Identifying the Needs and Challenges of People Who Us Drugs (PWUD) During the COVID-19 Global Pandemic: A National Qualitative Assessment

FINAL REPORT

October 2020

CRISM-ICRAS
Canadian Research Initiative in Substance Misuse
Initiative Canadienne de Recherche en Abus de Substance

CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

Citation

To quote this document:

Ali, F., Russell, C., Nafeh, F., Narkar, R., Elton-Marshall, T., Lafond, K. G., Quenneville-Dumont, M., & Rehm, J. *Identifying the Needs and Challenges of People Who Use Drugs (PWUD) During the COVID-19 Global Pandemic: A National Qualitative Assessment*. Toronto, Ontario: Canadian Research Initiative in Substance Misuse; October 30, 2020

ISBN: 978-1-7774549-0-6

Land Acknowledgement

We respectfully acknowledge that the work to complete this research project was primarily hosted on the Treaty 13 territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat Peoples, and is now home to many diverse Indigenous Peoples including First Nations, Inuit and Métis Peoples.

We recognize that the ongoing criminalization, institutionalization, and discrimination against people who use drugs (PWUD) disproportionately harms Indigenous Peoples, and that continuous efforts are needed to dismantle colonial systems of oppression. We are committed to the process of reconciliation with Indigenous Peoples, and recognize that it requires significant and ongoing changes to the health care system.

We hope that this research helps to reduce the harms faced by PWUD, including those who identify as Indigenous, during the COVID-19 pandemic.

About the Canadian Research Initiative in Substance Misuse

Funded by the Canadian Institutes of Health Research (CIHR), the Canadian Research Initiative in Substance Misuse (CRISM) is a national research-practice-policy network focused on substance use disorders, comprising four large interdisciplinary regional teams (Nodes) representing British Columbia, the Prairie Provinces, Ontario, and Quebec/Atlantic. Each CRISM Node includes regional research scientists, service providers, policy makers, community leaders, and people with lived experience of substance use disorders. CRISM's mission is to translate the best scientific evidence into clinical practice, health services, and policy change. More information about CRISM can be found at: https://crism.ca.

Authors and Contributors

Primary Research Team

Farihah Ali, PhD, Institute for Mental Health Policy Research, Centre for Addiction and Mental Health (CAMH)

Cayley Russell, MA, Institute for Mental Health Policy Research, Centre for Addiction and Mental Health (CAMH)

Frishta Nafeh, MPH, Institute for Mental Health Policy Research, Centre for Addiction and Mental Health (CAMH)

Rashmi Narkar, MScPH, Institute for Mental Health Policy Research, Centre for Addiction and Mental Health (CAMH)

Tara Elton-Marshall, PhD, Institute for Mental Health Policy Research, Centre for Addiction and Mental Health (CAMH); Dalla Lana School of Public Health, University of Toronto; Department of Epidemiology and Biostatistics, Schulich School of Medicine and Dentistry, Western University

Kristine Gagnon Lafond, Canadian Research Initiative in Substance Misuse (CRISM) Québec-Atlantic node; University of Montreal Hospital Research Center (CRCHUM)

Marianne Quenneville-Dumont, Canadian Research Initiative in Substance Misuse (CRISM) Québec-Atlantic node; University of Montreal Hospital Research Center (CRCHUM)

Jürgen Rehm, PhD, Institute for Mental Health Policy Research, Centre for Addiction and Mental Health (CAMH); Professor, Dalla Lana School of Public Health and Department of Psychiatry, University of Toronto

Collaborators

Jeanette Bowles, DrPH, Centre on Drug Policy Evaluation, Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, ON

Jade Boyd, PhD, Assistant Professor, Department of Medicine, University of British Columbia; Research Scientist, British Columbia Centre on Substance Use

Julie Bruneau, MD, MSc, Professor, Department of Family and Emergency Medicine, Université de Montréal

Elaine Hyshka, PhD, Assistant Professor, School of Public Health, University of Alberta; Scientific Director, Inner City Health and Wellness Program, Royal Alexandra Hospital

Sean Le Blanc, Drug Users Advocacy League, Board Member of Canadian Association of People who Use Drugs

Aissata Sako, Research Program Director, Centre de recherché du CHUM

Jennifer Swansburg, CRISM Quebec-Atlantic Coordinator (Atlantic Region), Dalhousie University

Cameron Wild, PhD, Professor, School of Public Health, University of Alberta

Evan Wood, MD, PhD, BC Centre on Substance Use; Professor of Medicine, Canada Research Chair, University of British Columbia

Acknowledgements

The authors would like to thank everyone who contributed to this study's success. Specifically, we would like to thank the Node managers (Denise Adams; Nirupa Goel; Aissata Sako), Node Researchers, PWLE advisory members and the service providers who supported us throughout the project, including with participant recruitment; the Quebec and Ontario Node researchers who provided their invaluable time interviewing participants and assisting with data translation and coding; as well as the individual PWUD participants who shared their lived expertise with us, without which the study could not have been conducted.

TABLE OF CONTENTS

1 EXECUTIVE SUMMARY

The global coronavirus pandemic has impacted the lives of many Canadians, including specific populations such as people who use drugs (PWUD). PWUD are at increased risk of COVID-19 infection and likely to suffer a disproportionate burden of the social, economic, and health consequences related to the current pandemic. In response to COVID-19, in March 2020, jurisdictions across Canada implemented public health measures consisting of physical distancing, closure of non-essential services and businesses, limits on social gatherings, and recommendations to self-isolate and stay at home, among other measures. These pandemic response measures have had an unintended negative impact on the health and well-being of PWUD through various mechanisms such as increased barriers to important health and social support services, disruptions in drug supply markets, and aggravated structural vulnerabilities.

Emerging literature on the impact of COVID-19 on the lives of PWUD have reported a negative impact on the overall well-being of PWUD, however, there is a paucity of systematic, observational research examining this issue within Canada. Different levels of government and other health agencies have announced recommendations and guidelines for services utilized by PWUD during this crisis, however, there is insufficient information on the ways in which any adopted changes are truly impacting these individuals. The present national qualitative study was undertaken to help identify and understand the issues PWUD are experiencing during the pandemic, with an overarching goal of providing recommendations and highlighting potential ways that services and systems can adapt to respond to PWUD's most urgent needs.

The qualitative study consisted of n=200 individuals across Canada participating in semi-structured, one-on-one, telephone interviews with trained members of the research team between May 4, 2020-July 27, 2020. The interview guide, developed in consultation with peer advisors, focused on exploratory questions identifying the needs and challenges of PWUD during the current pandemic.

Participants in this study reported important changes to substance use, substance supply, access to critical services as well as economic, social and health-related impacts, as well as impacts related to the inability to self-isolate due to housing situation or need to access substances, medications or supports daily. Specifically, participants indicated increases in substance use during COVID-19, including relapse episodes among those who had quit using. Public health measures such as self-isolation and social distancing resulted in limiting participants' ability to mitigate overdose risk, e.g. having to use alone in their houses without supports. Major disruptions to substance supply were also discussed, including changes in potency and quality of substances (including references to an overall toxic and heavily adulterated substance supply) and accessibility issues, combined with increases in prices which led some participants to substitute their substances, ultimately increasing risk of toxicity. To further compound these issues, participants noted that many critical substance use services such as harm reduction and treatment facilities had reduced their capacity and ability to serve clients, which resulted in negative impacts such as increases in use and decreased availability to mitigate risks due to lack of services and supports. Additionally, participants detailed numerous economic, social and health-related concerns, including a detrimental increase in mental health issues, which, in some cases led them to increase their substance use as a means of coping with the pandemic and service reductions. Importantly, many of these impacts directly contributed to an increased risk

for experiencing harms related to substance use, such as fatal and non-fatal overdoses.

These findings, in conjunction with specific services suggested by participants, warrant the need for accessible mental health and substance use supports for PWUD during the pandemic. Service providers should collaborate with PWUD to develop alternative solutions to continue providing services while also practicing public health pandemic measures. Most importantly, the increased harms associated with substance use described by participants during COVID-19 serves as a clear indication that specific harm-reduction services, such as supervised consumption services and/or outreach services, need to continue to operate and a reduced capacity of service operationalization will not be adequate to respond to the needs of PWUD during these times. With regards to changes to supply, it is imperative that PWUD have access to a non-toxic, safe drug supply. Safe supply was endorsed by the majority of participants, due to the need for a reliable, pharmaceutical grade supply of their substance(s) which would work to reduce harms and risks related to use. Access to take home naloxone and drug testing kits is also of significant importance when dealing with a potentially contaminated drug supply. As such, participants expressed that the government may consider this important health challenge to consider providing the supports that are needed by PWUD to reduce the risks associated with substance use, including the implementation of safe supply across the country.

2 BACKGROUND

On March 11, 2020, the World Health Organization declared the novel coronavirus disease (COVID-19) outbreak a pandemic.[1] Ever since, the virus has spread globally and all over Canada with the exception of Nunavut.[2] The spread of COVID-19 has raised concerns regarding the disproportionate impact it may have on various marginalized populations, including people who use drugs (PWUD). PWUD may be at increased risk of COVID-19 infection and adverse health outcomes due to the high prevalence of pre-existing chronic conditions among them, such as chronic obstructive pulmonary diseases (COPD), HIV, hepatitis, diabetes and cardiovascular diseases.[3-7] In addition, social and structural vulnerabilities such as homelessness,[7,8] inadequate access to shelters, and access barriers to essential harm reduction services experienced by many PWUD may further elevate their risk of COVID-19 infection and related complications.[7,9]

In response to the pandemic, most jurisdictions across Canada implemented public health measures consisting of social distancing, closures of non-essential businesses and services, and placed limits on social gatherings, among other measures.[10] Some reports have shown that these pandemic response measures have negatively impacted the lives of PWUD, especially as it has also brought about major challenges to the community health and social support services that these individuals rely on.[9,11] For instance, many critical harm reduction services and other programs, including supervised consumption sites, shelters and outreach services have decreased their hours of availability,[9,11] or have ceased operations entirely at times during the pandemic.[11-14] In some instances, substance use and treatment services, specifically opioid agonist treatment (OAT), withdrawal management services and needle exchange programs have had to devise innovative solutions in order to respond to the current pandemic. Some proposed solutions include increasing telehealth services for OAT initiation and induction, providing take-away

OAT doses, the use of vending machines for safe and sterile supplies, and prescribing pharmaceutical grade substances, alternatively known as 'safe supply'.[7,11,14-19]

Mitigation strategies to reduce the spread of the virus introduced by public health experts in some countries have had a significant, detrimental impact on the number of individuals seeking drug treatment.[11] Similar findings have been reported in Canada, where pandemic response measures have exacerbated service and treatment accessibility issues for PWUD, including increased barriers to accessing treatment, such as limitations on the number of clients allowed.[9] These factors, in conjunction with changes in infection control standards within treatment centres such as reduced capacity due to social distancing requirements, may result in a compounded, negative effect on the overall well-being of PWUD, especially among those who are seeking and in need of treatment.[11]

Furthermore, public health measures are difficult to implement in certain service and support settings often used by PWUD. For instance, some housing services offered to PWUD - shelters and transitional housing in particular - may increase risk of COVID-19 exposure due to increased gatherings of people in shared spaces including a large number of transient residents.[15,20] Individuals living in these shared spaces may not have space to physically distance or self-isolate.

While self-isolation at home and social distancing are important public health measures to control the spread of the virus, the social and psychological risks associated with these requirements have shown to increase the likelihood of anger, anxiety, boredom and fear.[21-23] A recent Canadian study also found that depression and anxiety has significantly increased during COVID-19.[24] These emotions, in turn, have been associated with increased risk of relapse and drug consumption.[21,25-29]

Changes in drug consumption patterns among PWUD during COVID-19 have been observed as well.[29,30] While the consumption of certain substances, such as cocaine, heroin and MDMA have reduced in the initial months of the pandemic due to reduced social gatherings,[29] consumption of other drugs such as alcohol[29,30] and prescription medications have increased.[29] Similarly, frequency of cannabis use has increased among frequent users.[29] Furthermore, the pandemic has caused a shift in drug preferences among PWUD.[29] A survey in Europe found that individuals are opting to consume licit drugs, such as alcohol, due to ease of access and availability, rather than continue to use their preferred stimulants.[29] In Canada specifically, a general population poll indicated that one in five Canadians have increased their alcohol use since COVID-19,[28] while preliminary studies suggest the frequency of alcohol and cannabis use has increased among both adolescents and adults.[24,31] Similar changes in use patterns for other substances are therefore possible, but this is currently not known.

