Gatekeeping Safe Supply: A Community-Engaged Qualitative Study of the Perspectives of People Who Use Drugs and Frontline Workers on the Barriers to Access, Uptake, and Retention of Prescribed Safe Supply

by

Sean O'Callaghan

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Declaration of Committee

Name:	**Sean O'Callaghan**
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Committee:	**Chair: John O'Neil** Professor, Health Sciences
	Will Small Supervisor Associate Professor, Health Sciences
	Kanna Hayashi Committee Member Associate Professor, Health Sciences
	Amanda Slaunwhite Examiner Assistant Professor, Population and Public Health University of British Columbia

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Abstract

Prescribed safe supply is an intervention intended to address the significant fatalities and harms associated with the unregulated drug poisoning crisis, through access to a regulated drug supply. As an emerging initiative, barriers to uptake and retention of prescribed safe supply are not fully known. This qualitative, community-engaged research investigated the perceptions of people who use drugs and frontline workers in Canada regarding participatory barriers to this intervention using in-depth interviews. Data analysis was guided by the 'risk environment' framework. Study findings document accessibility barriers (including limitations of the medical model, operational and regional issues, impacts of socio-structural disadvantage, regulatory contexts, and identity-specific concerns) and actionable considerations that may enhance intervention uptake and retention. To address these identified barriers, policymakers may consider reframing programs as public health (rather than medical) responses, including emphasizing key ethical standards of responsible public health practice in the provision of safe supply.

Keywords: safe supply; drug poisoning; overdose; people who use drugs; qualitative methods; risk environment

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List of Acronyms

BC	British Columbia
CAPUD	Canadian Association of People Who Use Drugs
CER	Community-Engaged Research
CRC	Community Research Committee
DULF	Drug User Liberation Front
iOAT	Injectable Opioid Agonist Treatment
ISS	Imagine Safe Supply
NAOMI	North American Opioid Medication Initiative
OAT	Opioid Agonist Treatment
OPS	Overdose Prevention Site
PWUD	People Who Use Drugs
PSS	Prescribed Safe Supply
SALOME	Study to Assess Long-Term Opioid Medication Effectiveness
SCS	Supervised Consumption Service
SIH	Supervised Injectable Heroin

Chapter 1.

Introduction

The drug poisoning crisis was first declared a public health emergency in British Columbia (BC) by provincial health officer, Dr. Perry Kendall, on April 14th, 2016. This public health crisis has been principally attributed to an unregulated and contaminated illicit drug supply, in which the synthetic opioid fentanyl and its analogues, along with other active components like benzodiazepines, are appearing unexpectedly, or in unknown quantities and varying potency. Over the past seven years, the prevalence of drug poisoning deaths has risen, largely unabated. In a national context, there were 36,442 drug poisoning deaths in Canada between January 2016 and December 2022 (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2023). The national drug poisoning mortality rate has risen dramatically following the outbreak of the COVID pandemic, as an average of 19 drug poisoning deaths occurred each day between April and June 2021, 1,720 total deaths, which represents a mortality rate 66% higher than observed between April and June 2019, 1,038 total deaths (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2023). The situation in BC reflects this national trend in increasing drug poisoning mortality rates, as the BC Coroners Service reported 2,272 drug poisoning deaths in the province throughout 2022, or 6.2 deaths each day, which represents the second deadliest year on record (BC Coroners Service, 2023). The mortality burden of the drug poisoning crisis in BC last year nearly matched that of 2021 (2,306 drug poisoning deaths) and represents a 28.5% increase to the 1,767 deaths recorded in 2020 (BC Coroners Service, 2023).

The severe impact of this public health emergency is contributed to by multiple intersecting crises that drive social and health inequities for people who use drugs (PWUD). Bonn, Palayew, et al. (2020) describe how concurrent emergencies related to the unregulated illicit drug supply, prohibition, poverty, housing precarity, and COVID have produced intense harms among PWUD in Canadian communities. For example, aspects of socioeconomic marginalization, such as the crimininalization of illicit drug use, resource disparities, and housing inequities, are strongly implicated in shaping both drug poisoning risks and the relative inaccessibility of services and supports intended to address drug use harms (van Draanen et al., 2023). The COVID pandemic was linked to

contextual outcomes associated with increased drug use risks among PWUD, including greater service disruptions, financial insecurity, and mental health harms (Frueh et al., 2023). These reported impacts were shaped by specific pandemic responses, such as physical distancing and quarantine measures and extensive service closures, implicated in contributing to an increased frequency of high risk drug use contexts and a corresponding increase in population-level overdose risk (Nguyen & Buxton, 2021).The effect of these multiple public health and structural emergencies in shaping the health and wellbeing of PWUD is further contextualized by the pervasiveness of various forms of social marginalization, such as drug use stigma (Bardwell et al., 2022; Tsai et al., 2019) and racism (Lavalley et al., 2018), that produce and reinforce social and health inequities among this population (van Draanen et al., 2023).

As this public health crisis deepens, PWUD, advocates, frontline healthcare professionals, and critical drug policy researchers advocate for the broad implementation of progressive public health responses, including access to a regulated, predictable drug supply in the form of safe supply (Bonn, Paleyew, et al., 2020; Dodd et al., 2022; Larson et al., 2022; Tyndall, 2020). As an intervention, safe supply is conceptualized by the Canadian Association of People Who Use Drugs (CAPUD) as an urgent response to address the longstanding consequences of prohibition-related drug policy, including the current extreme levels of drug poisoning morbidity and mortality, by facilitating access to a consistent, regulated drug supply of known quality, composition, and potency (Canadian Association of People Who Use Drugs, 2019). Several Canadian provinces are currently exploring, or have implemented, prescribed safe supply (PSS) programs – in which drug supply access is regulated by a prescriber like a physician or nurse-practitioner – to provide PWUD with access to a limited selection of opioids and other drugs (Glegg et al., 2022). Many of these programs are now undergoing evaluation to assess their impact and effectiveness. PWUD and frontline workers are key partners in conversations regarding safe supply, particularly in identifying accessibility barriers to these programs hindering program effectiveness and uptake that may be overlooked by people who do not have lived or living expertise of drug use. The program design and operation of drug use-related services often include features that make service utilization challenging, or unreasonably onerous (Ayon et al., 2018). There is currently limited research investigating the perspectives of PWUD and frontline workers with respect to participatory barriers impacting access to PSS programs for PWUD.

This research sought to address this gap through a community-engaged secondary analysis to examine the attitudes and perceptions of PWUD and frontline workers related to barriers to access, uptake, and retention of PSS programs for PWUD.

1.1. Research Questions, Aims, and Objectives

The purpose of this research was to investigate the following research question, and related aims and objectives:

- **Research Question:** What are the barriers to access, uptake, and retention of PSS programs for PWUD?[1]
    - Research Aim: Analysis of current barriers to access, uptake, and retention of PSS programs for PWUD.
        - Research Objective One: To explore individual- and program-related factors that create participatory barriers to PSS programs from the perspectives of both PWUD and frontline workers.
        - Research Objective Two: To analyze broader social and structural forces that create barriers to, and frame, individual participation in PSS programs for PWUD.
        - Research Objective Three: To generate recommendations to enhance the accessibility, uptake, and retention of PSS for PWUD and address current drivers of participatory barriers impacting this intervention.

These research objectives were pursued through a community-engaged, qualitative, secondary data analysis that considered the perspectives of both PWUD and frontline workers in relation to the research question. These perspectives were measured through a series of semi-structured interviews with PWUD and frontline workers that were accessed for the purposes of this secondary analysis, and this dataset is described thoroughly in Chapter 3 (Methods). The analysis completed throughout this research is grounded in, and guided by, Rhodes' influential work describing the 'risk

[1] This research initially included a second research question relevant to factors that facilitate access, uptake, and retention of PSS among PWUD. However, during data analysis it was decided (based on discussions with my supervisory committee and the Community Research Committee) to suspend the analysis and write-up of facilitating factors to manage a research scope that was in line with expectations associated with MPH theses. Final analysis and presentation of participatory facilitators will be pursued and presented in future.

environment', a theoretical framework (described in more detail in section 2.5) which characterizes the social, environmental, and structural contexts that frame drug use-related harms, and by extension experiences with interventions, like PSS, that seek to mitigate such harms (Rhodes, 2002). The community-engaged analysis completed for this research, that centred the perspectives of key populations relevant to the effective implementation of safe supply, is of practical importance to safe supply partners, including PWUD, frontline workers, prescribers, current and future safe supply programs, and all levels of government, for whom, in the context of the continued overwhelming morbidity and mortality associated with the unregulated drug poisoning crisis, the provision of a regulated drug supply should be considered a priority (Malinowska-Sempruch & Lohman, 2022).

Chapter 2.

Literature Review

Rising toxicity in the street drug supply has made the concept of safe supply a focal point among communities of PWUD, frontline organizations, public health and drug policy researchers, medical professionals, and health institutions (Csete & Elliott, 2021; Duthie et al., 2022; Humphreys et al., 2022; The Drug User Liberation Front & Vancouver Area Network of Drug Users, 2022). Although these actors employ similar language when speaking about a safe or 'safer' supply, the specific ideas denoted by these terms differ depending on the context. Therefore, it is important to establish clear definitions of the various safe supply models that will be referenced in this research. I will provide a definition for the general concept of safe supply as well as the two most frequently discussed operational models – prescribed (the medical model) and community-led (nonmedical) safe supply.

CAPUD define safe supply as "a legal and regulated supply of drugs with mind/body altering properties that traditionally have been accessible only through the illicit drug market" (Canadian Association of People Who Use Drugs, 2019, p.4). Safe supply is conceptualized to include access to drugs that are currently criminalized in Canada, like heroin, fentanyl, cocaine, and methamphetamine. CAPUD has identified several dispensing models for safe supply, with a core distinction separating medical and nonmedical regulation.

Within a prescribed, or medically regulated, model, individuals access a regulated drug supply through prescriptions from authorized prescribers, usually physicians (Canadian Association of People Who Use Drugs, 2019). Prescription-based models have historically been closely associated with treatment for opioid use disorder and have included options like Supervised Injectable Heroin (SIH) and some forms of injectable Opioid Agonist Treatment (iOAT) that provide drug options with mind/body altering effects like hydromorphone. This is an important distinction, as other forms of iOAT that provide methadone, buprenorphine/naloxone, and slow-release oral morphine are not considered to be safe supply by community partners and experts such as CAPUD, as these drugs do not produce the same mind/body altering effects associated

with other licit and illicit drugs (Canadian Association of People Who Use Drugs, 2019). This clarification has produced some tensions between PWUD and the medical community, as medications like slow-release oral morphine are currently included in the clinical guidance for prescribers as an appropriate and sufficient drug option within PSS (British Columbia Centre on Substance Use, 2022). Medically regulated models can include both supervised and unsupervised drug consumption and have seen limited implementation in select provinces including BC (British Columbia Centre on Substance Use, 2021, 2022), Ontario (Kolla et al., 2021), and Québec (Goyer et al., 2020). Regional variation in the operationalization of PSS across these provinces is characterized by contextual and programmatic differences, including when programs were first implemented – with the implementation of most programs in BC and Québec closely associated with the COVID pandemic context (British Columbia Centre on Substance Use, 2022; Goyer et al., 2020) while Safer Opioid Supply programs have existed in Ontario since 2016 (Kolla et al., 2021). The availability of specific drug options within PSS is another source of provincial variation. Although most safe supply prescribing in BC, Ontario, and Québec concerns hydromorphone prescriptions (British Columbia Centre on Substance Use, 2022; Goyer et al., 2020; Kolla et al., 2021;), provincial PSS guidance in BC and Québec includes select stimulant and benzodiazepine drug options (British Columbia Centre on Substance Use, 2022; Goyer et al., 2020) and several BC-based programs prescribe a larger range of opioid options including pharmaceutical formulations of heroin (Providence Health Care, n.d.) and fentanyl (Klaire et al., 2022; Victoria SAFER Initiative, 2022a).The current operationalization of PSS is frequently predicated on the assumption that drug use, and drug use harms, are medical issues that necessitate medical solutions. This assumption has been problematized by PWUD and critical drug policy researchers, who question whether a paradigm shift from criminalizing to medicalizing drug use will not perpetuate existing harms and inequities experienced by PWUD (S. Boyd et al., 2020; Greer & Ritter, 2020).

The other commonly discussed model, nonmedical safe supply, includes access to a regulated drug supply that is dispensed to individuals without a prescription (Canadian Association of People Who Use Drugs, 2019). Although these drugs could include pharmaceutical alternatives, this model is often discussed in relation to regulated access to currently criminalized drugs like fentanyl, heroin, cocaine, and

methamphetamine (Bonn, 2020). The concept of a nonmedical safe supply is rooted in drug user advocacy and the belief that a safe supply of drugs is an ethical and human rights imperative, and should prioritize the leadership, autonomy, and personal agency of PWUD and drug use communities in its operationalization (Beck McGreevy et al., 2022; Canadian Association of People Who Use Drugs, 2019). There are currently no legal means to obtain criminalized drugs through a nonmedical safe supply in Canada, but at least one drug user-led community organization has established an unsanctioned nonmedical safe supply program in Vancouver, BC. This organization, the Drug User Liberation Front (DULF), began by providing its members intermittently with drugs purchased via the internet and tested to ensure their quality and dosage (St. Denis, 2022). The DULF has organized a series of public demonstrations to demonstrate what a nonmedical safe supply could look like and to apply pressure on the provincial and federal governments to sanction and broadly implement this model. In July 2022, Health Canada officially denied the DULF's application for an exemption from the Controlled Drugs and Substances Act (1996) that would allow the group to formalize and perhaps expand its operation (Wyton, 2022a). The community group has since appealed this decision through a judicial review by the Supreme Court of Canada and has proceeded with the design and implementation of a comprehensive pilot of their nonmedical safe supply program (The Drug User Liberation Front and Vancouver Area Network of Drug Users, 2022). This pilot program, which includes a concurrent evaluation in collaboration with the BC Centre on Substance Use, currently provides consistent and low-barrier access to a supply of tested street drugs (cocaine, methamphetamine, and heroin) to a cohort of community members.

2.1. Safe or Safer Supply?

While the terms 'safe supply' and 'safer supply' are analogous and are often used interchangeably, there has been discussion within public and academic domains by PWUD, advocates, researchers, and policy makers regarding which term is appropriate. Proponents of the term 'safe supply' argue that this term emphasizes the toxicity and harms associated with a contaminated street drug supply relative to a regulated supply of drugs (Bonn, Touesnard, et al., 2020). However, some PWUD, as well as institutions like the provincial and federal governments, have begun to use the term 'safer supply' (Beck McGreevy et al., 2022; Health Canada, 2021). This alternate

term is intended to reflect that all drugs, even those of pharmaceutical-grade quality, are associated with some degree of risk, but proponents of the term ‘safe supply’ argue this qualification hinders advocacy efforts and draws focus away from the extreme toxicity of the street drug supply, with which any form of safe supply must be considered in relation to (Bonn, Touesnard, et al., 2020). For this research, the term ‘safe supply’ is used as this represents the collective preference of the research team, including the Community Research Committee (CRC) that co-created this work.

2.2. Safe Supply Expert Discourse

PSS remains a divisive issue in public and professional discourse. As drug poisoning mortality rates climb, drug policy researchers and medical experts continue to debate the need to implement and scale-up various models of safe supply, as well as the merit of this intervention to effectively address the harms stemming from the toxic unregulated street drug supply.

Safe supply proponents in these discussions, which consist of an array of experts including PWUD, advocates, frontline workers, healthcare professionals, and critical public health and drug policy researchers, argue that current policies rooted in prohibition, criminal justice, and abstinence-based ideology have contributed to the emergence and perpetuation of the drug poisoning crisis and call for the urgent expansion and implementation of both medical and nonmedical safe supply programs across Canada (Beck McGreevy et al., 2022; Bonn, Palayew, et al., 2020; Dodd et al., 2022; Kolla et al., 2022; Larson et al., 2022; Palis et al., 2022; Tyndall, 2020). These experts cite the immediate lifesaving impact of providing PWUD with a desired, reliable drug supply alternative to the poisoned street drug supply (Bonn, Palayew, et al., 2020). Proponents have cited the harms associated with other attempted solutions, such as increased efforts to control drug trafficking and implement coercive forms of drug treatment, and argue that the provision of safe supply represents an ethical and evidence-informed approach that is respectful of the human rights and dignity of PWUD (Tyndall, 2020).

Arguments from proponents of safe supply have drawn on both the lived expertise of PWUD as well as a body of qualitative (S. Boyd & NAOMI Patients Association, 2013; Ivsins et al., 2020; Jozaghi, 2014; Oviedo-Joekes et al., 2014) and

quantitative (Oviedo-Joekes et al., 2009, 2016; Strang et al., 2010) research evidence as well as early evaluation results from applied public health initiatives (Kolla et al., 2021). Proponents assert that PWUD have a right to interventions clinically proven to reduce harms and promote health (e.g., SIH and hydromorphone-based iOAT). In many cases, safe supply advocacy builds upon a regard for the lived expertise of PWUD as a valuable and powerful source of evidence in guiding public health and drug policy. This lived expertise includes decades of contributions, as research participants, researchers, and advocates, towards advancing drug user rights and securing safe supply (Beck McGreevy et al., 2022).

Some addictions medicine experts have taken a more measured approach to endorsing PSS, tempering this support with specific conditions or limitations they would impose upon its implementation (Duthie et al., 2022). For example, a commentary by a group of Alberta-based addictions medicine specialists viewed PSS to exist along a continuum of addiction management care that should be delivered only in supervised, clinical settings. These clinicians indicated that this type of prescribing should be considered a measure of last resort, to be pursued only when other first-line, evidence-based treatments for addiction have proven unsuccessful. This framing, which conflates the provision of safe supply with addiction management, has been challenged by advocates and critical scholars as a problematic association that muddles the true purpose of safe supply – which is not as a means of treating addiction, but of urgently responding to the increasingly toxic unregulated street drug supply (Wyton, 2022b).

Experts with concerns about safe supply, and those who have been the most vocal in public and professional discourses concerning this intervention, have primarily come from domains closely related to addiction medicine, prohibition, and abstinence-based treatment and recovery. These individuals question the validity of the evidence supporting PSS and argued that this type of prescribing represents a regression towards the irresponsible opioid prescribing trends that contributed to massive increases in exposure to prescription opioid-related harms and opioid use disorder in North America over the previous two decades (Bramham, 2022; Carroll, 2020). Further, some addictions medicine experts have stressed their concerns that PSS will exacerbate drug use-related harms and facilitate increased diversion of these prescription medications to community members for whom these prescriptions are not intended (Lam, 2021). One such expert stated that the drug decriminalization associated with some suggested

models of legal regulation and safe supply is associated with an increased prevalence of drug use-related harms; this expert stated that abstinence-focused treatment for substance use disorder is “the ultimate safe supply” (Carroll, 2020, p.561). Contrary to these concerns however, other critical scholars and medical experts have reported that there is no evidence to indicate that the provision of PSS is contributing to the ongoing trend of increasing drug toxicity deaths in Canada (Palis et al., 2022). Within a BC context, the opioid most prescribed by PSS programs, hydromorphone, continues to be detected at extremely low rates in drug toxicity deaths in the absence of fentanyl, less than 2%. This rate, which can be interpreted as a measure of the degree to which hydromorphone is driving drug poisoning mortality, has not changed since PSS programs were implemented in earnest following the outbreak of the pandemic in 2020 (Palis et al., 2022).

An assumption underlying some of the opposition directed toward safe supply, especially nonmedical models, is the notion that it is appropriate for medical systems to unilaterally address drug use and drug use harms. This belief represents a transition away from systems of prohibition and the criminalization of PWUD, which is important, but perpetuates existing structural inequities experienced by PWUD that diminish agency and personal autonomy and may reproduce many of the harms inherent to prohibition (Greer & Ritter, 2020). Dominant narratives in addictions medicine sometimes assume that reducing and eliminating an individual’s drug use is a necessary, and often sufficient, solution to improve the health and well-being of PWUD. Drug use cessation may represent an important care-related goal that is desired by some patients in accessing services to help mitigate drug use harms, but it is important to recognize the assumption that such a goal is universal or necessary to fostering positive social and health outcomes is not consistent with the lived reality of many PWUD (Ivsins & Yake, 2020). Although the research landscape characterizing known harms and risks associated with illicit drug use is well developed (Fischer et al., 2016), studies have also documented accounts from PWUD describing how currently criminalized drugs may be used to promote health (e.g., support mental health), foster social wellbeing (e.g., shape positive social experiences) and protect against adverse outcomes (e.g., mitigate the impacts of ineffective pain management) (Ivsins & Yake, 2020). Further, this assumption decontextualizes drug use and ignores how the socio-structural contexts that an

individual lives within may make it more difficult to cease drug use, and this cessation may not produce improvements in all health and social indicators.

2.3. Research Evidence Regarding Prescribed Safe Supply

Initial efforts to implement PSS in Canada were informed by a rich body of international research evidence (Blanken et al., 2010; Strang et al., 2010, 2015) as well as several foundational clinical trials conducted in Canada (Oviedo-Joekes et al., 2009, 2016) that investigated the effectiveness of SIH, a form of treatment which closely mirrors the current clinical operationalization of PSS. In an international context, results from a collection of European randomized controlled trials – which found SIH, in comparison to control groups receiving oral methadone maintenance treatment (MMT), to be associated with strong treatment retention rates and significant reductions in the use of unregulated street drugs among patients – have prompted some nations, such as Switzerland and the Netherlands, to mobilize SIH as a routine form of support regularly implemented in the care delivered to patients experiencing drug use harms (Strang et al., 2015). Research evidence produced within a Canadian context has demonstrated a similar picture regarding the efficacy of SIH but has not been associated with the same widespread clinical uptake or availability of the intervention due to political inaction and bureaucratic barriers (S. Boyd & NAOMI Patients Association, 2013).

Canadian clinical trials of SIH employed analogous methods and procedures to earlier European trials, highlighted by the randomization of individuals with severe opioid use disorder, for whom oral MMT was not effective, to various treatment conditions. In the first series of clinical trials, referred to as the North American Opiate Medication Initiative (NAOMI), the principal comparison was between the effectiveness of SIH and oral MMT among patients in two Canadian cities, Vancouver and Montreal (Oviedo-Joekes et al., 2009). Oral MMT has been regarded as the standard treatment for opioid dependence since the 1960s making it an ideal comparison in an exploratory trial of SIH (S. Boyd & NAOMI Patients Association, 2013). Results from the NAOMI trials demonstrated that SIH, relative to oral MMT, was associated with significantly greater treatment retention rates (87.8% vs. 54.1%) as well as a greater reduction of illicit drug use or other illegal activities (67% vs 47.7%) (Oviedo-Joekes et al., 2009). An important limitation to these clinical trials was the absence of an option for study participants to continue receiving SIH following the study's conclusion, an oversight that, according to

former NAOMI participants, violated Charter rights that should have guaranteed them sustained access to a medical treatment proven to be clinically effective (S. Boyd & NAOMI Patients Association, 2013).

Following the NAOMI trials, researchers completed a further analysis considering SIH in which they compared the effectiveness of SIH and supervised injectable hydromorphone, another opioid often used as an analgesic in treatment settings (Oviedo-Joekes et al., 2016). Part of the motivation in conducting these additional trials, referred to as the Study to Assess Longer-term Opioid Medication Effectiveness (SALOME), was to investigate the appropriateness of providing hydromorphone-based iOAT as an alternative to SIH in Canadian jurisdictions where heroin remains inaccessible due to political and regulatory barriers. Results from this clinical trial indicated injectable hydromorphone to be a noninferior alternative relative to injectable heroin, as there were no significant differences between the two drug options in treatment retention or reduction in illicit drug use, and injectable hydromorphone was associated with fewer related adverse events (5 compared to 24 seizures or overdose) all of which were responded to successfully by trained clinical nurses in both treatment conditions (Oviedo-Joekes et al., 2016). These findings provide robust clinical evidence to support current PSS programs operating across Canada, the majority of which provide access to a medically-regulated drug supply principally through prescriptions for hydromorphone.

The research landscape characterizing the ongoing implementation of PSS across Canada is still materializing, but the first studies considering these developments are beginning to emerge in publication. As part of a national environmental scan of currently available drug use-related services and supports, which included newly implemented PSS and risk mitigation initiatives, Glegg et al. (2022) reported on the rapid increase and expansion of PSS during the pandemic. In the first two months of the pandemic in Canada (March 1st to May 1st, 2020), the prevalence of programs providing PSS rose by 285%, from 21 to 60 sites. This development was associated with significant provincial clustering, with available PSS services overwhelmingly located in BC (56 sites) and Ontario (17 sites) with minimal implementation in the Atlantic provinces, Québec, and Alberta (8 sites total). In an assessment of various characteristics related to these services, researchers noted a range of operational settings (e.g., dedicated clinical space, within hospitals, mobile-based, and embedment

in existing services such as housing or shelter spaces) as well as a variety of available prescribed drug options, with opioids the only drug option shared across all 81 program sites.

Other researchers have begun to report on a range of outcome measures associated with PSS programs and initiatives across Canada, speaking to impacts such as the clinical efficacy of this form of prescribing, the associated social and health impacts for people receiving PSS, and impacts related to the functioning of provincial health systems. One of the earliest evaluations was a quantitative-focused assessment related to the operation of an Ontario-based program, the safer opioid supply program at the London InterCommunity Health Centre, in delivering access to prescription opioids as well as robust social and primary care supports. This evaluation, completed by Gomes et al. (2022), employed an interrupted time series analysis (comparing the year prior to and following initiation in the program) to consider changes in an array of outcome measures between program participants and a comparison control group of individuals with similar demographic and clinical characteristics. Findings from this analysis demonstrated that participation in the safer opioid supply program was associated with cost savings for provincial health systems (an estimated cost savings of $668 CAD per patient, excluding primary care costs) as well as significant reductions in the rates of emergency department usage by program participants (a reduction of nearly 14 emergency department visits per 100 individuals). Other Ontario-based researchers have reported on the impact of PSS on drug poisoning morbidity in the context of individuals living within an emergency shelter during the pandemic. This data, which was shared in the form of a case study, was collected during the temporary implementation of a shelter-based combination PSS and overdose prevention service that operated over a period of 26 days, the entire duration of a COVID-19 outbreak that was declared at an Ontario shelter. The operation of this service was associated with a significant decrease in the rate of non-fatal overdoses that occurred on-site at the shelter, a reduction from 0.93 to 0.17 non-fatal overdoses per 100 nights of shelter bed occupancy, as compared with the four weeks preceding the outbreak (Lew et al., 2022). The generalizability of these findings may need to be interpreted with caution however, as researchers noted the unique circumstances that contributed to this case study, including a COVID-related outbreak and the urgent and innovative collaboration from many community partners who were involved in the success of this shelter-based PSS program.

Shifting to the BC context, there is emerging research evidence reporting preliminary epidemiological outcomes associated with safe supply prescribing during the pandemic and levels of awareness of PSS programs among PWUD in the province. Evaluation findings released by the BC Centre for Disease Control, that described key outcomes related to safe supply prescribing associated with the province's Risk Mitigation Guidelines during the pandemic, reported no association between prescription alternatives provided through this measure (e.g., hydromorphone) and increases in illicit drug toxicity in the province (BC Centre for Disease Control, 2022), a finding that has also been repeatedly confirmed by the BC Coroners Service (2023) through their regular reporting of trends in illicit drug toxicity in the province. Another important outcome related to this prescribing in BC, awareness and uptake of this intervention among PWUD, was described by Moshkforoush et al. (2022) in a study that used cross-sectional data from an ongoing cohort and reported that, among 633 participants, just 47.7% reported any awareness of PSS related to the province's Risk Mitigation Guidelines, and nearly two-thirds indicated they had not attempted to access this type of prescribing yet. These results suggest a serious gap in the reach of PSS within drug use communities in BC, and an urgent need for efforts to improve education and awareness of this developing intervention.

Emerging research has also explored the qualitative impacts this prescribing has had on the health and wellbeing of PWUD accessing this intervention in BC. For example, self-reported outcomes related to the health and wellbeing of people receiving PSS have been shared by some programs like the Victoria SAFER Initiative, a safe supply program recognized as a leader and exemplar in the field (Medrano, 2022). Results from a September 2022 program survey completed with 39% of the program's active participants (with the program estimated to support between 75 and 100 active participants) showed that participants currently receiving PSS felt their participation was associated with a range of indicators of improved social and health outcomes including: greater capacity to mitigate drug use-related harms (75% of respondents), positive social and health outcomes (72% of respondents), reduced use of unregulated street drugs (90% of respondents), and greater connection to the umbrella of healthcare-related supports (more than 80% of respondents) (Victoria SAFER Initiative, 2022b). Another study considering the perspectives of individuals who accessed prescription alternatives through BC's Risk Mitigation Guidelines during the pandemic reported that reliable

access to a regulated drug supply was perceived to empower participants to exercise greater autonomy, reduce the pressure to undertake criminalized income-generating behaviours, and contribute to reductions in their risk of drug poisoning (McNeil et al., 2022). However, limitations in program prescribing practices, such as perceived inadequacies in available dosages and a guiding orientation from prescribers to use prescriptions to primarily prevent withdrawal, represented barriers to program effectiveness and contributed to some participants choosing to continue supplementing PSS with unregulated street drugs. The attention given to the perspectives and experiences of PWUD by these studies is important in the research landscape considering PSS. Regard from researchers and policy makers for PWUD as core partners and expert sources of information for informing and evaluating interventions relevant to communities of PWUD is vital but has historically often been neglected or done superficially. Some drug user advocates have identified that these issues have been reproduced by the current operationalization of PSS in BC, which is reported to not reflect the input or experiences of PWUD and to remain inaccessible and ineffective (McSheffrey, 2022).

