

# Community-led Recovery from the Opioid Crisis through Culturally-based Programs and Community-based Data Governance

Marion Maar, Tim Ominika et Darrel Manitowabi

Volume 13, numéro 2, 2022

URI : <https://id.erudit.org/iderudit/1093018ar>  
DOI : <https://doi.org/10.18584/iipj.2022.13.2.13792>

[Aller au sommaire du numéro](#)

Éditeur(s)

Scholarship@Western (Western University)

ISSN

1916-5781 (numérique)

[Découvrir la revue](#)

Citer cet article

Maar, M., Ominika, T. & Manitowabi, D. (2022). Community-led Recovery from the Opioid Crisis through Culturally-based Programs and Community-based Data Governance. *The International Indigenous Policy Journal*, 13(2), 1–28. <https://doi.org/10.18584/iipj.2022.13.2.13792>

Résumé de l'article

The opioid crisis is disproportionately impacting Indigenous communities in Canada. There is a need to evaluate practical approaches to recovery that include community-based opioid agonist treatment (OAT) and integration of cultural treatment models. Naandwe Miikan, translated as The Healing Path, is an OAT program that blends clinical and Indigenous healing concepts and providers in a community-based setting. Aside from OAT pharmaceutical treatment, clients work with Indigenous counsellors that integrate culture with treatment, such as land-based activities, that reconnect the community to Indigenous teachings and harvesting. In this paper, we present a case study showcasing community advocacy in creating innovative funding models and engaging with clinicians to provide a shared care OAT model with traditional Indigenous counselling, cultural programs, and data sovereignty. Policy needs are identified.

Copyright © Marion Maar, Tim Ominika et Darrel Manitowabi, 2022



Ce document est protégé par la loi sur le droit d'auteur. L'utilisation des services d'Érudit (y compris la reproduction) est assujettie à sa politique d'utilisation que vous pouvez consulter en ligne.

<https://apropos.erudit.org/fr/usagers/politique-dutilisation/>

**é**rudit

Cet article est diffusé et préservé par Érudit.

Érudit est un consortium interuniversitaire sans but lucratif composé de l'Université de Montréal, l'Université Laval et l'Université du Québec à Montréal. Il a pour mission la promotion et la valorisation de la recherche.

<https://www.erudit.org/fr/>



September 2022

## Community-led Recovery from the Opioid Crisis through Culturally-based Programs and Community-based Data Governance

Marion Maar

*Northern Ontario School of Medicine, Canada, marion.maar@nosm.ca*

Tim Ominika

*Canada, tominika@live.com*

Darrel Manitowabi

*Northern Ontario School of Medicine, Canada, dmanitowabi@nosm.ca*

---

### Recommended Citation

Maar, M., Ominika, T., & Manitowabi, D. (2022). Community-led recovery from the opioid crisis through culturally-based programs and community-based data governance. *The International Indigenous Policy Journal*, 13(2). <https://doi.org/10.18584/iipj.2022.13.2.13792>

---

# Community-led Recovery from the Opioid Crisis through Culturally-based Programs and Community-based Data Governance

## Abstract

The opioid crisis is disproportionately impacting Indigenous communities in Canada. There is a need to evaluate practical approaches to recovery that include community-based opioid agonist treatment (OAT) and integration of cultural treatment models. Naandwe Miikan, translated as The Healing Path, is an OAT program that blends clinical and Indigenous healing concepts and providers in a community-based setting. Aside from OAT pharmaceutical treatment, clients work with Indigenous counsellors that integrate culture with treatment, such as land-based activities, that reconnect the community to Indigenous teachings and harvesting. In this paper, we present a case study showcasing community advocacy in creating innovative funding models and engaging with clinicians to provide a shared care OAT model with traditional Indigenous counselling, cultural programs, and data sovereignty. Policy needs are identified.

## Keywords

addictions, opioids, Indigenous, culture-based treatment, data sovereignty, First Nations Mental Wellness Continuum Framework

## Acknowledgments

This project would not be possible without the collaborations established with Wiikwemkoong Unceded Territory, the Naandwe Miikan leadership team, and the Chief and Council. We are very grateful for their support. We are also grateful to the staff and health care providers who created space for this research despite their very busy schedules. We are especially grateful to the clients who accepted us to partake in their land-based activities and allowed us to learn about their healing journey during long conversations. We thank Lisa Boesch for her support of the development of this manuscript. This research was funded through a CIHR grant (#393353).



This work is licensed under a [Creative Commons Attribution-NonCommercial-No Derivative Works 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/)

[Creative Commons License](https://creativecommons.org/licenses/by-nc-nd/4.0/)

---

## Community-led Recovery from the Opioid Crisis through Culturally-based Programs and Community-based Data Governance

Honestly, like maybe over a year ago, I was really bad. Like just over a year, I was really, really bad. I didn't care about if I lived or died. I must have OD'ed three times in one week. I still kept going when I got up. I got up after just OD'ing, and I'd just do some more. I was bad. I'm trying to get over that life, and this program has helped me lots. Not only the methadone but the counselling . . . Every day when I started smudging, that really helped too. . . . I think that's when I really started opening my eyes.

—Naandwe Miikan OAT Client

Since Health Canada approved the opioid pain medication OxyContin in 2000, communities in Canada have been affected by rapidly increasing trends in problematic prescription and illicit opioid use leading to growing opioid-related poisoning, first responder calls, emergency department visits, and deaths (Belzak & Halverson, 2018; Jones et al., 2020). All of Canada is affected by the opioid crisis, but there are regional inequities, including access to treatment services and rates of overdose deaths (Belzak & Halverson, 2018). Many First Nations communities are among those disproportionately affected, and some have experienced dramatic increases in opioid use disorder (OUD) rates, opioid-related crimes, negative social consequences, and overdoses (Carriere et al., 2018).

The opioid crisis has sharply escalated during the COVID-19 pandemic as COVID-19 containment measures have increased opioid-related poisonings (The Ontario Drug Policy Research Network et al., 2020). Innovative, Indigenous led, culturally safe treatment approaches are urgently required to support the health, well-being, and recovery of Indigenous people living with OUD.

Using a multi-year case study approach, we examine the phenomenon and complexities of the development of a culturally-based Opioid Agonist Therapy (OAT) clinic in a First Nations community in Canada. We provide insights into why effective First Nations community-based OAT clinics are needed and how they can be established. In the study of the dynamics of complex health systems, “the world moves quickly” (Greenhalgh & Papoutsis, 2018, p. 2) and health services are moving targets (Cohn et al., 2013). This is particularly true at the time of writing, as health services rapidly transform in response to the COVID-19 pandemic.

### Background and Literature Review

It is important to discuss our work within the literature of the epidemiology of OUD and culturally-based OAT in Indigenous communities in Canada. We also situate our research within the emergent literature of the intersection of pressing current events and their policy implications: the COVID-19 pandemic and the locating of unmarked children's graves at former Indian Residential School (IRS) sites.

## **Opioid Misuse, OUD and Treatment**

Provincial statistics have consistently shown higher rates of opioid-related harms among First Nations people and the “higher rates of substance use in Indigenous communities have been associated with the effects of colonization, racism, intergenerational trauma, and reduced access to mental health services” (Carriere et al., 2018, pp. 25–26). The Nishnawbe Aski Nation in Northern Ontario declared a state of emergency in 2010 due to widespread prescription opioid misuse (i.e.: use of prescription opioids in other ways than prescribed) (CRISM Ontario, 2016). In 2015, the highest opioid-related deaths per capita in the world were reported in Manitoulin Island, Northern Ontario, where our research is situated (Erskine, 2017). First Nations in British Columbia and Alberta had five times the rate of opioid-related overdoses compared with non-First Nations counterparts (Belzak & Halverson, 2018). Rates of hospitalizations for on-reserve First Nations populations were 5.6 times higher compared with the general population (Carriere et al., 2018).

OAT is a harm reduction treatment for people living with OUD that includes a prescribed daily dose of a long-acting opioid (such as methadone or buprenorphine) to reduce withdrawal symptoms and cravings without a “high.” By eliminating withdrawal symptoms, OAT can assist individuals to address areas of their lives that have been negatively affected by addiction (Centre for Addiction and Mental Health, 2016). In Canada, OAT has been used since 1959 in the form of methadone treatment for opioid dependence (Eibl et al., 2017). Each province in Canada maintains oversight of methadone programming, and physicians require an exemption from Section 56 of the Controlled Drugs and Substances Act to administer it (Eibl et al., 2017). Buprenorphine (marketed as Suboxone) has been available since 2008. It is considered a safer alternative to methadone indicated for most clients except those with high-intensity OUD, including high tolerance and frequent use of opioids (Bruneau et al., 2018). In Ontario, both physicians and pharmacists require training in addiction medicine before prescribing or dispensing these medications (Kalvik et al., 2014).

OAT patients receive a daily dose of liquid methadone or sublingual buprenorphine-naloxone (Suboxone) under observation at a physician's office or pharmacy. There are three settings where OAT is provided: 1) in a specialized clinic with staff that may include physicians, counsellors, pharmacists, social workers, and case managers; 2) in a doctor's office; or 3) in federal or provincial correctional facilities (Eibl et al., 2017).

In Canada, registered First Nations and recognized Inuit people receive coverage for a range of select health benefits. First Nations people accessing OAT receive financial coverage of methadone and Suboxone included in their benefit plan (Government of Canada, 2021).

