THE CEDAR PROJECT: EXPLORING RESILIENCY AND HOUSING AMONG YOUNG INDIGENOUS PEOPLES WHO USE DRUGS DURING COVID-19 IN TWO CANADIAN CITIES

by

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The Cedar Project: Exploring resilience and housing among young Indigenous peoples who use drugs during COVID-19 in two Canadian cities

submitted by Riley Norma Bizzotto in partial fulfilment of the requirements for

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Abstract

Background: Indigenous peoples have been resistant and resilient against the historical and ongoing colonial processes. Yet, young Indigenous peoples who use drugs are currently facing another challenge to their resilience in the form of the quadruple crises: overdose, racism, housing, and COVID-19. There is a lack of information on how aspects of the lives of young urban Indigenous peoples who use drugs have been impacted by COVID-19. The decampments on the downtown eastside of Vancouver, and punitive by-law policies of Prince George associated with COVID-19 responses have also necessitated an investigation of housing transience during the pandemic.

Objective: This thesis evaluates how young Indigenous peoples who use drugs in two Canadian cities were impacted by COVID-19, with a focus on resilience and strengths. Specifically, it examines how resilience was supported during COVID-19, and how recent policy decisions have impacted the housing landscape.

Methods: The Cedar Project is a prospective cohort study that involves young Indigenous peoples who use drugs in Vancouver and Prince George, BC. Baseline and nested COVID-19 cohort data from the Cedar Project were used in analyses. The nested COVID-19 study was conducted from February 2021-August 2022; and resilience was captured by the Connor-Davidson Resilience Scale (CD-RISC). Multivariable linear regression was conducted to investigate factors associated with resilience stratified by gender. Multivariable logistic regression was used to model housing transience in Prince George.

Results: Among women, cultural and emotional connection and knowing "who you are" were significantly associated with higher resilience. For men privacy in housing was found to be associated with higher resilience. Ever having been incarcerated and ever having participated in

sex work greatly increased the odds of having experienced housing transience during COVID-19, while high CD-RISC scores were protective – reducing the odds of experiencing housing transience.

Conclusions: Our findings support the call for housing to be grounded in Indigenous culture and knowledges while further supporting what Indigenous peoples have known all along, culture, community, and Nation is where strength and resilience is found.

Lay Summary

The Cedar Project is a long-term study that follows young Indigenous people who use drugs in Prince George and Vancouver to better understand how their health has been impacted by historical and ongoing colonization. Currently, Cedar participants are challenged by quadruple crises: racism, overdose, housing, and COVID-19. The objective of this thesis was to investigate how resilience was supported among Cedar participants during the pandemic, while also exploring homelessness and housing precarity. We found that connection to culture, community, and Nation was important in supporting resilience for women, while control over housing was important for men's resilience. Determinants of homelessness did not change during COVID-19, suggesting that forcing tent cities to close and putting people in hotels did not adequately address the housing crisis. These results support previous findings, affirming what Indigenous peoples have been calling for: access to culture and land; and housing by and for the community.

Preface

This statement is to confirm that the work presented in this thesis is the original and unpublished work of the author Riley Bizzotto. This study was approved by the University of British Columbia and Providence Health Care Research Ethics Boards, certificate number H20-03229.

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Chapter 1: Introduction and literature review

Indigenous peoples[1] have demonstrated incredible resilience during the historical and ongoing colonial project of Canada. Although COVID-19 was not the first pandemic Indigenous peoples have lived through, the factors that supported resilience among young Indigenous peoples who use drugs[2] during the current pandemic are unknown. Immediately following the declaration of a state of emergency in response to COVID-19, Indigenous leaders feared that young urban Indigenous peoples would be left without access to a number of crucial services. In response, Cedar's governance gave direction to the research team to continue engaging with Cedar participants during COVID-19. Cedar received a research ethics board exemption and remained open in both Vancouver and Prince George throughout the pandemic. The aim of this thesis is to explore how young Indigenous peoples who use drugs in Vancouver and Prince George, British Columbia (BC) were supported during the quadruple crises of racism, overdose, housing, and COVID-19. As part of this investigation, an exploration of housing transience among Cedar participants will be completed to better understand how to address the current housing crisis in light of the COVID-19 pandemic.

This thesis consists of six chapters. Chapter 1 outlines the historical and current policy landscape that has worked to undermine Indigenous resilience and connection/access to land and homes since first contact. This section also includes a literature review on current resilience

[1] In this work, Indigenous peoples is a collective name for all the First Nations peoples of Canada and their descendants, including First Nations, Métis, and Inuit. Section 35 of the Constitution Act of 1982 specifies that Aboriginal peoples in Canada consist of these three groups. It will not be used to describe any other Indigenous groups, unless otherwise specified.

[2] Throughout this work the term "use drugs" is used to refer to both intravenous injection and non-injection use of illicit substances, including abuse of legal substances such as prescribed opiates.

research along with a description of the quadruple crises Cedar participants are facing. Chapter 2 will outline and describe the Cedar Project, its methods, and approaches to Indigenous governed research. It will also include a description of the measures and statistical methods used in the present analysis. Chapter 3 goes on to use Cedar data to describe the current study population during the pandemic. Chapter 4 includes resiliency analyses, interpretations, and recommendations. Chapter 5 presents housing transience analysis, interpretations, and recommendations. Finally, Chapter 6 will give a final overview of the information presented in this thesis, including a discussion on study/project limitations.

1.1 Current landscape and literature review

1.1.1 COVID-19 in Indigenous communities

The effects of the COVID-19 pandemic are still being felt by Cedar participants in both Vancouver and Prince George. As one of the few resources that have remained open throughout the pandemic, Cedar staff and I have seen firsthand the impacts COVID-19 has had in both communities. We have seen hunger; a lack of access to safe drinking water, hand washing and bathing facilities; major barriers to physical distancing and safe smoking/injection supplies; housing instability; and an escalation of trauma and distress. The associated personal indignities that we witnessed throughout this time have been extreme. For example, in April 2020 a mother was forced to deliver her baby inside a portable toilet on the downtown eastside (DTES) of Vancouver.[1] Activists argue that the closure of public washrooms, the state of hospitals during COVID-19, and structural barriers to healthcare left the mother with few options but to deliver alone.[1] The baby did not survive.[1] The scaling back of health and social services due to COVID-19 has had material and harmful impacts on vulnerable young people. These harms are further

exemplified by an increase in HIV transmissions among people who use drugs due to both a halting of HIV testing and the shutdown of HIV services early in the pandemic.[2] The COVID-19 pandemic has created new barriers to health and wellness for vulnerable young people who use drugs, especially those who are Indigenous, exacerbating already existing vulnerabilities and structural risks (e.g., racism in the health system). Those who are immunosuppressed, those who face challenges in remaining safe during drug use, those living in unhealthy emotional and physical situations, and those who rely on survival sex work for income have been particularly impacted.[3-5]

At the beginning of the pandemic, many First Nations took charge of their health and exercised their sovereignty by restricting travel through their territories and issuing their public health orders.[6] Some Nations locked down their communities before provincial shelter-in-place orders were in effect, demonstrating learnings from past epidemics and pandemics.[7] Once these provincial orders were lifted, many Nations opted to keep their borders closed to others to continue ensuring the safety of their members.[8] Part of this work included providing food hampers to people in need, especially Elders; procuring and handing out personal protective equipment; providing COVID-19 testing where possible; moving cultural programming online and utilizing social media to connect people.[5] Despite these actions, the impact of COVID-19 on Indigenous communities is unclear especially for urban Indigenous peoples.[9] In BC during the height of COVID-19, the First Nations Health Authority (FNHA) refused to disclose COVID-19 data to communities citing privacy concerns.[9] Several Chiefs from BC First Nations to pen an op ed in response saying that "…holding back potentially life-saving information only maintains a colonial relationship. Non-disclosure to Indigenous governments perpetuates the historic social

and legal stigma that Indigenous peoples societies and legal orders are illegitimate."[10] Updated and accurate data on how the COVID-19 pandemic has impacted Indigenous peoples including delineated on- and off-reserve information is urgently needed to be able to inform pandemic plans in communities and respect the sovereignty of Nations.

1.1.2 Racism and health

Racism and colonialism are closely tied, and together deeply impact the health of Indigenous peoples of Canada.[11-14] Indeed, racism was a critical tool in the theft of land.[15-17] Globally, racism has been recognized to play a significant role in the health of Indigenous peoples.[18, 19] At all levels (e.g., individual, family, and community) Indigenous peoples have been managing the effects of racism on their health since contact, demonstrating incredible resilience and strength in the face of genocide.[12] Yet, systemic racism still touches all social determinants of health, impacting housing, education, employment, and food security.[12, 20]

There is a small but growing body of work that indicates frequent encounters with anti-Indigenous racism and discrimination can trigger post-traumatic stress responses (PTSR).[21, 22] PTSR is the reaction of the body and mind after experiencing an extreme stressor [23] and has been associated with negative health outcomes among people who use drugs, including HIV and Hepatitis C (HCV) vulnerability and infection.[24-26] A seminal study conducted with Indigenous peoples in Edmonton, Alberta by Currie et al., (2013) showed that experiences of racism in the past year were significantly and positively related with PTSR symptomology.[27] It also illustrated that experiences of racial discrimination *increased* a participant's use of gambling to escape unwanted thoughts and feelings.[27]

Anti-Indigenous racism in the health system is also deadly. The experiences of Mr. Brian Sinclair are an example. Mr. Sinclair was a 45 year old Indigenous man who died in 2008 in a Winnipeg emergency room after waiting 34 hours to be seen for a treatable bladder infection.[28] Assumed to have been intoxicated and homeless, Mr. Sinclair was ignored by staff even as his visibly deteriorating condition alarmed other patients in the waiting room.[28] As a result of the inquest into Mr. Sinclair's death, not a single staff member or service provider received any form of disciplinary action.[28] Additionally was the recent passing of Ms. Joyce Echaquan in September 2020. Ms. Echaquan sought care for abdominal pain at the Centre Hospitalier de Lanaudière in Joliette, Quebec but was ignored by staff who assumed she was suffering from withdrawal.[29] Out of fear for her own safety she took to social media and live streamed her experiences in the hospital. On the recording staff can be heard taunting and insulting her, calling her "stupid as hell," asking "what are your children going to think, seeing you like this?" and remarking that "she's good at having sex, more than anything else," among other racist comments.[30] Her death was declared 'accidental' because she did not receive the proper care that she was entitled to.[29] The coroner's report outlines that racism and prejudice were significant contributors to Ms. Echaquan's death, and has called on Quebec to recognize the systemic racism that is embedded in the health system.[29]

The 2020 *In plain sight: Addressing Indigenous-specific racism and discrimination in BC health care* report highlighted the entrenched racism and white supremacist ideals that span multiple levels of BC's health system.[31] Everyday experiences of racism reported by Indigenous peoples included stereotyping, prejudice, and racist treatment. This was especially seen in urgent care. Out of 2,780 respondents only 16% indicated that they had not been discriminated against

while accessing health care in BC. A staggering 13% of staff respondents made racist comments in the survey itself. Indigenous women daylighted the gendered nature of settler colonialism, showing that experiences of racism for women differ from those of Indigenous men. Indeed, we know that Indigenous specific racism intersects with and exacerbates other forms of discrimination, including laws and policies based on sexism, stigma towards mental illness, and criminalization of drug use.[12] These contribute to the enduring health and socioeconomic inequities that oppress Indigenous peoples while continuing to hold up and privilege non-Indigenous Canadians.[32, 33] The *In Plain Sight* report is consistent with previous research that has linked experiencing racism in health care with widespread avoidance of the health system by Indigenous peoples, often to the detriment of their own health and wellness.[12, 34-36]

1.1.3 Overdose

Indigenous peoples in BC are disproportionately impacted by the overdose crisis, and disparities are *increasing* despite the public health emergency being declared seven years ago in 2016.[37, 38] At the onset of the public health emergency, First Nations people comprised 3.4% of BC's population but accounted for 14% of all overdose events and 10% of all overdose deaths in BC.[39] The FNHA reported that for the time period between January 2015 to July 2016, First Nations people were three times more likely to die of an overdose than non-First Nations in BC.[39] In a 2017 Cedar analysis, overdose was identified as the leading cause of death among Cedar participants, whereas experiencing a nonfatal overdose meant Cedar participants were nearly 13 times more likely to die than their non-Indigenous peers.[40] Experiencing a non-fatal overdose is associated with multiple adverse health outcomes, such as kidney failure, cardiac conditions, and neurological impairment.[41] Men who had experienced an overdose were 3.4

times more likely to be unhoused, 2.8 times more likely to have suicidal ideation, 5 times more likely to need help injecting, and 4 times more likely to be living with HCV.[40] Critically, men who grew up speaking their traditional language were 1.7 times less likely to overdose.[40] Women who had overdosed were 3 times more likely to be unhoused, 2 times more likely to be in sex work, 3 times more likely to be sexually assaulted, 4.4 times more likely to need help injecting, and 2 times more likely to be denied access to treatment.[40]

Since the beginning of the COVID-19 pandemic, BC has experienced a rapid increase in the number of overdose deaths across the province, with First Nations people accounting for 14.7% of all overdose deaths between January and December 2020.[42] In 2021 First Nations people were dying of overdose at 5.4 times the rate of other BC residents, with First Nations women dying at 9.8 times the rate of other women in BC.[43] As the pandemic has waned, slightly more fatal overdoses have occurred in between January 2022 and September 2022 than for the same time period in 2021. In 2022 1,644 people died from overdose in 2022 compared to 1,629 in 2021.[44] This means that nearly six British Columbians are dying of overdose every single day.[43] Illicit fentanyl and its' analogous (e.g., carfentanil) continue to be the driving force behind these overdoses, having been found to be involved in 81% of fatal events often in extreme concentrations.[45]

It was expected that overdose incidence rates would increase during the COVID-19 pandemic due to the scaling back of harm reduction services, the banning of guests in social housing, and the forcible closure of encampments – pushing people to use drugs alone.[46] While it is still unknown how many overdoses have occurred among Indigenous peoples in 2022, given

previous trends there is a well-founded belief that Indigenous peoples will once again be overrepresented. Although BC has expanded safe drug supply in response to COVID-19,[47] Indigenous peoples may encounter barriers to access, given documented structural racism in the BC health care system.[12, 14, 20]

1.1.4 Housing instability and homelessness

Scholars agree that the issue of Indigenous homelessness and instability can be directly linked to the process of both historical and ongoing colonization, beginning with land theft and the establishment of the reserve system.[48-50] Reserves are a formal form of segregation, and often Indigenous peoples were removed from their lands and sent to distant areas, with the goal of keeping Indigenous peoples as far from settlers as possible.[50] This began the concerted and systematic effort on the part of the Canadian state to undermine and dismantle Indigenous homes, families, and communities. Menzies (2009) notes, these actions severed the ties between families creating a "homeless state."[50, 51] Indigenous peoples are overrepresented among homeless people [52, 53] and are more likely to experience unstable, unsafe, and inadequate housing in single room occupancy hotels (SROs), with overcrowding and transitional living conditions.[54] In 2021 Indigenous peoples were almost three times as likely to live in housing in need of major repair while one in six (17.1%) lived in housing considered not suitable for the number of people per the National Occupancy Standard.[55]

A large body of epidemiological evidence links unstable and inadequate housing to a variety of negative health and wellness outcomes, including: increased risk of HIV exposure and transmission,[56] lack of access to appropriate health services,[57] more likely to inject drugs, inject

cocaine daily, and inject in public,[58] severe mental illness,[59] higher likelihood of participating in survival sex work[60-62] and experiencing sexual assault.[62] Evictions in Vancouver have been linked to interrupted access to trusted drug dealers, public drug use, and increased use of methamphetamines.[63] However, stable housing has been linked to overall improved health and quality of life.[64, 65]

A longitudinal project investigating the efficacy of Housing First initiatives across five major Canadian cities was undertaken between 2009-2013 and worked to solidify Housing First as a paradigm shifting approach to homelessness.[66] Housing First is a philosophy that recognizes housing as a critical social determinant of health and a pre-condition to successfully interacting with health care and other systems of support. In Vancouver, this project saw participants spending more time housed in higher quality housing, reduced interactions with the criminal justice system, improved quality of life, and reduced use of acute care systems with an increased use of outpatient services.[66] However, a 2022 post-COVID-19 commentary draws attention to how Housing First programs in Vancouver, including modular and supportive housing, have become part of the broader institutional crisis that lends itself to residential transience for young people who use drugs.[67] The authors call for housing that subverts the institutionality of current models allowing youth to have control over their own housing environments.

