disease data, Inuit are forced to advocate for the health of their communities without adequate empirical evidence to substantiate what

[1] Release pending.

In a healthy future, Inuktut is spoken within every sector of Inuit society, including public health services, and is a key measure of Inuit self-determination.

they know to be true. What is more, Inuit are prevented from contributing to the development of solutions that are guided by Inuit societal values and informed by their own experiences. Federal, provincial, and territorial governments need to work with Inuit to close gaps in meaningful, Inuit-specific public health data across the country.

ITK has sought to align federal health policy and federal spending with Inuit health priorities to help address poor health outcomes among our people. To this end, ITK's recent initiatives directly related to public health include the release of the *Social Determinants of Inuit Health* report (ITK, 2014), *National Inuit Suicide Prevention Strategy* (ITK, 2016),

the *Inuit Tuberculosis Elimination Framework* (ITK, 2018b), and the *Inuit Nunangat Food Security Strategy* (ITK, 2021). These documents outline unified national Inuit policy positions based on the priorities of Inuit rights holders. They detail the work that Inuit regions intend to pursue with government to promote and protect the health of Inuit. Significant work and investment are required to ensure that Inuit can enjoy a level of health comparable to most other Canadians.

Conclusion

Much work remains to confront the underlying and upstream determinants that influence Inuit health outcomes. Success is dependent on increasing

levels of self-determination in Inuit regions. Through this, Inuit will be able to lead efforts to strengthen their culture, language, economy, and health. Inuit must be involved in policy making and in program design and delivery to ensure that coordinated, sustainable, innovative, and acceptable approaches can be taken in a holistic manner, not only to respond to crises but also to create a foundation to support Inuit health and wellness.

Building on the above vision from Inuit Tapiriit Kantami, the following case study considers how Inuit traditional knowledge can be reconciled with Western health practices to contribute to better health for the people inhabiting Nunavut.

Inuit Traditional Knowledge—A Case Study of Inuit Qaujimajatuqangit and Breastfeeding

Better Health for Nunavummiut: Reconciling Traditional Health Practices and Indigenous Knowledge with Western Health Practices

Lead author: **Theresa Koonoo**, Department of Health, Nunavut Contributing authors: **Rebecca Lonsdale** – Registered Inuk Nurse, BScN, Iqaluit, NU; **Sarah MacRury** – Registered Nurse, BScN, Iqaluit, NU; **Igah Sanguya** – Community Health Representative, Clyde River, NU; **Meeka Kiguktak** – Community Health Representative, Grise Fiord, NU; **Janice Panimera** – Igloolik, NU; **Jeanie Aulaqiaq** – Qikiqtarjuaq, NU

Background

The efforts of the Government of Nunavut's Department of Health to promote health and prevent disease and injury have been critical to achieving better health outcomes for Nunavummiut. The health population is heavily influenced by social determinants of health and reflects a missing emphasis on upstream public health interventions, the main focuses of which are prevention, health protection, and health promotion.

The Community Health Representatives (CHRs) in Nunavut are the only dedicated front-line public health workers to incorporate traditional health knowledge in their practice. The expectation for these positions is ambitious. CHRs act as keepers of traditional knowledge who can link this knowledge to modern health care practices. This role maintains the presence of Inuit culture in the modern health care system. Nunavut faces many health obstacles, and officials need to be mindful that the health resources they develop reflect Nunavummiut and their needs. To ensure that appropriate and relevant public health care is provided, the Department of Health requires incorporation of traditional health knowledge and Inuit Qaujimajatuqangit (IQ) Guiding Principles to help health care practitioners maintain cultural safety and ensure their professional practices are relevant to the population they

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are serving. IQ has eight guiding principles, each of which plays a significant role in promoting health in Inuit culture:

1. Inuuqatigiitsiarniq – Respecting others, relationships and caring for people.

2. Tunnganarniq – Fostering good spirit by being open, welcoming and inclusive.

3. Pijitsirniq – Serving and providing for family/or community.

4. Aajiiqatigiinniq – Decision making through discussion and consensus.

5. Pilikmaksarniq/pijariuqsaniq – Developing skills through practice, effort and action.

6. Piliriqatigiinniq/ ikajuqtigiinniq – Working together for a common cause.

7. Qanuqtuurniq – Being innovative and resourceful.

8. Avatittinnik Kamatsiarniq – Respecting and caring for the land, animals and the environment. (Nunavut, n.d.a)

The Inuit Qaujimajatuqangit guides the behaviour of Inuit in many ways, guiding Inuit in (to name a few): respect for human dignity; fundamental rights; helpfulness; cooperation; individuality; and social equity.

Breastfeeding: An Analysis of a Public Health Issue Using Inuit Qaujimajatuqangit (IQ)

The core priorities of the Nunavut *Public Health Act* (Nunavut, n.d.b) include building a foundation for a healthy Nunavummiut by improving the health and well-being of families and children. An example of how IQ principles and traditional health practices can be incorporated into and are aligned with Western health practice can be found in breastfeeding. The Nunavut *Public Health Act* also highly agrees with the Public Health Agency of Canada, Health Canada, and the World Health Organization (WHO), all of whom recommend exclusive breastfeeding from birth to 6 months, continuing up to 2 years after introducing solid food or other fluids (Health and Social Services Department, n.d.; Green, 2021; WHO, 2014). This practice was heavily encouraged in Inuit families before any contact with settlers.

After colonization began, Western practitioners highly recommended bottle feeding, which resulted in poor outcomes for Inuit. Fortunately, since then, collaboration between traditional knowledge holders and government programs to raise awareness of the benefits of breastfeeding have positively affected maternal child health and other areas of health in Nunavut.

The traditional breastfeeding information below exists primarily through oral tradition and is taught and communicated within Inuit families and communities throughout the prenatal period (R. Lonsdale, personal communication, July 2014). While breastfeeding is a postnatal practice, most Inuit women in Nunavut begin equipping themselves as early as possible, preparing to breastfeed throughout their pregnancy. An expectant "new" mother will learn from a traditional midwife in the community or her own mother, one or both of whom will continue to support her breastfeeding into the postnatal period and beyond. The purpose of early teaching about breastfeeding is to teach the expectant mother about bonding and the importance of breastfeeding.

Inuit Prenatal Qaujimajatuqangit and Cultural Context

With my very first pregnancy, I remember my adoptive mother— who was a traditional midwife— started feeding me more country food, and she encouraged me to drink more broth. This was her way of teaching me how I would be able to produce milk. It also helped me become more accustomed to the food and broth before I gave birth. (Theresa Koonoo)

Historically, prolonged breastfeeding was the norm among Inuit and supported their way of life. Breastfeeding is a healthy behaviour sustained in Inuit culture through many generations and founded on Inuit prenatal Qaujimajatuqangit. Breastfeeding was a primary measure of survival for infants within Inuit families. Breastfeeding behaviours reinforce a positive sense of cultural self-identity for women and their families as they know they have learned a positive health practice and are providing for their infants in the same way as their ancestors (Health and Social Services Department, 2005).

Breastfeeding Support and IQ Principles

- Breastfeeding is a healthy maternal Inuit tradition and practice, where women are encouraged to breastfeed anywhere, at any time (Pilimmaksarniq/pijariuqsarniq); this traditional practice also reinforces the importance of skin-to-skin contact from birth.

- Openness, encouragement, and support are provided for the breastfeeding woman within Inuit families and communities. Inuit view breastfeeding as a natural process which meets immediate and essential infant needs (Tunnganarniq/Pijitsirniq).

- Breastfeeding strengthens the family as the breastfeeding woman receives support from family members and extended family, including her partner, parents, grandparents, aunts, siblings, and cousins (Inuuqatigitsiarniq).

- Breastfeeding also supports positive self-esteem for the breastfeeding woman, her partner, and her family, as it promotes a sense of responsibility, self-respect, and accomplishment as a new mother and provider; this practice also promotes positive role modeling and profound maternal–infant bonding (Inuuqatigiitsiarniq).

- Accessible support for the breastfeeding woman is essential for successful breastfeeding outcomes (Qanuqtuurniq).

Breastfeeding: Nutrition and Social Connections

Everyone in the community works together or comes together to make sure the need for food is met. This includes providing country food (Inuksiuti—Inuit traditional food).

- Natiminiq (seal meat) contains several essential nutrients that promote positive health and development for everyone who consumes its meat or broth. Natiminiq is an excellent source of protein, iron, vitamin A and D, omega-3 fatty acids, zinc, and selenium. Qajuq (hot broth) from natiminiq and other Inuit traditional food sources, such as tuktu (caribou), iqalu (fish), aqiggiq (ptarmigan), mitiq (duck), or kangok (goose), promote healthy breast milk and increased breast milk production.

- Men, fathers, and others who provide traditional food for Inuit extended families and communities promote positive health, self-esteem, and role-modeling by reinforcing their role as fathers, hunters, and providers. Inuit men who provide seal meat for their families and community directly support and promote breastfeeding. They also contribute to improving the health and development of their family and community.

- This supportive hunting behaviour (grounded in the guiding principles of IQ and Inuit societal values) also directly addresses food security related issues in Nunavut, thereby supporting families and communities.

- Breastfeeding parents and families experience less financial and emotional stress because breastfeeding is convenient and free.

- Drinking qajuq and eating uujuq (cooked meat) is particularly promoted during times where the breastfeeding woman is fatigued, unwell, or has other life stressors. During these difficult times, qajuq and uujuq will help her to continue to have healthy breast milk and maintain optimal breast milk production.

Public Health Interventions Related to Breastfeeding

Culturally appropriate community support systems and resources can be maintained, improved, produced, or established to promote successful breastfeeding outcomes (Qanuqtuurniq/Pilikmaksarniq/Inuuqatigiitsiarnik).

- The provision of qajuq and uujuq within communities through community programs, health, and nutrition programs, and health facilities can significantly improve successful breastfeeding experiences, resulting in a positive impact on the health status of prenatal women, infants, and families. Example: CHRs can partner with the Canada Prenatal Nutrition Program (CPNP) to provide a qajuq and uujuq cooking class (Piliriqatigiingniq). CPNP provides a good source of both Inuit traditional knowledge and Western health information.

- An IQ prenatal knowledge keeper could be made accessible within the community on a more formal basis to address the learning needs of prenatal women, partners, and families. Example: CHRs can invite an elder to speak at a CPNP event, or on a radio show about breastfeeding (Pilimmaksarniq).

  ○ It is important to note that this is a time sensitive issue as many IQ prenatal knowledge keepers and teachers are aging or have died within our Nunavut population.

  ○ Recording, preserving, and promoting this essential prenatal IQ knowledge will facilitate the continuance and transmission of learning from these central perspectives. Example: CHRs can strive to always add cultural context to teaching regarding breastfeeding (Pijitsirniq).

Peer support in Nunavut is provided in some communities through CPNP and provides pregnancy and parenting support. The annual breastfeeding challenge has also helped play a role in promoting breastfeeding. Educational resources that focus on promoting breastfeeding initiatives and address the importance of successful breastfeeding can be obtained from the Public Health Agency

of Canada (Green, 2021), Health Canada (Canada, 2020), and Government of Nunavut Health Department (Nunavut, 2017) websites.

