Access to Primary Care and COVID-19 Related Care among Marginalized Indigenous Cisgender and Transgender Women, Two-Spirit Peoples, and Women Sex Workers, with a Focus on Indigenous Health

by

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The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

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Abstract

This thesis explores the prevalence and correlates of 1) access to healthcare during the COVID-19 pandemic among marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples, and 2) COVID-19 testing and vaccination in a cohort of women sex workers, among whom Indigenous women are greatly overrepresented. Previous and ongoing work clearly articulate the deeply harmful roles of colonialism and racism in continuing to systemically exclude Indigenous Peoples and highly marginalized populations of women (e.g., sex workers and women living with HIV) from accessing equitable healthcare and supports. While the COVID-19 pandemic has amplified structural inequities, little attention has been paid to how the pandemic impacts access to healthcare and COVID services among marginalized Indigenous women, Two-Spirit Peoples, and sex workers, particularly with regards to potential inequities experienced by Indigenous Peoples. Findings support the need for accessible, culturally-safe, anti-racist, and trauma-informed healthcare for marginalized Indigenous women, Two-Spirit Peoples, and women sex workers.

Keywords: Indigenous health; sex work; women living with HIV; COVID-19 pandemic; structural racism; women’s health; Two-Spirit health
To my nox and hlixhlgikws.

Sím sitp'iny níin.
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<th>Full Form</th>
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<tr>
<td>2S</td>
<td>Two-Spirit</td>
</tr>
<tr>
<td>AOR</td>
<td>Adjusted Odds Ratio</td>
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<tr>
<td>BC</td>
<td>British Columbia</td>
</tr>
<tr>
<td>DRIPA</td>
<td>Declaration of the Rights of Indigenous Peoples Act</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>LGBTQIA+</td>
<td>Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Intersex, Agender, Asexual, Pansexual+</td>
</tr>
<tr>
<td>NIMMIWG2S</td>
<td>National Inquiry into the Missing and Murdered indigenous Women, Girls, and Two-Spirit Peoples</td>
</tr>
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<td>OR</td>
<td>Unadjusted Odds Ratio</td>
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<tr>
<td>SW</td>
<td>Sex work</td>
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<tr>
<td>TRC</td>
<td>Truth and Reconciliation Commission</td>
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<tr>
<td>WLWH</td>
<td>Women living with HIV</td>
</tr>
<tr>
<td>UNDRIP</td>
<td>United Nations Declaration of Right of Indigenous Peoples</td>
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</table>
Glossary

Aboriginal People: Aboriginal refers to the first inhabitants of what is colonially known as Canada. This term includes all Indigenous Peoples in Canada. The Canadian Constitution recognizes three groups of Aboriginal people: First Nations (status and non-status), Métis and Inuit. These three separate groups have their own unique heritages, languages, cultural practices, and spiritual beliefs.

First Nation(s): First Nation(s) refers to the Indigenous People of Canada, including both status and non-status, who were the original people to inhabit Canada or “First Nations” but are distinct from Inuit and Métis Peoples. Each Nation has a unique and diverse culture and way of being with a distinct way of defining citizenship to that Nation.

Indigenous: The term Indigenous is used in Canada to describe the first descendants and the original inhabitants of a territory before colonization. While the term Indigenous is used throughout this thesis, we acknowledge the diversity and uniqueness among First Nations, Inuit, and Métis Peoples. Acknowledging and respecting the diversity in culture, traditions, and languages among and between First Nations, Inuit, and Métis groups, throughout this thesis, the term Indigenous is used collectively to refer to the First Nations, Inuit, and Métis Peoples of Canada.

Inuit: Inuit originate from the circumpolar north. In Canada this means the Northwest Territories, Nunavut, Northern Quebec, and Labrador.

Métis: The Métis Nation Canada defines Métis as “Métis means a person who self-identifies as Métis, is distinct from other Aboriginal peoples, is of historic Métis Nation Ancestry and who is accepted by the Métis Nation” (1). The blending of European and First Nations cultures gave rise to a distinct language, culture and identity known today as the Métis Nation.

Two-Spirit: Two-Spirit (2S) identity is Nation specific and is an organizing strategy and or tool that is used to identify Indigenous Peoples from North America who embody diverse sexualities, genders, gender identities, and gender expressions (2).
Chapter 1. Introduction

1.1. COVID-19 Pandemic

In Canada, the cases of the novel Coronavirus (COVID-19) SARS-CoV-2 began in January 2020. On March 11, 2020, the World Health Organization (WHO) declared the COVID-19 viral disease as a global pandemic (3). On March 18, 2020, the British Columbia (BC) Government declared a state of emergency in response to the COVID-19 pandemic (4). In Canada, travel bans, lock-down, and social distancing measures were implemented, including, closures of schools, businesses, community centers, and parks (3). Vaccinations to mitigate the spread of COVID-19 began in December 2020 with each Canadian province rolling out their own vaccination plans. In BC, vaccinations were broken up into four phases with phases one and two focusing on high risk populations (i.e., people living and working in long term care, hospital and healthcare workers, remote Indigenous\(^1\) communities, vulnerable populations), and phases three and four focusing on the general populations (i.e., Indigenous Peoples, and non-Indigenous Peoples by age groups) (5). While vaccines and protection measures (i.e., lockdowns, personal protective equipment), were effective in reducing transmission of COVID-19 several variants of the disease have caused drastic waves in transmission, sickness, and death rates in Canada (3). The impacts of the COVID-19 pandemic are still evident three years after the pandemic began and have exacerbated existing health, economic and social inequities (6–8).

Preceding and co-occurring with the COVID-19 pandemic, the drug poisoning crisis was declared in 2016 by the BC Government and the prevalence of overdose has continued to rise throughout the COVID-19 pandemic (9). The toxic drug supply and lack of sufficient implementation of overdose prevention services has resulted in escalating

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\(^1\) While the term Indigenous is used throughout this paper, we acknowledge the diversity and uniqueness among First Nations, Inuit, and Métis Peoples. Acknowledging and respecting the diversity in culture, traditions, and languages among and between First Nations, Inuit, and Métis groups, throughout this paper, the term Indigenous is used collectively to refer to the First Nations, Inuit, and Métis Peoples of Canada.
rates of overdose that are a pressing health and social concern that disproportionately impacts marginalized Indigenous women and women sex workers (10,11). Indigenous women and women sex workers who use drugs often experience a disproportionate burden of HIV and structural (e.g., criminalization, stigma, houselessness) inequities (11–13), that impact their access to healthcare services (11).

The COVID-19 pandemic highlighted the urgent need to address unmet needs of marginalized women sex workers, with evidence suggesting that interruptions and vulnerabilities caused by the COVID-19 pandemic have exacerbated health, social, and economic inequities among marginalized Indigenous women, Two-Spirit Peoples, and women sex workers (6–8,14,15). The COVID-19 pandemic further magnified existing health inequities, unmet health needs, and the Indigenous specific racism within the healthcare system that disproportionately impacts the health and well-being of Indigenous Peoples (8,16–18). Sex workers are highly marginalized and have a high burden of unmet health needs including stigma that hinders healthcare access and a high prevalence of HIV (19–22). These inequities predate COVID, and we hypothesized that the pandemic would further exacerbate these barriers among marginalized cisgender and transgender Indigenous Women, Two-Spirit2 Peoples, and women sex workers.

1.2. Existing Evidence and Knowledge Gaps on Health Inequities Faced by Indigenous Cisgender and Transgender Women and Two-Spirit Peoples

Health literature consistently discusses how Indigenous Peoples have been shown to face consistently reduced access and substantial structural barriers to quality health care than other populations around the world (23,24). Globally, Indigenous Peoples have suffered historic injustices as a result of colonization (25). The historical accounts of colonization and government assimilation of Indigenous Peoples are well documented and have caused severe health inequities (26–29). The impact of colonial violence on the

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2 Two-Spirit (2S) identity is Nation specific and is an organizing strategy and or tool that is used to identify Indigenous Peoples from North America who embody diverse sexualities, genders, gender identities, and gender expressions (2).
health of Indigenous Peoples has been severe, leading to health issues that were not present prior to colonization, for example, tuberculosis (30), alcoholism (31), diabetes (32), mental health issues (18), cardiovascular diseases, cancer (17), and violence (33,34). It is important to note that research on the health inequities between Indigenous and non-Indigenous Peoples does not mean that Indigenous Peoples are inherently sick but rather they are experiencing the ongoing impacts of colonial violence, for example, residential schools, the sixties scoop, and intergenerational trauma as well as ongoing racism that continues to impact the health and well-being of Indigenous Peoples (35).

Colonization and its effects are a social determinant of health among Indigenous populations, and this is evident among Indigenous Peoples health and wellness outcomes in Canada (17,25,36,37).

Previous and ongoing work clearly articulate the deeply harmful roles of colonialism and racism in continuing to systemically exclude Indigenous Peoples from accessing equitable and culturally-safe healthcare. The widespread racism and violence against Indigenous Peoples in Canadian systems of care led to the In Plain Sight inquiry. The In Plain Sight report highlights racism as a social determinant of health and Indigenous specific racism as a significant barrier to accessing health services. Racism crucially impacts the health and well-being of Indigenous Peoples in BC (17,18). Compared to non-Indigenous people, Indigenous Peoples in BC face lower rates of continuity of care and healthcare access (17). Structural racism has normalized practices, laws, policies, and health systems that inherently disadvantage Indigenous Peoples (16,38). The In Plain Sight report calls us to address individual and systematic racism in our health systems, issues that have arisen during COVID-19, access to health services, and the urgent need for culturally-safe care (17).

Indigenous women continue to face multiple layers of ongoing discrimination, criminalization as well as intergenerational trauma (39). First Nations, Métis, and Inuit women in Canada are targets of colonial violence and acts of genocide that are supported by colonial structures (40). Indigenous women are disproportionately affected by higher prevalence of maternal mortality, coercive sterilisation (41), sexually transmitted infections (STIs) (42), reproductive cancers (43), and HIV/AIDS with increased
prevalence compared to their non-Indigenous counterparts directly linked to inequities in social determinants of health and barriers to care that are characterized by racism, stigma, and lack of culturally-safe care (41,44,45). Despite Indigenous women accounting for approximately 4% of the population, statistics consistently show that Indigenous women face much higher prevalence of violence compared to non-Indigenous women (46,47). The odds of sexual violence are significantly higher for Indigenous women who had a parent attend residential school, experienced childhood abuse, use substances, and engage in sex work (34). In Canada, there are alarming rates of missing and murdered Indigenous women, girls, and Two-Spirit Peoples with four out of five Indigenous women experiencing violence in their lifetime and homicide being a leading cause of death among Indigenous women and girls (40). In 2019, homicide rates were six times higher among Indigenous Peoples than non-Indigenous people and Indigenous women are twice as likely to be victims of violent crimes in Canada (48). This horrific crisis impacts the most vulnerable and is a deliberate human rights violation that causes a ripple effect of compounding trauma in Indigenous communities (40). Previous research has shown that unsafe and racist medical environments as well as social determinants of health impact access to healthcare services and pregnancy care for Indigenous women, gender diverse\(^3\), and sex workers (16,41,49–51). Most Indigenous Peoples in BC still cannot birth in their communities and there are striking inequities in access to healthcare and birthing facilities for Indigenous Peoples (52,53).

Gendered impacts of colonialism are embedded within pre-existing social and structural violence and inequities (e.g., stigma, racism, violence, discrimination) and shape the needs, access, and utilization of health services for key populations marginalized by social and structural inequities (24,54). There are significant gaps within Two-Spirit\(^4\) research, including research on access to healthcare services, racism,

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\(^3\) The term ‘gender diverse’ is an umbrella term used to refer to people whose gender expression and or identity exists outside of a gender norm in a specific context. While gender diversity encompasses an ever-evolving array of labels, we honour the diversity within this general term.

\(^4\) Two-Spirit identities and roles in community were drastically altered by historical and ongoing colonial violence. While Two-Spirit identity is only descriptively looked at in this thesis, we honour Two-Spirit roles within communities that were disrupted by colonialism and want to support the resurgence and well-being of Two-Spirit Peoples.
discrimination, and cultural safety (55,56), which emphasizes the importance of exploring the unique experiences of Two-Spirit Peoples. The lack of attention to the gendered dimensions of healthcare and cultural safety reinforces gender and cultural health inequities. It is important to understand the gendered barriers that shape access to healthcare among marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers.

To date, there is limited evidence examining barriers to health services that are uniquely experienced and specific to marginalized Indigenous women and Two-Spirit Peoples (57). While there is a high concentration of health services on the ancestral, occupied territories of the Musqueam, Squamish, and Tsleil-Waututh Peoples in what is now referred to as Vancouver, BC, serving groups marginalized by social and structural inequities, little is known about the specific health care needs (i.e., culturally safe, trauma-informed, healthcare services) of marginalized Indigenous women and Two-Spirit Peoples living in Vancouver. Existing healthcare providers and organizations deliver services focused on overall health and well-being, with limited spaces and services designed to support Indigenous Peoples (17). Indigenous self-determination, knowledge, and community connections have been successful at protecting many Indigenous communities during the COVID-19 pandemic (58). It is important to understand the experiences of marginalized Indigenous women and Two-Spirit Peoples to inform on actionable change to support the health and well-being of Indigenous Peoples. There are persistent service gaps and a lack of culturally safe and equitable interventions tailored to the specific health needs of marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples living in marginalized settings, and we hypothesized that Indigenous Peoples would have limited access to health services during the pandemic.

1.3. **Health Inequities and Access among Marginalized Women**

Sex Workers

Globally, sex workers are severely marginalized and face persistent and deliberate human rights violations and abuses that are rooted in the criminalization and occupational
stigma of sex work (20,51,59,60). Sex workers continue to be excluded from structural supports due to ongoing stigma and criminalization (61,62). In 2014, laws were passed under the Protection of Communities and Exploited Person’s Act in Canada regarding criminalized situations around sex work, including, 1. purchasing sex; 2. working in areas where children are present; 3. being a third party for sex workers (i.e., pimps, drivers, security guards, managers, and sex work support staff), and 4. advertising sex work (63,64). The implementation of end-demand legislation laws in Canada significantly reduced sex workers access to health and community-led services (60). The threat of criminalization undermines the ability for sex workers to screen clients, negotiate for safe sex practices, access safe workspaces, and access health services (64–66).

Sex workers face disproportionate health and social inequities, for example, high rates of HIV and sexually transmitted infections, violence, and criminalization (67). Sex workers face several sources of structural violence that is not limited to lifetime exposure to violence, intimate partner violence, and gender-based violence (33,68). In Canada, sex workers are highly vulnerable and targets of homicides and these severe violations of human rights results in social marginalization and ongoing violence against sex workers (69). Sex workers are disproportionately harmed, surveilled, regulated, and harassed by the police (11,70–72). The high rates of violence among sex workers and lack of police support negatively affects sex workers willingness to report experiences of violence, police harassment, and bad dates (64). Sex workers and people living with HIV face unique stigmas and when these groups are restricted from accessing health services it can further exacerbate the stigma and further perpetrate barriers to healthcare services and safety (67).

Sex workers are highly marginalized and have a high burden of unmet health needs, including access to healthcare services (19,21,22,73) that predates COVID-19 and we hypothesized that the pandemic would further exacerbate these barriers. Due to the criminalization of sex work in Canada (63,74), sex workers are excluded from labour supports and reported low access to income supports during COVID-19 (61). The COVID-19 pandemic highlighted the urgent need to address unmet needs of sex workers, with evidence suggesting that interruptions and vulnerabilities caused by the COVID-19
pandemic have exacerbated health, social, and economic inequities among sex workers, including those related to community-based services, access to government income supports, and economic policies in relation to COVID-19 (6,61,75).