In early March 2020, the province enacted an eviction freeze for non-payment of rent in buildings managed directly by BC Housing.[68] As the crisis intensified the province secured 686 hotel and community centre spaces in April 2020.[69, 70] They gave people who were living in Oppenheimer tent city the ‘option’ to move into the spaces by early May 2020, those who didn’t

faced decampment.[69, 70] In these spaces the province offered addictions treatment, harm reduction, meals, laundry, washroom facilities, storage for belongings, and on-site health care services. A similar plan was enacted in Victoria, but nowhere else in the province. However, as the province has moved on from COVID-19 there has been a shift in housing policy, with more aggressive and punitive policies being enacted by both the Prince George and Vancouver municipal governments. On August 30, 2021 the city of Prince George adopted the Safe Streets Bylaw. The expressed purpose was to "help make the streets, sidewalks, and alleys of Prince George safer for all residents" with a more educational mandate than punitive (ticketing) model.[71, 72] The BC Assembly of First Nations undertook a series of semi-structured interviews in bylaw "hotspots" with precariously and unhoused people to explore the effects of this Bylaw.[71] They found that the Bylaw was leveraged to make unhoused people invisible to those who are housed, with women at the highest risk for harassment from bylaw officers. Participants shared that during the winter bylaw officers confiscated tents, tarps, heaters, blankets and camping stoves regardless of temperature leaving some with frostbite. Bylaw officers are also confiscated harm reduction supplies exacerbating the overdose crisis by forcing people to use alone without lifesaving supports. Some participants had personal and sentimental belongings taken away or destroyed by bylaw officers causing spiritual, emotional, and psychological harm and further eroding connections to family and community. Overall, there has been no recognizable educational approach or accountability mechanism, with officers focusing on moving unhoused people out of public view using loose and insufficient connections to the actual offence sections of the Bylaw.[71, 72]

More recently, in the DTES of Vancouver people who are homeless or precariously housed are facing dangerous levels of police violence through street sweeps and decampments. On July 25th 2022 residents of the Hasting Street Tent City were ordered to remove their tents due to fire safety issues.[73] The city of Vancouver estimated that there were nearly 100 tents/structures – people's homes – on Hastings Street at this time. People have come to stay in tents on the street as a result of civil abandonment; there is an absence of safe, dignified, and permanent housing for low- or no-income people in Vancouver.[74] BC Housing, the provincial organization who matches unhoused people with housing has a waitlist that spans decades and did not have spaces for all the people on Hastings Street to move into at such short notice,[74] especially since at least three SRO's have been destroyed by fires this year.[75] During the August 9th decampment, the Vancouver Police Department (VPD) showed up in force, with nearly 100 officers in attendance instigating what Our Streets – a block stewardship initiative – has called a "police riot,"[76] harassing, indiscriminately arresting, and pepper spraying both residents of the tent city and bystanders.[76, 77] The same day the BC's Human Rights Commissioner sent a letter to both the provincial housing minister and the city mayor detailing how the ongoing decampments infringe upon the rights of residents as well as their human dignity and autonomy.[77, 78]

1.1.5 Indigenous strength, resilience, and resistance

Resilience is recognized by Indigenous scholars as an important cultural strength or buffer against adverse or stressful life events that is inherent to Indigenous peoples. [79-81] It originates from outside the individual instead coming from culture, language, community, and spirituality.[79-81] For this reason, resilience along with culture, ceremony, and spirituality have withstood centuries of oppression, genocidal legislation, and colonization.[82-85] Resilience is most

often defined in psychological research as a positive adaptation despite adversity; it is a response to substantial stress, trauma, or risk.[86] Importantly, resilience must be seen as both an individual's ability to overcome adversity and as a determinant of health that includes access to cultural resources making resilience non-linear and dependent on the socio-historical context.[87, 88] It is for this reason Indigenous peoples' resilience cannot be understood outside the context of colonialism where there have been concentrated and repeated efforts to undermine culturally-specific and spiritual practices that support resilience.[79, 89] A brief description of the processes in Canada that have and continue to impede the cultural buffers and strengths that support resiliency among Indigenous peoples is offered in Section 1.4.

Existing empirical research on resilience among Indigenous peoples in North America has drawn significant links between access to and participation in Indigenous culture, languages, and spiritual practices and positive health outcomes, including: strong family relationships[90], stopping of alcohol use,[91] lower rates of risk taking and youth suicide,[92] increased emotional and mental wellbeing,[93] adherence to highly active antiretroviral therapy,[94] and seeking drug and alcohol treatment.[27] For example, a 2015 Cedar analysis found that knowledge of one's traditional language had large and significant effects on participant's mean resilience scores regardless of any history of historical or lifetime trauma.[88] This highlights the intergenerational strength and knowledges contained within Indigenous languages, connecting speakers to the values, concepts, and beliefs held within.

In cross-sectional study with Métis youth in Alberta Andersson & Legogar (2008) found that having pride in their identity was associated with five times the odds of feeling supported by family or community members.[90] A seminal piece of work by Chandler & Lalonde (1998) that

involved 196 Indigenous bands within the jurisdiction of 29 tribal councils in BC demonstrated that aspects of cultural continuity, such as self-governance; band-controlled health and education; and speaking traditional languages, were associated with lower rates of suicide among Indigenous youth.[92] Using arts-based and mixed method studies with First Nations youth in Battleford, Saskatchewan Brooks et al., (2015) have indicated that a sense of self and belonging further support resilience, suggesting that explorations of family history, reconnecting with family, land, and culture are critical to holding up youth.[95] In a qualitative study, Wexler (2013) worked with three generations of Inupiaq people in Alaska, U.S.A., and found that youth accessing traditional cultural practices instilled a sense of pride in their identity and helped them form connections with Elders.[96] Despite relationships and life having been interrupted by the intergenerational consequences of colonialism (e.g., alcohol/drug use, adoption out of community) resilience was found and developed through engagement with these cultural practices, and gave youth a foundation to move forward in their life.[96] Similarly, a study by Njeze et al., (2020) working with a group of urban young Indigenous peoples identified that pride in culture and strong family ties were sources of strength and resilience.[97] Moreover, giving back to the community and other youth was seen as an important expression of resilience and healing.[97] In a systematic review of resilience among young Indigenous people completed by Rowhani & Hatala (2017) further indicated that cultural continuity and family/community ties are key elements of resilience.[98] Recently, photovoice work done by Hatala et al., (2020) with urban/inner-city Indigenous youth (Plains Cree First Nation and Métis) in Canada demonstrated the power of land and nature.[99] Youth established that land and nature were seen as sources of strength and resilience which helped youth reduce stress, distract from pain or discomfort, and gave them a deeper feeling of connection to their relatives.[99] Further, the youth indicated how

nature was a source of spiritual strength, direction, and guidance offering them a sense of peace, hope, and connection to self .[99]

1.2 Researcher location

When conducting Indigenous research, it is important relational work to locate yourself in the research project.[100] This allows for the researcher to disclose any biases while simultaneously holding themselves accountable to the work they are conducting and the people they are working for. Researcher locations also provide an opportunity for the reader to better understand who the researcher is, where they are from, who their ancestors, are and how they came to this work.[101, 102] Positionality is also an expression and recognition of the responsibility of maintaining good relations [103] while holding ourselves accountable.[100, 104, 105] A part of this positionality work is the personal and ongoing process of self-reflection, understanding how we came to this work and what we will leave behind. Absolon & Willett (2005) state that a researcher self-location is more than acknowledging heritage or place of birth, but is about identifying one's location within and relationships to "…land, language, spiritual, cosmological, political, economical, environmental, and social elements of one's life."

I joined the Cedar Project as an Indigenous person reconnecting with their own culture. I am Métis on my Mom's side and White Settler Canadian on my Dad's. I was raised on the traditional, occupied, and stolen territories of the Sḵwx̱wú7mesh (Squamish), Səl̓ilwətaʔɬ (Tsleil-Waututh), and Xwməθkwəy̓əm (Musqueam) Peoples, in what is colonially known as North Vancouver. I was not raised in Métis culture and nor was my Mom. This was a conscious choice on the part of my Grandpa, who when he was growing up in Duck Lake, Saskatchewan was

deeply embedded in Métis culture. He went to yearly Pow Wows, jigged, picked berries and medicines, and spoke Cree to his Grandma. When entering the White workplace he faced levels of racism he did not want to expose his own children to and this coupled with the highly transitory nature of his job, was why he chose not to raise his children in his culture.

I went to a private Catholic high school in North Vancouver, which sits on the site of the former Saint Paul's residential school. In my own experience, the school is conservative and dogmatic in its religious teachings, and uncritical about its history and legacy as a school and religious institution. Indigenous identity was not respected, and during history classes Indigenous peoples were often referred to as "savages." It was in this school, while learning about the North West Resistance we were taught stories about Louis Riel, Gabriel Dumont, and other Métis fighters that were racist, and demonstrably false. Learning about my own history in this way was hurtful and confusing. At this time my Grandpa still lived a province away and did not want to talk about his own heritage. The only stories I knew about the Métis were, for a long time, what the school had taught me.

Since then, I have learned a lot about my culture and my people. My Grandpa has become more open to talking about his life in Métis community, and I have been privileged to meet many other Michif on my journey. I know now that my three times great grandfather, Isidore Dumont (the older brother of Gabriel), was the first man shot and killed by the North West Mounted Police during the 1885 Massacre of Duck Lake. This July, I was lucky to accompany my Grandpa on his final trip to his home of Duck Lake, to hear his stories, visit family, and to learn more about my culture. This journey was profoundly moving and

enlightening for me. Walking and being on the land of my ancestors, visiting the graves of family members long past but not forgotten, and for the first time understanding my Grandpa's stories in a physical way will remain with me forever. The learning and reconnecting journey before me is still long and I am enduringly grateful for everything that has been shared with me by other Michif and all I have been able to learn so far.

While I can sit here today and proudly call myself Métis, I still walk through life with unearned privilege as a racially White woman. It is important to recognize that I navigate systems that are unsafe for many with ease and ultimately benefit from the same structures and systems that actively harm other Indigenous peoples.[106] I am thankful to have the guidance of the Cedar Project Partnership – an independent body of Indigenous Elders, knowledge keepers, leaders, and health and social service experts. Specifically, I have received direct mentorship from Mr. Lou Demerais (Métis/Cree), who has kept me accountable to Cedar participants throughout my studies. I have also been grateful to receive the unofficial mentorship of Ms. Vicky Thomas (Wuikinuxv Nation), the Cedar Project Coordinator, who during my time as a research assistant and student with Cedar has shared with me numerous teachings and has walked with me throughout my journey. Mr. Demerais and Ms. Thomas have held me accountable to Cedar participants, the Cedar Project, and have shown me how to be accountable to my own culture. I am also indebted to the Cedar Project participants; their knowledges, humours, and incredible patience with me as I continue to learn will be something I am forever grateful for. Maarsii.

I volunteered in the Cedar office during the summer of 2021 and was a staff member between September 2021 and April 2022. During these months, I was given the opportunity to connect with participants and other Indigenous and non-Indigenous organizations on the DTES. Since March 2021 I have participated in weekly meetings with various DTES organizations about housing alternatives and needs. In addition to these meetings, seven months of witnessing to Cedar participants own housing struggles have laid bare to me the critical role housing plays in health and wellness. Housing quickly became a central issue for me personally. In addition to this, during my time in the office I have often been humbled and amazed by the resilience that Cedar participants have demonstrated. While dealing with four life-altering and intersecting crises Cedar participants continue to survive. It has become clear to me and the whole of the Cedar Project that despite racism, trauma, and unimaginable abuses Cedar participants are using drugs so that they can live. They are choosing life every single day. Cedar participants are sacred, and they nourish us with their knowledges, kindness, and sense of humour every single day. Yet, we are counting the dead, and not discussing the personal indignities Cedar participants face in their everyday lives because of the intersecting crises of COVID-19, racism, overdose, and housing instability. It is absolutely critical that an exploration of Cedar participants resilience is undertaken, so that we can better understand how to support vulnerable young Indigenous peoples.

1.3 The Cedar Project

Established in 2003, the Cedar Project is a prospective cohort study that involves 793[107] young Indigenous peoples who use drugs in Vancouver and Prince George, BC. Young Indigenous peoples who self-identify as Indigenous, including those who identify as Aboriginal,

Inuit, Métis or First Nations – inclusive of those who have status under the *Indian Act* and those who do not – were recruited by Cedar study staff through outreach, word of mouth, and health care worker referrals. To be eligible, participants were 14-30 years old who had used illicit drugs (e.g., smoking or injecting methamphetamine, crack, heroin, cocaine) in the month previous. Drug use was confirmed via urine sample (NovaScreen Drugs Screen Cassette) collected at intake or intravenous drug use marks on the body. Indigenous and non-Indigenous staff explain study procedures, seek informed consent, and confirm eligibility of each person. Participants complete an interviewer administered questionnaire that elicits self-reported information on a number of variables related to socio-demographic characteristics, drugs use, HIV/HCV, overdose vulnerabilities, and use of services, as well as protective factors at intake and at six month intervals thereafter. Venous blood samples are taken at each visit to test for HIV and HCV antibodies. Pre- and post-test counselling are offered by trained nurses to each participant, in addition Cedar staff offer referrals to care (e.g., housing, counselling, food programs) for any participant seeking them.

1.4 Understanding Indigenous realities and resiliency

Resilience among Indigenous peoples is best understood in light of the colonial structures that continue to do harm, rather than from a Western lens of individualistic and ascribed health.[79, 108] Focusing solely on an individual's resiliency allows us to turn an eye away from the structures that necessitate Indigenous peoples to be resilient. Bringing attention back to systems of harm, racism, and genocide is crucial in being able to have an honest conversation about what resilience is, and what it means for Indigenous peoples. Having access and connection to family,

cultural strengths, identity, and traditional practices supports resiliency for Indigenous peoples.[88, 109] Yet the ongoing colonial process has systematically worked to undermine these supports.

1.4.1 Colonization and land theft

Land is an essential part of Indigenous life and identity.[110] Globally, Indigenous peoples recognize that to maintain physical, spiritual, emotional, and mental health a deep connection to land is vital.[111, 112] For many, healing comes from a relationship with land and creation.[110, 111] Many aspects of Indigenous culture are derived or shaped by the land, for example Indigenous languages are often a reflection of the environment and land they are spoken on.[113, 114] Often successful language revitalization therefore comes from land-based programs.[113, 114] Cedar has shown in previous studies that hearing or speaking a traditional language and being exposed to or participating in culture is significantly associated with higher mean resiliency scores.[88] Having access to traditional foods is an important determinant of health,[115] which is often disrupted by the forced displacement of Indigenous peoples, and the privatization of stolen land. Indigenous Elders and peoples have always known, health and resiliency come from the land and the ceremonies and traditions contained within.