### **Indigenous Culturally-based OAT in Canada**

There is emerging research on Indigenous culture-based OAT interventions. In 2011, the Cedar Project examined variables in methadone maintenance treatment (MMT) of 605 Indigenous participants in Vancouver and Prince George, British Columbia. Results revealed that less than half of those reporting daily injection of opioids were ever on MMT, and those who had used MMT were more likely to be older adults, female, and had hepatitis C antibody positivity (Yang et al., 2011). In 2014, Rowan et al.

reviewed 4,518 research articles that integrated Western and culture-based treatments, 42% based in Canada. In total, 17 types of cultural interventions were identified, with Sweat Lodge Ceremonies being the most frequent (68%), followed by smudging with sage, cedar, and sweetgrass (63%), and social, cultural, and family-based activities (58%) (Rowan et al., 2014). The authors found that 74% of the studies showed a benefit in reducing or eliminating substance abuse through these programs.

Community members of Eabametoong (Fort Hope) in northern Ontario explained their reasons for starting a community OAT program was the growing sense of loss in family and community life and a particular concern over the effect of addictions on children. Those seeking treatment often did so to bring families back together. The physician researcher believed that "the success is rooted in the community's ownership of the program" and "in Eabametoong, there is an understanding that the addiction epidemic is undermining the physical, mental, spiritual, and emotional well-being of the people and that [therefore] the healing must also be physical, mental, spiritual, and emotional" (Uddin, 2013, p. 392). However, information needed to create similar holistic healing services elsewhere, such as a description of services and explanation of how they are structured, financed, and supported by policy locally and nationally, was not reported.

Currie et al. (2013) examined "Aboriginal enculturation" defined as how Aboriginal<sup>1</sup> peoples identify with their culture and engage in cultural behaviours and found it to be a protective factor against illicit drug problems. Kanate et al. (2015) examined a community-developed opioid dependence treatment program inclusive of First Nations healing, addiction treatment, and substitution therapy in remote northwestern Ontario First Nations communities. The study measured changes in the number of criminal charges, addiction-related evacuations, child protection, school attendance, and attendance at community events. One year after the development of the program, changes in the community included: overall criminal charges dropped by 61.1%, child protection cases decreased by 58.3%, school attendance increased by 33.3%, and attendance at community events increased by 20% (Kanate et al., 2015). Though it is a promising study supporting the effectiveness of culture-based treatments, there was no information about the traditional healing and land-based activity components and their integration or funding.

Mamakwa et al. (2017) conducted a retrospective study of six northwestern Ontario First Nations with 526 participants in opioid dependence programs, buprenorphine-naloxone substitution therapy, and First Nations healing programming. Each community designed its own program with staff and consultants with oversight by political and community leaders and health directors. Furthermore, "a 'Land' aftercare program has been developed in some communities, with organized days of fishing, hunting, traditional walks for memorial events, and community gardening programs. Elders and experienced First Nations counselors provide individual and group healing sessions where possible" (Mamakwa et al., 2017, p. 140). Results indicated a high retention rate with negative drug screening, and the authors conclude, "First Nations communities in other provinces should establish their own buprenorphine-naloxone programs, using local primary care physicians as prescribers. Sustainable core

---

<sup>1</sup> The term "Aboriginal peoples of Canada" is defined in Section 35 of the Constitution Act of Canada, 1982 as including Indian, Inuit and Métis peoples of Canada. The term "Indigenous" is used internationally to describe original people of an area and is increasingly replacing the term Aboriginal in Canada.

funding is needed for programming, long-term aftercare, and trauma recovery for such initiatives” (Mamakwa et al., 2017, p. 137). The authors recommend that medical providers and provincial and federal governments support cultural, community-based programs.

### **Impact of the COVID-19 Pandemic on People Living with OUD**

Opioid-related deaths increased by 38% in Ontario within just the first three months of the declaration of emergency measures to slow the spread of COVID-19 on March 16, 2020 (Gomes, Murray, et al., 2021). Morin and colleagues (2021) reported a 108% increase in fentanyl use among Ontario OAT clients and attribute this to the increased stress and reduced monitoring and support for OAT clients. More recently, drug supply chains have been disrupted, resulting in the street drug supply being increasingly contaminated by newly created extremely potent synthetic opioids (Cribb, 2021; Gomes, Murray, et al., 2021). Gomes, Murray et al. (2021) stated that by December 2020, “the absolute number of opioid-related deaths increased considerably across geographic regions of all population densities, with numbers nearly doubling in rural areas” (p. 20). A geographical analysis revealed that the top five largest increases in opioid-related death rates per public health region were located in Northern Ontario, with the highest in Sudbury and Districts (Gomes, Murray, et al., 2021), the region that includes our study location of Manitoulin. COVID-19 containment measures introduced additional hardships for people who use drugs, including reduced access to pharmacies and outpatient clinics as well as harm reduction services such as OAT clinics and supervised consumption sites (Gomes, Kitchen, & Murray, 2021). The authors also noted increases in death rates of younger people and increased presence of fentanyl and stimulants in those who overdose. They emphasize an “urgent need for low-barrier access to evidence-based harm reduction services and treatment for OUD in all jurisdictions grappling with the overdose–COVID-19 syndemic” (Gomes, Kitchen, & Murray, 2021, p. 3). Clearly, it is critical to situate policy implications related to OAT within the COVID-19 pandemic as the impact on health and health services will linger for years to come.

### **An Intersection of Multiple Crises in Indigenous Communities: Opioid Misuse, COVID-19, and Undocumented IRS Burial Sites**

Many Indigenous leaders have leveraged self-determination for community lockdowns and monitoring infection rates in the community to respond very successfully to the pandemic (Richardson & Crawford, 2020). However, distancing measures have resulted in isolation and reduction in access to cultural, spiritual, and land-based activities (Mashford-Pringle et al., 2021). Further, Wendt and colleagues (2021) state that COVID-19 containment measures have “exacerbated opioid use problems among Indigenous communities [in Canada and the USA], especially for individuals with acute distress or comorbid mental illness, or who are in need of withdrawal management or residential services” (p. 2). Further increases in acute stress, depression, and anxiety in many Indigenous clients were also observed by mental health service providers when the first Indian Residential School unmarked gravesite of Indigenous children was found in May 2021 (Taylor & Neustaeter, 2021). The revelation of the gravesites has caused deep grief and re-traumatization for many Indigenous and non-Indigenous people, but especially for IRS Survivors and the families of missing children (Sound & Jones, 2021). Indigenous service agencies have been overwhelmed with requests for trauma support services. In an interview, Jason Mercredi, of Prairie Harm Reduction in Saskatoon, explained the discoveries are triggering

"troublesome memories" for IRS Survivors and have resulted in more visits to the local supervised (drug) consumption sites, where clients are seeking mental-health support. "We can't really keep up, and it's tough because some of these folks have been successfully coping for a number of years" (Hobson, 2021, para. 5). Front line workers are also noting that individuals who have been in long-term recovery are being triggered and are struggling with their recovery. The Indigenous health system is simply insufficiently resourced to meet the need for support. Adequate resourcing commitments informed by research on effective Indigenous community-based OUD treatment models are needed.

### **Methodology and Setting**

Our case study methodology follows a community-based participatory approach that invites citizens of Wiikwemkoong<sup>2</sup> Unceded Territory to collaborate as partners with the academic team (Holkup et al., 2004; Manitowabi & Maar, 2018). Specifically, community leadership collaborated on setting the research objectives, and a community advisory committee (CAC) with representation from community members and organizations guides all aspects of the research process and ensures that the work meets the needs of the community.

A case study involves qualitative research in which "the investigator explores a real-life, contemporary bounded system (a case) . . . over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audiovisual material, and documents and reports), and reports a case description and case themes" (Creswell, 2013, p. 97). In this case study, we explore the development of culturally-based OAT services congruent with the restoration of mino-bimaadiziwin (Anishinabe holistic health) among people with addictions and more broadly within the First Nation of Wiikwemkoong Unceded Territory. We chose this methodology because it is useful when little is known about a phenomenon, and case studies can "generate an in-depth, multi-faceted understanding of a complex issue in its real-life context" (Crowe et al., 2011, p. 1).

### **Data Collection and Analysis**

In line with the case study tradition (Creswell, 2013; Cronin, 2014), our methodology included multiple methods, including intensive field research, review of program documents and electronic records systems, deep observational research (see Flyvbjerg, 2006), informal group discussions with advisory committees and service providers, as well as formal interviews with OAT clients and service providers (see Brogan et al., 2019). The questions we ask were focused on why a community-based OAT clinic was needed, the community development required to establish it, and the participants' current experiences. The interviews with direct service providers and clients at the Naandwe Miikan clinic explored these topics in an open-ended format (see Table 1). Participants were recruited through fliers posted in the clinic. Those who were interested were provided with more information by the community researcher and case manager (TO), who scheduled the interview with one of the academic researchers (MM). Participants often recounted traumatic events, and support was offered during and after each interview by a traditional healer. All interviews were recorded, transcribed, and thematically analyzed

---

<sup>2</sup> The people of Wiikwemkoong self-identify as Anishinabe (variously translated as "original person" or "good person") of the Three Fires Confederacy (Ojibwa, Odawa and Pottawatomi tribal groups).



using NVivo 12 qualitative research software. All authors reviewed the themes individually, shared their findings, and came to consensus through discussion.

**Table 1. Method and Number of Participants**

Method	Date	Number
Client Interviews	Nov. 2017	16
Service Provider Interviews	Nov. 2017	5
Community Agency Interview	July 2018	1
Land-based Activities (7 in total)	May 2019–Nov. 2022	104
Total		126

We also engaged in participant observation to experience the land-based experiences *in situ*, to observe community participation, and better understand the significance of land-based healing. We purposely offered research specific land-based activities in addition to those regularly scheduled, and we advertised our sessions as being part of the research project. For example, Naandwe Miikan generally holds 2–3 hunts, and we sponsored an additional one to avoid interfering with the customarily scheduled community hunts. We furthermore collected audiovisual footage for a forthcoming video ethnography (Maar & Msheekahn Trudeau, 2019). Participation was voluntary, and at the start of each activity, we explained the purpose of our research and received consent from participants.