Indigenous women’s over representation in street-based sex work stems from the intergenerational effects of colonial policies (44). The overrepresentation of Indigenous women in sex work presents great complexity in approaches to providing supports for women experiencing inequities and inadequate access to COVID-19 prevention. Sex workers face persistent unmet health needs and a lack of trauma-informed, culturally safe, and equitable interventions tailored to the needs of sex workers which may impact their access to healthcare services during the pandemic including COVID-19 testing and vaccinations (22). Evidence-based interventions are needed to address that lack of healthcare access and unmet health needs among women sex workers, and to support the health, safety, and well-being of women sex workers in future pandemic planning and preparedness.

**Women Living With HIV**

HIV stigma and discrimination are substantial barriers to accessing healthcare services and accessing HIV treatment, care, and support services (76,77). Intersectional stigmas (i.e., convergence of marginalized social identities) including, racism, sex work, and substance use, have been shown to intensify women’s experiences of HIV stigma and barriers to healthcare services (76,77). Women living with HIV experience high levels of social inequities and violence (78), and disproportionate rates among Indigenous women in Canada (79). Previous research has highlighted associations between violence and reduced access to healthcare and HIV care (78–81). Early and consistent access to primary care is important for sustained treatment for people living with HIV (82). People living with HIV who identify as a minority gender face increased barriers to accessing healthcare in Vancouver (82). To be responsive to the high prevalence of stigma and violence among women living with HIV, culturally-safe, and trauma-informed approaches are needed to address barriers to healthcare services, especially in the context of COVID-19 and in preparation for future pandemics.

In Canada, the role of racism significantly impacts Indigenous People's access to non-Indigenous-led health services and is well documented in reports such as the BC Commissioned In Plain Sight report (17,57). Despite health care services being more plentiful in large cities, Indigenous Peoples, sex workers and women living with HIV in urban settings report significant barriers to primary healthcare access (57,82,83). In Canada, primary healthcare is intended to be a main point of access to health services and to support for continuity of care.

The onset of the COVID-19 pandemic brought several changes to primary care access including the rapid transition to mostly virtual care (84–86). A study in Ontario, Canada found that virtual primary care accounted for approximately 77.5% and in-person visits focused on immunizations, periodic health exams, pre-natal and newborn care during the first year of the pandemic (84). While the switch to virtual care may increase primary care access for some populations (86), previous research has found that virtual care has been shown to increase existing health inequities among marginalized populations, including low income and individuals with poor mental health (87). The COVID-19 pandemic presented several challenges in primary care access and a higher prevalence of mental health issues among marginalized populations, including marginalized Indigenous women and women sex workers (14,64,83,86,88).

Along with the slowdown of social and healthcare services, several organizations and clinics that serve sex workers, had to temporarily close down due to social distancing measures and many of these organizations did not have the financial means to provide services virtually (20,64). The closure of community organizations may have impacted access to culturally safe and trauma-informed health and social services. Trusted community clinics and sex work organizations are vital and best suited to distribute supports, for example, sexual and reproductive health and HIV related services in an accessible way (89,90). Early and consistent access to primary care is an important component of sustained treatment and health-related quality of life for women living with HIV (82).
Barriers to primary healthcare for marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples in the context of COVID-19 has been found to be associated with experiences of violence, poor mental health, fear of contracting the virus on public transportation, cancelation of appointments, lack of trusted healthcare providers available, and avoidance of care due to anticipated discrimination and racism (14,17,82,86). When health systems are overwhelmed during a global pandemic, regular care is often delayed and health inequities are further exacerbated among marginalized Indigenous women, Two-Spirit Peoples, and sex workers (91). Equitable, reliable, and consistent access to primary healthcare is important for reducing health barriers during and beyond pandemics. Little attention has been paid to how COVID-19 has impacted existing social inequities for marginalized Indigenous women, Two-Spirit Peoples, and women sex workers (e.g., violence, mental health, substance use, housing) and impact access to primary healthcare in the context of COVID-19.

1.5. Access to COVID-19 Testing and Vaccination Services

Vaccination is widely recognized as an effective tool for reducing the negative health effects of the COVID-19 virus (92). Within the first year of the pandemic in Canada, the BC government announced that vaccinations would be available in December 2020 (93). Local sex workers and advocacy groups advocated for the inclusion of marginalized communities, including sex workers in the BC COVID-19 response (75,89). During January 2021, the BC government announced that they would be prioritizing vaccinations for Indigenous Peoples and people living in Vancouver’s Downtown Eastside neighbourhood (94–96), which was an important step in making vaccinations more accessible to more marginalized communities. Pace Society, a sex work organization in Vancouver BC, and in collaboration with Vancouver Coastal Health, held a pop-up vaccination site for sex workers starting in April 2021 (96). Local sex worker-led and tailored community organizations play a critical role in advancing the health and well-being of their members, as such organizations are often highly trusted and ideally suited to distribute services in an accessible way and to support low barrier options (89,90). While vaccinations were available in 2021, it wasn’t until March 2022 that COVID-19 rapid test kits became available to the public for free at local pharmacies,
Clinics, and community organizations in Vancouver (97). It is important to understand barriers associated with COVID testing prior to free distribution of COVID-19 rapid testing kits and this thesis fills this knowledge gap by analyzing data from March – August 2021.

Concerns of COVID-19 transmission, social distancing measures, and the closure of many sex work spaces (e.g., massage parlours, other indoor work environments), caused severe income losses among sex workers. While sex workers are well connected to community organizations and services, knowledge on how or where to access COVID-19 testing remained limited (98). Structural and systemic inequities can contribute to limited access to COVID vaccines and susceptibility to the COVID-19 disease (92). Most research on vaccination and testing has focused on vaccination intentions (92) and insufficient attention has been paid to how COVID-19 public health interventions, such as COVID testing and vaccination, intersect with existing social inequities (i.e., violence, criminalization, food insecurity) for marginalized women sex workers among whom Indigenous women are greatly overrepresented. This research fills a critical gap in sex work and COVID-related research by investigating macrostructural, sex work environment, and community level associations with COVID-19 testing and vaccination among marginalized women sex workers.

1.6. Purpose of Thesis

There is limited research on access to healthcare services and testing and vaccination during the COVID-19 pandemic among marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers. The overarching thesis goal was to evaluate the impact of the COVID-19 pandemic on health service needs, access, and experiences, among marginalized groups of Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers.

Previous and ongoing work clearly articulate the deeply harmful roles of colonialism and racism in continuing to systemically exclude Indigenous Peoples and highly marginalized populations of women (e.g., sex workers and women living with
HIV) from accessing equitable healthcare and supports. While the COVID-19 pandemic has amplified structural inequities, little attention has been paid to how the pandemic impacts access to healthcare and COVID services among marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers, particularly with regards to potential inequities experienced by Indigenous Peoples. The objectives of this thesis were to explore the prevalence and correlates of:

1. Access to routine healthcare during the COVID-19 pandemic among marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples, and

2. COVID-19 testing and vaccination in a cohort of self-identifying women sex workers, among whom Indigenous women are greatly overrepresented.

For **Objective 1**, we hypothesized that macrostructural (e.g., gender identity, experiences of violence) and COVID-19 related (e.g., reduced access to culturally safe services, negative changes in mental health) factors would be associated with reduced access to routine healthcare services among marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples. For **Objective 2**, we hypothesized that macrostructural (i.e., race, houselessness, intimate partner violence, gender identity, food insecurity), work environment (i.e., police harassment and presence), community level (i.e., barriers to healthcare, access to sex work services) factors would be associated with reduced access to COVID-19 testing and vaccination among women sex workers.

**Indigenous Calls to Action and Justice**

The Truth and Reconciliation Commission’s was formed through legal settlement among Residential School Survivors, the Assembly of First Nations, Inuit representatives, and the federal government, and documented the truth of Residential School Survivors, families, and communities(36). The TRC Final Report consist of 94 Calls to Action and Ten Principles for Reconciliation addressing the lasting impacts of residential schools(36). The ongoing Indigenous specific-racism, discrimination, and negative stereotyping in healthcare systems led to the need for the In Plain Sight: Addressing Indigenous-specific Racism and Discrimination in BC Health Care report(17). The In Plain Sight report explores experiences of prejudice and discrimination experienced by Indigenous Peoples in healthcare systems and provides recommendations to eliminate Indigenous-specific racism(17). The National Inquiry into Missing and Murdered Indigenous Women and Girls and 2SLGBTQQIA+ discusses the deliberate and persistent human rights violations, violence, and abuses among Indigenous women, girls, Two-Spirit Peoples, and Indigenous LGBTQQIA+ persons(40). The Reclaiming Power and Place report calls for transformative legal and social changes to address the staggering rates of violence against Indigenous women, girls, Two-Spirit Peoples, and Indigenous LGBTQQIA+ persons (40). United Nations Declaration of Rights of Indigenous Peoples is a human rights instrument that includes declarations and treaties that define and uphold the rights of Indigenous Peoples globally (25). In order to support and protect the rights of Indigenous Peoples globally UNDRIP consists of specific calls and rights related to Indigenous identities, livelihoods, and ways of knowing (25). The Declaration on the Rights of Indigenous Peoples Act (DRIPA) is British Columbia’s adoption of UNDRIP. The DRIPA legislation aims to create a path forward in a relationship between BC and Indigenous Peoples, and to uphold the rights of Indigenous Peoples in BC (37). DRIPA mandates aligning provincial laws with UNDRIP and develop an action plan with Indigenous Peoples to address UNDRIP objectives in order to support the rights of Indigenous Peoples, end Indigenous-specific racism, and support the well-being of Indigenous Peoples (37).

These foundational documents highlight the lived experiences of Indigenous Peoples in Canada and outline specific recommendations and calls to action to create a more equitable future for Indigenous Peoples. When preparing this thesis, we considered
how our work is making contributions to the recommendations outlined in the foundational documents. While each foundational document was reviewed, specific calls to action and justice were chosen as a foundation to the overarching thesis goal. For thesis **Objective 1**, chosen calls to action and justice shaped the variables chosen for analysis. For thesis **Objectives 1 & 2**, the chosen calls to action and justice shaped the interpretation of data and policy implications. These calls to action and justice functioned as a foundation for the recommendations and implications of the overall thesis. Embedding this thesis into the calls to action and justice from foundational documents ensures that we are using the disaggregated data from the two community-based cohorts as a tool of care (99) to address health inequities among marginalized Indigenous women, Two-Spirits Peoples, and women sex workers instead of further perpetrating these health inequities. See *Appendix A* for the list of calls to action and justice that this thesis addresses.

### 1.7. Theoretical Frameworks

This thesis draws upon theories of intersectional stigma, Indigenous research methodologies, and social determinants of health of sex workers. Drawing on Indigenous frameworks of research such as reciprocal accountability, Indigenous epidemiology’s, and the prioritization of Elder and community voices, is essential for providing recommendations to improve the health and well-being of Indigenous Peoples. Indigenous frameworks of research call us to ground ourselves in our own cultural teachings, reflect on our positionality and motivations for engaging in this research. This research is in line with the grandmother’s perspective on disaggregated data, upholding disaggregated data as a tool of care to address inequities that are faced by Indigenous Peoples in Canada (99). Social determinants of health of sex workers are used to frame factors that impact peoples lived experiences such as laws, policies, racialization, cultural identity, and health environments (46,100).
Positionality

As a Nisg̱a’a and Two-Spirit researcher, my perspective and interpretation of this research is based on a combination of knowledge I have gained as a Nisg̱a’a First Nations person, a person of mixed Indigenous and White ancestry, as an Indigiqueer person, and as a researcher trained in a Western academic system. As an Indigenous researcher I ground myself within the principles of relational accountability: “we could not be without being in relationship with everything that surrounds us and is within us” (101). I approach this research as an advocate of social justice for Indigenous Peoples, sex workers, women living with HIV, and people with minoritized and marginalized gender and or sexual identities. Marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers have the right to health equity and to access services that are free of racism, stigma, and discrimination.

Intersectional Stigma

Indigenous women, Two-Spirit Peoples, sex workers, women living with HIV, and peoples with marginalized and minoritized gender identities live in the intersections of multiple forms of structural violence (59,76,102). Intersectional stigma is a theory that characterizes the intersections and overlapping of multiple stigmatized identities among a population or individual (103). As a result of the intersectional stigma and violence, health and health service inequities are produced and reproduced (11,17,78,102–104). The COVID-19 pandemic further magnified existing health inequities and the Indigenous specific racism within the healthcare system that disproportionately impacts the health and well-being of Indigenous Peoples (8,16,17). Marginalized women sex workers and women living with HIV have been affected by the COVID-19 pandemic facing loss of income and lack of access to outreach services as well as stigmatization and harassment by governments and police (65). To be responsive to the ongoing racism, stigma and discrimination, evidence-based research is needed to support the creation of equitable innervations, healthcare, and pandemic responses that are tailored to the needs of marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers.
**Indigenous and Decolonizing Perspectives**

It is important that health research is conducted in a way that captures Indigenous voices and perspectives (105). Drawing on Indigenous paradigms and ontology, knowledge is relational “we could not be without being in relationship with everything that surrounds us and is within us” (101). Indigenous epistemology is a way of knowing that includes knowledge systems, relationships, culture, traditional languages and spiritualities. Drawing on Indigenous frameworks of research such as reciprocal accountability, Indigenous epistemologies, and the prioritization of Elder and community voices, is essential for providing recommendations to improve the health and well-being of Indigenous Peoples (106).

Utilizing a Two-Eyed Seeing approach, in this thesis we consulted with both Indigenous and non-Indigenous researchers, and Elders. Mi’kmaw Elder Albert Marshall defines Two-Eyed Seeing as “learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of mainstream knowledges and ways of knowing, and to use both these eyes together, for the benefit of all” (107,108). In partnership with the VCH Director of Indigenous Women and Family Health this thesis work was guided by the Indigenous Matriarch Advisory
Council (MAC) which consists of Indigenous Matriarchs, Elders, Knowledge Holders, Indigenous and Two-Spirit researchers, and community members. The initial conceptualization of this thesis, overarching thesis goal, and findings from Objective 1 were presented to the MAC for feedback, direction, and guidance, ensuring that we proceeded in an ethical manner.

Applying the Indigenous Research Framework to quantitative research can be shown by upholding disaggregated data as a tool of care to address inequities that are faced by Indigenous Peoples in Canada (99). This thesis draws on the Disaggregated demographic data collection in British Columbia: The grandmother perspective report (99). Disaggregated data has the power to reveal systemic inequities and needs to be used as a tool of care. Applying the Framework of Disaggregated Data ensures that we are using data as a tool with the purpose of reducing the impacts of systematic racism and oppression to achieve equity. It is important for research to be conducted in a way that captures Indigenous voices and builds respectful relationships with Indigenous women and Two-Spirit Peoples to ensure that community needs and voices are meaningfully included in data collection, use and distribution (99,109). This thesis draws on Indigenous Frameworks of Research by (a) ensuring that our methodologies are in line with Indigenous values and epistemologies, (b) that there is community accountability, feedback and guidance, (c) that as an Indigenous researcher I am grounded in reciprocal accountability and Two-Eyed Seeing, and ensuring this research gives back to the community, and (d) that this thesis is guided by Elders, Indigenous and Two-Spirit researchers, and non-Indigenous allied researchers.

**Structural Determinants of Health Framework**

This thesis is also guided by a structural determinants of health approach, specifically drawing on work by Shannon and colleagues (100) as it applies to the health inequities faced by marginalized women sex workers. The framework describes how structural determinants of health for this population are produced and reproduced by intersecting macrostructural factors, the community organization of sex work, and the physical, social, economic, and policy features of work environments (100). Previous
research has emphasized the roles of structural factors such as violence, policing, criminalization, stigma, and access to healthcare services and supports among sex workers (11,83,100,110). Variable selection for **Objective 2** analysis was underpinned by the conceptual framework of the structural determinants of health among sex workers (100), which includes macrostructural level (i.e., race, living with HIV, housing, physical and sexual violence, intimate partner violence, gender identity, food security), work environment (i.e., place of servicing clients, police presence, police harassment), and community level (i.e., barriers to healthcare, access to sex work services). This framework guided the interpretation of data for both **Objectives 1 & 2**.