Individuals in frontline and leadership positions involved in delivering PSS have echoed concerns with the way safe supply has been implemented across Canada. An assessment of national perspectives from safe supply professionals described how many providers feel that this current iteration fails to meet the needs of PWUD (Foreman-Mackey et al., 2022). Study participants discussed how, despite the rollout of PSS in several provinces, various factors related to prescriber hesitation, drug use stigma, and the politicized nature of safe supply and harm reduction have intersected to hinder implementation efforts and the potential of programs to meaningfully address the current extreme rates of drug poisoning mortality. These professional practice leaders join an array of critical public health and drug policy scholars, drug use advocates, and people with lived expertise of drug use in calling for provincial and national responses to this urgent crisis that are created by and for PWUD, including responses that extend above and beyond the implementation of a medically-regulated form of safe supply, such as the pursuit of drug decriminalization, community-based safe supply models, and the legal regulation of currently criminalized drugs (Foreman-Mackey et al., 2022).

2.4. Participatory Barriers to Prescribed Safe Supply

Researchers have investigated some aspects of PSS programs, and other examples of opioid medication-based programs like SIH and hydromorphone-specific iOAT that fall within the definition of PSS used in this research, that create participatory barriers for PWUD. The current literature generally describes barriers related to operational components that are present, or absent, in existing programs. As there is currently a lack of studies considering barriers specific to PSS, the identified participatory barriers were predominantly described by qualitative research investigating the experience of PWUD participating in SIH and hydromorphone-specific iOAT.

The most frequently mentioned barrier to these programs for PWUD is the lack of preferred drug option or dosage (Canadian Centre on Substance Use and Addiction, 2020; Fleming et al., 2020; Ivsins et al., 2020; Oviedo-Joekes et al., 2014). While this barrier included an inability to receive certain preferred opioids, a crucial gap was the inability of many individuals to receive stimulant alternatives through medically regulated pathways (Canadian Centre on Substance Use and Addiction, 2020; Fleming et al., 2020). Researchers described how people who use stimulants are largely being excluded from the programming offered by PSS programs, and from safe supply advocacy more broadly (Fleming et al., 2020).

Another category of participatory barriers related to operational concerns associated with program environments. These barriers included significant wait times (Ivsins et al., 2020), limited operating hours, and demanding dispensing schedules (Bardwell et al., 2023; S. Boyd & NAOMI Patients Association, 2013; Ivsins et al., 2020). SIH and hydromorphone-specific iOAT patients said that dispensing schedules did not sufficiently meet their needs as these requirements, which often necessitated that patients visit the clinic multiple times each day and submit to mandatory pre- and post-injection waiting periods of up to 30 minutes, made it difficult for patients to do anything else in their daily lives outside of their participation in programs (S. Boyd & NAOMI Patients Association, 2013; Ivsins et al., 2020). Researchers reported that changes to patient's injection routines, specifically supervised injections in new environments, were also identified as a participatory barrier, particularly for women (Oviedo-Joekes et al., 2014).

The absence of comprehensive, wrap-around supports, as well as specialized services for Black and Indigenous communities, women, and people who practice sex work, created further barriers to participation for PWUD (S. Boyd & NAOMI Patients Association, 2013; Canadian Centre on Substance Use and Addiction, 2020). Access to a prescribed drug supply was identified as insufficient to meet the needs of all PWUD, some of whom required robust, complementary supports like housing and financial assistance (S. Boyd & NAOMI Patients Association, 2013).

A final participatory barrier concerned the overall involvement of the medical system in PSS. In a series of Australian focus groups, PWUD expressed serious concern regarding the role of medical systems in perpetuating paternalism and diminished individual agency (Greer & Ritter, 2020). Participants said they felt marginalized and powerless within these systems, and the implementation of a drug supply system built upon medical regulation would reinforce existing structural inequities experienced by PWUD.

2.5. Prescribed Safe Supply and the Socio-Structural Drivers of Drug Poisonings

A core goal of PSS concerns addressing the drug poisoning risks inherent to an unregulated, toxic street drug supply by intervening to provide access to a regulated supply of pharmaceutical-grade drugs. Although intervention at the level of the drug supply environment is a crucial means of addressing drug poisoning risks, research literature has considered an array of other risk factors implicated in driving, or contributing to, the incidence of drug poisoning morbidity and mortality. This research literature considers how various socio-structural forces frame both drug use-related harms as well as participation in programs and interventions intended to mitigate these harms. For example, in an analysis of the barriers to a novel hydromorphone-specific iOAT program, researchers described how the barriers experienced by individual participants could not be fully understood outside the context of the socio-structural disadvantage that framed their lives (Ivsins et al., 2020). Structurally marginalized populations experience a disproportionate burden of drug use harms, and the oppressions of drug use stigma, criminalization, and racism exacerbate and perpetuate existing social and health inequities (Fleming et al., 2020). Recognition of the intersectional impact of these forms of marginalization, which includes chronic poverty

and housing instability, is necessary to both fully understand the participation of PWUD in drug use-related interventions like PSS and to design interventions that better meet the needs of this population.

Although the public health burden associated with the unregulated drug poisoning crisis has increasingly been in the media spotlight, institutional and political leaders remain hesitant or slow to respond to adapt the systemic response to this emergency. Provincial and federal responses have been consistent with historical trends in the scope of other harm reduction and public health interventions implemented in response to drug use-related harms and sequelae, which have overwhelmingly operated at the level of the individual (Rhodes, 2002). The interventions pursued, including overdose prevention (e.g., naloxone programs, safer drug use education, and supervised consumption services), treatment (e.g., MMT) and recovery programs, have all primarily sought to promote behavioural changes in PWUD to reduce preventable harms, including mitigating the risk of drug poisonings or overdose. While these interventions represent valuable components of a comprehensive response to this crisis, a tendency across the various levels of Canadian government to rely primarily on promoting individual-level behaviour change has ignored and obfuscated the contributing role of socio-structural forces in driving drug use-related harms, including drug poisoning deaths (Moore & Dietze, 2005; Ning & Csiernik, 2022).

Critical public health and drug policy researchers have described the intersectional impact that social, environmental, and structural contexts have in framing drug use-related harms at the individual level (Collins, Boyd, Cooper, et al., 2019; Moore & Dietze, 2005; Rhodes, 2002; Rhodes & Simic, 2005; Saloner et al., 2018; Touesnard et al., 2022). Building on Rhodes' (2002) seminal work defining the 'risk environment', these researchers have applied this framework to illustrate how complex interactions between individuals and their ecological contexts shape their experience of drug use-related risks. For example, an individual's risk of experiencing a drug poisoning event is not only shaped by their personal drug use behaviours (e.g., using opioids or employing injection or inhalation as a method of consumption) but also by social forces (e.g., pervasive stigma that makes an individual more likely to use drugs alone and not benefit from protective overdose prevention services) and structural forces (e.g., extreme variability in the local drug supply that produces significant fluctuations in the potency of available street drugs). Behavioural harm reduction interventions are undoubtedly

necessary and valuable, but an overreliance on these types of interventions ignores the relevant ecological contexts that may impede, or help facilitate, desired behaviour changes. Examining the drug poisoning crisis through a 'risk environment' lens is useful to both understand why current behavioural-focused interventions have been largely unsuccessful and to inform novel interventions (and improve existing ones) that are more responsive to the interplay of structural, social, and individual contexts that drive drug poisoning harms.

This review considers the role of five key socio-structural forces in driving drug poisoning harms among PWUD, all of which are relevant to the operation and effectiveness of PSS programs that seek to address these harms. These socio-structural forces include: 1) the unregulated drug supply environment, 2) drug use criminalization and enforcement, 3) drug use stigma, 4) racism and discrimination, and 5) economic and housing precarity.

Unregulated Drug Supply Environment

The unregulated drug supply environment, defined for this analysis as the unregulated street drug supply, is perhaps the most impactful structural driver of drug poisoning deaths in the current crisis. During the last decade, the unregulated drug supply environment in BC has undergone dramatic changes. Principal among these changes has been an explosion in the prevalence and ubiquity of the highly potent synthetic opioid fentanyl. Fentanyl and its related analogues have effectively supplanted heroin as the most widely available and desired opioid in the unregulated street drug supply (Krausz, et al., 2021). This monumental shift in the drug supply environment is identified as the leading driver of drug poisoning mortality today (Palis et al., 2022) and is reflected by consistent trends in drug poisoning mortality data, in which fentanyl, initially detected in only 4% of drug poisoning deaths in 2012, was identified in 86% of drug poisoning deaths in 2021 and 82% of deaths in 2022 (BC Coroners Service, 2023).

In combination with this market shift toward fentanyl within unregulated drug supply environments across Canada is the intensification throughout the pandemic of the increasingly commonplace use of contaminants or cutting agents to modify the weight or effects of street drugs. This trend, characterized by Russell et al. (2023), involves a diverse range of substances, such as tranquilizers, stimulants, and

antipsychotics, being added to and combined with existing street drugs like fentanyl, cocaine, and methamphetamine. The use of benzodiazepines as a cutting agent represents perhaps the greater risk for exacerbating the already extreme drug poisoning risks that are experienced by PWUD in the current drug supply environment. The use of street fentanyl that has been mixed with benzodiazepines, especially when this contamination is unexpected, is associated with significant risk of experiencing severe negative health consequences, including drug poisoning and death (Russell et al., 2023).

Researchers collaborating with the Vancouver Island Drug Checking Project, a drug checking service in Victoria, BC, have detailed the specific pathway by which this changing drug supply environment is driving drug poisoning deaths. Using an array of drug checking technologies, researchers reported on the chemical composition of 454 drug samples sourced from the unregulated street drug supply and analyzed between November 2020 and July 2021 (Larnder et al., 2022). This analysis identified fentanyl in 96% of samples believed to be opioids. Although samples of fentanyl had an average concentration of 9% there was significant variability in this concentration, with half of the tested samples exhibiting fentanyl concentrations ranging from 3.8% to 14.4%. Of particular concern to drug poisoning outcomes, nearly one in five of the samples analyzed had a high concentration of fentanyl, which was defined as more than double the average concentration of 9%, while a small subset of the samples, 2.4%, had a fentanyl concentration greater than 50%. Data from the BC Coroners Service (2023) has demonstrated a strong association between recent drug poisoning deaths and these extreme fentanyl concentrations. In addition, analysis identified that more than half of the tested samples contained an unexpected active ingredient. The most common additional additive was etizolam, a benzodiazepine analog, which appeared in 43% of samples. This combination of fentanyl and benzodiazepines, known colloquially as ‘benzo-dope’, is associated with an extreme risk of drug poisoning for those not intending to consume benzodiazepines along with their opioids (Palis et al., 2022; Ti & Tobias, 2021).

This drug checking-based analysis identified two principal sources of variability in BC’s street drug supply that are driving drug poisonings: variability in the concentration of fentanyl and variability in the specific active components included in street-based opioids (Larnder et al., 2022). Researchers concluded that drug poisoning deaths are not being driven by one-off ‘bad batches’ of street opioids, but rather by the consistent,

significant variability in fentanyl concentration and active components observed in the street drug supply over time (Larnder et al., 2022). These findings support the rationale for considering regulated drug supply interventions that, as a supply-side intervention, have a unique potential to address the toxicity and harms introduced by the extreme variability associated with an unregulated drug supply in a timely and urgent manner.

Consistent variability in the drug supply environment hinders the ability of PWUD to reliably understand the potency and type of drugs they are consuming. This informational deficit makes it exceptionally difficult to practice safer drug use and contributes to the incidence of drug poisonings (Wallace et al., 2021). This pervasive uncertainty regarding the potency and composition of street drugs undermines the capacity of PWUD to make informed decisions in their drug use and to practice personal harm reduction behaviours that directly mitigate the risk of drug poisoning. For example, PWUD have reported that knowing the specific concentration of their drugs would enable them to exercise caution if using a higher dose than they were accustomed to, such as by starting with smaller amounts, altering their method of consumption, or ensuring they use in protective social spaces (Wallace, et al., 2021). These strategies, which all contribute to reducing the risk of experiencing a fatal drug poisoning, are fundamentally disrupted by the unregulated nature of the current drug supply environment.

A final emergent trend in the drug supply environment across North America, currently predominantly impacting American street drug supply markets, is the presence of Xylazine, a tranquiliser intended for use in veterinary settings, as an unexpected contaminant among street opioids (J. Friedman et al., 2022). Xylazine is commonly detected in combination with fentanyl and is associated with high rates of drug poisoning mortality (Johnson et al., 2021) as well as serious soft tissue infections (Malayala et al., 2022). To date, Xylazine has not been detected in significant quantities in Canadian markets, but the long-term impact of this contaminant will need to be closely monitored and responded to should these regional drug supply dynamics shift in the years to come.

Drug Use Criminalization and Enforcement

Punitive practices related to drug law enforcement foster drug use-related stigma and create barriers to accessing drug use-related services and supports vital to reducing the risk of drug poisonings (Bonn, Palayew, et al., 2020; Hansen et al., 2022; Kolla et al.,

2022). Systems of enforcement further destabilize the street drug supply by removing consistent dealers and disrupting supply chains, creating greater potential for significant shifts in the day-to-day potency and composition of the street drug supply available to PWUD. These disruptions may result in drastic changes to the potency and quality of street-level drugs, such as shifts to producing smaller drug shipments at higher-than-normal concentrations to evade drug enforcement efforts by the state, a process described as the Iron Law of Prohibition (Cowan, 1986). In the current context of fentanyl, this pattern of enforcement and increased drug concentrations is associated with exacerbated drug poisoning mortality rates (BC Coroners Service, 2023).

Research by Butler et al. (2022) considered the experiences and perspectives of police officers in assessing the criminal justice system in which they are intrinsic actors, as well as the overall impact they feel this system has on PWUD and communities in Canada. Overall, study participants reported that the criminal justice system has contributed to a broad systemic failure to effectively support and meet the needs of PWUD. This systemic failure was understood to underly, and exacerbate, social and health inequities experienced by many PWUD, including housing instability, trauma, stigma, discrimination, and extreme poverty, factors closely associated with an increased risk of experiencing drug use-related harms, such as drug poisonings. These dynamics were perceived to ultimately result in many PWUD being driven toward further interactions with the criminal justice system, and a deepening of the very social and health inequities that in many cases produced these interactions. Police officers stated they did not feel well-positioned to respond to and meet the needs of PWUD, even as they are increasingly called upon to respond in situations involving PWUD which could perhaps be better handled by health or social service professionals.

This systemic failure, that the criminal justice system contributes to the worsening of social and health inequities among PWUD, is driven by specific law enforcement practices such as intense street-level policing within drug use communities. This form of policing, which is characterized by a heightened police presence and surveillance of PWUD, is associated with an increase in risk factors related to drug use harms, such as hurried injections and injecting in isolated environments hidden from public view (Small et al., 2006). Street-level police activities also impact the perceived, and embodied, accessibility of harm reduction services, such as overdose prevention sites (OPS), considered vital to protecting PWUD from drug poisoning morbidity and

mortality. PWUD have reported that the presence of police outside and nearby OPS is associated with greater mistrust and barriers to accessing these services, as well as other evidence-based harm reduction interventions like needle-exchange services (Small et al., 2006), and directly contributes to some individuals choosing to sometimes forego accessing OPS (Collins, Boyd, Mayer, et al., 2019). Another law enforcement practice associated with drug poisoning and overdose risk among PWUD is police-enforced area restrictions. This practice, which stems from criminal justice system involvement and involves prohibiting an individual from accessing certain geographic locations (i.e., specific addresses, street blocks, or neighbourhoods), creates further barriers to evidence-based services and supports, including OPS and other harm reduction interventions, by forcing individuals to risk arrest to access these services if they fall within restricted areas (Collins, Boyd, Mayer, et al., 2019). The impact of police-enforced area restrictions is concerning due to the geographical density of drug use-related services and supports in many settings across Canada; depending on the context, an individual receiving an area restriction for a specific neighbourhood could eliminate, or seriously complicate, their access to many supports vital to mitigating drug poisoning risks.

Incarceration is another outcome linked to the system of drug criminalization and enforcement that is strongly associated with drug poisoning risks (Hansen et al., 2022; Gan et al., 2021). Research drawing upon data from previously incarcerated individuals in the United States has demonstrated that individuals released from prisons were 50 to 129 times more likely to experience a fatal overdose or drug poisoning within two weeks of their release, compared to the general population (Binswanger et al., 2007; Ranapurwala et al., 2022). In BC, research conducted with 6,106 previously incarcerated individuals, released from prison between 2015 and 2017, also reported elevated risks of fatal overdose within the first two weeks post release, an incidence of fatal overdose of 38.8 (95% Confidence Interval 23.7-59.9) per 1000 person-years during this two-week period relative to 11.2 (95% Confidence Interval 9.2-13.5) for the duration of the full follow-up period (median of 1.6 years post-release) (Kinner et al., 2021). These findings are illustrative of the phenomenon of “altered risk” of drug poisoning morbidity and mortality that is frequently observed when individuals transition out of, or between, institutional settings like prisons or hospitals (Keen et al., 2021). A framework by Joudrey et al. (2019) is helpful in conceptualizing various pathways contributing to this

association, including how institutional transitions can result in disruptions to protective social networks, discontinuation or interruptions to healthcare and harm reduction service access, socioeconomic marginalization, and attenuations to respiratory tolerance, that shape the heightened risk of overdose harms experienced by many previously incarcerated individuals.

Drug Use Stigma

Drug use-related stigma is a multi-faceted social construct that powerfully shapes the daily lived experience and health outcomes of PWUD. The various forms of drug use-related stigma drive stereotypes regarding PWUD that manifest in specific discriminatory behaviours that reduce the accessibility and effectiveness of drug use-related services. Exposure to this type of stigma is a commonplace experience for PWUD living in communities of all sizes but has been described as an urgent and pressing concern particularly for individuals living in rural and remote communities (Bardwell et al., 2022). These settings, which have been noted to afford PWUD with less privacy and confidentiality in their daily lives compared to more urban settings, are associated with a pervasive experience of drug use-related stigma and surveillance from both the public and law enforcement. PWUD have reported the impact of these experiences in constraining the perceived accessibility of public settings, spaces one would be required to travel through to access any services and supports, as PWUD attempt to minimize their exposure to drug use-related discrimination (Bardwell et al., 2022).

This enacted stigma ultimately shapes structural stigma, or legislation and institutional policies that discriminate against PWUD (Tsai et al., 2019). Structural stigma normalizes and legitimizes interpersonal stigma and weakens the capacity of public health, medical, and harm reduction interventions to reduce drug poisoning harms. Examples of structural stigma include how drug use-related services and supports are regulated. For example, there are numerous regulatory barriers to the operation of SIH programs in Canada (Oviedo-Joekes et al., 2016) and the federal regulatory authority Health Canada continues to tightly control and restrict the capacity of prescribers to prescribe injectable heroin to patients (there are only two operational SIH clinics in the country) despite a rich body of international and Canadian research evidence supporting the efficacy of this practice (S. Boyd, 2021). This form of structural stigma has also

impacted harm reduction programs like supervised consumption sites (SCS), which are required to undergo an extensive application process to receive federal approval and are subject to strict federal operating regulations (Kennedy et al., 2019) that limit access and uptake. In the case of SCS, federal regulations prohibit certain methods of consumption (e.g., inhalation), drug use behaviours (e.g., peer-assisted injections) and staffing models (e.g., peers inside consumption rooms).

Women who use drugs have historically experienced a severe burden of structural discrimination and stigma, including the prejudicial enforcement of laws relating to sex work, drug use, and childcare (J. Boyd et al., 2022). Throughout this ongoing public health emergency, women who use drugs have experienced acute drug poisoning risks stemming from intersecting oppressions (e.g., gendered violence, racism, and white supremacy) and structural disadvantages (e.g., poverty, sex work criminalization, and the biased application of child protection services). Among women who use drugs, mothers are unduly subjected to heightened childcare-based surveillance and regulation (J. Boyd et al., 2022). Gendered drug use-specific stigma often characterizes mothers who use drugs as inadequate caregivers and serves to legitimize the increased involvement of legal and child protection services in the lives of these mothers and their families, such as through mandatory urine drug screening, incarceration, and custody loss. This custody loss, or the lingering threat of custody loss, contributes to mothers who use drugs sometimes employing higher-risk drug use behaviours (e.g., using alone to keep their drug use confidential or engaging in more frequent drug use to cope with the apprehension of children) that increases their risk of experiencing a drug poisoning (Thumath et al., 2021).

Structural discrimination also drives the risk of drug poisonings among women by hindering the accessibility of harm reduction services. Women who use drugs have described OPS, a prominent harm reduction intervention increasingly mobilized throughout the country, as fundamentally masculine spaces that constrain the usefulness of these services to women and contributes to some women choosing not to engage with this intervention (J. Boyd et al., 2018). This form of implicit structural discrimination, in which the experience of women is routinely overlooked in the design, implementation, and operation of some drug use-related services and supports, is an important factor shaping drug poisoning risks among women who use drugs.

Racism and Discrimination

Although all drug use communities in Canada have experienced severe harms from the ongoing drug poisoning crisis, racialized PWUD have been disproportionately impacted. A significant limitation of national data surveillance hubs reporting on trends in overdose-related harms, such as the one operated by the Public Health Agency of Canada (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2023), is the absence of population-level data related to overdose morbidity and mortality among racialized communities across Canada, such as African-Caribbean Black, First Nations, and Indigenous populations. Data reporting considering this racialized impact is, however, available for the province of BC due to important work being led by the province's First Nations Health Authority. In this provincial context, First Nations peoples - despite making up just 3.3% of BC's population - accounted for 13.1% of all drug poisoning deaths between 2016 and 2021 (First Nations Health Authority, 2021). More than 1,100 First Nations peoples have experienced a fatal drug poisoning since this crisis was officially declared a public health emergency in April 2016 (First Nations Health Authority, 2021). First Nations and Indigenous women and youth have been especially impacted by these harms relative to other residents in BC and across Canada. For example, women accounted for 37.5% of drug poisoning events among First Nations peoples, a proportion more than double the 18.6% associated with women in all other populations in BC (First Nations Health Authority, 2021). Among youth, young Indigenous PWUD experience a mortality rate 12.9 times greater than other young Canadians with the most common cause of death being an overdose, or drug poisoning (Jongbloed et al., 2017). A crucial limitation of this population-level drug poisoning data in BC is the exclusion of Inuit and Métis peoples from the reporting process – a shortcoming that likely contributes to an underestimation of the burden of the drug poisoning crisis among Indigenous Peoples in the province.

This inequitable drug poisoning burden is driven by the present, and historical, traumas perpetrated upon Indigenous Peoples across Canada in the name of colonization (Lavalley et al., 2018). These federal and provincial processes created, and continue to perpetuate, structures and institutions that purport to legitimize the social and legal discrimination of Indigenous Peoples (Lavalley et al., 2018). These structures and institutions include the educational, healthcare, child welfare, and criminal justice systems. The traumas and racialized discrimination produced by these structures

contribute to shaping drug poisoning harms experienced by Indigenous Peoples in Canada through several different pathways. For example, prejudicial enforcement of punitive drug laws that target Indigenous Peoples has been linked to an increase in drug poisonings (Lavalley et al., 2018). In addition, the operation of residential schools in the province, which included the state-led apprehension and abuse of Indigenous children, has been associated with numerous negative physical and mental health outcomes including depression, addictive behaviours, suicidality, and problematic substance use (Wilk et al., 2017). These various pathways are reflective of a growing body of literature in which critical public health scholars have identified institutionalized and structural racism as a key upstream determinant and driver of health inequities among racialized PWUD (S. Friedman et al., 2022).

Exacerbating this inequity for Indigenous Peoples in the province of BC is a pervasive culture of Indigenous-specific racism within the healthcare system. Documented by the independent review released in 2020, *In Plain Sight*, investigators describe the ever-present burden of Indigenous-specific racism across all levels of BC's healthcare systems (Turpel-Lafond, 2020). This report specifically identifies the impact this structural racism has in contributing to, and worsening, health inequities experienced by Indigenous Peoples. Applied to the drug poisoning crisis, this report helps to explain the significant barriers Indigenous PWUD face in both accessing, and benefitting from, various healthcare and harm reduction supports that are essential to mitigating drug poisoning risks, such as PSS, MMT, SCS, primary care, and recovery services. Although the province seeks to provide evidence-based services to reduce drug poisonings, a culture of ubiquitous Indigenous-specific racism crucially limits the capacity of Indigenous PWUD to realize benefits from these services.

Economic and Housing Precarity

Economic precarity integrally shapes the experience of PWUD in both accessing and benefitting from healthcare and harm reduction services related to reducing drug poisoning risks. Although one such service, drug checking, is a valuable tool in supporting safer drug use in the context of an unregulated and contaminated street drug supply, this service may have limited practical relevance to structurally disadvantaged PWUD. For individuals living in severe poverty, it is often not a realistic or feasible option to consistently engage these services or replace or discard drugs in which unexpected

active ingredients, or higher-than-normal concentrations of fentanyl, are detected (Bardwell et al., 2019; Fleming et al., 2020). Instead, a limited financial capacity often forces these individuals to simply contend with the potential harms associated with these discoveries, such as by employing protective behaviours like using in the presence of others to mitigate the significant risk of drug poisoning linked to extreme concentrations of fentanyl (BC Coroners Service, 2023). Participants in one study in Vancouver, BC indicated that their unwillingness to provide a sample for testing, which would be destroyed during testing, or to discard poisoned street drugs, directly stemmed from the significant investment of their limited economic resources that went in to initially securing those drugs (Bardwell, et al., 2019). For these individuals, recommendations to discard contaminated street drugs to reduce drug poisoning risks was inconsistent with their lived realities of extreme resource scarcity.

A similar, frequently overlooked relationship exists between housing precarity and drug poisonings (Doran et al., 2022). Housing precarity, or being unhoused, is strongly associated with an increased risk of drug poisoning (Fine et al., 2022; Park et al., 2018). Researchers investigating longitudinal drug poisoning trends among unhoused PWUD in Boston reported a substantial increase in fatal drug poisoning rates between 2003 and 2018 (Fine et al., 2022). Among this cohort of more than 60,000 adults, drug poisonings accounted for one in four of the 7,130 deaths that occurred throughout the observational period. Related research reported similar associations between unhoused status and non-fatal drug poisoning events. In this research, conducted with participants at a syringe exchange program in Baltimore, unhoused participants were more than three times as likely to have experienced a non-fatal drug poisoning in the previous 12 months compared to participants with housing (Park et al., 2018).

The association between housing precarity and drug poisoning risk operates across multiple pathways. For example, social and structural discrimination toward unhoused PWUD contributes to an increased likelihood of certain drug use behaviours associated with a greater risk of drug poisoning, such as rushed injections in isolated locations, like public washrooms, where prompt response in the event of an overdose is challenging (Doran et al., 2022). In addition, the frequent geographic destabilization of unhoused PWUD, resulting from municipal efforts to disrupt encampments, often necessitates movement to new neighbourhoods and locales which makes it difficult to

establish and maintain access to healthcare and harm reduction services (Doran et al., 2022). A lack of practical recourse following the use of drug checking services has also been reported among PWUD experiencing housing precarity. In a study conducted in the United States, researchers identified that unhoused PWUD were significantly less likely to discard drugs suspected to contain fentanyl, relative to PWUD with housing (Sherman et al., 2019). Researchers interpreted this finding as indicative of the relative inability of unhoused PWUD to replace those drugs, an inability principally driven by an overlap with resource scarcity and economic precarity.

The application of a 'risk environment' lens to the drug poisoning crisis is useful to appreciate the socio-structural forces currently driving drug poisoning harms among PWUD. These forces, including the drug supply environment, drug use criminalization, economic and housing precarity, and structural discrimination and racism, provide important context underscoring why BC's existing efforts to mitigate this crisis have largely been unsuccessful and drug poisoning mortality rates continue to rise. Provincial responses to the drug poisoning crisis, exemplified by multiple overdose prevention initiatives and attempts to improve access to treatment and recovery services, remain rooted in individual-level behavioural change that fails to address the contributing role of more upstream social and structural inequities that have created and perpetuated this public health emergency. In the absence of innovative solutions responsive to the contextual influences that have undermined previous responses to the drug poisoning crisis, such as by comprehensively addressing fundamental structural drivers of the crisis (such as the unregulated drug supply environment), this public health emergency will likely continue to worsen.

2.6. Research Rationale

PSS is an emergent public health intervention that is increasingly receiving attention from researchers. Although studies have begun to evaluate PSS in Canada there remains a pressing need for further qualitative contributions, especially from community-engaged research (CER) projects that are co-created by members of PWUD communities directly impacted by the toxic unregulated drug poisoning crisis. CER methods represent best practice for conducting research with structurally marginalized populations, like PWUD, and the research completed for this thesis drew extensively from these methods. This research was co-led by a CRC consisting of people with lived

and living expertise of drug use and frontline work, who were involved in designing this research and collaboratively engaged in data analysis and findings synthesis. This participatory involvement enhances the relevance of these findings to key collaborators and partners, including communities of PWUD and current PSS programs.