Finally, we observed administrative practices, including community access to clients' electronic medical records (EMR) and aggregated electronic data for reporting on the effectiveness of the Naandwe Miikan approach for quality improvement purposes. We reviewed access to aggregated EMR data coded as intake data, dosing data, access/referral to supportive services, and traditional Indigenous support services and how these indicators might be related to clients' recovery based on the community goal of holistic health and well-being.

### Iterative Design

Yin (2013) reminds us that “to arrive at a sound understanding of the case, a case study should not be limited to the case in isolation but should examine the likely interaction between the case and its context” (p. 321). Therefore, case studies use a flexible and iterative approach that allows for continuous data collation and analysis (Cronin, 2014). This feature of our methodology allowed us to integrate emergent evidence of the impact of COVID-19 on OAT and its policy implications based on our ongoing co-research and member checking with the CAC into 2022.

The Laurentian University Research Ethics Board and the Manitoulin Anishinaabek Research Review Committee granted ethics approval for this research project, and the Wiikwemkoong Chief and Council provided approval through a Band Council Resolution.

## Results

### Description and History of the Naandwe Miikan OAT Services

Naandwe Miikan OAT clinic is situated in Wiikwemkoong Unceded Territory on Manitoulin Island, Ontario, Canada. Its goal is to offer OAT with a culturally safe, community-based integrated approach designed to connect clients to Indigenous culture and inspire hope, belonging, and connections. The Naandwe Miikan approach is focused on cultural and community safety by incorporating the holistic health and well-being concept of *mino-bimaadiziwin*; the program strives to build collaboration across community sectors including health, social services, justice, policing, and employment. Staff create safe policies, such as rigorous criteria for take-home doses that go beyond OAT clinical practice guidelines.

In 2014, when the Naandwe Miikan services began, many members of this tight-knit community had been directly or indirectly touched by social consequences of the rising rates of opioid addictions. Deterioration of community relationships, increases in family violence, break-ins, and human trafficking were significantly affecting community life. Many people with opioid addictions had long burned bridges with families and friends. Interviews revealed that the notion of using scarce community resources to create OAT and supportive services for “drug users” [sic] was contentious and frustrated many community members who were not familiar with harm reduction approaches (see also Narbonne-Fortin et al., 2001). The community hosts a well-known abstinence-based treatment program with cultural components of healing through a medicine wheel framework and Seven Grandfather Teachings combined with positive psychology (Downton et al., 2019; Manitowabi, 2017). This abstinence-based approach was seen by many as preferable over OAT because the community lacked confidence in relying on drugs for the treatment of an addiction. One provider explained:

Harm reduction is totally different from an abstinence-based program. Our community members are accustomed to abstinence-based programs . . . [but at Naandwe Miikan] success is not abstinence, instead success is when the clients walk through the door. (Service Provider)

Some considered the OAT approach as incompatible with living a good life or *mino-bimaadiziwin*, the Anishinabe worldview of health and healing. From this perspective, to return to an ideal living state, people focus on healing from a physical, mental, emotional, and spiritual perspective and become free from depending on substances. In contrast, OAT focuses only on the physical aspects of recovery. For OAT to become accepted in this community, the model needed to focus on a holistic approach to recovery, integrating cultural approaches, educating the community on harm reduction, and maintaining a long-term recovery goal of eliminating drug therapy when this can be done safely.

### Thematic Analysis

From 2017 to 2018, we conducted 22 interviews with Naandwe Miikan clients (16), service providers (5) and community agency staff (1). During the year 2018–2022, we attended seven land-based Naandwe Miikan activities that included trapping, fishing, traditional medicine harvesting, and deer and goose hunts with 9–20 participants (see Table 1).

The thematic analysis of the transcripts revealed several themes related to the development of OAT in the community: recognizing an urgent need for community-based services, focusing on the specific needs of clients and the community, and anchoring Anishinabe Knowledge and culture in recovery. We expand on these themes and their subthemes and showcase selected quotes from this qualitative analysis.

### **Recognizing an Urgent Need for Community-based Services**

This theme explores the reasons why a community-based OAT clinic needed to be established in Wiikwemkoong.

#### ***Social Effects of the Opioid Crisis***

Naandwe Miikan arose from the inescapable effects of opioid addiction and its devastating community-wide impact.

There was a huge opiate problem here before this clinic was here. And I do think that maybe there's some people that wouldn't be here today. (C7)

I think people aren't realizing the impact . . . this little place, it reverberates throughout the entire community. We are cousins, uncles, aunts to all these other people in the community. We're entrenched in a community and we need more help. (C14)

For example, before Naandwe Miikan, OUD often translated into criminal behaviour to obtain opioids. In one poignant incident in the community's reckoning with the opioid crisis, a home invasion theft of prescription opioids led to homicide.

[T]here [are] a lot of individuals affected by our criminal justice system. Either it was through whichever trouble they've gotten into, that is decreased because they don't have to go and do home invasions as what was occurring in our community before. Robbing people, stealing off their parents or their grandparents for their medication. So that's discontinued now. So that's how the program works also. It eliminates – it decreases the amount of criminal activity in our community. (S1)

At that time, there were a lot of home invasions, there was a murder based on opiates, there were people—parents getting their medication stolen. All of this stuff was happening without this clinic being in the community. (S1)

#### ***Inaccessibility of OAT Services located “in Town”***

Originally, methadone treatment was not available in the community and patients were required to travel 45 minutes one-way to a clinic to a nearby town off-reserve, an all-consuming daily experience factoring in return transportation and wait times at the clinic. The community health services provided transportation offering several trips back-and-forth daily, however, due to public pressure in opposition to the clinic's location in the town's central business section and its perceived negative impact on

businesses, the town council re-zoned the location. This led to the closure of the clinic. The prescribing physician invited Wiikwemkoong clients to an OAT clinic in a more distant town, thus increasing travel time to over 2 hours. This created the impetus for Wiikwemkoong to take control and offer localized OAT (Manitoulin Expositor, 2013). This development was well received by clients:

[W]hen I heard about [this program], I was happy. I was like that's good, then people won't have to leave their kids everyday. It was really bad though when the methadone office in Little Current closed and then everybody had to travel to Espanola. And then, when that didn't work out, we all had to go to Sudbury. So, we were gone all day away from our kids, you know. (C7)

You can do a lot more with your day. You feel more productive and all that. It's a lot better. Like more people can access it, that are struggling and all that. It makes it a lot easier [than] to have everything in town where some of us can't even access stuff like that. (C9)

### **Focusing on the Specific Needs of Clients and the Community**

This theme explores the community, organizational, and policy development required to establish community-based OAT in Wiikwemkoong.

#### ***Community-based OAT Policy Development***

Initially, OAT in Wiikwemkoong was based on a mainstream model with little accountability by the visiting providers to the community or collaborative practice with First Nations services. Ultimately, the community terminated its relationship with those service providers and recruited another physician, with the understanding of increased local control over the clinic and collaborative program development, the integration of traditional healing approaches, active involvement of local staff in the treatment, and more robust reporting and communication with political leadership. This led to the creation of the Naandwe Miikan clinic. The ultimate goal was to support clients' healing from an Anishinabe perspective, with the ultimate goal of safely reducing reliance on medication when possible.

The clinic was brand new and what I did was develop policies in which we wanted to make the program successful and to assist individual wellness to slowly get off of this medication or decrease their doses. So, what I did was create policies where I would advocate for the client; if they feel that they have to get their doses lowered, we would make sure that the worker sits with them, with the physician, and requests for that dose to get lowered. And if the doctor said no, that worker would advocate for them to decrease that dose. (S1)

Take-home doses (carries) were provided to clients after initial stabilization had occurred. Take home doses could threaten the community if given to clients who are not yet well enough to use them as prescribed. Stringent guidelines with oversight were developed to ensure that clients met community-identified indicators of participation in community life and demonstrated being stable in their healing journey.

Carry agreement contracts that we developed [are] nowhere in any other treatment facility in Ontario. . . . Our policy from the community, states you have to be abstinent [from illicit drugs] for two months. You have to be doing two urine screening deposits a week. You have to do one toxicology test a month because that's more accurate than the urine screening. And you also have to be taking part in counselling, be employed in the community, [or] volunteering. . . . So those are the criteria which have to be followed in order to get a carry. . . . [So] making it very structured [so that clients] have to earn those carries and not just [be] given this medication that could be sold on the street. (S1)

### ***Increasing Interprofessional Collaboration for Effective Case Management***

The opportunity for local and integrated community service involvement in OAT presented challenges. It required advocacy for improved care and sufficient resources. Initially, this posed a challenge of heavy caseloads for the community clinic manager with no additional resources. It further required collaboration with other social service providers since clients needed access to these support services. OAT clients require coordinated access to social services such as employment and training and child and family services to facilitate positive treatment outcomes. During our research, additional investments in Naandwe Miikan addressed the issue of human resource needs:

Not enough case managers is the biggest thing because what I'm encountering here is I can't do all of that. I'm supposed to be doing the case management for clients for 132 people which is kind of impossible. But I'm still trying to reach out to the [community] programs to tell them this is how this has to go. This is how we have to make this run smoothly. If you want our clients to be successful, and you know, to stay out of the justice system or get their children back, we all have to work together and we all have to sit down together. Not leave one organization out when you're having these case conferences. (S1)

### ***Offering a Holistic Approach to Care***

From the perspective of the Indigenous knowledge of mino-bimaadiziwin, clients require more than pharmacological substances to be well supported in their healing journey; instead, the whole person requires attention. This approach is the core of Naandwe Miikan and significantly different from mainstream OAT programs.