### 1.8. Overview of Thesis

The present chapter, **Chapter One**, provides an introduction to this research, including background information on COVID-19 and the health of marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers, and existing literature on access to primary healthcare in the context of COVID-19 and COVID-19 testing and vaccination among marginalized populations. This chapter also provides an overview of the research purpose, research objectives, theoretical framing, and methods used in this thesis. Two empirical manuscripts are subsequently included in the thesis. **Chapter Two** draws on data from the AMPLIFY study and presents findings on the prevalence and correlates of experiences in difficulty accessing routine healthcare among Indigenous cisgender and transgender women and Two-Spirit Peoples (N = 142) in Vancouver, BC from October 2020–August 2021. **Chapter Three** draws on data from the AESHA project and presents findings on the prevalence and correlates of self-reported COVID-19 testing and vaccination in a cohort of cisgender and transgender women sex workers (N = 154) in Vancouver, BC from March - August 2021. **Chapter Four** provides a summary of the empirical research findings from Chapters two and three, implications for future pandemic planning and preparedness, ways to address racism and stigma in systems of care, presents calls to action and justice in relation to this thesis, and concluding comments.
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2.1. Abstract

Objectives: Historical and ongoing colonial violence, racism, discrimination, criminalization, and intergenerational trauma continues to impact the health of Indigenous cisgender and transgender women and Two-Spirit Peoples. Previous and ongoing work clearly articulate the deeply harmful roles of colonialism and racism in continuing to systemically exclude Indigenous Peoples from accessing equitable and culturally safe healthcare. While the COVID-19 pandemic has amplified structural inequities, little attention has been paid to how the pandemic impacts healthcare access for marginalized Indigenous women and Two-Spirit Peoples living in urban settings. The aim of this study was to evaluate factors associated with experiencing difficulty accessing routine healthcare in a cohort of marginalized Indigenous women and Two-Spirit Peoples in Metro Vancouver, Canada during the COVID-19 pandemic.

Methods: Data were drawn from AMPLIFY, a study of Indigenous cis and trans women and Two-Spirit Peoples in Metro Vancouver. Analyses drew on baseline and semi-annual questionnaire data collected with sex workers and women living with HIV from October 2020–August 2021. We used bivariate and multivariable logistic regression with generalized estimating equations (GEE) to model correlates of experiencing difficulty accessing a family doctor, nurse, or clinic for routine healthcare during the COVID-19 pandemic in the last 6-months.

Results: Amongst 142 marginalized Indigenous women and Two-Spirit Peoples (199 observations), 27.5% reported difficulty accessing routine healthcare. In multivariable GEE logistic regression, participants who had ever been pregnant (AOR: 4.71, 95% CI: 1.33–16.66) experienced negative changes in psychological and emotional well-being (AOR: 3.99, 95% CI: 1.33–11.98), lacked access to culturally safe health services
(AOR: 4.67, 95% CI: 1.43–15.25), and had concerns regarding safety or violence in their community (AOR: 2.72, 95% CI: 1.06–6.94) had higher odds of experiencing recent difficulty accessing routine healthcare.

**Discussion:** Findings are in line with the BC Commissioned *In Plain Sight* report which recommends the need for accessible, culturally safe, anti-racist, and trauma-informed routine healthcare for marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples during the current and future pandemics. More community-based research is needed to understand access needs for culturally safe routine healthcare amongst marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples.

### 2.2. Introduction

The COVID-19 pandemic has impacted social and structural health inequities for Indigenous women, Two-Spirit Peoples, and people with marginalized and minoritized sexual and or gender identities, including, lesbian, gay, bisexual, pansexual, asexual, transgender, non-binary, gender fluid, and queer+. Indigenous cisgender and transgender women continue to face multiple layers of ongoing discrimination, criminalization, and intergenerational trauma (1). Ongoing colonial violence and gender-based violence continues to impact the health and well-being of Indigenous women, Two-Spirit Peoples, sex workers, and women living with HIV (2–6). Historical and ongoing colonial violence has impacted Indigenous health and Indigenous women, Two-Spirit Peoples, women living with HIV, and sex workers face multiple barriers to accessing reliable healthcare services (7) and people with marginalized and minoritized gender identities face increased barriers to accessing healthcare on the ancestral, occupied territories of the Musqueam, Squamish, and Tsleil-Waututh Peoples in what is now referred to as Vancouver (8,9). Barriers that impact health access are rooted in racism and discrimination. In Canada, racism remains a key determinant of health and significantly impacts Indigenous Peoples access to non-Indigenous-led health services and is well documented in reports such as the British Columbia (BC) Commissioned *In Plain Sight* report (7,10,11). The impacts of the COVID-19 pandemic have left gaps in knowledge.
that are not only essential to address now but also in preparation for future pandemic planning in the health system. Structural health inequities, including, access to healthcare services and community-based services (10,12–15), gender-based violence (16,17), and mental health disparities (14,18,19) have been impacted by the COVID-19 pandemic (20), yet little is known about marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples access to routine healthcare services during the pandemic.

The COVID-19 pandemic further magnified existing health inequities that disproportionately impacts the health and well-being of marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples (6,10,21). Sex workers and women living with HIV have been affected by the COVID-19 pandemic facing loss of income and lack of access to outreach services as well as stigmatization and harassment by governments and police (22,23). Gendered impacts of COVID-19 include increased economic insecurity, unplanned pregnancy, lack of access to health services, domestic violence, lack of women’s voice and agency, and mental health issues (6,12,15,24). The impacts are particularly felt by racialized groups that are marginalized by social and structural inequities, including Indigenous women and Two-Spirit Peoples. Due to COVID-19 pandemic lockdowns, mandated social distancing, and fear of the virus, there has been a significant increase in psychological and emotional stress (6,18,25–27). Marginalized Indigenous women and Two-Spirit Peoples face intersecting and compounding forms of oppression, and we hypothesize that psychological and emotional stress may further impact healthcare access and utilization. Considering how the intersection of gender and Indigeneity impact access to healthcare, gender diverse and Two-Spirit populations face mental, physical, and sexual health disparities (28) as well as high rates of racism, stigma, and discrimination from healthcare providers that impact their access to healthcare services (24,29,30). Sex workers and women living with HIV who identify as a minority gender face increased barriers to accessing healthcare in Vancouver, BC (9,31). The COVID-19 pandemic has impacted gender diverse populations access to healthcare services and gender-affirming care, including higher rates of violence and victimization (24). Our understanding of access to healthcare and the impacts of the COVID-19 pandemic among marginalized Indigenous women and Two-Spirit Peoples remains limited. Responsive and culturally appropriate research is
needed to address the lack of understanding of the health inequities that marginalized Indigenous women and Two-Spirit Peoples face, as well as the reclamation of their healing.

There is conclusive global evidence demonstrating that Indigenous Peoples have worse access to quality healthcare than other populations around the world and Indigenous Peoples face unique barriers to accessing health care services (32–34). It is important to note that research on the health differences between Indigenous and non-Indigenous Peoples does not mean that Indigenous Peoples are inherently more likely to be sick but rather they are experiencing the ongoing impacts of colonial violence, for example, residential schools, the sixties scoop, intergenerational trauma, and ongoing racism (35). Previous and ongoing work clearly articulate the deeply harmful roles of colonialism and racism in continuing to systemically exclude Indigenous Peoples from accessing equitable and culturally safe healthcare. These acts of colonialism have ensured and continue to ensure that Indigenous Peoples are intentionally excluded from accessing equitable healthcare. The impacts of colonial violence on the health of Indigenous Peoples have been severe, leading to health issues that were not present prior to colonization, for example, mental health issues (7), tuberculosis (36), diabetes (37), cancer (38), and violence (22). The widespread racism and violence against Indigenous Peoples in Canadian systems of care led to the In Plain Sight inquiry. The In Plain Sight report highlights racism as a social determinant of health and Indigenous specific racism as a significant barrier to accessing health services, including accessing a doctor, nurse, and clinic. Racism crucially impacts the health and well-being of Indigenous Peoples in BC (7,10). Compared to non-Indigenous people, Indigenous Peoples in BC face lower rates of continuity of care and healthcare access (10). Limited action has been taken towards addressing these health inequities that are clearly outlined in the In Plain Sight (10), The Truth and Reconciliation (39), and the National Inquiry into Missing and Murdered Indigenous women, girls, Two-Spirit and LGBTQIA+ reports (40). It is critical to draw on the guidance of these foundational reports to investigate access to routine healthcare and build upon these reports by looking at access among marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples (8).
Indigenous women, Two-Spirit Peoples, sex workers, women living with HIV, and peoples with marginalized and minoritized gender identities live in the intersections of multiple forms of structural violence (5,9,41). As a result of the intersectional stigma (i.e., the convergence of multiple stigmatized identities among a group or person) and violence, health and health service inequities are produced and reproduced (5,10,31,42). Previous research has emphasized the roles of social determinants of health such as violence and cultural safety and access to healthcare services and supports among Indigenous women, Two-Spirit Peoples, sex workers and women living with HIV (7,31,43–45). Marginalized Indigenous women and Two-Spirit Peoples are targets of colonial violence and acts of genocide that are supported by colonial structures (40). Despite Indigenous women accounting for approximately 4% of the population, Indigenous women are overrepresented among women experiencing gender-based violence, with Indigenous women accounting for 75% of the overall population of women experiencing violence (46–49). Indigenous women who are pregnant face severe amounts of racism and violence in the medical system, including threats and actions of child apprehension (5,50), birth alerts (51), racism (10), and reproductive violence through forced sterilization which impacts trust in the medical system for Indigenous women who are pregnant or caring for a child (51). Racism and violence are known to undermine the health and safety of Indigenous peoples and undermine their access to care (5). For example, while Indigenous Peoples make up 14% of the population in Winnipeg, Canada, one-fifth of homicides were Indigenous women in 2022 (52). Previous studies describe high prevalence of violence perpetrated across community, intimate partner, and community contexts among sex workers (31,53,54), with a disproportionate burden among Indigenous sex workers and Two-Spirit Peoples in Canada (31,53,55). Women living with HIV and sex workers also face several barriers to accessing healthcare services including violence (42,56). Sex workers face disproportionate health and social inequities, for example, high rates of HIV and STI’s, violence, and criminalization (56). Sex workers and women living with HIV face several sources of structural violence, including lifetime exposure to violence, intimate partner violence, gender-based violence, and police harassment that impacts their access to healthcare services (22,31,57). A growing body of evidence has highlighted how culturally safe and trauma-informed
healthcare services may reduce barriers to healthcare services among racialized and
minoritized populations (7,58,59). The In Plain Sight and National Inquiry into Missing
and Murdered Indigenous women, girls, Two-Spirit and LGBTQQIA+ (40) reports call us
to address barriers to access to health services and the urgent need for culturally safe care
(10).

There is a need to understand how the COVID-19 pandemic has impacted social
and structural health inequities for marginalized Indigenous cisgender and transgender
women and Two-Spirit Peoples. Historical and ongoing colonial violence has impacted
Indigenous health and marginalized Indigenous women and Two-Spirit Peoples face
multiple barriers to accessing reliable healthcare services (7). The impacts of the COVID-
19 pandemic have left gaps in knowledge that are not only essential to address now but
also in preparation for future pandemic planning in the health system. The aim of this
study was to evaluate access to culturally safe health services, experiences of violence,
changes in mental health and changes in routine healthcare access during the COVID-19
pandemic. We hypothesized that these factors would be associated with experiencing
difficulty accessing routine healthcare in a cohort of marginalized Indigenous cisgender
and transgender women and Two-Spirit Peoples in Metro Vancouver, Canada during the
COVID-19 pandemic.

2.3. Methods

Study Design

This study is nested within a larger project called AMPLIFY (PI: Bingham). AMPLIFY
is a community-based participatory action program of Indigenous research
that aims to privilege Indigenous community-based voices to directly inform culturally
safe and equitable health and justice for Indigenous women, gender diverse, and Two-
Spirit Peoples. In partnership with the Vancouver Coastal Health Director of Indigenous
Women and Family Health this work is guided by the Indigenous Matriarch Advisory
Council (MAC) which consists of Indigenous Matriarchs, Elders, researchers, and
community members.
Data for this study were drawn from two ongoing community-based prospective cohorts of marginalized women’s health and access to care on the ancestral, occupied territories of the Musqueam, Squamish, and Tsleil-Waututh Peoples in what is now referred to as Vancouver, BC: An Evaluation of Sex Workers’ Health Access (AESHA) and Sexual Health and HIV/AIDS: Women’s Longitudinal Needs Assessment (SHAWNA). AESHA was developed in 2010 based on extensive community collaborations with sex work agencies and is monitored by a Community Advisory Board. The SHAWNA cohort began in 2014 and operates as a partnership that includes women's HIV and community services providers. SHAWNA is also guided by the Community Advisory Board and the Positive Women's Advisory Board (5,60). Eligibility for AESHA and SHAWNA includes identifying as a cisgender or transgender women5 and being 14 years of age or older. Additional eligibility for AESHA includes exchanged sex for money within the last 30 days (i.e., active engagement in sex work), whereas SHAWNA eligibility includes being diagnosed with HIV and living in and/or accessing healthcare services in Metro Vancouver.

Participants completed baseline and semi-annual questionnaires that included detailed measures of socio-demographics, work and living environments, and healthcare access; additionally, both AESHA and SHAWNA asked detailed questions regarding impacts of the COVID-19, including self-reported impacts of how the pandemic impacted health access, work environment, housing and economic factors, violence, policing, and social outcomes. Due to challenges connecting with marginalized participants amid COVID-19 pandemic response measures (i.e., lockdowns, closures), the sample of Indigenous sex workers and women living with HIV represents a sub-sample of Indigenous participants from the AESHA and SHAWNA cohorts. All participants received an honorarium of $65 CAD at each bi-annual visit and an additional $20 for completion of the COVID-19 supplementary questions. Questionnaire visits were

5 Eligibility and recruitment criteria for AESHA and SHAWNA is inclusive of cis women, transgender women, transexual women and other self-reported transfeminine identities at enrolment. We acknowledge that gender identity is fluid and recognize that participants’ gender presentation and expression may differ throughout various times of their lives.
administered by community interviewers with extensive lived and/or professional experience working with community members.

Analytical Approach

This research is in line with the Grandmothers Perspective on disaggregated data, upholding disaggregated data as a tool of care to address inequities that are faced by Indigenous Peoples in Canada (61). The Disaggregated demographic data collection in British Columbia: The grandmother perspective report calls for data to be used to advance human rights and for data to be used to address systemic inequities (61). This research is centered around the calls to action and justice from foundational reports (10,39,40) that calls for research addressing health inequities such as access to care for Indigenous cisgender and transgender women and Two-Spirit Peoples. Decolonizing health research involves evaluating, reflecting, and working to dismantle structures that support colonization and racism against Indigenous Peoples. Variables were chosen based on Indigenous frameworks. Variable interpretation drew from Indigenous frameworks, intersectional stigma, and social determinants of health of sex workers recognizing factors that impact peoples lived experiences such as laws, policies, racialization, and health environments (62–65).

Data Analysis

Analyses were restricted to participants who self-identified as Indigenous (e.g., First Nations, Métis, and Inuit) by answering “yes” to the question “Do you identify as an Aboriginal person, that is, First Nations, Métis, or Inuit?”.

Variables: Exposure and outcome variable are time-updated variables measured semi-annually, capturing current and past six months occurrences at each study visit, unless otherwise specified. Indigenous ancestry, gender identity, and sexual orientation are treated as time-fixed variables.