Conclusion

Incorporating traditional knowledge is important to apply to public health alongside Western practices since both look at the root cause of illness. Taking a prevention approach to Inuit health, as well as being inclusive and innovative in addressing public health concerns, closely aligns with Inuit Qaujimajatuqangit (IQ). Adequate health education and awareness help to empower individuals, families, and communities to make informed decisions about their own health and well-being.
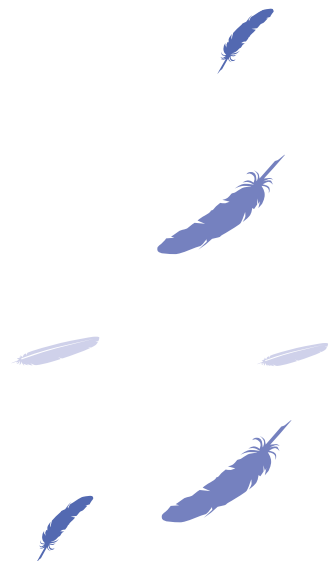
RACISM

Dr. Margo Greenwood, Academic Leader, National Collaborating Centre for Indigenous Health, Vice President of Indigenous Health, Northern Health, Professor First Nations Studies, UNBC

A deeply disturbing racism permeates Canadian society, which is especially evident in the health care system. Take, for example, the horrifying treatment of Joyce Echaquan, a 37-year-old Atikamekw mother who died in hospital, or the allegations of racism revealed in a "Price is Right" game against BC's health care system, or the fatal neglect of Brian Sinclair, a 45-year-old Indigenous man, or the forced and coerced sterilization of Indigenous women and girls. However, the urgent need to address the insidious racism entrenched in Canadian systems, including health care, is being recognized. On February 26, 2021, the first Indigenous incoming president of the Canadian Medical Association (CMA) stated, "it's … time to eliminate racism, sexism, ableism, classism and other '-isms' that permeate health system culture" (CMA, 2021, para. 8). These are daily realities for many First Nations, Inuit, and Métis peoples—ones anchored in a colonial past—and they demand societal change. This vitally includes transformation of the health care system.

In Canadian society today, there is a direct line from the history and experience of colonialism to the challenges of Indigenous-specific racism within the health care system (Turpel-Lafond, 2020). Whether colonization is situated as a defined term of events or as a determinant of Indigenous peoples' health, it is disastrous, long-lasting, and far reaching in its impacts on the lives of First Nations, Inuit, and Métis peoples. Colonization was and is a calculated attack on the very being of Indigenous peoples as individuals, communities, and Nations. Deeply embedded in the justification of European colonization of other continents was the concept of race, which until the 1500s had not existed as an identifier of people; instead, language and religion had been the distinguishing features. As race-based thinking developed, so too did the notion that colonial states were "civilized" and Indigenous peoples were "savages." Such an egregious view justified, in the minds of colonizers, the discovery of lands and assertion of rights over them. This resulted in extreme human rights violations and the illegal taking of lands and resources (PAHO, 2019).

Nowhere are the intergenerational impacts of colonialism and racism on Indigenous peoples' health and well-being more conspicuous than in the inequities experienced by Indigenous peoples across the determinants of health (PAHO, 2019). Indigenous peoples bear a greater burden of disparity on almost all markers of health and well-being compared with the broader Canadian society (de Leeuw et al., 2021). This living legacy of coloniality is not relegated to Indigenous peoples' individual experiences but rather includes the very structures that underpin the health care system. Despite these disturbing facts, "many Canadians are still unaware that they live in an unjust society and that the colonial institutions they work in systematically marginalize and exclude First Nations, Inuit and Metis peoples" (Greenwood, 2021, p. 2458). Many Indigenous peoples wait as long as they can before they access services because they do not want to subject themselves to the racism of the health care system (Turpel-Lafond, 2020).

As the abovementioned illustrates, racism extends beyond individuals to systems,

structures, and institutions. Findings by Allan and Smylie (2015) highlight "uneven access to health care services and resources created through [the Non-Insured Health Benefits Program] and other race-based policies" (p. 9) as examples of systemic racism in the health care system. These demonstrate how systemic racism is embedded in the very structures that constitute health care systems, making it very difficult to change. Anti-colonial strategies that challenge and disrupt current structures are important foundations upon which the health care system can build a more just environment. These include: the transformation of medical education; mandatory cultural safety and anti-Indigenous racism training; inclusion and promotion of Indigenous peoples in all aspects of the system; and so on.

Establishing population and public health care systems that are free of racism and discrimination and in which Indigenous peoples have the choice to access health services that are rooted in both Indigenous knowledge(s) and Euro-Western paradigms is a dream that must be realized. This dream demands that Indigenous peoples assume their inherent right to be self-determining and experience the harmonious and equitable relationships that should have always been possible. This dream requires great will and effort. However, the good news is that we are not starting from

nothing: Indigenous knowledge(s) have sustained Indigenous peoples since time immemorial.

That said, multiple distinctions-based and concurrent strategies that target individuals, policies, and structures within health care systems are still needed to create essential transformation and change (Greenwood, 2019). Fortunately, innovative anti-colonial strategies, programs, and processes currently underway act as guides for future efforts. For example, the historic creation of the First Nations Health Authority (FNHA) in British Columbia offers a systemic and structural change to the existing health care system. Though the FNHA is yet to realize its full potential, it is nevertheless a structural marker for future health system change. As another example, Northern Health's policy assessment document addresses policies in health care service delivery. This document, entitled *Cultural Safety and System Change: An Assessment Tool* (Northern Health, 2020)*, challenges health care service delivery policies to be inclusive of Indigenous peoples and ensure health equity in health service access.

Other markers of racism and discrimination in public health emerged out of the COVID-19 experience. Often referred to as the "great revealer," COVID-19 exposed gross inequities lying just below the surface of everyday

life for many Indigenous peoples and which exacerbate efforts to address the pandemic. Such efforts demand innovation; this might include developing and implementing policies guiding mass immunization clinics that are co-created with First Nations and Métis peoples and which serve as a model for future collaborations. Developing anti-colonial, anti-racist, culturally safe curricula aimed at ensuring and guiding culturally respectful relationships is another strategy for creating health system change. Some curricula are already in place, such as Northern Health's *Respectful Relationships*.

Culturally safe environments are ones that are "spiritually, socially and emotionally safe, as well physically safe for people" (Williams, 1999, p. 213); they are places "where there is no assault, challenge or denial of their identity, of who they are or what they need. It is about shared respect, shared meaning, shared knowledge, and experience of learning together" (Williams, 1999, p. 213). Coming to know other cultures that are different from our own is critical to understanding that many Canadians live as complicit individuals in an oppressive culture. This understanding is the cornerstone of culturally safe, anti-colonial, and anti-racist environments where individuals, systems, and structures are open, accepting of diversity, and empathetic.

A dream of an Indigenous public health vision is underpinned by the most fundamental of human challenges, and one that continues to test us across the generations: How can we, as humans, live in peace and harmony, respecting one another and our diverse ways of ways of knowing and being? Authors of the Royal Commission on Aboriginal Peoples articulated this challenge in 1996, saying, "Canada is a test case for a grand notion—the notion that dissimilar peoples can share lands, resources, power and dreams while respecting and sustaining their differences. The story of Canada is the story of many such peoples, trying and failing and trying again, to live together in peace and harmony" (Government of Canada, 1996, para. 2). This challenge belongs to us all!
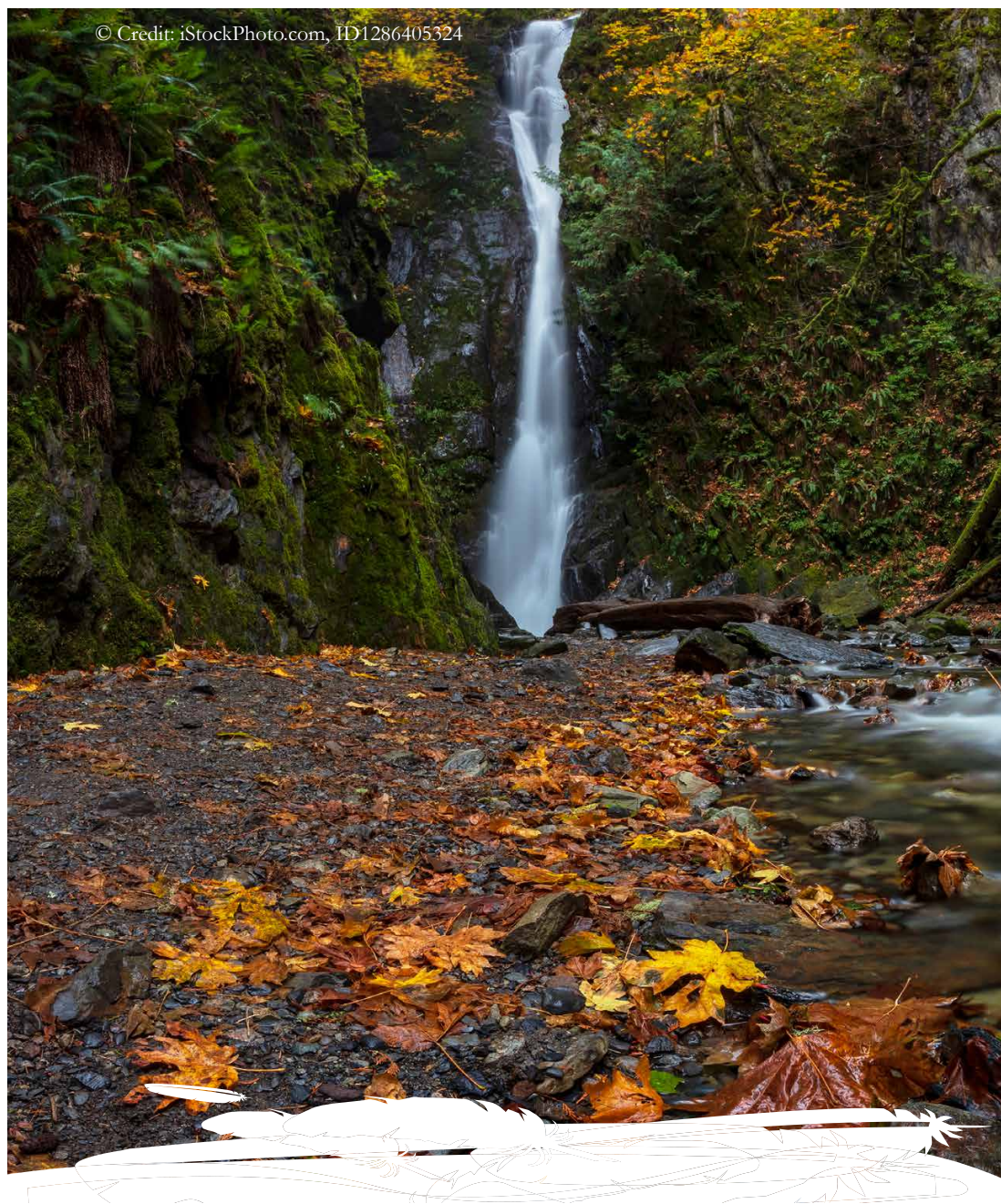
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Establishing population and public health care systems that are free of racism and discrimination and in which Indigenous peoples have the choice to access health services that are rooted in both Indigenous knowledge(s) and Euro-Western paradigms is a dream that must be realized.