Business and border closures due to the pandemic have also affected illegal drug supply across the world,[32,33] including in Canada.[9,34] A recent report found that PWUD have experienced a reduction in their drug supply, exacerbated by increased cost and tainted quality,[9] potentially worsening related health consequences, including risk of overdose, drug poisonings and unsupported withdrawals.[14,35.] Some jurisdictions across Canada have also experienced increased opioid-related overdose deaths during the pandemic. A British Columbia Coroners Service report

found a 93% increase in the suspected illicit drug toxicity deaths in May 2020 compared to May 2019.[35] Similar trends have been highlighted in Toronto and Calgary.[36-38] It is plausible that physical distancing, contaminated illicit drug supply and closures of substance use and harm reduction services have played a role in inflating the fatal opioid overdose rate among PWUD.

Often neglected in the COVID-19 global pandemic discussions thus far are experiences and opinions of PWUD. While there is a noticeable shift in literature towards the need for understanding the impact that the pandemic is having on PWUD, there is a paucity of systematic, observational research that has investigated the full implications and impacts that COVID-19 has had on the health and well-being of PWUD within Canada. Different levels of government and other health agencies have announced recommendations and guidelines for services utilized by PWUD during this crisis,[14,28,39] however, there is insufficient information on the ways in which any adopted changes are truly impacting these individuals.

In order to understand the impacts that COVID-19 has had on the health and well-being of PWUD, and to improve current responses to the crisis, it is critical to engage with PWUD and draw from their expertise. As such, we conducted a national qualitative research study to help identify and understand the challenges PWUD are experiencing during the pandemic by directly engaging PWUD across the country. The overarching goal was to highlight potential strategies for substance use-related services and systems to adapt to respond to PWUD's most urgent needs. The objectives of the research study were to understand:

(a) Overall challenges and concerns faced by PWUD in relation to the COVID-19 pandemic
(b) Changes in drug use patterns and supply
(c) Changes to the accessibility of both substance use service provision and general services
(d) Changes in economic, social and health status
(e) Specific needs during the pandemic
(f) Potential strategies that may be adopted to appropriately respond to urgent needs

Our study provides PWUD the opportunity to play an active role in knowledge synthesis to inform the development and implementation of programs and services, as well as address an important gap in the literature. Furthermore, understanding how drug consumption is impacted by the pandemic is an integral part of constructing necessary and appropriate responses to be able to best assist PWUD during this unprecedented time.

3 METHODS

3.1 Study Design

A qualitative study design was adopted to explore the impact of COVID-19 on issues related to drug use patterns, quality and availability of drugs, accessibility and availability of services, as well as community dynamics that may impact the health and well-being of PWUD during the pandemic. In partnership with the Canadian Research Initiative in Substance Misuse (CRISM) network, the Ontario CRISM node led the design, development, and implementation of the present study. The study consisted of individuals participating in semi-structured interviews with

trained members of the research team. The interview guide (see Appendix A), developed in conjunction with research team members across the CRISM network and in consultation with peer advisors, focused on exploratory questions identifying the needs and challenges of PWUD during the current pandemic, as well as the social, economic and health issues they may have faced with respect to the evolving COVID-19 situation.

3.2 Participant Recruitment

The national CRISM network worked collaboratively with different partners to recruit study participants.

Participants were recruited using a purposive sampling method, in collaboration with CRISM network contacts and the CRISM peer advisory group. A digital recruitment poster describing the purpose of the study, eligibility and research contact information was circulated through various CRISM node distribution lists. In addition, partner organizations and peer advisors shared the poster through their respective channels to boost recruitment and posted it at relevant locations. Individuals interested in participating in the study were requested to contact the research team by phone or email to arrange an interview time.

The **eligibility criteria** for participation in the study included: a) adults 18 years of age or older; b) a current resident of Canada; c) fluent in English or French; and d) currently (at least once per week) using a licit or illicit psychoactive substance (alcohol, cannabis, opiates, central nervous system stimulants or depressants) and/or currently receiving opioid agonist therapy (OAT) treatment.

Individuals who contacted the study team and expressed interest in participation were screened for eligibility using a short questionnaire via telephone, and interviews were scheduled for those deemed eligible, as per the eligibility criteria noted above. A total of six members of the research team conducted the interviews after obtaining informed consent from each participant. All study participants were provided with a $30 honorarium to compensate for their time by E-transfer or MoneyGram for those that did not have an active email address or bank account.

Recruitment processes for Quebec differed, and involved the utilization of a pre-existing cohort. All participants were initially recruited for a study entitled 'HepCOVID' (where participants were drawn from an established cohort of injection drug users who have a history of HIV and/or HCV infection, entitled 'HEPCO').[40] To initially access the HepCOVID study, participants needed to prove that they injected drugs in the past 6 months and that they currently lived in the greater Montreal area. Participants therefore met both HepCOVID and the current study's eligibility criteria. For HepCOVID's recruitment, participant contact information (either a telephone number or an e-mail address) was extracted from HEPCO's data, resulting in a total of n=282 potential participants, from which n=100 participants were enrolled and completed quantitative interviews conducted by four Quebec-based interviewers between May 20th 2020 to June 23rd 2020. At the end of these interviews, the interviewer asked the participant if they were interested in participating in the present qualitative interview. The first 31 participants who were willing and interested in participating in the present study completed the qualitative interview. All Quebec-based interviews were conducted in French by the Quebec-Atlantic CRISM Node team.

The study protocol and all procedures were approved by the Centre for Addiction and Mental Health Research Ethics Board (#049/2020), as well as by the Centre Hospitalier de l'Université de Montréal (CHUM) Research Ethics Board (#20.053).

3.3 Data Collection and Analysis

All interviews, with the exception of those conducted with Francophone participants, were undertaken by staff from the Ontario CRISM Node. Data collection took place between May 4, 2020 and July 27, 2020. Interviews for Ontario, Quebec, and Atlantic nodes were completed by early June (June 3rd, 9th, and 11th respectively). Recruitment delays occurred in British Columbia and the Prairies Node, where data collection was completed by June 25th and July 27th respectively. All interviews were conducted by phone and took approximately 30 minutes to 1 hour to complete. Study participants were assigned a unique code to maintain confidentiality. All personal identifying information collected during the screening process were stored on a separate document, and were removed from the data to ensure anonymity.

The interviews were audio recorded and transcribed verbatim for data analysis. All French interviews were transcribed and subsequently translated into English for combined data analysis purposes. Thematic analyses were conducted using NVivo (version 12).[41] Themes were developed based on the study objectives and initial key themes identified in transcripts, which informed a preliminary codebook used to guide subsequent analyses. Interview transcripts were independently reviewed by members of the research team to identify themes and create an updated codebook for analyses. A single member of the research team (CR) initially coded all transcripts. To ensure accurate and reliable coding, an independent coder (FA) coded a randomly selected sample (20%) of the transcripts.

Using the coding comparison query function in NVivo, a final weighted average kappa coefficient (Cohen's kappa; a statistical measure of interrater agreement where 1 equals perfect agreement and 0 equals the amount of agreement expected by random chance) of 0.75 was obtained. Codes with kappa scores below 0.5 were discussed between coders and discrepancies were resolved. According to Landis and Koch (1977), an average kappa value of 0.75 is indicative of substantial agreement.[42] To ensure data trustworthiness, an interrater percent agreement of 99.29% was also acquired, which is a measure of 'agreement' between raters on whether the content may be coded under a specific theme.

In terms of the responses, many participants expressed experiencing both a negative and a positive impact related to a respective theme, and as such were coded accordingly (e.g. a service may have reduced its capacity and moved to online formats, but participants preferred this for certain reasons). As a result, responses were not mutually exclusive, and the respective percentages of each qualitative theme did not always add up to 100%. Key themes representing common experiences, concerns, and ideas expressed by participants were included in the results. These were supported and illustrated by select quotes from the interview transcripts.

4 RESULTS

A total of n=255 potential participants across Canada contacted the research team and expressed interest in participating in the study. Of these, n=14 were not eligible and n=41 either could not be reached or subsequently declined participation. A total of n=200 participants completed the interviews.

4.1 Geographic Representation

In terms of geographic representation of participants, the province of Ontario had the highest number of participants (n=67; 34%), followed by British Columbia (n=32; 16%). See Figure 1.1 and 1.2 for the geographic breakdown of study participants based on both province and CRISM Node and major cities.

Figure 1.1. Geographic Representation of Study Participants by Province

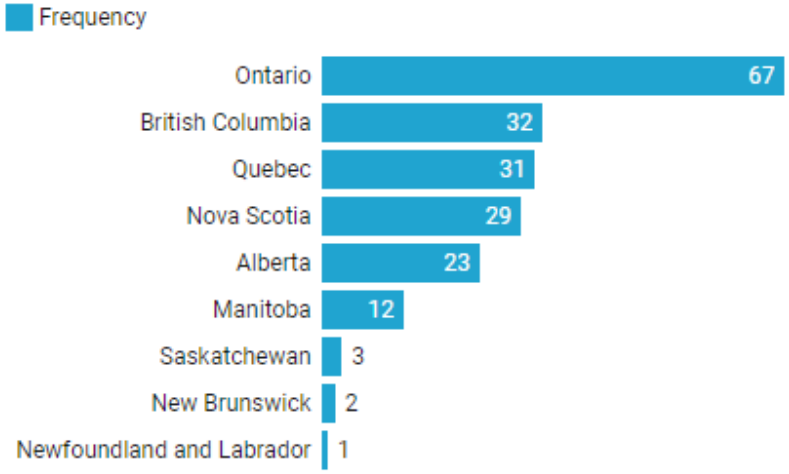
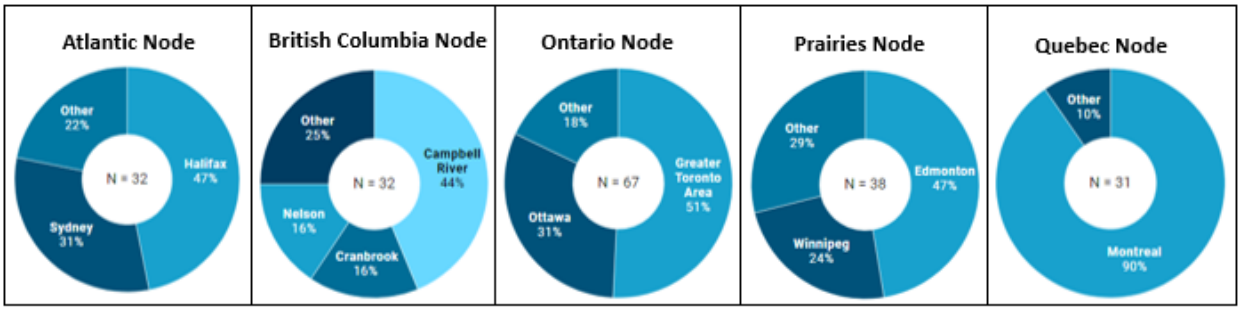


Figure 1.2. Geographic Representation of Study Participants by Region and Major City



*There are 4 major CRISM Nodes across Canada. We have separated the Quebec/Atlantic Node for the purposes of this project, and the Atlantic Node encompasses the province of New Brunswick, Nova Scotia, P.E.I. and Newfoundland, and the Prairie Node encompasses Alberta, Saskatchewan and Manitoba.

4.2 Sample Characteristics

The average age of study participants was 41 years old, with nearly half (45%) between the ages of 31 to 45 (Table 1). Another 35% were between ages 46-64, while a small proportion represented the youngest (18-30 years old; 19%) and the oldest (≥ 65; 1%) age groups. Over half (58%) of participants were male, while 59% identified their ethno-racial background as Caucasian. Approximately one-third (29%) of our study participants self-identified as Indigenous, with the majority of these participants residing in the Prairies (Table 1).

Most participants (64%) indicated that they were not engaged in OAT treatment at the time of the interview. Among those receiving OAT, a larger proportion were receiving Methadone (68%), with Suboxone reported by 17% of OAT treatment recipients. Furthermore, 15% indicated currently receiving other OAT formulations (e.g., intravenous OAT). When asked about their current living situation, the majority (75%) of study participants reported living at home (being housed), while 16% indicated living in a shelter or being transient (e.g., couch surfing, staying with friends for the time being, etc.). Homelessness and living on the streets was reported by 10% (n=20) of the participants, with more than half of these participants (n=12) residing in British Columbia (Table 1).