Whenever we give any medication; we always say take this medication along with other things. . . . So along with other things is his emotional situation, how he's feeling, financial problems, actual problems whether he's depressed or not, whether the person has limitations, how the children are doing. . . . I mean if you don't do the other things then medicine will not work. So those are the things that are the social things, financial things, your emotional things, spiritual things. So, these are important, and these cannot be given by doctors, they cannot be given by pharmacists; it can be given only with the teamwork. (S2)

[W]hen we dispense our medicine, this is a routine, we always say "along with." If I give a pill, I say take this medicine along with other things, meaning that this medication will be effective if

you will take it with other things. What other things means that you have to take care of your education, you have to take care of exercise, you have to—if somebody doesn't do anything, then taking simply a medicine is not an effective thing. . . . the personal care is very important. Somebody should feel that somebody is there to take care of them. [S2]

### **Anchoring Anishinabe Knowledge and Culture in Recovery**

This theme explores the programs and experiences that Naandwe Miikan offers by integrating Indigenous knowledge and recovery.

#### ***Integrating OAT with Mental Health and Traditional Indigenous Counselling***

A unique component of the Naandwe Miikan program is the integration of OAT with mental health and traditional Indigenous counselling. Clients are encouraged to seek mental health services in the community as well as to speak with traditional counsellors. Natural Helpers<sup>3</sup> are also part of the program. Community leadership advocated successfully for funding of Natural Helpers as legitimate Indigenous healing providers in addiction treatment with government funders (First Nations and Inuit Health Branch).

I've learned these teachings about having that flame inside of us. So a lot of individuals we are assisting, dealing with this substance use, that flame is very low in them. So when they come in, we're just helping them, give them tools and motivating them and encouraging them to how to stoke that little fire inside of them. And as they start to stoke it and we start to give them some tools, not showing them how to do it but giving them those tools, how to do it themselves and they rebuild that fire inside them themselves, and they start to feel more empowerment within the individual and start to regain their motivation again and purpose. (S1)

Natural helpers are also integrated in land-based activities, and this encourages clients to socialize with community members.

Land-based activities, I guess would be close to normalizing them, grounding them with Mother Earth. A lot of times, [clients]—they don't go out except among with other friends that have addictions. They don't have that time to find out—you could associate in public normally without having that addiction. So, when we have these land-based activities, either we're harvesting medicine, or we're going for fish, or we're hunting. (S4)

#### ***Applying a Family-based Approach to Land-based Activities***

The Naandwe Miikan approach recognizes clients are not isolated individuals but instead they need to be part of a family and belong in the community, connected to a network of social relations. Thus,

---

<sup>3</sup> "Natural helpers are Indigenous peoples who already live in the community and are already well known as a reliable support person for anyone to reach out to during a time of crisis" (Dudgeon et al., 2018, p. 13).

activities that are land-based incorporate a significant social element to rebuild relationships with family members and rectify the hurt caused by past addictive behaviours.

And it's grounding the clients individually, and their families. So, in order to take their families out, it's just as important they're going out. Because they're the witness to their mother, to their father, in their addictions. So, it's starting that rippling effect. So, these children actually view that. They're viewing what their parents are doing. (S4)

### ***Exploring Land-based Healing***

In land-based activities such as community hunts or medicine harvesting sponsored by Naandwe Miikan, community members come together with OAT clients. Experienced hunters, trappers, and harvesters guide community participation in these events. We observed participants having the opportunity to learn and engage in traditional activities that they had not learned due to the cultural disruption of colonialism.

Everyone here has a different story . . . [but] they're here for one reason. It's to find that healing journey. So, this is really important for these people to attend these medicine harvesting. And we showed them the protocols and what to do and how to prepare it, what it helps. And teaching those kids that, they teach their friends, they'll teach their family, they'll teach their kids. And now these kids are coming along and they're going "Wow, we've never done this before, this is cool!" Then they're seeing mom or dad all of a sudden, like wow. There is another side of life besides being in addictions or being an alcoholic. (S4)

We observed young children learning how to skin a harvested beaver, taking part in cleaning fish, and accompanying hunters on the land. The land-based activities functioned similar to a family outing, bringing clients together to cook and eat together, sharing stories and local land-based histories of traditional use of the land. Experienced hunters mentor community members in this Indigenous knowledge while teaching fishing, hunting, and trapping skills. A strong sense of acceptance and belonging was evident among participants.

### **Self Determination and Data Sovereignty**

This theme provides insights into how much self-determination the community has to access quality data to monitor the effectiveness of Naandwe Miikan Services and make informed decisions about ongoing service development needs. We found that clients typically had many separate electronic medical records, including an OAT record, a local health clinic record, family physician health record, a mental health services record, and perhaps other records with off-reserve providers. Exactly how many different health records each client had is unknown. At the time of the research, there was no capacity to link client records to determine health service use patterns, such as the level of support clients received from primary care or mental health services. Only one case manager had access to individual health records with clinical information such as intake data, doses, and toxicology screens. However, clients' participation at cultural events and traditional or mental health counselling were missing in this record system. Furthermore, the manager did not have access to the EMR system's query section and,

therefore, could not run aggregate data for individuals or statistics for the whole clinic. The ability to explore summary statistics and trends over time was not made accessible to community staff, which indicates a poor usability of the vast electronic data to support informed decision making. Accordingly, there was minimal capacity to track the program's effectiveness using quantitative evidence within the OAT health records system or other community health or mental health records. The records of a single client at different service agencies were not linked, and that precluded a bird's eye view (let alone analysis) of care pathways or value of cultural supports for OAT clients. The Principles for Indigenous Data Governance such as collective benefit, authority to control, and responsibility to support community data capabilities are therefore not well realized in the OAT program. It limits the community's ability to analyze services, conduct evaluations, and base program decisions on documented treatment outcomes.

## Discussion

This case study was designed to shed light on why a community-based OAT clinic was needed, the community development required to establish it, the client and staff experiences, and related policy implications. The original access to OAT services for community members of Wiikwemkoong was off-reserve, providing an "out of sight, out of mind" approach. However, several health and political leaders were adamantly advocating that addictions *must* be addressed by the community, and the approach *must* be community-driven and incorporate a community vision for healing. In this section, we discuss the policy development needed to support Indigenous self-determination to facilitate *mino-bimaadiziwin* in OAT with the backdrop of current events.

### Implications for First Nations-led OAT

#### *Working Towards Restoring of Mino-bimaadiziwin*

In line with findings in the literature (Kanate et al., 2015; Mamakwa et al., 2017; Rowan et al., 2014; Uddin, 2013), our case study shows that a community-led approach to OAT can lead to more culturally safe experiences in clients' recovery; however, there are complex barriers that have to be overcome. A core requirement for the implementation of this model to succeed was the ability of community staff to advocate for clients with the prescribing physician and dispensing pharmacist to integrate OAT services within the community service and cultural context. While there is cooperation between providers, power structures in the health system provide a challenge for true service collaboration. Funding models for physicians and pharmacists do not incentivise the high level of interprofessional and cultural integration that the community is seeking, and collaborative care with community providers is not a requirement of their professions. Conceptual barriers to a First Nations community-based collaborative model had to be overcome, and this required significant advocacy and commitment by community leaders. In fact, prior to the First Nations leaders' advocacy work, the precursor to Naandwe Miikan, the Wiikwemkoong OAT clinic's operational structure focused exclusively on drug prescribing and dispensing. Based on community perception, clients would enter the clinic, acquire their medication, and leave, arguably without any healing taking place.



That model was incompatible with the concept of *mino-bimaadiziwin* because it only addressed the physical aspects of addiction. Ultimately, this model was opposed by the community leadership and the clinic was terminated. Then, after comprehensive community consultation with social services, police, political leadership, health, education, and Elders, Naandwe Miikan was born. This engagement of relevant community agencies was critical in Naandwe Miikan becoming a community OAT clinic and is symbolized by its Anishinabe name and increased community oversight. From the perspective of Wiikwemkoong clients, OAT prescribing physicians and dispensing pharmacists come and go, but Naandwe Miikan is in the community to stay. Hence, the clinic's spirit and intent will remain in the community to support clients' recovery in a culturally congruent model as long as there are opioid addictions to address (Ominika, 2018).

Despite their often-tenuous relationship with the community, physicians and pharmacists have tremendous power and influence in providing health care, and current health policy ensures that most of the financial resources that cover OAT are allocated to their services. This authority is exercised within a biomedical framework that does not create space for the concept of *mino-bimaadiziwin* or other Indigenous community-based holistic healing models. We have not found this problematized in the literature thus far; however, it was not acceptable at Naandwe Miikan. Another core component of the community-led approach was to allocate resources for culturally informed counselling, treatment, and support for reintegration into community life. To achieve this, the community required that the pharmacy provide suitable clinic space that included several office rooms for counselling and case conferencing. To improve equity, the private medical clinic is required to apply some of its profits to cost share traditional Indigenous counsellors and cultural and land-based activities with the existing community programs.

The Naandwe Miikan staff supports clients in their healing journeys by reuniting families in land-based activities; this integrates Anishinabe knowledge in the recovery process. Advocacy for families also takes place with child protective services or assisting with housing, employment and job training, and staff providing personalized support for each client's unique healing journey. This is a crucial element for clients to recover and requires policies for interagency collaboration. Clients become hopeful for the future when they experience caring support and a renewed sense of belonging in the community. Physicians and pharmacists simply cannot fulfil this time-consuming, stabilizing, supportive role that is often the cornerstone of clients' recovery journey; nor do they understand the Indigenous client sufficiently to identify their cultural needs and their position in the community to provide personalized support. The collaborative care model involving community staff in clinical discussions on dosing, tapering, and take-home doses is, therefore, essential for clients to achieve their wellness goals.