INFECTIOUS DISEASES

Dr. Margo Greenwood, Academic Leader, National Collaborating Centre for Indigenous Health, Vice President of Indigenous Health, Northern Health, Professor First Nations Studies, UNBC; **Donna Atkinson**, M.A., Manager, National Collaborating Centre for Indigenous Health

First Nations, Inuit, and Métis (FNIM) peoples and communities have endured "waves of infectious diseases since the arrival of Europeans more than 500 years ago," including smallpox, influenza A (Spanish Flu, H1N1), tuberculosis, and the current severe acute respiratory syndrome coronavirus 2 (COVID-19) pandemic (Richardson & Crawford, 2020, pg. E1098). Indigenous experiences of past and present infectious disease outbreaks are unique within the broader Canadian context, bringing issues of historic and ongoing colonialization, inequity, sovereignty, and relationality to the forefront of Indigenous public health responses (Mashford-Pringle et al., 2021; Richmond et al., 2020). Below, we briefly examine some of the most troublesome infectious diseases that continue to affect the health and wellness of FNIM peoples.[2] In doing so, we highlight the inadequacies of existing data and surveillance systems—including a lack of disaggregated data on FNIM peoples—and the failure of public health policies and programs to fully understand and respond to Indigenous peoples' lived experiences and realities. We close with a consideration of how to strengthen infectious disease prevention, control, and management efforts.

Current Reality

A range of personal risk factors and determinants of health come into play in an individual's exposure and resistance to infection, disease progression, treatment, and management of illness after diagnosis (CPHO, 2013, 2018). For FNIM peoples, the determinants of infectious diseases, such as inadequate and overcrowded housing, poverty, food and water insecurity, limited access to quality health care, and an existing burden of chronic ill health, are exacerbated by historic and ongoing experiences of colonial violence, stigma, systemic racism, and discrimination within and outside of the health care system (CPHO, 2013, 2018; Ward & MacDonald, 2021). As a result, Indigenous populations have higher prevalence rates for some infectious diseases than non-Indigenous Canadians, despite only constituting 4.9% of Canada's total population. Given the enduring issues in health surveillance information in Canada, particularly race/ethnicity-based data, the burden of many infectious diseases on FNIM populations is likely underestimated (House of Commons, 2021; Mashford-Pringle et al. 2021; Office of the Auditor General of Canada, 2021b).

Tuberculosis (TB)

Tuberculosis is the "epitome of inequity in public health" (CPHO, 2018). Often referred to as a social disease with medical consequences, TB is a preventable and curable disease that disproportionately affects populations living in poor social and economic conditions (CPHO, 2018; PHAC, 2018a). Chronic conditions (e.g., diabetes, HIV), living conditions (e.g., crowding, poor air quality), and personal behaviours (e.g., smoking,

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[2] Many more could be listed, such as measles, mumps, chickenpox (varicella), and invasive meningococcal disease (Indigenous Services Canada, 2020).

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substance use) are also risk factors for TB development (PHAC, 2018a). TB rates vary among FNIM peoples. In 2016, rates of TB among Inuit were almost 300 times higher (196.6 per 100,000 population) than the rate in the Canadian-born, non-Indigenous population (ITK, 2018b; PHAC, 2018a). For First Nations, rates were 32 times higher (21.5 per 100,000) than the Canadian-born, non-Indigenous population in 2016, with rates 48% higher (15.5 per 100,000) for First Nations living on-reserve compared to those living off-reserve (PHAC, 2018a). Rates were considerably lower for Métis in 2016, but still 6.5 times higher (3.7 per 100,000) than in the Canadian-born, non-Indigenous population (PHAC, 2018a).

Sexually Transmitted and Blood-Borne Infections (STBBIs)

Sexually transmitted and blood-borne infections—including human immunodeficiency virus (HIV), hepatitis B and C, chlamydia, gonorrhea, syphilis, and human papillomavirus (HPV)—are a significant and increasing health concern in Canada even though they are preventable, treatable and, in some cases, curable (CPHO, 2013; PHAC 2018b). STBBIs do not affect all people equally. Of the 880 new cases (41.5%) of HIV in 2019 where race/ethnicity [3] was known, approximately 217 cases (24.7%) were Indigenous people (Haddad et al. 2021). Of these 217 cases, 92 (10.5%) were First Nations, 4 (0.5%) were Métis, 2 (0.2%) were Inuit, and 119 (13.5%) were Indigenous-not otherwise specified (Haddad et al., 2021). The geographic

distribution of STBBIs in Canada also varies considerably. For example, in Nunavut, where 85.9% of the population is Indigenous, chlamydia and gonorrhea rates in 2018 were the highest in Canada, at 3,965.9 per 100,000 and 1,911.1 per 100,000 respectively (PHAC, 2021; Statistics Canada, 2017). Nunavut has also reported the highest rate of infectious syphilis in Canada every year since 2012, with 2018 rates at 263.7 cases per 100,000 (PHAC, 2021). Additionally, "in Canada, Indigenous people have higher human papillomavirus (HPV) infection rates, lower screening rates for cervical cancer, and higher rates of invasive cancer, leading to worse cervical cancer-related outcomes than observed in non-Indigenous Canadian women" (Henderson et al., 2018, Abstract, p. 93).

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[3] As part of the HIV surveillance system (HASS), data are voluntarily submitted to the Public Health Agency of Canada (PHAC) by provincial and territorial health authorities. Data on race/ethnicity are submitted with varying degrees of completeness across the country. For example, in 2019, no race/ethnicity data was submitted by BC and Quebec. As a result, of the 2,122 new cases overall reported in 2019, race/ethnicity data for 1,242 of the cases (58.5%) was unknown (Haddad et al. 2021).

COVID-19 (SARS-CoV-2)

Indigenous peoples knew hundreds of years ago to separate themselves when they were ill. Shared stories from the past and Indigenous community leadership helped FNIM communities to navigate the first wave of the COVID-19 pandemic with lower rates of infection and lower case fatalities than non-Indigenous peoples, despite a greater risk of infection from existing health disparities and long-standing systemic inequities that made following public health measures challenging (e.g., physical distancing, hand washing) (House of Commons, 2021; Richardson & Crawford, 2020). Indigenous leaders' responses to COVID-19 during this first wave included: implementing curfews; restricting access to non-community members; innovative public health messaging; and program delivery (Mashford-Pringle, 2021; Richardson & Crawford, 2020; Richmond et al., 2020). Infection rates significantly increased in Indigenous communities during the second wave, including an alarming spike in cases in Nunavut, which had previously had no reported cases (House of Commons, 2021). As of July 21, 2021 there were 32,808 confirmed positive COVID-19 cases on First Nations reserves, including 260 active cases, 1,589 hospitalizations, 32,162 recovered cases, and 379 deaths, which is 52.9 per 100,000 or 4 times the respective rate in the general Canadian population (Indigenous Services Canada, 2021a).

Oral Disease

Rates of dental caries (cavities) are much greater among Indigenous populations than non-Indigenous populations in Canada, but frequently overlooked (Canadian Academy of Health Sciences, 2014, Appendix C). Indeed, Indigenous peoples "are believed to suffer some of the worst oral disease in Canada" (Canadian Academy of Health Sciences, 2014, Appendix C, p. 2). A variety of determinants of health are the primary contributing factors to oral disease in Indigenous peoples in Canada, including limited access to preventive oral health care on account of the isolated areas in which many Indigenous communities are found (Canadian Academy of Health Sciences, 2014, Appendix C, p. 3). Strikingly, "more than 90 percent of First Nations and Inuit adolescents had one or more teeth affected by cavities, compared with 58 percent of adolescents who were not Inuit or First Nations" (Office of the Auditor General of Canada, 2017, 4.27).

Getting to Change

Infectious diseases are complex, with extraordinary physical, historical, and moral circumstances converging, demanding change in our relationships with one another, with the land, and with other beings. A report of the Standing Committee on Indigenous and Northern Affairs concluded

that "historical underfunding and systemic barriers have made Indigenous peoples vulnerable to infectious diseases and pandemics [and] … we cannot return to the status quo once it is over" (House of Commons, 2021, p. 2). Indigenous peoples and organizations have repeatedly articulated the approaches and actions that will galvanize change in Indigenous public health (AFN, 2017; ITK, 2020; Richardson & Crawford, 2020; Mashford-Pringle et al., 2021). These are summarized in this section.

## Addressing the Determinants of Health

Strengthening the determinants of health is critical to any long-term infectious disease strategy (CPHO, 2013; House of Commons, 2021). This includes developing, implementing, and providing long-term funding for distinctions-based strategies in partnership with FNIM peoples to improve poor social and economic conditions. It involves supporting new or existing strategies focused on: poverty reduction (Canada, 2021a, chapter 7; ITK, 2021); housing and homelessness; food security; water and sanitation infrastructure; and access to culturally safe, high quality health care services, including preventive dental care (Canadian Dental Association, 2010).

Improving Data and Surveillance Systems

Smylie and Firestone (2015) note that "critical health assessment and monitoring information that is taken for granted by the large majority of Canadians, including population level tracking of the incidence course and risk factors related to acute and chronic disease, is simply not available or of substandard quality for Indigenous people" (p. 2). The Canadian Dental Association (2010) implies a related gap when it recommends "accurate measures for determining disease level and monitoring program outcomes" (para. 31) for Indigenous populations. Without improved data and surveillance systems, significant gaps in knowledge persist, particularly for Indigenous peoples living in urban centres and for Métis and non-status Indians. These gaps make it difficult to assess the true burden of disease and implement distinctions-based programs, resources, and tools to support infectious disease prevention, control, and management.

Ongoing Accountability and Reporting

Developing and implementing long-term infectious disease strategies and action plans, as well as reporting on progress on meeting targets and timelines,
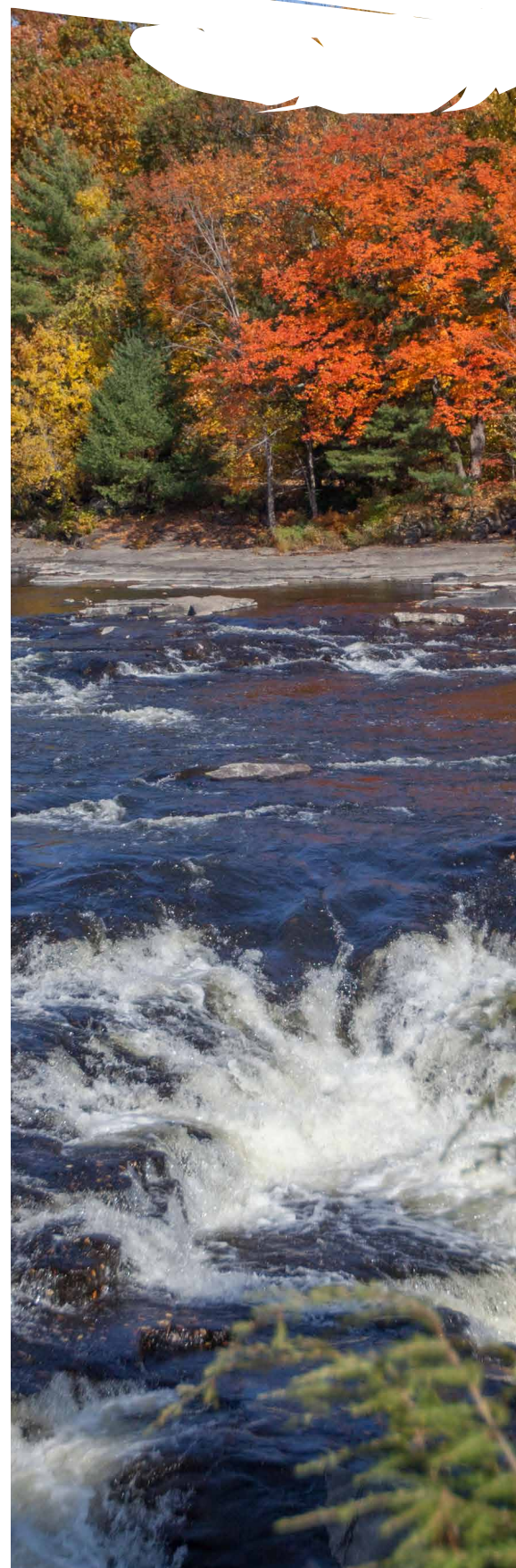
is essential to improving FNIM peoples' health. Canada has committed to action plans already, including:

- reducing the health impact of STBBIs by 2030 with the 90-90-90 targets for HIV/AIDS so that 90% of people living with HIV know their status, 90% of those diagnosed receive antiretroviral treatment, and 90% of those on treatment achieve viral suppression (PHAC, 2018b, 2020)

- decreasing/eliminating cervical cancer (an outcome of STBBIs), which will take several decades but is possible (Canadian Partnership Against Cancer, 2020)

- eliminating TB across Inuit Nunangat by 2030 and reducing active TB by at least 50% by 2025 (ITK, 2018b)

- eliminating all long-term drinking water advisories on public water systems on First Nations reserves by March 31, 2021. Although some progress was made with regard to this commitment in December 2020, Indigenous Services Canada acknowledged it would not meet this target (Office of the Auditor General of Canada, 2021a).