Table 1. Demographic Characteristics of the Study Participants

Demographic Characteristics	Total Sample N = 200 (%)	Atlantic Node N = 32 (%)	British Columbia Node N = 32 (%)	Ontario Node N = 67 (%)	Prairies Node N = 38 (%)	Quebec Node N = 31 (%)
Age (years, mean ± SD)	41.2 ± 11.1	34.4± 9.8	42.4± 10.5	41.5 ± 11.8	41.6 ± 11.0	45.5 ± 8.8
Age Groups						
18-30	38 (19.0)	12 (37.5)	5 (15.6)	13 (19.4)	6 (15.8)	2 (6.5)
31-45	90 (45.0)	17 (53.1)	14 (43.8)	29 (43.3)	18 (47.4)	12 (38.7)
46-64	70 (35.0)	3 (9.4)	12 (37.5)	24 (35.8)	14 (36.8)	17 (54.8)
≥ 65	2 (1.0)	0	1 (3.1)	1 (1.5)	0	0
Gender						
Male	112 (56.0)	21 (65.6)	16 (50.0)	36 (53.7)	19 (50.0)	20 (64.5)
Female	81 (40.5)	10 (31.3)	15 (46.9)	27 (40.3)	18 (47.4)	11 (35.5)
Other[a]	7 (3.5)	1 (3.1)	1 (3.1)	4 (6.0)	1 (2.6)	0
Ethnicity						
Caucasian	118 (59.0)	24 (75.0)	17 (53.1)	41 (61.2)	16 (42.1)	20 (64.5)
Indigenous	58 (29.0)	7 (21.9)	14 (43.8)	14 (20.9)	21 (55.3)	2 (6.5)
Other	24 (12.0)	1 (3.1)	1 (3.1)	12 (17.9)	1 (2.6)	9 (29.0)
Opioid Agonist Therapy						
No	128 (64.0)	17 (53.1)	15 (46.9)	48 (71.6)	32 (84.2)	16 (51.6)
Yes	72 (36.0)	15 (46.9)	17 (53.1)	19 (28.4)	6 (15.8)	15 (48.4)
Methadone	49 (68.1)	8 (53.3)	12 (70.6)	15 (79.0)	1 (16.7)	13 (86.7)
Suboxone	12 (16.7)	7 (46.7)	2 (11.8)	2 (10.5)	0	1 (6.7)
Other	11 (15.3)	0	3 (17.7)	2 (10.5)	5 (83.3)	1 (6.7)
Living Situation						
Housed	149 (74.5)	20 (62.5)	13 (40.6)	55 (82.1)	33 (86.8)	28 (90.3)
Transient	18 (9.0)	7 (21.9)	4 (12.5)	3 (4.5)	1 (2.6)	3 (9.7)
Shelter	13 (6.5)	4 (12.5)	3 (9.4)	6 (9.0)	0	0
Homeless/Street	20 (10.0)	1 (3.1)	12 (37.5)	3 (4.5)	4 (10.5)	0

[a]They/Transgender/Bisexual/Straight/Non-binary

4.3 Substances Used

While we aimed to identify all current substances used by participants, it was not always clear as some participants did not want to disclose this information. Substances used were also not mutually exclusive. Nearly all participants (n=196; 98%) reported their current substance use, with the vast majority (*n=147; 75% of 196*) reporting simultaneous use of more than one category of substances, referred to as 'Polysubstance' use. In terms of individual substance categories, 'Stimulants' were the most commonly used psychoactive drugs (*n=145; 74% of 196*), followed by 'Opiates' (excluding OAT) (*n=117; 60% of 196*), 'Cannabis' (*n=82; 42% of 196*) and 'Alcohol' (*n=38; 19% of 196*) (Table 2). Furthermore, *16%* (*n=31 of 196*) and *5%* (*n=9 of 196*) of participants reported current use of 'Benzodiazepines' and 'Hallucinogens', respectively. (Table 2).

Table 2. Current Substances Used among Study Participants (n=196)

Substances Used*	Participants N (%)
Polysubstance	147 (75%)
Stimulants	145 (74%)
Opiates	117 (60%)
Cannabis	82 (42%)
Alcohol	38 (19%)
Benzodiazepines	31 (16%)
Hallucinogens	9 (5%)

*Substances used were not mutually exclusive and percentages for each substance category were calculated out of the total who referenced using a substance currently (n=196). 'Stimulants' primarily included uppers such as cocaine, crack-cocaine and amphetamines including methamphetamine/crystal meth; 'Opiates' primarily included downers including both illicit and pharmaceutical opiates such as hydromorphone, heroin and fentanyl, but excluded references to OAT such as Suboxone or methadone; 'Benzodiazepines' primarily included Xanax and Valium, as well as other anti-anxiety and anti-depressants; 'Hallucinogens' primarily included party drugs such as MDMA, LSD, Ecstasy, mushrooms and GHB. 'Polysubstance' use included reference to using two or more categories of substances, as well as using speedballs (a combination of stimulants and opiates).

4.4 Qualitative Results

A wide array of themes related to the experiences, challenges and needs of PWUD during the COVID-19 pandemic were identified. Below we present the qualitative data, noting the amount of times participants referenced each theme and sub-theme. While we provide micro-level details regarding each specific sub-theme (including instances where participants specified no changes to their use, behavior, or service access), the table below provides a high-level overview of the major *changes* and *impacts* participants indicated, which were categorized under respective themes. It is important to note that while there was a total of 200 participants, not all participants answered every question and not every theme that emerged was relevant for all participants. As such, the numbers provided in the table below are reflective of those participants that spoke directly about each theme, where some participants may have discussed different experiences within the same theme, resulting in an increased frequency, for instance describing both a

positive and negative experience related to a certain service. For clarification and illustrative purposes, we have provided the total number (N) of participants who discussed each respective theme in the left-hand column, after the overarching theme, and the total number of participants who indicated experiencing the respective change or impact to this theme (n) in the column on the right.

Table 3. Major Changes and Impacts due to COVID-19

Overarching Theme(s) and Sub-Theme(s) (number in brackets indicate respondents who addressed the issue)	**Frequency* n (%)**
Indicated concerns about contracting COVID-19	
Differentially impacted due to unique risk factors (N=200)	66 (33%)
Took precautions (e.g., physical distancing) (N=200)	128 (64%)
Identified ability to self-isolate (N=200)	153 (77%)
Indicated changes to substance use frequency	
Increased use (N=196)	92 (47%)
Relapsed (N=196)	14 (7%)
Decreased use (N=196)	75 (38%)
Indicated changes to substance supply	
Quality of substances decreased (N=153)	94 (61%)
Cost of substances increased (N=162)	100 (62%)
Accessibility of substances decreased (N=151)	88 (58%)
Indicated changes to substance use characteristics	
Route of administration (N=125)	25 (20%)
Use characteristics (e.g., use alone, use with others) (N=182)	73 (40%)
Location of use (N=131)	44 (34%)
Indicated increases in potential risk	
Substituted for other substances (N=94)	57 (61%)
Re-used paraphernalia due to COVID-19 (N=64)	30 (47%)
Overdose risk increased (N=173)	66 (38%)
Indicated changes to substance-use related services	
Harm reduction services (N=152)	92 (61%)
Opioid Agonist Treatment services (N=76)	54 (71%)
Counseling, drop-in services and self-help groups (N=91)	70 (77%)
Treatment and detoxification services (N=31)	20 (65%)
Indicated changes to general services	
Medical professionals and services (N=116)	71 (61%)
Pharmacies and medications (N=124)	47 (38%)
Shelters and housing services (N=42)	38 (90%)
Food banks and food services (N=97)	57 (59%)
Miscellaneous services (N=89)	75 (84%)
Indicated an impact on economic situation (N=199)	151 (76%)
Indicated an impact on social lives (N=184)	109 (59%)
Indicated an impact on physical health (N=181)	99 (55%)

Indicated an impact on mental health (N=194)	140 (72%)
*Percentages refer to the total number of people who addressed the respective issue	

4.5 Concerns about contracting COVID-19

The vast majority (n=191; 96%) of participants indicated that they were at least slightly concerned about the impacts of COVID-19 on their lives. The most common concerns included fears of contracting the virus from someone and getting severely sick and/or passing it on to their loved ones, especially older family members. These fears were specifically common among those who were not able to self-isolate since they were required to venture into public spaces daily in order to pick up necessities and/or medications (e.g., OAT, such as methadone or Suboxone): "M*y concerns mostly, well I have to take the bus every day to go get my methadone, so I'm at a high risk of catching the disease because of the bus" (AN.09).* Other participants stressed that their risk was increased due to their inability to self-isolate because of their need to obtain their substances and/or substance-related supplies:

> *"I think just like the whole, like, the drug addiction, I guess, would make me more vulnerable. Anybody with a strong addiction is more vulnerable to catching COVID. They're not being able to isolate themselves because they have to use a lot of time and resources to attain drugs. I think that would be like my risk factor, me going near other people that could possibly have COVID or were in contact with it." (ON.83)*

These participants described feeling as though they were at a heightened risk for contracting the virus as they recognized that having to go into public inherently exposed them to other people, including other people who use and sell drugs, many of whom were not necessarily able to take precautions from the virus:

> *"Well, I'm concerned that I'm going to like actually get it being out in the community. Especially like in places where I'm grabbing drugs or like you know, with folks that might be like homeless or whatnot. Like I get kind of like nervous in those situations because I have a baby and I don't want to bring something home that he could get." (ON.05)*

This was particularly true for participants who were homeless or street-entrenched, or those who worked in an essential occupational role where they were required to interact with people and provide and receive necessary support, such as within harm reduction services or the shelter system: "*Well, I work in a drop-in, so I'm dealing with a lot of clients who are homeless. And so, I'm at a higher risk of getting the virus than other people due to the fact that the virus is spreading through the shelter system like crazy" (ON.51).*

Other concerns specifically related to the effects of COVID-19 on substance use included worry regarding fluctuations in the frequency (e.g., increases, decreases, etc.) of their substance use, concerns about not being able to receive support for their use, as well as skepticism about where substances came from. Participants indicated that they were worried about whether the substances and/or those who sold to them would expose them to the virus and/or whether the substance supply would be disrupted. This was expressed in terms of macro-level concerns, such as the potential effects of the substances being trafficked across the border from various

countries:

> *"Well my biggest concern was like obviously all the borders closing across the world right? That effect on you know materials and supplies in order to make the drug supplies, right? Then it also, you know, with the borders being closed it's now made it more complicated for the organizations to smuggle the drugs into the countries and stuff like that." (ON.09)*

Micro-level concerns, such as how many street-level suppliers had touched the substances before they received them were also expressed:

> *"I worry about the people that are supplying fentanyl and cocaine and whatnot because I don't believe that the people that are cutting it up or whatever are actually washing their hands or wearing gloves constantly. So I worry about, is it possible that it could be transferred through the drugs like that? So, I wonder if it's in the drug. I get afraid for that, and then my anxiety level goes right up, it's crazy." (PN.18)*

Participants expressed additional concerns about the short- and long-term effects of the virus, both in terms of greater societal and economic impacts, as well as specific impacts on their everyday lives. Many indicated that the virus has been devastating and disruptive to their lives, as they had lost their jobs or main sources of income, which in turn, often led to issues regarding their inability to support their families and substance use habits: *"Well, it's affected my work a lot because I've lost a lot of hours and that's made it difficult for me to support my habit" (ON.71).* This was particularly apparent among those employed in precarious jobs such as sex work or panhandling, since these professions were specifically disrupted due to the virus, making it difficult or impossible to interact with people or clients. For those who continued to do this work, they felt an increased risk for contracting the virus:

> *"Well, yeah, I'm concerned because I'm a drug addict and my means of getting drugs is prostitution on the streets and stuff. And so, it is kind of scary, I put myself in a predicament. I'm around people all the time in order to get my drugs. I kind of have to." (AN.38)*

Overall, participants were unsure if (or when) things would go back to normal, and some expressed frustration with the lack of information and the spread of misinformation or rumors related to the virus, which confused them and made them unclear about their actual risk of contracting it. Some of these participants expressed that they wanted more clear information from the government about the virus:

> *"More information, I guess, regarding it. The long-term kind of spectrum…like how is it going? Is there going to be a vaccination for it and when? I guess just like how – how serious, I guess. But it's kind of like, there's a lot of kind of misinformation or misleading information kind of thing out there. So I guess maybe some straight kind of actual facts would be nice." (AN.20)*

Finally, some participants indicated that they were originally very concerned but that their fears

had waned over time and they became less concerned:

> *"When it first started then I was really freaked out at one point, I was like 'holy shit'. Every time I walked in the house, I'd make sure I'd wash my hands before I touch my face, I was very over, like – thinking about it. Now, I really feel like I've got – I feel like COVID's not going to take me out." (PN.27)*

4.5.1 Unique Risks Faced by PWUD and Related Concerns about COVID-19

While most participants expressed that they did not feel differentially impacted by COVID-19, some (n=66; 33%) explained that their concerns about COVID-19 and the ways in which it had impacted them were distinctly related to their self-identities and individual experiences, and that they felt specifically and disproportionately impacted and concerned about COVID-19 because of these. For instance, some participants explained that their socio-economic status or current living situation – particularly for those who were homeless – created an extra concern:

> *"I find that the police give us a harder time, homeless people. They didn't want you pan handling, they don't want you around people, and I know, it was like that before, but it became an even increased concern and issue with the COVID because you can't be around people. As a homeless person, we have definitely been treated differently than your average people, because of the situations that we are in. At the beginning of this, I felt like they were attacking homeless people." (AN.13)*

A few participants expressed that it was their ethno-racial background that contributed to concerns about COVID-19 and feelings of being disproportionately affected by the virus: "*Well as a person of color, it's showing people's racism and has impacted me in that way because I've been once physically attacked, and then once verbally attacked, racially. So in that way, 100%" (ON.25).* Similarly, another participant reiterated the extent of their concerns related to their ethnicity:

> *"As an Indigenous person, because of the like lack of equity in services and finances and all of that, employment, whatever, I think that it would be harder for me as an Indigenous person during these times because we're less visible. Like most of us are on a reserve. Like my family's on a reserve. So like, I don't see them at all. They haven't seen their grandson in months. Like it's hard. Like the whole reserve is closed down so I can't even drive to them if I wanted to. It's kind of crazy." (ON.05)*

Other groups of participants explained that they felt more affected and concerned by COVID-19 due to underlying physical (e.g., COPD, asthma, etc.) or mental health (e.g., PTSD, anxiety, depression, bipolar, etc.) issues, or were immunocompromised (e.g., by Hepatitis C, HIV/AIDS, autoimmune disorders, etc.). These participants were especially concerned about contracting the virus: *"Well, I'm HIV positive and that I'm HEP-C positive. I'm 59, I'm approaching 60 and I have a compromised immune system, so I'm a little bit concerned about catching it because I'm at a high risk for developing serious complications" (ON.28).* Some of these participants had a variety of compounding health and social issues that exacerbated their fears:

> *"I have a weakened immune system. I have significant health problems in the past. I had*

flesh-eating disease twice. I've had Hepatitis C twice. And of course, I'm a heroin addict or an opiate addict. Intravenous heroin addict. I don't think my chances would be very good if I contracted COVID-19. And some of the situations I'm in, I'm going through homelessness right now, staying in shelters and what not. So I'm in contact with a lot of vulnerable people. So that's mainly my concern." (ON.56)

Some participants explained that they felt more affected by COVID-19 due to their underlying mental health diagnoses, and described that having to socially isolate negatively affected them:

"Oh yeah, like I have borderline personality disorder so it's really hard for me to control my emotions. So I'm really ruled by emotions and people who suffer from borderline, you know every mental health illness is on a scale, but people who suffer from that it's just a lot harder for them than I think it is the other person. Just like if I was like that would definitely define me a little bit more." (ON.41)

A few participants who identified their gender as a 'woman' indicated that they felt especially worried, concerned and/or impacted by COVID-19 due to this, and explained how the virus disproportionately affected them:

"As a woman, like I used to be a sex worker and I feel like if I had to – like if the situation keeps going like it is and my money keeps going like this, I might have to do those things again and how would that work in these times? I'm not sure. Like I think that would really impact like the work I used to do. Like I don't know if I would be able to make the money I used to make because people are scared of infection and whatnot. And I think too like as a mother it's hard because I'm trying to go out into the community to like not be sick so I can take care of my kid, but I don't want to get something so that I can't take care of him. Like it's like such a like weird kind of situation to be in." (ON.05)

Others felt that being deemed an 'essential worker' and having to continue to work while dealing with other personal issues was specifically putting them at risk and impacting them in multiple ways:

"Having the barriers that I do, I'm on disability, because I do have some mental traumas and issues, as well as the drug addiction. And on top of that, working a low wage job that you know is just a little over what's required to receiving government benefits, the CERB benefits right now. I feel like I'm at risk more than some people because I'm still out there, I'm being told I'm an essential worker, so I have to stay working. It's putting me definitely at risk. So when I come home I have to make sure my mental health and addiction is in check. It's really difficult. It's hard, making just enough money to survive. So yeah, I do feel like I have my own unique challenges." (BN.03)

Overall, some participants reflected on the intersection of multiple and different aspects of their identities, and how it was a combination of these that contributed to feelings of concern and disproportionate impact from COVID-19:

"I mean there are barriers in everything you do but, you know, I self-identify as an

elderly person with mental health issues, you know, and an addict. So I mean all of those things are always a struggle and this just makes it three times as hard to do anything I need done, you know. The challenge is much harder. I mean, and not only that, I also have different things in my life going on that are – I'm in crisis, you know. So, you know, my daughter's in prison, I have all kinds of shit, I can't go to see her. So like, you know, there's a lot of stuff that can come to me and tremendously affects my whole wellbeing. My quality of life is shit." (ON.49)

4.5.2 Precautions Taken

Regardless of participants' level of concern or perception of the impact of COVID-19, most (n=128; 64%) articulated that they took some form of precaution(s) to protect themselves from exposure to the virus. Staying indoors as much as possible, wearing a mask and/or socially distancing while in public, and washing their hands frequently were the most commonly reported behaviors: *"I have my Purell when I go outside, I have my mask, and here, I have bleach that I disinfect my doorway, my stuff" (QN.03).* However, the extent of precautions taken varied considerably, were subjectively operationalized, and some participants expressed that they can only do so to the best of their ability:

> *"I do wear a mask when I can. Whenever I go out, I try to wear a mask. But, like, you know, I don't always have one or I lose it or something like that. I try. And I wash my hands...Yeah, I try my best, within reason. Especially in the beginning of our conversation where I said not being able – like, I have to go get the drugs. But other than that, I try to stay inside." (ON.83)*

Likewise, a few participants indicated that they have had trouble securing any personal protective equipment (PPE) and/or did not have the means or ability to acquire any: *"Yeah I don't really know where to get them" (PN.39)*. Some of these participants expressed disdain towards their health authorities for not providing PPE, especially, or at least, to vulnerable populations: *"Well they're not provided. And yeah, you can go into the Interior Health Office, get crack pipes and meth pipes, but you can't get gloves and masks" (BN.35).*

4.5.3 Ability to Self-Isolate:

Relatedly, most (n=153; 77%) participants specified that they were able to self-isolate and physically distance from others during COVID-19, and explained that they tried to limit public interactions as much as possible. Many only went out to get essential items such as groceries. Since the majority of participants were stably housed, this did not pose much of an issue for them:

> *"I've always been kind of a homebody so it's basically that. I just stay at home, I go out once in a while for groceries, I stock up more than I normally would so I can make less trips to town. I'm just super privileged, I have a home, I have food security, I have all of those things that don't put me at an increased risk" (BN.01).*

However, the remaining participants detailed reasons why it was difficult to do so, and how their inability to self-isolate put them at risk for contracting the virus. For many, their substance use

(including securing substances) often took place in conjunction with others, and as such, they found it difficult to self-isolate or physically distance while using or obtaining their substances:

> *"Well, when it comes to drug use, it has made using with people difficult because you have to be concerned whether or not they have the virus. And of course, you want to be around people, but you're not supposed to be around people. I break the rules sometimes and I probably shouldn't. But, you know, it's hard" (ON.51).*

Again, for those who were homeless or lived in the shelter system, many had a hard, if not impossible, time self-isolating as there was nowhere for them to go where they wouldn't be exposed to other people:

> *"I'm homeless, so it makes it kind of hard to self-isolate. If you're homeless and you're living on the street and everything else, and you have to stay in a shelter, you're in with 200 other people right? And if you're going down to places like the expo [shelter], well then you've got 300 people and it's kind of hard to isolate." (PN 04)*

This extended to not having anywhere to go to practice good hygiene and take precautions such as washing their hands or getting cleaned up in general:

> *"I mean especially out here on the street, right, I mean there's not a lot of places for the people to be cleaned up and stuff like that. And the social distancing doesn't exist down here, right? So I'm afraid that we're going to have another outbreak of it. I'd be out here because – well because, of course, I'm using." (BN 29)*

Some participants indicated that they do not want to or cannot isolate because it is triggering for their mental health issues (e.g., PTSD, anxiety, depression or suicidal tendencies), and that they needed social interactions to feel mentally healthy:

> *"Well I'm not really into isolating. Like it's kind of a trigger for my depression and suicidal tendencies. Like, you know, I'll go home and I'll spend two or three days by my own and then I just start to feel really lonely and really, you know, just cut off from everything. That really starts to bother me and so I got to come out and like be with my basically family." (BN 37)*

Therefore, while most participants were concerned about COVID-19, those who were particularly marginalized, such as homeless or transient participants, or those who experienced mental and physical health issues, had a harder time being able to take precautions, self-isolate and physically distance. Many of these factors further impacted their substance use.

4.6 Changes to Substance Use Frequency

Impacts of COVID-19 on substance use varied quite substantially and fluctuated depending on individual situations, experiences and substances used. Further, while participants may have indicated a change to the frequency in use of one substance or behavior, it did not always apply to all substances that they used. For instance, they may have increased their use of one substance

and changed the way they used it, but decreased use or changed the method of use of another substance. Additionally, they may have increased their use of one substance in the beginning of COVID-19, but have subsequently decreased their use of that same substance over time, or vice versa.

4.6.1 Increased Substance Use

In terms of substance use, among participants who discussed any changes to the frequency of their use (n=196; 98%), many (*n=92; 47% of 196*) indicated that their substance use had increased since COVID-19, and a number of reasons for this change in frequency were expressed. One of the most common justifications was simply boredom from being isolated and at home more often:

> *"Um, I find that I'm home more often because I don't wanna get on the bus because of the disease and all that, and I don't really wanna be out around it. I'm finding that I'm home more and I'm bored, and when I'm bored I find I use crack because I'm on methadone and opiates… only thing I can use is uppers and I find that I'm using more now than I was before because I'm home all the time." (AN.09)*

This was particularly true for those who had lost their jobs and were now confined to their homes and had more spare time to themselves:

> *"For sure it's gone up, just because of having no work right now. Oh, I have like three or four different jobs that I do part time, and all of them are on hold because of this. So basically, I'm at home and have way more time on my hands than I ever used to. So yeah, that's definitely made my using go up substantially." (BN.15)*

Some participants explained that their use had increased specifically to deal and cope with the stress, anxiety, depression and negative physical, mental and social impacts that isolation during COVID-19 had caused:

> *"Well I've increased my substance use. I've been abstinent for a while, and I've been taking opiates back up a little bit towards the start of the year, but that has really ramped up since COVID. Just because I'm under stress all the time, and I mean, I'm pretty used to it, but you know, the additional stress has made it necessary for me to get some extra chemical help." (BN.02)*

A handful of participants indicated that their physical pain had specifically increased due to the effects of COVID-19 and being confined indoors, or to disruptions in access to services that would typically lessen pain and/or any withdrawal symptoms or 'dope sickness' (e.g., OAT): *"My pain has also increased since COVID too. But that's been because I haven't been able to get my Suboxone because all this COVID crap" (ON.77*). As such, some of these participants discussed how their increased use was a form of self-medication, where they were using substances to induce sleep, or to numb mental and physical pain:

> *"Because there's no places to go and no food. There's nowhere to go and get warm, like you can't go and have a coffee somewhere and you're constantly hungry. So it's the drugs take care of that, right? I'm fucking starving, I have been ever since it started. I lost like,*

fuck, another 20 pounds on top of the 50 that I lost from being homeless. It's a suppressive, right, takes all the pain away." (BN.28)

Outside of individual-level reasons for increased use, many participants explained that their use was dependent on the availability of their substance supply. In areas where supply had been greatly affected, participants would often buy more at a time because they were unsure when the next time they would be able to access their substances would be. This often led to increased use due to having more 'on-hand':

> *"Uh I find that I use more because when there's stuff around I tend to get more of it because you don't know when they're gonna get it next, or you don't know when there's gonna be more. So you end up buying more, and then when you have more, you end up doing more." (AN.10)*