### ***Policy Environment of Indigenous Data Sovereignty***

Culturally-based innovations in OUD require accurate personal health records to support informed decision-making in treatment plans. Therefore, Indigenous sovereignty in access to usable electronic health data is central to Indigenous self-determination to develop effective culturally-based services (Loutfi, et al., 2018; Maar, 2006; McBride, n.d.; McRae-Williams et al., 2018; Schultz & Rainie, 2014; Trevethan, 2019; Walker et al., 2017). From a policy perspective, most of this literature focuses on large-

scale, global, national, or provincial approaches to Indigenous data sovereignty. There are significant global calls for Indigenous data sovereignty as well. Data sovereignty is embedded in the United Nations Declaration for the Rights of Indigenous Peoples (UNDRIP), which stipulates Indigenous Peoples have the right to improvements over "their economic and social conditions, including . . . health and social security" (United Nations, 2007, p. 17). In Canada there are further linkages with the Truth and Reconciliation Commission's (TRC) Calls to Action, specifically call 53.iii, to, "develop and implement a multi-year National Action Plan for Reconciliation, which includes research and policy development, public education programs, and resources" (TRC, 2015, p. 6).

On a national level, there have been formal positions on Indigenous data sovereignty for several decades. These include the Royal Commission on Aboriginal Peoples (RCAP, 1996) and the First Nations Information Governance Centre (FNIGC, 2021). The RCAP recommended:

First Nations, Inuit and Métis leaders establish a working group, funded by the federal government, with a two-year mandate to plan a statistical clearinghouse controlled by Aboriginal people to (a) work in collaboration with Aboriginal governments and organizations to establish and update statistical databases; and (b) promote common strategies across nations and communities for collecting and analyzing data relevant to Aboriginal development goals. (1996, p. 218)

However, in the same year (1996), Canada's federal government excluded on-reserve First Nations from three major Canadian population surveys. The Assembly of First Nations responded by forming a National Steering Committee to undertake a First Nations health survey (FNIGC, 2021). This action resulted in the creation of the First Nations and Inuit Regional Longitudinal Health Survey (1997), the first Indigenous-governed national health survey (FNIGC, 2021). A year later, the steering group released a position paper on data sovereignty known by the acronym OCAP, referring to First Nations ownership, control, access, and possession of their collective data. In 2000, the committee transitioned to the First Nations Information Governance Committee. Ten years later, it incorporated into an independent non-profit entity, the First Nations Information Governance Centre (FNIGC, 2021).

The FNIGC continues to advocate for data sovereignty, given that it concerns a resource used in policy development, decision making, and to leverage funding. In this context, it is data holders, most often non-Indigenous researchers, who acquire and hold prestige rooted in the control of Indigenous data (FNIGC, 2016). According to the FNIGC, "First Nations themselves are the only ones who have the knowledge and authority to balance the potential benefits and harms associated with the collection and use of their information" (2016, p. 141). Given this circumstance, there is a need to establish Indigenous jurisdiction over data by enacting privacy and access to information laws, to define relationships, and if applicable, repatriate data back to First Nations or engage in sharing agreements (FNIGC, 2016).

Researchers are also responding to the global declaration of Indigenous self-determination and the TRC Calls to Action. For instance, a consortium of international researchers is advancing the CARE Principles for Indigenous Data Governance for research to be of collective benefit to Indigenous Peoples, to extend authority to control data, to exercise responsibility, and to engage in ethical research (Carroll et al., 2020). Certainly, Indigenous Peoples' data are diverse. They comprise knowledge of the

land and non-human beings, administrative data about Indigenous persons, oral histories, and Indigenous knowledge (Carroll et al., 2020), and thus the implications of CARE are complex:

When working with Indigenous data, there is a responsibility to nurture respectful relationships with Indigenous Peoples from whom the data originate. Aspects of the relationship include investing in capacity development, increasing community data capabilities, and embedding data within Indigenous languages and cultures. Pursuing these goals fulfills the ultimate responsibility of supporting Indigenous data that advances Indigenous Peoples' self-determination and collective benefit. (Carroll et al., 2020, p. 6)

In Canada, several Indigenous data sovereignty frameworks have been implemented. The Institute for Clinical Evaluative Sciences (ICES) is a provincial research institute home to researchers who have access to the province's administrative health services records (ICES, 2021a, 2021b). ICES recognizes that Indigenous Peoples' have a right to access data about their communities and to determine the use of these data (Pyper et al., 2018). ICES has partnered with the Chiefs of Ontario, an Indigenous political advocacy organization, with a framework to advance ethical relationships, engage in data governance and collaborative methodologies and approaches, and seek evidence to build policies and programs (Pyper et al., 2018). However, there is also a need for community-specific access and analysis of local data to support decision making. Walker and colleagues (2017) stated:

Indigenous peoples have long claimed sovereignty over their culture and lands and are now making this claim over health data, believing this will empower communities and guide them in advocating for better health and health care . . . Greater efforts are needed to track the health of Indigenous peoples, and address concerns about the ways in which data are gathered and the political ends to which they might be used. (p. 2022)

Based on our case study, we argue there is an urgent need for policy development to support community-based sovereignty over usable health and social service data related to opioid recovery. This will empower communities to integrate Indigenous healing approaches and to evaluate the effectiveness of these services based on Indigenous criteria such as the restoration of *mino-bimaadiziwin*.

### ***Policy Requirements for Indigenous Community Data Sovereignty***

If a core element of a successful community-led OAT approach is community oversight of the effectiveness of culturally-based programs, then health services data must be accessible for analysis at the community level. First, comprehensive individual client health information, including their OAT records linked to other health and mental health records and cultural program participation, must be accessible to a case manager to support informed decisions with the client concerning their recovery journey. Second, the community requires the capacity to de-identify and aggregate health services data, to track statistical trends in treatment outcomes, and to analyze how these outcomes coincide and relate to cultural and clinical supports. Ultimately, this should include the ability to track community-identified, culturally-based indicators of wellness. However, in our case, access to individual OAT health records was restricted to one community staff member, and the many different client chart data could not be linked to understand clients' recovery from the holistic perspective of living a good life. Data

sovereignty policies urgently require further development so that data can become accessible to the community to track what cultural approaches work best to support clients at Naandwe Miikan. Data usability is an important aspect to consider for all community-led OAT services.

### ***The Convergence of the COVID-19 Pandemic and the Opioid Crisis***

Prior to the COVID-19 pandemic, there was already an urgent need to improve access to opioid treatment in First Nations communities. Barriers to treatment included structural disparities such as geographic isolation, jurisdictional divides, and lack of evidence-informed, culturally-based or culturally congruent services (Eibl et al., 2017). With the onset of the COVID-19 pandemic, some First Nations experienced a doubling of already elevated opioid and particularly fentanyl-related overdose-deaths (Mashford-Pringle et al., 2021). As a COVID-19 containment measure, many First Nations restricted community access, which reduced transmission of COVID-19. For now, the unintended consequences of physical distancing policies have resulted in reduced access to monitoring of OAT, naloxone kits to counteract overdoses, clinical and traditional Indigenous counselling, and support for land-based healing activities (Mashford-Pringle et al., 2021). Further, and perhaps less predictably, there has been an interruption of supply chains of street drugs, as well as a subsequent increasing trend of mixing illicit drugs with fentanyl and other even more potent synthetic drugs, that trigger increased rates of overdosing (Sutherland & Maar, 2019).

Our local observations during COVID-19 suggest that opioid-related overdoses, resulting in deaths of people with concurrent disorders, have increased since the start of the COVID-19 pandemic (Maar et al., 2020), a finding that is also supported by other research (Wendt et al. 2021). Specifically, in a survey completed in June 2020, community leaders and primary care providers identified people living with mental health and substance use issues as being disproportionately affected by consequences of COVID-19, including physical distancing and self-isolation. Those who are on opioid replacement therapies have had decreased access to virtual and remote care options. During the pandemic, care providers were often unable to properly integrate Anishinabe cultural and land-based practices, traditional medicine, Anishinabe language, and worldview into care (Maar et al., 2020).

### ***The Impact of COVID-19 Containment Measures on Indigenous Healing Practices***

Social distancing has limited the size of gatherings and physical proximity between people. Access to traditional Indigenous cultural and healing practices and ceremonies that might support addiction recovery has therefore been greatly reduced (First Nations Health Authority, 2020). In some cases, conducting ceremonies during times of government applied distancing measures has become highly politicized in the colonial state. In May 2020, RCMP arrived in cruisers to interrupt sun dance ceremonies in Beardy's and Okemasis Cree Nation in Saskatchewan, despite Indigenous organizers' insistence that "they limited the number of people at the event, [and] practised physical distancing" (Shield & Martell, 2020, para. 1). The conductor of the Ceremony, Sun Dance chief Clay Sutherland emphasized that the pandemic exposed existing structural racism: "This took us back to 150 years ago when all of our people had to go underground. They had to hide. They had to hide who they were" (Shield & Martell, 2020, para. 13). Prime Minister Trudeau later responded that the decision for

ceremonies would be at the discretion of Indigenous leadership (Bridges, 2020a), although the Sask. Premier continued to disagree with that position (Bridges, 2020b).

### ***The Intersection of the COVID-19 Pandemic with the Trauma of the Uncovering of the Unmarked Graves at Residential Schools***

In May 2021, just over a year after the onset of the COVID-19 pandemic, unmarked children's graves were first officially discovered at IRS sites. These tragic revelations are currently reverberating in Indigenous communities and likely contributing to the negative effects of the COVID-19 pandemic on people who live with OUD and their families. These triggers highlight the need for culturally and family-based healing approaches that respond to the complex trauma that people with OUD may have experienced as the multi-generational consequences of colonial policies (Brave Heart et al., 2011; Fiedeldej-Van Dijk et al., 2017; Pomerville & Gone, 2019; Restoule et al., 2015; Ritland et al., 2020; Rowan et al., 2014). Colonial policies have facilitated multi-generational mental, physical, and sexual abuse in residential and day schools, which are the root causes of high addictions rates today (Dell et al., 2011; Health Canada, 2015; Marsh et al., 2015).