Therefore, when talking about Indigenous health it is impossible to separate it from land, and the land "question." This question can be traced back to the 15th century in Europe, when a series of papal bulls, including the *Inter caetera*, were issued by Pope Alexander VI to legitimize Christopher Columbus's "founding" of South America for the Spanish monarchy.[16] *Inter caetera* was the first papal bull to fully articulate the Doctrine of Discovery with reference to the Americas.[16] The Doctrine held that upon discovery Indigenous peoples could not claim

ownership over land and could only maintain rights of occupation and use. The French and English further refined the Doctrine and developed the idea of *terra nullius.*[16] This principle dictates that land could be seen as empty and the underlying title free to claim if the non-Europeans were "failing to make use of [the land] in accordance with European expectations or if they had migratory subsistence patterns."[16] While the Doctrine was issued in 1493 it still forms the legal foundation of all land rights and law in Canada.[17] It was used as recently as 2012 in a BC Court of Appeal decision to restrict Indigenous peoples from claiming right and title to their traditional and unceded lands.[17]

The Treaty of Paris was signed in 1763 when France relinquished their claim to title in North America, granting England title of all lands east of the Mississippi River.[16, 116] The same year, the Royal Proclamation (1763) was signed to control the pace of colonial expansion.[16, 117] It remains a foundational document in Canadian Indigenous policy.[117, 118] The Proclamation placed all British territories and all those who live there under the sovereignty, protection, and dominion of Britain.[119] This required any sale of Indian land to take the form of a Treaty between sovereigns.[116, 120] The following treaty making process was highly flawed. Agreements were not clearly spelled out, oral promises were not included in writing, and agreements were made with individuals who had no right to surrender land.[116] This period of treaty making was highly duplicitous, and has been called fraudulent.[121] The Crown has often failed to uphold their responsibilities under the treaties.[122] Treaties are still law today, and new modern treaty processes are underway. But these new processes require that before any negotiations can take place First Nations must relinquish title to their land.[123]

1.4.2 Legislated genocide and structural racism

The *Act for the Gradual Civilization of Indian Tribes in the Canadas* (1857) was the first formal piece of legislation aimed at the assimilation of Indigenous peoples into the White body politic of Canada.[116] The *Gradual Civilization Act* outlined the requirements an Indian man must meet to become a Canadian, standards which were much higher than those for settlers. Between 1857 and 1876 only one man was voluntarily enfranchised.[116] Enfranchisement was a way to control Indigenous land and marginalize Indigenous peoples. The *Gradual Civilization Act* also formalized the relationship between the church and state, setting the stage for the beginnings of the residential school system.[116]

The *Indian Act* (1876) brought all existing Indian[3] legislation together into one law. Importantly, the *Indian Act* defined who was Indian, created and defined Indian bands, regulated the sale of Indian land, and acknowledged enfranchisement as its ultimate goal.[116] Subsequent amendments were made to further strengthen the governments control over people they defined as Indian.[37] This included the banning of ceremonies such as the Potlach and Sun Dance, barring Indigenous people from accessing lawyers, and in 1920 it mandated children to attend residential schools.[37] The *Indian Act* is an apartheid-like piece of legislation and remains dominant to this day continuing to control Indigenous lives.[38]

[3] In this work, Indian is a term that refers to those First Nations peoples who hold Indian Status, which is a specific legal identity created by the Indian Act (1876). Indigenous peoples who have Indian Status are registered under the Indian Act on the Indian Register maintained by Crown-Indigenous Relations and Northern Affairs Canada.

Agreements between the federal government and several Christian churches for the development of the initial residential schools was formalized in 1883.[116] It is estimated that between 1874 and 1996 as many as 150,000 children, some as young as three years old, were forcibly removed from their families and placed in these schools.[116] Due to incomplete or destroyed records the real number of attendees is still unknown.[116] The stated mission of these schools were "Christianizing, moralizing, civilizing, and modernizing Indigenous children,"[124] and "to get rid of the Indian problem…to continue until there is not a single Indian in Canada that has not been absorbed into the body politic…"[125] Assimilation was to be achieved by the disruption of intergenerational cultural transmission, eroding systems of health, knowledge, and spirituality. The Truth and Reconciliation Commission (TRC) travelled across Canada bearing witness to the truths and stories of residential school survivors over six years.[116] In 2012 the TRC released its' findings in a final report, making 194 Calls to Action for both individual Canadians and the government to complete. The TRC found that residential schools were sites of opportunistic abuse where children suffered physical, emotional, spiritual, and sexual abuse.[116] These schools taught children it was shameful to be Indigenous, undermining self-determination and leading to long-lasting intergenerational shame and psychological trauma.[116] Within the past decade health researchers have been able to link the intergenerational impacts of residential school and disparate health outcomes among Indigenous peoples. Previous Cedar research has shown that having at least one parent who attended residential school is associated with sexual abuse,[126] HCV infection,[127] transition to injection drug use,[128] child welfare involvement,[58] and HIV infection.[129]

The harms of residential school are long lasting and span generations. Nearly four generations of Indigenous peoples attended residential schools, with many children experiencing more than one type of abuse while attending.[116] In addition, numerous students died at these schools, as of February 2021 the National Centre for Truth and Reconciliation has evidence of 4,115 children never returning home.[130] The process of uncovering the true number of children who died while at residential schools is ongoing, with many Nations conducting their own searches using ground penetrating radar in an effort to bring their children back home. The number of dead is only expected to rise.

Historically, health care operated as another system of assimilation and oppression.[131] While only Treaty 6 included writings about the provision of health care, under the *British North America Act* (1867) the federal government was responsible for providing health care to Indians.[131] From the 1930s-1980s Indian hospitals were created to keep Indigenous tuberculosis (TB) patients out of White hospitals.[131] Forced attendance via the Royal Canadian Mounted Police (RCMP) and lengthy year-long stays were especially common.[131] Treatment of TB in these hospitals remained archaic with administrators believing that Indigenous peoples did not feel pain and would not benefit from the same at-home drug therapies as non-Indigenous peoples.[131] TB rates fell in the 1980s, prompting a shift away from federally funded health care for Indigenous peoples. This has created a complicated system of on- and off-reserve health care provision,[131] exemplified by the need for Jordan's Principle[132] and the inequity of health care outcomes.[12] The legacy these hospitals have left are devastating, with former patients having deep and long-lasting fear of the medical system.[133] Indeed, some have suggested that Indian Hospitals are where anti-Indigenous racism in health care started.[133]

As the residential school system deteriorated, the government refocused its efforts by utilizing the child welfare system to continue removing Indigenous children from their families at alarming rates.[134, 135] Known as the Sixties Scoop, children were taken from their families and fostered and/or adopted out to non-Indigenous families across Canada, the United States, and around the world.[134] The *Indian Act* was amended in 1951 to essentially pay provinces to apprehend Indigenous children; there was a guaranteed payment from the federal government to the province for each child brought into care.[134] This system was a direct continuation of the deliberate assault on Indigenous peoples and their way of life. The goal was to further erode Indigenous culture in an effort to subjugate and assimilate Indigenous peoples into the White body politic. While Indigenous children are no longer being adopted out to non-Indigenous families across the world, they still make up a disproportionate number of children in care.[135] The residential school system formally ended in 1996, yet many have noted that it has just changed its' name by becoming the child welfare system.[135]

The assimilation of Indigenous peoples was to be achieved through theft of land, culture, spirituality, children, and identity. The Doctrine of Discovery, the *Indian Act*, the impacts of the residential school system, Indian hospitals, and the ongoing crisis of the child welfare system have all shaped current Indigenous realities. These racist systems and pieces of legislation have aimed to continually undermine the aspects of Indigenous life that foster resilience. They have systematically destroyed languages, separated families, and prevented Indigenous peoples from accessing their territories and the practices connected to that land. Understanding these systems that have undermined Indigenous peoples' rights to self-determination allows us to shift our gaze

from the individual and onto the systems of harm. Thereby centering colonial dispossession and oppression rather than placing the burden on the individual to be resilient in hostile environments.

1.5 Rationale and objectives

While there is an evidence base developing that explores the supports that culture offers to vulnerable Indigenous youth, there is a paucity of data that addresses the association between resilience and the quadruple crises of racism, overdose, housing, and COVID-19 among young Indigenous peoples. Specifically, there is little information on how COVID-19 is associated with various aspects of the lives of young urban Indigenous peoples who use drugs, including housing, intimate partner violence (IPV), vaccine attitudes, harm reduction supply accessibility, racism, and non-fatal overdose. During the beginning of the pandemic, Indigenous leaders including the Cedar Project Partnership were especially concerned that Indigenous youth would be left behind in the province's response, pointing to these factors as important areas of investigation. The large-scale decampments on the DTES, COVID-19 isolation requirements for those exposed, and new by-laws and police action are expected to have had large impacts on Cedar participant's housing stability or transience. This thesis will investigate how COVID-19 is both associated with Cedar participants' resilience and housing transience.

The following objectives and hypotheses are addressed in Chapters 4 and 5 respectively.

- **O1**: To explore how housing, IPV, sharing drug equipment, non-fatal overdose, racism, and COVID-19 vaccine attitudes are associated with young Indigenous peoples resilience during the pandemic.

- H1.1: Participants with short term and transitional housing are more likely to have lower resilience scores.
- H1.2: Participants who experience IPV with have lower resilience scores.
- H1.3: Sharing drug equipment will be associated with lower resilience during pandemic.
- H1.4: Experiencing a non-fatal overdose will be associated with lower resilience scores.
- H1.5: Participants who experience racism will have lower resilience scores.
- H1.6: Negative COVID-19 vaccine attitudes will be associated with lower resilience scores during pandemic.

- **O2**: To understand housing transience among young Indigenous peoples who use drugs during the COVID-19 pandemic.
  - H2.1: Participants who experience IPV will have increased odds of being highly transient.
  - H2.2: Participants who share drug equipment will have increased odds of being highly transient.
  - H2.3: Experiencing a non-fatal overdose will have increased odds of being highly transient.
  - H2.4: Participants who experience racism will have increased odds of being highly transient.
  - H2.5: Participants with negative COVID-19 vaccine attitudes will have increased odds of being highly transient.

Chapter 2: Methodology

2.1 Conceptual framework

From the months of September 2021 and April 2022 I worked full time in the Vancouver Cedar Project office. During these months I was able to spend time, cry, laugh, and grow with participants and other members of DTES community. Cedar Project partner Wenecwtsin Christian has remarked that "participants are not numbers to us. They are our brothers and sisters, aunties and uncles, sons and daughters. They are our relations."[136] Engaging with Cedar participants as people first was incredibly influential to my understanding of the responsibility I have as a student working with and writing about their data. My time in the office has greatly influenced the way in which I have approached this thesis and all the work contained within.

In Indigenous ways of knowing and doing, knowledge sharing happens in community and ceremony – at a relational, emotional, mental, spiritual, and physical level. This thesis is rooted in the concepts of bearing witness and the ethical space of engagement. Witnesses and the act of witnessing plays a significant role in governance and the maintenance of legal orders among many diverse groups of Indigenous peoples.[137] It remains an important method for documenting knowledge and history across Nations.[137] The concept of witnessing centres around knowledge keeping and sharing, it is about honouring and sharing others' stories. Bearing witness also holds a call to action, it is "to see, attend to, and testify to lived experience, and is linked to ideas of narrative, voice, and truth."[138] Those who have borne witness are "…obligated through a set of relational responsibilities, to ensure frameworks of representation allow for the lives that we have witnessed to be made visible."[139] Further, Willie Ermine's explanation of an ethical space of engagement describes a "field of convergence for disparate systems."[140] He

grounds this space of engagement in community, explaining that this is the place where the fundamental right to personhood is found. It is where we are reminded of what is important in life as we negotiate towards the future. Maintaining this ethical space requires confronting and challenging hidden interests, attitudes, and bedrock assumptions that are expressed through stereotypes, discrimination, and anti-Indigenous racism. An ethical space reduces the cultural distance between two knowledge systems, ensuring respect and relationality between the two participants in research are maintained and upheld.[141, 142]

During the seven months I spent in the Vancouver Cedar office, I bore witness to participants stories and lives while upholding an ethical space. It follows that I have conceptualized my time at the office and this thesis through my own understandings of Métis culture and tradition. My Grandpa and other Métis tell stories of community gatherings at houses, where a fiddle is brought out and furniture is moved out of the way to make room for jigging. It was in these gatherings in houses/cabins located on scrip or in larger Métis communities where oral history was shared and where cultural practices were learned and celebrated. Where joy and sorrow were shared and witnessed. My time in the Cedar office and writing this thesis has often reminded me of these events as I was given the opportunity to witness participants lives and stories. In keeping with Indigenous understandings of the responsibilities of witnessing, I also see my thesis as a way to fulfill this role where I can bring forward participant voices and stories. These Métis houses where community gathered reflects my time at the Cedar office and has greatly influenced how I approached and understood the data presented.

2.2 Indigenous conceptions of health and wellness

Recent work has affirmed what Indigenous peoples have known all along, poor health is a consequence of historical and lifetime traumas.[12, 58, 115, 126-129] The inequity seen in Indigenous health is directly caused by the historical legacy of colonialism and the ongoing impacts of neocolonialism. Before Europeans came to these shores, Indigenous peoples lived in balance with the self, each other, the spirit, ancestors, and the land.[115] Expertise in the preservation of meats, fish, and berries ensured diets were diverse and nutritionally dense.[115] And with lives rich in spiritual connections and practices, the soul and spirit were well nourished and sustained.[115] Elders remember that before colonization, people generally lived long healthy lives.[115]

It follows that Indigenous conceptions of health and wellness are (w)holistic, with an understanding that there is more to health than just the absence of disease;[143-145] wellness is directly related to balance and harmony and is often a journey.[108, 146, 147] Indigenous scholars have called us to move away from deficit-based models of health, instead asking us to look forward. Cree scholar Dion Stout[108] has termed this transformation as travelling a path that moves away from atikowisi miýw-āyāwin (ascribed health and wellness) towards kaskitamasowin miýw-āyāwin (achieved health and wellness). Kaskitamasowin miýw-āyāwin is understood to come from within Indigenous peoples, grounded in culture, language and identity. This is intimately linked with the principles of self-determination and is exemplified in BC through the FNHA, where Indigenous peoples are taking ownership and control over their own health and delivery of services. The FNHA is mandated to transform the health system, hardwiring cultural safety and humility into all aspects of health care, allowing Indigenous peoples who are seeking health care to do so in an actively anti-racist system.[148]

The path to achieved health and wellness is different for Indigenous peoples than non-Indigenous Canadians, and is impacted, positively and negatively, by unique determinants of health. Charlotte Loppie, an Acadian and Mi'kmaq scholar likens this to a tree, using different parts of the tree to describe different aspects of social and structural determinants of health specific to Indigenous peoples.[149] In this metaphor the roots of the tree represent distal determinants of health, which can promote (e.g., self-determination) or hinder (e.g., historical, and ongoing colonialism, trauma, oppression) health. The trunk of the tree is the intermediate determinants of health, describing culture and community as positive factors, and negative experiences in the health system as road blocks to good health. Finally, the branches and leaves are the proximal determinants of health, representing determinants such as housing, income, and food security. These factors have an immediate and direct impact on a person's health. Each part - the roots, trunk, branches, and leaves - are critical to the overall health, wellness, and survival of the tree. Expanding on this concept, other scholars have explained that the roots and trunk of the tree are strong and resilient but growth has been impeded by the soil, which is contaminated by colonialism and it's direct effects (e.g., structural racism, apartheid-like policies and legislation).[149] Creating an environment for growth for Indigenous peoples requires the development and offering of strengths-based, culturally-safe, trauma informed, and land-based healing modalities. Moving forward, affirming what Indigenous peoples have always known, scholars have recognized that there is a need to support (w)holistic healing practices that nurture relationships with land, culture, ceremony, community, and family.[150-152] These kinds of approaches support and recognize Indigenous conceptions of health and wellness, honouring the connections between the spiritual, emotional, mental, and physical. In line with calls to move

towards strengths-based care and healing models, these approaches emphasize the importance of building trust-based relationships with patients. This allows for self-determination, where the patient has the ability to choose their care in terms of form, direction, and substance.[108, 147, 153, 154]

2.3 Ethical considerations

The Cedar Project adheres to and follows the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Human Subjects* with special attention paid to Chapter 9 which pertains to research involving Indigenous peoples. The Cedar Project and the COVID-19 study has been approved by the UBC Providence Health Care Research Ethics Board. All participants give both verbal and written consent, and study staff emphasized that deciding to not participate in the sub-study would have no effect on their continued participation with Cedar or the support from staff.