The primary outcome variable, "difficulty accessing a family doctor, nurse, or clinic for routine healthcare during the COVID-19 pandemic", was a binary variable
based on the question, “General changes related to your access to health and social supports.” The following response options were coded as yes: Canceled or reduced services; Not able to or don’t know how to access telehealth or other virtual, phone, or online services; Family doctor, nurse, or clinic doesn’t have these virtual, phone, or online services; Less time to devote to people’s concerns; Afraid to use or avoid using due to fear of getting sick; And relevant other responses. Participants who did not report any of these options or who did not have a family doctor, nurse, or location for accessing routine healthcare were coded as no.

Based on existing evidence on access to routine healthcare services among Indigenous women, Two-Spirit Peoples, sex workers, and women living with HIV, key individual (age, income) and structural (violence, criminalization, safety) explanatory variables were considered for inclusion in multivariable analysis. Individual and demographic variables included age (continuous, in years), Indigenous identity (First Nations, Metis, Inuit), accessed Canada Emergency Response Benefit (CERB) (governmental COVID-19 economic relief support(15)), gender identity (gender minority at any study visit, inclusive of trans [transgender, transsexual, other transfeminine identity], gender nonbinary [nonbinary, genderqueer], and/or Two-Spirit Indigenous women vs. cisgender at all study visits), sexual orientation (sexual minority identity at any study visit inclusive of lesbian, gay, bisexual, asexual, queer, and Indigenous Two-Spirit women vs. heterosexual at all study visits), Two-Spirit identity, self-rated health as good, history of pregnancy (in lifetime), women living with HIV, exchanged sex for money, goods, and services (in last six months), and lifetime mental health diagnosis. Structural variables included any physical/sexual violence by any perpetrator (in lifetime and in the last six months), non-injection or injection drug use in last six months (excluding alcohol and cannabis), and history of incarceration in lifetime (defined as in jail overnight or longer). Self-reported impacts of the COVID-19 pandemic in the last six months included experiencing changes or concerns related to psychological/emotional well-being, community safety/violence, and lacked access to culturally safe health or social services.
**Statistical Analyses**

Analyses were restricted to 143 participants who self-identified as Indigenous (First Nations, Métis, and Inuit) at baseline and who participated in AESHA and SHAWNA and answered the COVID-19 supplementary questionnaire from October 2020 to August 2021. Explanatory variables were stratified by the outcome and differences were compared using Pearson’s chi-squared test for categorical variables (or Fisher's exact test where cell counts were small) and the Wilcoxon rank-sum test for continuous variables. Factors hypothesized to be associated with difficulty accessing routine healthcare during the COVID-19 pandemic were assessed using bivariate logistic regression using generalized estimating equations (GEE). Variable selection for the multivariable model was based on theoretical considerations as well as findings of bivariate analysis (p<0.10). Statistical analyses were performed in SAS version 9.4 (SAS, Cary, NC). Odds ratios (OR) and adjusted odds ratios (AOR) are reported with 95% confidence intervals (CI), and all p-values are two-sided.

**2.4. Results**

Analyses included 142 participants who contributed a total of 199 observations between October 2020 to August 2021. During the study period, 27.5% reported experiencing difficulty accessing a family doctor/nurse/clinic for routine healthcare during the COVID-19 pandemic.

Baseline demographics (Table 3) indicate the median age of participants was 46 (IQR: 37 – 53). 73.3% (n=104) identified as First Nations, 14.1% (n=20) identified as Metis, 7.0% (n=10) identified as having both First Nation and Metis ancestry, and 5.6% (n=8) self-identified as Indigenous but did not specify their Indigenous ancestry. One-fifth (19.7%, n=28) reported identifying as a gender minority (i.e., intersex, transexual, genderqueer, non-binary, other), over half (52.8%, n=75) identified as a minority sexual orientation (i.e., gay, lesbian, bisexual, asexual, queer, Two-Spirit, other), and 16.2% (n=23) identified as Two-Spirit. 78.2% (n=111) had been pregnant at least once, 46.5% (n=66) were living with HIV, 41.6% (n=59) exchanged sex for money, goods, and
services, and 75.4% (n=107) had a previous mental health diagnosis. With regards to criminalization and violence, 88.7% (n=126) had been incarcerated in the past, 95.8% (n=136) had experienced violence by any perpetrator (e.g., clients, intimate partners, others) in the past, and 20.4% (n=29) had experienced violence by any perpetrator in the last 6 months. With regards to important self-reported experiences and impacts of the COVID-19 pandemic, 70.4% (n=100) of participants reported negative changes to psychological and emotional well-being, 15.5% (n=22) had concerns regarding safety or violence in their community during the COVID-19 pandemic, 4.9% (n=7) lacked access to culturally safe health or social services and 51.4% (n=73) had accessed emergency economic relief support (CERB).

In unadjusted bivariate GEE analysis (Table 4), factors associated with increased odds of difficulty accessing a family doctor, nurse, or clinic for routine healthcare over the study period included history of pregnancy (OR: 2.74; 95% CI: 0.93 – 8.10), accessed CERB (OR: 0.67; 95% CI: 0.33 – 1.36), and minority sexual orientation (OR: 1.57; 95% CI: 0.77 – 3.18) while injection drug use was associated with reduced odds of difficulty accessing routine healthcare (OR: 0.54; 95% CI: 0.23 – 1.25). COVID-19 factors associated with increased odds of difficulty accessing routine healthcare included having experienced negative impacts on psychological and emotional well-being (OR: 2.72; 95% CI: 1.11 – 6.69), lacked access to culturally safe health services (OR: 3.12; 95% CI: 0.99 – 9.79), and increased concerns regarding community safety/violence (OR: 2.57; 95% CI: 1.06 – 6.06).

In multivariable GEE analysis (Table 5), participants who had a history of pregnancy (AOR: 4.71, 95% CI: 1.33 – 16.66) had higher odds of facing difficulty accessing routine healthcare during COVID-19. COVID-19 factors associated with increased odds of difficulty accessing routine healthcare included having experienced negative changes in psychological and emotional well-being (AOR: 3.99, 95% CI: 1.33 – 11.98), lacked access to culturally safe health services (AOR: 4.67, 95% CI: 1.43 – 15.25), and concerns regarding community safety/violence (AOR: 2.72, 95% CI: 1.06 – 6.94).
2.5. Discussion

This study aimed to evaluate factors associated with experiencing difficulty accessing routine healthcare among a cohort of marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples in Metro Vancouver, Canada early in the COVID-19 pandemic (October 2020- August 2021). Among 142 participants, 27.5% reported difficulty accessing a family doctor, nurse, or clinic for routine healthcare. In this paper, we, as a team of Indigenous and allied scholars, demonstrate the need for accessible, culturally safe, gender-inclusive, and trauma-informed healthcare.

To evaluate potential inequities in access to routine healthcare among sexual minorities and gender-diverse Indigenous Peoples, we explored access to routine healthcare among participants with diverse gender identities, sexual orientation, and Two-Spirit identity. Of the thirty participants who identified that they had difficulty accessing routine healthcare during the COVID-19 pandemic, two-thirds identified as a minority gender identity, sexual orientation, and, or Two-Spirit. Previous research has highlighted increased difficulties in accessing primary healthcare services among Two-Spirit, non-binary, transgender, bisexual, gay, and queer people during the COVID-19 pandemic (8,24,28,29).

This study also identified a high prevalence of physical and sexual violence and a strong association between difficulty accessing routine healthcare and concerns regarding community safety and violence during the COVID-19 pandemic. Almost our entire sample had experienced physical and or sexual violence by any perpetrator in the past, and 20.4% experienced violence by any perpetrator in the last six months. Previous research has highlighted the roles of structural factors such as violence that impact marginalized and criminalized women’s access to healthcare services (9,31,66). Our findings are consistent with a strong body of literature showing that Indigenous women and Two-Spirit Peoples face inequities that is rooted in structural racism and violence that is shaped by historical and ongoing colonization (5,31,67,68). Urban poverty which stems from income inequalities, expansion of the criminal justice system in areas more populated with racialized and marginalized populations, and spatial segregation,
disproportionately impacts people marginalized by social and structural inequities, including, Indigenous Peoples, sex workers, women living with HIV, people who use drugs, and houseless persons (69). In our study, marginalized Indigenous women and Two-Spirit Peoples who had concerns regarding safety or violence in community was associated with difficulty accessing routine healthcare. Characteristics of neighborhoods, including, community safety and violence, are known to influence a person’s access to health services (70–72). Prior spatial epidemiological research found that the spatial clustering of violence, community harassment, and policing, may displace marginalized sex workers to unsafe and unfamiliar areas where they may face increased barriers to healthcare (73). A study in the US, found that perceived community violence is associated with less routine healthcare utilization, highlighting the importance of community safety (74). Previous studies describe high prevalence of violence perpetrated across community, intimate partner, and community contexts among sex workers (31,53,54), with a disproportionate burden among Indigenous sex workers, as well as among Two-Spirit and Indigenous Peoples with marginalized and minoritized sexual and or gender identities in Canada (31,53,55), who have also reported increased community and sexual violence during the COVID-19 pandemic (26,75). Study findings demonstrate the need for community-based strategies to support safe and uninterrupted access to routine healthcare.

In our study, a high proportion (70.4%) of participants reported experiencing negative changes to psychological and emotional well-being during the COVID-19 pandemic, and this was associated with almost four-fold higher odds of difficulty accessing routine healthcare. Our findings are in line with previous research showing high levels of psychological and emotional stress during the COVID-19 pandemic (6,18,25–27), and in particular a high burden of stress, anxiety and depression among Indigenous Peoples in Canada during COVID-19 (18). A study in Canada among transgender and non-binary populations showed that poor mental health was associated with higher odds of avoiding primary care when compared to those who rated their mental health as good or excellent (29). Co-occurring social and public health crises such as COVID-19 and the ongoing overdose crisis sweeping the province of BC are likely to have long term impacts on marginalized Indigenous women and Two-Spirit Peoples.
Women living with HIV have reported increased stress, anxiety and isolation as well as increased difficulty accessing HIV care during COVID-19 (27). Two-Spirit and Indigenous Peoples with marginalized and minoritized sexual and or gender identities in Canada have also reported concerns around deteriorating mental health during the COVID-19 pandemic (26). Marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples face intersecting and compounding forms of oppression, and psychological and emotional stress further impacts their access to routine healthcare services.

In our study, marginalized Indigenous women and Two-Spirit Peoples who had a history of pregnancy faced increased difficulty in accessing routine healthcare. Our association between pregnancy and difficulty accessing routine healthcare may have occurred due the considerable disruptions to healthcare services, including routine, primary, and prenatal care access during the COVID-19 pandemic as well as the fear of being infected with the virus (76–78). When compared to non-Indigenous populations, Indigenous Peoples are less likely to access health care services due to persistent discrimination and medical racism (7,37). Difficulty accessing routine healthcare that is trusted and safe may occur for Indigenous women and Two-Spirit People who are pregnant because of the severe amounts of racism in the medical system, including threats and actions of child apprehension (5,50), racism, and reproductive violence through forced sterilization (51). Previous research has shown that unsafe and racist medical environments as well as social determinants of health impact access to pre-natal and post pregnancy care for Indigenous women, Two-Spirit Peoples, sex workers, and women living with HIV (21,79–82). Most Indigenous Peoples in BC still cannot birth in their communities and there are striking inequities in access to birthing facilities for Indigenous Peoples (83,84). There is limited research on factors that impact access to healthcare services for Indigenous parents and more research is needed to understand what access to healthcare looks like for Indigenous People who are pregnant and or parenting.

Our study showed that marginalized Indigenous women and Two-Spirit Peoples who lacked access to culturally safe health services was associated with greater odds of
difficulty accessing routine healthcare. Canadian healthcare systems are not tailored to the needs of Indigenous communities and are often culturally, emotionally, and physically unsafe (26). Previous research has shown that healthcare services and systems that are not culturally safe can reduce access and engagement in health services (59). Access to culturally safe healthcare is particularly important for transgender populations, which have reported avoiding care due to discrimination faced when accessing routine healthcare (29). Cultural safety is the recognition of power imbalances and inequities within the healthcare system and focuses on creating safe environments free of racism and discrimination (85). Culturally safe environments create space and respect for a diversity of knowledge and understandings of health and well-being. The In Plain Sight report calls us to address individual and systematic racism in our health systems, issues that have arisen during COVID-19, access to health services, and the urgent need for culturally safe care (10). In line with the In Plain Sight and the TRC recommendations, Indigenous Peoples and researchers, have called for culturally safe services that protect the well-being of marginalized Indigenous women and Two-Spirit Peoples (8,39,86).

Implications and Directions for Future Research and Programs

The current study further confirmed the need for culturally safe care for marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples that is anti-racist, client-centered, trauma-informed, sex work informed, and gender inclusive. Access to healthcare spaces needs to extend beyond physical accessibility, considering social and structural factors that impact access to healthcare spaces and services, including concerns for violence in one’s neighbourhood (87). Indigenous healthcare workers significantly impact culturally safe spaces through addressing biases and providing cultural connection (88). Doctors, nurses, and healthcare providers in clinics need to be educated to provide culturally safe, anti-racist, trauma-informed, sex work informed, and gender inclusive healthcare services (89). There is an urgent need to address mental health service access to address the negative psychological and emotional impacts of the pandemic and to the improve the health of marginalized Indigenous women and Two-Spirit Peoples beyond COVID-19. Mental health services need to be enhanced to ensure these services are appropriate and culturally safe, for example, the
inclusion of Elders and ceremony spaces in healthcare settings has been shown to create safer and more culturally appropriate environments for Indigenous Peoples (34,45). Inequities in Indigenous reproductive rights have been historically colonial, and it is crucial to identify how marginalized Indigenous women and Two-Spirit Peoples can be supported during and beyond COVID-19 to access equitable and culturally safe sexual and reproductive health services. While this study highlighted structural and COVID-19 factors that impacted access to routine healthcare among Indigenous women and Two-Spirit Peoples, Indigenous perspectives and voices need to be prioritized and at the forefront in the creation of accessible and culturally safe health services. Addressing the anti-Indigenous racism that continues to ensure that Indigenous Peoples are intentionally excluded from accessing equitable healthcare means that marginalized Indigenous women and Two-Spirit voices need to be prioritized in envisioning what cultural safety looks like in healthcare spaces. Indigenous Peoples are the best decision makers for their health and there needs to be more leadership positions in healthcare and health policy that allow Indigenous Peoples to speak about their own reality and experiences and to have the equitable and safe healthcare that they deserve. The inclusion of host Nations in creating accessible and culturally safe health care is vital in ensuring that we are respecting and honouring the land that the healthcare spaces are on.

**Limitations**

The study has some notable limitations. First, the COVID-19 follow-up questionnaire was added shortly after the pandemic started in 2020. Due to the urgent need to address the public health crisis, only two cycles of data were collected and analyzed for this study. Second, because we restricted the analysis to only include people who self-identified as Indigenous and completed the COVID-19 questionnaire, the sample is small which limits statistical power and reduces the precision of estimates. This study took a unique approach to examine an only Indigenous cohort. Self-reported data are often subject to recall and social desirability bias, though our frontline staff includes experiential and community-based interviewers, which has been an effective strategy in mitigating this as much as possible. Due to the nature of quantitative data and study design, we can only analyze numerical relationships and associations between variables.
This study highlights social and structural inequities that impact access to routine healthcare among marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples. While taking a unique approach, this study only highlights difficulties in access to routine healthcare without discussing what access means and could look like among this group of people, however this study adds to the limited body of research on access to routine healthcare among marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples. Future research is needed to address the lack of culturally safe care and to create community-led actionable changes within the Canadian healthcare system. While this study utilized community driven data and was guided by and lead by Indigenous Peoples future research needs to engage with marginalized Indigenous women and Two-Spirit Peoples to create actionable changes to address ongoing racism against Indigenous Peoples in the healthcare system and within Canada.