Addressing Vaccine Hesitancy

Vaccine hesitancy among Indigenous peoples is especially complex, given the direct relationship it has with the health care system and coloniality. Questions of value and safety of vaccines is unequivocally impacted by Indigenous peoples' historical and contemporary experiences and memories of human rights injustices in the health care system (Greenwood & MacDonald, 2021). Legacies of racism are illuminated by COVID-19 and put vaccine hesitancy into perspective. Acknowledging and addressing past and present injustices is the only way to build trust and overcome that hesitancy. A critical first step in addressing COVID-19 vaccine distrust is ensuring FNIM peoples' right to be self-determining. Simultaneous short-term strategies include pairing messaging about the scientific efficacy of the COVID-19 vaccine with information grounded in the strengths and wisdom of FNIM teachings. Successful vaccine messaging is co-created rather than imposed, and recognizes, celebrates, and draws on intergenerational

relationships and the collective orientations of Indigenous cultures. These actions will scale down the mistrust many FNIM peoples experience as a result of messaging that does not take these considerations into account.

Infectious Diseases in a Changing Climate

The emergence and resurgence of infectious diseases as a result of changes in weather patterns (e.g., warmer temperatures; more frequent drought and wildfires; increased precipitation) are expected to affect both the incidence and distribution of water-and-food-borne diseases, vector-borne diseases, and zoonotic diseases (Berry et al., 2014; Berry & Schnitter, 2022). A strong reliance on traditional or country foods, combined with an existing burden of health inequalities and inequities, places FNIM peoples at greater risk of climate-related infectious diseases (NCCIH, 2022). Distinctions-based climate change mitigation and adaptation strategies are needed to prevent, control, and manage infectious diseases in a changing climate (ITK, 2019).

In closing, history has shown that prevention of infectious diseases is critical for health, well-being, and economic prosperity. Two elements well known to increase survival are sanitation—including access to clean water—and high immunization rates. Ready access to these increased the survival of the non-Indigenous population in Canada by over 25 years in the last century. Indigenous communities have not reaped this benefit. Correcting this and addressing the social determinants of health that contribute to infectious diseases are much needed to address this survival inequity. The evidence is clear. Now, we need to make it happen.

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THE FUTURE OF SELF-DETERMINATION AND PUBLIC HEALTH

Dr. Marcia Anderson, Medical Officer of Health, Winnipeg Regional Health Authority

"Governments must make affirmative, legally binding commitments to the rights of Indigenous Peoples, including self-determination and the sovereignty of their territories, and work to address discrimination and past and present injustices."
("Self-determination and Indigenous health," 2020)

The above quote, from a 2020 *Lancet* editorial, highlights the importance of the right of self-determination to Indigenous Peoples' health. When we consider the public health challenges we are currently facing—COVID-19, overdoses, high rates of sexually transmitted and blood-borne infections—we know that Indigenous Peoples are disproportionately affected because of past and ongoing colonial impacts. We also know that, in many ways, past and current public health responses have been insufficient to address these gaps. However, successes and challenges throughout the COVID-19 pandemic provide lessons on how Indigenous self-determination can strengthen our public health systems and responses.

The United Nations Declaration on the Rights of Indigenous Peoples states in Articles 3 and 4 that Indigenous Peoples have the right to self-determination, and in exercising this right also have the right to autonomy or self-government in matters relating to their internal and local affairs (UN General Assembly, 2007). Article 18 states that Indigenous Peoples have the right to participate in decision-making matters that would affect their rights, including, for example, the equal right to the enjoyment of the highest attainable standard of health. When we consider these rights and how they apply to the organization and practice of public health, a flexible approach that responds to the many complexities of Indigenous Nations and identities within Canada will be required. Such an approach requires public health organizations' ongoing reflection on their collaboration and relationship with Indigenous Nations, communities, and individuals. Examples of reflective questions are provided below.

The COVID-19 pandemic has provided an opportunity to contemplate Indigenous leadership in public health. An illuminating example of the multiple layers of self-determination is the Manitoba First Nations Pandemic Response Coordination Team (MFNPRCT), the creation of which was mandated by the Assembly of Manitoba Chiefs. Roles included the deployment of Rapid Response teams to provide surge support for communities when needed, the reporting on First Nations-specific COVID-19 case and vaccination data, and policy and advocacy support at the provincial level. This work supported First Nations leadership and self-determination at the community level, where community leadership directed the community-based responses to limiting spread, including local public health measures

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Indigenous population health data disrupts White supremacy in population health reporting by aligning and privileging Indigenous epistemologies and perspectives of wellness.
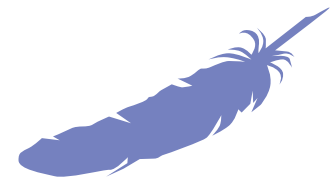
such as checkpoints and enhanced isolation requirements or lockdowns. This model is more challenging in the urban environment, where 40–60% of First Nations, Métis, and Inuit live. In these settings, it can be more difficult to operationalize autonomy and self-government; however, the rights to self-determination continue to exist. Indigenous-led community organizations have an important role to play in urban areas.

Whether an Indigenous person lives in a discrete Indigenous community (e.g., on-reserve) or in urban or other settings where they are part of a larger non-Indigenous population, both provincial and federal decisions impact their health and well-being. Continuing with the example of COVID-19, we might consider provincial public health orders that apply both on- and off-reserve or National Advisory Committee on Immunization (NACI) recommendations on vaccine prioritization. The initial NACI recommendation (December 2020) on Indigenous communities focused on remote and isolated communities, although available evidence at that time documented at least equal risk for First Nations people living in off-reserve settings (NACI, 2020). For example, as of December 4, 2020, there had been 1,137 COVID-19 cases among on-reserve First Nations people in Manitoba and 2,273 among off-reserve First Nations people (Assembly of Manitoba Chiefs, n.d.). With a focus on remote/isolated communities and without the same prioritization for off-reserve First Nations people, this gap continued. Even though more First Nations people live on-reserve in Manitoba, case numbers, hospitalizations, ICU admissions, and deaths were all higher for First Nations people living off-reserve. As of August 16, 2021, there had been 154 deaths among off-reserve First Nations people and 89 on-reserve. The listed NACI members, liaison representatives, and ex-officio representatives at that time did not include any Indigenous people, and it is unknown if this evidence showing at least equal risk off-reserve was taken into consideration. Significantly, NACI has since invited representation from Indigenous physicians and nurses in recognition of the need for this expertise.

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Moving forward, the following questions may help public health organizations reflect on how they can respect Indigenous rights in the practice of public health:

- For local initiatives:
  - Is there an Indigenous community organization that could deliver the initiative or program?
  - What resources, supports, and tools do they require to deliver the initiative or program?
  - What are the ongoing responsibilities of the public health organization?
  - How does the working relationship between the public health organization and the Indigenous community organization need to change in order to fully respect the right of self-determination?

- For regional/provincial/ national public health organizations and committees:
  - What Indigenous health and community expertise is required to make decisions that respect the equal right of Indigenous Peoples to the highest attainable standard of health?
  - How have we built that expertise through internal workforce and recruitment strategies?
  - What are the representative bodies that need to be included in decision making and that may have additional experts that can contribute to this work?
  - What information-sharing agreements and data governance protocols need to be in place so we can have high quality, Indigenous-specific evidence to drive decision making?

Indigenous leadership and self-determination are rights-based and will contribute to decisions and programs that are more responsive to the needs of Indigenous Peoples.

DATA: THE GRANDMOTHER PERSPECTIVE

Dr. Danièle Behn Smith, Deputy Provincial Health Officer, Indigenous Health, Province of BC

"First Nations governments are not wanting to operate with the Big Brother mentality that we've all been groomed into believing in relation to what data does to us—it's more like we want to come from the grandmother perspective. We need to know because we care."
(Gwen Phillips, Ktunaxa Nation, as cited British Columbia Office of the Human Rights Commissioner, 2020, p. 14)

Achieving our shared goal of healthy, vibrant Indigenous peoples requires Indigenous population health data (IPHD) that tells the stories of where we are and where we need to go.

Indigenous population health data requires a paradigm shift away from conventional population health data *about* Indigenous peoples. This section of the Indigenous public health vision has three sections. The first section describes *what* constitutes "Indigenous population health data." The second section focuses on *how* Indigenous population health data is created and governed. The final section describes *how* these data inform actions that help achieve our Indigenous population health vision.

What Constitutes Indigenous Population Health Data?

Indigenous population health data differs from population health data *about* Indigenous peoples because it actively disrupts the status quo, illuminates Indigenous peoples' strengths, and honours distinct First Nations, Inuit, and Métis populations.

Indigenous population health data disrupts White supremacy in population health reporting by aligning and privileging Indigenous epistemologies and perspectives of wellness. It includes a holistic definition of "data." Hierarchies of evidence are respectfully rejected. Different forms of evidence, including quantitative statistics, lived experience, and ancestral land-based teachings, are attributed equal value. IPHD is distinctions-based and reflects the experiences of diverse and distinct First Nations, Inuit, and Métis populations. It represents the whole of community data, that is, data that follow Indigenous kinship lines rather than colonial definitions of Indigeneity. IPHD is also strengths-based; it illuminates the deepest roots of Indigenous peoples' wellness. It shines a light on the components of our lives, histories, stories, and lived experiences that make us uniquely and distinctly First Nations, Inuit, and/or Métis. It pays attention to, and gives respectful space to, our cultures, languages, lands, Nations, and self-determination.

Finally, IPHD is relational. It contextualizes quantitative data and accurately describes deficit findings not as a way to gauge the extent to which Indigenous peoples are inherently deficient but rather as a measure of persistent systemic racism negatively impacting Indigenous peoples' health.

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How is Indigenous Population Health Data Created and Governed?