Similarly, some participants expressed that due to decreases in substance quality, where many substances did not produce the same or usual effects, they needed to use more at a time in order to 'feel it' because it was weaker. Consequently, participants were worried that this increase in use had led to an increase in their tolerance level, which was concerning for some: *"So now it takes a lot more to get that first buzz, so then that goes a lot faster, and we end up having to spend more money. But then, because of the increase in use, the tolerance levels have gone up, right?" (PN.07).* Some participants specifically explained the potential negative effects of an increased tolerance on their personal and/or work lives:

> *"I don't want to be increasing my tolerance, but it has been. I'm just concerned that like my tolerance, I want it to go back down, because I don't want it to build up and have to like, require more. Because, like, with opioids, you know, you go on the nod, right, and I don't want to be going on the nod when I'm at work because I don't want to put myself at risk." (ON.22)*

4.6.2 Relapse

As a specific and noteworthy theme related to increased use, a few (*n=14; 7% of 196*) participants indicated that they had relapsed due to COVID-19. For many, losing stability in their lives, such as jobs, daily routines, or social and substance use supports, was a catalyst to experiencing relapse. Participants detailed accounts of difficulties accessing services and inferred that their relapse was particularly related to inaccessibility of specific services, such as self-help groups:

> *"When the pandemic started and that, I was clean for ten months, and when I relapsed – like, I belong to AA [alcoholics anonymous], and then I relapsed, and I just started getting back to going to the meetings and then, like the meetings were closed down and that." (ON.37)*

Others explained that their relapse was due to experiencing intense mental health issues and related stress that COVID-19 elicited: *"I was sober for like two years, had no plans on using again, but just with like the isolation and the uncertainty, yeah, I just – I started using again. And yeah, it's been really difficult for me this whole COVID-19" (ON.07).* Some of these participants

elaborated on the fact that using substances was the only coping mechanism they knew, which led to their relapse:

> *"Well, I mean, the stress, I guess. I mean, for me, as being an addict in recovery. One of the first things, for me, is when I get stressed, you know, what's kind of my triggers? Or, like, you know, what do I do when I get stressed? And almost, like, it seemed to me like if you were thirsty, you'd go to get a drink of water. When I get stressed out, I instinctively just want to use, just, you know, to stop that." (AN.20)*

Participants provided details on the ways in which relapsing had affected them, with some explaining that they had been doing really well and in recovery before COVID-19 and since their relapse, their use has accelerated. In some instances, this had specifically resulted in negative health and/or social impacts: *"I just recently had a relapse and I ended up getting Hepatitis C. So now I guess that's a concern with me regarding, you know, being sick and how that potentially could affect me. You know what I mean?" (AN.20)*

4.6.3 Decreased Substance Use

While many participants who reported changes to the frequency of their use indicated an increase, a number of participants (*n=75; 38% of 196*) expressed that their use had actually decreased since COVID-19 began. Explanations included not wanting to go into public and interact with people and/or substance suppliers, and to avoid exposing themselves or putting themselves at risk for contracting the virus, which was especially the case among immunocompromised participants:

> *"Well, I'm trying to avoid people for one thing, and it's whenever I score drugs, I'm at risk of exposing myself to possibly somebody who has it, right? So, I don't know where they've been. They could be walking around with the virus and then I become infected, right? So I've kind of cut down on that." (ON.28)*

A few participants indicated that they began using less because they no longer had anywhere to use, especially for those who typically used on the streets, inside businesses (e.g., coffee shops, washrooms, etc.), or at supervised consumption and/or overdose prevention services, which had experienced a reduction in their capacity and ability to provide regular services:

> *"It has slowed down. I usually use, like in a bathroom or something, but because of the lockdown and, like not a lot of places are open, like you can't even go inside, so now I just have to wait for, like at home to use." (ON.38)*

Other participants who were fortunate to be able to secure a stable place to stay (e.g., motel, hotel, etc.) through the shelter system's pandemic programming detailed that it was the stability of having a place to live that fostered their desire and ability to use substances less:

> *"Like when I lived on the street, the only thing I would think of doing was making money and getting drugs, because I didn't know what else there is to do when you're living on the street. Now that I got a place to live, I can actually live clean and live somewhat kind of normal life." (AN.38)*

Some participants explained that they were no longer able to financially support their substance use habits. Participants who relied on social interactions to make their money (e.g., panhandling, sex work, selling goods, shoplifting, etc.) expressed they were not able to partake in these activities:

> *"I'm consuming a little bit less, let's say. Because I panhandle, I used to panhandle for money, and now I don't panhandle as much. So, I don't consume as much, but what happens is that my friends, everyone fronts me. Some of them loan me cash and some of them front me because I'm an honest guy. I've got good friends. When I get my cheque, I get a lot less, but that's okay. It's about the same, otherwise I might consume a little less." (QN.14)*

Whereas others explained that it was due to experiencing job insecurity such as being laid off from work and/or having their hours reduced:

> *"I used to do that, but since the pandemic started, well we kind of had a mandatory work stoppage. So, the money was coming in less. So, since I was just on social assistance, I had consumed less because you have to eat and find a place to live first." (QN.32)*

Relatedly, many participants indicated the prices of substances had increased, and that based on this, they could no longer afford them:

> *"Well it's been more difficult to keep the amount that I used to because the price of the drugs have gone up substantially, so my use has decreased. I mean if I don't have the money, I can't get drugs, it's just the way it is. I have to spend more money on less drugs, I mean, and I just don't do that anymore." (ON.49)*

Beyond price fluctuations, other supply issues such as a decrease in the quality and lack of availability and accessibility of substances were discussed. Participants explained that they did not trust the potentially toxic substance supply, and did not want to ingest something that they were not sure of:

> *"Drugs are harder to get and people are less willing to part with supplies, and then also I found that, say for example, cocaine, the quality has really went down. It's really hard to find good quality product. I don't know what it was cut with, but it's not good product and it scares me. I like to know what I'm ingesting." (AN.17)*

However, many participants explained that they perceived the decrease in their use as a positive effect. Some expressed that COVID-19 was a blessing in disguise and that the reduction in their use has been beneficial for a number of reasons, including increasing their overall health and well-being: *"I'm using less amphetamines. I'm pretty sure my kidney is shutting down every time I use it, and it's painful, so the limited access to it has had a positive health outcome for me" (AN.17).*

4.7 Changes to Substance Supply

Regarding substance supply, participants specified important and noteworthy changes which were often substance-specific and varied based on other factors. Specific changes to supply characteristics included impacts which affected the quality or potency of substances, the cost or price of substances, as well as the accessibility or availability of substances. Additionally, some participants discussed changes to their interactions with their substance supplier.

4.7.1 Quality and/or Potency of Substances

More than three quarters of participants (n=153; 77%) discussed whether or not the quality of their substances had been affected by COVID-19. Of those, the majority (*n=94; 61% of 153*) indicated major decreases in the quality or potency of substances. Participants overwhelmingly detailed accounts of substances being heavily adulterated (e.g., 'cut', 'stomped', 'buffed' etc.) with fillers including unknown substances and chemicals, making them weaker or not as potent as usual: "*The drugs are terrible now and they're cut with everything and anything."(AN.38).* Some participants could tell that the substances were not the same based on different sensory indicators, such as taste, smell, appearance, as well as effect. For instance, one participant discussed how the substances tasted differently:

> *"Well it had a certain taste before, now it tastes like heroin sometimes, it tastes like baking soda other times, it tastes like acid sometimes. You never know what you're getting anymore. You could be paying for crack, but it might not be crack. It's not dependable, you don't know what you're getting any more." (AN.12)*

Other participants detailed how the substances appeared visually different than normal:

> *"One time I went to sell some crack and it melted. It turned pink. It turned pink instead of just white milk. And I was like what the hell is this? Apparently, someone had told me that it was fentanyl. Oh and then we got some and it was more shiny. My face broke out so bad, it looks almost to me like a crystal meth kind of breakout. I've never ever used crystal meth, but I've seen pictures of people. You know, what happens when you use and I know when I looked at it, it was really shiny." (AN.20)*

Other quality issues noted by participants were that substances were not producing the desired effect, and in some instances, they indicated that substances would produce the opposite effect, such as downers making people feel awake, or uppers making people feel drowsy:

> *"Whoever makes the stuff [crystal meth], the formula has changed a bit, and you can tell by the taste and how it burns. So, it's been making me more sleepy than anything, now. Right? It doesn't wake me up as much. I feel a sudden burst of energy at the beginning, and then about 20 minutes into it I start getting like drowsy. Like, it's got fentanyl or something in it." (BN.27)*

Some participants explained that not only were substances being cut with unknown ingredients and not producing the desired effect, some of the substances were outright fake. This was particularly true for what were supposed to be 'pharmaceutical' or 'prescription' opioids, which

have a distinct look and design:

> *"Oh and there's fake drugs going around, I've had people starting to take fake drugs, like Dilaudid 8's going around. People have been making fake pills. So there was fake Dilaudids. I don't know what's in them but they're not real. You'd feel like a high, but a different high, makes you feel sick from it." (AN.10)*

For some participants, these noticeable decreases in potency or quality had negatively affected their tolerance levels, and on some occasions, they would experience withdrawal effects quicker:

> *"The substances aren't as powerful. So they're shorting people and like I find like I'm sick a lot more because it's like weaker. I do opiates. So like the opiates are weaker and I'm not getting as much for my money. So it's like I'm getting sick quicker and even if I'm on methadone, like it's still not helping." (ON.05)*

Decreases in quality led some participants to express frustration with the futility of searching for substances only to acquire fake or weak substances that did not produce the desired effect:

> *"Oh it's a huge concern. You pay $100 on something and you find out that it's garbage or that it's much less, or the flavour is something else, or you get a really bad headache, or any of that, then obviously you didn't enjoy it. The whole purpose of the process seems to be even more ridiculous and more wasted than it was before. I mean I have no illusions about how stupid addiction is. So right now because of the reality of COVID, it's a bit more maddening because it's even more blatantly in your face that you're being taken completely advantage of. It just makes it that much more obvious that you're throwing money at assholes and they're giving you poison." (ON.67)*

A number of participants explicitly linked the decrease in quality of substances, and the fact that many were adulterated with unknown chemicals, to the risk for experiencing an irreversible and potentially fatal overdose. Some gave detailed accounts and anecdotes of either experiencing this themselves, or knowing others who had:

> *"It's really scary watching the drugs that like changed through this whole like eight, nine-week process because the reactions to it. It's really scary watching people drop like instantly and then you can Narcan them, but then they still don't wake up for hours and hours and hours because they're laced with like so many Benzos [Benzodiazepines]. And they're in, like, excruciating pain, even though they've taken like so much fentanyl and this isn't something that I want for myself." (ON.07)*

In turn, these issues caused some participants to spend more time, resources and money searching for and acquiring what they considered to be better quality substances which would provide them with the effect they needed or wanted. As such, for those that were not able to access better quality substances, they decided to decrease their use based on these factors:

> *"I stopped buying, what I call street dope, like for a fentanyl mix, heroin mix. It's not heroin anymore though, it's always fentanyl because the makeup of it has seemed to*

change a lot since COVID started. There seems to be weird stuff in it now that wasn't there as much. It's just a lot more prevalent now it seems like there's benzos in it or something. And I've noticed that people have overdosed that wouldn't normally overdose." (PN.10)

Even for participants who had not experienced disruptions to other aspects of supply, they confirmed that the quality had been the most affected: *"Everything's been the same except for shall I say the quality has now gone down as far as that's gone" (ON.42).*

4.7.2 Cost of Substances

When it came to the price and/or cost of substances, many participants (n=162; 81%) discussed changes to this, with the majority of those (*n=100; 62% of 162*) indicating substantial increases, with participants explaining that prices had 'skyrocketed' since COVID-19. While increases in prices were often substance-specific, in general, participants reported that prices for substances had increased overall: *"The price has skyrocketed. It's like it's their world now, so they have opportunities to just mix it in with all kinds of crap. It's just not the same. It's disgusting. And they're charging like almost double now" (ON.15).* In terms of specific price increases, many participants indicated that the prices had doubled, tripled, or even quadrupled, and that because of this, they were spending more than usual:

"The drug dealers and stuff are using the COVID to raise the prices for it too. I guess because they say it's harder to get into Canada and blah-blah-blah, right? So they're charging an arm and a leg. Like before, you would pay $10 for a point of heroin, but you're paying $20 a point now. So they've doubled the price on it. [I'm spending] double the money every day, right? Because of the price." (BN.29)