Conclusion

This study aimed to evaluate factors associated with experiencing difficulty accessing routine healthcare among a cohort of marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples in Metro Vancouver, Canada early in the COVID-19 pandemic. Approximately, one-quarter of our sample had difficulty accessing routine healthcare. Marginalized Indigenous women and Two-Spirit Peoples who had a history of pregnancy, experienced negative changes in psychological and emotional well-being, experienced community-based violence, and lacked access to culturally safe services, during the COVID-19 pandemic, had higher odds of difficulty accessing routine healthcare during the pandemic. Cultural approaches to health and wellness are diverse, and amplifying the voices of marginalized Indigenous women and Two-Spirit Peoples is vital to creating equitable health systems, services, and policies. Anti-racist and culturally safe health strategies and policies are needed at all levels of government to create safe, equitable, accessible health care for Indigenous Peoples (87). Findings are in line with the In Plain Sight recommendation to increase culturally safe health services and for the establishment of a system-wide measurement framework on Indigenous cultural safety, Indigenous rights to health, and Indigenous-specific racism (10). As we continue to unpack the impacts of historical and ongoing colonial violence on Indigenous Peoples,
this research calls for the amplifying of Indigenous voices and informs actions to support culturally safe and antiracist health services, social well-being, and justice for marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples.

2.6. Acknowledgments, Funding & Ethics

Acknowledgments

We thank all those who contributed their time and expertise to this project, particularly participants, community advisory board members and partner agencies, and research staff, including the AMPLIFY team: Logan Burd and Sasha Askarian; the AESHA team: Emma Ettinger, Christie Gabriel, Jennifer Morris, Jennifer McDermid, Jennie Pearson, Emily Luba, Becca Norris, Danielle O’Callaghan, Natasha Feuchuk, Alex Martin, Lois Luo, Minshu Mo, Sherry Wu, Chantel Lee, Alaina Ge, and Preet Dhanda; And the SHAWNA team: the Positive Women’s Advisory Board, Community Advisory Board members, and the current SHAWNA research project staff, including Elissa Aikema, Tara Axl-Rose, Emma Kuntz, Melanie Lee, Lois Luo, Desire King, Patience Magagula, Kat Mortimer, Candice Norris, Colleen Thompson, and Larissa Wakatsuki. We also thank Majka Hahn, Melissa Braschel, Riley Tozier, Shivangi Sikri, Amber Stefanson, and Peter Vann for their operations, communications, research, and administrative support.

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AMPLIFY research was supported by grants from the Canadian Health Research Institute (CIHR) (460963).

**Ethics Approval**

Approval provided by the Providence Health Care/University of British Columbia Ethics Boards. REB number H09-02803 (AESHA) and H21-02223 (AMPLIFY).

### 2.7. Tables

**Table 1.** Baseline demographic and structural characteristics amongst marginalized Indigenous women and Two-Spirit Peoples, stratified by difficulty accessing family doctor/nurse/clinic for routine healthcare in Metro Vancouver, Canada, 2020-2021 ($n = 142$)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total (%) ($n = 142$)</th>
<th>Difficulty accessing routine healthcare*</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes (%) ($n = 30$)</td>
<td>No (%) ($n = 112$)</td>
</tr>
<tr>
<td>Age (med, IQR)</td>
<td>45.5 (37-53)</td>
<td>42 (36-50)</td>
<td>47 (38-53)</td>
</tr>
<tr>
<td>Indigenous Identity/Ancestry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Nation</td>
<td>104 (73.3)</td>
<td>18 (60.0)</td>
<td>86 (76.8)</td>
</tr>
<tr>
<td>Metis</td>
<td>20 (14.1)</td>
<td>7 (23.3)</td>
<td>13 (11.6)</td>
</tr>
<tr>
<td>First Nation &amp; Metis</td>
<td>10 (7.0)</td>
<td>ns (6.7)</td>
<td>8 (7.1)</td>
</tr>
<tr>
<td>Indigenous unspecified</td>
<td>8 (5.6)</td>
<td>ns (10.0)</td>
<td>5 (4.5)</td>
</tr>
<tr>
<td>Non-injection drug use*</td>
<td>73 (51.41)</td>
<td>15 (50.0)</td>
<td>58 (51.8)</td>
</tr>
<tr>
<td>Injection drug use*</td>
<td>41 (28.9)</td>
<td>6 (20.0)</td>
<td>35 (31.3)</td>
</tr>
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<td>85 (59.9)</td>
<td>17 (56.7)</td>
<td>68 (60.7)</td>
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<tr>
<td><strong>Macrostructural Level</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Women living with HIV</td>
<td>66 (46.5)</td>
<td>15 (50.0)</td>
<td>51 (45.5)</td>
</tr>
<tr>
<td>Exchanged sex for money, goods, and services*</td>
<td>59 (41.6)</td>
<td>10 (33.3)</td>
<td>49 (34.8)</td>
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<tr>
<td>Mental Health Diagnosis</td>
<td>107 (75.4)</td>
<td>24 (80.0)</td>
<td>83 (74.1)</td>
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<tr>
<td>Minority gender identity</td>
<td>28 (19.7)</td>
<td>ns (10.0)</td>
<td>25 (22.3)</td>
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<tr>
<td>Minority sexual orientation</td>
<td>75 (52.8)</td>
<td>19 (63.3)</td>
<td>56 (50.0)</td>
</tr>
<tr>
<td>Two-Spirit identity</td>
<td>23 (16.2)</td>
<td>ns (10.0)</td>
<td>20 (17.9)</td>
</tr>
<tr>
<td>Minority gender identity and/or sexual orientation and/or Two-Spirit</td>
<td>80 (56.3)</td>
<td>19 (63.3)</td>
<td>61 (54.5)</td>
</tr>
<tr>
<td>Pregnant ever</td>
<td>111 (78.2)</td>
<td>27 (90.0)</td>
<td>84 (75)</td>
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<tr>
<td>Incarceration ever</td>
<td>126 (88.7)</td>
<td>28 (93.3)</td>
<td>98 (87.5)</td>
</tr>
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<td>Category</td>
<td>n</td>
<td>%</td>
<td>N</td>
</tr>
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<td>--------------------------------------------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Physical/sexual violence by any perpetrator</td>
<td>136</td>
<td>95.8</td>
<td>30</td>
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<tr>
<td>Physical/sexual violence by any perpetrator*</td>
<td>29</td>
<td>20.4</td>
<td>8</td>
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<tr>
<td><strong>COVID-19 Variables</strong></td>
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</tr>
<tr>
<td>Negative changes to psychological/emotional well-being*</td>
<td>100</td>
<td>70.4</td>
<td>28</td>
</tr>
<tr>
<td>Positive changes to psychological/emotional well-being*</td>
<td>20</td>
<td>14.1</td>
<td>ns</td>
</tr>
<tr>
<td>Self-rated health was good*</td>
<td>82</td>
<td>57.8</td>
<td>15</td>
</tr>
<tr>
<td>Lacked access to culturally safe health or social services*</td>
<td>7</td>
<td>4.9</td>
<td>ns</td>
</tr>
<tr>
<td>Increased police/security presence*</td>
<td>8</td>
<td>5.6</td>
<td>ns</td>
</tr>
<tr>
<td>Concerns regarding safety or violence in community*</td>
<td>22</td>
<td>15.5</td>
<td>10</td>
</tr>
<tr>
<td>Accessed Canadian Emergency Response Benefit (CERB)</td>
<td>73</td>
<td>51.4</td>
<td>13</td>
</tr>
</tbody>
</table>

All data refer to n (%) of participants unless otherwise specified.

* In the last 6 months
Table 2. Bivariate and multivariable generalized estimating equations (GEE) analysis of correlates of difficulty accessing family doctor/nurse/clinic for routine healthcare among marginalized Indigenous women and Two-Spirit Peoples in Metro Vancouver, Canada, 2020-2021 ($n = 142$)

<table>
<thead>
<tr>
<th></th>
<th>Odds Ratio</th>
<th>Adjusted Odds Ratio**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(95% CI)</td>
<td>(95% CI)</td>
</tr>
<tr>
<td>Age (per year older)</td>
<td>1.01 (0.97 – 1.05)</td>
<td></td>
</tr>
<tr>
<td>Non-injection Drug use*</td>
<td>1.27 (0.60 – 2.68)</td>
<td></td>
</tr>
<tr>
<td>Injection Drug use*</td>
<td>0.54 (0.23 – 1.25)</td>
<td></td>
</tr>
<tr>
<td>Any Drug Use*</td>
<td>1.16 (0.53 – 2.53)</td>
<td></td>
</tr>
<tr>
<td><strong>Macrostructural Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women living with HIV</td>
<td>1.54 (0.76 – 3.11)</td>
<td></td>
</tr>
<tr>
<td>Exchanged sex for money, goods, and services*</td>
<td>0.64 (0.31 – 1.33)</td>
<td></td>
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<tr>
<td>Mental health diagnosis‡</td>
<td>0.91 (0.43 – 1.93)</td>
<td></td>
</tr>
<tr>
<td>Minority gender identity</td>
<td>0.61 (0.25 – 1.50)</td>
<td></td>
</tr>
<tr>
<td>Minority sexual orientation</td>
<td>1.57 (0.77 – 3.18)</td>
<td></td>
</tr>
<tr>
<td>Two-Spirit identity</td>
<td>0.58 (0.22 – 1.55)</td>
<td></td>
</tr>
<tr>
<td>Minority gender identity and/or sexual orientation and/or Two-Spirit</td>
<td>1.47 (0.72 – 3.01)</td>
<td>1.58 (0.74 – 3.40)</td>
</tr>
<tr>
<td>Pregnant ever</td>
<td>2.74 (0.93-8.10)</td>
<td>4.71 (1.33 – 16.66)</td>
</tr>
<tr>
<td>Physical/sexual violence by any perpetrator*</td>
<td>0.99 (0.39 – 2.50)</td>
<td></td>
</tr>
<tr>
<td>Incarceration ever</td>
<td>1.99 (0.42 – 9.37)</td>
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<tr>
<td><strong>COVID-19 Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative changes to psychological/emotional well-being*</td>
<td>2.72 (1.11 – 6.69)</td>
<td>3.99 (1.33 – 11.98)</td>
</tr>
<tr>
<td>Positive changes to psychological/emotional well-being*</td>
<td>0.93 (0.32 – 2.67)</td>
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<tr>
<td>Self-rated health was good</td>
<td>0.75 (0.40-1.41)</td>
<td>1.08 (0.51 – 2.26)</td>
</tr>
<tr>
<td>Lacked access to culturally* safe health or social services*</td>
<td>3.12 (0.99 – 9.79)</td>
<td>4.67 (1.43 – 15.25)</td>
</tr>
<tr>
<td>Concerns regarding safety or violence in community*</td>
<td>2.57 (1.09 – 6.06)</td>
<td>2.72 (1.06 – 6.94)</td>
</tr>
<tr>
<td>Increased police/security presence*</td>
<td>2.06 (0.58 – 7.35)</td>
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<tr>
<td>Accessed Canadian Emergency Response Benefit (CERB)</td>
<td>0.67 (0.33 – 1.36)</td>
<td></td>
</tr>
</tbody>
</table>

* Time updated measure using the last six months as reference
2.8. References


52. Shebahkeget O. Almost a fifth of Winnipeg’s homicides this year involved Indigenous women. These are their stories. CBC [Internet]. 2022 Dec 26; Available from: https://www.cbc.ca/news/canada/manitoba/indigenous-women-winnipeg-homicide-profiles-2022-1.6673913


Chapter 3. COVID-19 Burden, Testing, and Vaccination among Marginalized Women Sex Workers in a Setting of Universal Healthcare: Findings of a Community-Based Cohort in Vancouver, Canada

3.1. Abstract

Objectives: Given the potentially elevated vulnerabilities experienced by women identifying sex workers as informal and criminalized workers during the COVID-19 pandemic, alongside gaps in data on COVID-19 prevention and care among women sex workers, we evaluated prevalence and correlates of self-reported a) COVID-19 testing and b) vaccination among women sex workers in Vancouver, Canada.

Methods: Using questionnaire data collected as part of a community-based cohort of women sex workers across indoor, outdoor, and online environments (AESHA, Jan 2010-present), we used logistic regression to analyze prevalence and correlates of a) COVID-19 testing and b) vaccination during the COVID-19 vaccine rollout period (March - August 2021).

Results: Of 154 participants, 53.3% identified as Indigenous, 5.2% as Black/Persons of Color, and 35.1% as White. 10.4% were living with HIV; 16.9% identified as trans women; and 48.1% as sexual minorities. In the last 6 months, 57.8% had received COVID-19 testing, of whom 10.1% tested positive; and 54.6% received a COVID-19 vaccine, of whom 63.1% received one dose and 36.9% received two doses. Indigenous women had higher odds of COVID-19 testing (AOR:3.11, 95%CI: 1.48-6.57), whereas those exposed to intimate partner violence (IPV) (AOR:0.36, 95%CI: 0.13-0.97) and whose primary place of servicing clients was in an informal indoor setting (AOR: 0.35, 95%CI: 0.14 – 0.89) had lower uptake (AOR:0.36, 95%CI: 0.13-0.97). Police harassment (AOR:0.24, 95%CI: 0.06-1.02) and food insecurity (AOR:0.42, 95%CI: 0.17-1.09) were associated with reduced odds of vaccination.

Discussion: Community-based, sex work led interventions to promote voluntary, safe, and confidential access to COVID-19 prevention interventions should be prioritized and
incorporate trauma-informed care and support for sex workers experiencing intimate partner violence. This research demonstrates the effectiveness of Indigenous-led pandemic responses. Decriminalization of sex work is also recommended to promote health equity among sex workers.

3.2. Introduction

Globally, sex workers are severely marginalized and continue to be excluded from structural supports due to ongoing stigma and criminalization (1,2). Sex workers face disproportionate health and social inequities, for example, high prevalence of HIV and STI’s, violence, and criminalization (3,4). Sex workers face several barriers to accessing healthcare services, including, occupational stigma (5,6), fear of judgement from healthcare providers (7), experiences of violence, and police related barriers (e.g., harassment) (8,9) that predate COVID, and we hypothesized that the pandemic would further exacerbate these barriers (7,10). The COVID-19 pandemic highlighted the urgent need to address unmet needs of sex workers, with evidence suggesting that interruptions and vulnerabilities caused by the COVID-19 pandemic have exacerbated health, social, and economic inequities among sex workers, including those related to community-based services, access to government income supports, and economic policies in relation to COVID-19 (1,11,12). The onset of the COVID-19 pandemic caused severe income losses, housing insecurity, and increased risk for violence. Sex work criminalization and stigma pose severe barriers to sex workers access to support services (13). Despite the potentially elevated risk of COVID-19 exposure faced by sex workers as a population of precarious and informal workers, few studies have evaluated the prevalence of COVID-19 testing, positivity, or vaccination among sex workers in Vancouver, Canada.

Within the first year of the pandemic in Canada, the British Columbia (BC) government announced vaccinations would be available in December 2020 (14). Local sex workers and advocacy groups advocated for the inclusion of sex workers in the BC COVID-19 response (12,15). Racialized and marginalized populations, including sex workers and Indigenous Peoples, in Canada have been disproportionately impacted by the COVID-19 pandemic (11,16–18). During April 2021, the BC government announced that
they would be prioritizing vaccinations for Indigenous Peoples and people living in Vancouvers Downtown Eastside neighbourhood (16,19,20) which was an important step in making vaccinations more accessible. Community organizations have played a vital role in providing occupation health and violence prevention resources to sex workers in BC (11,19). Exploring ways sex workers have applied preventative measures such as COVID-testing and vaccination to protect their occupational health and exploring potential supports and barriers during the COVID-19 pandemic is an important area of research.

Due to ongoing and historical colonialism and systemic racism Indigenous women are overrepresented in street-based sex work (21). Indigenous women in Canada face disproportionate rates of policing, intimate partner violence, and gender-based violence (21,22). Ongoing and historical colonial violence has continued to ensure that Indigenous women are intentionally excluded from accessing equitable healthcare services and supports (23–25). Ongoing racism and violence against Indigenous Peoples in health systems led to the need for the BC Commissioned In Plain Sight report which highlights the need to address Indigenous women's health inequities in the context of the COVID-19 pandemic (25). Indigenous, Black and people of colour who engage in sex work reported more experiences of racism during COVID-19 (4). While research has highlighted social inequities heightened during the COVID-19 pandemic among Indigenous and marginalized communities, little research has addressed potential inequities in access to COVID-19 testing and vaccination among Indigenous women who do sex work.