IPHD is created by Indigenous communities, either independently or in meaningful partnership with mainstream population health bodies. Two-Eyed Seeing approaches disrupt the population health data status quo by weaving together the strengths of Indigenous epistemologies and health knowledge systems with elements of conventional population health reporting. Two-Eyed Seeing makes the "colossal unseen dimension" (McIntosh, 1998, as cited in Ermine, 2007, p. 198) of White supremacy visible and facilitates the creation of ethical space, where data are being created in partnership with conventional public health.

IPHD is governed in alignment with specific First Nations, Inuit, and/or Métis data governance principles. These principles recognize Indigenous self-determination and self-governance. They ensure that the data and stories of First Nations, Inuit, and Métis communities are in the care and stewardship of those same communities. In upholding Indigenous data governance principles, IPHD advances the rights, jurisdictions, and interests of distinct Indigenous communities.

How Does Indigenous Population Health Data Contribute to Achieving a Shared Vision of Healthy, Vibrant Indigenous Peoples?

IPHD contributes to achieving healthy, vibrant Indigenous peoples in two fundamental ways: First, it celebrates and makes visible Indigenous peoples' many strengths and honours our resilience; second, it creates accountability within mainstream settler systems to arrest and disrupt structural and systemic racism. IPHD holds up a mirror for settler systems and decision makers, reflecting the systemic racism and social exclusion that continue to erode the roots of wellness of Indigenous peoples. Indigenous population health data helps tell the dynamic story of our collective, lifelong journey towards reconciliation.

Indigenous population health data must be conceptualized, collected, analyzed, and governed in ways that honour the strengths of Indigenous peoples and illuminate persistent systemic racism. Settler systems and decision makers must embrace Indigenous population health data in order to understand the work that remains to arrest the colonial practices, policies, and legislation that perpetuate inequities, as well as to work tirelessly towards reconciliation.

Achieving our shared goal of healthy, vibrant Indigenous peoples requires robust Indigenous population health data that makes visible where we are and where we need to go. Gwen Phillips' "grandmother perspective" articulates *how* we will get there: by rooting our collective work in compassion, care, and Indigenous self-determination.

GOVERNANCE: BY FIRST NATIONS, FOR FIRST NATIONS

Dr. Shannon McDonald, Acting Chief Medical Officer at the First Nations Health Authority in British Columbiah

Colonialism, Patriarchy, and Indigenous Health

Prior to the arrival of settlers, First Nations in what is now known as Canada had complex governance systems. They possessed a full body of laws, values, and acceptable behaviour, under which they lived with full jurisdiction upon traditional territories.

When Europeans settled in Canada, a system of government was imposed upon First Nations people which sought to remove them from those territories, disrupt their inherent systems, assimilate them, destroy their cultures, and destroy existing self-governing systems. Indigenous Rights and Title were denied and, in British Columbia (BC), very limited treaties were made with the people (First Nations Education Steering Committee & First Nations Schools Association, 2019).

Many negative assumptions were made (and persist) about First Nations people and the life they had led collectively for millennia. They were perceived as "lesser than" in all aspects of their lives. The poverty, isolation, starvation, and infectious diseases that settlers brought to the territories decimated many communities, and in the context of overwhelming colonization, traditional systems could not fully protect families and communities. To colonizers, this erroneously confirmed the thought that First Nations people could not care for themselves—a view that has had tragic outcomes. The colonial government assumed the responsibility of "civilizing" the Nations, detrimentally taking over the provision of a range of services for First Nations people, including health care services. The systems and structures built on colonizers' racist views and enforced on First Nations people have continued to negatively impact the health and wellness of First Nations people to this time.

Self-Determination and First Nations Health Governance: A Potential Conflict of Structures for Decision Making and Service Delivery

> UNDRIP Article 23: Indigenous peoples have the right to determine and develop priorities and strategies for exercising their right to development. In particular, indigenous peoples have the right to be actively involved in developing and determining health, housing and other economic and social programmes affecting them and, as far as possible, to administer such programmes through their own institutions. (UN General Assembly, 2007, p. 18)

First Nations have long identified the inadequacy of Canadian health systems and provided (or funded) services to sufficiently attend to the health needs of

their people. Treaty service arrangements, external control by central governments, and lack of recognition of community capacity and diversity among Nations have contributed to a system of health services that is inappropriate, inadequate, and full of systemic biases. These experiences have led First Nations leaders to seek another way for these services to be provided, recognizing the jurisdiction of First Nations for their members.

In British Columbia, the First Nations sought to create a system of health care service delivery "by First Nations, for First Nations" (First Nations Information Governance Centre [FNIGC], n.d.a, n.p.). After much work to develop partnerships and a number of negotiated agreements, First Nations in BC created the First Nations Health Authority. There was significant evidence that the health of First Nations people in BC was not as robust as other BC residents, and it was acknowledged that "the health system needs to better address the overall health needs

of First Nations people" (BC First Nations et al., 2010, p. 4). Since that time, a significant relationship and collaborative model of health service delivery has been evolving, with strong shared governance partnerships at First Nations, provincial, and federal levels. Other similar agreements across the country, and across the world, have developed to support First Nations and Indigenous people in their journey to reclaim sovereignty in all aspects of their lives.

From a BC First Nations perspective, Public Health Vision for Governance is the realization of First Nations Health Sovereignty. It is First Nations peoples defining, developing, and administering their own community-driven and Nation-based visions of Health and Wellness in meaningful partnership with the health system. The Governance section of the Public Health Vision will consider the existing First Nations health governance models. It will advocate for

"Nothing about us without us" at a systems-level. This means it will recognize the importance of reciprocal accountability and sharing the work.

Collaborative Models of Public Health Service Delivery

The existing models of Public Health Service delivery in Canada are complex and diverse, and the inclusion of First Nations political leadership, health care providers, organizations, and administrative and operational leaders at all levels of the public health system varies across the country. Full reciprocal accountability is evolving in some provinces, but for the most part, decisions about public health response, especially in the context of COVID-19, are being made without the full participation of First Nations or their skilled representatives. Recent experience has shown that where First Nations have been directly and equitably involved in public health response, the outcomes have been greatly enhanced.
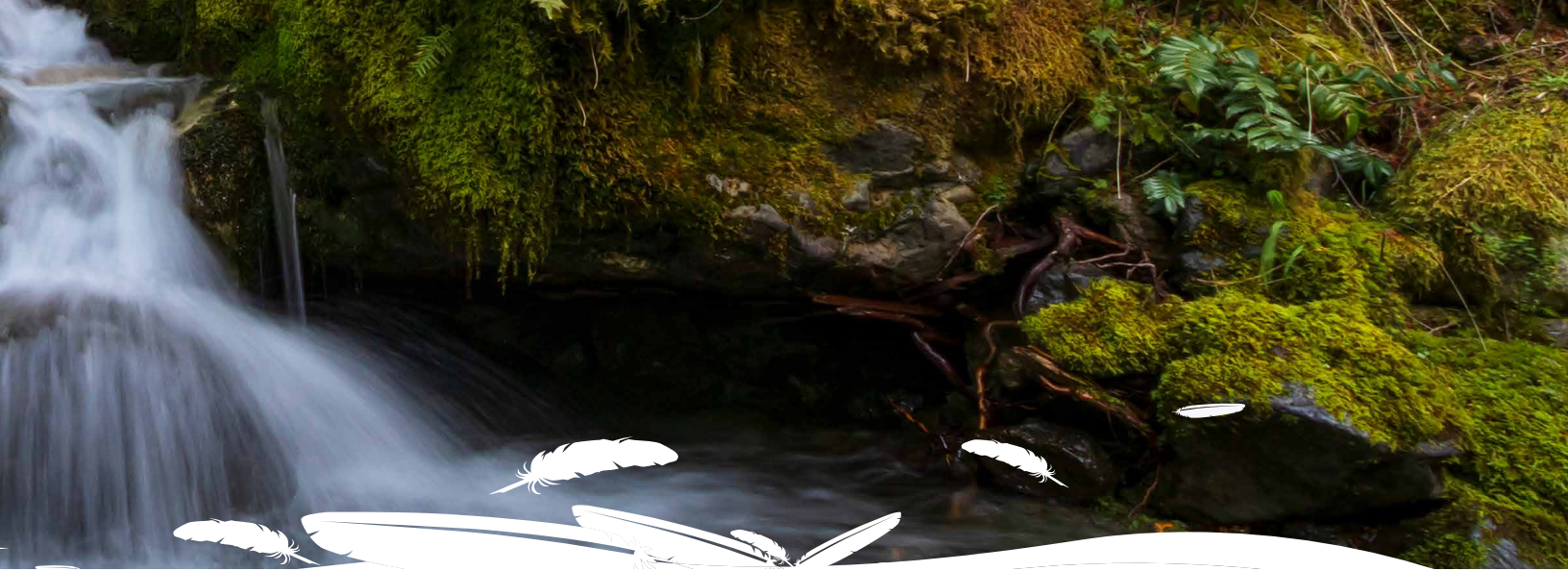
One contentious area has been regarding full transparency of First Nations specific public health data.

"First Nations Health Information Governance" is a component of First Nations Health Governance and refers to the structure, process and protocols by which First Nations in BC have access to First Nations Data and are influentially involved in decision-making regarding the culturally appropriate and respectful collection, use, disclosure and stewardship of that information in recognition of the principle that such information is integral to First Nations policy, funding and health outcomes. (First Nations Health Authority, n.d., para. 3)

Local access to data for communities as a requirement for fulsome ability to respond to needs for isolation requirements (as an example) has been limited to the health care providers in the "circle of care" (per legislated privacy requirements)—this despite variations in availability of these professionals and how these services are actually provided in communities. There is a need to fully utilize a Two-Eyed Seeing approach in the planning and implementation of public health actions. What is more, there is a need for policy makers to understand the reality on the ground for providers in the community. These are integral parts of the whole health system. Things must not be "done for" First Nations people but rather "done with."
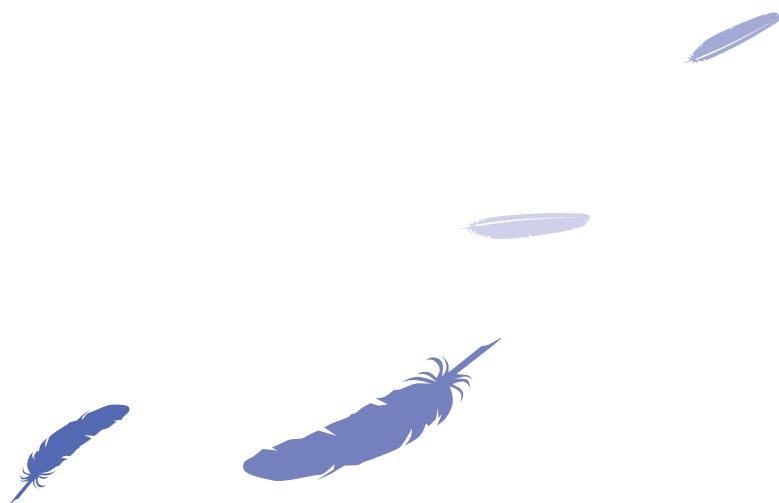
CASE STUDY: CHILD WELFARE RESPONSIBILITIES RETURNED TO COWESSESS FIRST NATION

Since time immemorial, Indigenous peoples in the lands now called Canada have had "traditional systems of culture, law and knowledge" (National Collaborating Centre for Aboriginal Health, 2017, p. 2) that ensured the protection of their children. However, during the 19th and 20th centuries, colonizers' attempts to assimilate Indigenous Peoples aimed specific attention at this population's children. The 1870s to the 1990s saw the planned systematic removal of Indigenous children, a practice involving government, church personnel, and the RCMP. These children were taken from their homes and placed in Indian Residential Schools, where they were subject to physical, sexual, psychological, emotional, and spiritual violence.