Clearly, an affirmation of traditional, cultural, and clinical support for the escalating needs of Indigenous people living with OUD are urgently needed at this time. According to the First Nations Mental Wellness Continuum Framework, "culture as a foundation means starting from the point of Indigenous knowledge and culture and then integrating current policies, strategies, and frameworks" (Health Canada, 2015, p. 6). The implementation of an Indigenous framework for recovery, undisturbed by colonial policies, and the creation of a continuum of mental health and social services based on culture is the next step in that direction (Dumont, 2005; Heilbron & Guttman, 2000; McCormick, 2000).

The development of effective, culturally safe, community-led models for OAT are needed more than ever (CRISM Ontario, 2016; Mamakwa et al., 2017). However, to facilitate sustainable, culturally safe, community-designed Indigenous practice models, the legitimacy of Indigenous knowledge and science alongside Western approaches to recovery needs to be acknowledged. First Nations should be able to access and monitor the data pertained from integrated approaches, so that the communities can decide if their visions for healing and wellness are being met. Therefore, a focus on data usability and data sovereignty should not be lost despite the need for front line services. We provide several policy recommendations to help move towards knowledge translation of our findings.

## **Recommendations**

### **1. Recommendations to Improve Community-Based Data Sovereignty**

Mainstream indicators of OAT programs, such as retention and reduced criminal activity, while useful, are not sufficient to determine culturally-based effectiveness. Instead, Indigenous perspectives of wellness such as *mino-bimaadiziwin* may guide a community's vision of success. This requires data that describes the whole person, their family, their community, and their reconnection with Indigenous knowledge, culture and the land. Therefore, OAT and health records need to be available for analysis and linked with other relevant service data so that communities have the evidence for informed

decisions. Privacy and confidentiality issues in small communities should be considered and addressed to facilitate safe use of health information data. Specific steps of implementation that apply to this case study include:

- 1.1 Increase data usability by identifying community staff to become meaningful operators of the electronic records system and to run regular queries on individual client and aggregated clinic outcomes, such as:
  - 1.1.1 Monitor tapering trends and its relationship to clients' history with drugs, past trauma, and comorbidities.
  - 1.1.2 Track buprenorphine (Sublocade and Suboxone) versus methadone use for OAT to determine safety profiles and overdose risk in the community.
  - 1.1.3 Monitor take-home dose data closely during crises, including the COVID-19 pandemic, to keep the clients safe from unintended uses, as well as keeping the community safe from diversion of methadone to the streets; take home dose data should be linked and cross referenced with toxicology screens as well as indicators of integration into community and culture, such as accessing counselling and/or cultural programs, education programs, community programs, and volunteering.
- 1.2 Develop data sharing agreements within the community health and social services network, which might include:
  - 1.2.1 Data linking agreements with health, mental health, and social services sector in order to facilitate multi-community agency wrap-around and case management support for clients.
  - 1.2.2 Create privacy policies that provide safeguards for linking of health data in small communities.
- 1.3 Develop holistic indicators of success that can be tracked, such as uptake of mental health and traditional counselling: Many clients are affected by intergenerational trauma where painkillers assist in escaping from unresolved grief and pain of traumatic experiences. Tracking the level of success of various services for different clients will allow clinics to offer the most reliable services for recovery.
- 1.4 Track cultural activities and indicators of connectedness to better understand the role of Indigenous culture and knowledge in recovery.
- 1.5 Track community-identified indicators of success that may include OAT clients enrolling in education, volunteering, gaining employment, reducing the level of involvement of child protective services, and participation in traditional activities. Qualitative approaches and

Indigenous research methods to evaluation should be explored.

1.5.1. Track aggregated data on prescribed opioids in the community in collaboration with the primary care teams.

1.5.2. Track police statistics such as changes in drug-related calls and crime rates.

## **2. Recommendations for Health Transformation to Improve Equity in the Funding Model for OAT**

Currently, funding of OAT strongly privileges compensation for the prescribing physician and pharmacist. However, case management, wrap around services, and especially trauma-informed counselling and cultural support are urgently needed for clients to recover from opioid addictions. Yet, funding models almost exclusively recognize drug therapy, while clinical therapy, traditional Indigenous counseling, healing, comprehensive case management, and cultural support services are nearly completely neglected. Health transformation requires "expanding health systems to include practices that meet the unique needs of First Nations" (Government of Canada 2021). We recommend the following policy improvements to support health transformation:

- 2.1 Position recovery from opioids as part of health transformation as a "health system or model that responds to the needs of the Anishinabek, that is holistic and culturally relevant" (Anishinabek Nation, 2020, para 1).
- 2.2 Funding models for OAT should support community self-determination and Indigenous recovery models, such as the Mental Wellness Continuum Framework (Health Canada, 2015).
- 2.3 Funding models for OAT must include culturally-based mental health and addictions and case management services. Given the high rate of complex trauma experienced by First Nations community members, the disproportionate impact of the COVID-19 pandemic on Indigenous people living with OUD, and the current re-traumatization related to the uncovering of unmarked graves of children at IRS, a continuum of culturally based services from prevention to aftercare must be developed.
- 2.4 Respectful collaborative practice rooted in culture and involving prescribing or dispensing professionals, community-based health care providers and traditional Indigenous providers should be considered an essential component of truth and reconciliation and health transformation (Maar et al., 2022).

### **Conclusion**

Naandwe Miikan's success in developing community-led and culturally-based OAT services was predicated on the community leaders' persistence to advocate for their community. At this point, equitable funding models for culturally-based OAT services in First Nations do not exist. Yet, without

community access to useable OAT health information, it is difficult to demonstrate the positive outcomes of culturally-based services that could inform the development of a community-based business case. Data sharing polices for OAT services and new funding models that empower First Nations in creating strengths-based services are needed to support First Nations people with OUD in their recovery journey towards restoring mino-bimaadiziwin.

## References

- Anishinabek Nation. (2020). *Health Transformation*. <https://www.anishinabek.ca/departments/health-secretariat-2/health-transformation/>
- Belzak, L., & Halverson, J. (2018). The opioid crisis in Canada: A national perspective. *Health Promotion and Chronic Disease Prevention in Canada: Research, Policy and Practice*, 38(6), 224–233. <https://doi.org/10.24095/hpcdp.38.6.02>
- Brave Heart, M. Y. H., Chase, J., Elkins, J., & Altschul, D. B. (2011). Historical trauma among Indigenous Peoples of the Americas: Concepts, research, and clinical considerations. *Journal of Psychoactive Drugs*, 43(4), 282–290. <https://doi.org/10.1080/02791072.2011.628913>
- Bridges, A. (2020a, May 14). *Decisions about Indigenous ceremonies lie with community leaders, says Trudeau*. CBC. <https://www.cbc.ca/news/canada/saskatoon/indigenous-ceremonies-covid-19-federal-response-1.5570697>
- Bridges, A. (2020b, May 13). *Sask. Premier says no exceptions to public health order for First Nations ceremonies*. CBC. <https://www.cbc.ca/news/canada/saskatoon/scott-moe-response-beardy-s-okemasis-sun-dance-ceremony-covid-19-1.5568799>
- Brogan, P., Hasson, F., & Mcilpatrick, S. (2019). Lessons learnt: Examining the use of case study methodology for nursing research in the context of palliative care. *Journal of Research in Nursing*, 24(6), 446–459. <https://doi.org/10.1177/1744987119867737>
- Bruneau, J., Ahamad, K., Goyer, M.-È., Poulin, G., Selby, P., Fischer, B., Wild, T. C., & Wood, E. (2018). Management of opioid use disorders: A national clinical practice guideline. *Canadian Medical Association Journal*, 190(9), E247–E257. <https://doi.org/10.1503/cmaj.170958>
- Carriere, G., Garner, R., & Sanmartin, C. (2018). Social and economic characteristics of those experiencing hospitalizations due to opioid poisoning. Statistics Canada, Catalogue no. 82-003-X. *Health Reports*, 29(10), 23–28. <https://www150.statcan.gc.ca/n1/pub/82-003-x/2018010/article/00002-eng.pdf>



- Carroll, S. R., Garba, I., Figueroa-Rodríguez, O. L., Holbrook, J., Lovett, R., Materechera, S., Parsons, M., Raseroka, K., Rodriguez-Lonebear, D., Rowe, R., Sara, R., Walker, J. D., Anderson, J., & Hudson, M. (2020). The CARE principles for Indigenous data governance. *Data Science Journal*, 19(1), 43. <http://doi.org/10.5334/dsj-2020-043>
- Centre for Addiction and Mental Health. (2016). *Making the choice, making it work: Treatment for opioid addiction*. <https://www.camh.ca/-/media/files/guides-and-publications/making-choice-en.pdf>
- Cohn, S., Clinch, M., Bunn, C., & Stronge, P. (2013). Entangled complexity: Why complex interventions are just not complicated enough. *Journal of Health Services Research & Policy*, 18(1), 40–43. <https://doi.org/10.1258/jhsrp.2012.012036>
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). SAGE Publications. <http://www.ceil-conicet.gov.ar/wp-content/uploads/2018/04/CRESWELLQualitative-Inquiry-and-Research-Design-Creswell.pdf>
- Cribb, R. (2021, July 26). New ‘ultra potent’ opioids hitting Toronto streets in recent weeks as overdose deaths mount. *Toronto Star*. <https://www.thestar.com/news/investigations/2021/07/26/new-ultra-potent-opioids-hitting-toronto-streets-in-recent-weeks-as-overdose-deaths-mount.html>
- CRISM Ontario. (2016). *Topic summary: Prescription opioid misuse and interventions in Northern Ontario and First Nations communities* [Topic Summary]. [http://crismonario.ca/SiteAssets/topic-summaries/PO\\_misuse\\_in\\_Ontario.pdf](http://crismonario.ca/SiteAssets/topic-summaries/PO_misuse_in_Ontario.pdf)
- Cronin, C. (2014). Using case study research as a rigorous form of inquiry. *Nurse Researcher*, 21(5), 19–27.
- Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology*, 11, 100. <https://doi.org/10.1186/1471-2288-11-100>
- Currie, C. L., Wild, T. C., Schopflocher, D. P., Laing, L., & Veugelers, P. (2013). Illicit and prescription drug problems among urban Aboriginal adults in Canada: The role of traditional culture in protection and resilience. *Social Science & Medicine*, 88, 1–9. <https://doi.org/10.1016/j.socscimed.2013.03.032>
- Dell, C. A., Seguin, M., Hopkins, C., Tempier, R., Mehl-Madrona, L., Dell, D., Duncan, R., & Mosier, K. (2011). From benzos to berries: Treatment offered at an Aboriginal youth solvent abuse treatment centre relays the importance of culture. *The Canadian Journal of Psychiatry*, 56(2), 75–83. <https://doi.org/10.1177/070674371105600202>