2.3.1 The Cedar Project Partnership

Since Cedar's beginning, which pre-dates the Truth and Reconciliation Commission and Chapter 9 of the Tri-Council Policy Statement, Cedar recognized the need to create a research process that is culturally safe and governed by an Indigenous advisory to ensure that all work conducted is meaningful and impactful to relevant communities. The Cedar Project Partnership, which is made up of Indigenous Elders, leaders, knowledge keepers, and other health and social service experts was brought together to govern all aspects of Cedar's work. At the time of writing the Cedar Project Partnership is chaired by Mr. Lou Demerais (Cree/Métis), and he is joined by Elders Earl Henderson (Cree/Métis) and Violet Bozoki (Lheidli T'enneh). Carrier Sekani Family Services; Communities, Alliances, & Networks; Central Interior Native Health

Society; Prince George Native Friendship Centre; Positive Living North; and Vancouver Aboriginal Community Policing Centre Society also sit on our governance. Together, the Partnership preforms five crucial functions: (1) guiding the research collective in following decolonizing principles of Indigenous research; (2) honouring participant experiences and voices through hard wiring cultural safety in all processes; (3) knowledge translation, including community dissemination, media relations, advocacy, and evidence-based analysis, (4) acting as data stewards, and (5) mentoring graduate students. Research approached in this way is empowering, healing, and self-determining.

The Partnership meets to define research questions, design study protocols, develop ethics, interpret results, and review/approve manuscripts. By working relationally with Indigenous governance on these foundational aspects of research, this model has been recognized as best practice within the University of British Columbia, nationally, and internationally. The Partnership determines how Cedar's research is presented to communities and the public, controlling all communication and media strategies. This ensures that the work we produce is strengths-based, trauma informed, and useful to the participants that entrust us with their stories. Lastly, unique to Cedar all graduate students are partnered with a mentor from the Partnership, in my case Mr. Lou Demerais, who both acts as a guide and resource for students while maintaining relational accountability. This mentorship builds long lasting relationships between Indigenous leaders and students, which is a testament to Cedar's anchoring of research and learning within relationships.

2.3.2 Cultural safety

Critical to the work Cedar undertakes is the concept of cultural safety and humility. Originating among Māori nurses in Aotearoa, cultural safety is described by the FNHA as the addressing of power imbalances to create an environment free of racism and discrimination.[155] Paired with this is the concept of cultural humility which, also defined by the FNHA is the process of continual self-reflection to understand personal and systemic bias allowing for the development of provider-client relationships that are built on trust.[155] Cedar has taken steps to ensure that research processes and spaces are culturally safe and that all staff and research team members engage in continued self-reflection via Indigenous lead training courses. This also includes creating a space where young Indigenous peoples feel that their voices, stories, and identities are heard, seen, and respected, and where police are not allowed. The Cedar Project Coordinator, Vicky Thomas (Wuikinuxv Nation) has shared that:

"To make Cedar a culturally-safe place for participants, I go on the teachings of my mom, my aunties, and other influential women in my life. You have to think of the office as a home, and think about what would you do to welcome someone into your home. We do things like have food, and its ok for people to sleep a shift away on the couch, take a sponge bath in the bathroom, or make calls to family."[156]

Aligned with this process, Cedar hosts annual meals where we provide various kinds of foods, including traditional meals (e.g., salmon, berries) and also ensures that participants have access to traditional medicines, and can help individuals participate in cultural practices such as smudging.

2.3.3 Indigenous knowledges

This body of work privileges Indigenous knowledge systems, which are complex, multidimensional bodies of understanding. These systems have been described by Kincheloe & Steinberg (2008) as "a lived-world form of reason that informs and sustains peoples who make their homes in the local area."[157] Indigenous knowledges take into account "the colonial/power dimensions of the political/epistemological relationship" of the world in which we live.[157] As a Métis person, much of what is written about and interpreted here has been done through a Métis lens. However, the Project Partnership represents a diverse group of Indigenous peoples with knowledges from across the country. Much of this thesis was developed in relationship with the Partnership, as such this varied collection of knowledges and lenses must be acknowledged.

2.4 Study setting

The Cedar Project is located in two urban cities in British Columbia – Vancouver and Prince George. In 2016, there were 232,290 Indigenous people living in BC, representing 5% of the population.[158] Located on the southwest coast of Canada, Vancouver is BC's largest city with a population of 662,248 as of 2021.[159] The Greater Vancouver area was even larger in 2022, with 2,642,825 inhabitants.[159] It's estimated that 63,345 Indigenous people live in Greater Vancouver, accounting for 2.4% of the population.[160] Up north, Prince George is the largest urban centre in BC with large forestry and mining industries. The population in Prince George is 76,708, with Indigenous peoples accounting for 11,465 (14.9%) of the total population.[160]

For decades the DTES of Vancouver has been the setting of BC's largest open-air illicit drug market, and the centre of an explosive HIV epidemic characterized by 18% annual

incidence rate in 1997.[161, 162] The neighbourhood includes about 10 city blocks and in 2014 was home to approximately 18,000 people from across Canada with an equal balance of men and women calling this community home.[163] Characterized by extreme poverty, high crime rates, homelessness, unsafe housing, and high levels of alcohol and drug use, there are a large number of services targeted towards Indigenous people, drug users, and people living in poverty compared to elsewhere in the city and province. It is estimated that 40% of DTES residents are of Indigenous ancestry.[164] The Cedar Project Vancouver office is located in the DTES near where a lot of Vancouver-based participants live and spend time. The DTES has been the subject of many longitudinal studies concerned with drug use, HIV, housing, mental health and more. Yet little attention has been given to cities outside of Vancouver that are also dealing with the deadly effects of the fentanyl crisis, including Prince George.

2.5 The Cedar COVID-19 cohort

Given the urgency of the COVID-19 pandemic, the research team received direction from the Partnership to continue engaging with Cedar participants throughout the crisis. The Partnership and other provincial Indigenous leaders were worried that Indigenous peoples who use drugs would be left behind in BC's response. Building on existing research infrastructure and trust-based relationships with Cedar participants Cedar undertook a rapid multi-year serial cross-sectional mixed methods study. It included four rounds of data collection at approximately three month intervals to evaluate how COVID-19 was impacting Cedar participants, and where more support was potentially needed. Data collection started in February 2021 and ended August 2022. To be eligible to be included in this cohort, participants had to be a part of Main Cedar and have completed the Main Cedar baseline. Any new person wishing to complete the COVID-19

baseline questionnaire had to first enroll with Main Cedar and complete the Main Cedar baseline. Participants were recruited through staff outreach, word of mouth, and flyers/posters in relevant locations and provided informed consent before engaging in any research activities with the team. New participants were recruited at each round of the study to account for loss to follow up given the long intervals between each round, a large number of participants were involved in more than one round of data collection.

2.6 Sample

We recruited 212 participants in total, with 117 in Vancouver and 95 in Prince George. Participants completed a baseline questionnaire that measured and addressed experiences of availability of COVID-19 information; ability to social distance/maintain safety; cleanliness/access to bathrooms and showers; housing accessibility and quality; the drug supply; access to equipment; overdose; mental health; IPV; access to services; police interaction and violence; survival sex work; and the COVID-19 vaccine. Resilience was captured by the Connor-Davidson Resilience Scale (CD-RISC).[88, 165] Experiences of everyday interpersonal racism was addressed by the Measure of Indigenous Racism (MIRE).[166] All included self-administered scales have demonstrated excellent psychometric properties in previous Cedar work, while also providing a (w)holistic view of mental health and wellness in the context of quadruple health crises.

2.7 Data sources

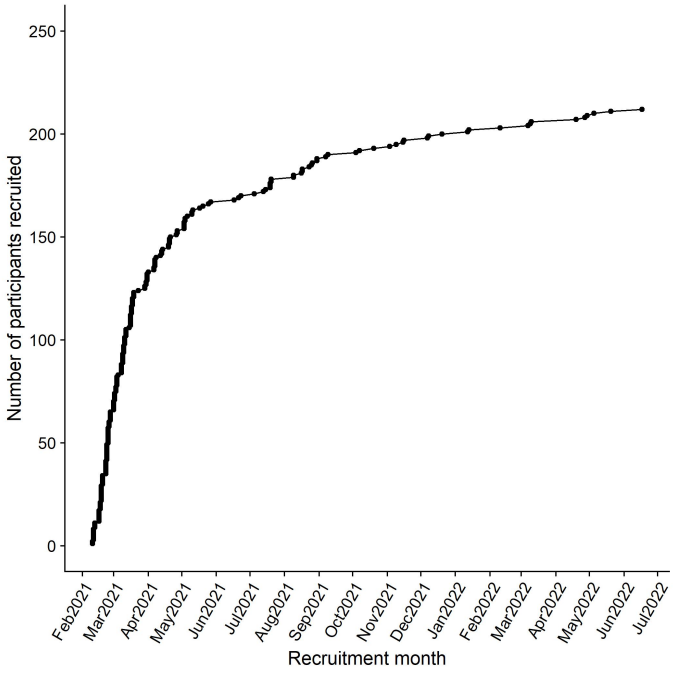
Analyses for this thesis involved the use of secondary data sources from both the Main Cedar Project cohort and the COVID-19 cohort.

Main Cedar Project cohort data. Baseline interviewer-administered questionnaires were collected for each participant at enrollment, and every six months thereafter. Questionnaires captured information on socio-demographics, health outcomes, strengths, substance use patterns, complex trauma, housing, and sexual vulnerabilities at each administration. At baseline, and every six months participants provided venous blood samples that were tested for HIV and HCV. Several psychometric scales are included. For this thesis only baseline questionnaire data was used. The baseline data used in this thesis was collected between August 2020 and May 2022.

COVID-19 cohort data. Data from the baseline interviewer-administered COVID-19 questionnaires was used in this thesis. The questionnaire elicited information on a number of variables, of interest to this set of analyses were those of vaccine hesitancy, sharing equipment, housing, overdose, IPV, and racism. Along with the questionnaire participants engaged with several self-administered psychometric scales, including the CD-RISC and the MIRE. COVID-19 baseline data was collected between February 2021 and July 2022. The COVID-19 pandemic continues to change and shift policy rapidly over time with some expected differential changes between health authorities. It can then be assumed that participant experiences in accessing services during February 2021 would be materially different than experiences during July 2022. Additionally, as time goes on participants are more likely to experience events of interest increasing the likelihood of a positive response on those measures. Figure 1 visually shows the number of participants recruited at the beginning of the survey compared to those at the end. The majority of participants (79%) were recruited between February 2021 and June 2021. To account for changes over time an exposure variable was created and included in every regression model

as a confounder. Exposure was a numeric variable calculated by subtracting the participants baseline interview date from the onset of the COVID-19 pandemic (March 2020).

Figure 1: Number of participants recruited into the Cedar COVID-19 study across both sites, by study month.



2.8 Measures

There are two outcome variables of interest in this thesis, resilience during COVID-19 and housing transience. Data from variables belonging to the following categories were used in analysis: (1) socio-demographic characteristics and social determinants of health; (2) cultural connection and resilience; (3) historical and ongoing colonial violence; (4) physical and mental health; and (5) substance use.

Socio-demographics and social determinants of health. Sociodemographic variables included information on age (years); sex (female/male); city (Vancouver/Prince George); relationship status (single/in a relationship); education level (high school diploma/did not graduate); and

being homeless for > 3 nights (yes/no). Participants were also asked about where they currently live, and how often they move around. Unstable housing or being housing transient was defined by living in 3 or more places since March 2020.

Cultural connection and resilience. Cultural connection variables were defined and included in the Main Cedar questionnaire by Cedar Project Partnership Elders Violet Bozoki (Lheidli T'enneh) and Earl Henderson (Cree/Métis). Variables included: Connecting to land to know who one is (yes or a bit vs no); connecting to land is important (yes or a bit vs no); access to traditional foods (yes/no); pride in Indigenous identity (yes or a bit vs no); thinking a traditional language is important (yes or a bit vs no); growing up hearing a traditional language (yes or a bit vs no); knowing how to speak a traditional language (yes/no); and understandings of Indigenous spirituality as a healing modality (yes or a bit vs no). Resiliency was captured by the CD-RISC self-administered scale. The CD-RISC is a 25 item Likert scale with scores that range between 0-100, higher scores indicate higher levels of resilience. This scale has been previously validated for use among young Indigenous people who use drugs.[88, 167] Each item is rated on a 5 point scale, with the anchors being "not true at all" being worth 0 points to "nearly all of the time" being worth 4 points.[168] The scale assesses resilience with 5 factors: (1) tenacity and competence; (2) trusting one's instincts and tolerating negative affect; (3) accepting of change and secure in relationships; (4) control; and (5) spirituality.[168] Some examples of questions include "I am able to adapt when change occurs," and "In times of stress, I know where I can find help."

Historical and ongoing colonial violence. These variables captured the experiences of Cedar participants when interacting with colonial systems of harm. They included: having one parent who attended residential school (yes/no/unsure); apprehension by child welfare services from their biological parents (yes/no); experiencing sexual abuse as a child (yes/no); having their child apprehended by child welfare (yes/no); experience of IPV (yes/no); being sexually assaulted/had non-consensual sex (yes/no); and ever having been incarcerated (yes/no). Racism was captured by the MIRE, which is a psychometrically robust self-reported measure of anti-Indigenous racism first developed in Australia. It has since been adapted to and validated in the Canadian setting. The MIRE assesses both interpersonal and systematic racism. Interpersonal racism is measured across a variety of settings, including places like school, health care or policing settings. A composite score is calculated from this measure and counts the number of settings a person experiences racism in, scores range from 0 to 9. The MIRE measures systemic racism by assessing individuals' beliefs about how Indigenous peoples are viewed by non-Indigenous peoples. For example, the MIRE asks respondents whether "other Canadians think Indigenous peoples are better off because they get special treatment from the government."

Mental health. Mental health was assessed by the following variables: ever having self-harmed (yes/no); ever attempted suicide (yes/no); and ever being diagnosed with mental illness (yes/no).

Substance use. Participants were asked if they: ever used injection drugs (yes/no); overdosed since March 2020 (yes/no); needed help fixing since March 2020 (yes/no); accessed alcohol/drug treatment since March 2020 (yes/no); recently unable to access alcohol/drug treatment since

March 2020 (yes/no); ever on an opioid substitution program (yes/no); ever having tried to quit alcohol or drugs (yes/no); and sharing drug equipment since March 2020 (yes/no).

COVID-19 vaccine attitudes. Beliefs about vaccine efficacy was assessed through two questions: believing that a COVID-19 vaccine will protect others (yes/no/unsure) and believing that a COVID-19 vaccine will protect oneself (yes/no/unsure). Participants were also asked whether they had received at least one COVID-19 vaccine dose (yes/no).

2.9 Statistical methods

All analyses were carried out using R version 4.2.0.[169] Variables found significant at the $p<0.20$ cut-off in univariate analysis were passed forward for stepwise variable selection. Models were adjusted for potential confounders, including age, location, and exposure.

2.9.1 Resiliency statistical methods

Both resiliency models were arrived at using linear regression modelling. Among women there was a small amount of missing information (35.5%); however, retaining only participants with complete observations resulted in a substantial reduction of the sample size (list-wise deletion of 15% of observations). Further investigation did not find missingness to depend on gender or location (see Appendix A) supporting the conclusion that the data was missing at random. For multiple imputation, we used random k nearest-neighbour imputation with R package VIM.[170] A total of 100 unique data sets were produced.[171] Parameter estimates and p-values were pooled to provide more accurate inference than those obtained from a single imputation.[172]

2.9.2 Housing transience statistical methods

Logistic regression was used to arrive at the final housing transiency model for Prince George. Due to small sample size, models were unable to be created for Vancouver. In Prince George, there was a disproportionate number of women (66.7%) in the sample. Inverse probability weights (IPW) were used to obtain unbiased effect estimates correcting for unequal sampling fractions of men (33.3%) and women (66.7%).