The COVID-19 pandemic has highlighted the ongoing health, social, and labour inequities that are driven by criminalization. In response to the COVID-19 pandemic, police power and presence has been scaled-up in Canada (26). Policing exacerbates and escalates crises and can act as a barrier to healthcare services (26,27). Policing in Canada is rooted in settler-colonialism, an institution that continues to over police racialized and groups marginalized by social and structural inequities (28,29). Sex workers, Indigenous, Black, and people of colour are disproportionately harmed, surveilled, regulated, and harassed by the police (26,27,29,30). As punitive policing and other forms of
criminalization are well-documented barriers to the health and safety of sex workers – particularly those who are racialized and otherwise marginalized (27,29,30) – there is a need for empirical data examining associations between policing and uptake of COVID-19 prevention and care services. Previous research has emphasized the roles of structural factors such as violence, policing, criminalization, stigma, and access to healthcare services and supports among sex workers (27,31–33). This analysis was conceptually underpinned by conceptual frameworks of the structural determinants of health among sex workers (34), which includes macrostructural level (i.e., race, housing, intimate partner violence, gender identity, food security), work environment (i.e., place of servicing clients, police presence), and community level (i.e., barriers to healthcare, sex work services).

Given the potentially elevated vulnerabilities experienced by women sex workers as informal and criminalized workers during the COVID-19 pandemic, alongside gaps in data on COVID-19 prevention and care among sex workers, the objective of this study was to evaluate prevalence and correlates of self-reported a) COVID-19 testing and b) COVID-19 vaccination among sex workers in Vancouver, Canada one year into the pandemic (March-August 2021).

3.3. Methods

Study Design

This study drew on cross-sectional data from a community-based longitudinal cohort, An Evaluation of Sex Workers Health Access (AESHA) which initiated recruitment in 2010. AESHA is a community collaboration with sex work agencies on the ancestral, occupied territories of the Musqueam, Squamish and Tsleil-Waututh Peoples in what is now referred to as Vancouver, BC and overseen by a community advisory board of sex work organizations and community members. Eligibility includes identifying as a woman (including transgender women)⁶, having exchanged sex for money within the last

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⁶ Eligibility and recruitment criteria for AESHA is inclusive of cis women, transgender women, transexual women and other self-reported transfeminine identities at enrolment. We acknowledge that gender identity
30 days and providing written informed consent to participate. Recruitment was done using time location sampling via daytime and nighttime outreach facilitated by community mapping of indoor venues (massage parlors, micro-brothels, and in-call locations) and outdoor spaces (i.e., streets, alleys) across Metro Vancouver. Online recruitment was also done through online solicitation spaces. The study holds ethical approval through the Providence Health Care/University of British Columbia Research Ethics Boards. Further details about AESHA is available elsewhere (35).

Semi-annual questionnaires were administered by experienced, community-based staff (including current/former SWs) and collected data on socio-demographics, work environment, healthcare utilization, as well as self-reported impacts and outcomes of the COVID-19 pandemic, including COVID-19 knowledge and service uptake and impacts of the pandemic on health and social supports, housing and economic factors, work environment, violence, policing, and substance use and overdose. Questionnaires were administered by phone or in-person based on institutional and public health guidelines for research during various stages of the pandemic response. All participants received $65CAD at each bi-annual visit for their time, expertise, and travel plus an additional $20 for the COVID-19 supplementary questions.

**Outcomes**

**COVID-19 testing** was defined based on the question, “In the last 6 months, have you had a test for COVID-19?” Participants who self-reported taking a COVID-19 PRC-based test or antigen test at least once in the past six months were coded as ‘yes’ and those who had not were coded as ‘no’. **COVID-19 vaccination** was assessed based on the question, “In the last 6 months, have you received a COVID-19 vaccine?” For the purpose of this study, a COVID-19 vaccine was defined as receiving any of the three doses available from Pfizer, Moderna, Novavax, Janssen, or AstraZeneca during the COVID-19 vaccine rollout period March - August 2021 among participants eligible to receive a vaccine as determined by Canada’s national guidelines. Participants who self-
reported that they had received a COVID-19 vaccine in the last 6 months were coded as ‘yes’ and those who had not were coded as ‘no.’ Those who indicated that they were not eligible for the COVID-19 vaccine were excluded from the analysis.

**Independent Variables of Interest**

Covariates were identified based on the literature and our conceptual framework. Individual demographics included age, month of COVID interview, non-injection drug use, and injection drug use. Macrostructural level variables included race (Indigenous (First Nations, Inuit, and Metis), women of colour (i.e., Black, Latinx, or Asian) vs. white), living with HIV, houseless, sexual minority (i.e., gay, lesbian, bisexual, asexual, queer, Two-Spirit, other), gender minority (i.e., transgender, intersex, transexual, Two-Spirit, gender queer), food insecurity, any intimate partner violence, violence by any perpetrator, and in detention/prison/jail overnight or longer. Work environment variables included primary place of servicing clients (i.e., outdoor/public, informal indoor, formal indoor, and no recent sex work), threatened /physically assaulted by community residents or business owners where you work, any police harassment while working (excluding arrest), and police presence affected where you worked. Community level variables included any barriers to receiving health care, difficulty accessing other health care or social services, and accessed sex work specific services in Vancouver.

**Statistical Analyses**

Descriptive statistics were calculated for individual, microstructural level, work environment, and community level characteristics. Frequencies and proportions were calculated for categorical variables and measures of central tendency for continuous variables. Bivariate and multivariate analysis used logistic regression to analyze prevalence and correlates of COVID-19 testing. Independent variables considered in the multivariate model were identified based on the literature. Based on the literature review and confounders in the bivariate model we built a model to analyze correlates between vaccination during the COVID-19 vaccine rollout period (March - August 2021), food insecurity, and police harassment. Variables for the multivariable analyses were chosen...
based on the literature review, conceptual frameworks of the structural determinants of health among sex workers, and positive associations in the bivariate analyses. Statistical analyses were performed in SAS version 9.4 (SAS, Cary, NC), and all p-values are two-sided.

3.4. Results

Analyses included 154 sex workers who completed the COVID-19 supplementary questions between March – August 2021. In the last 6 months, 57.8% (n = 89) had received COVID-19 testing, of whom 10.1% tested positive; and 54.6% received a COVID-19 vaccine, of whom 63.1% received one dose and 36.9% received two doses.

Participants’ median age was 45 (IQR: 37-54), 53.3% (n = 82) were Indigenous, 5.2% (n = 8) were Black/Persons of Color, and 35.1% (n = 54) were White (Table 3). 10.4% (n = 16) were living with HIV, 48.1% (n = 74) as a sexual minority, and 16.9% (n = 26) identified as a gender minority. Among participants who reported their most recent primary place of servicing clients, approximately 27.3% (n = 42) serviced clients in an outdoor/public space, 50.0% (n = 77) informal indoor space, 2.0% (n = 3) formal indoor space, and 13.0% (n = 20) did not engage in recent sex work. 3.35% (n = 5) had recently been in jail overnight or longer, 14.3% (n = 22) experienced any recent intimate partner violence, and 24.7% (n = 38) experienced any physical or sexual violence by any perpetrator. 53.3% (n=82) experienced barriers to healthcare, 72.1% (n = 111) food insecurity, and 7.8% (n = 12) police harassment while working.

Correlates of testing for COVID

In bivariate analysis (Table 4), sex workers who were Indigenous (Odds Ratio (OR): 2.69, 95% Confidence Interval (CI): 1.34 – 5.38) or identified as a gender minority (OR: 2.20; 95% CI: 0.86 – 5.64) faced high odds of COVID-19 testing. Sex workers who experienced any recent male IPV (OR: 0.31, 95%CI: 0.12 – 0.81), violence by any perpetrator (OR: 0.51, 95%CI: 0.24 – 1.09), were incarcerated (i.e., jail overnight or longer) (OR: 0.17, 95%CI: 0.02 – 1.51), and primarily served clients in informal indoor settings (OR: 0.44, 95%CI: 0.19 – 0.99) faced lower odds of COVID-19 testing. In
adjusted multivariable analysis, Indigenous women had higher odds of COVID-19 testing (AOR: 3.11, 95%CI: 1.48 - 6.57), whereas those who experienced intimate partner violence (AOR: 0.36, 95%CI: 0.13 - 0.97) or serviced clients primarily in informal indoor settings faced lower odds of COVID-19 testing (AOR: 0.35, 95%CI: 0.14 – 0.89).

Correlates of vaccination for COVID

In the bivariate analysis (Table 5), age (OR: 1.03, 95%CI: 1.00 – 1.07), month of COVID-19 interview (OR: 1.39, 95%CI: 1.12 – 1.73), and sex workers living with HIV (OR: 3.00, 95%CI: 0.79 – 11.45) had higher odds of vaccination. Sex workers who had experienced food insecurity (OR: 0.40, 95%CI: 0.16 – 0.98), police harassment (OR: 0.25; 95%CI: 0.06 – 0.98), and barriers to healthcare (OR: 0.51, 95%CI: 0.25 – 1.04) had reduced odds of vaccination. In the multivariable COVID vaccination model, police harassment (AOR:0.24, 95%CI: 0.06-1.02) and food insecurity (AOR:0.42, 95%CI: 0.17-1.09) were associated with reduced odds of vaccination, while age (AOR:1.03/yr, 95%CI: 1.00-1.07) was associated with higher odds.

3.5. Discussion

This study evaluated the prevalence and correlates of self-reported COVID-19 testing and vaccination among women sex workers in Vancouver. Among 154 sex workers, 57.8% reported recently accessing COVID-19 testing, of whom 10.1% self-reported testing positive; and 54.6% reported recently receiving a COVID-19 vaccine, of whom 63.1% received one dose and 36.9% received two doses. In Canada, vaccinations were available in 2021, however, it wasn’t until March 2022 that COVID-19 rapid test kits became available to the public for free in Vancouver (36). While low barrier options are important in making vaccinations and testing accessible, sex workers have been disproportionately affected by the COVID-19 pandemic (1,11) and face high levels of violence (37,38), criminalization (39), police harassment (27,40), and food insecurity (41,42). Our study highlights some of the first epidemiological research on sex worker’s COVID testing and vaccinations in Vancouver, Canada which can serve to inform future pandemic preparedness planning.
In our study, Indigenous women had higher odds of COVID-19 testing which reflects the information about COVID-19 and testing provided from trusted community sources, for example, First Nations Health Authority and Indigenous Elders (43,44). While our study revealed higher odds of COVID testing among Indigenous sex workers, several barriers to testing and vaccination for Indigenous Peoples exist including distrust in governments and healthcare systems due to medical colonialism and systemic racism, and accessibility barriers (i.e., transportation, wait times, registration, lack of supports) (45). The effects of ongoing colonial violence and medical colonialism among Indigenous Peoples are still evident today (23–25,46). Previous research has highlighted the effectiveness of Indigenous led responses to mitigating the effects of COVID-19, including, health-care sovereignty and authority over healthcare (47). Indigenous-specific approaches to responding to future pandemics includes improving Indigenous cultural safety, increasing representation, prioritizing traditional knowledge and cultural supports, Indigenous-specific communication networks, ensuring the continuity of care, and addressing systemic and structural barriers to health and well-being (45).

This study also found that intimate partner violence was associated with decreased odds of COVID testing among women sex workers. Intimate partner violence is a longstanding public health crisis (48). Along with the onset of the COVID-19 pandemic, several studies have noted an increased prevalence of intimate partner violence globally (49,50) and among Indigenous women in Canada (51,52). During COVID-19, sex workers reported increased difficulty accessing places to get away from violence and threats of violence (4). Previous studies have described high rates of intimate partner violence among sex workers, with a disproportionate burden among Indigenous sex workers (27,37). Colonization and systems of oppression foster social inequities that contribute to environments where intimate partner violence is more likely, including poverty, inadequate housing, criminalization, and gender and racial biases (24,49). Our finding that intimate partner violence is associated with reduced testing is in line with emerging research that highlights intimate partner violence as a potential barrier to receiving COVID supports and vaccinations (51–53) and adds to the limited body of research highlighting how intimate partner violence impacts sex workers access to
COVID testing. Future pandemic planning needs to consider the harmful cost of shutting down places to escape from violence and threats of violence.

Sex workers in our study reported high amounts of food insecurity (72.1%) which reflects emerging evidence that sex workers faced severe income loss, barriers to government supports, and food insecurity during the COVID-19 pandemic (11,13,54,55). Due to the criminalization of sex work in Canada (56,57), sex workers are excluded from labour supports and reported low access to income supports during COVID-19 (1). Sex workers food insecurity was further shaped by COVID-19 vaccination. Sex workers who experienced food insecurity had reduced odds of COVID-19 vaccination, though this association was only marginally significant. Sex work organizations were instrumental in providing food programs to help mitigate food insecurity among sex workers during the pandemic (58). Community organizations need increased funding from the government as these organizations are vital and best suited to distribute supports in an accessible way (13,15).

Previous literature has documented the harmful effects of criminalization and policing among sex workers (39,57). The COVID-19 pandemic has further exposed the issue of the criminalization of sex work. In our study, servicing clients in informal work environments was associated with reduced uptake of COVID testing. As long as sex work is criminalized, barriers to conducting sex work safely and receiving the same supports as other workers will remain (59). There is a lack of safe working conditions for sex workers that is engendered by criminalization of various aspects of the sex industry, including third parties that are often present in formal environments (60). When sex work is criminalized, it hinders the ability for sex workers to formally work together due to fear of arrest and police harassment (60,61). The threat of criminalization undermines the ability for sex workers to screen clients, negotiate for safe sex practices, access safe workspaces, and access health services (4,62). In response to the COVID-19 pandemic, Canada increased policing and surveillance powers in regard to social distancing and lockdowns in urban centres (17,26,63). These powers are disproportionately harmful to marginalized populations, including, sex workers, Indigenous Peoples, Black and people of colour, and exacerbate pre-existing social conditions and inequalities (17,29).
workers have a long history of being surveilled, racially profiled, criminalized and harassed by police and law enforcement (27,30,40,63,64) and have reported heightened police presence and hyper-surveillance during the COVID-19 pandemic (4,11). In our study, we found that police harassment was associated with reduced odds of vaccination. Government orders have allowed police to access personal health data from COVID status databases in Canada which discourages marginalized and criminalized communities from testing for COVID-19 and getting vaccinated (63). Fear-based responses and policing the pandemic, threatens the health and safety of sex workers, Indigenous, Black, houseless people, people who do drugs and people with precarious immigration status from accessing COVID vaccinations and testing. COVID-19 and pandemic responses need to consider the needs of sex workers to be effective at ensuring the safety of marginalized communities.

Policy Implications

To provide accessible, culturally-safe, and trauma-informed pandemic responses, sex worker voices need to be prioritized. Future pandemic planning needs to consider the cost that punitive fear-based responses and policing have on access to vaccination and in applying preventative COVID measures. Rates of intimate partner violence increased globally and among sex workers, trauma-informed care and support for sex workers experiencing intimate partner violence needs to be incorporated into annual preventative care and future pandemic planning. Pandemic planning and response efforts should consider weaving in trauma-informed approaches throughout, to mitigate potential for these unintended negative consequences or exacerbating issues related to violence.