Well before the closure of the last school, social services, supported by provincial ministries, were apprehending significant numbers of Indigenous children, removing them from their families and cultures through the child welfare system in a process now known as the Sixties Scoop. This apprehension of children has continued into the 21st century (the Millennium Scoop). Today, over half (52.2%) of the children in foster care in Canada who are 0–14 years old are Indigenous, despite Indigenous children comprising only 7.7% of children 0–14 in Canada (Indigenous Services Canada, 2021b). Recently, Nunavut Member of Parliament, Mumilaaq Qaqqaq said that "foster care is the new residential school system" (as cited in Wright, 2021, para. 4).

First Nations, Inuit, and Métis communities and families from coast to coast to coast have long sought to regain control of child welfare. In 2020, the *Act respecting First Nations, Inuit and Métis children, youth and families* (Ministry of Justice, 2020), developed in cooperation with Indigenous peoples, came into effect. The legislation aimed to decrease the number of First Nations, Inuit, and Métis children and youth in care—but full responsibility of child welfare is not yet in the hands of Indigenous communities.

In the wake of the tragic discovery in June 2021 of 751 unmarked graves near the former Marieval Indian Residential School in Southern Saskatchewan, which operated in the area where Cowessess is now located, the federal government has signed "the first Coordination Agreement under the *Act respecting First Nations, Inuit and Métis children, youth and families*" (Canada, 2021b). This landmark agreement returns child welfare responsibilities to Cowessess First Nation. It also confirms the Cowessess Nation's inherent right to care for their own children and begins the process of redressing the wrongs done to Indigenous children and families for over two centuries across Canada.

ENVIRONMENT: THE ECOSYSTEM *IS* OUR HEALTH SYSTEM

Dr. Shannon Waters, Medical Health Officer for the Cowichan Valley Region at Island Health – Vancouver Island Health Authority

Indigenous peoples in Canada are diverse, but we share many perspectives on our relationship with the environment. Many Indigenous peoples have nurtured relationships with their surrounding environment for generations upon generations. Intimate knowledge of place—inclusive of land, water, animals, and plants—can be developed and shared over the life course. These relationships and this knowledge can support emotional, physical, mental, and spiritual health and reinforce that everything is connected. As Indigenous peoples, we have responsibility to, and are in reciprocity with, both the beings around us now and those who will comprise future generations.

In what became Canada, Indigenous knowledge about relationship, responsibility, and reciprocity was confronted by a differing worldview starting in the late-15th century. Settlers viewed environments, inclusive of Indigenous peoples living within them, as commodities that could be claimed, controlled, and colonized. Colonizers' anthropocentric view of the world drove their policies and actions, harming the health of the environment and all beings connected with it. As the 21st century unfolds, the effects of this anthropocentric worldview are becoming increasingly blatant. Humans have exploited the natural infrastructure of Mother Earth, leaving one million species currently threatened with extinction (Diaz, 2019). This biodiversity loss damages relationships between all beings. What is more, people who depend on these relationships find their livelihoods, food security, health, and quality of life endangered. Biodiversity loss, through means such as the carbon dioxide emissions from the destruction of forests (Watts et al., 2021), also contributes to climate change, which has been declared the greatest threat to global health in the 21st century, and which has already rendered some places uninhabitable for the beings within them.

Biodiversity loss and climate change are intricately linked (Pörtner et al., 2021), and their common basis must be addressed. To achieve this, the ecosystems of Mother Earth need to be recognized as foundational to the health of all beings because the ecosystem *is* our health system. We must shift from anthropocentric worldviews and re-learn that we, as humans, are part of a complex and interdependent web. Recent events have brought attention to the growing evidence that human-dominated ecosystems, where biodiversity is diminished to create economic growth, can increase the risk of disease pandemics such as COVID-19 (Gibb et al., 2020). While protecting biodiversity may play a role in preventing future pandemics, the natural world also provided ways to support health during the COVID-19 pandemic.

As a Hul'qumi'num woman who works as a Medical Health Officer in my home territory, I go to the rivers to bathe, as Elders have taught me. I ask the water to carry my heaviness away. The land and waters are healers, as recent research has shown. Across nine different countries

during the COVID-19 pandemic, contact with blue-green spaces was found to be beneficial for mental health (Pouso et al., 2021). As we were asked to "stay close to home" during the pandemic, the importance of our connections to the natural world around us became highlighted. This illumination hopefully prompted more people to realize that if we nurture the natural world, it can also nurture us.

The urgent need to address our relationship with the environment is exemplified in many ways, including the western North American heat wave that occurred just days into the summer of 2021. Unprecedented high temperatures resulted in increased human deaths (BC Coroners Service, 2021), deaths of other species (estimated at more than one billion deaths for seashore animals on the Salish Sea coastline alone [Migdal, 2021]), rapid snowmelts, flooding, exacerbations of drought, and wildfires. The gravity of this situation necessitates a fundamental shift: We must place the well-being of our environment at the centre of all our decision making. We need to rapidly re-vision the prevailing anthropocentric worldview of the planet to one where we honour our relationships with all beings in our shared environment. We

have international and national tools we can employ to make this vital shift, and Indigenous peoples' knowledge and inherent rights are the basis of their potential. Article 25 of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) explicitly states, "Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their […] lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard" (UN General Assembly, 2007).[4] In 2019, British Columbia passed the *Declaration on the Rights of Indigenous Peoples Act* requiring alignment of BC's laws with the UN Declaration. A powerful and timely place to start this alignment is with the legislative review of the *Drinking Water Protection Act* (2001) that was called for by the Auditor General in 2019 (Auditor General of BC, 2019). A focus of new legislation should be the protection of water for all beings.

Beyond pushing for legislative change, we can also look for ways to create spaces and promote models in our work that re-establish connection, ownership, control, management, or co-governance of the natural environment by Indigenous

Biodiversity loss and climate change are intricately linked, and their common basis must be addressed. To achieve this, the ecosystems of Mother Earth need to be recognized as foundational to the health of all beings because the ecosystem is our health system.

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[4] "In December 2020, the Government of Canada introduced legislation to implement the Declaration. On June 21, 2021, Bill C-15, the United Nations Declaration on the Rights of Indigenous Peoples Act received Royal Assent. This Act will provide a road map for the Government and Indigenous peoples to work together to fully implement the Declaration" (Ministry of Justice, 2021).

peoples. A United Nations report states that "nature is generally declining less rapidly in Indigenous peoples' lands than in other lands" and that "governance […] involving Indigenous peoples […] can be an effective way to safeguard nature" (Diaz, 2019, p. 8). The incredible lasting potential of the human–environment relationship was recently displayed in the Pacific Northwest by Indigenous forest-tending practices that provide diverse resources and habitat for animals and other pollinators that, 150 years after the tending practices were disrupted, are richer than the naturally forested ecosystem (Armstrong et al., 2021). The recognition, support,

and advancement of Indigenous sovereignty is needed to protect the environment. After all, Indigenous sovereignty *is* sustainability.

As a Hul'qumi'num public health physician, I am honoured, privileged, and challenged to sit on the Cowichan Watershed Board, led by Cowichan Tribes and the Cowichan Valley Regional District, as we practise *Nutsummat qws yaays th qa*—"we all come together to work together for the watershed." The Cowichan Watershed Board is now in its second decade of existence. Through co-governance, the relationship of the Quw'utsun peoples with

the watershed is central to its work. The Board faces climate change and biodiversity loss (as does every living thing), resulting in declining river flows and degraded salmon habitat, respectively. These changes affect all other beings within Hul'qumi'num territory as well. The many ways the Board has been able to foster resilience, from designing a weir for water storage, to having local community members wade the rivers to document its status, are testament to the restorative potential of returning to relationship with the environment.

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URBAN INDIGENOUS PUBLIC HEALTH VISION: NOTHING ABOUT US, WITHOUT US

Dr. Sarah Funnell, Associate Medical Officer of Health, Ottawa Public Health; Founding Director, Centre for Indigenous Health Research and Education (CIHRE), Faculty of Medicine, University of Ottawa; Indigenous Health Director, Department of Family Medicine, Queen's University

Urban settings are often falsely thought of as non-Indigenous lands, yet all urban settings are traditional territories—some treaty lands, some unsurrendered. Urban Indigenous communities are not uniform across the country and may comprise a diverse mix of First Nations (status and non-status, on- and off-reserve), Inuit, and Métis Peoples (Champlain Indigenous Health Circle Forum, 2017; Tungasuvvingat Inuit, 2017). Each group experiences unique health and social challenges, while at the same time bringing with them richness in ceremony, traditions, and ways of being. What is common to all groups is the experience of colonialism and ongoing racism at all levels (individual, systemic, internalized, etc.). The United Declaration on the Rights of Indigenous Peoples (UNDRIP) acknowledges that Indigenous Peoples are self-determining, meaning they have the right to determine what they require in order to be healthy and well, including the right to practise traditional healing (UN General Assembly, 2007).

Colonialism removed this right to self-determination through assimilationist policies that have resulted in the many health disparities Indigenous Peoples experience today (Reading & Wien, 2009). The result of historical paternalistic practices, policies, and programs (e.g., Indian hospitals, TB programs) is an inequitable public health system that continues to be entrenched in anti-Indigenous racism. Within an urban environment, assessment, planning, implementation, and evaluation of Indigenous public health programs and services require engagement and empowerment with local urban Indigenous organizations that provide health and social services, including local First Nations communities on-reserves (where applicable).

Engagement occurs on a linear spectrum. It begins with informing and ends with collaboration, with the objective of reaching an ideal state of empowerment (Stuart, 2017). To achieve this, public health entities must embrace authentic, empowering engagement (Berthiaume et al., 2017; Ministry of Health and Long-Term Care, 2018). A similar spectrum exists that is more meaningful to Indigenous Peoples and which illustrates a range of authenticity, from inclusion, to reconciliation, to decolonization (Gaudry & Lorenz, 2018). On this spectrum, Indigenous inclusion is the most superficial; reconciliation is about relationships in which power is shared; and decolonization (self-determination) is about returning power to all Indigenous Peoples, including those living in urban environments.

Vital to any urban Indigenous public health vision is recognizing the diversity of urban Indigenous

populations. A "one size fits all" model of public health programs and services in urban Indigenous settings will not adequately address the complexity of needs and strengths of the populations being served. Instead, a public health vision for urban Indigenous populations requires a principled approach that respects Indigenous self-determination, considers the unique qualities of each urban setting, and is centred on reconciliation. Such a vision could use the 4Rs Framework (4Rs Youth Movement, 2017) to ensure adherence to an authentic cross-cultural dialogue and principled approach to public health. The 4Rs are as follows: 1) Respect; 2) Reciprocity; 3) Relevance; and 4) Reconciliation.