2.10 Knowledge translation

A key part of engaging in community-based research is undertaking research that is useful to the specific community with whom we work. By designing and conducting a research project that is meaningful and impactful to the lives of Cedar participants we are adhering to basic community-based research standards while simultaneously disrupting the current top-down methods of scientific inquiry; we are participating in the decolonization of the research process. Another central and critical purpose of the Cedar Project is to bring the voices and stories of participants to those who can influence structural change. While the findings in this thesis affirm what Indigenous peoples and some of those who work with street involved populations have always known, the information presented here may be new to many - both policy makers and other Canadians. Cedar takes an integrated knowledge translation approach to returning and presenting findings. Findings will be communicated with policy and change makers through existing partnerships with the Ministry of Health. Results will be published in academic journals and shared at conferences. Within community, findings will be returned to participants through posters in offices and the new Cedar grant activities.

Chapter 3: Resiliency analysis during COVID-19

3.1 Description of cohort

A total of 212 young Indigenous men and women who use drugs completed the COVID-19 baseline questionnaire. Table 1 provides comparisons between descriptive factors and mean resilience scores. During COVID-19 participants median age was 36.3 years and 52.8% (n = 112) were women. Fewer people were were living in Prince George (44.8%) than in Vancouver (55.2%). A small proportion of participants identified as part of the 2SLGBTQIA+ community (16.3%). Participants more often reported being single (53.2%) than being in a relationship (46.8%). Most participants did not graduate high school (66.5%). Equal numbers of participants reported ever having self-harmed (38.6%) and ever having attempted suicide (38.6%). A minority of 43.8% of participants reported have ever been diagnosed with a mental illness.

Less than half of participants indicated not growing up hearing their traditional language at home (47.3%), while half said they did not know how to speak their traditional language (54.7%). Yet, participants indicated that they believe their Native language is important (50.3%), that knowing more about their spirit drives a want to live a good life (56.1%), and they have a desire to learn more about their Native identity (67.0%). In terms of historical trauma, more than half of participants reported having any parent attend residential school (55.0%), while 16.1% were unsure. Seventy-five percent had ever been removed from their biological parents, and 18.8% reported having ever experienced childhood sexual assault. Approximately one-third of participants have indicated that they have spent more than three nights on the street since March 2020 (35.8%). A majority of participants reported ever having been incarcerated (73.2%), while 37.4% indicated ever having participated in survival sex work.

Among participants who recently injected the following drugs more than half of did not inject daily or more of the following drugs: cocaine (77.8%), methamphetamines (56.2%), and dilaudid (52.9%). However, most participants reported having injected fentanyl (81.2%), heroin (61.0%), and speedballs (66.7%) daily or more. Participants shared that they recently had low frequencies of going on injection drug use binges (19.5%). Participants did not need help injecting (60.0%) during COVID-19, but more than half were sharing equipment (51.9%). The majority of participants (71.4%) have not experienced a non-fatal overdose since March 2020.

Table 1: Baseline comparisons of mean resilience scores by demographics among Cedar project participants (N = 212)

Characteristic	Baseline frequencies		Resilience score		p-value
	N	%	Mean	SD	
All participants	212	100%			
Demographics					
Location					**0.041**
Vancouver	117	55.2%	71.8	19.6	
Prince George	95	44.8%	66.5	17.6	
Age					**0.009**
14.6-28.6 years	53	25.0%	62.3	19.5	
28.7-36.3 years	53	25.0%	69.3	21.2	
36.4-41.1 years	52	25.0%	74.2	14.3	
41.2-59.1 years	53	25.0%	71.6	18.1	
Sex					0.886
Female	112	52.8%	69.2	18.2	
Male	100	47.2%	69.6	19.7	
Sexual identity					0.510
2SLBGTQIA+	33	16.3%	68.1	18.4	
Heterosexual	170	83.7%	70.4	18.5	
Relationship status					0.060
In a relationship	95	46.8%	72.1	19.0	
Single	108	53.2%	67.0	19.0	
Level of education					0.286
Did not graduate	141	66.5%	68.4	19.6	
High school diploma	71	33.5%	71.4	17.4	
Cultural connection and resilience					
Traditional language spoken at home					**0.041**
Yes	61	29.8%	74.3	18.5	
A bit	47	22.9%	67.3	18.8	
No	97	47.3%	66.8	19.0	

Know how to speak traditional language					0.622
At least a little bit	92	45.3%	70.0	18.4	
No	111	54.7%	68.7	19.5	
Native language is important					**0.067**
Yes	99	50.3%	72.0	18.4	
A bit	56	28.4%	64.9	18.5	
No	42	21.3%	67.6	19.1	
Knowledge about spirit drives a good life					**0.005**
Yes	111	56.1%	72.6	17.7	
A bit	63	31.8%	63.2	18.7	
No	24	12.2%	70.4	18.4	
Want to learn more about Native identity					**0.001**
Yes	140	67.0%	72.4	18.2	
A bit	47	22.5%	61.1	19.0	
No	22	10.5%	67.9	18.7	
Historical and ongoing colonial trauma					
Any parent attended residential school					**0.029**
Yes	116	55.0%	72.2	18.0	
Unsure	34	16.1%	62.9	21.3	
No	61	28.9%	67.6	18.4	
Ever in foster care					0.694
Yes	156	75.0%	69.6	19.7	
No	52	25.0%	68.4	16.6	
Childhood sexual assault (<13)					0.205
Yes	30	18.8%	73.2	17.0	
No	130	81.2%	68.2	20.1	
Spent >3 nights on the street*					**0.014**
Yes	76	35.8%	65.1	20.0	
No	136	64.2%	71.8	17.9	
Ever incarcerated					0.100
Yes	153	73.2%	70.7	19.5	
No	56	26.8%	65.8	16.7	
Ever participate in survival sex work					0.942
Yes	76	37.4%	69.6	18.5	
No	127	62.6%	69.4	19.2	
Mental health					
Ever self-harm					0.086
Yes	81	38.6%	66.3	18.9	
No	129	61.4%	70.9	18.6	
Ever attempt suicide					**0.047**
Yes	81	38.6%	65.9	18.5	
No	129	61.4%	71.2	18.8	
Ever diagnosed with mental illness					0.352

Yes	91	43.8%	68.2	20.0	
No	117	56.2%	70.7	17.7	
Substance use					
Daily or more injection cocaine[+]					0.219
Yes	2	22.2%	92.0	11.3	
No	7	77.8%	72.9	18.5	
Daily or more injection methamphetamine[+]					0.867
Yes	32	43.8	68.0	18.5	
No	41	56.2%	67.2	20.2	
Daily or more injection dilaudid[+]					0.795
Yes	8	47.1%	66.4	20.8	
No	9	52.9%	68.8	17.4	
Daily or more injection fentanyl[+]					**0.004**
Yes	39	81.2%	71.6	19.9	
No	9	18.8%	49.1	20.7	
Daily or more injection heroin[+]					**0.010**
Yes	25	61.0%	72.0	16.6	
No	16	39.0%	57.7	16.2	
Daily or more injection speedballs[+]					0.718
Yes	14	66.7%	71.3	17.2	
No	7	33.3%	68.7	9.2	
Recent drug injection binge					0.785
Yes	22	19.5%	66.7	19.6	
No	91	80.5%	68.0	19.8	
Need help injecting*					0.643
Yes	48	40.0%	68.1	16.6	
No	71	60.0%	66.4	21.5	
Sharing drug equipment*					0.134
Yes	97	51.9%	66.6	18.6	
No	90	48.1%	70.8	19.6	
Non-fatal overdose*					0.332
Yes	59	28.6%	67.8	17.1	
No	147	71.4%	70.6	19.2	

*Since March 2020

[+]Among those who indicated they had done drug recently

Table 2 presents the six variables of interest (housing, IPV, COVID-19 vaccine attitudes, racism, sharing equipment, and non-fatal overdose) and mean resilience scores among women. Women reported currently living in at least one of the following types of housing: apartment (17.2%), couch surfing (2.0%), a house (19.2%), a shelter (17.2%), an SRO (31.3%), and the

street (12.1%). Overall, women experienced high levels of housing transience (2-4 places: 42.9%, >5 places: 38.5%). Most found they had privacy (61.5%) and safety (76.6%) at home. More than half of women reported having ever been incarcerated (64.5%).

Many women reported having never experienced IPV (65.4%), and of those few who had they felt a reduction in violence (40.0%) since March 2020. Most (60.8%) believed that a COVID-19 vaccine would protect others, while 65.8% believed that the vaccine would protect themselves. However, only 20.5% reported receiving at least one dose of any COVID-19 vaccine at the time of their baseline questionnaire. Women experienced high levels of interpersonal racism (55.7%) across at least 7 settings (7-8 settings: 25.9%, 9 settings: 25.9%) and high levels of systemic racism (59.8%). About half of women reported sharing equipment since March 2020 (51.0%), with less than half reporting experiencing a non-fatal overdose (28.7%) or needing help injecting (28.7%) since March 2020.

Overall, a slight majority reported not hearing their traditional language spoken at home as a child (38.9%), while 50.0% know how to speak at least a little bit of their traditional language. Importantly, women reported thinking their Native language was important (50.5%), wanting to learn more about their Native identity (67.0%), and pride in their identity (58.1%).

Table 2: Baseline comparisons of resilience scores and housing, IPV, COVID-19 vaccine attitudes, racism, and substance use variables among women (N = 112)

Characteristic	Baseline frequencies		Resilience score		p-value
	N	%	Mean	SD	
All participants	112	100%			
Housing					
Type of housing currently					0.870
Apartment	17	17.2%	67.5	18.7	
Couch surfing	3	3.0%	65.0	18.2	

House	19	19.2%	70.4	15.6	
Shelter	17	17.2%	66.4	22.0	
SRO	31	31.3%	70.7	19.4	
Street	12	12.1%	63.5	17.9	
Transience					0.863
Low (<1 place)	46	43.8%	68.4	16.5	
Medium (2-4 places)	45	42.9%	69.9	20.7	
High (>5 places)	14	38.5%	68.3	18.4	
Privacy at home					0.648
Yes	67	61.5%	69.9	18.4	
No	42	38.5%	68.3	18.4	
Feel safe at home					0.171
Yes	82	76.6%	70.3	18.2	
No	25	23.4%	63.6	17.1	
Spent >3 nights on street*					0.194
Yes	40	35.7%	66.2	19.4	
No	72	64.3%	70.9	17.5	
Ever incarcerated					0.066
Yes	71	64.5%	71.4	18.5	
No	39	35.5%	64.7	17.5	
IPV					
Ever experienced IPV					0.980
Yes	27	34.6%	70.5	20.3	
No	51	65.4%	70.6	17.2	
Change in violence*					0.721
Yes - increased	6	24.0%	65.7	27.6	
Yes - decreased	10	40.0%	74.6	19.9	
No – stayed the same	9	36.0%	72.0	18.2	
COVID-19 vaccine attitudes					
Vaccine will protect others					0.539
Yes	45	60.8%	72.4	18.4	
No	29	39.2%	69.6	19.2	
Vaccine will protect me					0.949
Yes	52	65.8%	71.8	19.2	
No	27	34.2%	71.6	18.4	
Received at least one dose					0.389
Yes	23	20.5%	66.3	20.6	
No	89	79.5%	70.0	17.7	
Racism					
MIRE interpersonal score					0.321
High	54	55.7%	66.9	16.9	
Low	27	27.8%	73.0	13.5	
None	16	16.5%	71.8	27.5	
MIRE composite score					0.428
0-2 settings	26	23.2%	71.2	23.2	

3-6 settings	28	25.0%	71.7	17.1	
7-8 settings	29	25.9%	69.9	17.3	
9 settings	29	25.9%	64.5	15.1	
MIRE systemic score					0.579
Very high	16	14.3%	69.7	21.2	
High	67	59.8%	68.4	18.1	
Moderate	23	20.5%	68.7	16.1	
Low	6	5.4%	79.3	21.0	
Substance use					
Sharing equipment*					0.994
Yes	50	51.0%	68.3	16.7	
No	48	49.0%	68.6	20.3	
Non-fatal overdose*					0.621
Yes	31	28.7%	70.6	17.6	
No	77	71.3%	68.7	18.8	
Need help injecting*					0.367
Yes	31	28.7%	68.7	17.3	
No	38	60.3%	64.3	20.1	
Cultural connection					
Traditional language spoken at home					0.180
Yes	37	34.3%	72.9	18.7	
A bit	29	26.9%	69.7	17.0	
No	42	38.9%	64.3	18.6	
Know how to speak language					0.569
At least a little bit	55	50.0%	70.3	18.5	
No	55	50.0%	68.3	18.3	
Native language is important					**0.047**
Yes	54	50.5%	73.3	17.7	
A bit	39	27.1%	68.1	17.8	
No	24	22.4%	62.4	19.0	
Want to learn more about Native identity					**0.002**
Yes	75	67.0%	73.3	17.5	
A bit	24	21.4%	62.8	18.6	
No	13	11.6%	57.5	13.6	
Proud to be Native					**0.011**
Yes	61	58.1%	74.1	17.0	
A bit	31	29.5%	65.3	17.5	
No	13	12.4%	61.0	17.2	

*Since March 2020

Table 3 presents the six factors of interest (housing, IPV, COVID-19 vaccine attitudes, racism, sharing equipment, and non-fatal overdose) and mean resilience scores among men. Men

reported currently living in at least one of the following housing types: apartment (13.8%), couch surfing (8.5%), a house (9.6%), a shelter (14.9%), an SRO (40.4%), and the street (12.8%). Men had medium levels of housing transiency (2-4 places, 43.6%). They also reported feeling that they have privacy (71.0%) and safety (82.7%) in their current living situation. Sixty-four percent had never spent more than three nights on the street since March 2020, while 82.8% indicated having ever been incarcerated.

About one-third of men reported ever experiencing IPV (31.1%), and among those who had they felt a decrease in violence since March 2020 (42.9%). Men reported believing that the COVID-19 vaccine would protect others (76.1%) and would protect themselves (69.1%). But only 33.7% had received at least one dose of any COVID-19 vaccine at the time of their baseline questionnaire. During COVID-19 men experienced high levels of interpersonal racism (45.5%) mainly across 3-6 different settings (37.0%). They also reported experiencing high levels of systemic racism (58.2%). Most men did not share equipment (52.8%), experience a non-fatal overdose (71.4%), or need help injecting (59.6%) since March 2020.

Men reported not hearing their traditional language growing up (56.7%) and not knowing how to speak their language at all (60.2%). However, at least half of men think their Native language is important (50.0%), want to learn more about their identity (67.0%) and feel pride in their Native identity (70.8%).