Additionally, much of the research investigating PSS (e.g., SIH clinical trials and research involving hydromorphone-specific iOAT programs) was conducted prior to the COVID pandemic. COVID has universally impacted our social, health, and economic experience. While these impacts have been experienced broadly, they have been severe in exacerbating inequities among marginalized populations. These inequities have contributed to an environment that has facilitated increased drug use-related harms, including dramatically increased rates of drug poisonings since March 2020 (BC Coroners Service, 2023; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2023). This research utilized a data set collected exclusively within the COVID context, making it highly relevant to informing current and future drug policy.

Further, research literature investigating the experience of PWUD in SIH, hydromorphone-specific iOAT, and PSS has primarily focused analysis on elements at the individual- and program-level (S. Boyd & NAOMI Patients Association, 2013; Canadian Centre on Substance Use and Addiction, 2020; Ivsins et al., 2020; Jozaghi, 2014; Oviedo-Joekes et al., 2014). More research is needed that applies an in-depth lens to the socio-structural forces, or risk environments, that frame the participation of PWUD in these programs. An understanding of the impact of these factors in relation to PSS will benefit from the targeted analysis included in this research.

Identifying the barriers to access, uptake, and retention of PSS, from the perspective of PWUD and frontline workers, represents a compelling research objective. In the context of a deadly drug poisoning crisis, it is essential that related interventions are informed by the lived expertise of people directly impacted, to ensure solutions are relevant, effective, and do not perpetuate or create new harms for PWUD. Canadian provinces are currently considering, implementing, and refining various PSS programs and this research has important implications for this ongoing work. This research addresses gaps in the existing literature through an analysis that: is timely and relevant to the COVID context; centres the impact of socio-structural forces in shaping the participation of PWUD in PSS; and employs a rigorous CER design. This research

prioritizes the meaningful involvement and contributions from people with lived and living expertise of drug use and seeks to mobilize the perspectives of PWUD and frontline workers to enhance the capacity of PSS programs to meet patient and community needs. Study findings are critical to the identification and management of participatory barriers that may be weakening the effectiveness of existing safe supply interventions to reduce drug poisoning harms.

Chapter 3.

Methods

3.1. Data Source

This research involved a secondary analysis of data collected by *Imagine Safe Supply* (ISS). ISS is an active qualitative research study, that I am a research team member with, that employed a robust CER design. This research design featured the leadership of a CRC consisting of five individuals with lived and living expertise of drug use and frontline work. The CRC included representation from the same four Canadian provinces sampled for the study – BC, Alberta, Ontario, and Québec. To date, the CRC has contributed to the project's research design, data collection, data analysis, and preliminary knowledge sharing activities. This same CRC was re-engaged to collaborate and produce the current research completed for this thesis.

ISS explored the thoughts and attitudes about participation in safe supply for PWUD and frontline workers. For the purposes of this secondary analysis, the study sample included 33 non-First Nations individuals who identified as either a PWUD or a frontline worker, with many participants identifying as both. The original sample included eight First Nations participants, but this data is being stewarded by the Thunderbird Partnership Foundation and was not included in the shared dataset (which is described in detail at the start of Chapter 4). The study achieved roughly equal participation from the four sampled provinces. All study participants completed a screening questionnaire, a survey, and a semi-structured interview by phone or videoconferencing. Interviews had an average duration of 90 minutes and were co-facilitated, including French language interviews in Québec, by a CRC member and a research associate/assistant. These interviews followed a semi-structured interview guide and interviewers were encouraged to explore unanticipated participant responses to generate rich research data. Interviews were audio-recorded, transcribed by a professional transcriptionist, and a three-letter identifier was assigned for each study participant using a random code generator. Interviews conducted in French underwent the same process but also included translation to English to facilitate data analysis.

The present study received previously deidentified interview transcripts, as well as screening and survey data, for all 33 non-First Nations participants via the secure, cloud storage system Simon Fraser University (SFU) Vault. Data remained in SFU Vault for the duration of the research. Any data downloaded for data analysis was held on a password protected laptop and will be deleted at the conclusion of the project.

Sampling and Recruitment Strategy

ISS utilized a purposive sampling strategy, including snowball and criterion sampling methods, to recruit the participant group. Purposive sampling is considered best practice for answering qualitative research questions in a manner that is efficient and practical (Patton, 2002). These various non-probabilistic sampling methods are uniquely suited to aid in recruiting prospective participants with a sufficient depth of knowledge related to the research topic who can make a valuable contribution in answering the relevant research questions (Patton, 2002). Qualitative-focused research questions, such as those guiding both ISS and the present research, primarily seek to produce a rigorous depth of knowledge in relation to a phenomenon of interest (Patton, 2002), making sampling methods capable of efficiently identifying individuals well-positioned to speak on that phenomenon of interest a necessity. Criterion and snowball sampling methods, when employed in combination, are ideal for identifying these types of information-rich participants in a feasible manner (Palinkas et al., 2015). The population of interest sampled for this research included people who use, or have used, street opioids or stimulants and/or frontline workers actively engaged in supporting PWUD and drug use communities.

Inclusion and Exclusion Criteria

The ISS sampling strategy included the following inclusion criteria:

- Participant must reside in BC, Alberta, Ontario, or Québec;
- Participant must be at least 18 years old;
- Participant must be a person who currently or previously used opioids and/or stimulants, or currently works as a frontline worker supporting PWUD;
- Participants who identify as a PWUD must have experience with stimulant and/or opioid use.

The ISS sampling strategy included the following exclusion criteria:

- Participants who identify as a PWUD will be excluded if:
    - The frequency of current or previous drug use is less than once per month;
    - The duration of current or previous drug use is less than one year.
- Participants who identify as a frontline worker will be excluded if:
    - The frequency of frontline work with PWUD is less than 10 hours per week;
    - The duration of frontline work with PWUD is less than one year.

Inclusive Sampling Strategy

To ensure the project's sampling strategy was responsive to the disproportionate impact of drug use-related harms among priority demographic groups in Canada (e.g., women, youth, Indigenous Peoples, 2S/LGBTIQ+, and gender diverse individuals) (Strike et al., 2021), principles related to Gender Based Analysis Plus and Sex and Gender Equity in Research (SAGER) guidelines were employed (Heidari et al., 2016; Women and Gender Equality Canada, 2021). To foster greater equity and inclusion in recruitment, the following demographic sampling goals were established to promote recruitment of a suitably diverse sample:

- PWUD
    - ≥ 50% people who currently, or previously, used drugs.
- Population Density
    - 50% from municipalities > 500,000 population;
    - 50% from municipalities < 500,000 population.
- Age
    - 50% < 35 years of age;
    - 50% > 35 years of age.
- Gender & Sexual Orientation
    - ≥ 50% women or gender diverse individuals;

- ≥ 15% 2S/LGBTIQ+.

- Race & Ethnicity
  - ≥ 15% First Nations, Inuit, and/or Métis;
  - ≥ 15% Black, African-Canadian Black, and/or African-Caribbean Black;
  - ≥ 25% Persons of Colour (including Black, African-Canadian Black, and/or African-Caribbean Black).

In addition, efforts were taken by researchers to assign research team members to data collection with participants who identify with similar, shared demographic subgroups (e.g., related to race, gender, or 2S/LGBTIQ+ status) to help promote a more culturally sensitive and inclusive research process.

Recruitment Procedures

Participant recruitment utilized criterion and snowball sampling[2] methods in collaboration with CRC members and frontline organization partners across the four provinces included in sampling. The types of frontline organizations and services engaged as recruitment partners for this research included drug user groups and unions, harm reduction organizations, SCS, PSS programs, organizations providing social services and healthcare, and HIV-specific services and supports. Recruitment materials distributed through these networks included physical and digital versions of a recruitment flyer. Recruitment processes carried out by research team members occurred only once potential participants had made personal contact with the research team through the email or phone number included on the recruitment flyer.

3.2. Data Analysis Procedures

The present research adapted participatory qualitative data analysis methods from the DEPICT model (Flicker & Nixon, 2015). This CER method emphasizes a

[2] Snowball sampling involved asking study participants to assist with identifying other potentially suitable individuals to participate in the study. This was particularly useful in sampling settings where other recruitment efforts showed minimal success. Snowball sampling assisted the research team with identifying networks of individuals (that otherwise would have been difficult to connect with) suitable to participate in the research.

democratic approach to qualitative data analysis that meaningfully includes perspectives from diverse community partners. This data analysis is intended to produce more detailed and community-relevant understandings of complex social and health problems. The DEPICT model includes six sequential stages described below:

A. Dynamic reading – transcripts are assigned to each team member. Team members inductively identify key ideas and record notes based on their reading of the transcripts.

B. Engaged codebook development – team arrives at a consensus on key categories for organizing the data. An iterative process is followed to refine the codebook as necessary.

C. Participatory coding – a selection of transcripts are assigned to each research team member and these transcripts are reviewed and coded using the codebook.

D. Inclusive reviewing and summarizing of categories – team reviews quotes included in each coded category and summarizes the key ideas, quotes, and areas of disagreement.

E. Collaborative analyzing – team meets to review data summaries, discuss new understandings informed by this data, and identify key findings to share externally.

F. Translating – team meets to collaboratively establish a knowledge translation plan.

Indicators

The qualitative data analysis procedure completed in this research included careful attention to a range of indicators considered pertinent to fulfilling the established research objectives. A non-exhaustive selection of these indicators, and the relevant research objectives, are described below:

Research Objective 1: To explore individual- and program-related factors that create barriers to participation in PSS programs for PWUD.

1. Discussion of accessibility and usability barriers that exist for current or potential PSS programs.

2. Discussion of the types of drugs currently available in connection with currently operating PSS programs.

3. Discussion of the location and interior/exterior spaces associated with PSS programs.

4. Discussion of current eligibility criteria associated with enrollment in PSS programs.

Research Objective 2: To analyze broader social and structural forces that create barriers to, and frame, individual participation in PSS programs for PWUD.

1. Perceptions of social and structural forces that create, or impact, participatory barriers to current or potential PSS programs for PWUD.

2. Perceptions of the needs, concerns, and actions of PWUD and drug use communities.

3. Perspectives about drug use-specific stigma and discrimination.

4. Discussion of the needs, concerns, and experiences of Black, African-Canadian Black, and/or African-Caribbean Black communities.

5. Discussion of the needs, concerns, and experiences of First Nations, Inuit, and Métis communities.

6. Discussion of aspects related to, and impacts of, policing, incarceration, and criminalization.

Research Objective 3: To generate recommendations to make PSS more accessible and effective for PWUD and address current drivers of participatory barriers within this intervention.

1. Discussion of desired drug options in connection with a safer supply of drugs.

2. Discussion of desired drug dosages in connection with a safer supply of drugs.

3. Discussion of desired methods of consumption in connection with a safer supply of drugs.

4. Discussion of ideal locations, design of internal spaces, and design of public-facing aspects of desired safer supply program locations.

5. Discussion of desired methods of pickup and delivery in connection with a safer supply of drugs.

6. Discussion of desired eligibility criteria necessary to access a safer supply of drugs.

7. Discussion of needed forms of education and training for providers and prescribers involved in safer supply programs.

8. Discussion of confidentiality and anonymity in connection to a safer supply of drugs.

3.3. Community Research Committee Engagement Procedures

CRC members served in an expert advisory and research role in the present research and were not research participants. The participation strategy for the CRC was directly adapted from the DEPICT model described in section 3.2 (Flicker & Nixon, 2015). CRC members received $50 per hour for their work in this research. The CRC was paid for their work as independent contractors through SFU's internal financial systems. Assistance with these procedures was provided by Erin Howley, SFU collaborator and Senior Research Associate with ISS. The present research was funded through internal funds, in the form of a research award, received from SFU's Graduate and Postdoctoral Studies department to cover research expenses.

Each CRC member completed 14 hours of research-related work. This time was split between individual data analysis work, attendance at six facilitated engagement sessions (facilitation outlines for these sessions are presented in Appendix A), and two individual meetings with the student lead. These facilitated engagement sessions were led by the student lead and included three key objectives:

A. Data validation – reviewed raw data and data summaries with the CRC to discuss interpretations and potential discrepancies in the interpretation of the data.

B. Identification of key themes – presented narrative summaries of key coded categories to review with the CRC and identify core themes and areas of attention.

C. Axial coding and finding synthesis – the research team, including the CRC, reviewed key themes and collaboratively discussed interpretations to determine the structure of the study findings and produce a visual output of the axial coding process (Appendix B).

3.4. Justification of Research Methods

CER methods were exceptionally suited to addressing the objectives of this thesis. These methods, applied rigorously and completely within a research project, represent best practice for conducting research with disadvantaged and marginalized populations (Damon et al., 2017). Historically, PWUD have been over-researched and researched *on* using research methods that frequently perpetuate stigma and power imbalances. Non-participatory methods often reinforce existing social and structural inequities, diminish community agency, and produce findings of limited practical relevance to research participants and their communities (Boilevin et al., 2019). The careful application of CER methods intends to avoid these harms by actively developing research capacity among community members and empowering all research team members to meaningfully contribute and engage in the full scope of research activities, including the research design, data collection, data analysis, and knowledge sharing.

The CER methodology that was applied for this thesis was also responsive to the research-based participatory principles and values that have been outlined by activists and researchers with lived expertise of drug use, including *Research 101: A Manifesto for Ethical Research in the Downtown Eastside* and the 2005 report *"Nothing About Us Without Us": Greater, Meaningful Involvement of People Who Use Illegal Drugs* (Boilevin et al., 2019; Canadian HIV/AIDS Legal Network, 2005). These works caution against a pattern of exclusion and tokenistic non-participation that continues to dominate many interactions and collaborations between researchers, policy makers, and PWUD communities. Even within research projects that seek to apply CER principles and methodology, researchers with lived expertise have encountered power imbalances and disconnects as to how decisions are made regarding core elements of the research design and process (Simon et al., 2021).

Rather than yielding to the inevitability that these harmful research practices and dynamics will continue, drug user activists and researchers with lived expertise of drug use have called for a reorientation as to how PWUD communities are engaged by researchers in the production of research, policies, and interventions (Boilevin et al., 2019; Canadian HIV/AIDS Legal Network, 2005; Simon et al., 2021). These calls for action include the provision of comprehensive support, training, and financial compensation as part of any participation or collaboration between PWUD and

researchers, in the interest of fostering more equitable participation and partnerships. Other recommendations include engaging in a more active partnership with community researchers throughout the entire research process, including the development of research questions, providing direct access to research data, and collaboratively making decisions regarding research findings and how findings will be shared externally (Simon et al., 2021).

The capacity building, engagement, and partnership that was built together with the CRC for this thesis was intended to honour the recommendations outlined above. An important component of this community-engaged design was a commitment to remain flexible and responsive to the needs of the CRC. Following through on this commitment included a variety of modifications and adaptations that became necessary throughout the research process including:

- Adjusted the format and length of facilitated data analysis sessions based on individual feedback to increase accessibility (reduced from two hours to 90 minutes per session)
- Adapted the content and method of data validation based on group feedback to provide CRC members with more access to the data and greater context for each quote being interpreted
- Modified data analysis procedures based on group feedback so that CRC members selected what codes were prioritized and received the most time and attention during axial coding
- Developed a plan of action, based on group discussions and described further in section 3.5, to implement specific procedures in the analysis and reporting of data pertaining to racialized populations that prioritizes the leadership of CRC members who self-identify as members of the communities and populations most impacted by this data, to respond to concerns of identity and representation
- Navigated absences from facilitated group sessions through individual follow-up sessions to brief individuals on the group's progress, obtain and incorporate feedback on any work completed in their absence, and promote their continued participation

3.5. Data Specific to Racialized Communities

Concerning data included in the dataset that was specific to the experience of racialized PWUD participating in PSS, the research team determined that, to do justice to the experiences and barriers experienced by these racialized communities, a research

team member who personally identifies as a member of these racialized groups should lead the analysis and reporting on material pertaining to these communities. For example, a research team member who identifies as Indigenous will lead the analysis and reporting on material pertaining to First Nations, Métis, and Indigenous communities and a second research team member who identifies as a member of the African Caribbean Black community will lead the work concerning the experiences of this community. This methodological approach is informed by frameworks describing how the tools and principles of Critical Race Theory, such as attention to race consciousness and the centring of the experiences and knowledge of marginalized groups as a guiding orientation within theory and discourse, may be adapted and implemented in the practice of public health research to promote race equity and mitigate reproducing and reinforcing structural racism in the research process (Ford & Airhihenbuwa, 2010). Given the temporal and funding constraints associated with this thesis, and the considerable resources required to rigorously complete this targeted analysis led by a CRC member, analysis and reporting of the experiences of African Caribbean Black and First Nations, Métis, and Indigenous communities in participating in PSS programs will be completed concurrently, but separately, from this manuscript. The outcomes of this targeted analysis will be developed into knowledge translation materials that are consistent with the priorities of the CRC member leading each analysis.

3.6. Positionality Statement

I consider qualitative, CER methods to represent best practice in investigating qualitative research questions while being attentive to community interests, especially when conducting research with marginalized communities, such as with PWUD, or when investigating research topics that have great relevance to these communities. These research methods act as a necessary complement to other qualitative and quantitative methods, providing crucial social and structural context and community collaboration to supplement more epidemiological lines of inquiry that sometimes decontextualize research questions and objectives. CER methods are also vital in creating space for people with lived expertise of the research topic to directly contribute to creating research that is relevant and useful to their communities. This position contributed to the methodology chosen for this research, including engagement of a CRC of people with lived and living expertise of drug use and frontline work who collaborated to co-create

this research. As a millennial, white, male, Canadian, graduate student who is an outsider to PWUD communities, I felt a research design that did not centre a diverse array of perspectives from within these communities would be less effective in achieving the goals set out by this research.

My perspectives on both safe supply and the unregulated drug poisoning crisis have been shaped by an array of important sources, including the perspectives and advocacy work of key drug user advocates and allies, critical drug policy research utilizing both qualitative and quantitative methodology, and my personal professional experience working in harm reduction. Stemming from these perspectives and experiences, I support the urgency of pursuing comprehensive and holistic responses to the drug poisoning crisis that vastly exceed what is currently being done both provincially and federally. I believe it is necessary that solutions pursued at all levels of government to address this public health emergency are responsive to, and informed by, the lived expertise of PWUD communities. These responses should include interventions with scopes ranging from the individual-, community-, and structural-levels to achieve sustainable systemic change in how drug poisonings and other drug use-related harms are viewed and responded to. These interventions should include access to sterile drug use supplies, SCS and OPS, drug checking services, drug use treatments (e.g., OAT), detox services, recovery programs, supportive housing, primary care, mental health supports, culturally-relevant programs and services, employment programs, life skills training, high school-level and post-secondary education, and research training programs. This comprehensive response should also include broader structural and systemic changes, such as the decriminalization of personal drug use, legalization and regulation of currently criminalized drugs (through both medical regulation and community-based models), responses to the ongoing housing crisis (e.g., expansion of housing-first programs), and fulfilment of the calls to action identified by the Truth and Reconciliation Commission of Canada.

My perspectives are further shaped by my experience being employed as a community harm reduction worker in the Downtown Eastside community of Vancouver, BC. This role had a significant impact in motivating my research interests concerning public health, drug policy, safe supply, and mental health, as well as my decision to pursue a Master of Public Health and complete this thesis. This experience helped to make explicit the profound social and structural inequities experienced by many

marginalized PWUD and the absolute necessity of centering the perspectives of people with lived expertise of drug use in efforts to mitigate and address these longstanding inequities. I acknowledge that these positions and attitudes have influenced the analysis completed in this research – however, I believe this influence has added to this research's relevance, validity, and depth.

Finally, I recognize the impact to the analysis completed for this research resulting from my own public health-focused training (and the significant public health-related research expertise of my supervisory committee that contributed to the guidance and further training I received in completing this thesis). The decision to apply an analytical lens rooted in public health was a subjective decision that was, in part, related to my training and the guidance from my supervisory committee (as well as the reality that the unregulated drug poisoning crisis has been regarded as a public health emergency since 2016). There are other valid analytical frameworks and lenses that may have been applied to this research topic to orient the analysis, presentation of findings, and discussion of implications (such as abolitionist or decolonization frameworks or human rights-based approaches). These other methods may have produced analogous, complementary, or contrasting policy implications for PSS compared to those outlined by this thesis, and may represent important methods of inquiry for consideration in future research on this topic.

Chapter 4.

Findings

Table 1. Participant demographics (n = 33)

Participant characteristics	n (% of participants)
Age	
Mean	40
Range	25-62 years
Gender	
Gender Fluid	1 (3%)
Cisgender Women	19 (57.6%)
Cisgender Men	13 (39.4%)
Province	
Alberta	6 (18.2%)
British Columbia	8 (24.2%)
Ontario	12 (36.4%)
Québec	7 (21.2%)
Population Size (Of Town Participant Resides In)	
0 - 49,999	5 (15.1%)
50,000 – 499,999	9 (27.3%)
> 500,000	19 (57.6%)
Priority Subgroups (*)	
African-Canadian or African-Caribbean Black	4 (12.1%)
Indigenous, Métis, or Inuit	6 (18.2%)
Person of Colour	4 (12.1%)
Unhoused	3 (9.1%)
Gender or Sexually Diverse (2S/LGBTIQ+)	10 (30.3%)
Participant Identities	
Person Who Uses Drugs (PWUD)	3 (9.1%)
Frontline Worker	7 (21.2%)
Both PWUD & Frontline Worker	23 (69.7%)
Agonist Treatment Participation (Past 3 Years) (*)	
Opioid Agonist Treatment	15 (45.5%)
Injectable Opioid Agonist Treatment	4 (12.1%)
Stimulant Agonist Replacement	3 (9.1%)
Safe Supply Participation (Past 3 Years) (*)	
Prescribed Safe Supply (Not Agonist Treatment)	13 (39.4%)
Buyer's Club or Community Network	7 (21.2%)

* Participants were able to select multiple responses

In total, 33 participants completed in-depth interviews included in this study. While the sampling strategy intended to yield roughly equal representation from the sampled provinces, recruitment challenges in Alberta (n=6) and Québec (n=7) resulted in a slightly higher proportion of participants being sampled in Ontario (n=12) and British Columbia (n=8). This participant sample included diverse representation from important sub-populations and demographics that remain a priority for critical drug policy and health equity research, including: people living in rural, remote, and/or small towns (n=5), Black and/or African-Caribbean Black individuals (n=4), Indigenous, Métis, or Inuit Persons (n=6), people who are gender and/or sexually diverse (n=10), and people who are unhoused (n=3). Of the 30 participants who identified as a frontline worker, some key frontline occupational roles held by participants (which were not mutually exclusive) were harm reduction peer support worker (n=23), outreach worker (n=21), and street and/or community nurse (n=3). Nearly half of the participants included in this research had experience with OAT in the previous three years (n=15) and more than a third had experience with PSS (n=13). Although the purposive sampling of this research was not built around direct participation in PSS, this sample is appropriate and suitable for the objectives of this study as participants displayed relatively high levels of participation in both OAT and PSS and demonstrated sufficient levels of expertise and experience with the phenomenon of interest. Further, as PWUD and frontline workers, all members of this participant sample represent core populations of interest to safe supply practice and policymaking and therefore likely hold perspectives and experiences that are relevant to the effective development and evaluation of safe supply.

4.1. Limitations of the Medical Model

Participants identified important limitations associated with the medicalization of PSS that disrupted access, uptake, and retention of this intervention for many patients. As one participant summarized, “The medical model. The medical practitioners are the gate keepers of who gets to access safe supply. It’s one of the biggest [challenges]” (Participant DED, frontline worker). Within discussions of the limitations of the medical model, seven subthemes were identified including: i) having to perform, audition and fit a mold, ii) disregard for patient drug use preferences and expertise, iii) restrictive perspectives on diversion, iv) the relationship between stigma, medical interactions, and preventable harms, v) interference and pressure to enroll in OAT, vi) problematic power

dynamics between patients and prescribers, and vii) hesitation or unwillingness from prescribers to participate in PSS.

Having to Perform, Audition, or Fit a Mold

A fundamental limitation associated with medical safe supply models was the experience that people who use drugs (PWUD) must perform and audition in their interactions with safe supply prescribers and providers to gain entry to programs and receive prescriptions. Participants indicated they were compelled to convince prescribers that they were deserving patients suitable to access safe supply and other forms of care, a dynamic participants felt contributed to antagonistic and inequitable healthcare relationships. Participants characterized these experiences as the status quo for most PWUD when engaging with the healthcare system and underscored why some participants felt the medical model was an unacceptable option for safe supply.

> If you come from a community where you have to ask permission for your humanity all the time, every time you're asking for the help you need, that has an impact. It's not necessarily a good impact. And it's one of the reasons why I believe safe supply needs to be, kind of kick it out of the hands of health care people. It needs to be actually out of the hands of the medical system. That is utterly my belief. Because every interaction that people have with the health care system as it is currently, it's very often an audition. You know, this is what I need, and there can get to be a kind of an antagonistic relationship that happens. Do you deserve this? My help, my attention […] And I honestly think for safe supply that having prescribers, as the intermediary, won't do. (Participant DFW, PWUD and frontline worker)

Building on this notion of performative interactions between PWUD and healthcare providers, participants described highly clinical eligibility criteria that defined the specific type of patient considered suitable by PSS programs and regulators to receive safe supply. To access programs, participants shared how they were required to demonstrate to prescribers that they (or clients they were supporting) adequately fit within the 'mold' of an ideal safe supply patient constructed by prescribing guidelines and practice. Participants regularly described programs that required eligible patients to meet criteria intended to characterize an individual's 'vulnerability' and resultant deservedness of access to a regulated drug supply. These criteria included the perception, on the part of the prescriber, that an individual was disadvantaged or marginalized (e.g., unhoused), at significant risk for drug use harms (e.g., engaging in

high frequency or intensity drug use), and/or met the criteria to receive a substance use disorder diagnosis. One participant, employed as a nurse within a PSS program, recounted an experience in which they received pushback from the program's prescriber on enrolling an individual in the program because the circumstances of that patient (who was housed and received modest financial support from their parents) challenged notions of disadvantage prioritized by the program's eligibility criteria:

> I did an intake on somebody once and our doctor almost said no […] because she had a home, because her parents sent her enough money just to make rent. Because she had that house, she didn't meet this vulnerable criteria […] We really pushed on that and were able to do it… (Participant DED, frontline worker)

Another component of the 'mold' individuals were expected to fit within to access PSS was demonstrating a receptiveness toward treatment and/or a desire to reduce one's use of unregulated drugs. Participants described how some PSS programs targeted individuals who were currently receiving, or had previously attempted OAT, or indicated a desire to be abstinent. This criteria was context dependent as some participants indicated their local programs had recently removed treatment-related requirements to broaden access, while other participants described programs that had just recently shifted to require concurrent enrollment in OAT to access any form of safe supply prescribing.

> Before we were […] able to access the safe supply drugs without having to take methadone or Suboxone® [buprenorphine/naloxone], if they didn't want to. But now they've changed it that you have to do both [agonist treatment and PSS]. (Participant DED, frontline worker)

Individuals who did not neatly fit within this patient 'mold' (e.g., satisfying notions of intense disadvantage) shared that they experienced difficulties accessing PSS, or were entirely unable to do so. Participants shared accounts illustrative of this phenomenon, describing experiences with safe supply prescribers and programs across three provinces where an individual's personal circumstances (e.g., being housed or receiving material supports from family) and patient history (e.g., experiencing success with OAT or exhibiting minimal or no history of experiencing harms related to drug use) were referenced to indicate they, or others, were too 'stable' to be suitable for this intervention. One participant reflected on their experience being denied access to PSS on the basis of this perceived stability: "It is like a punishment for having become responsible over time" (Participant EZS, PWUD and frontline worker). Another

participant problematized the exclusion of people who are stably housed from PSS based on the notion these individuals are at a lower risk of drug poisoning relative to unhoused PWUD, noting that many PWUD, regardless of their housing status, access the unregulated street drug supply through the same dealers:

> … my doctor told me that this is for people who are on the street, who are in more danger of overdosing, but we buy from the same dealer, but it seems that they were in more danger of overdosing than me. […] They would die on the street, […] apparently that would be more serious, dying in the street compared to dying in your apartment all alone. So, my doctor told me that I am too stable and they have to give to the people living on the street (Participant CJL, PWUD and frontline worker)

Disregard for Patient Drug Use Preferences and Expertise

Participant accounts of some PSS programs and practices illustrated an established lack of attention to patient preferences, desires, and needs related to drug use. Shortcomings in the provision of patient-centred care were noted by participants to impact multiple important aspects of participation in PSS programs, including the available drug options, dosages, methods of consumption, and the environments in which patients were able to consume prescriptions. Participants identified that these program elements impacted and constrained deeply individualized and personal elements of an individual's drug use that were regarded as important and essential components of their experience as patients and PWUD. One participant shared their frustration regarding the possibility that the dispensing protocols related to their safe supply prescription could be changed at any time to require witnessed consumption, something they felt would violate the intimate and private nature of injecting drugs:

> But now, it really pisses me off that this morning or tomorrow morning, she could say that I have to take them in front of her. No, no. I take these when I want. […] I am not going to shoot up in my foot at the pharmacy. I would put blood everywhere. I cannot do this. I do not even go to shoot up at the SCS that I built myself, because I no longer shoot in front of other people. It is a real bloodbath. This is something that is intimate. (Participant ESK, PWUD and frontline worker)

Participants acknowledged the influence of a range of forces in contributing to the exclusion or moderation of specific patient preferences and behaviours related to drug use by PSS programs. For example, participants noted that, in some cases, prescribers were unable to prescribe desired drug options or dosages due to regulatory

constraints. Participants recognized an implication of such limitations in exerting pressure on patients to maintain access of the unregulated street drug supply to fully meet their needs, an outcome associated with significant risk due to exposure to the unregulated drug supply.