The fourth R, Reconciliation, along with self-determination, leads to empowerment. Reconciliation is not possible without colonial structures being stripped of the power they violently removed from First Nations, Inuit, and Métis Peoples. Within urban settings, governments providing public health programs and services must work with local Indigenous health and social service agencies to determine what is needed for each community and to understand how to leverage the strengths within the community. Creating culturally appropriate public health programs in urban settings means working with

Indigenous communities and organizations to determine the following:

- health priorities

- existing strengths

- what resources must be developed or leveraged to play to those strengths

- local data governance principles

- formal agreements (where necessary)

To achieve this in a good way takes time and resources. Program development models can be used as guides to determine what is needed. The following list suggests a scaffolded action plan for improving public health in urban Indigenous settings:

1. Establish a team with Indigenous service providers.

2. Conduct a situational assessment, including strengths.

3. Identify goals, outcomes, and objectives.

4. Identify strategies, activities, and resources.

5. Develop indicators.

6. Review the plan and, if needed revise.

It is also important that mixed methods approaches to evaluating public health services and programs for urban Indigenous populations utilize Indigenous

ways of knowing. First Nations, Inuit, and Métis consultants should be employed to develop and evaluate these programs and services. Assessing existing programs for the extent to which they are free from anti-Indigenous racism and respect cultural safety is imperative.

Additionally, it is vital that Indigenous ways of knowing as they relate to health and wellness are recognized, respected, and sought after by mainstream public health bodies. For example, empowering traditional healing practices should be an important component of urban Indigenous public health programs and services. These practices should be identified by the community and endorsed by respected Elders. These Elders should be provided honoraria for their consultations.

Mainstream public health entities, whether local, regional, provincial, or federal, should also follow wise practices that ensure the health care system is culturally safe. These may include the following:

- policy and system change

- community engagement

- recruitment and retention of Indigenous staff and health care providers

- anti-Indigenous racism and cultural safety education

- Indigenous client care and outcomes

An example of an urban public health entity that is addressing inequities for First Nations, Inuit, and Métis Peoples and attempting to make policy changes is Ottawa Public Health (OPH), which has over $300,000 in base funding to support Indigenous public health projects. The Ottawa Public Health Reconcili-Action Plan outlines OPH's goal "to become a culturally safe and humble organization through systematic quality improvement efforts that enable individual and collective actions that promote Indigenous health equity and reconciliation".

The plan has a framework that is grounded in cultural humility and safety, and built around relationship, reciprocity, respect, and reflection.[5] OPH has partnered with the Ottawa Aboriginal Coalition to support some of their priority areas. While the efforts are not entirely decolonizing, they represent a commitment to power-sharing and reconciliation.

Urban Indigenous Peoples have the right to the highest attainable health, and they know what is required to be healthy and well.

An urban Indigenous public health system with authentic engagement and empowerment of First Nations, Inuit, and Métis Peoples requires investment in time and resources, such as OPH has initiated. Programs and services should not be treated as special projects. Instead, they should be provided sustainable base funding so that they have the best chance of success.

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[5] OPH hired Indigenous Evaluation consultant Johnston Research to ensure Indigenous ways of knowing were included in the evaluation framework of the Reconcili-Action plan. This material is adapted here with permission from Ottawa Public Health. For educational and non-commercial purposes only.

MENTAL WELL-BEING

Dr. Christopher Mushquash, C.Psych., Canada Research Chair in Indigenous Mental Health and Addiction, Professor, Department of Psychology, Lakehead University and Northern Ontario School of Medicine; Psychologist, Dilico Anishinabek Family Care; Director, Centre for Rural & Northern Health Research; Associate Vice President Research, Thunder Bay Regional Health Sciences Centre; Chief Scientist, Thunder Bay Regional Health Research Institute

Canada's Indigenous (First Nations, Inuit, and Métis) people are diverse, with rich histories, cultural traditions, languages, and methods of healing. While Indigenous people and communities are unique, there exists the shared experience of historic and ongoing processes of colonization that have disrupted health and mental wellness. Within many Indigenous communities, health and mental wellness are viewed as holistic concepts (Health Canada, 2011, 2015). According to these cultural understandings, overall wellness is a function of the balance between physical, emotional, mental, and spiritual domains (Health Canada, 2011, 2015). Wellness is disrupted when this balance is upset.

Additionally, wellness is explicitly embedded in identity, which can include associations with time and place; connections to land and relational interactions with Elders, cultural knowledge keepers, and healers are considered a part of the mechanism of healing. In this way, the health of an individual is embedded within history, culture,

family, community, and the environment. This is a view that is markedly different from non-Indigenous concepts of mental illness, which tend to focus on deficits and problems as major determinants, with health being a freedom from illness (Dell et al., 2012; Health Canada, 2015). The reliance on deficits-based or categorical diagnosis-based models when developing services can direct the type of treatment that is applied to the individual. In some cases, there is a relevant evidence base and approach, but in other cases, comorbidity is the rule and appropriate services are unavailable. While mental health services have been implemented to attempt to address need, it has been argued that these services do not meet the cultural and contextual realities of Indigenous communities in part because they do not allow for Indigenous communities to determine how services will be developed and provided (Dell et al., 2012).

The mental health needs of Indigenous peoples are often greater in comparison to non-Indigenous Canadian populations. For example, suicide

is 2 to 10 times more likely for Indigenous youth in comparison to general populations (Lehti et al., 2009). Indigenous children are also at a heightened risk for experiencing mental health difficulties because of a significant majority (78%) experiencing at least one adverse childhood experience (ACE), such as emotional/physical/sexual abuse or neglect, or witnessing intimate partner violence (Brockie et al., 2015). In comparison, 28.6% of young children in the southern part of the United States experienced at least one ACE (Whiteside-Mansell et al., 2019). The impact of adversity is cumulative, so that each additional adverse event that an individual experiences increases the risk for poorer health outcomes (Brockie et al., 2015).

Many Indigenous groups have developed their own models for the implementation of care that is culturally and contextually appropriate. For example, the *First Nations Mental Wellness Continuum Framework* (MWCF) (Health Canada, 2015) has identified overarching themes

across Indigenous cultures in Canada, identifying that people display mental wellness when they are supported to have the following: hope for their future and their family's future (through identity, values, and spirit); a sense of belonging (e.g., to family, community, culture); a sense of meaning (as part of creation/history); and purpose in their daily lives (e.g., employment, care-giving, ways of doing [Health Canada, 2015, pg. D]). A full spectrum of culturally and contextually appropriate supports and services is necessary for mental wellness. The MWCF includes:

- Health Promotion, Prevention, Community Development, and Education
- Early Identification and Intervention
- Crisis Response
- Coordination of Care and Care Planning
- Detox
- Trauma-Informed Treatment
- Support and Aftercare

While these models of care have been thoroughly explicated and informed by cultural and community-based knowledge as well as psychological/biomedical approaches, their implementation remains hampered by lack of resources to see them fully realized. Additionally, corrective

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measures are required across a range of areas where Indigenous people find themselves interfacing with, and experiencing over-representation within, less-than-ideal outcomes. The national news regularly provides readers with reports of incidents where Indigenous patients have experienced exceptionally poor care in mainstream systems. The Truth and Reconciliation Commission (TRC) Calls to Action (Truth and Reconciliation, 2015) highlight important changes needed in child welfare, education, health, and justice/corrections. One does not need to look very far to encounter terribly difficult stories and examples of the experiences many Indigenous people have interfacing with these systems.

The development of treatment that addresses community-specific mental health needs, while integrating and fostering a greater sense of wellness is required (Health Canada, 2015).

Within many Indigenous communities, health and mental wellness are viewed as holistic concepts. According to these cultural understandings, overall wellness is a function of the balance between physical, emotional, mental, and spiritual domains. Wellness is disrupted when this balance is upset.

In particular, collaborations that balance Indigenous knowledge and Western knowledge can lead to the development of innovative services that address communities' needs within their given capacities (Health Canada, 2015). By harnessing community knowledge in the development of services, communities can direct these

services to be relevant, based on community needs, and more effective (Health Canada, 2015). One area that needs improvement is timely access: Waitlists for mental health services in First Nations communities often make services inadequate to meet community needs (Health Canada, 2015, p. 1). A robust system of care would support all individuals across the lifespan and would include multiple levels of prevention (e.g., primary, secondary, tertiary), as well as specialized services that meet the needs of those most vulnerable in Indigenous communities. During this era of Truth and Reconciliation, it is incumbent upon mental health and addiction systems and services to improve outcomes among Indigenous peoples. Research and evaluation efforts specifically designed to understand cultural- and contextual- aspects of wellness present mechanisms for this improvement. That is, it is equally important to measure, monitor, evaluate, and disseminate data

so that communities can benefit from the experiences of others doing similar work. This will require careful attention to governance, as well as ownership, control, access, and possession of data (FNIGC, n.d.b) between researchers and communities.

In conceptualizing mental wellness in Indigenous communities, it is important to delineate both culture and context. Culture includes all the socially transmitted aspects of a way of life, from values and knowledge to social behaviours and practices (Kirmayer et al., 2012). Some examples of aspects of that many Indigenous cultures share include collectivistic attitudes, holistic conceptualizations of health, and specific strategies for healing (e.g., ceremony, song, sweat lodges). Context, by contrast, includes situational variables affecting many Indigenous people, such as a shared history of colonialism, aggressive assimilation practices as federal

policy, remoteness (e.g., fly-in location), lack of access to proximal, intermediate, and distal determinants of health (Reading & Wien, 2009), and poverty. In the context of the discovery of unmarked graves located on or near the former grounds of residential schools as well as the ongoing environmental disruptions and near-seasonal temporary relocation due to flooding and/or forest fire risk, a broader approach to wellness is clearly necessary—one that respects culture and context and that is grounded in a strengths-based approach to mental wellness. After all, is it reasonable to expect wellness to flow of its own accord in the face of such disruption, distress, and uncertainty?

ASSESSMENT OF AND RESPONSE TO[6] FIRST NATIONS, INUIT, AND MÉTIS WELL-BEING[7]

Dr. Janet Smylie, Director, Well Living House Action Research Centre for Indigenous Infant, Child and Family Health and Wellbeing and Staff Physician, Department of Family and Community Medicine (St. Michael's Hospital); Professor, University of Toronto, Dalla Lana School of Public Health and Department of Family and Community Medicine, Faculty of Medicine; Tier 1 Canada Research Chair in Advancing Generative Health Services for Indigenous Populations in Canada

Introduction: Indigenous and Non-Indigenous Public Health and Health Information Systems

Assessment, including monitoring environmental and health status and response to identified problems and hazards, is a core pillar of modern public health systems (Center for State, Tribal, Local, and Territorial Support, 2021. For Indigenous peoples, the natural environment was and still is essential to our physical survival and cultural continuity. Collective assessment of and response to human and environmental well-being cuts across Indigenous and non-Indigenous systems of public health.

Public health systems are not new to First Nations, Inuit, and Métis peoples. In fact, systems, policies, and practices promoting individual and collective well-being are historically embedded in Indigenous cultures. This is achieved through close monitoring of, and response to, living environments and linked health status. The success of societies that were closely bound to the natural world required careful and longitudinal observation and tracking of environmental and community health status. Policies and practices to prevent and mitigate disease were prevalent and built into day-to-day life. For example, cleanliness is one of the 15 core principles represented by Cree teepee teachings (Lee, n.d.).

This principle is not only about physical hygiene; it is also about spiritual and mental wellness, as well as social tidiness and peace. Principles such as these continue to be critical for Indigenous nations.

From my Métis perspective, health information could be defined as a collective social resource composed of one or more observations or insights about ourselves, our families, and our relations—including our land and lived environments. Such a resource is commonly carefully considered, organized, and presented in ways that reflect and advance individual, family, community, and/or nation well-being. Historically, the media for sharing this information in

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[6] I have purposefully used the phrase "assessment of and response to" rather than the term "surveillance" for two reasons: 1) The word surveillance is associated with imposed, possibly involuntary or hidden close observation or inspection by external authority (Collins, n.d.) and hence can have negative connotations for Indigenous peoples; and 2) The generation of knowledge is commonly closely tied to its application in Indigenous paradigms (Smylie, 2011).