Table 3:Baseline comparisons of resilience scores and housing, IPV, COVID-19 vaccine attitudes, racism, and substance use variables among men (N = 100)

Characteristic	Baseline frequencies		Resilience score		p-value
	N	%	Mean	SD	
All participants	100	100%			
Housing					
Type of housing currently					**0.032**
Apartment	13	13.8%	73.4	17.1	
Couch surfing	8	8.5%	60.6	26.1	
House	9	9.6%	68.1	10.2	
Shelter	14	14.9%	65.0	16.2	
SRO	38	40.4%	75.5	20.2	
Street	12	12.8%	56.0	19.0	
Transience					**0.022**
Low (<1 place)	38	40.4%	72.2	18.3	
Medium (2-4 places)	41	43.6%	72.1	20.1	
High (>5 places)	15	16.0%	56.9	19.0	
Privacy at home					0.315
Yes	71	71.0%	70.9	20.5	
No	29	29.0%	66.5	17.3	
Feel safe at home					
Yes	81	82.7%	71.2	19.8	
No	17	17.3%	64.4	18.4	
Spent >3 nights on street*					**0.030**
Yes	36	36.0%	63.9	20.9	
No	64	64.0%	72.8	18.4	
Ever incarcerated					0.762
Yes	82	82.8%	70.1	20.5	
No	17	17.2%	68.3	15.1	
IPV					
Ever experienced IPV					0.523
Yes	14	31.1%	71.7	17.7	
No	31	68.9%	67.5	20.3	
Change in violence*					0.358
Yes - increased	4	28.6%	85.0	19.5	
Yes - decreased	6	42.9%	68.3	10.5	
No – stayed the same	4	28.6%	66.8	24.2	
COVID-19 vaccine attitudes					
Vaccine will protect others					0.469
Yes	51	76.1%	65.5	20.8	
No	16	23.9%	69.7	19.3	
Vaccine will protect me					0.533
Yes	47	69.1%	67.8	19.9	
No	21	30.9%	71.0	19.5	
Received at least one dose					0.414

Yes	33	33.7%	67.3	20.7	
No	65	66.3%	70.9	19.4	
Racism					
MIRE interpersonal score					0.294
High	40	45.5%	70.4	17.3	
Low	34	38.6%	65.4	21.7	
None	14	15.9%	74,4	19.0	
MIRE composite score					0.148
0-2 settings	28	28.0%	75.6	19.4	
3-6 settings	37	37.0%	68.4	23.2	
7-8 settings	15	15.0%	71.3	15.2	
9 settings	20	20.0%	62.6	13.5	
MIRE systemic score					0.159
Very high	13	13.3%	81.2	18.1	
High	57	58.2%	67.7	19.0	
Moderate	18	18.4%	68.5	18.9	
Low	10	10.2%	70.2	18.9	
Substance use					
Sharing equipment*					**0.042**
Yes	47	52.8%	73.3	18.7	
No	42	47.2%	64.7	10.5	
Non-fatal overdose*					0.056
Yes	28	28.6%	64.5	16.2	
No	70	71.4%	72.7	19.5	
Need help injecting*					0.810
Yes	23	40.4%	67.5	16.2	
No	34	59.6%	69.9	23.1	
Cultural connection					
Traditional language spoken at home					0.088
Yes	24	24.7%	76.4	18.4	
A bit	18	18.6%	63.5	21.4	
No	55	56.7%	68.0	19.4	
Know how to speak language					0.904
At least a little bit	37	39.8%	69.6	18.5	
No	56	60.2%	69.0	20.8	
Native language is important					0.051
Yes	45	50.0%	70.3	19.4	
A bit	27	30.0%	61.3	19.0	
No	18	20.0%	74.6	17.3	
Want to learn more about Native identity					**0.004**
Yes	65	67.0%	71.4	19.0	
A bit	23	23.7%	59.3	19.7	
No	9	9.3%	82.9	14.5	
Proud to be Native					**0.005**

Yes	50	53.8%	70.8	18.6
A bit	32	34.4%	61.2	19.9
No	11	11.8%	82.5	13.1

*Since March 2020

3.2 Women's model

Results from multivariable linear regression analysis examining the relationship between resilience, the six variables of interest (housing, IPV, COVID-19 vaccine attitudes, racism, non-fatal overdose, and sharing equipment), and other variables associated with increased resilience are found in Table 9. Analysis was restricted to injectors as they are assumed to have differential experiences in drug use during COVID-19 than those who do not inject due to disparate pre-existing risks.[128] There was then a final sample of 90 women who completed both the Main Cedar baseline and the COVID-19 baseline questionnaire with an average score of 68.7 on the CD-RISC scale.

Table 4: Linear model of resilience among young Indigenous women who use drugs (N = 90) during COVID-19 controlling for age, location, and exposure.

Characteristic	Estimate	95%CI	p-value
Age	0.54	0.11-0.98	**0.014**
Location	1.39	-6.23-9.02	0.720
Exposure	-0.01	-0.03-0.02	0.659
Being in a relationship	8.66	0.75-16.58	**0.032**
I would like to learn more about my Native identity			
Yes	16.49	3.99-28.99	**0.010**
A bit	7.13	-6.66-20.93	0.311
The more I learn about my spirit the more I want a good life			
Yes	18.07	6.07-30.07	**0.003**
A bit	11.30	-2.14-24.74	0.100

Women demonstrated that wanting to live a good life by learning more about their spirit was significantly associated with a mean increase of 18.07-points on the CS-RISC scale (95%CI:

6.07-30.07, p = 0.003). Wanting to learn more about one's Native identity was associated with a large mean increase of 16.49 points on the CD-RSIC (95%CI: 3.99-28.99, p = 0.010). Further, being in a relationship was associated with an 8.66-point increase in mean resilience score (95%CI: 0.75-16.58, p=0.032). The confidence intervals associated with the two cultural variables are quite large, suggesting large variability within the data caused by a small sample size and reduced power to detect an effect.

3.3 Men's model

Results from multivariable linear regression analysis between resilience scores, the six categories of interest, and other known supporters of resilience are reported in Table 5. Analysis was restricted to injectors as they are assumed to have differential experiences in drug use during COVID-19 than those who do not inject due to disparate pre-existing risks.[128] Beginning with a sample size of 74 participants 3 outliers were removed, leaving a final sample size of 72 participants with an average score of 69.8 on the CD-RISC scale. A robust linear regression methodology was used to avoid making type 2 errors due to small sample size and reduced power. After adjusting for location, age, and exposure a significant positive association between increased mean resilience scores and having privacy in housing (95%CI: 0.83-20.03) was observed. We can expect to see on average a 10-point increase in mean resilience scores when there is privacy in housing. The associated 95% confidence interval is quite large, suggesting we should be cautious and conservative in the interpretation of this result.

Table 5: Linear model of resilience among young Indigenous men who use drugs (N = 72) during COVID-19 controlling for age, location, and exposure.

Characteristic	Estimate	95%CI
Age	0.42	-0.07-0.92
Location	1.69	-7.93-11.32
Exposure	-0.04	-0.08-0.00
Privacy in housing	10.43	**0.83-20.03**

3.4 Cultural connection and resilience among Indigenous women who use drugs during COVID-19

Key finding: For Indigenous women who use drugs, maintaining connection and a sense of belonging is important in supporting resilience during COVID-19.

Critically for women, it was observed that: being in a relationship (8.66-points), wanting to learn more about Native identity (16.49-points), and wanting to live a good life through the learning and understanding of their spirit (18.07-points) were significantly associated with increased resilience during COVID-19. Clearly, connection was extremely important for women during the pandemic and intersecting crises of isolation. Having emotional support in the form of a romantic relationship was critically associated with resilience for women who are part of Cedar; this is consistent with the established literature on Indigenous resilience.[173] Being in a relationship is associated with a feeling of belonging to someone and something. However, addiction has been explained to me by a community partner as a crisis of isolation and occurs when people are forced to deal their trauma or other life circumstances alone. Compounding this sense of isolation was the COVID-19 pandemic, which forced people to stay home and away from other people. Further pushing people into isolation and disconnection from community. From this association we can understand that for Indigenous women who use drugs emotional

connections with people is a source of strength and provides the sense of belonging that so many are searching for.

The cultural variables that were significantly associated with resilience provide further support the assertion that connection was crucial for Indigenous women during the pandemic. Many Cedar participants have been disconnected from their culture through no action of their own. Indeed 74% of Cedar participants have been apprehended by MCFD while a further 54% had at least one parent attend residential school and 18.4% being unsure whether a parent had attended residential school. The unsure level of this variable was important to include because it represents a further disconnection from family and familial history. Some participants may have never been able to connect with their parents to learn of their experiences due to the Sixties Scoop and other child welfare policies, while others may have parents who are unwilling to discuss their experiences for a variety of reasons often centering around trauma. Overall, in this study it was observed that a large proportion of Cedar participants grew up in foster care disconnected from their families and culture. Yet, for women especially, engaging or beginning to start this search for who they are, where they come from, and who their community is was incredibly important in supporting resilience during COVID-19. Knowing who you are and where you come from is grounding for Indigenous peoples and an important component of wellness. Cedar participants are searching for their connection to the land, community, and culture and for those who were able to maintain this search for connection and belonging during a pandemic that sought to isolate people, found that their resilience was supported. This resilience derives from knowing that the connection they are searching for exists deep within their spirit; they know they belong somewhere.

It is well established in the literature that cultural connection and affiliation is linked with young Indigenous people's wellbeing.[174-176] The mechanism behind this connection is explained as providing the answer to important questions such as: "who am I?", "who are we as people?" and "where am I going?"[173-175] Further, a strong sense of cultural identity is associated with higher levels of psychological health.[93, 177, 178] Strong cultural connection was also seen to be a protective factor from racism, allowing young people who experience racism to respond with active anti-racist strategies.[179] A sense of cultural identity is additionally linked with feelings of connection, belonging, and purpose all of which are associated with resilience and wellbeing in diverse age groups.[178] Another study by Chandler & Lalonde (1998) demonstrated that when young people have an understanding of their cultural past, present, and future it is easier for them to maintain a sense of connection and commitment to their future.[92] Additionally, in a 2015 Cedar qualitative exploration it was demonstrated that Indigenous young people who use drugs are strengthened through reconnecting with family, engaging in traditional ways of life (e.g., hunting, gathering medicines), attending traditional ceremonies with Elders, cleansing (e.g., smudging, sweats, talking/healing circles), and speaking traditional languages.[88] Connection to culture clearly plays a large role in understanding and knowing oneself, creating a sense of belonging and acceptance, and maintaining wellbeing.

This connection has been shown to be best fostered through land making and land-based programs. For example, in the community of Biigtigong Nishnaabeg, Ontario Nightingale & Richmond (2022) explored how land repossession can foster the strengthening of social relationships, promote cultural transmission and Indigenous pride among Indigenous women.[180] Leaning on the concepts of land camps or bush camps researchers brought Elders and other

community members together to facilitate the sharing of stories, skills, and traditions. At the end of the camp participants had stronger intergenerational social relationships, and renewed relationships with the land. Further, participants also experienced a marked increase in community and identity pride related to revitalized understandings of themselves within the social structure of their culture and community. A land based healing program called Restoring our Roots evaluated how learning from the land can be beneficial for Indigenous youth.[181] Youth who participated in this program, which was created by and for Indigenous young people, reported experiencing positive changes to their identity/self-concept, increased connection, belonging, and wellness. Another study by Johnson-Jennings et al., in 2020 in Louisiana, U.S.A. with women in the United Houma Nation saw that reconnecting to land was central to renewing relationships with ancestors (aihalia asanochi taha), other community members, and with the self.[182] Further it was observed that connecting with the land played a crucial role in strengthening tribal identities, increased cultural continuity, and the transformation of narratives of trauma into hope and resilience.[182]

3.5 Resilience among Indigenous men who use drugs during COVID-19

Key finding: For Indigenous men who use drugs during COVID-19 privacy in housing was significantly related to a mean increase in resilience scores.

Privacy in housing was associated with a 10.43-point increase in resilience for men. Understanding the role housing plays for men requires an exploration of gendered experiences of colonialism. Indigenous men hold cultural strengths, resources, and knowledges that continue to support strength and resilience against Euro-Western ideologies and ways of being.[183, 184] The

practice of these knowledges was interrupted when the forced restructuring of Indigenous society stripped Indigenous men of their traditional roles and responsibilities.[183, 184] Simultaneously subjugating Indigenous women and changing how the two groups interact and relate to each other.[183, 184] Historically, men shared responsibilities in raising children with women and the wider community.[185] They were further responsible for teaching children survival skills (e.g., hunting), certain crafts, warfare, diplomacy, and spiritual practices.[185] Men were also the primary unit of economic production within the community; before colonization men had clearly and well-defined roles as protectors and providers for their communities and families.[185] During colonization, land theft, and the forced re-defining of Indigenous genders, men were prevented from fulfilling their traditional roles and stopped from engaging in the cultural transmission of values through residential schools, and later, the child welfare systems. Western conceptions of masculinity are tied up in notions of power and violence, and these ideas were projected and forced onto Indigenous men.[183, 184] Gender was clearly weaponized and instrumental to the colonization process in Canada. Gendered colonialism has impacted men in a variety of ways. Specifically, among Indigenous men it has been found that they suffer from racism, unequal opportunity, frequent and early contact with the justice system, identity dislocation, poor mental health, addiction, and higher suicide rates relative to the Canadian population.[183, 185-187] Factors which are all significant contributors to homelessness.[48]

Previous research has noted how not being able to access adequate self-determining housing, for Indigenous men, has led to a crisis of identity dislocation and disconnection.[188] This affirms that type and quality of housing is more than a determinant of physical health but operates at the emotional, spiritual, and mental levels as well. It further suggests that housing is

not just about having four walls and a roof over one's head, but that the substance and quality of housing is critical in supporting Indigenous men's self-concept and resilience. In this analysis it was observed that for young Indigenous men who use drugs having privacy at home was significantly related with an increase in mean resilience scores. There is also a small but growing body of evidence that illuminates how privacy in housing is critical to Indigenous men having control over their lives and operates as a foundation for men to begin their healing journey. It can be understood that having privacy at home for Indigenous men is about having a sense of control over their lives and selves, about not fearing surveillance and retribution from housing staff or neighbours, and about providing them with a space to begin healing. Based on these findings and extant literature,[189-192] there is evidence of a hidden housing crisis affecting Indigenous men. This crisis is at once intensifying feelings of dispossession/disconnection while simultaneously undermining health at all levels, operating as a continuation of the colonial project.

Among Indigenous men in Yellowknife and Inuvik, Northwest Territories Christensen (2016) found that Indigenous men struggled in public housing when they were unable to have control over who stayed in their space and for how long.[48] For some, this lack of control and privacy led to going from housed to homeless. Participants in this study specifically noted how surveillance from staff in the form of surprise room inspections and from other tenants/neighbours encroached on privacy and ability to make decisions about their own homes.[48] In a previous analysis done among the same population Christensen (2013) found that some men would rather stay in tents so they could gain a sense of control and independence from public housing policy and the rules of homeless shelters,[49] emphasising the importance of control and privacy in Indigenous men's housing needs. Christensen (2016) also found that for

Indigenous men, it was difficult to maintain sobriety or begin sobriety journeys when living in communal settings, such as shelters.[48] One participant noted how after detox they wanted to stay with family, but due to the housing rules was forced to instead stay in a shelter. He expressed concern over his ability to maintain his sobriety in this setting due the lack of control and privacy. In Hamilton, Ontario during COVID-19 there was a temporary housing program for those who were living on the street, they were given private rooms and complete control over access. A case study on this program by Scallan et al., (2022) observed that for Indigenous men having access to safe, supportive, and private housing promoted recovery and facilitated access to drug and alcohol treatment.[193] For centuries Indigenous peoples have had decision making power and autonomy over their own bodies and lives forcibly taken from them, either in the form of historical colonial policy (e.g., residential schools, reserves, the *Indian Act*) or in the form of neo-colonial policy (e.g., overincarceration). Having control and privacy in their own homes is unmistakeably an important part of self-determination and resilience for young Indigenous men.

A 2022 study by Rand et al., involving Indigenous men living in Mi'kma'ki territory who were recently released from prison also emphasized the role that the quality of housing has on the recovery and resilience of participants.[188] The men involved in this study were looking to "walk the right kind of path." They called attention to the role housing plays in this, with one participant quoted as saying "…they won't give me a home…a foundation where I can give my son a room and be an active father.[188] How am I supposed to be a father and carry on to help fix our people when I don't even have a place to call home with my son…"[188] These participants also noted how fatherhood and grand fatherhood motivated them to seek treatment for alcohol and drug use, and that their children were large factors in deciding to make changes in their lives.

For these Indigenous men having access to their children and having a space where they could be an active father – passing down cultural knowledge and learnings – were important to wanting to lead a good life and walk the right path. Similarities can be seen in this analysis, for Cedar participants having privacy and control over their own spaces significantly supported resilience during a period of extreme isolation and compounding community level crises. Cedar participants are eager to have stability and responsibility over their own lives, and when they are given this opportunity in the form of quality, self-determining and private housing their resilience is supported.

Chapter 4: Housing transience analysis during COVID-19

4.1 Description of cohort

High levels of housing transience was defined in this analysis to be people who fell into the third quartile of the number of places people have lived in since March 2020. People who met this definition lived in more places than 75% of the sample. In this case, that meant people who lived in more than three places since March 2020. Only three participants living in Vancouver met this definition for housing transience. Expanding the definition of housing transience was considered but decided against, since as time moves forward it is more likely that people would change housing since March 2020. There were not enough cases of transience in Vancouver to conduct any meaningful analyses causing further investigation to be done with only participants living in Prince George. Three further participants were removed from the sample as they had missing housing transience values leaving a final sample of 72. Baseline characteristics of Prince George participants who experienced high vs low levels of transience are presented in Table 6.