A few participants described that the price increase was specific to their substance supplier, and that not all suppliers had increased their prices. Nonetheless, some suppliers would utilize other tactics that resulted in participants spending more at a time, such as requiring them to purchase certain quantities: *"For some people it's the same, but other people they're charging more. And some people won't sell 20's they're only selling 40's. That's the problem too, right?" (AN.09).*

Other participants explained that while the prices may not have necessarily increased, the quantity or amount of substance they received had decreased, so participants were essentially paying the same or more than usual, for less product (or a less potent product): *"So, the price stayed the same and the quantity decreased. Instead of having a real rock [crack-cocaine], it's now a 0.2, but you'll see, there are some who will make 0.17. I've seen up to 0.13. So they lowered the quantity" (QN.22).* These changes led some participants to suggest that the suppliers were taking advantage of the disrupted supply chain:

"It's a bit of a scare tactic, and anticipation that the supply is going to dry up. I think that some people are using it as an excuse to higher their prices, and um yeah, I don't know farther up the chain what things really look like, but I do feel like at this time people are using as a reason to jack their prices up. Even my supplier themselves has quite an increase in the amount they're charging him, to a point where it's almost not worth it for him to be doing it, which could lead to no longer to having access to that safe

supply that he offers to me." (BN.01)

Other participants discussed how since the prices of their substance(s) of choice had increased, they would substitute for another, different (and potentially toxic) substance which was more affordable: "*So I'm kind of substituting those for the hydromorphone or the Dilaudid and I mean the price is $2 to $3 a pill compared to the hydro's $20 to $30 a pill, right?" (AN.33)*

These issues frustrated and discouraged participants who found themselves struggling to afford their substances and support their habits, especially if they had lost their primary source of income during COVID-19: *"It is frustrating. The cost of it's frustrating. The amount that you get for your buck is frustrating. And then when you do get it, and it's so weaker, much weaker than it normally is, it just – it makes it very difficult" (PN.48).*

While not related to the cost of substances directly, some participants discussed how they had been spending more on individual substance transactions. Reasons for spending more at a time included an increase in their overall use, or because they changed the way they received the product, such as opting for delivery services in order to minimize going into public, which cost more money: *"It's a lot more expensive than I'm used to because I'm getting it delivered because I don't wanna leave the house" (AN.18).* Other participants reported that they started to buy their products in bulk in order to get a deal from their supplier or because of a lack in availability, leaving them unsure as to when they would have a replenished stock: *"Yeah. If there's three pills, you're going to grab them up rather than before, where it's like I'll grab one [because] I know there's going to be one later. Especially if there's only a few on hand." (AN.24).* However, some participants explained that by buying in bulk, they may be spending more at a time, but were actually saving more money in the long run: *"But then again by buying more quantity, I'm saving more anyway. So I guess I'm spending about the same amount of money, it's just, I'm not, you know, I'm just doing more at a time that's all" (AN.27).*

4.7.3 Availability and/or Accessibility of Substances

Related to the availability or accessibility of substances, a quarter of participants (n=151; 76%) discussed changes to this, with many participants (*n=88; 58%* of *151*) explaining that there had been a noticeable decrease; an issue which was exacerbated by negative impacts to the quality and cost of substances. Participants described major challenges accessing their substances of choice, and gave accounts of waiting multiple days and/or traveling far distances to obtain their substances:

> *"It's just sometimes it's been like a waiting game because they can't get a hold of the person or the person isn't making as many trips or whatever the case is. So people aren't being as available I guess as they were before maybe? Or they're not having as much available. Normally, it's just a phone call and no big deal, but where it's been waiting a day or two or three sometimes. I noticed that never used to be a problem before. If I couldn't get hold of the one person, there was always somebody else like within a couple of minute's phone calls." (BN.15)*

Some participants explained that due to lockdown measures, there were not as many suppliers visible on the street, so they had a hard time locating someone to purchase from: *"There's less –*

there's less people on the street, so yeah. It's a little bit harder to get I guess" (ON.69). Other participants elaborated on this and reiterated difficulties finding substances where they normally acquire them: *"The quality, it's not good and then it's harder to find. It closes at 6, 7, 8 o'clock because after that, there's no one left on the street, there's nothing but the police. After 8:00, there's no dealers out there" (QN.14).*

For some participants, disruptions in availability led them to decrease their use: *"I'm definitely using less, right? Not by choice, but by availability. Like the availability's not really there like it is on a normal, day-to-day basis?" (ON.09).* Whereas for many others, when they could not find their substance of choice, they would substitute or supplement with other substances: "*Yeah, I started doing cocaine because I couldn't find anything." (AN.10)*

Other participants explained that by not being able to get their desired substance, they would end up experiencing withdrawal symptoms or 'dope sickness' (primarily those who used opioids), and would have to substitute with an opioid agonist such as methadone or Suboxone, which they either obtained illicitly from the street, or from formally enrolling in an OAT program at a clinic:

> *"Oh, yeah, of course. I've had to do that [substitute substances] quite a bit. I never used to, since COVID started. But I have to now. It's Suboxone. I would buy a Suboxone once in a while and then I would sit on it for months. I'd have it in the cupboard or something for a long time. And then I'd end up getting rid of it because I'd always end up finding pills. Since COVID, anyway. [I'm buying it from the street]. Just given how limited supplies are. I'm going to try to get on Suboxone through an actual clinic." (ON.83)*

4.7.4 Interactions with Substance Suppliers

For a number of participants, the compounding supply issues had led participants to either change suppliers, or change their typical interaction with their supplier. Many participants reported that prior to COVID-19, they had a good rapport with their supplier, and often considered them a 'friend' and/or 'acquaintance' whom they generally trusted to provide them with safe or unadulterated substances. However, since COVID-19 and considering the disruptions to the supply chain, participants often had to search outside their regular supplier in order to access their substance of choice:

> *"Actually you know what, it has changed because it's hard to get it through people, so everybody's you know, doing what they're doing, cutting their shit, trying to extend it out, and when they run out, then you gotta go through somebody else that you don't know." (AN.09)*

Having to change suppliers from someone they trusted to a stranger, created a vulnerability that many had not experienced before. They reported that they now felt susceptible to being taken advantage of (e.g., being 'ripped off'), obtaining substances they did not trust, or to having to spend more time not self-isolating in order to search and acquire for their substances:

> *"It's harder to find. The places or people I used to get from close to me, I feel like the supply is not good, and quality, I feel like things are being cut. Or people, and I'm not one to ever have gotten ripped off or stuff like that, but I have had on 3 occasions just*

> *completely lost my money and people are not coming back with what they were supposed to give me. And that is something that has never happened before, I normally have good sources. And I've had to travel further to a source that I trust and that is good quality, so I'm driving maybe an hour one way to get my supply versus having to drive 30 minutes." (PN.01)*

Beyond these issues, some participants outlined that their suppliers were apprehensive of their involvement with the actual transaction for different reasons. Some did not like to venture into public for fear of catching the virus, while others were afraid that because there were less people out on the streets, they were therefore more visible to police, exposing them to a heightened risk of potential criminalization. This not only made it more difficult for participants to meet with them, but some suppliers had certain requirements that must be met, such as purchasing a certain quantity or meeting at a certain time, which participants had a hard time adhering to:

> *"I noticed the dealers are a lot less likely to come out, they are afraid, because there are more of a police presence, according to them. So yeah, getting it is a bit harder, and also the drug dealers won't come out unless you have a certain amount of money now, at least the people I go to. So yeah, it's gotten a little bit harder if you're a user who calls somebody to procure their drugs, and doesn't just go to a place like open city market, or something like that. There's more risk involved for the people actually selling the drugs. You have to have a bit more time, have a certain amount of money, and certain time of the day. Like the hours have been reduced for the people selling me the drugs, they won't go out when it's dark, it has to be during the day because they are afraid of police presence, due to less vehicles being on the road." (BN.03)*

Due to these apprehensions, some suppliers enforced a 'touchless' or socially-distanced transaction, such as putting the substances and money in a hiding spot, or using other means of payment such as E-transfers: *"It's getting harder because a lot of the dealers don't want to be having people around, right? So, they usually fucking put it on the ground, and then want me to put the money somewhere, and walk by and grab the money, and then I pick up my stuff" (AN.21).*

Additionally, some participants explained that since the suppliers themselves were no longer able to obtain their normal supply, they were now less likely to allow customers to receive an 'advance' of their substances, where they would receive it upfront and pay for it later (e.g., 'cuff', 'front', etc.). For many, this was exceptionally difficult since they were financially struggling to make ends meet:

> *"The other thing is that the remainder of the dealers have also changed and their financial stability is being threatened as well. So you know, before if I'm short a few dollars at some point I could call somebody and they'd give me a front. They'd give me a favour. But they don't do that anymore because stuff is very expensive. So there's a cash flow issue which has also come into play nowadays because of how expensive things are. Whereas I could front periodically throughout the course of the month and pay it all back at the end of the month sort of thing, and that was fine. So that has an impact right?" (ON.67)*

4.8 Changes to Substance Use Characteristics

While the majority of participants expressed that their typical use characteristics, such how they use (i.e., route(s) of administration), who they use with (i.e., use dynamics), and where they normally use (i.e., location) generally remained the same throughout COVID-19, select participants indicated crucial and noteworthy changes to these aspects of their use. This was often related to disruptions in substance supply.

4.8.1 Route of Administration

Among participants who discussed their typical route of administration (n=125; 63%), one-fifth (*n=25; 20% of 125*) indicated that they had changed their main route of administration since COVID-19, such as switching from oral use to nasal, or from intravenous (IV) to smoking. Reasons for this included a desire to experience a different effect from the substance, particularly in light of a reduction in substance potency: *"Because like, certain times, it wasn't working. Like I wouldn't feel like any effect at all, so I would try smoking it to see if it would give me that effect I needed" (ON.05).* Notably, quite a few participants (*n=82; 66% of 125*) reported engaging in IV substance use. While the majority of those who injected their substances (n=82; 41%) had always done so, some (*n=9; 11% of 82*) indicated a recent switch to and/or an increase in IV use due to factors related to COVID-19, such as changes to substance supply and use characteristics: "*I've been trying to stay away from injection drug use, but I would say that during COVID, my injection drug use has gone up" (ON.51)*. Most commonly, participants explained that due to decreases in substance quality or increases in tolerance since COVID-19, they had started to inject their substances in order to obtain a stronger effect: *"Well I have to take twice as much as I did before. And if smoking doesn't work I'll shoot it" (AN.12).* On the other hand, a few of the participants (*n=6; 7% of 82*) who indicated that they typically engage in IV use, reported that they had reduced this behavior, mostly in an attempt to remain as healthy as possible in light of COVID-19: "*Because I don't want to be putting things in my arm, right, during this pandemic. I don't want to shove things in my arm and keep my arms vulnerable towards the virus" (AN.30).*

4.8.2 Location and Use Dynamics

Among the participants who discussed their use dynamics (n=182; 91%) (i.e., whether or not they use alone or with others, or who they typically use substances with), *40%* (*n=73 of 182*) indicated changes to these aspects, with many specifying that they were more likely to use alone as opposed to with other people now. Additionally, among those who responded to whether or not their typical location of substance use had changed (n=131; 66%), nearly half (*n=44; 34% of 131*) indicated that where they use substances had changed, including an increase in substance use 'at home'. Reasons for participants being more likely to use substances alone and at home during COVID-19 were largely due to the necessity to self-isolate and socially-distance from others, and because they did not want to expose themselves to the virus:

> *"I tend to use alone too a bit more because I'll get home, and so that I'm not out there exposing myself to COVID, then I'll be just in my room in the basement or whatever and*

just using by myself. I used to use with other people. Yeah, some of my friends, they're homeless, and they're around a lot of people and there have been outbreaks around them, you know. So I try to avoid people that are, you know, in pop-up shelters or, you know" (AN.27)

Other participants explained that they used alone and at home (or wherever they were currently residing) more often due to inaccessibility of services and places where they typically used to use, such as supervised consumption services or other harm reduction centres which were operating in a reduced capacity, or sometimes not at all. Especially for those who were homeless or street-entrenched, these participants indicated that they had a harder time finding places to use since many restaurants and public washrooms and areas were now closed:

"I was using public washrooms or public spaces, there's a space in Downtown in [city name]. It's not a safe shoot zone or anything like that but you can go there to use, and that's shut down. Tim Hortons is shut down. You know, everything has shut down so public spaces aren't really a thing." (AN.33)