- Downton, M. J., Biondi, C., Fulwiler, D., Curtis, C., & Frederiksson, E. (2019). A culture of mattering: Building staff belonging, purpose and meaning at an Indigenous recovery centre. *Master of Applied Positive Psychology (MAPP) Service Learning Projects*, 27. [https://repository.upenn.edu/mapp\\_slp/27](https://repository.upenn.edu/mapp_slp/27)
- Dudgeon, P. P., Darwin, L., Hirvonen, T., Boe, M., Johnson, R., Cox, R., Gregory, L., McKenna, R., McKenna, V., Smith, D., Turner, J., Helle, S. V., & Garrett, L. (2018). *We are not the problem, we are part of the solution: Indigenous lived experience project report*. Centre of Best Practice in Aboriginal and Torres Strait Islander Suicide Prevention, Black Dog Institute. <https://www.blackdoginstitute.org.au/wp-content/uploads/2020/04/lived-experience-report-final-nov-2018.pdf>
- Dumont, J. (2005). *First Nations regional longitudinal health survey (RHS) cultural framework*. The First Nations Information Governance Centre. [https://uploads-ssl.webflow.com/5b786757ee914c5f85ba8959/5b7f15660151a07eacefd2b6\\_5\\_developing-a-cultural-framework.pdf](https://uploads-ssl.webflow.com/5b786757ee914c5f85ba8959/5b7f15660151a07eacefd2b6_5_developing-a-cultural-framework.pdf)
- Eibl, J., Morin, K., Leinonen, E., & Marsh, D. (2017). The state of opioid agonist therapy in Canada 20 years after federal oversight. *The Canadian Journal of Psychiatry*, 62(7), 444–450. <https://doi.org/10.1177/0706743717711167>
- Erskine, M. (2017, January 27). Manitoulin ranked No. 15 in Ontario for opioid deaths. *Sudbury.com*. <https://www.sudbury.com/local-news/manitoulin-ranked-no-15-in-ontario-for-opioid-deaths-521476>
- Fiedeldej-Van Dijk, C., Rowan, M., Dell, C., Mushquash, C., Hopkins, C., Fornssler, B., Hall, L., Mykota, D., Farag, M., & Shea, B. (2017). Honoring Indigenous culture-as-intervention: Development and validity of the Native Wellness Assessment. *Journal of Ethnicity in Substance Abuse*, 16(2), 181–218. <https://doi.org/10.1080/15332640.2015.1119774>
- First Nations Health Authority. (2020). *COVID-19 advisory on Sweat Lodges and Potlatches*. <https://www.fnha.ca/about/news-and-events/news/covid-19-advisory-on-sweat-lodges-and-potlatches>
- First Nations Information Governance Centre (FNIGC). (2016). Pathways to First Nations' data and information sovereignty. In T. Kukutai & J. Taylor (Eds.), *Indigenous data sovereignty: toward an agenda* (pp. 139–156). Australian National University. <http://press-files.anu.edu.au/downloads/press/n2140/pdf/ch08.pdf>
- First Nations Information Governance Centre. (2021). *Our history*. <https://fnigc.ca/about-fnigc/our-history/>
- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219–245. <https://doi.org/10.1177/1077800405284363>

- Gomes, T., Kitchen, S. A., & Murray, R. (2021). Measuring the burden of opioid-related mortality in Ontario, Canada, during the COVID-19 pandemic. *JAMA Network Open*, 4(5), e2112865. <https://doi.org/10.1001/jamanetworkopen.2021.12865>
- Gomes, T., Murray, R., Kolla, G., Leece, P., Bansal, S., Besharah, J., Cahill, T., Fritz, A., Munro, C., Toner, L., & Watford, J. (2021). *Changing circumstances surrounding opioid-related deaths in Ontario during the COVID-19 pandemic*. Ontario Drug Policy Research Network. <https://odprn.ca/wp-content/uploads/2021/05/Changing-Circumstances-Surrounding-Opioid-Related-Deaths.pdf>
- Government of Canada. (2021). *Guide for pharmacy benefits: Non-insured health benefits*. [https://www.sac-isc.gc.ca/eng/1576430557687/1576430636766#chp3\\_5](https://www.sac-isc.gc.ca/eng/1576430557687/1576430636766#chp3_5)
- Government of Canada. 2021, August 6. Addressing Anti-Indigenous Racism in Health Systems: Federal Response. Retrieved March 3, 2022. <https://www.sac-isc.gc.ca/eng/1628264764888/1628264790978>
- Greenhalgh, T., & Papoutsis, C. (2018). Studying complexity in health services research: Desperately seeking an overdue paradigm shift. *BMC Medicine*, 16(1), 95. <https://doi.org/10.1186/s12916-018-1089-4>
- Health Canada. (2015). First Nations mental wellness continuum framework - summary report. <https://www.sac-isc.gc.ca/eng/1576093687903/1576093725971>
- Heilbron, C., & Guttman, M. (2000). Traditional healing methods with First Nations women in group counselling. *Canadian Journal of Counselling*, 34(1), 3–13. <https://files.eric.ed.gov/fulltext/EJ603067.pdf>
- Hobson, B. (2021, June 25). *Advocates say in-person support crucial for residential school Survivors*. CTV News. <https://www.ctvnews.ca/canada/advocates-say-in-person-support-crucial-for-residential-school-survivors-1.5485167>
- Holkup, P. A., Tripp-Reimer, T., Salois, E. M., & Weinert, C. (2004). Community-based participatory research: an approach to intervention research with a Native American community. *ANS Advances in Nursing Science*, 27(3), 162–175. <https://doi.org/10.1097/00012272-200407000-00002>
- ICES. (2021a). *About ICES*. <https://www.ices.on.ca/About-ICES/Mission-vision-and-values>
- ICES. (2021b). *Data & Privacy*. <https://www.ices.on.ca/Data-and-Privacy>
- Jones, W., Kurdyak, P., & Fischer, B. (2020). Examining correlations between opioid dispensing and opioid-related hospitalizations in Canada, 2007–2016. *BMC Health Services Research*, 20(1), 677. <https://doi.org/10.1186/s12913-020-05530-w>

- Kalvik, A., Isaac, P., Murphy, L., Janecek, E., & Sproule, B. (2014). Buprenorphine for the treatment of opioid dependence. *Pharmacy Connection, Winter 2014*, 21–31.  
<https://www.ocpinfo.com/library/practice-related/download/Buprenorphine%20for%20the%20Treatment%20of%20Opioid%20Dependence.pdf>
- Kanate, D., Folk, D., Cirone, S., Gordon, J., Kirlaw, M., Veale, T., Bocking, N., Rea, S., & Kelly, L. (2015). Community-wide measures of wellness in a remote First Nations community experiencing opioid dependence: Evaluating outpatient buprenorphine-naloxone substitution therapy in the context of a First Nations healing program. *Canadian Family Physician, 61*(2), 160–165.
- Loutfi, D., Law, S., McCutcheon, C., Carlin, R., Torrie, J., & Macdonald, M. (2018). Health planning for Indigenous populations: A rapid evidence review. *The International Indigenous Policy Journal, 9*(1). <https://doi.org/10.18584/iipj.2018.9.1.7>
- Maar, M. (2006). *From self-determination to community health empowerment: Evolving Aboriginal health services on Manitoulin Island, Ontario* [Doctoral dissertation, McMaster University].  
<https://www.bac-lac.gc.ca/eng/services/theses/Pages/item.aspx?idNumber=315044725>
- Maar, M., & Msheekahn Trudeau, R. (2019). *Seven-Grandfathers*. <https://www.seven-grandfathers.ca/>
- Maar, M., McGregor, L., & Reade, M. (2020). *What are the needs on Manitoulin related to COVID-19?* Research team COVID-19 survey summary. Northern Ontario School of Medicine [Unpublished Report].
- Maar, M., Connors, E., Fancott, C., Mussell, W. B., & Papadopoulos, D. (2022). Developing Relationships on a Shared Path to Reconciliation: The Core of Health Transformation and Safe Care for Indigenous People. *Healthcare Quarterly 25*(2), 16–24.
- Mamakwa, S., Kahan, M., Kanate, D., Kirlaw, M., Folk, D., Cirone, S., Rea, S., Parsons, P., Edwards, C., Gordon, J., Main, F., & Kelly, L. (2017). Evaluation of 6 remote First Nations community-based buprenorphine programs in northwestern Ontario: Retrospective study. *Canadian Family Physician, 63*(2), 137–145. <https://pubmed.ncbi.nlm.nih.gov/28209683/>
- Manitoulin Expositor. (2013, February 17). Methadone clinic closing in downtown Little Current. *Manitoulin Expositor*. <https://www.manitoulin.com/methadone-clinic-closing-in-downtown-little-current/>
- Manitowabi, D., & Maar, M. (2018). Applying Indigenous health community-based participatory research. In D. McGregor, R. Johnston, & J. P. Restoule (Eds.), *Indigenous research: Theories, practices, and relationships* (pp. 238–260). Canadian Scholars Press.