Future pandemic preparedness and planning needs to have Indigenous and sex work specific responses that acknowledge the importance of cultural and community connection, ensuring the continuity of care, and addressing systemic and structural barriers to health (45). Indigenous authority and control over their healthcare systems will ultimately reduce barriers and support community-centred and culturally relevant healthcare and pandemic responses for Indigenous Peoples (47). We recommend and support the MMIWG2SLGBTQQIA+ Call for Justice 4.3 "We call upon all governments
to support programs and services for Indigenous women, girls, Two-Spirit, and LGBTQIA Peoples in the sex industry to promote their safety and security. These programs must be designed and delivered in partnership with people who have lived experience in the sex industry. We call for stable and long-term funding for these programs and services” (23). Decriminalization of sex work is also recommended to promote health equity, labour protections, and access to supports and services among sex workers. Sex worker voices need to be uplifted and listened to by policy experts in regard to sex work laws and regulations in Canada.

**Limitations & Directions for Future Research**

Our study presents some of the first epidemiological data on COVID-19 testing and vaccination among sex workers in Canada. The AESHA study was not designed to assess the impacts of the COVID-19 pandemic and given the challenges of connecting with sex workers due to lockdowns and closures, our sample is relatively small. However, findings highlight important associations that can inform future pandemic preparedness and planning. There is a need for evidence-based interventions and research that investigates ways to reduce barriers to pandemic responses and to protect the health, safety, well-being, and access to services for sex workers. Gender-diverse sex workers have expressed the need for gender inclusive sex work outreach services (4) and additional research that captures the experiences of gender diverse sex workers during the COVID-19 pandemic is needed.

**Conclusion**

The present study identified that Indigenous women had higher odds of COVID-19 testing, whereas those exposed to intimate partner violence and servicing clients in an informal indoor work environment had lower uptake. Police harassment and food insecurity were associated with reduced odds of COVID-19 vaccination. This research demonstrates the need for community-based, sex-work led interventions to promote voluntary, safe, and confidential access to COVID-19 prevention and intervention. This research also demonstrates the success of Indigenous-led pandemic response efforts.
provide accessible, culturally-safe, anti-racist and trauma-informed pandemic responses, sex worker and Indigenous voices need to be prioritized. Trauma-informed care and support for sex workers experiencing intimate partner violence need to be prioritized and incorporated into pandemic responses, alongside broader structural reforms such as sex work decriminalization.

3.6. Acknowledgments, Funding & Ethics

Acknowledgments

We thank all those who contributed their time and expertise to this project, particularly participants, AESHA community advisory board members and partner agencies, and the AESHA team, including: Emma Ettinger, Christie Gabriel, Jennifer Morris, Danielle O'Callaghan, Alaina Ge, Grace Chong, Ran Hu, Natasha Feuchuk, and Jennie Pearson. We also thank Peter Vann and Ollie Norris for their research and administrative support.

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Ethics Approval

Approval provided by the Providence Health Care/University of British Columbia.
### Table 3. Baseline characteristics of women sex workers in Vancouver, Canada, stratified by uptake of COVID-19 testing in the last six months, March – August 2021 (N = 154)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total (%) (n = 154)</th>
<th>Outcome</th>
<th>p - value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes (%) (n = 89)</td>
<td>No (%) (n = 61)</td>
</tr>
<tr>
<td>Age (median, IQR)</td>
<td>45 (37 – 54)</td>
<td>45 (37 – 54)</td>
<td>45 (36 – 54)</td>
</tr>
<tr>
<td>Month of COVID interview</td>
<td>14 (13 – 16)</td>
<td>14 (13 -16)</td>
<td>14 (13 – 15)</td>
</tr>
<tr>
<td>Non-injection drug use†</td>
<td>92 (59.7)</td>
<td>48 (53.9)</td>
<td>41 (67.2)</td>
</tr>
<tr>
<td>Injection drug use†</td>
<td>64 (41.6)</td>
<td>37 (41.6)</td>
<td>23 (37.7)</td>
</tr>
<tr>
<td><strong>Macrostructural Level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White (ref)</td>
<td>54 (35.1)</td>
<td>22 (24.7)</td>
<td>30 (49.2)</td>
</tr>
<tr>
<td>Indigenous</td>
<td>82 (53.3)</td>
<td>55 (61.8)</td>
<td>25 (41.0)</td>
</tr>
<tr>
<td>Women of Color (Black, Latinx, or Asian)</td>
<td>8 (5.2)</td>
<td>5 (5.6)</td>
<td>ns¹</td>
</tr>
<tr>
<td>Living with HIV</td>
<td>16 (10.4)</td>
<td>10 (11.2)</td>
<td>6 (9.8)</td>
</tr>
<tr>
<td>Houseless†</td>
<td>18 (11.7)</td>
<td>11 (12.4)</td>
<td>7 (11.5)</td>
</tr>
<tr>
<td>Sexual minority</td>
<td>74 (48.1)</td>
<td>40 (44.9)</td>
<td>32 (52.5)</td>
</tr>
<tr>
<td>Gender minority</td>
<td>26 (16.9)</td>
<td>19 (21.4)</td>
<td>7 (11.5)</td>
</tr>
<tr>
<td>Food insecurity†</td>
<td>111 (72.1)</td>
<td>61 (68.5)</td>
<td>47 (77.1)</td>
</tr>
<tr>
<td>Any IPV†</td>
<td>22 (14.3)</td>
<td>8 (9.0)</td>
<td>14 (23.0)</td>
</tr>
<tr>
<td>Violence by any perpetrator†</td>
<td>38 (24.7)</td>
<td>18 (20.2)</td>
<td>20 (32.8)</td>
</tr>
<tr>
<td>Jail overnight or longer†</td>
<td>5 (3.3)</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td><strong>Work Environment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary place of servicing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outdoor/Public†</td>
<td>42 (27.3)</td>
<td>29 (32.6)</td>
<td>12 (19.7)</td>
</tr>
<tr>
<td>Informal indoor†</td>
<td>77 (50.0)</td>
<td>38 (42.7)</td>
<td>36 (59.0)</td>
</tr>
<tr>
<td>Formal indoor†</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>No sex work†</td>
<td>20 (13.0)</td>
<td>12 (13.5)</td>
<td>8 (13.1)</td>
</tr>
<tr>
<td>Most clients are regulars†</td>
<td>20 (13.0)</td>
<td>12 (13.5)</td>
<td>8 (13.1)</td>
</tr>
<tr>
<td>Verbal/physical violence from community or business</td>
<td>5 (3.3)</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>Police harassment while</td>
<td>12 (7.8)</td>
<td>5 (5.6)</td>
<td>7 (11.5)</td>
</tr>
<tr>
<td>Police presence while</td>
<td>32 (20.8)</td>
<td>17 (19.1)</td>
<td>15 (24.6)</td>
</tr>
<tr>
<td><strong>Community Level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barriers to healthcare†</td>
<td>82 (53.3)</td>
<td>47 (52.8)</td>
<td>33 (54.1)</td>
</tr>
<tr>
<td>Utilized other care/social</td>
<td>16 (10.4)</td>
<td>12 (13.5)</td>
<td>ns</td>
</tr>
<tr>
<td>Accessed sex work services†</td>
<td>85 (55.2)</td>
<td>48 (53.9)</td>
<td>34 (55.7)</td>
</tr>
</tbody>
</table>

All data refer to n (%) of participants, unless otherwise specified.
† In the last 6 months
¹Number suppressed due to privacy considerations and low number of respondents’
Table 4. Unadjusted and adjusted odds ratios with 95% confidence intervals (95% CI) for factors correlated with COVID testing in the last six months among women sex workers, March – August 2021 (N=154)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Odds Ratio (95% Confidence Intervals)</th>
<th>Adjusted Odds Ratio (95% Confidence Intervals)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, per year old</td>
<td>1.00 (0.97 – 1.04)</td>
<td></td>
</tr>
<tr>
<td>Month of COVID interview</td>
<td>0.96 (0.97 – 1.17)</td>
<td></td>
</tr>
<tr>
<td>Non-injection drug use †</td>
<td>0.60 (0.29 – 1.24)</td>
<td></td>
</tr>
<tr>
<td>Injection drug use †</td>
<td>1.31 (0.66 – 2.60)</td>
<td></td>
</tr>
<tr>
<td><strong>Macrostructural Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>3.29 (1.46 – 7.39)</td>
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<td>1.30 (0.38 – 4.43)</td>
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</tr>
<tr>
<td>Houseless †</td>
<td>1.13 (0.41 – 3.11)</td>
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</tr>
<tr>
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<tr>
<td>Gender minority</td>
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<tr>
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<tr>
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<td>0.31 (0.12 – 0.81)</td>
<td>0.38 (0.13 – 1.09)</td>
</tr>
<tr>
<td>Violence by any perpetrator †</td>
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</tr>
<tr>
<td>Jail overnight or longer †</td>
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<td><strong>Work Environment</strong></td>
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<td>Primary place of servicing clients</td>
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</tr>
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<td>0.35 (0.14 – 0.89)</td>
</tr>
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</tr>
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<td>0.39 (0.10 – 1.53)</td>
</tr>
<tr>
<td>Most clients are regulars †</td>
<td>0.83 (0.28 – 2.44)</td>
<td></td>
</tr>
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<td>Verbal/physical violence from community/business owner †</td>
<td>0.17 (0.02 – 1.54)</td>
<td></td>
</tr>
<tr>
<td>Police harassment while working †</td>
<td>0.90 (0.38 – 2.09)</td>
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</tr>
<tr>
<td>Police presence while working †</td>
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<tr>
<td><strong>Community Level</strong></td>
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<td></td>
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<tr>
<td>Barriers to healthcare †</td>
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</tr>
<tr>
<td>Barriers accessing other care/social services †</td>
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</tr>
<tr>
<td>Accessed sex work services †</td>
<td>1.00 (0.50 – 1.97)</td>
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</table>

† In the last 6 months
Table 5. Unadjusted and adjusted odds ratios with 95% confidence intervals (95% CI) for factors correlated with receiving a COVID vaccine in the last six months among women sex workers, March – August 2021 (N=154)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Odds Ratio (95% Confidence Intervals)</th>
<th>Adjusted Odds Ratio (95% Confidence Intervals)</th>
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<td>Age, per year old</td>
<td>1.03 (1.00 – 1.07)</td>
<td>1.03 (1.00 – 1.07)</td>
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<tr>
<td>Month of COVID interview</td>
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<td>Non-injection drug use†</td>
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<td>Injection drug use†</td>
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<tr>
<td><strong>Macrostructural Level</strong></td>
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<tr>
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<td>0.73 (0.37 – 1.45)</td>
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</tr>
<tr>
<td>Living with HIV</td>
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<td>Houseless†</td>
<td>0.84 (0.30 – 2.34)</td>
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<td>Sexual minority</td>
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<td>Gender minority</td>
<td>1.19 (0.49 – 2.87)</td>
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<td>Any IPV†</td>
<td>0.90 (0.34 – 2.34)</td>
<td></td>
</tr>
<tr>
<td>Violence by any perpetrator†</td>
<td>0.88 (0.40 – 1.91)</td>
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<tr>
<td>Jail overnight or longer†</td>
<td>0.48 (0.08 – 2.96)</td>
<td></td>
</tr>
<tr>
<td><strong>Work Environment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary place of servicing clients</td>
<td></td>
<td></td>
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<tr>
<td>Informal Indoor vs Outdoor†</td>
<td>1.67 (0.77 – 3.64)</td>
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<tr>
<td>Formal Indoor vs Outdoor †</td>
<td>2.10 (0.18 – 25.01)</td>
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<tr>
<td>No sex work vs Outdoor †</td>
<td>1.05 (0.36 – 3.06)</td>
<td></td>
</tr>
<tr>
<td>Most clients are regulars†</td>
<td>1.29 (0.60 – 2.76)</td>
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<tr>
<td>Verbal/physical violence from community/business owner†</td>
<td>0.50 (0.08 – 3.11)</td>
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</tr>
<tr>
<td>Police harassment while working†</td>
<td>0.25 (0.06 – 0.98)</td>
<td>0.24 (0.06 – 1.02)</td>
</tr>
<tr>
<td>Police presence while working†</td>
<td>1.13 (0.50 – 2.56)</td>
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<tr>
<td><strong>Community Level</strong></td>
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<tr>
<td>Barriers to healthcare†</td>
<td>0.51 (0.25 – 1.04)</td>
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<tr>
<td>Barriers accessing other care/social services†</td>
<td>1.99 (0.59 – 6.66)</td>
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<tr>
<td>Accessed sex work services†</td>
<td>1.30 (0.65 – 2.60)</td>
<td></td>
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† In the last 6 months
3.8. References


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Chapter 4. Discussion

4.1. Summary of Findings

This thesis explored the prevalence and correlates of 1) access to healthcare during the COVID-19 pandemic among marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples, and 2) COVID-19 testing and vaccination in a cohort of women identifying sex workers, among whom Indigenous women are greatly overrepresented. Findings in this thesis support legislated calls to action outlined by foundational documents that highlight the critical importance of challenging and dismantling structural racism and stigma in health and social services that perpetuate violence against marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers. Findings also support calls to action to address structural factors that facilitate barriers to routine healthcare, COVID supports, safety, and well-being, including criminalization, police harassment, community-based violence, intimate partner violence, mental health, and food insecurity. The findings in this thesis support the critical need for accessible, culturally-safe, anti-racist, and trauma-informed healthcare for marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers.


This study aimed to evaluate factors associated with experiencing difficulty accessing routine healthcare among a cohort of marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples in Metro Vancouver, Canada early in the COVID-19 pandemic. Approximately, one-quarter of our sample had difficulty accessing routine healthcare. Marginalized Indigenous women and Two-Spirit Peoples who experienced community-based violence, experienced negative changes in psychological and emotional well-being, had a history of pregnancy, and lacked access to culturally safe
services, during the COVID-19 pandemic, had higher odds of difficulty accessing routine healthcare during the pandemic.

This study further confirmed the need for culturally safe care for marginalized Indigenous cisgender and transgender women and Two-Spirit Peoples that is anti-racist, client-centered, trauma-informed, sex work informed, and gender inclusive. Access to healthcare spaces needs to extend beyond physical accessibility, considering social and structural factors that impact access to healthcare spaces and services, including concerns for violence in one’s neighbourhood (1). There is an urgent need to address mental health service access to address the negative psychological and emotional impacts of the pandemic and to improve the health of marginalized Indigenous women and Two-Spirit Peoples beyond COVID-19. Mental health services need to be enhanced to ensure these services are appropriate and culturally safe, for example, the inclusion of Elders and ceremony spaces in healthcare settings has been shown to create safer and more culturally appropriate environments for Indigenous Peoples (2,3). Inequities in Indigenous reproductive rights have been historically colonial, and it is crucial to identify how Indigenous women and Two-Spirit Peoples can be supported during and beyond COVID-19 to access equitable and culturally safe sexual and reproductive health services. While this study highlighted structural and COVID-19 factors that impacted access to routine healthcare among marginalized Indigenous women and Two-Spirit Peoples, Indigenous perspectives and voices need to be prioritized and at the forefront in the creation of accessible and culturally safe health services. Anti-racist and culturally safe health strategies and policies are needed at all levels of government to create safe, equitable, accessible health care for Indigenous Peoples (1). Findings are in line with the In Plain Sight recommendation to increase culturally safe health services and for the establishment of a system-wide measurement framework on Indigenous cultural safety, Indigenous rights to health, and Indigenous-specific racism (4).
COVID-19 Burden, Testing, and Vaccination among Marginalized Women Sex Workers in a Setting of Universal Healthcare: Findings of a Community-Based Cohort in Vancouver, Canada

Given the potentially elevated vulnerabilities experienced by women identifying sex workers as informal and criminalized workers during the COVID-19 pandemic, alongside gaps in data on COVID-19 prevention and care among sex workers, we evaluated prevalence and correlates of self-reported a) COVID-19 testing and b) vaccination among women sex workers, among whom Indigenous women are greatly overrepresented. The present study identified that Indigenous women had higher odds of COVID-19 testing, whereas those exposed to intimate partner violence and servicing clients in an informal indoor work environment had lower uptake. Police harassment and food insecurity were associated with reduced odds of COVID-19 vaccination.