[7] I have purposefully used the word "well-being" for two reasons: 1) It is strengths-based; and 2) it is a better representation in English of my understanding, as a Métis woman whose traditional language is Cree, of the Cree concept of Miyopimatisowin ("living well").

Indigenous communities was built into daily, monthly, seasonal, or multi-year living and planning cycles. Examples included: personal or traditional storytelling or narratives; formalized oral or graphic tracking and monitoring of family and environmental change by specific responsible individuals; and/or discussions by heads of households or societies during seasonal multi-family or multi-community gatherings. The integration of secular with sacred in Indigenous paradigms means that health information is not only an essential gathering of empirical and experiential knowledge; there is also a profound and sacred spiritual source of, and value to, these paradigms.

Current Reality

From a technical perspective, First Nations, Inuit, and Métis (FNIM) health information systems (HIS) are uniquely substandard with respect to information quality, comprehensiveness, and population coverage when compared with non-Indigenous systems in Canada. At a technical level, key problems include: a lack of consistent and relevant Indigenous-specific identifiers in core data sources; gaps in data production, sharing, and coordination across local, regional, and national levels; and frequent default use of substandard methods. Data gaps are particularly striking for

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FNIM living in urban and related homelands (where more than half of the Indigenous people now live) and for Métis and non-Status Indians.

These shortcomings have been highlighted during the COVID-19 pandemic. To date, with few exceptions, the disproportionate impacts of COVID-19 among the large populations of FNIM living in urban epicentres have been almost completely masked. Rates of COVID-19 vaccine uptake among FNIM living in urban areas, Métis, and non-Status Indians are also virtually unknown, with the data that are available pointing toward much lower rates of uptake in urban epicentres than on-reserve and in Inuit Nunangat.

Importantly, the root of substandard FNIM health information systems goes far beyond these technical challenges.

The root of these problems is the persistent external imposition of colonial policies and models to FNIM health information systems. One example can be found in the *Indian Act*, which imposes a definition of Indigeneity that is in tension with Indigenous understandings of kinship. Another linked example is how Indigenous Services Canada continues to limit access to critical federal programs and services, allowing access only to First Nations living on-reserve or Inuit living in the north and excluding other constitutionally recognized Indigenous peoples. These and other colonial policies normalize the use of externally imposed definitions of Indigenous identity. They also standardize the exclusion of FNIM if they live in cities, even though the application of an approach which purposefully excluded settled sub-populations based on their ethnic identity would likely be viewed as discriminatory were it applied in non-Indigenous HIS contexts.

The historic development of FNIM health information systems using non-Indigenous models has also resulted in frameworks and indicators that are commonly in tension with local FNIM understandings of health and well-being. There is a focus on deficit-based, individual level disease measurement. Important priorities, such as the strength of family and community kin networks and the state of the local natural environment, are either not included or are assessed in ways that are not locally relevant.

In response to these colonized approaches, First Nations, Inuit, and Métis have been asserting and advancing FNIM data sovereignty and data systems. Nation-specific approaches are essential. While much has been achieved, existing efforts are hampered by political complexities and jurisdictional divisions that do not always reflect traditional community kin and governance systems. Rooting out colonial assumptions and building health assessment and response systems that have nation based cultural integrity *and* advance well-being is a monumental task. The paucity of FNIM health information specialists makes the task near impossible.

There is an incorrect assumption that advancing distinct nation-based FNIM data sovereignty requires disconnected and siloed systems. For example, there is commonly a disconnect between developing systems for First Nations who are living in on-reserve communities and relatives who are living in urban and related homelands. Foundational to the architecture of successful health information systems is the interface between and across smaller source datasets. These interfaces or linkages are a prerequisite to quality, comprehensive datasets for defined populations (Smylie & Firestone, 2015). Fortunately, advances in both technical data system capabilities and data-sharing agreements that promote FNIM data sovereignty could facilitate local and regional distinct nation data governance without siloes. What is required is advancing formalized relationships across the distinct nations and jurisdictions. In the meantime, these jurisdictional divides are negatively impacting the ability of FNIM health information systems to contribute to collective FNIM well-being and timely responses to environmental and disease threat.
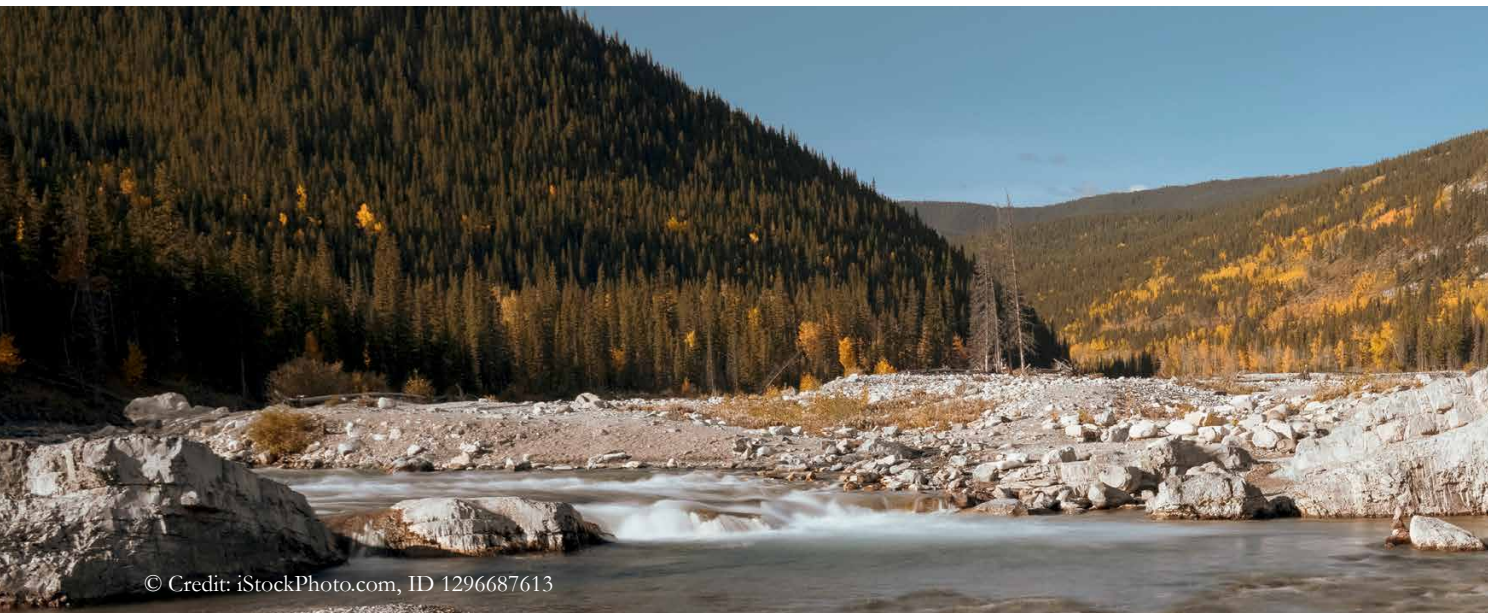
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Seven Core Features of Envisioned Health Assessment and Response Systems for First Nations, Inuit, and Métis (FNIM) in Canada

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1. Interrelated and Interconnected

    a. Given the common challenges of colonization and racism—particularly in areas where there is shared geography of residence and/or shared interface with/ use of non-Indigenous systems—systems are interconnected, reflecting the need for relationships across and between nations

    b. Systems support alliances within and across Nations to support rapid sharing, aggregation as required to advance collective health, well-being, and environmental protections

2. Distinct Nation Relevance, Localized Cultural Integrity, Equity-Oriented

    a. Health information frameworks, domains, and indicators reflect the worldviews, concepts, priorities, and ideas of the distinct FNIM collectives who are represented by the information.

    b. To unmask and address health inequities, measures and milestones include both local and/or regional, cultural- and/or nation-specific items and cross-cutting indicators that can be compared to non-Indigenous populations and/or rolled up within and across distinct FNIM nations.

3. Inclusive, Culturally Relevant, and Respectful Identification and Inclusion of FNIM Across Geographies

    a. Systems inclusively and respectfully identify all FNIM individuals, families, and communities across geographies in ways that reflect and contribute to the integrity of nation-defined kin systems.

    b. No constitutionally recognized Indigenous person or community is left behind.

4. Accurate and Comprehensive Mapping and Monitoring of Health, Well-Being, Environment, and Disease Across Geographies

    a. Core information sources have consistent and relevant FNIM identifiers in core data sources across urban, rural, and remote geographies.

    b. There is sharing and co-ordination across local, regional, and national levels.

    c. Infrastructure, data science, data analysis, and data communication methods and systems are state of the art.

5. FNIM Community-Led and Staffed

    a. A minimum of 10% of the total public health workforce in Canada is Indigenous.

    b. Health assessment and response systems that are led, governed, and managed by FNIM, and that are locally, regionally, and nationally relevant, are promoted.

        ○ This can only occur if there is a substantive increase in FNIM health information leaders who have both advanced national specific leadership skills *and* technical knowledge and experience.

6. FNIM Community Housed

    a. As a sacred community resource, FNIM health information is related to and taken care of by the people whose information it is. Local and regional nation-specific data custodians ensure that the information is stored and shared in ways that balance protection with benefits to the collective. Storage technologies and formalized alliances across nations ensure that nation-specific data sovereignty is protected and facilitate data-sharing and cross-nations roll-up when it is of collective benefit.

7. Timely, Accessible, and Useful Information

    a. As a result of the achievement of 1–6 above, FNIM and allied health and public health policy makers and practitioners have the health information that they need for the population they are serving, when they need it.

    b. Infrastructure and alliances are in place so that FNIM health information can be rapidly aggregated or disaggregated by nation and by national, regional, and/or local geography to serve the people. This allows rapid tracking of the spread of infectious diseases, such as COVID-19, within and across FNIM families, communities, and nations.

        ○ This tracking and response is no longer compromised by externally imposed colonial policies or jurisdictional barriers.

Getting to Change: Three Strategies

1. Train more FNIM people to be health information specialists who have both technical health information expertise *and* grounded, nation-specific leadership skills and experience. Canada is decades behind other affluent colonized countries (e.g., United States, Australia, New Zealand) with minority Indigenous populations in this regard. We need to aim for 10% of the national public health workforce to have these dual competencies.

2. Recognize the need for FNIM health information alliances within and across distinctions-based groups and purposefully and strategically invest in their development.

3. Root out, reflect on (using traditional values and teachings), and discard colonized assumptions, systems, practices (e.g., exclusion according to geography of residence). Recognize that "divide and conquer" is alive and well in current FNIM health information systems.

CONCLUSION

In sum, considerations for a public health vision respectful of First Nations, Inuit, and Métis peoples would be a structure imbued with Indigenous knowledge and anchored in holism and relationality. There would be a focus on community strengths, prevention, and promotion that would be rooted in community-specific ways and self-determination. Evidence would come from many sources, including stories and teachings. Data would be a source of empowerment and change. This distinctions-based vision of public health for First Nations, Inuit, and Métis peoples would result in an environment characterized by equity, free of infectious diseases, and free of discrimination and racism. We would have caring relationships with the land, mental wellness for all, and our children would come to us with open arms.

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