- Manitowabi, R. (2017). *How positive psychology overlaps with a culturally-based Indigenous addictions treatment program*. [Capstone Projects, 114, Master of Applied Positive Psychology (MAPP)]. [http://repository.upenn.edu/mapp\\_capstone/114](http://repository.upenn.edu/mapp_capstone/114)
- Marsh, T. N., Coholic, D., Cote-Meek, S., & Najavits, L. (2015). Blending Aboriginal and Western healing methods to treat intergenerational trauma with substance use disorder in Aboriginal peoples who live in northeastern Ontario, Canada. *Harm Reduction Journal*, 12(14). <https://doi.org/10.1186/s12954-015-0046-1>
- Mashford-Pringle, A., Skura, C., Stutz, S., & Yohathasan, T. (2021). *What we heard: Indigenous Peoples and COVID-19 supplementary report for the Chief Public Health Officer of Canada's Report on the State of Public Health in Canada*. Waakebiness-Bryce Institute for Indigenous Health, Dalla Lana School of Public Health, University of Toronto. <https://www.canada.ca/content/dam/phac-aspc/documents/corporate/publications/chief-public-health-officer-reports-state-public-health-canada/from-risk-resilience-equity-approach-covid-19/indigenous-peoples-covid-19-report/cpho-wwh-report-en.pdf>
- McBride, K. (n.d.). *Data resources and challenges for First Nations communities: Document review and position paper*. The Alberta First Nations Information Governance Centre [Document Review]. <https://docs.fntn.ca/VC11512/Handouts/Data-Resources-Report.pdf>
- McCormick, R. (2000). Aboriginal traditions in the treatment of substance abuse. *Canadian Journal of Counselling*, 34(1), 25–32. <https://files.eric.ed.gov/fulltext/EJ603069.pdf>
- McRae-Williams, E., Yamaguchi, J., Wilson, B., Schultz, R., Abbott, T., & Cairney, S. (2018). Interplay wellbeing framework: Community perspectives on working together for effective service delivery in remote Aboriginal communities. *The International Indigenous Policy Journal*, 9(1). <https://doi.org/10.18584/iipj.2018.9.1.1>
- Morin, K. A., Acharya, S., Eibl, J. K., & Marsh, D. C. (2021). Evidence of increased Fentanyl use during the COVID-19 pandemic among opioid agonist treatment patients in Ontario, Canada. *The International Journal on Drug Policy*, 90, 103088. <https://doi.org/10.1016/j.drugpo.2020.103088>
- Narbonne-Fortin, C., Rylett, M., Manitowabi, S., Douglas, R., & Gliksman, L. (2001). Achieving consensus for a policy action to reduce alcohol problems in the Unceded Indian Reserve of Wikwemikong: Wikwemikong alcohol policy consensus. *The Canadian Journal of Native Studies*, XXI(1), 161–177.
- Ominika, T. (2018, May 24–26). *The Anishinabe approach to recovery from the opioid crisis* [Conference session]. University of Toronto Faculty of Medicine Indigenous Health Conference: Walking Together, Mississauga, Ontario. <https://www.cpd.utoronto.ca/jindigenoushealth/library/the-anishinabe-approach-to-recovery-from-the-opioid-crisis/>

- Pomerville, A., & Gone, J. P. (2019). Indigenous culture-as-treatment in the era of evidence-based mental health practice. In C. Fleming & M. Manning (Eds.), *Routledge handbook of Indigenous wellbeing* (pp. 237-247). Routledge. <https://doi.org/10.4324/9781351051262-20>
- Pyper, E., Henry, D., Yates, E., Mecredy, G., Ratnasingham, S., Slegers, B., & Walker, J. (2018). Walking the path together: Indigenous health data at ICES. *Healthcare Quarterly*, 20(4), 6–9. <https://doi.org/10.12927/hcq.2018.25431>
- Restoule, B. M., Hopkins, C., Robinson, J., & Wiebe, P. K. (2015). First Nations mental wellness: Mobilizing change through partnership and collaboration. *Canadian Journal of Community Mental Health*, 34(4), 89–109. <https://doi.org/10.7870/cjcmh-2015-014>
- Richardson, L., & Crawford, A. (2020). COVID-19 and the decolonization of Indigenous public health. *CMAJ: Canadian Medical Association Journal*, 192(38), E1098–E1100. <https://doi.org/10.1503/cmaj.200852>
- Ritland, L., Jongbloed, K., Mazzuca, A., Thomas, V., Richardson, C., Spittal, P., & Guhn, M. (2020). Culturally safe, strengths-based parenting programs supporting Indigenous families impacted by substance use—A scoping review. *International Journal of Mental Health and Addiction*, 18, 1586–1610. <https://doi.org/10.1007/s11469-020-00237-9>
- Rowan, M., Poole, N., Shea, B., Gone, J. P., Mykota, D., Farag, M., Hopkins, C., Hall, L., Mushquash, C., & Dell, C. (2014). Cultural interventions to treat addictions in Indigenous populations: Findings from a scoping study. *Substance Abuse Treatment, Prevention, and Policy*, 9(34). <https://doi.org/10.1186/1747-597X-9-34>
- Royal Commission on Aboriginal Peoples. (1996). *Volume 5: Renewal: A twenty-year commitment*. <http://data2.archives.ca/e/e448/e011188230-05.pdf>
- Schultz, J. L., & Rainie, S. C. (2014). The strategic power of data: A key aspect of sovereignty. *The International Indigenous Policy Journal*, 5(4). <https://doi.org/10.18584/iipj.2014.5.4.1>
- Shield, D., & Martell, C. (2020, May 12). *RCMP 'had no understanding' of Sun Dance Ceremony that was interrupted, dancer says*. CBC News. <https://www.cbc.ca/news/canada/saskatoon/beardys-okemasis-sun-dance-1.5566551>
- Sound, D., & Jones, A. (2021, June 23). *As more unmarked graves are found, Indigenous communities face renewed trauma*. CTV News. <https://www.ctvnews.ca/canada/as-more-unmarked-graves-are-found-indigenous-communities-face-renewed-trauma-1.5483470>
- Sutherland, M., & Maar, M. (2019). *Wiikwemkoong community response to support recovery from opioids: Results of the community service development sessions [Unpublished report]*.

- Taylor, B., & Neustaeter, B. (2021, June 24). "Is he here amongst all these graves?": Survivors recall abuse after hundreds of remains found near Sask. Residential school. CTV News. <https://www.ctvnews.ca/canada/is-he-here-amongst-all-these-graves-survivors-recall-abuse-after-hundreds-of-remains-found-near-sask-residential-school-1.5483838>
- The Ontario Drug Policy Research Network, The Office of the Chief Coroner for Ontario/Ontario Forensic Pathology Service, Public Health Ontario, & Centre on Drug Policy Evaluation. (2020). *Preliminary patterns in circumstances surrounding Opioid-related deaths in Ontario during the COVID-19 pandemic*. <https://www.publichealthontario.ca/-/media/documents/o/2020/opioid-mortality-covid-surveillance-report.pdf?la=en>
- Trevethan, S. (2019). *Strengthening the availability of First Nations data*. QMR Consulting. [https://www.afn.ca/wp-content/uploads/2019/05/NCR-11176060-v1-STRENGTHENING\\_THE\\_AVAILABILITY\\_OF\\_FIRST\\_NATIONS\\_DATA-MAR\\_25\\_2019-FINAL\\_E.pdf](https://www.afn.ca/wp-content/uploads/2019/05/NCR-11176060-v1-STRENGTHENING_THE_AVAILABILITY_OF_FIRST_NATIONS_DATA-MAR_25_2019-FINAL_E.pdf)
- Truth and Reconciliation Commission of Canada. (2015). *Truth and Reconciliation Commission of Canada: Calls to action*. [https://www2.gov.bc.ca/assets/gov/british-columbians-our-governments/indigenous-people/aboriginal-peoples-documents/calls\\_to\\_action\\_english2.pdf](https://www2.gov.bc.ca/assets/gov/british-columbians-our-governments/indigenous-people/aboriginal-peoples-documents/calls_to_action_english2.pdf)
- Uddin, F. (2013). Hope in Fort Hope: First Nations community is winning the battle against prescription drug abuse. *Canadian Family Physician*, 59(4), 391–393.
- United Nations. (2007). *United Nations declaration on the rights of Indigenous Peoples*. [https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP\\_E\\_web.pdf](https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf)
- Walker, J., Lovett, R., Kukutai, T., Jones, C., & Henry, D. (2017). Indigenous health data and the path the healing. *The Lancet*, 390(10107), 2022–2023. [https://doi.org/10.1016/S0140-6736\(17\)32755-1](https://doi.org/10.1016/S0140-6736(17)32755-1)
- Wendt, D. C., Marsan, S., Parker, D., Lizzy, K. E., Roper, J., Mushquash, C., Venner, K. L., Lam, A., Swansburg, J., Worth, N., Sorlagas, N., Quach, T., Manoukian, K., Bennett, P., & Radin, S. M. (2021). Commentary on the impact of the COVID-19 pandemic on opioid use disorder treatment among Indigenous communities in the United States and Canada. *Journal of Substance Abuse Treatment*, 121(2021), 108165. <https://doi.org/10.1016/j.jsat.2020.108165>
- Yang, J., Oviedo-Joekes, E., Christian, K. W., Li, K., Louie, M., Schechter, M., & Spittal, P. (2011). The Cedar Project: Methadone maintenance treatment among young Aboriginal people who use opioids in two Canadian cities. *Drug and Alcohol Review*, 30(6), 645–651. <https://doi.org/10.1111/j.1465-3362.2010.00258.x>
- Yin, R. K. (2013). Validity and generalization in future case study evaluations. *Evaluation*, 19(3), 321–332. <https://doi.org/10.1177/1356389013497081>