Future pandemic planning needs to consider the cost fear-based responses and policing the pandemic have on access to vaccination and in applying preventative COVID measures. Rates of intimate partner violence increased globally and among women sex workers, trauma-informed care and support for sex workers experiencing intimate partner violence needs to be incorporated into annual preventative care and future pandemic planning. This research demonstrates the need for community-based, sex-work led interventions to promote voluntary, safe, and confidential access to COVID-19 prevention and intervention. This research also demonstrates the effectiveness of Indigenous-led pandemic responses and care. To provide accessible, culturally-safe, anti-racist and trauma-informed pandemic responses, sex worker and Indigenous voices need to be prioritized. Trauma-informed care and support for women sex workers experiencing intimate partner violence need to be prioritized and incorporated into pandemic responses. Decriminalization of sex work is also recommended to promote health equity, labour protections, and access to supports and services among sex workers.
4.2. Implications for Future Pandemic Planning and Preparedness

To provide accessible, culturally-safe, and trauma-informed pandemic responses, the voices of marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers need to be prioritized. Future pandemic preparedness and planning needs to have Indigenous and sex work specific responses that acknowledge the importance of cultural and community connection, ensuring the continuity of care, and addressing systemic and structural barriers to health (5). This thesis has demonstrated that when pandemic responses are not tailored to the needs of marginalized populations, they can further exacerbate health and structural inequities, including, intimate partner violence, food insecurity, community-based violence, police harassment, mental health, and access to primary healthcare. In examining the findings in this thesis, we are able to make key recommendations in the areas of sex work and Indigenous community organization funding, reducing fear-based response to the pandemics, addressing pandemic related impacts on mental health, and prioritizing Indigenous healthcare sovereignty and authority.

Along with the onset of the COVID-19 pandemic, several studies have noted an increased prevalence of intimate partner violence globally (6,7) and among Indigenous women in Canada (8,9). Pandemic planning and response efforts should consider weaving in trauma-informed approaches throughout, to mitigate potential for these unintended negative consequences or exacerbating issues related to violence. In line with the calls to justice from the MMIWG2SLGBTQQIA+ report, we recommend and support the call for governments to support programs that promote the safety and security of marginalized Indigenous women, Two-Spirit Peoples, and sex workers. Due to the criminalization of sex work in Canada (10,11), sex workers are excluded from labour supports and reported low access to income supports during COVID-19 (12). We also call on the governments to include funding to sex work organizations to provide support for income support and food security for sex workers during current and future pandemics. As mentioned previously, trusted community organizations are vital and best suited to distribute supports in an accessible way (12,13) and must be funded during
pandemics so that they can stay open to provide continuous care and supports to marginalized Indigenous women, Two-Spirit Peoples, and women sex workers.

In response to the COVID-19 pandemic, Canada increased policing and surveillance powers in regard to social distancing and lockdowns in urban centres (14–16). These powers are disproportionately harmful to marginalized populations, including, Indigenous women, Two-Spirit Peoples, and sex workers, and exacerbate pre-existing social conditions and inequalities (14,17). Characteristics of neighborhoods, including safety, community-based violence, and expansion of the criminal justice system in areas more populated with racialized and marginalized populations, are known to influence a person’s access to health care and services (18–21). Fear-based responses and policing the pandemic, threatens the health and safety of sex workers and Indigenous Peoples accessing COVID vaccinations and testing. Future pandemic planning needs to consider the cost fear-based responses and policing the pandemic has on access to health and pandemic related services. Fear-based responses to the pandemic do not uphold the calls to action and justice from foundational documents that call for governments to ensure that the health and safety of marginalized Indigenous women, Two-Spirit Peoples, and women sex workers are protected on an equitable basis (28).

There is an urgent need to address mental health service access to address the negative psychological and emotional impacts of the pandemic and to improve the health of marginalized Indigenous women, Two-Spirit Peoples, and women sex workers beyond COVID-19. Equitable, reliable, and consistent access to primary healthcare is important for addressing the impacts of the COVID-19 pandemic on mental health (22,23). Future pandemic planning needs to considers the long-term impacts of increased stress, anxiety, and isolation that ultimately impacts access to healthcare services among marginalized Indigenous women, Two-Spirit peoples, and women sex workers.

Indigenous self-determination, knowledge, and community connections have been successful at protecting many Indigenous communities during the COVID-19 pandemic (23–25) and this thesis further demonstrates the effectiveness of Indigenous led pandemic responses. Indigenous Peoples’ authority and health-care sovereignty is a key factor in
protecting the health and well-being of Indigenous Peoples during the current COVID-19 pandemic and future pandemics. Indigenous-specific approaches to responding to future pandemics includes improving Indigenous cultural safety, increasing representation in the healthcare system, prioritizing traditional knowledge and cultural supports, Indigenous-specific communication networks, ensuring the continuity of care, and addressing systemic and structural barriers to health and well-being (5,23,25). Indigenous authority and control over their healthcare systems will ultimately reduce barriers and support community-centred and culturally relevant healthcare and pandemic responses for Indigenous Peoples (24). Indigenous healthcare sovereignty is the most effective way to address future pandemics and is a key factor in protecting the health and well-being of Indigenous Peoples. Indigenous healthcare sovereignty and authority needs to be considered a priority to further enhance access to healthcare services and to protect the well-being of Indigenous Peoples for future pandemics (4,24).

4.3. A Path Forward: Addressing Racism and Stigma in Systems of Care

This thesis further confirmed the urgent need for culturally safe care for marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers that is anti-racist, client-centered, trauma-informed, sex work informed, and gender inclusive. Access and culturally safe healthcare services to improve healthcare for marginalized Indigenous women and Two-Spirit Peoples must be sustainable and policies need to be developed to ensure that Indigenous voices are continuously uplifted and prioritized in the implementation and sustaining of culturally safe health services.

Indigenous Peoples’ authority and health-care sovereignty has been shown to be a key factor to protecting the health and well-being of Indigenous Peoples (24,26). Indigenous-specific health services and supports improves trust in the healthcare system (2,23). Providing welcoming spaces for Indigenous patients is also recommended and encourages health care engagement and well-being, including access to Elder and cultural supports (2). Indigenous healthcare workers significantly impact culturally safe spaces
through addressing biases and providing cultural connection (27). To provide culturally safe, anti-racist, trauma-informed, and gender inclusive healthcare services it is necessary for healthcare workers and providers to be educated in Indigenous cultural safety training (2,4,28). Indigenous healthcare providers are essential to addressing access barriers and are important in rebuilding trust between Indigenous Peoples and healthcare systems (2,29). The lack of Indigenous voices in leadership positions as well as cultural safety within the healthcare system further perpetuates health inequities (4,30). Indigenous Peoples are the best decision makers for their health and there needs to be more leadership positions in healthcare and health policy that allow Indigenous Peoples to speak about their own reality and experiences and to have the equitable and safe healthcare that they deserve (26,31).

While this thesis highlighted structural and COVID-19 factors that impacted access to healthcare and COVID specific services among marginalized Indigenous women, Two-Spirit Peoples and women sex workers, Indigenous perspectives and voices need to be prioritized and at the forefront in the creation of accessible and culturally safe health services. Addressing the anti-Indigenous racism that continues to ensure that Indigenous Peoples are intentionally excluded from accessing equitable healthcare means that marginalized Indigenous women and Two-Spirit voices need to be prioritized in envisioning what cultural safety looks like in healthcare spaces (31). The inclusion of host Nations in creating accessible and culturally safe health care is vital in ensuring that we are respecting and honouring the land that the healthcare spaces are on.

The COVID-19 pandemic highlighted the urgent need to address unmet needs of sex workers. Findings from this thesis demonstrate that interruptions and vulnerabilities caused by the COVID-19 pandemic have exacerbated health, social, and economic inequities among sex workers. Access to healthcare spaces needs to extend beyond physical accessibility, considering social and structural factors that impact access to healthcare spaces and services (1). We can not develop, implement, and sustain trauma-informed and culturally-safe healthcare spaces when sex work is criminalized. The threat of criminalization severely impacts safety and security and undermines the ability for sex workers to access health services (32,33). The decriminalization of sex work is highly
recommended to promote health equity, labour protections, and access to supports and services among sex workers. Sex worker voices need to be uplifted and listened to by policy experts in regard to sex work laws and regulations in Canada. Sex worker voices must be included and be continuously involved in determining what safe and equitable healthcare services are best suited for them.

Healthcare spaces need to be transformed to create spaces that are inclusive and foster engagement. If we are to address health inequities among groups marginalized by social and structural inequities that are fueled by racism, then spaces that foster engagement and safety are needed. Amplifying the voices of marginalized Indigenous women, Two-Spirit Peoples, and women sex workers is vital to creating equitable health systems, services, and policies. If we are to be truly successful at addressing the health gaps among marginalized Indigenous women and Two-Spirit Peoples, then Indigenous healthcare sovereignty is needed (26). Recognizing, supporting, and respecting Indigenous Peoples’ sovereignty and self-determination is crucial to developing, maintaining, and sustaining culturally safe healthcare systems (24). Responses must align with and be guided by calls to action from the In Plain Sight report (4), National Inquiry into Missing and Murdered Indigenous Women, Girls and 2SLGBTQQIA+ (31), United Nations Declaration on the Rights of Indigenous Peoples (26), and the Truth and Reconciliation Commission in Canada (34) to effectively address the systemic racism and stigma in healthcare systems that impacts health access among marginalized Indigenous women, Two-Spirit Peoples, and women sex workers.

4.4. Positionality

There are a disproportionately high number of Indigenous Peoples who live in Vancouver’s Downtown Eastside neighbourhood. While the AESHA and SHAWNA cohorts were created to assess the health needs and access among cisgender and transgender women sex workers and women living with HIV, Indigenous Peoples and people with minoritized and marginalized gender and or sexual identities make up a large portion of these cohorts. When a research study includes Indigenous Peoples, I consider the research to be Indigenous research, especially when Indigenous Peoples make up a
large portion of a cohort. The approach that this research is not only about marginalized cisgender and transgender women sex workers and women living with HIV, but also Indigenous experiences influenced my understanding and interpretation of the analysis in this thesis.

This thesis was able to descriptively look at healthcare access among marginalized gender diverse and Two-Spirit Peoples. While Two-Spirit identity was only descriptively looked at in this thesis, we honour Two-Spirit roles within communities that were disrupted by colonialism and call for research that prioritizes the voices and experiences of Two-Spirit Peoples. Research that prioritizes Indigenous women, gender diverse, and Two-Spirit Peoples in all aspects of the study, including recruitment, may be better for analyzing social and structural barriers (e.g., social supports; racism, stigma, precarious housing, intimate partner violence, food insecurity, policing, mental health) to accessing essential health services among Indigenous Peoples during and beyond the COVID-19 pandemic. While future research needs to prioritize the voices of Indigenous women, gender diverse, and Two-Spirit Peoples throughout all aspects of the research, this thesis sought to honour and prioritize these identities and experiences within the AESHA and SHAWNA cohorts of marginalized women.

4.5. Conclusion

To date, evidence has examined the impacts of persistent racism, discrimination, and stigma on marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers health care access, experiences, and outcomes. Marginalized Indigenous women, Two-Spirit Peoples, and women sex workers live in the intersections of multiple forms of structural violence (35–37). As a result of the intersectional stigma and violence, health and health service inequities are produced and reproduced (4,35,38,39). The COVID-19 pandemic further magnified existing health inequities and the Indigenous specific racism within the healthcare system (4,40,41). This thesis adds to the limited body of research on experiences of accessing routine healthcare during the COVID-19 pandemic among marginalized Indigenous cisgender and transgender women and Two-Spirits Peoples. This thesis also adds to the limited body of
research on experiences of vaccination and testing among a cohort of women identifying sex workers. Findings in this thesis support legislated calls to action outlined by foundational documents that highlight the critical importance of challenging and dismantling structural racism and stigma in health and social services that perpetuate violence against marginalized Indigenous cisgender and transgender women, Two-Spirit Peoples, and women sex workers. Findings also support calls to action to address structural factors that facilitate barriers to healthcare, COVID supports, safety, and well-being, including criminalization, police harassment, community-based violence, intimate partner violence, mental health, and food insecurity. This thesis addresses the critical need of culturally safe, sex work informed, trauma-informed, gender inclusive and Indigenous-led healthcare in the context of COVID-19 and beyond.
4.6. References


Appendix.

Calls to Action and Justice

Truth and Reconciliation Commission of Canada

19. We call upon the federal government, in consultation with Aboriginal peoples, to establish measurable goals to identify and close the gaps in health outcomes between Aboriginal and non-Aboriginal communities, and to publish annual progress reports and assess long term trends. Such efforts would focus on indicators such as: infant mortality, maternal health, suicide, mental health, addictions, life expectancy, birth rates, infant and child health issues, chronic diseases, illness and injury incidence, and the availability of appropriate health services (36).

BC Commissioned In Plain Sight Report

Recommendation 15: That the B.C. government, First Nations governing bodies and representative organizations, MNBC, the Provincial Health Officer and the Indigenous Health Officer develop a robust Indigenous pandemic response planning structure that addresses jurisdictional issues that have arisen in the context of COVID-19, and which upholds the standards of the UN Declaration (17).

National Inquiry into the Missing and Murdered Indigenous Women, Girls and 2SLGBTQQIA+ Peoples

3.1 We call upon all governments to ensure that the rights to health and wellness of Indigenous Peoples, and specifically of Indigenous women, girls, and 2SLGBTQQIA people, are recognized and protected on an equitable basis (40).

3.2 We call upon all governments to provide adequate, stable, equitable, and ongoing funding for Indigenous-centred and community-based health and wellness services that are accessible and culturally appropriate, and meet the health and wellness needs of Indigenous women, girls, and 2SLGBTQQIA people. The lack of health and
wellness services within Indigenous communities continues to force Indigenous women, girls, and 2SLGBTQQIA people to relocate in order to access care. Governments must ensure that health and wellness services are available and accessible within Indigenous communities and wherever Indigenous women, girls, and 2SLGBTQQIA people reside (40).

4.3 We call upon all governments to support programs and services for Indigenous women, girls, and 2SLGBTQQIA people in the sex industry to promote their safety and security. These programs must be designed and delivered in partnership with people who have lived experience in the sex industry. We call for stable and long term funding for these programs and services (40).

7.1 We call upon all governments and health service providers to recognize that Indigenous Peoples – First Nations, Inuit, and Métis, including 2SLGBTQQIA people – are the experts in caring for and healing themselves, and that health and wellness services are most effective when they are designed and delivered by the Indigenous Peoples they are supposed to serve, in a manner consistent with and grounded in the practices, world views, cultures, languages, and values of the diverse Inuit, Métis, and First Nations communities they serve (40).

7.2 We call upon all governments and health service providers to ensure that health and wellness services for Indigenous Peoples include supports for healing from all forms of unresolved trauma, including intergenerational, multigenerational, and complex trauma. Health and wellness programs addressing trauma should be Indigenous-led, or in partnership with Indigenous communities, and should not be limited in time or approaches (40).

15.6 Protect, support, and promote the safety of women, girls, and 2SLGBTQQIA people by acknowledging and respecting the value of every person and every community, as well as the right of Indigenous women, girls, and 2SLGBTQQIA people to generate their own, self-determined solutions (40).
United Nations Declaration of Rights of Indigenous Peoples

Article 22

1. Particular attention shall be paid to the rights and special needs of indigenous elders, women, youth, children and persons with disabilities in the implementation of this Declaration (25).

2. States shall take measures, in conjunction with indigenous peoples, to ensure that indigenous women and children enjoy the full protection and guarantees against all forms of violence and discrimination (25).

Article 24

1. Indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals. Indigenous individuals also have the right to access, without any discrimination, to all social and health services (25).

2. Indigenous individuals have an equal right to the enjoyment of the highest attainable standard of physical and mental health. States shall take the necessary steps with a view to achieving progressively the full realization of this right (25).