Some participants explained that while they may not have used supervised consumption services to use their substances per se prior to COVID, they often visited these sites and would hang out in the general vicinity in order to feel safe and to be around medical support in the event that something were to happen, such as an overdose. As such, due to the closures or reduction in capacity, they felt at an increased risk of experiencing a negative impact from their substance use:

"Well now that there's no like safe injection, like even if I'm not there like injecting, like I've gone and used, whatever, like in private, you know, somewhere else. But I'm hanging around there, you know, like there's now nobody like that, you know, if something did happen, like to help me out or whatever, right?" (BN.37)

4.8.3 Challenges to Mitigating Substance Use-Related Risk

For some participants, changes to typical routes of administration, use dynamics, locations of use and difficulties accessing services during COVID-19 was explicitly associated with an increase in risk for experiencing harms from substance use. For instance, participants who found themselves using alone or in unfamiliar places stated that they now felt less safe compared to when they used to use with others, or in more public areas:

"While I lived in [city name] I still made it my best effort to go to a safe site to use, and if I didn't, I would go to a friend's house to use in front of him. Like, under their supervision. And now, it's a lot unsafer. For example, last night my mom found me in my room with a needle sticking out of my neck because no one was watching me." (ON.70)

Importantly, these participants explained that using alone was especially risky for overdose prevention in that it increased their risk for an inadequate emergency response if they were to experience an overdose: *"If you're by yourself and anything were to happen, there's no one there, right? So, that's a huge problem. I lost a lot of friends that used by themselves and there's no one there to watch them, to dial the number, and, that's it" (ON.13).*

Other participants indicated that primarily due to substance supply issues where they were unable to acquire their substance of choice, they would substitute for whichever substance was available and/or more affordable. Among those who discussed whether or not they substituted substances (n=94; 47%), the majority (*n=57; 61% of 94*) indicated doing so during COVID-19. This placed them at risk of experiencing adverse effects since they indicated that most substances had been contaminated and were not necessarily what they were supposed to be, leaving them unfamiliar with the substituted product and unsure if they would be able to tolerate it:

> "*Because opiates weren't available 2-3 weeks ago, I tried to purchase cocaine, not rock, and yeah it was a totally different experience because I'm not used to it, and it gave me a totally different rush and a totally different high, something I wasn't used to. So I don't know it was because it was cut with fentanyl, I know it was cocaine, but I don't know what it was cut with. And it gave me a totally different reaction than I've ever had before in my life. It wasn't an overdose but it definitely scared me.*" (*AN.13*)

Other participants reiterated an increased risk for experiencing negative effects from substitution: *"The drugs are getting weaker and less available. So I was trying to supplement them with Xanax. That was risky. There were some really scary times there." (BN.19)*

Other COVID-19 related changes to substance use practices reflective of challenges to risk mitigation included reusing or sharing substance use supplies and/or paraphernalia such as syringes or pipes and smoking stems, etc. Among the participants who discussed whether or not they had shared and/or re-used supplies (n=64; 32%), some (*n=35; 55% of 64*) explained that they had done so, but that this was something they normally did. However, a subset of participants (*n=30; 47% of 64*) specified that they had only shared or re-used their supplies since COVID-19 began, and they related this to a number of factors. One of the more common factors discussed was a reduction in capacity of harm reduction services and/or needle exchange programs which typically provided supplies:

> *"Harm reduction supplies, I'm running out more often than not. And I'm actually at times using my own needles even because I can't access new ones. It's just been harder to get and they're less available. Because I can't attend the health unit, they're closed down. I have to make an appointment to go pick them up whereas before I could just drop in. The place that is open 24 hours, the drop in, has run out twice since it started. Like a few days they were just out of needles. Just out, with no other option. So at least twice since it started, I had no supplies and none were available." (ON.56)*

Other participants explained that even when supplies were available, they were limited in the amount they could obtain: *"We're only allowed to have two pipes a day, and just because some people don't have any out there, we give them our supply" (BN.20).* Even participants who would purchase supplies from pharmacies indicated that a reduction in the hours of operation had complicated their ability to obtain them*: "I usually just buy my own from the pharmacy, and I continue to do that because pharmacies have stayed open. But the hours of operation has changed so that has affected. So as a result I have been reusing my own needles" (PN.01).* Importantly, some participants further discussed a reduction in syringe disposal services, and explained how used paraphernalia were accumulating and they did not know where to dispose of

them:

> *"The places where I go to get paraphernalia are closed. Now my dirty ones are piling up. I am considering asking my pharmacy where I pick up my prescriptions of methadone, if they will accept them for me, if I put them in proper cases. It's getting out of control." (BN.03)*

While reusing supplies is an inherently risky behavior, some participants explicitly expressed that they recognized that this was increasing their risk for experiencing health-related complications, and were quite concerned:

> *"Well, because I don't want to get an abscess, and I don't want to give myself that weird blood infection or whatever, that heart infection or whatever you can get from having bacteria in the needle or whatever. I just looked into it because I was super scared. But, it was also scary because I felt like what if I lose this, or what if I grab one that's not even mine like on accident or something? But I had like anxiety about it. I gave myself all this weird, unnecessary anxiety." (ON.83)*

4.8.4 Overdose Risk

Finally, in terms of perceived risks of experiencing an overdose, among those who discussed whether their risk had changed since COVID-19 (n=173; 87%), nearly half (*n=76; 44% of 173*) indicated they felt no more or less likely to overdose. This was common among participants who indicated that their tolerance levels were extremely high, or that they were using substances which they felt were unlikely to contribute to or cause an overdose, such as cocaine or crack-cocaine. However, quite a few participants (n=66; 38% *of 173*) felt as though their risk for experiencing an overdose had increased since COVID-19. Reasons for a perceived increase in overdose risk largely revolved around supply-related issues such as an increasingly contaminated and toxic substance supply, including significant fluctuations in the potency and/or quality of substances. This contributed to a greater risk for overdosing since participants did not necessarily know what they were taking and how their bodies would react, and many indicated that they did not trust the substances. One participant gave an anecdote about how this specific issue had led them to experience their first overdose ever:

> *"I've been using all my life and I've never once overdosed until just a couple weeks ago. I think it's because the drugs are so bad because they can't get them across the borders and stuff now that they're mixing anything and everything with them. So whatever was mixed with the drug that I was doing – I think it was fentanyl or something. The drugs are terrible now and they're cut with everything and anything. You really never know what you're getting." (AN.38)*

Some participants expressed that even when they were confident in which substances they were using, there was a risk for inconsistencies in potency within the substance, often due to the ways in which it was processed that specifically contributed to an increased risk for overdosing:

> *"Sometimes when people are buffing it and they mix it up, like, there's what's called hotspots. So, where, like, there can be like, a really large abundance of fentanyl in one shot and like, in another there's almost none, you know, kind of thing. So if something*

like that happened, like I could overdose. So, yeah, I would say that my risk has actually gone up now that I think about it." (BN.37)

Compounding this issue were other supply-related issues, such as fluctuations in accessibility. This would often lead participants to use inconsistently, which also affected (e.g., increased and/or decreased) their tolerance levels, leaving them at an increased risk for experiencing an overdose: *"So I would say like more fluctuations in my use, or inconsistency in my use, which is going to increase overdose risk" (ON.06)*. Another participant reiterated this sentiment: *"It feels like my tolerance has gone up because I'm starting to use more? There was one time where my heart was beating pretty heavy so I just cut myself off and stopped." (PN.07)*

Beyond supply-related justifications for an increase in overdose risk, some participants discussed how it was an increase in their use frequency which had contributed to a greater overdose risk:

> *"Definitely with the cocaine use, because I obviously didn't do it as much before. So now, you know when you do a substance and you do it more often, you obviously up the amount that you're taking. And I actually feel like I almost did run into a problem a couple weeks ago. Thankfully I wasn't alone though, I had a friend staying with me for a little bit. And I don't know whether it was just a panic attack of thinking maybe I've just done too much and I was freaking out about it, or it was legitimate, but I did not do well for about three hours." (ON.01)*

Other participants expressed that it was the loneliness and COVID-19-related stress they were experiencing that led them to use more at a time in order to deal with their pain, and that using more to cope with everything in-and-of-itself increased their risk for an overdose:

> *"I guess one of the reasons is that just the whole stress of everything. Like not having a job now, not having money to take care of, you know, a home. You know, I don't have a home. Just the whole stress of that would just kind of like probably cause me to use a little bit extra more, or take an extra bit more. Just the fact that it's just so stressful that you just kind of want to numb it all out." (AN.20)*

Participants also discussed how using alone increased their risk of overdose, for the simple fact that they were not around anyone that could potentially assist them in the event that they did overdose: *"And a lot of are alone and not using with anybody around and alone, some of them are making it and some of them aren't." (BN.20)*

While many participants explained that their risk for experiencing an overdose had increased, a number (*n=24; 14% of 173*) indicated that they felt their risk had decreased since COVID-19. Some of the reasons put forth for this were similar to those mentioned for an increased risk. For instance, some participants recognized that the substance supply had been greatly affected: many substances were contaminated, they had increased in price and were also harder to acquire. Due to these reasons, participants indicated that they were becoming increasingly frustrated and decided not to 'bother wasting their money' on unknown or potentially dangerous substances, thus decreasing their use overall and subsequently their risk for overdosing: *"Less risk. I'm using less and the quality, so if I find that it's not good, I don't bother right" (PN.20)*. Other reasons

were specific to the substances that participants were currently using. Some felt that their risk had decreased because they had changed which substances they use to ones they perceived to be safer: *"I feel like I'm less likely to be at risk because of the substances I'm using. Before I was using methamphetamines, and it's really easy to do too much" (AN.17)*. Lastly, some participants described that it was more so a combination of factors, such as having a steady and high tolerance, using less than normal, and taking them in less risky ways (e.g., orally versus IV) which led to their perception of a decreased risk for an overdose:

> *"I feel like I'm at a very low risk of overdose right now, and the reason I say this is because being on methadone for as long as I've been, I can take a lot of opiates and I have never actually overdosed before in my life. And even when I take the fentanyl, because I'm on methadone, it only lasts for like 5 minutes and then it goes away, no matter how much I take. And there's also a much lower risk because I'm not using the fentanyl as much, and because I have the safe supply and I'm taking them more by mouth instead of IV." (BN.03)*

4.9 Changes to Accessibility and Availability of Substance Use Services

As a response to COVID-19, many services that were considered non-essential had to be shut down, or, due to public health measures, were required to operate in a reduced capacity, including a reduction in hours, staff, and number of services offered. When asked about participant experiences with accessing and utilizing substance use services, many specific services were brought up and discussed, with harm reduction services, OAT services, addiction counselling, drop-in or self-help services, and treatment or detox services being the most frequently utilized and discussed services. While many participants referenced changes to these services, it is important to note that both positive and negative changes were identified, and some participants documented experiences of both.

Many participants expressed general concerns about accessing any substance use-related services due to COVID-19. Simply leaving their house, and potentially exposing themselves to the virus was identified as problematic and a significant cause for concern. As a result, many participants stated that they tried to limit the amount of times they would leave their homes, or essentially avoid accessing substance use-related services altogether: *"And so another reason I'm avoiding it just because other people that may have had it- may have that COVID who managed to get their way inside. And I'd just rather not take the chance." (ON.63).* Another participant similarly stated: *"It's because of the pandemic that I don't want to put myself in situations that maybe it's risky. I'm being careful, it's open, but I'm not going, not at all." (QN.14)*

4.9.1 Harm Reduction Services

In terms of specific services utilized, the most commonly discussed substance use-related service(s) were harm reduction services (including supervised consumption services and/or overdose prevention sites, needle exchange programs and/or outreach services), with the majority of participants (n=152; 76%) referencing the utilization of these services during COVID-19. Among those, *7%* (*n=11 of 152*) identified positive changes to the accessibility of these services, *61%* (*n=93 of 152*) stated that access to these services had largely remained the

same with the exception of minor changes, and *53%* (*n=81 of 152*) discussed negative changes which had affected access to these services amid COVID-19.