Insufficient Drug Options

The drug options currently accessible through PSS were experienced by participants to be largely inadequate and unresponsive to current patterns of drug use across Canadian PWUD communities. At the core of this limitation was the perception that programs offer access to a pharmaceutical supply of drug *alternatives*, that most PWUD are not currently accessing on the unregulated market, rather than pharmaceutical versions of the unregulated drugs PWUD actively use in their daily lives. For example, participants accessing fentanyl through the unregulated street drug supply were almost exclusively offered a prescription for hydromorphone by PSS programs, a drug that, while still an opioid, provided a different high and a drastically reduced potency compared to fentanyl for the majority of participants. A participant described how the practice of prescribing replacement or alternative drugs, rather than regulated versions of the criminalized drugs (e.g., fentanyl) PWUD were actively using prior to entering PSS programs, was a strategic failure that resulted in some patients maintaining their connection to the unregulated street drug supply to access and use fentanyl, exposing these patients to serious drug poisoning risks:

> … Dilaudid® [hydromorphone] is basically, just given to everybody. That works for some people but […] one guy in particular that I'm thinking of that was on the initial program a few years ago, they had a liquid hydromorphone program and he said their failure was […] that they tried to frame it as a replacement for heroin. […] what's being offered is another addiction to a drug that doesn't touch the one that you've already got. […] But people are hooked on fentanyl. Why are we giving them seven new drugs and not fentanyl? […] they're still out getting fentanyl on the street. It's incredibly clear to me that we give the people what they want. (Participant DDX, frontline worker)

This limitation was reproduced slightly differently when considering participant experiences with prescribed stimulant safe supply. Firstly, current access to a medically-regulated supply of stimulants was rarely discussed, with participant accounts much more frequently identifying the availability of opioids, rather than stimulants, within PSS. In the context of participants who did have experience with prescribed stimulant options,

participants still discussed being offered pharmaceutical alternatives, such as dextroamphetamine and methylphenidate, as a replacement for unregulated street stimulants, such as cocaine and methamphetamine. However, participants mentioned that these pharmaceutical stimulant alternatives were nowhere near as available as pharmaceutical opioid alternatives, with prescribed stimulant safe supply programs usually operating with extremely limited program capacity. Further, these stimulant alternatives were predominantly prescribed with very few available options and in the context of stabilizing mental health symptoms and tapering an individual's use of unregulated stimulants.

> So there is a recent starting of a small safer stimulant program with us. We had briefly forayed into it last year. Things sort of outside of everyone's control went very poorly, so we pulled back on that. And then we're restarting again with just six clients to see how safer stimulants go. […] It's really difficult to have good mental health and also be using street stimulants. So our safe stimulants are often as part of helping people stabilize their mental health if that's something that they want to do. (Participant QPS, frontline worker)

Limited Methods of Consumption

Inhalation drug use was frequently mentioned as not being adequately supported by PSS programs and related harm reduction services, despite widespread use of this mode of consumption and its perceived prominence by participants in current poisoning fatalities. Several participants indicated that current programs simply do not offer drug options suitable for inhalation, and individuals who preferred to smoke drugs sometimes experienced challenges making use of available drug options. One participant, noting the lack of options for people who smoke drugs, described the importance of smoking as part of some people's drug use experience and shared a conversation they had with someone who unsuccessfully attempted to smoke a prescription drug intended for oral consumption:

> There's no smokable stuff. And a lot of people like the act of smoking too, as part of the fix. I have one client who's told me he's tried smoking his [oxycodone]. He's like, "It was silly." (Participant DED, frontline worker)

A lack of coverage and attention to inhalation drug use was also apparent within harm reduction programming more broadly, specifically within OPS and supervised consumption services (SCS). Although both OPS and SCS are distinct interventions

from prescribed supply programs, these two interventions were frequently identified by participants as being ideally offered in tandem, such as a PSS program operating out of an SCS or vice-versa. The barriers that have historically impacted PWUD within SCS and OPS will likely remain relevant to prescribed supply programs that may expand into these settings, as well as to PSS programs that require on-site witnessed consumption. Participants described how people who smoke drugs have historically been excluded from SCS, as the vast majority of these spaces offer services only to people who inject or orally consume their drugs. This exclusion occurred primarily through institutional and program-level policies prohibiting smoking inside service settings. The exclusion of people who smoke drugs from these supports was identified as a priority issue by participants, particularly in the context of changing patterns of drug use and drug use-related harms, with some participants considering people who smoke drugs to now be at the highest risk of drug poisoning compared to individuals who use other methods of consumption.

> … (City) is next in line for getting a [SCS] here, however it will be injection only, so I've talked to the committee that, you know, it's great that the [SCS] is coming, but actually most of the folks that are at the highest risk right now are foil users [people who smoke drugs], or inhalation users. […] you put all this work into getting a safe consumption site and just when it's going to happen the tide has turned towards inhalation instead of injection. (Participant KCS, frontline worker)

One participant explained how policies prohibiting smoking at their local OPS not only excluded some PWUD from these services, but also exposed these individuals to increased risks and harms, such as an increased risk of arrest when using in public spaces as well as harms associated with using in less visible spaces (such as in alleyways or bathrooms) where prompt response in the event of a drug poisoning is less likely to occur.

> … the only way you can use the [SCS] is if you inject, if you don't inject and you only smoke, you're not allowed to go in there and use it right. […] It puts a damper on. When people only [smoke] […] they got to hide around outside to smoke your drugs. You still run the risk of getting arrested. […] I'd rather go find a dark alleyway to go smoke it. I'm not going to run the risk of police rolling up on me and charging me while I'm sitting in the street, while trying to get high. (Participant KDG, PWUD and frontline worker)

Underdose

Although several participants reflected positively on the current dosages received through PSS, most discussion reflected concerns that people were not having their dosage needs met. Many participants expressed that dosages were inadequate to match their current tolerance, with only one participant stating that current dosages exceeded what is necessary for personal use. Discussion of this perceived underdosing largely concerned the drug hydromorphone, which participants noted was sometimes difficult to get in high dosages immediately after being onboarded to programs and often still did not meet patient needs when titrated to higher dosages. For many participants, available hydromorphone dosages were unable to produce the physiological effects provided by more potent opioids like fentanyl, with some participants stating that injecting hydromorphone at the highest available dosage was still not enough to meet their needs.

> And we now all have a level of tolerance that is completely stupid [due to fentanyl], and the Dilaudid® [hydromorphone] that they give us, have no effect now, do nothing. And we take incredible amounts, really too much and we do not even get a buzz. Doctors know that people are going to inject this, but it has no effect now. Our level of tolerance is too high. (Participant CJL, PWUD and frontline worker)

> Okay, so the safe supply that's currently in [City], I think that the people who are used to doing fentanyl, fentanyl is so strong that […] I know some people are [using] 25 Dilaudid® [hydromorphone] a day. And it's not giving them what they're looking for.(Participant DCC, PWUD and frontline worker)

Participants also related experiences in which prescribers stigmatized the use of drugs outside of medical contexts and demonstrated a lack of understanding of the diverse motivations behind drug use. Of note, participants mentioned that prescribers often did not support using medications or unregulated drugs to experience pleasure. This sentiment was understood to be a principal factor driving prescriber reluctance or aversion to providing safe supply doses in the amounts necessary for PWUD to experience desired "highs". As stated by a participant, "…[safe supply prescribers] do not want me to get my buzz…" (Participant EZS, PWUD and frontline worker). Participants perceived this stigma around using drugs for pleasure as the reason why some pharmaceutical drugs, like heroin, are spurned by prescribers in favour of drugs like methadone, which are not experienced to provide the same sense of pleasure by participants.

> … for me [heroin] is a medication and it helps with my anxiety, I don't see why I should be forced to take something else […] if [heroin] has been working for 27 years. [Name of a physician], give it to me. I want that medication. Because the medication that they give you, methadone, in my opinion, it is more harmful for you body than heroin. Because it is stronger, but given that it doesn't provide a buzz, it is accepted. That is it, that is not what people want, they want a buzz. (Participant CJL, PWUD and frontline worker)

Witnessed Consumption

Participants spoke at length about the centrality of witnessed consumption practices within PSS programs. Although a few participants shared positive or neutral experiences with witnessed consumption – such as how this practice did not concern them, promoted patient health and safety, or should be utilized when first onboarding patients to mitigate risks – most of this discussion considered negative experiences and detailed how this practice creates barriers and undermines access and uptake of this intervention. These participants described how witnessed doses are experienced as dehumanizing, infantilizing, and contributed to paranoia and the cessation of PSS. Some participants indicated they would not participate in PSS programs that enforce witnessed consumption protocols.

> …is it going to be as dehumanizing as it is where oh you go and you get your drink [of methadone] at the pharmacy and then you have to open your mouth and show that you drank your juice or lift up your tongue and show that you have taken your Suboxone® [buprenorphine/naloxone] […] I think that that's the biggest downfall. (Participant DCH, PWUD and frontline worker)

> Imagine if every time you wanted to drink a beer, or a shooter, you would have to sit down in front of the doctor to drink it and then wait […] 20 minutes there before being able to go back home. Where is the fun in this? […] I like doing this in my living room, a little coffee table, little candle… (Participant EZS, PWUD and frontline worker)

The handling of take-home doses (or "carries") within PSS closely mirrored the impact of witnessed consumption practices in limiting personal autonomy and introducing barriers. Participants frequently spoke about carries as something that were difficult, or impossible, to receive within PSS. While it was noted that providing carries could potentially result in misuse, participants reported that restricting take-home doses was associated with challenges for many current PSS patients (e.g., introducing onerous daily commutes to pharmacies, constraints on where participants could live or work while still accessing PSS, and a restricted capacity to visit family or travel outside the

province). In discussing these challenges, a rural participant explained how a lack of carries made it impossible to maintain a job and introduced extreme daily travel requirements to stay connected to the program:

> … when you live […] in the middle of nowhere getting safe supply is not easy because we can't, like in [names a different Province] they call it having a "carry", […] they would give me a month supply at once and here you've got to check in every single day to get your dope. And it just makes doing anything else in life impossible, […] you can't have a job with the safe supply regulations the way they are right now where you have to go and check in every day. You know it's just impossible, I mean it takes me three or four hours just to get out of the bush and hitchhike to town to pick up my dose. (Participant AST, PWUD)

Policies that limited or prohibited take-home doses were associated with program practices that required participants to pickup their prescriptions once, or sometimes multiple times, per day from clinics and pharmacies. Participants emphasized that these requirements introduced accessibility barriers for many PWUD, with this impact amplified for people living with disabilities, people who work during the day and people who live outside of downtown cores.

Exclusion of Lived Expertise

Participants discussed how prescribers do not always respect the lived expertise, of PWUD as both patients and frontline workers, throughout the process of delivering OAT and safe supply. Regarding PWUD as patients, participants considered how prescribers often portray themselves as uniquely positioned to understand and address the needs of PWUD, sometimes in a way that suggests they have a better understanding than PWUD themselves about their experiences and needs. A participant noted that this situation creates difficulties when PWUD present to prescribers requesting specific drugs they know to be effective in meeting their needs.

> … doctors […] up on their high and mighty horse, just saying "Look [you] don't know anything about addiction, you know I'm a doctor I prescribe these drugs", but when people go in asking for certain types of drugs I think that's where the hindrance is, you know because people know it works for them and doctors think they know everything and they think they know better… (Participant AST, PWUD)

This disregard for lived expertise manifested similarly in accounts from participants who identified as both frontline workers and PWUD, who engaged with prescribers in a professional outreach and advocacy capacity. These participants, who

embodied expertise both as patients and as providers from within the system, shared how prescribers and healthcare organizations have discredited and tokenized their lived expertise. One participant recounted an experience they had supporting a client in navigating which formulation of methadone they would prefer to receive. This participant, engaging both their professional knowledge and their lived expertise in which they had particularly negative experiences with the Methadose™ formulation, encouraged their client to request Metadol D® from their prescriber, a request that was met with prescriber skepticism and a response indicating the participant was not qualified to make such a recommendation to their client. This experience was reported to have been similarly replicated in the participant's work helping clients access PSS.

> … if I have clients that don't like the Methadose™ or haven't been on either of them, I tell them my experience with methadone, Methadose™, and Metadol D® and then they go from there. I sent a client in there […] and he told the doctor I want to go on Metadol D®. The doctor said there's no difference between Metadol D® and Methadose™ and who told you to ask for that and blah, blah, blah […] I know that's not safer supply but it's happening with the safer supply meds as well. We'll look it up online, I can read it over with our clients, the options, so that they can choose what they think would be best for them. So, not only do I give my own lived experience, but I read, or they can read, on my laptop what the other meds are and what they work for best and […] side effects and all that stuff. It's really insulting to have a doctor tell your client that you're basically a liar and don't know what you're talking about. That's what I mean about the doctors not taking us seriously and like, I study the prescriber guidelines… (Participant BEW, PWUD and frontline worker)

Perspectives on Diversion

Participants recognized that the reselling and repurposing of safe supply prescriptions (diversion) was an important issue that required careful attention and oversight from PSS programs and prescribers (to manage concerns related to liability and the potential for professional and regulatory sanctions). However, participants understood this practice to be a complex issue and held perspectives disparate to the medical framing of diversion, specifically problematizing the notion that diversion is strictly something that is harmful and to be avoided and discouraged within PSS. For example, a PSS nurse dissected some of the tensions programs experience when participants repurpose their prescriptions. To this participant, patients choosing to resell or repurpose their prescriptions produced liability concerns for the program and took

away a limited program space from someone else who may benefit from personally using their prescriptions. At the same time, the participant shared that some nurses on their team understood the reselling of safe supply prescriptions as a form of harm reduction that increased the availability of regulated, pharmaceutical-grade drugs in the community (reducing reliance on the toxic unregulated supply) and directly supported patients to generate income and mitigate pressures to engage in higher-risk income-generating behaviours like acquisitive crime or sex work.

> …I have quite a few chaotic kids […] who are probably [selling] their pills sometimes. [...] [W]hat's really interesting is the medical people on my team, nurses and stuff, will really quickly say it's harm reduction because being able to access money through this is safer than having to steal, sell your body […] That being said, I also have the other thought of, our program could get shut down if those things are happening. And other people aren't able to access our program and these people are. And so that is something we're noticing. We have the side like, yes […] they're getting money this way opposed to that, and […] the streets are now more likely to have safer pills. But yeah, it's a big thing. (Participant DED, frontline worker)

Some PSS programs have responded to diversion concerns by implementing policies (e.g., mandatory urine drug screening, witnessed consumption, minimal dosages, limits on program enrollment, and prohibiting carries) intended to discourage or mitigate these behaviours that are in line with the dominant medical framing of diversion as a harm generating practice (Carlson et al., 2020). Participants experienced these policies related to mitigating the resale of prescriptions to limit autonomy, undermine patient-centred care, and make it more challenging for people known to deal drugs to enroll in PSS. One participant felt frustrated by the pressure prescribers exert on patients to control diversion, with this participant sharing they wished that prescribers would instead engage with patients who may be diverting prescriptions to determine and address the underlying issues that may be contributing to this behaviour (e.g., program-related barriers or unmet needs). Another participant discussed the concerning impacts of practices intended to control diversion, specifically how these measures serve to reinforce and perpetuate medicalized systems of control.

> It's very short-sighted and the reason always comes back to diversion, when you talk with the professionals about why we can't give it out to meet the needs of the people. But it's so limiting, if people are fixed to a pharmacy. They're tethered to the system. (Participant DDX, frontline worker)

Participant discourse also problematized the role of PSS programs themselves, specifically the limitations of these programs, in contributing to the resale and repurposing of prescriptions. Relevant program limitations included a mismatch between available prescription drug options and community drug use preferences as well as a lack of ancillary supports and services delivered alongside prescriptions to support the social and structural needs of patients. Participants discussed a range of forces motivating the resale or repurposing of safe supply prescriptions, including to generate income, overcome prescription-related barriers, and support communities who currently do not have access to PSS. However, the most frequently mentioned was to facilitate access to drug options not currently available within PSS. Participants noted that many patients sell or trade hydromorphone prescriptions to help them access more preferred drug options (i.e., fentanyl) because hydromorphone was not considered to effectively meet their needs.

Drug Use Stigma and Preventable Harms

Participants described how negative interactions with prescribers and other healthcare providers, characterized by stigma and discrimination, contributed to the incidence of preventable harms among PWUD. Drug use stigma was noted to exert a powerful impact across all healthcare supports offered to PWUD. Participants discussed this form of stigma at length, relating in-depth how experiencing drug use stigma from healthcare professionals created barriers to the access, uptake, and retention of medical services and supports, including PSS. These harms spanned both social and health contexts, and included a return to accessing the toxic unregulated street drug supply, experiencing drug poisonings, experiencing physical harms or unmet health-related needs, and undesired interactions with other systems actors (e.g., police). The medical experiences referenced by participants that contributed to these harms included accounts of being demeaned, surveilled, and subjected to a punishment culture. These experiences occurred across a variety of medical settings, including within PSS, OAT, hospitals, and clinics, and speak to the challenges PWUD experience navigating a range of healthcare structures.

One participant explained one of the pathways through which stigmatizing medical interactions are associated with preventable harms for PWUD, detailing how specific interactions with their physician contributed to their decision to discontinue OAT

and return to accessing the unregulated street drug supply despite the participant demonstrating a readiness and desire to modify their substance use. This participant had been successful on OAT but felt motivated to explore tapering their dose and pursue a change in their drug use, something they shared in a request to their OAT prescriber. However, this participant recounted that their prescriber's response, which was not supportive of this request, made them feel humiliated and like they were a "failure". This participant eventually returned to accessing the unregulated street drug supply, a decision they acknowledged was complicated and not the result of any single interaction, but clearly identified the profound impact and contributing role that being told they were a failure by their prescriber had towards this outcome.

> … the word "fail" was used and that was the result for me. Within three weeks of hearing that message I was back and injecting [illicit] drugs. And then, when I started failing my piss test [urine screening], the response was, "See, I told you so." And I was like, "It actually wasn't that my dose was too low, it was coming in and being told by my healthcare provider that I was a failure on a daily basis." It wasn't the only reason, but […] I was really upset and demoralized by that. When I broached the subject of tapering [OAT dose] I really meant it, I was feeling motivated to do something […] and to have that laughed at, was really brutal. (Participant KCS, frontline worker)

The experience of PWUD choosing to return to accessing the unregulated street drug supply following negative interactions with medical providers was reiterated and expanded on by other participants. These participants identified that medical providers were involved in sometimes unintentionally pushing PWUD toward the toxic unregulated street drug supply by hindering or eliminating access to other drug replacement programs (such as iOAT), and also engaged in behaviours that contributed to greater drug poisoning risks among people receiving safe supply. Specifically, participants described how some people receiving safe supply have been subjected to an extreme risk of drug poisoning following the loss of access to safe supply prescriptions resulting from decisions made by physicians to discontinue prescriptions following the violation of program policies or during and following lengthy hospitals stays. This latter situation resulted from situations in which people receiving safe supply had their prescriptions ended by physicians in hospital when transferring into care. One participant shared a report they received from a physician in hospital after one of their clients was admitted for care: "…[the report] was like, '*We see that this client was prescribed this much of hydromorphone a day. I will not being doing the same*', period" (Participant QPS,

frontline worker). Another participant explained how decisions by physicians in hospital settings to discontinue safe supply prescriptions and discharge individuals without a prescription, directly contribute to drug poisonings when discharged patients must subsequently return to accessing the unregulated street drug supply to meet their needs:

> … people are being kept in the hospital, not getting their meds, and they're released with no script, so they go back to using and we're finding so many overdoses happening that way." (Participant BEW, PWUD and frontline worker)

Participants also noted the role of stigmatizing medical interactions in eroding faith in the healthcare system and contributing to the incidence of harms and the prevalence of unmet health needs among PWUD. One participant reflected on how these experiences broadly compromise access to healthcare, perpetuate existing inequities, and may generate mistrust among PWUD toward PSS. This stigma was perceived to be a serious deterrent that could drive PWUD away from programs and contribute to maintained access of the unregulated street drug supply.

> Stigma, control, discrimination for sure. I know from experiences with our clients here, they won't go to the hospital or if they have to go to the hospital, they don't stay to receive their full course of treatment because they're treated like absolute shit, which is really unfortunate. I think with how things have been […] and how people have been treated in the past, they might be hesitant to go seek a safe supply from someone in a medical position, which might deter them from doing so and then they might just continue purchasing street drugs (Participant GRE, frontline worker)

OAT Interference and Pressure to Enroll

Participants described how, as an intervention, OAT interfered with both their access to safe supply prescriptions as well as the effectiveness of the medications prescribed by these programs. This interference was especially apparent for participants living in contexts in which PSS was delivered out of existing OAT clinics. In these settings, participants eligible to access safe supply experienced pressure from prescribers to concurrently enroll in both OAT and PSS, and later taper their safe supply prescriptions in favour of OAT. For some participants, the eventual cessation of safe supply prescriptions in these situations resulted in decisions to discontinue OAT as it was not perceived to be worthwhile in the absence of safe supply. One participant felt this pressure from prescribers was inappropriate, created barriers to accessing safe

supply for those uninterested in receiving OAT, and contradicted the nature of safe supply (which was repeatedly not considered a form of treatment by participants).

> Another barrier I find is, so our safer supply is being done out of an OAT clinic. So, the doctors there, they want everybody on OAT as well as safe supply. And then […] they want them to come down off of safe supply and just be on OAT […] And for many people, that's not what this is about, […] they shouldn't have to be on OAT if they don't want to be on methadone or Suboxone® [buprenorphine/naloxone], they should still be able to get their safe supply and if it's working for them, I think they should just leave them alone. Why stop what's working right? (Participant BEW, PWUD and frontline worker)

Participants also reported that specific OAT medications, such as methadone, interfered with the efficacy of safe supply prescriptions. A participant, who was being prescribed both methadone and hydromorphone, explained how using methadone prevented them from feeling the effects of hydromorphone. This was a serious barrier for the participant that they self-advocated to address with their care team, with the participant seeking to discontinue their participation in OAT in favour of PSS, before deciding on their own to simply stop taking their methadone to benefit from their hydromorphone prescription.

> … I haven't taken [my methadone] for months now. So, finally I can feel the dope, because when safe supply first came along […] I wrote a four-page letter to my nurse to explain to her that their stuff doesn't work because it is completely contradictory. […] I told her, just give me Dilaudid® [hydromorphone], give me more and fuck the methadone. Because now you are giving me a drug and you give me methadone that prevents me from feeling the drug [hydromorphone]. (Participant ESK, PWUD and frontline worker)

Power Dynamics Between Prescribers and Patients

Participants problematized the power dynamics they experienced when interacting with prescribers in the context of regulated supply interventions. These accounts depicted power imbalances between prescribers and patients, which were amplified when a patient's identity intersected with other marginalized identities, such as a person who is unhoused, racialized, or uses drugs. Participants portrayed relationships with some prescribers that were destabilizing to an individual's self-worth and were not patient-centred. These dynamics made it difficult for some participants to self-advocate for care-related goals when these did not align with prescriber goals and contributed to a common desire from participants to reframe healthcare as something that is delivered in

partnership between patients and providers. This shift was perceived to be necessary as participants perceived PSS to currently exist within a system that validates prescribers as experts and patients as non-experts. These dynamics run counter to ongoing efforts in medical and healthcare systems to promote patient-centred care.

> … I still don't know whether part of imagining safe supply is getting colleges and professional regulatory bodies better evidence about […] taking people's word for stuff. Because that is a problem that is universal throughout healthcare. […] We just have this whole system designed around, "I'm the expert, you tell me your problem and I'll tell you what the solution is." […] that's one of the reasons why I really think getting folks out of that kind of engagement with healthcare is important. (Participant DFW, PWUD and frontline worker)

> But as far as like access to safe supply, I don't know if I feel that a medical professional should be involved in that. I mean, there's always that power that comes into play when it comes to that stuff. And I don't think it's up to a medical professional that doesn't know anything about me and has spent five minutes talking to me about what's going on with me that they now get to decide whether or not this is something that's going to benefit me. (Participant GRE, frontline worker)

Related to narratives of physician-patient power imbalances were participant accounts describing how care-related decisions were made within PSS. These experiences portrayed a spectrum of dynamics that differed in the degree of power exerted by prescribers and the extent to which input from participants was felt to be valued and utilized. A minority of participants described arrangements in which they said prescribers actively incorporated and respected their input, with decisions being made in a way that challenged traditional top-down power dynamics. Many more participants shared experiences of prescribers who exercised complete, or a vast majority of, control over decisions related to the participant's access to safe supply. Participants recounted experiences in which they felt prescribers made decisions about their care without adequate consultation or communication. These experiences were associated with significant barriers for PWUD, as they were referenced to frequently result in decisions that did not meet patient needs. For example, a participant recounted an experience in which a prescriber suddenly lowered a client's safe supply dose on a Friday afternoon, exposing the client to risks associated with withdrawal and leaving the client without recourse until a meeting could be arranged the following week.

> … before a doctor just cuts somebody off their meds, I feel there should be a meeting with the client, the advocate and the doctor. […] [B]efore someone is changed on their meds drastically, with no warning, no

> nothing, because that happens a lot too […] we go pick up their meds and all of a sudden, it's changed. We were just in the appointment with the doctor, he never mentioned anything you know. They wait, especially if it's a Friday, he'll wait until it's too late, we can't get a hold of him and the person's gone all weekend on that dose […] it's really sneaky and underhanded sometimes the way they do it. (Participant BEW, PWUD and frontline worker)

Prescriber Hesitation or Unwillingness to Participate

A final limitation of medical safe supply models was the frequent hesitation and/or unwillingness of prescribers to support this intervention. Participants recounted significant difficulties finding prescribers willing to prescribe safe supply, with some family physicians alleging that they were not allowed to write these prescriptions. This may have reflected a discomfort on the part of some prescribers to engage in this prescribing, rather than regulatory constraints, as these accounts included experiences with prescribers from provinces in which PSS was an available option endorsed by relevant provincial regulatory bodies (e.g., BC and Ontario). One participant, employed by a PSS program intended to reach PWUD unconnected to a family physician, explained how an unwillingness on the part of some BC-based family physicians to prescribe safe supply is a significant access barrier that also contributes to producing tensions for their own program (as they must navigate ethical and professional considerations regarding the appropriateness of their program issuing safe supply prescriptions to patients under the care of family physicians who do not support PSS).

> The idea […] is that primary care providers should be using the Risk Mitigation Guidelines and prescribing these medications for folks with substance use disorders or who are requesting it. And so […] it is causing a huge barrier because then people [who] have primary care providers who are not prescribing safe supply and they're trying to come to us and their doctors are getting upset at our doctors. Or we aren't able to intake them. It causes some struggle. (Participant DED, frontline worker)

Participants shared various perceived and observed motivations driving the hesitation of some prescribers toward PSS. These motivations included concern that this type of prescribing would be rolled back following the pandemic, that these prescriptions would worsen the mental health symptoms of their patients, ideological opposition to providing safe supply prescriptions to people physically dependent on drugs, discomfort with unwitnessed doses, liability issues, potential for regulatory crackdowns, and concerns regarding the need for this intervention:

> …the biggest challenge is finding a willing prescriber. Someone who can work with you and understand that you are at risk of overdosing and why exactly you need it. It seems like as soon as people bring up, whatever drug that they're looking for, they get shut down without any sort of conversation about it or support about it, it's just dismissed. So, if physicians would step up and do that, that would be great. (Participant GYL, PWUD and frontline worker)

> … doctors would have to be more open to safe supplies that are there, but I have the impression they are not sufficiently knowledgeable and they are afraid. In their minds, they are giving drugs to drug addicts. That is what they say and they do not want to do this, or it scares them. (Participant CJL, PWUD and frontline worker)

Mixed Perceptions Regarding Medical Involvement in Safe Supply

A minor subset of participants shared predominantly positive experiences with PSS programs. These participants discussed healthcare providers who took specific actions to adapt the restrictions imposed by medical regulation in such a way that made their programs accessible and effective for PWUD. While the majority of participants acknowledged serious limitations introduced by medical regulation, participants endorsed mixed perspectives regarding the acceptability of receiving safe supply from prescribers or healthcare professionals. Although some participants indicated a preference for doctors, nurse-practitioners, and nurses to be involved, others noted that this involvement would be alienating and damaging to their participation in PSS.

4.2. Impact of Sociostructural Marginalization on Safe Supply Access

The sociostructural environments in which participants lived, in which the impacts of housing inequities, criminalization, and poverty were pervasive and interacted dynamically within the context of the ongoing unregulated drug poisoning crisis, played a significant role in producing and exacerbating barriers to access, uptake, and retention of PSS. Participants outlined specific pathways and interactions that played out both within and across these environments to impede the participation of PWUD. The challenges related to each of these discrete inequities were frequently understood to operate intersectionally, with the challenges associated with each type of marginalization overlapping to produce a lived reality for many PWUD that made it burdensome to sustainably participate in PSS.