Among participants in Prince George the average age was 34.6 (range = 14.6-59.1) and did not differ in terms of sex ($p = 0.080$). Those who identified as part of the 2SLBGTQIA+ community reported lower transience (22.0% vs 9.7%, $p = 0.013$); however, there were only 12 participants in total who identified with this community making this difference difficult to interpret. Participants who had high levels of transience on average scored significantly lower on the CD-RISC than those who had low levels of transience (61.8 vs 70.3, $p = 0.030$), suggesting resilience has a role in housing stability. There were no significant differences between participants in the reporting of having at least one parent attend residential school ($p = 0.290$);

ever being removed from their biological parents (p = 1.000); ever having been incarcerated (p = 0.156); or ever having participated in survival sex work (p = 0.624). Finally, participants reported similar levels of sharing drug equipment (p = 0.211) and experiences of non-fatal overdoses (p = 0.325) regardless of transience level.

Analysis was not stratified by sex due to a large disparity between the number of men and women in Prince George (66.7% female). Instead, a singular model for housing transience among participants in Prince George was created. To obtain estimates and odds ratios that were not unduly influence by this sex disparity, sex observations were weighted to assume there was an equal number of men and women in the sample. This allowed for inferences about housing transience for all young Indigenous people who use drugs in Prince George regardless of sex to be made. Several variables of interest were included in analysis, including racism, non-fatal overdose, vaccine attitudes, IPV, and sharing drug equipment. Cultural connection and resilience variables, along with those measuring sexual health and historical and ongoing colonial violence were also included in analysis. The final model is presented in Table 7. After adjusting for exposure and sex, a large increase in the likelihood of experiencing housing transience and ever having been incarcerated (aOR = 10.35, 95%CI: 1.56-68.64, p = 0.016) was observed. Similarly, ever having participated in survival sex work greatly increased the odds of having experienced housing transience during COVID-19 (aOR = 7.54, 95%CI: 1.48-38.41, p = 0.016) was observed. CD-RISC score was also seen to be a protective factor, decreasing the odds of having experienced housing transience during COVID-19 (aOR = 0.95, 95%CI: 0.91-1.00, p = 0.048).

Table 6: Baseline characteristics of Cedar participants in Prince George (N = 72) by level of housing transeince during COVID-19.

Characteristic	Low Transience *(N = 41)* no. (%)	High Transience *(N = 31)* no. (%)	Total *(N = 72)* no. (%)	p-value
Age (mean, SD) (range = 14.6-59.1)	35.1 (10.2)	33.8 (8.1)	34.6 (9.3)	0.561
Female sex	31 (75.6)	17 (54.8)	48 (66.7)	0.080
2SLGBTQIA+	9 (22.0)	3 (9.7)	12 (16.7)	0.013
CD-RISC Score (mean, SD)	70.3 (14.8)	61.8 (17.6)	66.6 (16.5)	0.030
Either parent attended residential school				0.290
Yes	23 (56.1)	12 (40.0)	35 (49.3)	
Unsure	5 (12.2)	7 (23.3)	12 (16.9)	
No	13 (31.7)	11 (36.7)	24 (33.8)	
Ever removed from biological parents				1.000
Yes	30 (73.2)	22 (73.3)	52 (73.2)	
No	11 (26.8)	8 (26.7)	19 (26.8)	
Ever incarcerated				0.156
Yes	29 (72.5)	27 (87.1)	56 (78.9)	
No	11 (27.5)	4 (12.9)	15 (21.1)	
Ever participated in survival sex work				0.624
Yes	15 (38.5)	14 (46.7)	29 (42.0)	
No	24 (61.5)	16 (53.3)	40 (58.0)	
Sharing drug equipment*				0.211
Yes	22 (57.9)	22 (73.3)	44 (64.7)	
No	16 (42.1)	8 (26.7)	24 (35.4)	
Non-fatal overdose*				0.325
Yes	13 (32.5)	13 (44.8)	26 (37.7)	
No	27 (67.5)	16 (55.2)	43 (62.3)	

*Since March 2020

Table 7: Factors associated with housing transience among young Indigenous people who use drugs in Prince George (N = 72) adjusted for sex, age, and exposure.

Characteristic	aOR	95%CI	p-value
Sex (Male)	8.66	1.69-44.34	**0.010**
Age	0.91	0.85-0.99	**0.028**
Exposure	1.00	1.00-1.00	**0.027**
Ever participated in survival sex work	7.54	1.48-38.41	**0.016**
Ever been incarcerated	10.35	1.56-68.64	**0.016**
CD-RISC score	0.95	0.91-1.00	**0.048**

4.2 Housing transience in Indigenous young people who use drugs during COVID-19

Key finding: Determinants of housing transience among Indigenous young people who use drugs in Prince George remained the same during COVID-19.

In Prince George participants were 10.35 times more likely to experience housing transience if they had ever been incarcerated and were 7.54 times more likely if they had ever participated in survival sex work. As of 2019, the Fraser-Fort George area of BC, which includes Prince George, has the highest proportion of homelessness on a per capita basis based on the population of BC.[194] According to this report 48% of respondents across the Province experienced homelessness for six months or more suggesting chronic homelessness.[194] There is an estimated 163 people experiencing homelessness in Prince George as of 2021, with 82% experiencing chronic homelessness and 82% being Indigenous.[195] In Prince George specifically, visible homelessness is concentrated in two tent cities, the largest one called Moccasin Flats. Recently, the city of Prince George was forced to apologize to the residents of Moccasin Flats for the trauma caused by the destruction of the court ordered protected community.[196] The BC Supreme court order was established due to the lack of shelters or other housing options available for the residents of the tent city.[197] During the court hearings the RCMP and city of Prince George described the residents of the tent cities as criminal, accusing them of theft and vandalism, continuing to criminalize poverty. The Judge found that housing options in Prince George were inaccessible for those living with poor mental health or addiction issues essentially barring Cedar participants from accessing these spaces without support from other services. Additionally, in 2021 the BC Coroners Service reported that 11 people experiencing homelessness in Prince George died, an increase in seven people from 2019.[198] The housing

landscape in Prince George is alarming, and is now compounded by the Safe Streets by-law (discussed in Chapter 1) making people who are homeless or precariously housed extremely vulnerable.

From this we can understand that historical and contemporary socioeconomic policies of Canada have had a large and measurable impact on Indigenous peoples. These policies have severed the ties between families, communities, and land creating what Menzies (2009) has described as a homeless state, affecting individuals abilities to balance mental, physical, emotional, and spiritual wellness.[50] Indigenous homelessness has also been called a crisis of spiritual homelessness, where people are separated from their land and family/kinship networks.[48] Spiritual homelessness results in a crisis of personal identity where a person's understanding of how they related to land, identity, and family is lacking or confused.[49] Further, Indigenous homelessness or housing precarity is an experience of disbelonging,[48] it is being homeless in one's homelands. Conceptualizations of home differ among Indigenous Nations, but a common thread that runs through all understandings is the importance of connection to the land, family and community.[48] Home is often linked to positive, healthy relationships with friends and family; physical and mental wellbeing; and strong cultural ties and self-determination.[48]

The causes of Indigenous homelessness are fairly well understood, and the evidence presented in this thesis supports previous findings on the factors associated with increased experiences of homelessness.[50, 62, 199, 200] Importantly since the last Cedar housing transience analysis in 2015,[62] the factors have not changed during the pandemic suggesting that COVID-19

did not have a large effect on the creation of homelessness among young Indigenous peoples who use drugs. Frequent moves in housing may be due to already living in precarious situations such as shelters, couch surfing, jail or with friends/family. Moments of crisis like a breakdown of a relationship, arrest, or eviction may also account for housing transience. Higher mean CD-RISC score was seen as a protective factor, with participants 0.95 times as likely to have experienced housing transience which is unsurprising given how intimately resilience and culture/land are connected. Participants in Vancouver did not report experiencing housing transience (living in 3 or more places since March 2020) at a high enough frequency to compute a statistical model. From my time in the Vancouver office I know this to not be true, prompting a question as to why participants were underreporting experiences of homelessness and transience in Vancouver. Further investigation will be needed but is beyond the scope of the current work.

Through the criminalization of poverty, Canada has created a cycle of homelessness and incarceration especially among Indigenous peoples. The overincarceration of Indigenous peoples is the direct result of colonialism, heightened surveillance, and the criminalization of activities associated with poverty and economic survival (e.g., drug charges, sex work, theft).[200] Indeed, a 2015 analysis by Barker et al., indicated that when adjusting for potential confounders, Indigenous ancestry was independently associated with incarceration among street-involved Indigenous youth.[199] For individuals leaving prison or jail there is an inability to find and lack of safe, stable, and affordable housing. Individuals who have ever participated in survival sex work may have depended on the income to secure housing in the absence of other income generating activities. A 2011 study by Duff et al., explored the experiences of women in Vancouver who engage in survival sex work and illustrated that sleeping on the street was significantly

associated with servicing a higher number of clients and engaging in sex work in public spaces.[201] Working in public spaces carries with it extra risks of assault and criminalization; however, many public housing options fail to meet the needs of people engaging in sex work through policies such as curfews, guest policies, and outright bans. Being a sex worker, then, leaves individuals at risk for eviction and homelessness. To that point, Socías et al., (2015) found that the odds of being incarcerated were 4.32 among those who participated in sex work and lived in unstable housing conditions.[202] This cycle leaves young Indigenous peoples who use drugs vulnerable, increasing housing instability and homelessness. The COVID-19 pandemic has not reduced vulnerabilities and determinants of housing transience among young Indigenous peoples by forcing them into hotels, suggesting that housing stability cannot be secured by merely four walls and a roof.

Chapter 5: Conclusion

The Cedar Project Partnership and other Indigenous leaders across BC were concerned that Indigenous peoples, especially those who used drugs, were at risk of being left behind in the provincial COVID-19 response. To address these concerns the Project Partnership directed the Cedar Project investigators to undertake a rapid cross-sectional analysis to investigate how COVID-19 is impacting young Indigenous peoples who use drugs. With the Partnerships guidance investigators developed a questionnaire that evaluated several aspects of participants lives, along with probing how COVID-19 information was being communicated to these communities. The questionnaire specifically addressed the following areas: COVID-19 information, social distancing/safety, cleanliness and access to facilities, housing, drug supply, access to drug equipment, overdose, mental health, IPV, access to services, police, interactions/violence, survival sex work, and vaccine attitudes and uptake. The specific aims of this thesis were: (1) to investigate how housing, sharing drug equipment, overdose, IPV, racism, and vaccine attitudes were associated with resilience; and (2) to better understand the housing crisis through housing transience among Cedar participants. In this study we found that Cedar participants experienced high levels of housing transience, sharing equipment, non-fatal overdose, and racism during COVID-19. Significant associations between resilience and privacy in housing were found among men, and associations with culture were observed among women. Housing transience was not observed among participants in Vancouver, yet among those in Prince George significant associations between ever having participated in survival sex work and ever being incarcerated were observed. A protective effect of CD-RISC scores was also seen.

Cedar participants are facing quadruple public health crises: racism, overdose, COVID-19, and housing instability. Each of these crises are created and maintained through both the legacy of colonialism and the ongoing process of neocolonialism. The Doctrine of Discovery, the treaty process, and the genocidal legislation of the *Indian Act* have worked in confluence to create and maintain systems of oppression in Canada. These systems have removed Indigenous peoples from their lands, children from their families, and culture from communities. The impacts of the systemic abuse perpetrated by the Canadian state is ongoing and intergenerational.[116] Nearly 150,000 children were abducted and sent to residential school during the 122 years these schools were in operation.[116] Cedar participants are the children of residential school survivors. Moreover, it is estimated that in 2021 58.3% of children aged 0-14 years in care are Indigenous, while making up only 7.7% of all children aged 0-14.[203] There are now more Indigenous children across Canada in the child welfare system than there were at the height of the residential school system.[135] Cedar participants are the victims of the Sixties Scoop and the parents of children apprehended during the ongoing Millennial Scoop.

The effects of these systems are seen in Cedar participants experiences, which have been exacerbated by the current COVID-19 impacted landscape. The personal indignities we are witnessing every day due to fentanyl and punitive policy are extreme. Fentanyl is a great "number," however many participants have told me that while the high is better than heroin, the dope sickness is intense and frequent. Despite these challenges I have been privileged to witness the incredible strength and resilience of Cedar participants. These young people have suffered unimaginable trauma and pain, but they are survivors. They are using drugs to live; they are choosing life. Their knowledges, humours, kindness, and compassion have nourished me

throughout this process. To better support these young people it is critical that moving forward, programs that centre culture and ceremony, while providing housing and other basic needs are created and funded long term.

5.1 Resiliency recommendations

The primary goal of colonization is land dispossession, and for many Cedar participants this process has resulted in disconnection from family, culture, and land. Nehiyaw (Cree) scholar Matthew Wildcat asserts that decolonization and healing then must come from land repossession, and with that a renewal of relationships to the land at a social, cultural, spiritual, physical, and political level.[204] Specifically, in Indigenous health this calls for land repossession to happen within a paradigm that positions Indigenous wellness through inherent rights to land. Musqueam Elder Larry Grant notes that "we cannot remove ourselves from the connection to the land and our relation to each other."[205] It follows that reconnecting with the land facilitates the renewal of connection and relationships with self and one's own body, ancestors, community, culture, and future generations.[206] There is a clear need for (w)holistic health programs that foster Indigenous peoples connection to culture through land-based activities. There has been an exciting resurgence in Indigenous land-based work for the purpose of healing and wellness taking place across Turtle Island. However, there is a paucity of research that explores land-based healing programs and modalities among urban young Indigenous peoples, and even fewer among Indigenous young people who use drugs. Upwards of 40% of Indigenous peoples live in urban Canadian cities;[207] there is an urgent need to understand how to employ land-based and -making programs with urban Indigenous youth, along with those who use drugs.

Recognizing this need and at the direction of the Cedar Project Partnership, the Cedar Project has designed a four-year land-based intervention program called *Strengthening Our Spirit*. This program is a culturally-grounded, land-based, and healing-centered intervention designed to enhance and support resilience among Cedar participants in the face of quadruple crises. Grounded in the knowledge that culture is medicine this intervention is designed to help Cedar participants renew their relationship with culture and the land. Based on the cycle of the seasons, this program meets participants where they are at and lets them take control over their level of cultural involvement over the course of four years. Supported by advocacy work around access to drug therapy, participants will engage in both large (e.g., Pow Wow) and smaller (e.g., smudging) scale cultural activities, while building a community and connections among each other. It is expected that connecting to culture will improve and support resiliency, while simultaneously help participants meet other urgent needs, such as housing. With the healing anticipated to come from the intervention, Cedar participants will be better positioned to gain and maintain suitable living situations – providing privacy, a sense of control, and supporting self-determination.

Non-research orientated organizations have already been or have begun to implement and roll out similar phases of programming. For example, the Aboriginal Front Door Society located in the DTES has returned to a post-COVID focus of bringing traditional foods to the community and providing other cultural support services. Increased funding from municipal, provincial, and federal sources is needed to promote this kind of work in urban and challenging spaces. Increased funding for culture and land-based healing programs, with full integration into the mainstream treatment and wellness systems is urgently needed as vulnerable Indigenous peoples

continue to face increasingly challenging living conditions and compounding crises. There is a clear and demonstrated need for more programs that provide opportunities for urban Indigenous peoples – and especially those who use drugs – to connect to culture in a healing centered way.

5.2 Housing recommendations

In Australia to address the housing crisis among Indigenous peoples Crabtree et al., (2014) have explored the efficacy of a community land trust (CLT).[208] A CLT is when a community/organization has an ongoing and hands-on role in partnership with households and other entities in running a neighbourhood or housing operation. CLTs are developed and based on local community concerns and objectives. Essentially, a CLT invests decision making authority within the community, tenants, and organizations giving the people who are living in these spaces power and control over their homes. For Indigenous peoples this offers an important opportunity to hold title over land and con protect vulnerable communities from the volatile rental market and changes in government. The researchers found that CLTs provide affordable housing options for Indigenous peoples who were previously excluded from the housing market while simultaneously providing opportunities for participants to build equity.[208] The concept of CLTs have been around for some time and have seen large amounts of success in Australia, the U.S.A., and in Eastern Canada. The City of Toronto just committed to transferring 760 homes to two CLTs with an additional $90.2 million over 5 years in renovation and maintenance funding.[209] The two CLTs who will be receiving this transfer are the Circle Community Land Trust and Neighbourhood Land Trust. While neither of these CLTs are Indigenous focused or designed for people who use drugs they present promising alternatives to the current social housing models.