Housing-Related Barriers

Participants described how people who were unhoused or living in precarious housing situations experienced compromised access to PSS and other healthcare interventions. Housing instability, and the housing crisis more broadly, were identified as priority concerns for many PWUD communities, with participants sharing concerns regarding evictions, tenant rights, housing-based stigma, discriminatory policies within shelters, and housing unaffordability and scarcity. These accounts described circumstances in which individuals regularly experienced uncertainty and instability around their housing. At the core of this discussion was recognition of the profound impact that a lack of stable housing exerted in complicating the capacity of PWUD to not only access, but be retained, by PSS programs. Participants expanded on this barrier, explaining how the realities of being unhoused often directly obstructs the engagement of people who are unhoused in interventions like PSS and OAT by making it difficult to coordinate and follow-through with appointments and other responsibilities related to program participation.

> … the shelter is like 300% capacity so there's no housing so people are on the streets, it's really hard for them to stay on safe supply or OAT because how do you keep track of your appointments and stuff with no phone, no home, no shower? You can't get reminders […] We have to go literally physically find them [doing outreach] because we can't phone them. (Participant BEW, PWUD and frontline worker)

Throughout the COVID pandemic, practical aspects of accessing drugs via the unregulated street drug supply exposed PWUD to enforcement, fines, and evictions related to public health measures. These circumstances, in which the realities of accessing street drugs sometimes required meeting dealers within their homes with several people present, frequently violated local public health guidelines during the pandemic and were mobilized by other tenants and landlords against PWUD and dealers. Some participants understood this phenomenon as building on an existing history of drug use stigma within housing settings, as well as the prejudicial enforcement of housing rules and policies against PWUD as tenants. A participant provided an example of these enforcement practices, describing how neighbours who did not use drugs were not reprimanded for congregating in their homes during the pandemic but PWUD were evicted for the same behaviour.

> And then it's false accusations and it's like more of a bullying teaming up situation so you'll have people […] like elderly women who go to church and stuff. And they're allowed to congregate in their units with ten or fifteen people but then you'll have somebody who is a substance user who has three people over and they're being evicted… (Participant DCH, PWUD and frontline worker)

Disrupted, or inadequate, access to shelters was another important barrier impeding PSS uptake among unhoused, or precariously housed, participants. Participants referenced how shelter services are frequently unable to meet their community's demand for temporary shelter and also commonly endorse punitive policies related to drug use that complicate access to services and supports. For example, participants spoke about shelters that prohibited using drugs or possessing harm reduction supplies on-site, and temporarily banned individuals who experienced an overdose or were observed using drugs while staying in the shelter. A participant, explaining the specifics of the rules around temporary bans enforced by a local shelter, said: "If you get caught using you're restricted for I think a week […] and if it's overdose it's two weeks" (Participant JEX, PWUD and frontline worker). Just as being unhoused made it difficult to participate in, and remain connected to, PSS programs, participants detailed how losing access to shelter supports compromised their access to these interventions. Participant AST, who lived several hours away from the closest town in a remote setting, spoke about their own experience being banned from the only shelter in that town – in this case due to an inability of the shelter to accommodate their experience of night terrors – which made it onerous to access PSS as they now had to travel several hours each way to access their prescription. This issue ultimately resulted in the participant deciding to end their participation in PSS, and return to accessing unregulated street drugs, as the daily commute to pick up their prescriptions became too much to manage without access to a shelter in town.

> I just got kicked out of that [shelter] because I also have night terrors so when I go to sleep I'm screaming in my sleep like I'm getting beaten up or some shit […] it's gotten me kicked out of a few [shelters], so in that sense I ended up going back into just the street drugs and I stopped taking my safe supply for a while because it was just too hard to get. You know not being in a town where it's readily available. It was actually quite a pain in the ass trying to get my meds some days. And when it's easier just to call your friends say, "Look I got some money, can you bring me something by?" (Participant AST, PWUD)

Housing transitions were also identified to present a significant challenge to retention in PSS. Participants indicated that, especially for people who had been unhoused for a long period, it can be extremely difficult to acclimate and have their needs met when moving into new housing environments. In particular, participants implicated a lack of ongoing follow-up and support for people during these transitional periods as contributing to these challenges. Participants discussed how supporting people's housing-related needs was more complicated than simply getting them into housing, and involved ongoing tailored support and capacity-building to ensure people can sustainably benefit from housing supports. One participant detailed the impact of these transitional challenges, describing how moving into housing can be an overwhelming experience that can adversely impact people's participation in PSS.

> … for people who have been chronically homeless, living on your own is not easy. And so we see people kind of relapse completely off the program once they get housing, because things start to go really poorly with their housing. And then safe supply all of a sudden becomes even too difficult to manage. (Participant QPS, frontline worker)

Impacts of Criminalization

Participants described how the criminalization of PWUD, such as police activity or surveillance nearby PSS programs and other harm reduction services, produced significant barriers to service access and uptake. The presence of police nearby services was understood to be re-traumatizing and intimidating for many participants. The majority of participants speaking about this barrier referenced the impact police activity has in hindering the accessibility of existing drug use-related services, such as SCS and needle exchanges, and indicated these experiences are already relevant to the accessibility of PSS. These participants shared how police activity was associated with the frequent experience of surveillance and harassment of PWUD. One participant acknowledged that the presence of police directly created barriers to the SCS they work at, and police have historically been obstinate to requests from staff to not park outside these services.

> We know that police are a barrier to our services. And so, the odd time we'll have a cop pull in our parking lot for whatever reason. […] [T]here was a time […] where there's a police there and I approached him to leave. [The police officer said:] "Well, I'm police, I can go anywhere." (Participant JVT, PWUD and frontline worker)

A few participants spoke directly to the impact that police activity had in creating participatory barriers to PSS for PWUD. One participant explained how local police routinely stop at their PSS program to search people leaving the service in an attempt to issue fines, make arrests, and confiscate unregulated street drugs that participants may have on their person.

> Police camping outside the fucking centre. Out here the police come to the parking lot and check. And they'll pull people over and [give] out tickets and [people are] getting arrested when you're sitting in a safe supply parking lot. (Participant KDG, PWUD and frontline worker)

In regional contexts in which harm reduction organizing had less institutional support, police activity had a severe adverse impact on the perceived potential for PSS programs to operate effectively. In this context, a participant reported that local police activities had produced a climate of fear and surveillance within PWUD and harm reduction communities. This police monitoring was experienced as chilling and contributed to perceptions that openly participating in PSS would convey significant risk in this context.

> There are just certain kinds of tactics that occur locally. That work in such a way to kind of create an atmosphere around the site and folks who participate in the site […] I don't want to be hyperbolic, but I just want to say that there's this ambient sense of being surveilled all the time that makes it harder for me to imagine folks doing more overtly risky things. (Participant DFW, PWUD and frontline worker)

Consequences stemming from people's involvement in the criminal justice system were also viewed to disrupt and impair access to PSS. Some individuals experienced barriers to accessing necessary services, including PSS programs and shelters, because of artifacts of the criminal justice system, such as warrants, supervisory conditions, and protective orders. For example, people who relied upon acquisitive crime for material support were sometimes unable to participate in PSS if they were legally barred from entering program spaces (due to area restrictions as part of supervisory conditions), such as a pharmacy partner responsible for dispensing safe supply prescriptions. Similarly, a participant explained how outstanding warrants around drug use prevented some individuals from accessing and benefiting from shelter supports considered important to fostering successful participation in PSS.

> … a lot of what we do […] now is dealing with people's warrants right and they're like, "I have warrants so I have to hide." I know one guy

> that won't access shelter because of warrants right. And his warrants are around drug use. (Participant JEX, PWUD and frontline worker)

Transitional periods were again identified, this time in the context of transitions within correctional settings, to contribute to hindering participation in medically-regulated programs. Drug use-related care, including PSS and OAT, experienced disruptions when individuals were transitioning into or out of correctional settings. While the majority of discussion regarding this barrier pertained to OAT, these experiences remain relevant to prescriber-led models of safe supply which operate within analogous structures and processes to OAT. Participants spoke of how people receiving OAT often experience lengthy delays in being provided access to existing prescriptions when entering custody, with participants mentioning there was not much institutional sympathy around ensuring prompt access to prescriptions.

> … from what I understand, yes, you can get your methadone, but not necessarily, the day you get there, there's a lot of unnecessary suffering that can go on for like, three or four days. There's not a lot of sympathy around that […] there seems to be some sort of enjoyment of […] making a drug dependent person suffer in withdrawal. (Participant KCS, frontline worker)

Institutional Mistrust and Fear of Participation Being Criminalized

Participants shared accounts of conversations with community members who were strongly mistrustful of participating in institutionalized models of PSS. This mistrust was rooted in concerns that their participation in these programs could become criminalized in the future, and used against them by police. A few participants elaborated on these concerns, describing how some community members are deeply unfamiliar with the concept of PSS, and believe these programs to be deceptive and a means to arrest PWUD.

> The whole idea [...] the safe supply […] it's so foreign, like I said. People, they laugh, and they're like yeah right. That's not real. We're not going to [give] drug dealers drugs. I'm like yeah, like read this. [...] they are going to help you. And they're like, no. And they're like, it's a trick, then they can arrest you. (Participant BVQ, PWUD and frontline worker)

Participant DCH spoke about the reality that some PWUD were scared to even discuss participating in PSS because of the anticipated legal repercussions and police interactions they felt could result from this. These individuals felt their participation, which would afford them regular access to a regulated drug supply, could be subjectively

interpreted by police to construe them as drug dealers if there were searched and found to be in possession of large quantities of controlled medications (the provision of carries could result in this). This mistrust was understood to have resulted from a history of profoundly negative and discriminatory interactions with police and other institutions.

> I think the problem […] is that people are going to be scared to talk because what is [the] repercussion of that, it's like, "Oh so I'm going to put my name on a paper and now I'm considered a dealer and now what I'm going to have the police watching me and harassing me and I'm going to be going to jail?" Fuck that shit. (Participant DCH, PWUD and frontline worker)

Other participants associated PSS mistrust with a general mistrust of programs and services closely affiliated with the government or institutional structures, stemming from previous experiences with institutionalization, foster care, and child apprehension. For these individuals, a lack of willingness to participate in these programs was directly linked to being skeptical of people working in government and the perception that programs were highly institutionalized in nature.

> …a lot of these people on the street, […] they can't bring themselves around their own head to actually try the thing out, try the safe supply out because they don't trust people in the government… (Participant AST, PWUD)

Poverty-Related Challenges

Poverty-related challenges hindering the participation of PWUD in PSS were discussed less frequently than the impacts of criminalization and housing, but poverty-related barriers were closely intertwined within discussions of housing-related barriers and the experiences of people who are unhoused. Participants explicitly identified the role of poverty and resource scarcity in disrupting access to PSS among people involved in sex work, particularly those who were street-based. Participants described how this population experienced severe basic resource inequities stemming from extreme poverty including inadequate access to housing, sanitation, and nutrition. One participant, whose role is to support street-based sex workers, said their clients told them, "[W]e just need basic resources. Like, we need access to toilets. We need access to water" (Participant JVT, PWUD and frontline worker). The COVID pandemic exacerbated many of these inequities, with participants placing particular emphasis on disruptions to the capacity of people who practice sex work to safely generate income and access PSS. These

disruptions related to the high risk of COVID transmission while engaging in sex work, and have contributed to some people who practice sex work being more willing to take greater risks in their clients, potentially heightening their risk of experiencing violence, as well as what is considered acceptable payment, such as more regularly accepting payment in the form of drugs of unknown potency and composition, a dynamic that underscores the strong need for access to safe supply among this population.

> …it is harder to make money, especially for the girls, they are going to take just about anything. You know they so want to use; they will take just about anything. There is one who said to me that the guy wanted to exchange sex for drugs, he showed her the product, and when he left, she did not even know what it was, but when it burned, it turned all black. Just a lot of big smoke. So, she got swindled. It is to this point that the girls want to use. They are ready to have sex, hoping they will get something good. […] They take more risks, that's it. (Participant CGS, frontline worker)

> … with sex workers specifically they're stigmatized, they're ostracized and during COVID I think that they've been really left out in activism, […] it's like how are you able to, during a pandemic, make your money and then also support your substance use. So, it's been really challenging for a lot of people specifically sex workers I know to be able to get support and being able to you know access safe supply. (Participant DCH, PWUD and frontline worker)

Intersectional Marginalization of People Who Are Unhoused

People who are unhoused experienced acute challenges to participating in PSS that illustrate the intersectional impact of housing inequity, poverty, criminalization, and stigma in complicating access to programs. Participants described how the life circumstances of people who are unhoused, in which they experienced inequities in exposure to the processes of criminalization as well as access to housing, shelter, sanitation, and communications technology, created a lived reality that was inconsistent with the demands required to participate in PSS.

> How do you stabilize a homeless person who does not know where they're going to be sleeping? How do you expect somebody who's sleeping rough [outdoors] to show up for a nine o'clock appointment? How do you expect somebody who has absolutely no fixed schedule to get to appointments and to be able to keep any sort of [schedule] […] when you don't know where you're going to be sleeping that night? (Participant AAX, frontline worker)

This instability was in part produced, and exacerbated, by municipal actions that disrupted, destabilized, and further criminalized the lives of people who are unhoused. For example, participants reported repeated actions by local municipalities throughout the COVID pandemic, in coordination with police, to dismantle encampments of people who are unhoused. These actions exposed this population to greater violence and uncertainty and pushed them further from existing social and service support networks.

> … we've seen a huge increase of homelessness and a huge increase in poverty. A lack of homes, just in general. […] We're also seeing encampments. So, when I first moved to [City], that wasn't a thing. Last year and the year before we actually had a tent city that our mayors ended up making [illegal], we couldn't go out in parks after 10:00PM or something. So, it became illegal. (Participant JVT, PWUD and frontline worker)

> But they don't talk about the people in the encampment being hurt by police or all their belongings being thrown in a trash compactor. It's so antagonistic […] And when we're making this, us, them, legal, it, there's no winning. (Participant DED, frontline worker)

> Once they pushed everyone off of [a particular street], they ended up with groups of 20 to 50 in smaller encampments around town […] it spread things out on a level that it made it much more difficult as a service provider, to get in and see people. (Participant DDX, frontline worker)

Unhoused PWUD also experienced frequent stigmatization and mistreatment in their daily lives. Participants described how unhoused populations experienced stigma from both within drug use communities, and outside of these communities, where they continue to be targeted by random acts of violence and harassment. Participants explained how unhoused-specific stigma has harmed the mental health of unhoused PWUD, and has contributed to the adoption of self-protective measures, such as being more guarded and isolated from society. These measures, while helping to protect these individuals from experiencing stigma, have the deleterious effect of also pushing unhoused PWUD further out of the envelope of care, making it more difficult for these individuals to seek out needed services and supports like safe supply.

> For instance, with the homeless population, […] they're isolated and […] they don't think people care about them, they know people don't care about them, they know people despise them and don't give a fuck if they die and that does something to their self-esteem, that does something to how they move in the community, that does something to how they approach other community members and how they talk to

> them. They're more defensive when they know that people don't fucking like them, you know… (Participant HHB, PWUD and frontline worker)

The experience of unhoused-specific stigma was not limited to being perpetuated by members of the general public, as one participant discussed how this stigma has been embodied by police. This participant shared an account in which an unhoused person had their report of experiencing violence within the community invalidated and demeaned by police officers.

> A common thing that happens is after dark when everyone's out of downtown and it's only the homeless people […] you'll have these trucks with younger white men come around and start fighting the homeless people, throwing shit at the homeless people. There's one lady that I know, she's in a wheelchair and she gets targeted a lot and it's sad and it's fucked up and when they go to the police nothing's really done because they can't really prove that it happened first of all, they don't have a phone so when it happens they have to wait until after it's done for them to even go to anybody, if they decide to even go to anybody. Most of the time they won't even say anything and then the cops won't do anything you know well maybe they're hallucinating because they're on meth, or maybe you know they're lying. Well, sorry I didn't see them, and we don't know who they are so there's nothing we can do. (Participant HHB, PWUD and frontline worker)

4.3. Practical, Operational, and Regional Issues

Issues related to the regional contexts (e.g., rural and remote settings) and operational features of PSS programs (e.g., program locations, hours of operation, capacity limits, and the range of services offered) were also associated with participatory barriers for some participants. For example, a few participants spoke about how their programs were at the absolute limits of their capacity. One participant associated these capacity limitations with their staffing model in which nurses are working alone and are constrained by how many patients they can realistically deliver service to in a single day. This participant shared that it was distressing when these capacity restrictions resulted in sometimes being forced to deny service to people who were interested in participating in their program and had a significant need for PSS.

> …our program is limited by how much work can the RPNs [Registered Practical Nurses] do during the day. So I work alone during the day […] we're extremely limited by how many people can I discuss and dispense with daily. […] It's really hard to say no when somebody you can see is doing incredibly badly, but we're all so swamped. (Participant QPS, frontline worker)

Participants regularly mentioned PSS programs that had significant waitlists which dramatically reduced their accessibility. These waitlists were described as moving slowly, and the delays in accessing programs due to waits made some participants feel discouraged and frustrated. In speaking to this concern, one participant worried that individuals unable to access PSS in a timely manner may die (from drug poisoning) or not be motivated to participate once they finally reach the end of these waitlists.

> And then it's how long is the wait time, […] every time I've referred somebody or I've […] heard anything about it. It's been like oh there's 90 people ahead of you. You know and it's like what, by the time this person even gets […] safe supply, how are they going to ease in. You know what I mean like are they going to want it by then? […] Are they going to be alive? (Participant DCH, PWUD and frontline worker)

Program Locations

The location of PSS programs, including where prescriptions are dispensed, produced accessibility barriers for some participants. The specific ways in which program locations were considered inaccessible varied, such as a dense, geographic clustering that made programs difficult to access for anyone living outside those neighbourhoods or experiencing frequent harassment from staff and security when picking up prescriptions from a grocery store pharmacy. Another participant, who is a nurse employed by a PSS program, shared that their program's location, which operates out of a shelter, was not an ideal space for all program participants and could be triggering, particularly for those who have stayed in the shelter previously. Additionally, this participant described how this location sometimes exposed people receiving safe supply to harassment from other people staying in the shelter or accessing the on-site SCS, who were not receiving safe supply and were perceived to be reacting to the significant quantities of pharmaceutical grade drugs program participants were dispensed.

> We don't necessarily want people who are very stable coming down to our site. It's an incredibly triggering place to be. It's huge and it's within the shelter where people have lived before. I think also our safe supply clients, they do face harassment in our shelter and our supervised injection site because they have a whack load of drugs with them that are clean and safe. (Participant QPS, frontline worker)

Participants also discussed the relationship between confidentiality and PSS program locations, including how certain contexts either protected, or compromised, the

anonymity of their participation in these programs. For example, one participant felt that prescribing safe supply out of general health centres, that provide many services and are accessed by a broad range of people, make it difficult to protect the confidentiality of people receiving safe supply as speaking to certain staff members within these spaces that are known to be associated with programs make it obvious to others in the health centre that the individual was accessing safe supply.

> …and it's like I'm there and I'm walking into the same agency but I went to the IV [intravenous] clinic and this person is going to the nurse who I know is the nurse that [does] safe supply so now technically this nurse hasn't told me that this person has safe supply but I just [saw] them walk into her office. Why else would they be going into her office? They're obviously on safe supply. (Participant DCH, PWUD and frontline worker)

However, rural participants provided a different perspective on this issue, indicating that prescribing safe supply out of a general health centre would be protective, rather than harmful, to an individual's anonymity. One participant explained that the range of services delivered in these settings help to make it less immediately apparent what service was being accessed compared to a location dedicated exclusively to one service. This participant compared it to their experience accessing OAT at a methadone clinic, where they worried their confidentiality could be breached by someone they knew driving by the location and observing them entering the clinic.

> Where people know exactly why you're going in there and anybody could drive by at any time, especially in a smaller community like (City). You know, when I was on methadone here, every time I went in, […]I [hoped] my mom doesn't drive by right at this moment. Whereas the [general health] clinic here, you could be going there for any reason, you know? (Participant KCS, frontline worker)

Operating Hours

Limitations introduced by the operating hours of PSS programs were also an issue for some participants. A participant described their experience with the implementation of MySafe, a PSS pilot utilizing a secure machine to dispense medications, inside a building that was only accessible between 8:00 AM and 4:00 PM daily. This schedule derailed the pilot as many of the individuals intending to access that dispensing machine worked during regular business hours and were unable to pick up their prescriptions during this time.

> Again, with the hours, like we have a MySafe routine. We have the machine downstairs but our hours weren't long enough. So, we tried a pilot, just with our staff. […] That doesn't work if you work a seven-hour day. We're only open for eight hours, or nine hours. Anyway, a regular day, we're open 8 to 4. They don't have the ability to get there after work so that didn't work out. (Participant DDX, frontline worker)

Another participant expanded on this particular barrier, describing how PSS programs that limit the hours in which an individual's prescription is accessible undermines trust and participation. Having a sense of control and agency over access to an individual's drug supply was crucial for this participant. They indicated that avoiding limitations in when prescriptions could be accessed would bolster feelings of control for people receiving safe supply, and serve as a key strategy to avoid pushing participants to supplement with unregulated street drugs.

> …as somebody who uses substances, having this feeling of control or agency in my own drug supply is paramount. You need to trust that you're going to get your supply as needed, when needed. Because that's one of the biggest buy-in problems right? One of the biggest ways to avoid supplementing with street drugs, because you know, my use happens at hours where I can't access, or I missed my window to pick for today… (Participant KCS, frontline worker)

Absent or Insufficient Comprehensive Supports

Participants discussed the limited scope of comprehensive, or wrap-around, supports provided by PSS programs, including services related to housing, outreach, primary care, treatment, and recovery, as these were frequently desired – often in the form of a one-stop-shop of service provision. In speaking about how a lack of outreach related to the delivery or pickup of prescriptions undermined patient engagement within PSS, one participant said, "[I]t was always a revolving door. They'd start it for a couple days, miss three days, have to restart" (Participant BEW, PWUD and frontline worker). Other participants shared similar narratives illustrating how a lack of extensive wrap-around supports was perceived to negatively impact some people's access and uptake of PSS. Regarding wrap-around primary care supports, one participant mentioned that service limitations often required them to refer their program's patients to external services to address primary care needs. This participant frequently heard that their patient's experienced difficulty accessing care through these other services, something that contributed to concerns that these negative experiences may undermine the trust their patients have in their PSS program.

> … one of the things I think undermines our level of trust is how much I have to turn to other services for support. And then I don't know how well those services are supporting people. For example, we don't offer much primary care in our program. We don't have the funding for that. So beyond basic wound care […] I have to refer them on to a partner clinic, but then I have a lot of reports of clients having difficult experiences at that clinic. And then I think they feel anger and hurt towards us and our program that had said like, "Go, use these supports" and it doesn't go well. (Participant QPS, frontline worker)

Although a small minority of participants noted PSS programs that offered supports related to accessing housing, there was significant desire to see programs become more involved in either directly providing housing, such as through the integration of PSS and housing programs, or through the provision of more intensive outreach support in guiding participants through the process of securing housing. Participants described how a lack of accessible housing and related supports was a serious concern for some PSS patients.

> I would say stability is you know, 100% related to safe supply. Not just simply the actual safe supply of drugs, but […] one of our biggest barriers is that there is no housing. We have managed to get a couple people into it, but we have other really stable people who are very ready for housing and I can't give [them] a timeline... (Participant QPS, frontline worker)

Lack of Information and Awareness Regarding Programs

Some participants indicated that a lack of accessible and available information regarding PSS within drug use communities created barriers program access and uptake. Most discussion concerned how a significant portion of the communities participants lived within did not have the information necessary to readily access PSS, such as resources explaining where programs are located and who to speak with to access PSS. This lack of information weakened community trust and participation in PSS, and contributed to some people not accessing programs who may have potentially benefitted from this service.

> …people were saying oh safe supply but they [weren't saying] where do you go to get it, […] what do you need to get that support and get on that list […] there's not enough info other than just word of mouth… (Participant DCH, PWUD and frontline worker)

> A lot of it is just lack of information, is pretty much the hindrance here because I mean, […] people just don't know where to go and they're

> scared the doctor is not going to give them what they need or what they want because they doubt themselves or they doubt the whole process because of lack of information. (Participant AST, PWUD)

Program Inaccessibility for People Living in Rural Communities

The experiences of rural-based participants in accessing PSS demonstrated specific inequities and issues that weakened the accessibility and effectiveness of programs in this context. A key contributor to these limitations were infrastructure disparities in rural areas that restricted the capacity of PWUD to reasonably participate in PSS. Some remote communities entirely lacked access to medically-regulated supply programs, or even harm reduction services, with participants describing that without access to safer supply prescriptions or even SCS, PWUD in these settings are more at risk from the toxic unregulated drug supply.

> I think people are doing the best they can with the resources they have out here [in rural areas] […] I think that people are becoming more aware that the drug supply is so unpredictable and they're taking steps to protect themselves but, they don't have the resources to really do what they need to. […] [W]ithout access to a SIS [supervised injection service] and without access to any sort of safe supply, I think they're just doing you know, the minimum, the bare [minimum], what they can, what they have available for them which is Naloxone. And not using alone. (Participant GYL, PWUD and frontline worker)

Rural participants also described how their local community lacked the basic infrastructure necessary to support the implementation of safe supply programs, such as a pharmacy capable of dispensing PSS or supportive prescribers willing to write prescriptions. As a result, participants reported having to travel significant distances, often without access to a personal vehicle or reliable public transportation, to communities where these programs and services could be accessed. This service gap was experienced as a severe barrier for rural participants, as services requiring people to leave their home communities were perceived and experienced to be inaccessible.

> …that's a major concern for people in small towns and rural areas where there is […] no pharmacies, like I live in mostly towns where there's no police, no ambulance, no services like that or barely a gas station in half the towns that I live in… (Participant AST, PWUD)

Another obstacle to participation in PSS in rural areas was the inability to receive take-home doses, or to receive them in suitable quantities. This barrier also affected participants living in urban and suburban contexts, but was discussed in distinct ways

(with often more acute and disruptive resultant outcomes) that were representative of the severe impact associated with these barriers for rural participants, who experienced significantly greater commute and travel times than participants living in more densely populated areas to access PSS in the absence of take-home doses. In speaking to these difficulties, a participant shared that this has resulted in them discontinuing their participation in PSS several times. This participant referenced their inability to get take-home doses, combined with the reality that they live in a remote area without practical access to a pharmacy, as driving their decision to stop participating.

> …I did [stop using PSS] actually a couple of times. And it was […] the simple fact that I didn't live in a place where there was a pharmacy or in a town to speak of like I go into the bush, deep into the bush and just live out, off grid, right. […] For people like me […] it's kind of a hindrance not being able to get a months' worth of supply at once. But then I can understand because other people abuse it […] but for people like me that just can be out in the bush for a month at a time, that's [only] so long as I have my supply… (Participant AST, PWUD)

Social Stigma

Participants also described encountering drug use stigma outside of clinical environments that impacted their access to PSS. This stigma, perpetuated more broadly across communities and acutely experienced in certain rural and remote settings, contributed to environments that hindered the capacity of PWUD to safely access PSS or other drug use-related services. Societal stigma was instrumental in creating, and reinforcing, discriminatory community and institutional perceptions, toward both PWUD and safe supply, that participants felt reduced the likelihood that this intervention would ever be accessible locally. A participant specified that this stigma has driven a rise in vigilantism in their province, in which PWUD are being singled out and harassed.

> The stigma is very, very real. And […] they'll tell their neighbors, "Oh I saw so and so wherever picking up their methadone", […] it's nobody's business if you're picking up methadone or safe supply or anything else but people absolutely talk and it's getting to the point where it's dangerous for people using drugs. There's a lot of vigilantes in (Province) […] and it's not unusual for people to be targeted, […] we need to seriously reduce the stigma for people to be, to even access this kind of thing [PSS]. (Participant GYL, PWUD and frontline worker)

4.4. Regulatory and Political Contexts

Less commonly discussed were barriers related to the regulatory and political contexts in which PWUD, prescribers, and PSS programs operated, but some participants identified how these macro-level contexts influenced several elements relevant to their participation in PSS, such as the likelihood of programs being available in certain provinces and municipalities and the receptiveness of prescribers to engage in this type of prescribing.

Political Contexts

Current political contexts at the provincial- and municipal-levels weakened the accessibility and availability of PSS programs to PWUD. Participants discussed how PSS was not being considered in some regions, as provincial governments continue to encourage PWUD interested in receiving pharmaceutical drug alternatives to access OAT. A participant said that, in their province, people used to be able to access prescriptions for drugs currently included in PSS, like hydromorphone, but that recently this has not been the case and people are increasingly being pressured to receive medications like methadone and buprenorphine/naloxone instead.

> …especially in (Province) especially right now under this government, everyone's being diverted to Suboxone® [buprenorphine/naloxone] or methadone and safe supply isn't even really on the table right now." (Participant GYL)

In addition, participants identified that the political climate, both federally and provincially, has impacted the type, and quantity, of safe supply programs currently being approved. The extremely low number of currently operating programs in some settings that has resulted from this politicization, and minimal levels of coverage these programs are able to provide, is a significant systems issue driving the inaccessibility of PSS for PWUD. One participant expressed frustration that PWUD continue to die while governments are generally only willing to approve pilot evaluation projects or highly restrictive clinical trials, with extremely low-capacity limits that are ill-equipped to meet the demand and need for PSS.

> I don't understand how only ten people could give any evidence one way or another, […] and people will die while they decide if these ten people's

> lives show a significant improvement enough for their lives to be worth saving at all. It's infuriating. (Participant KCS, frontline worker)

Lack of Confidence in Program Permanence

Uncertainty regarding the permanence or longevity of PSS impaired the willingness of both PWUD and prescribers to engage with programs. Participants understood that the potential for safe supply prescribing guidelines to be altered or removed elicited hesitation from both PWUD, who were reticent to begin a program that could be quickly shuttered, and prescribers, who would be required to make drastic, and rapid, adjustments to their patient's prescriptions and care if these guidelines were significantly changed.

> … a lot of people think it's going to get cut off […] that's a really big deterrent. People don't want to start something if they're going to get cut off you know, and also that's a deterrent for the doctors as well, that are thinking this is going to end any time now and everybody's going to have to get cut off, so it creates them not wanting to go higher on doses, they're discouraging, they want them on [OAT] because they think it's going to end. (Participant BEW, PWUD and frontline worker)

Participant BVQ expanded on this idea from the perspective of PWUD, explaining that these communities have historically experienced supports being introduced and later removed, sometimes in repeated cycles (e.g., OAT programs or SCS). Losing supports in this manner has been burdensome, especially in the context of medication-based interventions, as people are forced to make accelerated, and often unpleasant, transitions between drug options and dosages to comply with new regulations or programs.

> … the one thing that they're scared of, lots of times we'll get things […] we'll have it for a little while and then they'll take it away. And it's gone. And […] it's not easy switching over to drugs. […] I went on morphine once for a little while to get off heroin. And[…] it wasn't exactly an easy switch. […] It's going to take some work. And just to have them take it away. (Participant BVQ, PWUD and frontline worker)

Regulatory Pressures on Prescribers

Provincial regulatory bodies (e.g., Colleges of Physicians and Surgeons) were recognized by participants to exercise an active role in shaping their interactions and experiences with prescribers within PSS. Participants identified these organizations as

instrumental to setting the guidelines and professional standards that prescribers were responsible for operating within, something that participants noted frequently limited the actions individual prescribers could take to freely prescribe safe supply. For example, participants mentioned that safe supply physicians currently experience pressure due to the potential for crackdowns from regulatory bodies that could audit their professional practice if it is perceived they are prescribing inappropriately, and this may limit their willingness to prescribe. A participant recounted a conversation with one safe supply prescriber who shared that they needed support from other prescribers, as being the only prescriber in their region subjected them to greater regulatory scrutiny which could threaten their professional practice. This prescriber was reported to cite regulatory pressures as why they were the only doctor currently willing to prescribe locally.

> … we have one doctor that prescribes and he's like, "I can't. I have to answer to […] the college. That's why I'm the only doctor prescribing opioids." […] And he's like, "I need other doctors to do it, I can't just do it for everyone because then I have to answer and it's my life, right." And I'm like that's fucked. (Participant JEX, PWUD and frontline worker)

Prescriber liability in the context of safe supply prescribing was understandably a major concern for prescribers but was also a concern for frontline workers and PWUD participating in these programs. Participants described being careful to not draw attention to supportive prescribers as they were aware of the negative consequences this could have in directing regulatory scrutiny. One participant made sure to confirm that their interview was completely anonymous before even acknowledging that they knew a doctor locally who was willing to prescribe safe supply, as they did not want to compromise the physician's identity. Another participant, who is a frontline worker involved in supporting people to access PSS, said they took care to not refer too many people to a single prescriber as they didn't want to jeopardize that prescriber's practice:

> I think some of the other barriers would be that we don't refer [too many] people to that person because we don't want to put that person in jeopardy if that makes sense. […] I don't know if they're flagging people for over-prescribing stimulants, but that would be a concern… (Participant GRE, frontline worker)

Further, the standards and guidelines to which prescribers are held regarding safe supply prescriptions were described as fluid, sometimes loosely defined, and subject to change based on decisions made by provincial governments and regulators. In speaking to the lack of clearly defined safe supply protocols in some contexts, a

participant said they were told by a prescriber that, "…there are no rules, even […] amongst ourselves, we argue, some refuse to prescribe it…" (Participant ESK, PWUD and frontline worker). Participants shared other conversations with prescribers who indicated that the possibility of PSS guidelines being scaled back in the future contributed to a general hesitancy to take on new patients or increase current dosages, given concerns about the cessation of programs. These prescribers noted that significant changes to guidelines could force them to quickly taper current patients, and was central to the desire of some prescribers to co-enroll people receiving safe supply in OAT to help ease those potential transitions.

> And I remember in a meeting we had a doctor say something along the lines that we should be telling people that they're almost lucky to be able to get this and try and persuade them on OAT and we were very, very upset. But the doctor was saying this because he knew [what] these guidelines were saying and he was like, "Oh no. Because when these guidelines change, I have a one-month transition [period] to have to change all these." So, you can almost see the guilt in the doctors too. (Participant DED, frontline worker)

Participants recognized that prescribers must respect established regulations but expressed a desire to see more action taken to advance safe supply given the significant drug poisoning mortality driven by the ongoing toxic unregulated drug crisis. In some contexts, participants reported more acutely restrictive actions from regulatory institutions, such as some provinces prohibiting PSS in its entirety and pushing PWUD to access treatment and recovery services instead. Another participant acknowledged that some of the more punitive policies observed in OAT and PSS stem from directives issued by Health Canada, which prescribers and programs are legally required to follow.

4.5. Racism

Participant narratives identified racism as a prominent barrier impacting the participation of racialized communities in medicalized interventions like PSS. Our research participants spoke in detail to the experience of African Caribbean Black and First Nations, Métis, and Indigenous communities in relation to the accessibility of PSS and other drug use-related services. Reporting of this racialized-specific content will occur in future, as discussed in section 3.5, and will be led by two members of the CRC who each identify as members of these impacted communities.

4.6. Gendered and Identity-Specific Barriers

Gendered Barriers

Participant narratives portrayed current structures within healthcare, harm reduction, and housing as producing and reinforcing gendered inequities that disadvantage women. Participants characterized services within these systems, which include PSS, as contributing to harms and unmet service needs. As one participant stated, "… we have […] unique concerns as women, and the healthcare system, and the history of medicine has always not been great to women" (Participant DCH, PWUD and frontline worker). Participants discussed how a lack of consideration for the experience of women within healthcare and harm reduction has required women to frequently carve out their own space within these structures (such as women's only hours or sites) to have their needs met.

Women were also reported to be disproportionately impacted by intimate partner violence, with some women living in exploitative situations in which their partners control and monitor their drug use. A participant reflected on how women experiencing this manner of intimate partner violence could experience complex accessibility barriers in accessing PSS that must be accounted for by programs.

> I'm especially thinking about women who are in exploitive situations or you're basically imprisoned by partners, like in an abusive situation where they [are] monitoring their drug supply, or controlling their drug supply, we want to make sure that she has access to services by herself, right? So, they don't come in as a couple, one at a time. (Participant KCS, frontline worker)

Barriers for Youth

Participant attitudes toward the inclusion of youth who use drugs within PSS were highly mixed. Many participants expressed a desire to see more inclusive eligibility, with some participants explicitly stating that youth should be part of programs. These perspectives were complex however, and some participants acknowledged legal limitations that programs would need to adhere to and reflected on their own history of using drugs as a youth which complicated their understanding of whether safe supply should be made accessible to youth. Motivations to exclude youth included concerns that their participation would enable youth drug use, negatively impact their

development, produce public disapproval, and exacerbate drug use-related harms. These opinions were intense and varied between and within participants, with some participants expressing conflicting perspectives both in support and opposition to youth inclusion across the same interview. Participants described feeling uncomfortable with the thought of providing youth with safe supply prescriptions but acknowledged that youth would continue to use drugs and be exposed to risks whether or not they were included by programs.

> …absolutely nobody should be excluded for any reason, whatsoever. Apart from age of consent, all right? And even that, we can talk about age of consent too, right? But working within the parameters of the law, I think the more access to everybody, the better." (Participant KGM, PWUD and frontline worker)

> It's really hard to come up with a set limit. Kids are going to do what they're going to do. However, being someone who used a lot of substances when I was younger to the extent that I did myself harm, I often wonder now that I'm older what I would have been like [if I didn't use]. And I know I'll never know the answer to this, but how did that impact me long-term? At the same time, […] it's hard because do you draw the line at a certain age for some substances, but not others? For example, would you say that you have to be 21 to access opioids, but if you want to access MDMA, can you be 16? Do you draw the line at the dependence piece where it causes a physical and mental dependence […]? I don't know the answer to this. I think that it's tough. I mean, you want to protect younger people and to make sure that they're able to develop in a healthy way […] I don't know if there's an easy answer for that. (Participant GRE, frontline worker)

Participants also perceived that the medical regulation of safe supply, in and of itself, created participatory barriers for youth who use drugs. A participant described how youth are generally less interested in participating in clinically-focused programs because it removes some of the appeal that youth associate with using drugs. This was understood to be an unintentional benefit of broadly transitioning to a medically-regulated model, in which youth may be less motivated to start using drugs if the excitement associated with the unregulated street supply is replaced by more medical methods of drug access.

> And one of the things that would come with that down the line, is we would remove the glamour and romance around the criminal aspect of it. Young people won't want to get into it if it's medicalized. (Participant DDX, frontline worker)

Barriers for Parents

Discussion of the participation of parents who use drugs in PSS was dominated by concerns this may result in greater institutional involvement and the potential for loss of custody of children. Participants described how parents who use drugs are often unable to openly access PSS, or other harm reduction services. Participants mentioned that these concerns frequently contributed to parents choosing to not access supportive harm reduction spaces and to use drugs alone at home, consequences associated with a heightened risk of drug poisoning. Two participants, who both identified as mothers who use(d) drugs, reported that mothers experience compromised access to safe supply due to concerns of their drug use becoming public, something they felt would put their personal safety and custody of their children at risk.

> Number one, being a mom, I don't want go to into the drug checking place because people could judge me or know that I have kids. Because it's a small community here and calling the Ministry on me and I don't think any moms feel safe actually going there to use those places. […] That's impossible for any moms to do, really. If they want to keep their kids. (Participant FYQ, PWUD and frontline worker)

> … I feel that mothers with young children are often ones who are most concerned about levels of confidentiality. How do you access services as a user who also has children without having your children taken away? So how would I get safe supply to a mom? And it's totally for me too because when I was a young mother, not being able to get services and get sober, I was stuck in addiction because I couldn't get any services. (Participant QPS, frontline worker)

Participants were also concerned that policies mandating a duty to report within PSS may be misapplied by staff to hinder the participation of parents. A participant problematized the stereotype that using drugs inherently compromises an individual's capacity to parent, but acknowledged that it is a commonly held view. This participant stated that they would not access a safe supply program as a parent if, informed by these harmful stereotypes, staff could misapply their duty to warn to make reports based on their perception of the capacity of PWUD to effectively parent.

> The first people that I think about are parents who use substances. I hold a heavy belief that substance use doesn't equate to bad parenting. And so, I think especially in terms of confidentiality for those people, when it comes to potential loss of children, etc., that we have to be really careful. Because I know if it was me, I wouldn't access the service, if there was an immediate duty to report based on what assumptions

> you have about how I parent. (Participant JVT, PWUD and frontline worker)

Barriers for Sexually and Gender Diverse People

Several participants discussed experiences specific to sexually and gender diverse people that could compromise participation in PSS and other drug use-related services. For example, a participant explained the cultural significance of certain types of drugs and drug use within communities of gay men such as using stimulants (e.g., cocaine and methamphetamine) to enhance sexual experiences and using psychedelics (e.g., LSD and MDMA) when partying. These drug options, recognized by participants to be difficult or impossible to access within current programs, were identified as priorities to meet the needs of gay men who use drugs.

> … the other thing that I want to mention here is that drugs have been a part of the LGBTIQ community ever since gay men existed on this planet. It's a part and parcel of our community. […] But I think it's also important to remember that for us, we use substances for different purposes. […] For example, if we're going to go dance, we want to use acid. We want to use ecstasy. […] If we're going to have sex, it's a little coke, it's a little meth, that sort of a thing. I think it's important to understand that […] those are the drugs that we need to get a safer supply of. (Participant BCR, PWUD and frontline worker)

Chapter 5.

Discussion

In summary, these findings detail key barriers, from the perspectives of PWUD and frontline workers, that complicate and hinder the participation of PWUD in PSS programs. The participatory barriers identified in this study were diverse and spanned five thematic categories, including: 1) the limitations of a medical model, 2) the impact of socio-structural inequities, 3) operational issues, 4) regulatory and political contexts, and 5) identity-specific concerns.

A central theme across these findings focuses on the serious accessibility limitations that stem from the processes and practices of medical regulation. Participants described how various features associated with this type of regulation, which are deeply interwoven within the current state of PSS, often disrupted their participation in these programs and negatively impacted the receptiveness of communities of PWUD to this intervention. One way in which medical regulation contributed to participatory barriers was through the disregard, or exclusion, of the drug use preferences of PWUD within the prescribing practices and limited drug options at many PSS programs. Participants characterized many of the currently available prescription options within programs as inadequate, particularly in the context of the increasingly potent illicit supply. These concerns, which were in many cases driven by perceived efforts among PSS programs to discourage diversion, included reference to limitations in the drug options available, the dosages these drugs could be prescribed in, the methods of consumption supported by programs, how prescriptions could be accessed, and where drugs were required to be consumed. Participants shared how they felt obligated to perform or audition in interactions with staff, with some participants, who were unable to convince prescribers that they satisfied the requirements of disadvantage and risk engrained within PSS eligibility criteria, finding it difficult – or impossible – to access these programs.

The experience of social and structural inequities related to poverty, housing, and the criminalization of drug use also had a strong impact in impeding the participation of PWUD in PSS programs. Participants outlined contradictions between the eligibility requirements enforced in practice by safe supply programs in multiple provinces and the

responsibilities patients were held to in accessing PSS. For example, participants described feeling pressured to display significant disadvantage to be considered suitable patients to receive safe supply prescriptions, but also described how contexts of social and structural marginalization undermined their access to, and retention within, medicalized interventions like PSS. Participants noted how resource scarcity in the daily experience of marginalzed PWUD (e.g., limited access to money, shelter, food, transportation, and technology) introduces significant demands on people's time and energy. Just as these lived realities of disadvantage were cited by programs as justification for the suitability of individuals to receive PSS, these contextual conditions compromised the capacity of people to effectively participate in PSS programs and meet obligations to regularly make and maintain appointments, pick up daily prescriptions, and travel (sometimes significant) distances to get to and from program locations. The criminalization of drug use, and street-level policing practices in and around drug use-related services and supports stemming from this criminalization, created further barriers to PSS programs for PWUD. Participants described how police activity outside of the locations of PSS programs and associated harm reduction services made it difficult for PWUD to freely physically enter and exit these locations, and contributed to concerns among community members not yet engaged by PSS that their participation in these programs could be used by police to punish them in the future.

Certain practical and operational elements of PSS programs, such as the geographical location of programs, hours of operation, and range of services and supports offered to people receiving safe supply, were identified by participants to hinder their effective participation. The physical location of programs, which tended to be clustered in urban centres, created accessibility barriers for participants living outside of these areas, particularly individuals living in remote and rural regions but also those living in suburban settings, who had to travel significant distances daily to access prescriptions often without the use of a personal vehicle. In addition, the operating and dispensing schedules of PSS programs, which frequently were only accessible during daytime business hours that did not always correspond to when participants wanted or needed to access prescriptions, undermined the sense of control and certainty over one's drug supply that participants desired. Participants further discussed how operational limitations related to the scope of wrap-around supports available to people receiving safe supply made it challenging for some PWUD, specifically those

experiencing greater social and structural inequities, to realistically be engaged and retained by PSS programs.

Finally, participants identified accessibility concerns stemming from the regulatory contexts within which Canadian PSS programs operate, as well as barriers impacting specific priority demographics within communities of PWUD. The potential for rapid changes in the regulatory contexts governing PSS programs, such as changes to the prescribing guidelines supported by provincial governments and regulatory colleges, which could be associated with changes or reductions in the drug options or dosages available through these programs fostered a perceived hesitancy among communities of PWUD and prescribers to become invested and involved in this relatively new type of prescribing. This regulatory impact was felt to be amplified further for prescribers, as participants described how the potential for prescribing audits hindered the accessibility of PSS by restricting the willingness of some safe supply prescribers to take on significant numbers of new patients. Finally, participants noted barriers to PSS programs which impacted specific priority subgroups within communities of PWUD, including parents (i.e., concerns about potential loss of custody stemming from participation in PSS) and youth (i.e., the absence of PSS services for anyone under the age of 18).

5.1. The Limitations of the Medical Model in Context

Policy makers and actors within healthcare systems commonly portray diversion to reflect a failure or shortcoming in the participation of individual patients in care that necessitates close monitoring, disciplinary actions, and efforts by providers to educate and promote behaviour change in these patients (Biernikiewicz et al., 2019; Carlson et al., 2020; Dave et al., 2021). This discourse is framed by concerns about the ‘safety’ and inherent risk associated with prescription medications, as well as the responsibility prescribers and healthcare professionals have in answering to governing regulatory bodies (e.g., the College of Physicians and Surgeons). Findings in the present research challenge this depiction of the key drivers of diversion, particularly in the context of prescription opioids provided as part of safe supply initiatives. Participants’ experiences highlighted the impactful role that limitations in the design of PSS programs themselves exert in driving the repurposing and reselling of safe supply prescriptions. To these participants, the main force motivating diversion in this context was to facilitate access to preferred drug options, for example people receiving safe supply selling hydromorphone

prescriptions to access fentanyl – a drug option not commonly available within PSS that many participants in this research indicated more sufficiently met their needs and preferences compared to hydromorphone. In this framing, the root causes of diversion within PSS programs, and where corrective actions are most urgently required, is not within 'problematic patients', but rather within 'problematic programs' and limitations in the characteristics and practices that constitute these programs which undermine their capacity to appropriately meet the needs of people receiving safe supply.

The present findings also problematize the one-dimensional conceptualization of diversion as solely a negative, harm-generating practice related to PSS programs. While acknowledging that diversion is a complex issue for programs and prescribers to navigate, specifically noting that concerns about prescriber liability are valid and require further attention, many participants experienced this practice as a form of community caretaking, a means to an end of both reducing the inequities people receiving safe supply may experience in other areas of their life (e.g., financial stability and income generation) and of 'positively contaminating' the unregulated street drug supply with pharmaceutical-grade drugs of known potency and composition. Similar to these findings, previous research by Bardwell et al. (2021) has characterized the practice of diversion as a pathway to addressing unmet needs among communities of PWUD including promoting financial security, helping others to manage the symptoms of withdrawal, and facilitating low-barrier access to a regulated, safer supply of drugs for community members who lack this access. These findings are complemented by research reporting a protective association between the use of diverted prescription opioids and reduced exposure to fentanyl among two cohorts of PWUD in Vancouver, BC (Socias et al., 2021). Such an impact is potentially lifesaving in the context of a drug poisoning crisis in which extreme variability in the potency of fentanyl available through the unregulated street drug supply is a major driver of associated morbidity and mortality.

Drug use among structurally disadvantaged populations, which is inclusive of the current target population of PSS initiatives, is often viewed by governments and institutional actors (e.g., policy and practice leaders across healthcare and criminal justice systems) as a social, medical, or criminal problem – depending on one's social or professional position – that is purported to be rationally addressed through methodical systems of control, treatment, and punishment (Ivsins & Yake, 2020). In these systems

of control (within which PSS exists as a medical intervention), notions of the value of pleasure associated with drug use are frequently delegitimized, obfuscated, and ignored by dominant institutional narratives related to health and drug policy (Moore, 2008) as well as by systems actors in positions of power (Lam, 2021). These systems actors frequently perpetuate moralizing discourses that depict 'problematic' or 'harmful' drug use – types of drug use that are often subject to cultural norms associated with what laws currently recognize as licit as opposed to illicit drug use – to be irrational, compulsive, and wholly unpleasurable (O'Malley & Valverde, 2004). These discourses are deeply engrained in the medical field, and are codified to an extent within the notion of substance use disorders included in the Diagnostic and Statistical Manual of Mental Disorders (DSM) and are also reflected in the explicit and implicit education and training provided to physicians engaged in drug use-related care (Dubin et al., 2017).

Stigmatizing attitudes toward pleasure and illicit drug use demonstrated by healthcare workers and institutions are indicated to contribute to negative patient experiences and care-related outcomes among PWUD (van Boekel et al., 2013). Investigation into the experiences of healthcare providers delivering pain management and drug treatment care to patients in a methadone maintenance program documented provider perceptions that patients experiencing euphoria from prescription medications was an issue to be corrected and managed, with some providers regarding euphoria as a wholly unacceptable outcome indicative of "drug abuse" (Berg et al., 2009). Some providers provided a more nuanced understanding of experiencing pleasure from medications in the context of effective care, indicating a preference to prioritize meeting care-related goals rather than strictly avoid facilitating euphoria, while still regarding euphoria as an undesirable outcome (Berg et al., 2009). Negative attitudes toward experiencing pleasure from prescription and illicit drug use conflict with the perceptions and experiences of participants in this research. Many participants identified experiencing pleasurable effects as an essential component of the drug use experience and described how an absence of pleasurable experiences associated with current PSS doses produced barriers to program uptake and retention. These findings demonstrate similar impacts to those described by McNeil et al. (2022), in which a prioritization among safe supply prescribers to provide prescriptions that mitigate withdrawal symptoms, but do not provide pleasure, contributed to people receiving safe supply choosing to supplement their program participation with continued access to the

unregulated street drug supply to experience desired pleasurable effects. This outcome represents a serious concern for PSS programs, for whom helping PWUD to disengage from accessing the increasingly toxic unregulated street drug supply represents a functional priority and a failure to do so compromises the core purpose of this intervention. An analogous dynamic has been described in the context of chronic pain management among PWUD, in which perceived concerns among prescribers regarding experiencing pleasure from prescription opioids result in unmet needs in care interactions (Dassieu et al., 2019). In research exploring pain management experiences of PWUD with chronic non-cancer pain, study authors describe how this population frequently encounters difficulties accessing effective pain management, with participants indicating they felt physicians were hesitant to provide pain medications due in part to unease that patients might experience pleasure from medications, an outcome regarded as incompatible with the conduct standards of physicians and other healthcare professionals (Dassieu et al., 2019).

Another important limitation hindering the uptake and effectiveness of this intervention among PWUD was the provision by PSS programs of drug options regarded as alternatives, replacements, and substitutions to the drugs that people have been accessing through the unregulated street supply for years and have grown accustomed to and dependent on. Participants' experiences demonstrated a clear misalignment in the drug options accessible through PSS in most contexts, such as the pharmaceutical opioid hydromorphone, and the drug options currently preferred and accessed by participants through the street market, such as fentanyl. The reported negative impacts associated with offering people receiving safe supply with access to *alternatives* rather than pharmaceutical-grade versions of their drug(s) of choice is consistent with other research detailing the experiences of PWUD enrolled in other therapeutic programs and pilots comparable to PSS. Although the alternative drug options that are sometimes offered by these various interventions, such as generic hydromorphone instead of brand name Dilaudid® or oral methadone instead of injectable heroin, are intended to mimic or approximate the physiological effects of the drugs they are replacing, researchers have reported strong dissatisfaction and disappointment among individuals receiving such alternatives in the context of both TiOAT (Ivsins et al., 2020) and clinical trials for SIH (Oviedo-Joekes et al., 2014). A similar dynamic was reported nearly a decade ago in BC following an overhaul of provincial regulation governing MMT that resulted in all

individuals receiving MMT in the province being switched from receiving generic methadone, which was mixed on-site by individual pharmacies dispensing the medication, to the replacement medication Methadose®, a pre-mixed and more concentrated formulation of methadone. This sweeping change was intended to standardize MMT in the province, promote client safety, and address concerns of diversion, but had the unintended, but serious, impact of severely hindering treatment satisfaction as patients reported Methadose® to be substandard, with reduced potency and an inability to prevent withdrawal symptoms for the requisite minimum of 24 hours between doses (McNeil et al., 2015). A recent study by Ferguson et al. (2022), in which researchers conducted a cross-sectional investigation of the opioid preferences of 621 PWUD recruited from harm reduction supply distribution sites in BC, is helpful in contextualizing the attitudes and perceptions of study participants in the present research toward the drug options currently available through operating PSS programs. Among survey participants, researchers reported that only 9.4% identified the opioid drug options generally available through PSS (e.g., hydromorphone, morphine, and methadone), as their preferred opioids of choice, with the majority preferring heroin (57.8%) and fentanyl (32.8%). These results are illustrative of the mismatch between the opioid options offered by PSS programs and reported community opioid preferences that contributes to experiences of drug dissatisfaction among people receiving safe supply, which has profound implications for safe supply initiatives.

These findings further indicate unmet needs related to drug options and formulations accessible through PSS for both people who use stimulants and people who prefer inhalation drug use. Participants' experiences, in which access to smokable drug formulations were non-existent and the availability of safer stimulant alternatives was sparse, build on commentaries from critical drug policy researchers that have expounded the necessity for dramatic changes in safe supply policymaking and programming to attend to the needs of these target populations, both of which have been largely excluded from the current body of opioid- and injection-focused PSS program developments (Bardwell, 2022; Fleming et al., 2020). Recent data reported by the BC Coroners Service (2022) detailing significant changes in the method of drug consumption most commonly associated with illicit drug toxicity mortality by year in the province, which has shifted from injection (associated with 36% of all drug poisoning deaths in 2016) to smoking (associated with 41-56% of all drug poisoning deaths

between 2017-21) underscores the assertions in these commentaries and indicates that a lack of attention to inhalable drug options within PSS is a significant regulatory and design oversight that may have deadly consequences as programs fail to keep pace with shifting trends in drug poisoning risk. Other research has reported perceptions from safe supply providers and health system planners indicating that the efficacy of PSS as an intervention closely depends on the capacity of programs to offer a diverse range of drug options, including stimulants and inhalable formulations, that closely match the drug use preferences of participants (Foreman-Mackey et al., 2022), findings that further demonstrate how this extant gap in programming critically undermines the potential for this intervention to be effective for the population, people who smoke drugs, currently most at risk of drug poisoning mortality.

Notions of ‘deservedness’ are deeply interwoven with the eligibility criteria, program rules, and behavioural expectations that interact to produce an evolving, institutionalized conceptualization of the type of individual regarded as a model candidate to receive the resources and support provided by various drug use-related services. Within this service context, drug treatment programs frequently codify such rules and expectations in formal written agreements outlining patient responsibilities that must be agreed to as a mandatory pre-condition to accessing treatment. Such agreements exemplify broader societal trends of ‘responsibilization’ consistent with forms of neo-liberal governance, in which PWUD are increasingly being required to accept individual responsibility for their care, and to embody institutional expectations that define who is considered to be both eligible and deserving of drug treatment services (Bacon & Seddon, 2020). Research by Moore (2009) details some of the contextual and relational processes that frame how PWUD negotiate such expectations in their interactions with service providers. An important process included in the range of strategies mobilized by PWUD to successfully navigate these encounters is referred to as ‘strategic accommodation’, in which Moore argues that individuals seeking care often make efforts to communicate a specific self-presentation to service providers to enhance the likelihood they will be able to successfully access needed forms of service resources and supports. These self-presentations, which have historically been closely associated with the schema of a ‘responsible user’ and may closely align (or deviate) from an individual’s lived reality, are understood to reflect service provider expectations that define what these professionals expect, want, or are required to see in the individuals

they deliver service to. Elements of such self-presentations might include communicating that an individual is risk-averse, their drug use is stable, and that they always return used harm reduction supplies to the appropriate collection services (Moore, 2009). Research by Moensted and Day (2020) has documented similar concerns among PWUD regarding the potential for honest disclosures, that are perceived to be *too* illustrative of the risk and harms experienced by patients, to influence provider perceptions and result in the termination of essential supports (e.g., disclosure of a return to using illicit drugs justifying ejection from a methadone maintenance program). Findings from the present research build on these notions of intentional self-presentation in encounters between PWUD and service providers, but introduce a new dynamic to the discourse. Participants in this research described how admissions that were perceived by providers to demonstrate stability – across a range of indicators including housing, financial security, success with drug treatment, and low levels of engagement in high risk drug use – were mobilized to label such 'responsible' PWUD as unsuitable for safe supply and ineligible to access these programs. To gain entry to PSS programs, participants had to instead demonstrate a self-presentation to prescribers that was characterized by instability, marginalization, and exposure to extreme risk of drug use-related harms. These participants' experiences invert this discourse of deservedness and eligibility, describing a context in which a medical intervention delivered to PWUD is gatekept behind notions of 'vulnerability' rather than 'responsibility'.

5.2. Operational Issues in Context

Participants identified pathways by which logistical and functional elements of PSS programs hindered their access to, and capacity to benefit from, this intervention. For example, a critical lack of awareness of PSS (including a gap in knowledge of the existence of programs in their entirety as well as both how and where to access programs) undermined the capacity of individuals in some communities of PWUD to access this intervention. Results from a recent cross-sectional analysis in an ongoing longitudinal cohort study conducted in Vancouver, BC, in which less than half of the sample of 633 PWUD reported awareness of PSS measures and less than one-in-three indicated they had previously attempted to access these services, provide further evidence suggesting a significant gap in awareness of safe supply prescribing among PWUD living in BC (Moshkforoush et al., 2022). Building on previous research

illustrating operational accessibility barriers within SIH programs (S. Boyd and NAOMI Patients Association, 2013; Oviedo-Joekes et al., 2014) and needle exchange services (Hyshka et al., 2012), participants' experiences in this research further demonstrate how limitations on when individuals can access programs (e.g., dispensing schedules and the hours services are open) can compromise service access and contribute to an increased risk of harms. Ivsins et al. (2020) have also described how restrictive dispensing schedules impact the operation of TiOAT programs, noting analogous impacts to those reported by participants in the present research, such as how limitations related to when prescriptions were available for pick-up and consumption contributed to participants supplementing with unregulated street drugs to manage withdrawal symptoms outside of these dispensing windows.