In Vancouver a diverse group of organization that provide services to people living on the DTES have gathered to discuss and strategize around launching a DTES CLT that is grounded in Indigenous principles of community living.[210] Using a decolonial governance model the DTES CLT aims to support people living in single occupancy rooms (SROs) while being tenant-led thereby empowering residents to have control over their own housing and allowing them to create a unique culture in each building. The DTES CLT will protect vulnerable people's homes from market speculation and increases in rental rates. Projects like this that have had success in other cities and countries are the innovation needed to address the issue of urban Indigenous housing. If successful in Vancouver, this model should be adopted by other cities, such as Prince George, to ensure that everyone has access to dignified, self-determined, safe, and reliable housing. To prove this concept the DTES CLT needs to receive funding and support from municipal, provincial, and federal governments. This proposed model is currently the best example of housing designed by and for community members; something that has been called for by advocates, peers, and researchers for decades. There is an urgent need to support – at all levels – innovative and Indigenous grounded solutions to the housing crisis.

5.3 Limitations

The findings presented in this work are subject to several limitations. The Cedar Project uses a convenience and non-probabilistic sampling method that may be biased towards particularly vulnerable young Indigenous peoples. Cedar has employed a number of sampling methods to try and account for this bias, including snowball sampling which has shown success in drawing a non-biased sample by accessing otherwise hidden networks.[211] Given this, selection bias and its' impact on measured variables cannot be ruled out. However, Cedar is confident that

the current sampling methods and pool of participants are representative of young Indigenous peoples who use drugs in Vancouver and Prince George. Although it is not possible to extrapolate these findings to Indigenous groups who use drugs beyond those in Canada, as Indigenous peoples globally face differing environments and landscapes of access to resources, support, illicit drugs, and harm reduction methods.

Additionally, all data analyzed and reported in this work were collected by self-report measures. This method of data collection comes with a variety of potential sources of bias, for example some participants may underreport certain activities or experiences that may be painful to recall or are illegal or stigmatizing. In Vancouver there was a large underreporting of housing transience based on my own experiences in the office and with participants. Cedar has tried to mitigate this bias by continuous assurances of confidentiality and 19 years of building relationships based on trust between research staff and participants.

The use of a cross-sectional study design prevents any assertions of temporal sequence. It is impossible, then, to determine if ever having participated in survival sex work or being incarcerated are a causative factor or an effect of housing transience. Similarly, determinations on the cause-and-effect relationships between resilience and housing, culture, and relationships cannot be made. Despite these limitations, this study was able to provide evidence that supports the inclusion of cultural work in healing and allowed for a renewed understanding of the housing landscape in Prince George. Further investigation is required to provide additional support for cultural (w)holistic programming.

Finally, this study was unable to address resilience and housing transience among 2SLGBTQIA+ individuals. The proportion of Cedar participants who identify as 2SLGBTQIA+ is small and did not allow for analysis; however, with the resurgence of Indigenous sexuality and gender there is a paucity of data that explores the experiences of young 2SLGBTQIA+ individuals who use drugs. Future Cedar work will need to better address Indigenous gender and sexualities in questionnaires and analyses.

5.4 Conclusion

The findings presented in this work demonstrate the factors associated with increased resilience among young Indigenous peoples who use drugs in Vancouver and Prince George, while also illustrating the current housing landscape in Prince George. These findings are mirrored and echoed in the literature and other Cedar findings, further suggesting that culture is integral to Indigenous people's wellbeing and that housing is a critical determinant of health on all levels. Young urban Indigenous peoples who use drugs need to be able to access culture to support their wellness and resilience. Further, innovative housing programs grounded in Indigenous knowledges, such as the DTES CLT, are a crucial component to addressing the underlying causes of homelessness and housing transience among young Indigenous peoples who use drugs. Access to housing, culture, and ceremony will give these young people the chance to heal, feel peace, and thrive.

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Appendix: Missingness in resilience analysis data

Table 8: Missingness among variables of interest in women (N = 90) by city

Characteristic	Prince George *(N = 49)* no. (%)	Vancouver *(N = 41)* no. (%)	Total *(N = 90)* no. (%)	*p* value
Demographic characteristics				
Relationship status	5 (10.2)	0 (0.0)	5 (5.6)	0.060
Ever been incarcerated	1 (2.0)	1 (2.4)	2 (2.2)	1.000
Level of education	0 (0.0)	0 (0.0)	0 (0.0)	
Cultural connection and resilience				
Native language is important	1 (2.0)	3 (7.3)	4 (4.4)	0.327
Know how to speak traditional language	1 (2.0)	1 (2.4)	2 (2.2)	1.000
Traditional language spoken at home	2 (4.1)	2 (4.9)	4 (4.4)	1.000
Knowledge about spirit drives a good life	1 (2.0)	5 (12.2)	6 (6.7)	0.089
Want to learn more about Native identity	0 (0.0)	0 (0.0)	0 (0.0)	
Historical and ongoing colonial violence				
Parents attended residential school	1 (2.0)	0 (0.0)	1 (1.1)	1.000
Ever been removed from parents	1 (2.0)	0 (0.0)	1 (1.1)	1.000
Ever been sexually assaulted	1 (2.0)	0 (0.0)	1 (1.1)	1.000
Childhood sexual assault (<13)	20 (40.8)	5 (12.2)	25 (27.8)	**0.004**
Ever engaged in survival sex work	3 (6.1)	4 (9.8)	7 (7.8)	0.698
Mental health				
Ever self-harmed	1 (2.0)	1 (2.4)	2 (2.2)	1.000
Ever thought about committing suicide	1 (2.0)	2 (4.9)	3 (3.3)	0.590
Ever attempted suicide	1 (2.0)	1 (2.4)	2 (2.2)	1.000
Ever given a mental health diagnosis	1 (2.0)	0 (0.0)	1 (1.1)	1.000
Substance use				
Ever had help injecting	0 (0.0)	0 (0.0)	0 (0.0)	
Ever been in a drug or alcohol program	0 (0.0)	0 (0.0)	0 (0.0)	
Overdosed*	1 (2.0)	0 (0.0)	1 (1.1)	1.000
Shared equipment	3 (6.1)	7 (17.1)	10 (11.1)	0.218
Tried to access safe supply*	1 (2.0)	0 (0.0)	1 (1.1)	1.000
Refused safe supply*	1 (2.0)	0 (0.0)	1 (1.1)	1.000
Currently on OSP*	0 (0.0)	0 (0.0)	0 (0.0)	
Housing characteristics				
Number of places lived*	1 (2.0)	1 (2.4)	2 (2.2)	1.000
Privacy at home	2 (4.1)	1 (2.4)	3 (3.3)	1.000
Feel safe at home	4 (8.2)	0 (0.0)	4 (4.4)	0.123
Housing/living situation change*	0 (0.0)	0 (0.0)	0 (0.0)	
Number of people living in the same place*	15 (30.6)	2 (4.9)	17 (18.9)	**0.002**
Current accommodations	10 (20.4)	3 (7.3)	13 (14.4)	0.131

On the street for > 3 nights*	0 (0.0)	0 (0.0)	0 (0.0)	
IPV				
Change in violence from partner*	0 (0.0)	1 (2.4)	1 (1.1)	0.456
COVID-19 vaccine attitudes				
COVID-19 vaccine will protect others	0 (0.0)	0 (0.0)	0 (0.0)	
COVID-19 vaccine with protect self	0 (0.0)	0 (0.0)	0 (0.0)	
Received COVID-19 vaccine	0 (0.0)	0 (0.0)	0 (0.0)	
Racism (MIRE)				
Composite score	0 (0.0)	0 (0.0)	0 (0.0)	
Average interpersonal racism score	2 (4.1)	10 (24.4)	12 (13.3)	**0.010**
Average systemic racism score	0 (0.0)	0 (0.0)	0 (0.0)	

*Since March 2020

Table 9: Missingness among variables of interest in Vancouver (N = 89) by gender

Characteristic	Female *(N = 41)* no. (%)	Male *(N = 48)* no. (%)	Total *(N = 89)* no. (%)	*p* value
Demographic characteristics				
Relationship status	0 (0.0)	1 (1.2)	1 (1.1)	1.000
Ever been incarcerated	1 (2.4)	1 (2.1)	2 (2.2)	1.000
Level of education	0 (0.0)	0 (0.0)	0 (0.0)	
Cultural connection and resilience				
Native language is important	3(7.3)	8 (16.7)	11 (12.4)	0.213
Know how to speak traditional language	1 (2.4)	6 (12.5)	7 (7.9)	0.118
Traditional language spoken at home	2 (4.9)	3 (6.2)	5 (5.6)	1.000
Knowledge about spirit drives a good life	5 (12.2)	5 (10.4)	10 (11.2)	1.000
Want to learn more about Native identity	0 (0.0)	2 (4.2)	2 (2.2)	0.497
Historical and ongoing colonial violence				
Parents attended residential school	0 (0.0)	0 (0.0)	0 (0.0)	
Ever in foster care	0 (0.0)	2 (4.2)	2 (2.2)	0.497
Ever been sexually assaulted	0 (0.0)	1 (2.1)	1 (1.1)	1.000
Childhood sexual assault (<13)	5 (12.2)	14 (29.2)	19 (21.3)	**0.003**
Ever engaged in survival sex work	4 (9.8)	1 (2.1)	5 (5.6)	0.176
Mental health				
Ever self-harmed	1 (2.4)	0 (0.0)	1 (1.1)	0.461
Ever thought about committing suicide	2 (4.9)	0 (0.0)	2 (2.2)	0.209
Ever attempted suicide	1 (2.4)	0 (0.0)	1 (1.1)	0.461
Ever given a mental health diagnosis	0 (0.0)	3 (6.2)	3 (3.4)	0.246
Substance use				
Ever had help injecting	0 (0.0)	0 (0.0)	0 (0.0)	
Ever been in a drug or alcohol program	0 (0.0)	0 (0.0)	0 (0.0)	
Overdosed*	0 (0.0)	0 (0.0)	0 (0.0)	
Shared equipment	7 (17.1)	4 (8.3)	11 (12.4)	0.333
Tried to access safe supply*	0 (0.0)	0 (0.0)	0 (0.0)	

Refused safe supply*	0 (0.0)	0 (0.0)	0 (0.0)	
Currently on OSP*	0 (0.0)	0 (0.0)	0 (0.0)	
Housing characteristics				
Number of places lived*	1 (2.4)	0 (0.0)	1 (1.1)	0.461
Privacy at home	1 (2.4)	0 (0.0)	1 (1.1)	0.461
Feel safe at home	0 (0.0)	1 (2.1)	1 (1.1)	1.000
Housing/living situation change*	0 (0.0)	0 (0.0)	0 (0.0)	
Number of people living in the same place*	2 (4.9)	1 (2.1)	3 (3.4)	0.593
Current accommodations	3 (7.3)	1 (2.1)	4 (4.5)	0.331
On the street for > 3 nights*	0 (0.0)	0 (0.0)	0 (0.0)	
IPV				
Change in violence from partner*	1 (2.4)	0 (0.0)	1 (1.1)	0.461
COVID-19 vaccine attitudes				
COVID-19 vaccine will protect others	0 (0.0)	0 (0.0)	0 (0.0)	
COVID-19 vaccine with protect self	0 (0.0)	0 (0.0)	0 (0.0)	
Received COVID-19 vaccine	0 (0.0)	0 (0.0)	0 (0.0)	
Racism (MIRE)				
Composite score	0 (0.0)	0 (0.0)	0 (0.0)	
Average interpersonal racism score	10 (24.4)	10 (20.8)	20 (22.5)	0.800
Average systemic racism score	0 (0.0)	2 (4.2)	2 (2.2)	0.497

*Since March 2020

Table 10: Missingness among variables of interest in Prince George (N = 75) by gender

Characteristic	Female *(N =49)* no. (%)	Male *(N = 26)* no. (%)	Total *(N = 75)* no. (%)	*p* value
Demographic characteristics				
Relationship status	5 (10.2)	2 (7.7)	7 (9.3)	1.000
Ever been incarcerated	1 (2.0)	0 (0.0)	1 (1.3)	1.000
Level of education	0 (0.0)	0 (0.0)	0 (0.0)	
Cultural connection and resilience				
Native language is important	1 (2.0)	1 (3.8)	2 (2.7)	1.000
Know how to speak traditional language	1 (2.0)	1 (3.8)	2 (2.7)	1.000
Traditional language spoken at home	2 (4.1)	0 (0.0)	2 (2.7)	0.541
Knowledge about spirit drives a good life	1 (2.0)	0 (0.0)	0 (0.0)	1.000
Want to learn more about Native identity	0 (0.0)	1 (3.8)	1 (1.3)	0.347
Historical and ongoing colonial violence				
Parents attended Residential School	1 (2.0)	0 (0.0)	1 (1.3)	1.000
Ever been removed from parents	1 (2.0)	0 (0.0)	1 (1.3)	1.000
Ever been sexually assaulted	1 (2.0)	0 (0.0)	1 (1.3)	1.000
Childhood sexual assault (<13)	20 (40.8)	4 (15.4)	24 (32.0)	**0.037**
Ever engaged in survival sex work	3 (6.1)	0 (0.0)	3 (4.0)	1.000
Mental health				
Ever self-harmed	1 (2.0)	0 (0.0)	1 (1.3)	1.000

Ever thought about committing suicide	1 (2.0)	0 (0.0)	1 (1.3)	1.000
Ever attempted suicide	1 (2.0)	0 (0.0)	1 (1.3)	1.000
Ever given a mental health diagnosis	1 (2.0)	0 (0.0)	1 (1.3)	1.000
Substance use				
Ever had help injecting	0 (0.0)	0 (0.0)	0 (0.0)	
Ever been in a drug or alcohol program	0 (0.0)	0 (0.0)	0 (0.0)	
Overdosed*	1 (2.0)	2 (7.7)	3 (4.0)	0.274
Shared equipment	3 (6.1)	1 (3.8)	4 (5.3)	1.000
Tried to access safe supply*	1 (2.0)	1 (3.8)	2 (2.7)	1.000
Refused safe supply*	1 (2.0)	1 (3.8)	2 (2.7)	1.000
Currently on OSP*	0 (0.0)	2 (7.7)	2 (2.7)	0.117
Housing characteristics				
Number of places lived*	1 (2.0)	2 (7.7)	3 (4.0)	0.274
Privacy at home	2 (4.1)	0 (0.0)	2 (2.7)	0.541
Feel safe at home	4 (8.2)	0 (0.0)	4 (5.3)	0.291
Housing/living situation change*	0 (0.0)	0 (0.0)	0 (0.0)	
Number of people living in the same place*	15 (30.6)	4 (15.4)	19 (25.3)	0.175
Current accommodations	10 (20.4)	4 (15.4)	14 (18.7)	0.759
On the street for > 3 nights*	0 (0.0)	0 (0.0)	0 (0.0)	
IPV				
Change in violence from partner*	0 (0.0)	0 (0.0)	0 (0.0)	
COVID-19 vaccine attitudes				
COVID-19 vaccine will protect others	0 (0.0)	2 (7.7)	2 (2.7)	0.117
COVID-19 vaccine with protect self	0 (0.0)	2 (7.7)	2 (2.7)	0.117
Received COVID-19 vaccine	0 (0.0)	2 (7.7)	2 (2.7)	0.117
Racism (MIRE)				
Composite score	0 (0.0)	0 (0.0)	0 (0.0)	
Average interpersonal racism score	2 (4.1)	1 (3.8)	3 (4.0)	1.000
Average systemic racism score	0 (0.0)	2 (4.2)	2 (2.2)	0.497

*Since March 2020