Another operational characteristic that impacted access to and uptake of PSS programs among PWUD was the geographical location of programs. Difficulty getting to and from program settings was pronounced for participants living in remote communities, where people receiving safe supply often had to overcome a lack of access to a personal vehicle in a context without robust public transit and travel significant distances to access programs. Rural participants frequently encountered an inability to receive take-home doses of prescribed drugs, a program feature that compounded transportation-related accessibility issues and hindered program effectiveness. These findings build on research conducted with PWUD living in rural BC by Bardwell et al. (2023), in which researchers describe how these same accessibility barriers, such as challenges related to overcoming daily witnessed ingestion policies and transportation issues, also impact access to TiOAT programs in the region. Another pathway by which the location of PSS programs contributed to accessibility barriers concerned programs which were integrated or co-located with other community-based services and supports. For example, a participant in this research discussed how people receiving safe supply from a program located in the same space as both a shelter and SCS sometimes experienced harassment from other service users who were not part of the safe supply program due to tensions surrounding resource scarcity and limited access to safe supply prescribing. Similar tensions and experiences of harassment have been described in the context of the experiences of women in street-based drug scenes, in which women frequently experience "grinding", or pressure and violence from men seeking to force women to give up their drugs (Fairbairn et al., 2008). A related, but

distinct, dynamic stemming from the co-location of services has also been identified in the context of a TiOAT program that shares space with an OPS (Ivsins et al., 2020). In this context, some people receiving TiOAT reported that sharing the program space with individuals outside the program (who were accessing the OPS and were often in possession of unregulated street drugs) was triggering for participants attempting to change (or discontinue) their use of unregulated street drugs.

5.3. The Role of Socioeconomic and Structural Marginalization in Context

Socioeconomic marginalization, operating through numerous explanatory pathways (i.e., material, behavioural, psychological, social, and environmental mechanisms) across multiple domains of disadvantage (e.g., resource insufficiency, criminalization of drug use, and housing inequities), is a key driver of drug poisoning morbidity and mortality in the current public health crisis (van Draanen et al., 2023). This framing emerges from a wealth of pioneering, conceptual approaches that have characterized frameworks of ecological determinants of risk, or risk environments, which are integral to understanding how individual, social, structural, and institutional contexts interact and overlap to frame drug use-related harms and the potential of interventions to address these harms (Collins, Boyd, Cooper, et al., 2019; Moore and Dietze, 2005; Rhodes, 2002; Rhodes 2005; Saloner et al., 2018). The present research builds on this recognition of the active role socio-structural environments take in shaping social and health-related outcomes among PWUD, with findings demonstrating how systems of socioeconomic and structural marginalization are not only powerfully associated with drug use-related harms, but are also implicated in driving (and contextualizing) barriers to the access, uptake, and retention of PWUD in PSS programs, as well as other interventions intended to mitigate and address these harms.

Street-level policing behaviours, and the presence of police nearby program locations, made access to SS programs more challenging for some participants in this study. The impact of such police activity in hindering access to services and supports for PWUD is not a new phenomenon, with such impacts previously discussed by researchers in relation to access to healthcare (Butler et al., 2022) and harm reduction services (Collins, Boyd, Mayer, et al., 2019; Small et al., 2006). Another pathway by which police behaviour contributed to limiting access to programs, not commonly

discussed in relation to access to other harm reduction interventions, is how the pervasive criminalization of drug use in Canada contributed to generating institutional mistrust among PWUD toward PSS programs. This dynamic was highlighted by participants' experiences of significant anxiety that their participation in this new intervention could potentially be used by police to punish people receiving safe supply which, in some cases, resulted in the decision to not engage with these programs. A recent development in BC that is relevant to these concerns is the pilot decriminalization of the possession of small quantities of specific drugs in the province that was implemented in January 2023 (Government of British Columbia, 2023). Although this measure has the potential to alleviate some prohibition-related impacts that weaken the accessibility of harm reduction and PSS in the province by limiting interactions between police and communities of PWUD, limitations associated with this pilot decriminalization may reinforce other criminalization-related service barriers. Specifically, the decision to decriminalize only a select number of drug types, and only in small quantities, may result in the continuation of regular interactions between police and PWUD in BC to verify individuals are not in possession of drug quantities or types that violate the pilot decriminalization thresholds. Further, the current iteration of decriminalization includes no publicly available safe supply-related provisions or assurances regarding how drugs accessed through safe supply programs will be considered in police encounters (e.g., protocols to ensure people receiving safe supply are not unjustly dispossessed of safe supply medications that exceed exemption thresholds if medications are not properly labelled or patients are not in possession of the official documentation (such as personal identification) required to verify prescriptions). Personal identification, specifically inequity related to accessing and retaining these documents, is recognized as a serious barrier impacting access to social and medical supports for marginalized populations (Sanders et al., 2020). The on-the-ground implementation of this pilot decriminalization in BC will need to be closely monitored to evaluate its impact on the socio-structural marginalization of PWUD.

Lack of access to secure housing significantly undermined the overall participation and capacity of PWUD to accommodate program policies and procedures inherent to accessing and benefitting from PSS. Being able to adapt to certain processes built-in to this intervention, such as having the necessary resources to pick up prescriptions daily and make and attend regular appointments with prescribers and

program staff, was difficult for unhoused (or unstably housed) PWUD who often manage heavy time investments and experience significant pressures everyday just to meet their basic needs. Participants in this research identified that some PSS program policies and processes were challenging to reconcile with the lived reality of people who are unhoused, and contributed to this population not being effectively reached by many programs. A lack of fit between services and the needs of people who are unhoused has been discussed in relation to the healthcare and drug treatment service landscape more broadly, with resultant challenges yielding deep inequities in access to these services for this priority population (Harris et al., 2022; Thorndike et al., 2022). This incongruency relates in part to pressures introduced by economic marginalization (experienced by both housed and unhoused PWUD), in which extreme resource scarcity and instability contributes to many impacted individuals being unable to feasibly participate in interventions like PSS, or other forms of harm reduction like drug checking services (Bardwell et al., 2019).

Interpersonal and structural drug use-related stigma contributes to significant accessibility barriers for PWUD attempting to access healthcare and harm reduction interventions, including PSS. Social stigma toward drug use within Canadian communities hinders access to drug use-related services and supports for PWUD, especially those living in rural areas where stigma frequently results in discrimination and heightened surveillance while in public spaces (Bardwell et al., 2022). Participants in this research also reported that previous experiences encountering stigma within the healthcare system generated mistrust and a lack of interest in participating in PSS for themselves and other members of the broader community of PWUD. Structural stigma, which is produced and reinforced by the institutions and systems with which PWUD must engage to access care, powerfully weakens the accessibility of clinical and public health interventions intended to mitigate drug use-related harms (Tsai et al., 2019). The current findings demonstrate how structural stigma (i.e., when discrimination against PWUD is encoded within institutional and governmental policies and regulations) constrains the room for rapid innovation among harm reduction interventions to more comprehensively meet the needs of PWUD, such as by limiting the types of drug options and methods of consumption PSS programs can offer to people receiving safe supply. The characteristics and operating procedures of other harm reduction initiatives, like SCSs, have also historically been tightly regulated by institutional and governmental policies.

Many important limitations experienced by these services (e.g., lack of support for people who smoke, enforcement of strict capacity limits, and an inability to accommodate assisted injections) stem from restrictions associated with exemptions to Canada's Controlled Drugs and Substances Act (1996) which permit facilities to operate legally (Small, Shoveller, et al., 2011).

5.4. Implications for Prescribed Safe Supply Programs and Policy Change

Participants' experiences with current PSS programs problematized the notion that offering access to a regulated drug supply through prescribers in a top-down, clinical program structure is, by default, sufficient to foster the confidence and effective participation of PWUD in these programs. That participants reported significant barriers and unmet needs associated with PSS indicates an opportunity to optimize prescriber-led models based on the perspectives of priority impacted populations, namely PWUD and people currently receiving safe supply. These findings have important, actionable implications for PSS programs to consider in addressing accessibility concerns relevant to reaching marginalized communities of PWUD, mitigating institutional mistrust toward medicalized programs, and resolving crucial operational gaps. However, the perceived incompatibility of the medical system and safe supply that was shared by some participants also suggests the importance of pursuing additional novel initiatives and regulatory pathways (e.g., legal regulation and other public health approaches), as well as taking steps to sanction and scale-up community-driven solutions (e.g., community compassion clubs), to provide PWUD with access to a range of regulated drug supply options.

A Public Health Reframing of Prescribed Safe Supply

The optimization of PSS programs is an important step in improving provincial and national responses to the drug poisoning crisis, but the depth and significance of the barriers impacting medicalized programs suggests the need to consider additional broad shifts in policy and the overall framing of safe supply implementation and evaluation. Rationale supporting the need for such a strategic reorientation fits within discourse critical of historical and contemporary approaches to address public health issues with solutions (usually medical in nature) that demonstrate a misunderstanding of the root

causes driving drug-related harms like overdose and drug poisoning. In the context of the drug poisoning crisis, policy solutions relied upon to this point have typically emphasized clinical interventions, that are largely reactive and operate at the level of the individual, to attempt to solve the consequences of structural and systemic issues (e.g., a toxic and highly variable unregulated street drug supply) that impact entire populations and are not feasibly addressed by behavioural or individual-level interventions (Reinhart, 2023). This discourse builds on previous critiques of the historical reliance on hyper-individualized interventions and government responses to address drug use-related harms (Moore & Dietze, 2005; Rhodes, 2002; Rhodes, 2005). Such policy directions have frequently resulted in a lack of attention and resource investment in generating the kind of systemic change required to more fundamentally address the root causes producing and perpetuating the harms experienced by PWUD, such as contexts of profound housing, financial, and material inequity. The manner in which PSS has been implemented has reproduced some of these same limitations that have long impacted the capacity of individual-level harm reduction interventions to respond to the risks and harms associated with public health issues originating within more macro structural and systemic contexts.

Although the unregulated drug poisoning crisis has been identified as a public health emergency, interventions and responses to this crisis have not consistently engaged key principles and practices of public health. A concerted effort to recommit to approaching this as a *public health* crisis, and to view safe supply as fundamentally a public health (rather than medical) intervention, may be helpful in bringing forward key public health principles and ethics that can be drawn upon by policymakers and frontline practice leaders in the design, operation, and evaluation of these programs. Further, public health systems and institutions have access to forms of power, such as government resources and impactful policy levers, that are unavailable to individual medical providers (and are often outside of the clinical scope of their work) that can be engaged to achieve broader change in the structural and environmental contexts currently driving drug poisoning harms. The pursuit of such structural change, in which the goal is to fundamentally alter the environments and contexts in which populations exist to promote health and avert preventable harms, represents a core functional purpose of public health. Therefore, public health systems, institutions, and processes may represent appropriate (and perhaps ideal) settings for the design and

implementation of solutions to mitigate the drug poisoning crisis, including the delivery of safe supply.

While public health systems may hold significant potential in advancing efforts to demedicalize PSS and further efforts to expand this intervention's reach, uptake, and effectiveness, it is necessary to acknowledge that, in certain contexts, public health practice and policymaking remains deeply impacted by processes of medicalization (Lantz et al., 2007). For example, although social and structural risk environments (e.g., racism, housing instability, and economic marginalization) are recognized as key risk factors shaping population health (Rhodes, 2002), public health policymaking often continues to pathologize such inequities (and associated impacts to population health) by neglecting action to address upstream drivers of population inequities and reinforcing regard for medical systems as appropriate intervention settings (Lantz, 2019; Reinhart, 2023). There has been significant effort in recent years to address these limitations at a systemic level, such as through the development and implementation of conceptual frameworks to demedicalize public health education and professional practice, including the operationalization of ethical principles related to social justice and health equity within public health training, regulation, and evaluation (Canadian Public Health Association, 2017). However, the functioning of modern public health systems and institutions across Canada may still be catching up with these developments, and significant work may yet remain to effectively translate emerging conceptual frameworks into how public health systems are actually functioning to promote health (and prevent harms). The demedicalization of safe supply practice represents a compelling opportunity to advance efforts to more broadly demedicalize public health practice and policymaking, and bring the functioning of public health systems more closely in line with the ethical principles and standards being espoused by Canadian public health educational programs and professional associations in the training and guidance provided to emerging public health professionals.

Efforts to establish safe supply as a *public health* intervention may be beneficial in presenting opportunities for safe supply policymakers and partners to draw on various public health principles and standards in the design, implementation, and evaluation of safe supply to address the program limits and gaps identified in this analysis, such as limitations associated with restrictive eligibility and insufficient program options. Frameworks of public health ethics have been discussed, documented, and broadly

adopted in various forms by national professional bodies of public health professionals in Canada and the United States (e.g., the Canadian and American Public Health Associations), and now feature prominently in guiding the education of new trainees to the field and the professional and public practice of these institutions. Five core components of such ethical frameworks that are critically relevant to informing safe supply practice include: i) attention to social justice and health equity (Canadian Public Health Association, 2017), ii) respect for consent and the autonomy of individuals, iii) a focus on addressing the fundamental causes of inequity and the prevention of adverse health outcomes, iv) developing and evaluating interventions based on community input, v) and implementing approaches that respect diverse community values and beliefs (Thomas et al., 2002).

A final impactful public health ethic relevant to the safe supply context is the precautionary principle. This principle is widely considered an essential element of responsible public health policy and practice and is a key component in affording public health systems the flexibility required to *prevent*, rather than *react* to, harms to population health. The precautionary principle, which is often cited in the approach of effective public health responses to environmental, industrial, and systemic risk factors, states that in the context of threats that may have serious and irreparable consequences (i.e., to the health of populations), scientific uncertainty should not be cited as justification for failing to implement interventions with the capacity to prevent harm (Goldstein, 2001; Kriebel et al., 2001). A lack of clinical evidence (deemed to be insufficiently conclusive) to support the implementation of safe supply is sometimes cited as rationale for hesitancy among medical professionals and policymakers to justify exercising caution and delaying investment in new programs or the expansion of existing ones (Lam, 2021). However, in the context of other harm reduction interventions that seek to mitigate drug-related harms, such as managed alcohol programs, the absence of evidence from randomized clinical trials regarding program impacts has not been met by a similar degree of hesitancy or concern regarding acceptability on the part of communities and health systems (Smith-Bernardin et al., 2022). Managed alcohol programs serve a similar function to PSS, providing (among other supports) consistent access to doses of *regulated* alcohol, of *known quality and potency*, to mitigate (in part) the harms associated with the use of non-regulated alcohol sources such as forms of non-beverage alcohol like mouthwash and hand sanitizer (Smith-Bernardin et al., 2022).

Despite an initial lack of clinical evidence to support their implementation, managed alcohol programs were first established in Canada in the 1990s as an important public health response to known social, structural, and health harms associated with alcohol use and the marginalization of people who use non-beverage alcohol (Landefeld et al., 2023). The number of active managed alcohol programs has quietly (but significantly) grown since the emergence of the COVID pandemic, both in Canada (an increase from 26 to 38 programs since 2019) and abroad, with programs now operational in the United States, Ireland, and Scotland (Landefeld et al., 2023). Although there may have been initial scientific uncertainty regarding the community and client impacts of managed alcohol programs, there was convincing rationale for their implementation (as a means to reduce alcohol harms using non-abstinence based approaches) and subsequent evaluations have demonstrated a range of associated positive impacts on the health and wellbeing of managed alcohol program clients, including improvements to quality of life, positive associations with housing retention, and reductions in acute alcohol-related harms, overall alcohol consumption, interactions with police, in-patient hospitalizations, and usage of emergency departments (Smith-Bernardin et al., 2022). Importantly, the implementation of managed alcohol programs was not functionally gatekept behind notions of scientific uncertainty when they had the capacity to avert significant population health harms, perhaps in part because these programs have historically operated outside the spotlight of public and political scrutiny (Landefeld et al., 2023) and involve a nonstigmatized legal drug deeply interwoven in Canadian social culture (Sudhinaraset et al., 2016). Managed alcohol programs have been examined extensively in the years following their implementation, and researchers have closely monitored, evaluated, and reported on program impacts that have strongly demonstrated the promising capacity of managed alcohol programs to effectively mitigate alcohol use harms and support the health and wellbeing of clients and their communities (Landefeld et al., 2023). In considering safe supply, the drug poisoning crisis is currently not a *potential* or *future* threat to population health. This crisis is actively harming Canadian communities and delayed responses may influence the potential to prevent the deaths of thousands of individuals every year. There is sufficient understanding of the primary role of the unregulated drug supply in driving extreme rates of drug poisoning mortality (BC Coroners Service, 2023; Crabtree et al., 2020; Kolla et al., 2022; Larnder et al., 2022; Palis et al., 2022) to warrant urgent intervention on the part of governments and policymakers to pursue innovative solutions, such as advancing regulatory efforts to

expand and optimize PSS to mitigate the well-documented and significant mortality produced by toxic illicit drug markets (BC Coroners Service, 2023).

The following recommendations may be helpful in guiding programs to be attentive to various key public health conventions and principles that remain highly relevant to the effective (and equitable) operation of active PSS programs and the design and implementation of future ones. These standards provide additional rationale for the value and importance of the discussed implications for safe supply programs, and help to locate these proposals within an interdisciplinary framework of public health ethical imperatives that are considered integral to the effective functioning of population health systems and the just pursuit of public health (Gallea and Annas, 2016).

Expansion of Program Options to Address Critical Gaps in Care

Many participatory barriers encountered by participants engaging with PSS programs related to limitations in the range of program options (e.g., drug options and dosages) offered to people receiving safe supply. Participants discussed a frequent lack of fit between the options that were available and participants' drug use preferences and needs, noting as well the limited extent to which participants could exercise control and autonomy or were involved in decisions about their prescriptions. Informed by these experiences, as well as public health principles that entail respect for consent, autonomy, and community input, PSS programs should consider implementing a larger range of program options and characteristics in which people receiving safe supply are provided the flexibility to make more choices about how they engage with and receive PSS. Such an expansion of program options could feature more individualized care in adapting services to the needs of each person receiving safe supply and contribute to facilitating PWUD to take a more active role in making decisions together with prescribers about a broad range of program attributes that impact and largely define an individual's experience within PSS, including drug options, dosages, methods of consumption, pickup and delivery processes, and program spaces and locations.

Expanding the range of drug options available through PSS, and enhancing the capacity of people receiving safe supply to make choices about the drugs they receive, is a core consideration in optimizing PSS programs based on these findings. Limitations in the drug options available within this intervention represented a significant

participatory barrier for participants, with current drug options largely excluding stimulants and preferred drugs commonly available through the unregulated market (e.g., heroin, fentanyl, cocaine, and methamphetamine). Given the toxicity and contamination of unregulated stimulants, in which non-stimulant drugs are sometimes incorrectly advertised and/or sold as stimulants or stimulants are unexpectedly cut with other active ingredients like opioids, providing effective and desired stimulant drug options is an important consideration for PSS programs to make programs more accessible to PWUD for whom stimulants are a preferred drug option (Fleming et al., 2020). Regarding opioid drug options, the inclusion of fentanyl as a more widely available and prescribed drug option within PSS programs is important to ensure programs are responsive to the current realities facing most people who use opioids in Canada (in which fentanyl dominates the unregulated market and is what most people are familiar with and continue to use on a daily basis). Fentanyl, which was identified as a preferred drug option by many participants in this research, appears frequently in highly variable dosages and alongside unexpected active ingredients (due to the unregulated nature of this supply) with this variability representing a primary driver of the harms associated with the ongoing drug poisoning crisis (Larnder et al., 2022). Participants described fentanyl as uniquely capable of meeting their needs, something not replicated by other available replacement prescription opioid options like hydromorphone. Consideration of the inclusion of fentanyl as a more widely accessible drug option within PSS is important, as this innovation would address a crucial limitation impacting most current programs, in which many people receiving safe supply, despite their active participation in programs, must continue to access the unregulated market to access fentanyl. While some medical professionals may express concern at the notion of prescribing fentanyl in the current context in which *unregulated* fentanyl from the street market is overwhelmingly implicated in driving drug poisoning deaths, it is this very context (in which many PWUD have already become accustomed to using significant quantities of fentanyl and their only means of accessing this drug is through a market characterized by severe volatility and inconsistency) that requires consideration for providing access to fentanyl through *regulated* pathways to mitigate harms. The rationale supporting the appropriateness of including fentanyl as a regulated drug option within PSS programs is further supported by a core public health ethic, that is, commitment to addressing the fundamental causes of inequity and harm (i.e., to pursue solutions to address the unregulated nature of street fentanyl). This limitation currently

undermines the capacity of PSS to avert preventable deaths and reduce drug poisoning risks, and efforts taken by programs and regulators to correct this barrier by directing attention to address the root causes of implicated harms would represent significant progress in bringing this intervention in line with effective public health practice.

Other aspects of an effective expansion of program options that may be considered by programs relate to the dosages of PSS medications and the supported methods of consumption. That participants reported dissatisfaction with currently available dosages, as well as tensions in the decision-making processes involved in arriving at these dosages, indicates the importance of programs addressing these concerns, such as by implementing processes that demonstrate greater respect for the decisional capacity of people receiving safe supply in making choices around their prescribed dosages. To promote effective and conscientious practice, prescribers may consider exercising greater flexibility in providing dosages that are consistent with the lived reality of the current drug supply and are sufficient to meet the needs of people receiving safe supply. It is crucial here to acknowledge that the needs of some people receiving safe supply may include a desire to experience pleasurable highs, and while notions of supporting patients to experience pleasure in their drug use may produce tension and discomfort throughout the medical community, efforts should be taken to confront and resolve these tensions in a manner that balances health and safety concerns with patient satisfaction. This represents a priority issue for programs, as the current findings indicate that an inability to access drug options and dosages that provide “highs” is a core program limitation and is associated with continued access by people receiving safe supply to the unregulated street drug supply (a consequence that exposes them to extreme drug poisoning risks and hinders the core purpose of providing access to a regulated drug supply). Similarly, PSS programs should pay close attention to the preferred methods of consumption of people receiving safe supply and attempt to offer options that accommodate these preferences to ensure programs are relevant and accessible to all PWUD (relevant to health equity considerations, as current programs are only accessible for those whose preferences conform to available program options). For example, participants in this research described how many programs do not support or provide drug formulations suitable, or intended, for consumption by smoking, a limitation that weakened the usefulness of these programs for people whom smoking is a preferred method of consumption.

Daily witnessed consumption protocols were also identified by participants to constrain access to this intervention. This practice, in which individuals are required to pickup prescriptions daily and ingest medications under supervision, is widespread throughout risk-reduction programs and is associated with significant resource investments. A recent analysis completed in BC estimated excess expenditures of more than $38 million associated with the enforcement of daily witnessed consumption protocols by OAT programs in the province (Nosyk et al., 2023). During the COVID-19 pandemic, some iOAT programs explored the discontinuation of requirements for daily witnessing of prescriptions in favour of providing take-home doses for patients to consume based on their personal preferences. These changes in dosing protocols were associated with positive patient outcomes, such as greater retention in care and patient reports of improved quality of life and daily flexibility (Oviedo-Joekes et al., 2023). Although the risk of diversion is frequently cited as justification to negate the provision of take-home doses in such program settings, participants in the noted study reported no intention or motivation to engage in diversion, stating that their iOAT prescriptions were too essential to their wellbeing to do so. Given that participants in the current analysis identified daily witnessed requirements to significantly impede participation, greater flexibility in the provision of take-home doses to people receiving safe supply may represent an important consideration for programs as such a measure would contribute powerfully to making safe supply more accessible to marginalized communities (a key public health ethic) including community members who may not have the financial or practical resources to regularly travel significant distances to access prescriptions, and would likely be associated with meaningful cost-savings and enhanced patient outcomes, satisfaction, and retention in care.

Finally, participant experiences indicating a lack of fit between the operating hours of PSS programs and when people receiving safe supply sometimes needed to access and use their prescriptions (e.g., outside of regular business hours), suggests the benefit of programs considering implementation of overnight and on-demand pathways to access prescribers and prescriptions. Similar barriers have been experienced in the operation of other harm reduction services, such as supervised consumption sites (Small, Ainsworth, et al., 2011) and needle exchange programs (Hyshka et al., 2012), and in the case of the latter these barriers were overcome by efforts to extend operating hours and include a greater range of access points (e.g., within SROs, by foot patrols,

from mobile vans) with 24-hour accessibility. While acknowledging the significant resource investment required to provide this level of availability, such an adaptation on the part of safe supply programs would represent an important step in approximating the convenience available to PWUD currently in accessing the unregulated market (something that programs must contend with in reaching and retaining patients). A lack of flexibility regarding when programs, prescribers, and prescriptions are currently accessible contributes to increased risk that people receiving safe supply may experience pressure to return to accessing the unregulated street drug supply if their access needs fall outside of traditional hours of service availability (thus exposing them to drug poisoning risks and undermining program outcomes).

Inclusive Eligibility

A vital consideration to reconcile within current and future safe supply eligibility is the reality that every individual who currently accesses the unregulated street drug supply, be that access daily or episodic, is exposed to significant risk of drug poisoning morbidity and mortality (in addition to other social and structural harms associated with highly criminalized settings that are not consistently considered in these conversations, such as police and state violence). The unregulated nature of the illicit street drug supply makes it difficult, or impossible, for anyone using drugs from this source to make fully informed decisions about their exact drug contents and potency. Despite this, participants in this research described how certain individuals, such as PWUD who were perceived by prescribers to be ‘too stable’, were unable to access PSS due to restrictive eligibility criteria. Based on these experiences, PSS programs and policymakers should consider taking action to enhance coverage of this intervention by minimizing eligibility barriers that may prevent certain subgroups of PWUD (who have demonstrated a willingness and desire to engage with healthcare supports to facilitate such access) from participating. An important contribution to this discourse is the relevance of such an expansion of eligibility in fulfilling key moral imperatives associated with responsible public health practice, such as commitments to social justice and health equity by ensuring the requirements for health are accessible to all (and not only a select few). Although measures taken to expand access to PSS may be met by concern (e.g., that such changes could contribute to the prevalence of diversion), these hesitations should be considered alongside a growing body of critical research and commentaries, to which

this research adds, that problematizes the framing of diversion as solely a harm-generating practice in the context of safe supply and modern drug treatments (Bardwell et al., 2021; Crackdown, 2023) as well as recognition that the exclusion of any subpopulation of PWUD from this intervention will ultimately result in further preventable social harms and drug poisoning deaths.

Beyond the Drugs: Additional Comprehensive Services and Supports

Participants' perspectives also challenged the accessibility and effectiveness of PSS programs that operate predominantly to provide access to prescription medications without concurrent investment in supporting patients with other social and health-related needs. Programs that were perceived to operate with mainly a clinical focus for care did not fully meet most participants' expectations for the breadth and diversity of supports they wished to see available at programs providing safe supply. That participants perceived limitations in the range of services offered by programs to people receiving safe supply suggests there is potential in considering program growth (closely dependent on an increase in funding) into providing a broader range of services and supports that is inclusive of a greater spectrum of social, health, and structural needs. Participant accounts here suggest a desire to receive both access to a regulated drug supply (to address the immediate risks associated with the unregulated drug poisoning crisis) as well as additional comprehensive services and supports (to address the material and social contexts of longstanding deprivation and marginalization experienced by many people receiving safe supply). The desire among participants to see the provision of these additional supports made in combination with PSS indicates a perceived benefit of offering more integrated care models (e.g., a one-stop shop in which an individual is able to access the full range of supports necessary to support their wellbeing) as well as recognition that service access for PWUD in more traditional institutional settings is fraught with stigma and barriers – which are often mitigated in the delivery of wrap-around supports in more harm reduction-oriented settings (Small et al., 2008). Beneficial services and supports that may be considered for inclusion or integration within PSS programs include housing (e.g., shelters, supportive and traditional housing), harm reduction (e.g., SCSs, needle exchange programs, naloxone training), healthcare (e.g., primary care, recovery, treatment, specialist services) mental healthcare (e.g., emergency mental health services and counselling), social services

(e.g., assistance navigating legal and government supports), outreach, and nutrition supports (e.g., food programs). These calls for an expansion of the services and supports included in medically-regulated drug supply programs build on the recommendations, now made more than a decade ago, of the NAOMI Patients Association, an independent group of former participants in Canada's first clinical trial of SIH (S. Boyd and NAOMI Patients Association, 2013). Based on their experiences in this trial, the NAOMI Patients Association shared recommendations that a full umbrella of services be offered by SIH programs in future, as such supports would have been critical to supporting their engagement, noting that support-related limitations complicated their participation in SIH and their ability to achieve desired outcomes.

Meeting the Needs of Marginalized Identities and Cultural Groups

Historically within healthcare and harm reduction-related services and supports, the experiences of marginalized, disadvantaged, and racialized subgroups within communities of PWUD have been neglected, and services have not been tailored to meet the unique needs and concerns of these populations. That participants reported accessibility barriers impacting such priority populations, for whom PSS is intending to reach, such as women, sexually and gender diverse individuals, parents, Black and African-Caribbean Black communities, and Indigenous, First Nations, and Métis communities, suggest that programs and policymakers must take action to address the issues impacting the participation of these populations. While refining existing programs to make them more accessible generally is an important part of the solution here, policymakers must also pursue the development and implementation of culturally-safe and inclusive PSS programs that are responsive to the disproportionate burden of drug poisoning mortality outcomes experienced by racialized communities in Canada (First Nations Health Authority, 2021). Another priority population, for whom PSS does not currently intend to reach, is youth who use drugs. Participants identified the exclusion of youth from PSS as a complicated issue and, while there was not consensus on whether youth should be included within PSS, there was recognition that youth who use drugs currently experience the same drug poisoning risks as adults who use drugs. Development of a strategy to deliver access to a regulated drug supply to youth who use drugs in a responsible and appropriate manner must represent a priority for PSS policymakers. Just as a lack of attention within PSS programs to the needs of specific

racialized communities and marginalized demographics will create further barriers to care and drive drug poisoning harms, the exclusion of youth from safe supply, and other harm reduction services, will likely contribute to further preventable deaths (Canêdo et al., 2022).

Community-Driven Approaches to Safe Supply

Finally, community-driven models of safe supply are an important consideration to reach individuals for whom institutional and medicalized programs are incompatible with how they wish to access a regulated drug supply. Given that some participants in this research characterized the current clinical nature of safe supply as one of the greatest accessibility challenges, alternative models and programs which are originated by the community and led by PWUD need to be considered and officially sanctioned by the federal government, and ultimately be incorporated within the ongoing systemic response to the drug poisoning crisis. Such an expansion would require governments to empower local communities of PWUD to adapt existing community-regulated safe supply models (e.g., the DULF model) or develop novel strategies for providing access to a regulated drug supply. This policy direction would not necessarily supplant other forms of safe supply (e.g., medical, public health, or legal regulation), but would represent a vital inclusion to provide PWUD with greater choice and autonomy over how they are able to prevent and mitigate the risks associated with the unregulated street drug supply and address significant gaps in the reach and accessibility of current clinical safe supply models (in which many individuals at risk of drug poisoning are not being reached and preventable drug poisoning deaths continue to occur at record rates).

5.5. Limitations of the Research Design

This research has several important limitations that should be acknowledged. The data collection techniques used within this research were associated with specific limitations. All interview data considered in this research were produced by interviews conducted remotely using Zoom video conferencing software. Therefore, individuals experiencing social and structural inequities in access to, or familiarity with, communications technology likely experienced greater barriers to participation in these interviews and their experiences may not be fully reflected in the data set. Due to the

inherent self-report nature of the qualitative interviewing included in this research, social desirability bias (in which interviewees are motivated to share responses that conform to societal expectations of acceptability that may or may not closely match their lived reality) may have also impacted some participant responses (Bergen & Labonté, 2020).

Certain characteristics of the sampling strategy were also associated with potential limitations. Funding constraints impacted the ability of the research team to achieve a fully representative participant sample of Canadian PWUD and frontline workers. While sampling included representation from four provinces (BC, Alberta, Ontario, and Québec), other provinces and territories were not included, and therefore the experiences of individuals in these regions may not be captured by this research. Further, the transferability of these findings to other contexts may be impacted by the relative uniqueness of the sampled settings (particularly BC and Ontario) with regard to the extent to which harm reduction, PSS, and other innovative drug use-related interventions are currently available and/or being considered. Some participants (based on the context in which they lived) also differed in the extent to which they had experience and familiarity with accessing PSS programs and services. This is in part due to the novel nature of safe supply, the existence of significant regional differences in the availability of safe supply, and that the purposive sampling strategy of this study did not specifically target individuals based on their experience with PSS. Although this is a potential limitation, it does not represent a major concern for this research due to several considerations, including i) sampled participants still had adequate experience with the phenomenon of interest, ii) all participants in the sample represent safe supply partners and collaborators well-suited to provide data toward answering the research questions, and iii) all participants who identified as a PWUD are part of the target population of PSS and therefore are likely to possess a suitable depth of knowledge and expertise to make a valuable contribution in addressing the research objectives. Finally, the extensive involvement of the CRC throughout the data collection and analysis phases of this study served an important role in mitigating any potential limitations introduced by this sampling strategy. Had this sample not been appropriate to addressing the research questions, and data collection with these participants was not yielding relevant experience or expertise of safe supply, this would likely have been identified quickly by the CRC as a matter of concern requiring modifications to the study design (however, this was not raised as an issue at any point in the research process).

Resource constraints impacted the depth of engagement with the CRC that could feasibly be incorporated within the research design. This engagement was integral and significant in guiding the data analysis process and the generation of core findings presented in this thesis. However, this same level of community-engaged work was not feasible during the manuscript writing stage of the research, which was completed primarily by the student lead with input, feedback, and revisions provided by the academic supervisory committee associated with this research. Future plans to adapt this manuscript for submission to peer-reviewed journals will address this limitation in the writing process, as significant collaboration and engagement with the CRC is desired and expected to be completed. These plans include facilitating opportunities for robust, active roles in the actual generation of the written text included in the final product submitted for consideration for publication.

5.6. Strengths of the Research Design

The community-engaged methods employed throughout this research represent a key strength. The work and leadership of the CRC in producing this research is a defining characteristic of the research design, and the insight and expertise each community research associate brought to this project significantly enriched the depth and relevance of these findings to safe supply collaborators. Community members, each of whom possessed lived and living expertise of the research objectives pursued by this project, took active roles in shaping this analysis and were integral to efforts to ensure the reported findings are informed by members of the same communities sampled for this research. This methodology represents best practice for working with marginalized communities, for whom the research process has historically been extractive and inclusion in this research often tokenistic or non-participatory, and the extent to which community-engaged methods were applied in this research is beyond what is often demonstrated by other researchers in this field.

As the implementation and evaluation of PSS interventions is a current and rapidly developing topic for research, this analysis is timely and has the potential to inform meaningful policy change and the optimization of prescriber-led program models that more closely align with the needs and perspectives of PWUD and frontline workers. Further, the data set on which this research is based is highly relevant to the COVID context (which continues to impact the development and operation of healthcare and

harm reduction interventions) as all interviews were completed in 2021 within the context of the pandemic and early phases of the launch of PSS programs.

A final strength of this research design is the inclusive sampling approach employed to respond to the inequitable impact of social, structural, and drug use-related harms experienced by priority demographics within the broader Canadian population of PWUD. Sampling featured specific recruitment goals to guarantee that the perspectives and experiences of racialized (i.e., First Nations, Inuit, Métis, Black and African-Caribbean Black communities) and marginalized communities (i.e., sexually and gender diverse people, women, unhoused people, and people living in areas with reduced population density) were sufficiently represented and reflected within the research. Although not a specific goal of the sampling strategy, the participant sample also included more than 70% representation of individuals who identified as both a PWUD and a frontline worker. This significant overlap in participant identities is a strength, as it contributes to this participant population being uniquely well-positioned to speak to the barriers to access, uptake, and retention in PSS as both an individual who may have accessed (or attempted to access) these supports as well as from the perspective of an actor from within the drug use service and care system.

Chapter 6.

Conclusion

In conclusion, this study highlights notable barriers currently hindering the participation of PWUD within PSS programs (including operational issues, limitations associated with the medical model, and the impacts of socio-structural marginalization) as well as important, actionable considerations that may be considered to enhance access to and uptake of this lifesaving intervention. Principal amongst these considerations is the benefit (in the interest of effectively optimizing and improving upon PSS) that may result from a reframing, on the part of policymakers, practice leaders, and researchers, to commit to regarding safe supply as a *public health* (not medical) intervention in addressing drug poisoning harms. Considering the urgency of the drug poisoning crisis, and the centrality of the unregulated street drug supply in driving fatalities and harms, there is great potential in considering a fundamental shift in the conceptualization of PSS (a regulated supply intervention with the potential to support PWUD in disengaging from this street supply) to facilitate greater innovation in program practices and accountability to impacted communities. Such a reframing is crucial in centering the relevance of broadly endorsed and substantive public health standards and ethics (such as obligations to social justice, health equity, autonomy, consent, and timely intervention) that have sweeping implications for current (and future) safe supply development and practice.

A commitment from safe supply policymakers to uphold public health principles in the design, implementation, and evaluation of PSS programs would represent an important advancement, and may contribute to mitigating key participatory barriers currently experienced by target populations for this intervention in a manner that is responsive to, and aligned with, the perspectives of PWUD and frontline workers outlined in these findings. For example, this study illustrates the potential accessibility benefits that may be realized by pursuing an expansion of program options available within PSS (i.e., in the drugs, dosages, and methods of consumption supported by programs). These innovations would not only be responsive to the perspectives of participants in this research (who clearly described how limitations in core program options hindered intervention uptake and retention) but would also contribute to

addressing issues of equity and a lack of person-centred care within programs and help to align PSS practice with public health ethics related to respecting autonomy and community input. The current findings also highlight an opportunity to promote enhanced coverage of this intervention by considering broader eligibility as to who is able to access a regulated drug supply through these programs (for example by adapting guidelines to remove certain restrictive requirements, such as the gatekeeping introduced by requirements that patients have a substance use disorder diagnosis). This adaptation is crucial to ensure the safe supply field remains consistent with the goals and standards of responsible public health practice (e.g., to ensure the requirements of health are accessible to all), particularly in the current context in which all individuals who access the unregulated drug supply (with or without an official substance use disorder diagnosis) remain at great risk of drug poisoning morbidity and mortality. Finally, while these findings demonstrate pressing areas of attention for the optimization of prescriber-led programs, the perspectives of PWUD and frontline workers described in this research also suggest the need to explore additional alternate safe supply models (e.g., community-driven initiatives like compassion clubs) that may more effectively reach individuals and communities whose needs and priorities are not met by current medicalized initiatives. Policymakers should consider these implications in avoiding further politicization of a public health emergency and taking prompt action to optimize and improve upon existing prescriber-led programs, decisively address regulatory and legislative barriers hindering the uptake and scale-up of various safe supply programs and models, and urgently consider other innovative solutions with potential to prevent and mitigate drug poisoning harms (recognizing that PSS is just one part of the comprehensive response needed to meet this crisis with the urgency it demands).

As this intervention continues to develop rapidly, future research in this area is essential to deepen our understanding of the impacts and operation of PSS programs and to track the continued evolution of the field of safe supply broadly. An important area of future research closely associated with the present study includes investigation into the barriers to participating in PSS from the perspective of safe supply partners that were either absent from the present sampling (or would benefit from more deliberate and targeted sampling and analysis) including safe supply providers (e.g., prescribers, pharmacists, and nurses), racialized communities of PWUD (e.g., the experience of immigrant, South Asian, Black, First Nations, Indigenous, Métis, and Inuit communities),

and PWUD living in rural and remote regions. Another useful complement to this study is future research describing the facilitators of participation in PSS from the perspective of PWUD and people receiving safe supply. Finally, future research is needed to evaluate the evolving impacts and effectiveness of safe supply as these programs take steps to address and overcome barriers currently undermining access, uptake, and retention. Such research and evaluation is critical, particularly in the context of the continuing politicization of this intervention. The generation of a robust array of research evidence about what works within these programs and the relevant impacts to patients and communities is crucial to inform efforts to effectively optimize programs as well as provide policymakers and the public with a fulsome and evidence-based account (rooted in rigorous research standards and featuring the perspectives of core safe supply partners like PWUD and people receiving safe supply) to better understand PSS as a response to the unregulated drug poisoning crisis.

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Appendix A.

Facilitation Outlines

Meeting One (Introduction & Data Validation)

Learning Objectives:

- Define our workplans for the thesis process
- Indicate why we are applying the "Risk Environment" framework to our data analysis
- Define how axial coding contributes to producing research findings
- Summarize the process of data validation and explain why this is a useful activity in the research process
- Apply data validation techniques in a practical exercise

Table A.1. Facilitation outline for meeting one

Schedule (Minutes)	Duration (Minutes	Description of Activity
0 – 10	10	**Welcome and Check-in** Group Check-In Review Today's Agenda
10-20	10	**MPH Thesis Process** Present an overview of the process • What has been completed so far? (Ethics and proposal) • What is next? (Workplans and outputs) • How does this work fit into an overall research plan (i.e., the steps of research)? Introduce the research questions (we will revisit the research questions throughout our sessions) • What are the barriers to access, uptake, and retention of PSS programs for PWUD? • How can the barriers to participation in PSS be addressed for PWUD? **Updated CRC Workplan** Present an overview of the workplan: • Number of sessions planned (Six sessions) • Summary of expected content for each session • Overview of funding and payment for CRC participation in research
20-40	20	**Primer on the "Risk Environment"**

Schedule (Minutes)	Duration (Minutes	Description of Activity
		Present an overview of the theory that will be guiding our analysis • What is the risk environment? • How will this theory guide our analysis? • How does this help us answer our research question? **Introduction to "Axial Coding"** Present an overview of the axial coding process • What is axial coding? • How does axial coding relate to the overall research process? • How does this help us answer our research question? • How can we incorporate our existing codebook into axial coding?
40-85	45	**Overview of Data Validation Exercise** Present a recap of the data validation we completed in Imagine Safe Supply between January and March 2022 • Brief refresher of what data validation is, why it's important, and how we will be completing the task today **Data Validation – Small Group Exercise** Data Validation Instructions • Each group will review and complete a data validation exercise worksheet. • Each worksheet presents a selection of quotes and data summaries. • As you review these quotes and summaries, please keep the following questions in mind: • Is there anything that has been left out of these summaries? • Is there anything included in these summaries that you don't agree with? • Is there anything that should be expanded on in these summaries?
85-90	5	**Check-out and Moment of Silence** How did today's work contribute to answering our research question (in one word!)

Meeting Two (Data Validation Continued)

Learning Objectives:

- Apply our experiences with the data validation exercise last week to refine and improve our process
- Compare and contrast Sean's data summaries with how CRC members interpret the presented quotes
- Evaluate the process and outcomes of the data validation exercise

Table A.2. Facilitation outline for meeting two

Schedule (Minutes)	Duration (Minutes	Description of Activity
0 – 10	10	**Welcome and Check-in** Group Check-In Review Today's Agenda
10-25	15	**Review of Meeting One and Changes to the Exercise** Present a recap and overview of what we completed last week • We will begin by reviewing our experiences from last week's session and then complete more data validation using a modified data validation exercise • I received feedback (both individually and from our group discussion) that the group would like to receive more context for each quote and summary being considered in the exercise • To meet this request, the data validation exercise has been overhauled and will look a little different this week. • Each exercise worksheet will now include a brief description providing context on the interview transcript content appearing before and following each quote. • In addition, the interpretive analysis for each quote has now been separated from the descriptive summary and is included in its own section to provide more transparency about where interpretation is being made.
25-70	45	**Data Validation – Small Group Exercise** Data Validation Instructions • Each group will review and complete a data validation exercise worksheet. • Each worksheet presents a selection of quotes and data summaries. • As you review these quotes and summaries, please keep the following questions in mind: • Is there anything that has been left out of these summaries? • Is there anything included in these summaries that you don't agree with? • Is there anything that should be expanded on in these summaries?
70-85	15	**Data Validation Debrief** Come back together for a group discussion on how the data validation exercise went for each group. • Was data validation a worthwhile experience to you? • What did you learn, or what would you like to learn more, about data validation? • How does data validation contribute to the overall research process?
85-90	5	**Check-out and Moment of Silence** How did today's work contribute to answering our research question (in one word!)

Meeting Three (Narrative Summaries & Axial Coding)

Learning Objectives:

- Understand how narrative summaries are used within axial coding
- Describe the axial coding process
- Interpret narrative summaries to find connections and relationships between different codes
- Communicate the difference between data summary and data interpretation
- Apply axial coding to our research questions

Table A.3. Facilitation outline for meeting three

Schedule (Minutes)	Duration (Minutes	Description of Activity
0 – 15	15	**Welcome and Check-in** Group Check-In Review Today's Agenda Check-if upcoming night meeting still works for everyone – reschedule?
15 – 25	10	**Recap of Narrative Summaries** What are narrative summaries? • A narrative summary is a paragraph-form summary describing the content of quotes included within each particular code. • We first summarize the content in each quote, and then categorize these summaries under descriptive themes that we can use to develop the sections that make up the narrative summary. • (Demonstrate an example to illustrate this process) Any questions regarding how we create narrative summaries from our data?
25-35	10	**Introduction to Axial Coding** What is Axial Coding? • Axial Coding is an important interpretive step in data analysis that contributes to organizing themes into findings by identifying connections and relationships between themes • The first step is to read through the narrative summary, and do some interpretation work: what is interesting or important about each theme? Then we take these 'findings' and group them together so that we are looking at connections between different codes. • Finally, we create any overarching categories that are needed in order to organize our findings. • (Show diagram of the steps of axial coding, for illustration and reference.) We will be completing axial coding in small groups to facilitate more engagement and discussion.

Schedule (Minutes)	Duration (Minutes	Description of Activity
35-65	30	**Small Group Work (Instructions** We will be working with certain codes to understand barriers (things that hinder) and facilitators (things that help) for participation in medically regulated safe supply. We will break into 2 small groups, one for code 4.2 and one for code 11.2. In each small group, we are going to read and do some interpretation of each narrative summary, based on what stands out as interesting or important. • For each theme within these codes, we are going to be focused on our research questions: • What are the barriers to access, uptake, and retention of PSS programs for PWUD? • How can the barriers to participation in PSS be addressed for PWUD? Erin and Sean will take notes in each small group, and we'll come back together to have a group discussion about our experience. **Small Groups: Read the narrative summary one theme at a time.** What stands out as important about these themes? What do these themes say about what helps or hinders participation in safe supply?
65-85	20	**Report Back** For each group, please share what you found interesting and important in your code's themes. For the group that is listening, make notes about any similarities or differences you notice compared to the themes you reviewed. • Each group has 8 minutes to present your findings and get feedback from the other group. • Group 4.2 Report-Back (Group 11.2: any similarities you see?) • Group 11.2 Report-Back (Group 4.2: any similarities you see?) FOR ME: Recap the similarities we discovered between these 2 codes. There may be outliers, but as we become more familiar with our narrative summaries, we may describe other findings relevant to this content.
85-90	5	**Check-out and Moment of Silence** How did today's work contribute to answering our research question (in one word!)

Meeting #4 – Narrative Summaries/Axial Coding

Learning Objectives:

- Discuss input from CRC members on proposed approaches to working with demographic and identity-based codes within the axial coding process and decide on a plan of action for how this data will be handled
- Review how the axial coding process contributes to data analysis

- Provide direction on what codes and data would benefit from further axial coding analysis
- Identify thematic linkages in our data set throughout the presented narrative summaries
- Generate visual outputs of the thematic mapping process
- Provide input and feedback on further directions for analysis

Table A.4. Facilitation outline for meeting four

Schedule (Minutes)	Duration (Minutes	Description of Activity
0-10	10	**Welcome and Check-in** Group Check-In Review Today's Agenda
10-20	10	**Demographic Codes** Proposal for group to consider: • We have previously encountered and addressed concerns about demographic representation in various stages of the research process (e.g., matching researchers with participants of shared demographics and identities where possible during data collection). • This is a relevant consideration to discuss now as well in the data analysis and subsequent reporting of findings stage. • Based on group feedback, we propose that we be attentive to this issue within axial coding we create time and space for each CRC member (outside of Sean's MPH thesis work) to take on leadership roles in completing the analysis with certain demographic subcodes that stand out as personally important and meaningful (e.g., the African Caribbean Black and Indigenous, First Nations, and Metis subcodes) Any thoughts, questions, or feedback on this suggestion?
20-35	15	**Narrative Summaries Group Discussion** Based on feedback and conversations in our last session, the CRC desired more involvement in selecting what codes are included as priorities to work with during axial coding. • What codes do you consider to be priorities for us to dedicate significant time to during our axial coding group work?
35-65	30	**Small Group Work (Instructions** We will be working with certain codes to understand barriers (things that hinder) and facilitators (things that help) for participation in medically regulated safe supply. We will break into 2 small groups. In each small group, we are going to read and do some interpretation of each narrative summary, based on what stands out as interesting or important. • For each theme within these codes, we are going to be focused on our research questions: • What are the barriers to access, uptake, and retention of PSS programs for PWUD?

Schedule (Minutes)	Duration (Minutes	Description of Activity
		• How can the barriers to participation in PSS be addressed for PWUD? Erin and Sean will take notes in each small group, and we'll come back together to have a group discussion about our experience. **Small Groups: Read the narrative summary one theme at a time.** What stands out as important about these themes? What do these themes say about what helps or hinders participation in safe supply?
65-85	20	**Report Back** For each group, please share what you found interesting and important in your code's themes. For the group that is listening, make notes about any similarities or differences you notice compared to the themes you reviewed. • Each group has 8 minutes to present your findings and get feedback from the other group. FOR ME: Recap the similarities we discovered between these 2 codes. There may be outliers, but as we become more familiar with our narrative summaries, we may describe other findings relevant to this content.
85-90	5	**Check-out and Moment of Silence** How did today's work contribute to answering our research question (in one word!)

Meeting #5 – Axial Coding

Learning Objectives:

- Generate a plan of action for how the team will approach language-related considerations in our research
- Compare narrative summaries to find connections and relationships between different code
- Indicate the associations we have identified between the different coded categories
- Judge the implications these axial codes have for our research findings

Table A.5. Facilitation outline for meeting five

Schedule (Minutes)	Duration (Minutes	Description of Activity
0-10	10	**Welcome and Check-in** Group Check-In Review Today's Agenda

Schedule (Minutes)	Duration (Minutes	Description of Activity
10-20	10	**Language** Proposal for the group • We have previously encountered and addressed concerns about the language we use as a team to discuss our research data. This is part of a continuing, reflexive process that will continue to develop as we move throughout the research process. • At this point, I want to suggest several proposals related to language that have come up in recent group meetings based on our discussions. These proposals are open to group feedback and discussion, and we may choose to incorporate these into our future work. • [Review language-related proposals: people with lived expertise, our use of acronyms, prescribed safe supply] Any thoughts, questions, or feedback on these proposals?
20-35	15	**Narrative Summaries Group Discussion** Proposal for the group • Based on feedback and conversations in our last session, the CRC desired more involvement in selecting what codes are included as priorities to work with during axial coding. • Therefore, I propose the CRC takes an active role in selecting which narrative summaries/codes we prioritize in axial coding. What codes do you consider to be priorities for us to dedicate significant time to during our axial coding group work?
35-65	30	**Small Group Work (Instructions** We will be working with certain codes to understand barriers (things that hinder) and facilitators (things that help) for participation in medically regulated safe supply. We will break into 2 small groups. In each small group, we are going to read and do some interpretation of each narrative summary, based on what stands out as interesting or important. • For each theme within these codes, we are going to be focused on our research questions: • What are the barriers to access, uptake, and retention of PSS programs for PWUD? • How can the barriers to participation in PSS be addressed for PWUD? Erin and Sean will take notes in each small group, and we'll come back together to have a group discussion about our experience. **Small Groups: Read the narrative summary one theme at a time.** What stands out as important about these themes? What do these themes say about what helps or hinders participation in safe supply?
65-85	20	**Report Back**

Schedule (Minutes)	Duration (Minutes	Description of Activity
		For each group, please share what you found interesting and important in your code's themes. For the group that is listening, make notes about any similarities or differences you notice compared to the themes you reviewed. • Each group has 8 minutes to present your findings and get feedback from the other group. FOR ME: Recap the similarities we discovered between these 2 codes. There may be outliers, but as we become more familiar with our narrative summaries, we may describe other findings relevant to this content.
85-90	5	**Check-out and Moment of Silence** How did today's work contribute to answering our research question (in one word!)

Meeting #6 – Feedback on Writing & Final Directions

Learning Objectives:

- Summarize our recent research activities, including the axial coding we have completed as a group and the axial coding completed independently by Sean
- Examine how this axial coding work can be translated to visual outputs (a mind map)
- Interpret key findings based on our axial coding work
- Plan the organization and presentation of research findings

Table A.6. Facilitation outline for meeting six

Schedule (Minutes)	Duration (Minutes	Description of Activity
0-15	15	**Welcome and Check-in** Group Check-In Review Today's Agenda
15-30	15	**The Research Process to This Point** Present an overview of our research process to date: • Over the previous five sessions, we completed multiple steps in our data analysis process. • We completed data validation, narrative summary review, and axial coding. • [Review the work completed in each stage] Now, we will use these experiences to review our final axial coding and generate a framework for how the research findings will be organized and presented in the thesis. Any thoughts, questions, or feedback at this time?

Schedule (Minutes)	Duration (Minutes	Description of Activity
30-80	50	**Axial Coding Mind Maps (Presentation and Group Discussion)** Present the axial coding mind map figures • Walk the group through the mind maps in detail, describing each major theme as well as connections and relationships we have already identified through our group work • The mind map presents (in a visual format) all of the axial coding work we have completed to date. • The coloured boxes represent key themes we identified, and the lines connecting these boxes represent associations or relationships these themes have with other themes in the research • The text outside of these boxes represents subthemes, and the numbers represent the codes/narrative summaries these subthemes and themes originated from • This allows us to trace these themes back to the original quotes in which they were identified • What are your takeaways from this mind map? • Do you see any connections or relationships between themes we have not already identified? • How does this mind map relate to the research findings we want to communicate? • Are there any themes that still require further analysis to flesh out? Does anyone have any questions about the axial coding process, or how I translated that work into a visual mind map?
80-85	5	**Next Steps** Present an overview of the next steps in the thesis process: • Develop write-up of findings based on our axial coding experiences and group discussions • Prepare remaining chapters (discussion and conclusion) • Following completion of the thesis process, reconvene to pursue adapting our analysis work for publication in a peer-reviewed journal
85-90	5	**Check-out and Moment of Silence** Thank you everyone for participating in these past 6 sessions!

Appendix B.

Axial Coding Mind Map

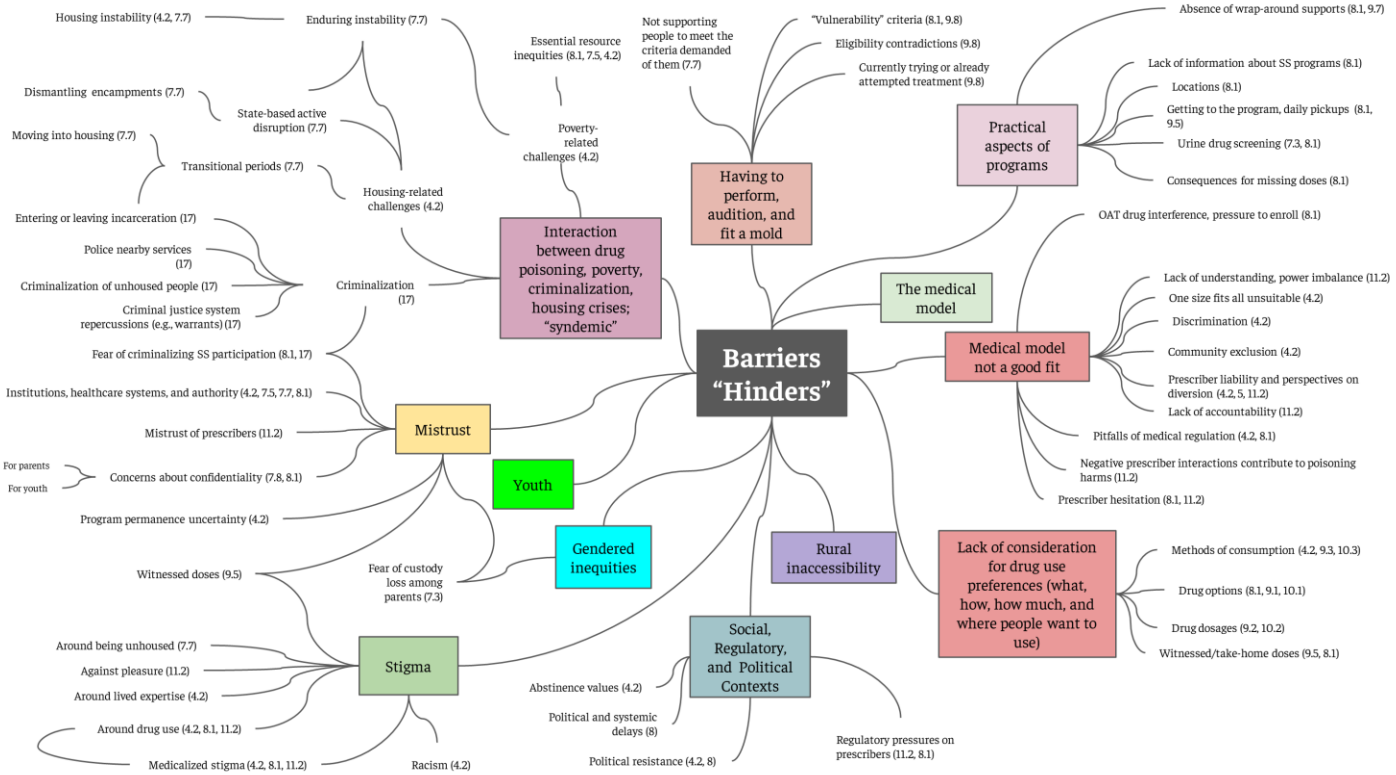

Figure B.1. A mind map depicting the axial coding completed using key themes to characertize relationships between various barriers to access, uptake, and retention of PSS among PWUD