While a very small percentage of participants who identified changes to harm reduction services noted positive changes, these experiences and changes are important to document. Some participants explained that due to COVID-19, some harm reduction services had actually increased their capacity and instituted new services. For instance, one participant discussed how a harm reduction facility adapted by renting a van to distribute supplies to substance users:

> *"So what happened is a couple of the organizations have actually gone as far as to - now that they are no longer in office, they have taken some of those savings and rented a van. So since people can't come to the office to pick up supplies what they do is they stock the van and then have people call and they'll go and meet people and literally sort of hand things through their doorway or leave it on their steps or that sort of thing." (ON.04)*

Another example of how COVID-19 prompted additional mobile outreach programs was when one participant explained: *"There's this one group, they just started up when COVID started, it's called Mutual Aid Society, and they deliver hot meals and deliver hampers, supplies that you might need like toilet paper. And it's all volunteers" (PN.09).* Two participants even expressed that select harm reduction services had increased their accessibility, including an increase in hours and services provided, while one participant also stated that they had increased access to safe supplies since they were residing in a shelter which provided them free of cost. When asked if they had any problems accessing supplies they responded: *"Before COVID-19, yes, I was. Today, it's more easier." (ON.82)*

While not necessarily perceived as a positive or negative impact, many participants identified changes in the operation of services to align with public health measures, such as social distancing or keeping a 2-meter distance between clients. As an example, some needle exchange programs were operating through a window, to minimize interactions: *"You can't walk in there anymore, they have a window that opens, you talk to them through the window, so if you need some needles, or pipes, or screens, or pushes, they'll pass them out to you." (AN.15).* Other changes to operations included screening measures, which in turn, occasionally resulted in longer wait times for individuals. This was referenced a number of times, especially in relation to accessing the supervised consumption services and needle exchange programs: *"Oh it takes so much longer now to get in, and they don't have as many booths for people to sit and do whatever it is they're doing. What else? Oh you have to, like wear a mask. You have to go through all these precautions when you go in." (ON.70)*

While there were a handful of participants who reported positive changes to harm reduction services, many identified negative changes and impacts, such as a reduced capacity. This included reduced hours, reduced staff and limited resources to support the demand. Some participants identified a significant decrease in hours of operation, where services would usually have been operating daily with extended hours, but due to COVID-19 had reduced their hours, which narrowed the period of time in which participants were able to access these services: *"The hours have been reduced. It used to be open from 12 to 11 every day, and then the other site I use is open from 9:30 am till 8:00 at night, and now my site's only open from 12 to 5 and the*

other site's only open from 10 till 4. So like, you've only got a short window of time to use now." (ON.50)

A few participants made note of the fact that there had been a reduction in staff, where references to outreach nurses being pulled from their positions and redeployed elsewhere to support COVID-19-related health issues were made: *"The harm reduction outreach nurses especially are less available. Because they are being called to other duties, I guess, in the health unit. So it seems like they've been taken from the harm reduction program to help not drug users, and us drug users are left to go without the services we used to have." (ON.56)*

In terms of specific harm reduction services, a lack of access to supervised consumption services was deemed especially problematic for many participants. The lack of capacity in terms of how many people these services could accommodate at a time, as well as the limited hours noted above, brought upon many challenges for participants, especially for those who indicated they did not feel comfortable using alone and relied on these services to feel safe while using. One participant (who was also a harm reduction frontline worker) explained that the reduction in capacity had resulted in subsequent unintended consequences:

> *"Like today, last call was at 3:00 and I had someone come at 3:20, and they're like can I please come and do a shot? And I was like no, man. Last call's at 3:00. I can't let you in. So they like did a shot in front our community hall centre outside, and I see people using outside all the time, and like we had to limit the amount of spaces inside for like social distancing. And so people shoot up in front of the building so that they don't use alone, but then that looks bad on the health centre because there's a bunch of people just like sitting outside on the benches just like shooting up and on the nod with like gear everywhere. But they don't want to go off into an alleyway somewhere. They want to stick close-by where they know there's oxygen and people who care about them. So she's like staying there so if she overdosed someone would take notice, she wouldn't die alone." (ON.07)*

Waiting periods for services were also documented as problematic. Since the capacity had decreased, many participants identified having to wait longer than normal to access services that were usually readily accessible. One participant stated: *"The problem is that all the overdose prevention sites that I go to, there are wait lists now for the service. So accessing actual OPS [overdose prevention sites] and SCS [supervised consumption sites] actual full injection rooms, the access is decreased because they have shut down a number of their booths for social distancing" (BN.02).* For some, the reduced capacity of these services, including the limited number of people allowed in at a time and the corresponding increase in waiting time, was especially problematic and often resulted in unsuccessful service access and/or inability to acquire the supplies they needed:

> *"I want to get some supplies and like, there's somebody in there, there's like a line-up. You know, sometimes there's been a couple, three people waiting just to get in and it's going to be a while and I end up just not being able to wait around then. Yeah, I don't get my supplies. So, I try to like stock up or whatever so that doesn't happen." (BN.37)*

Reduced hours of mobile outreach services were also noted as challenging. While some outreach services remained operational, the hours had significantly reduced, which affected the ability of participants to access new sterile supplies. For instance, one participant discussed these challenges*: "Well, you can call them and they come but like they could take like two hours. They could take three hours. Sometimes they can't even make it to you because their hours are shortened in the day. So if they have a lot of people to go see they might not make it to you." (ON.05)*

Relatedly, participants expressed that on many occasions the demand for safe supplies had escalated to the point where many services could not meet it: *"I think that there's more demand and less supply for the fact that more people are asking for supplies more now than they used to be. Yeah, so it seems like they run out faster or they might not be able to offer every single person that comes in, one each now." (BN.15).* Some services had limited the amount of supplies they were allowed to distribute and participants identified that the supplies they needed were sometimes completely inaccessible. One participant expressed that they desperately needed a specific type of syringe, but were unable to access it for weeks:

> *"No one came and brought new needles, and like it took about two to three weeks by the time someone came with the actual needles that I use. There is a like a little diabetic one, but the one millimetre needles, I can't use them. I can, but it's just harder to get a vein. And a lot of people in my area wanted them and then there was none available. Nobody was bringing them from wherever the harm reduction place here gets them from, they weren't getting delivered. And that's never happened. COVID is the first time anything like this has ever happened." (ON.83)*

Some participants were conscious of the fact that quantity of supplies had reduced, and explained that they had to plan ahead to have extra supplies on hand, in the event that supplies were limited or inaccessible:

> *"The one I'm accessing, like they're open three days a week so as long as go within that three days a week - mind you they're not open very often, you know, so you have to kind of plan ahead I guess to keep that - like what I do is plan ahead to keep extra supplies in the house." (ON.30)*

As such, when discussing needle exchange and outreach services for supplies, many participants stated that they would receive new supplies very infrequently, which in turn contributed to their need to re-use supplies. They stated that outreach programs that would normally distribute new supplies, and dispose of the used supplies weekly, were now coming less often, which was identified as an issue. For instance, when asked about accessing new supplies, one participant stated: *"Well they get dropped off sometimes, every two weeks or something, which is why sometimes we run out of stuff. Some people use their stuff over and over and over" (AN.10).* Others explained this had resulted in health complications: *"Yes, I've had to reuse needles way too many times. To the point where I bruised my skin and I think I came close to getting an infection a couple of times." (BN.03)*

While reduction in the capacity of services was detrimental, many participants articulated full

closures to harm reduction services, which were deemed even more problematic. Many participants related the inaccessibility of supervised consumption sites to an increased risk of experiencing an overdose: *"A lot more overdoses started happening when they closed those places [supervised consumption services]." (ON.70)*. Other risky behaviors were also directly and explicitly linked to the inaccessibility of these services: *"I've been having to reuse my own needles because I can't get to a site, or there's no sites open, or I'm in a field somewhere by myself and all I have is my needle from the day before. And I'm in so much pain, I wouldn't be able to get to a site if I needed to anyway." (ON.77)*

Some needle exchange programs (including mobile outreach programs) had also closed entirely and were not operating due to COVID-19, leaving participants unable to receive new, sterile supplies: *"It's probably easier to get drugs than it is to get stuff to smoke drugs with" (ON.42)*. Many participants expressed frustration with these closures:

> "*There should be more access to get supplies and there's not. I can only do what I can, like you know? I don't know, there needs to be some kind of access to more supplies, they need to keep that part of the harm reduction supplies open. You know, they closed everything down so it's hard to get anything." (ON.49)*

Changes such as no physical contact between the participants and service providers were also acknowledged: *"And they've stopped things like assisted-injections. So like sometimes if I can't hit something [a vein] I'll get like a friend to help me out, but they've stopped that. If I can't get it myself, I'm out of luck." (ON.77)*. Another issue related to the non-physical contact was noted by one participant: *"Yeah the only difference now is that she comes to us, we don't go to her, and she can't come into our home, and if you feel depressed or down, she would usually be able to give you a hug or sit down and talk to you. She can't do that anymore." (AN.12)*. Even these small intricacies negatively impacted the ways in which participants received services.

4.9.2 Opioid Agonist Treatment (OAT) Services

Another critical substance use-related service which was identified as having been impacted due to COVID-19, were opioid agonist treatment (OAT) services, where 38% (n=76) of participants referenced using OAT services at some point during the pandemic. Among those, *30%* (*n=23 of 76*) expressed positive changes to the accessibility of OAT, *51%* (*n=39 of 76*) stated that these services largely remained the same, and *41%* (*n=31 of 76*) noted negative changes which affected access.

Among those who expressed positive changes to OAT programs, ease in access to prescriptions during COVID-19 was commonly reported. Due to the limited capacity of many OAT clinics and pharmacies where participants received their prescriptions, some services had adjusted the process to renew or refill OAT prescriptions so that participants no longer needed to go into the clinic and see their OAT physician in person. In these instances, participants could speak to their OAT physician over the phone, who would then fax the prescription directly to the pharmacy for the client to pick up. This change was expressed as being convenient and easier for many since they no longer had to commute and potentially expose themselves to the virus or wait in long line-ups to see their OAT doctor*:*

> *"My appointments are by phone now. It's easier to adjust my dose, if there's anything. I just do it over the phone and they send a fax to my pharmacy. And then, before, I'd have to go to the clinic, they'd have to do some tests, and then after that, like, they'd decided whether or not to increase it. And now it's really easier. They don't want me to show up at the hospital as much." (QN.28)*

Another participant echoed the same sentiment when they stated:

> *"Now they're not having anyone come in at all, they're just having people call and talk to their worker and then the doctor will call them and talk to them about renewing their prescription and do it over the phone, send it to the pharmacy. So I find that a lot better and easier. A lot of times it's hard for people who don't have transportation and out of the city. Like I'm in [city name] and I'm a ways away if you're driving or taking the bus." (AN.01)*

When asked how a participant felt about having over-the-phone appointments with a physician, one participant responded: *"I think it's better. I don't even got to leave my house. I just talk to her on the phone and then she faxes the script in, right, and I just go and pick up stuff." (ON.50)*

Another positive change to OAT identified by *17%* of OAT participants (*n=13 of 76*) was having the ability to take their OAT medication home (i.e., receive 'carries') rather than having to commute frequently or even daily to pick it up: *"The one good thing was COVID impacting me getting the carries from methadone." (AN.15).* The approval and support of providing participants with carries was expressed as a very positive change as it eased access to treatment, which is something that they had desired for a very long time:

Some participants even acknowledged that their access to carries has helped them reduce their substance use*: "With regards to my methadone, I'm now allowed to get full weight carries, which has been really helpful. I have been actually able to reduce, because I have actual control over it, having to take what I need, which has been really good" (ON.16).* Additionally, participants elaborated on the benefits of not having to go in and conduct urinalysis tests to meet requirements to receive carries, since this unnecessarily exposed them to the virus. Overall, participants explained that there really was no need to have to go to the clinic daily, and that getting carries has been overwhelmingly positive for them:

> *"There's not really much need for me to be there frankly, besides give the urinalysis. She doesn't touch me, she doesn't give me any type of counselling or anything like that, it's just the same old basically, I have to take time off work to go in and see her. Other than that, there is no real differences. So yeah, it's been the one positive thing about COVID, it's not having to go see her and get the carry." (ON.16)*

While some participants had expressed positive changes to OAT services, more indicated negative changes to accessibility, including the inability to see their physician in-person. Some participants expressed that virtual appointments were not always ideal or feasible, and that the transition to over-the-phone appointments instead of in-person appointments resulted in a reduction in the quality of service they received, including in the frequency of communication:

"Any interaction that I've been having with my substance doctor has been over the phone and very rarely, so it's definitely hard." (BN.03). This was especially difficult for participants who required additional services from their physician, such as a referral, signature, or to examine another medical issue they were having since many considered their OAT physician their primary doctor:

> *"It's been really hard because I have to get this form signed by my methadone doctor, but the way I'm receiving methadone, I actually don't see my doctor. Like, I haven't seen my doctor in about four weeks, so I can't access this rehab until my doctor signed the form, but my doctor hasn't been around for like a month." (ON.38)*

Some participants explained overall frustration with the process of having to contact their physician over-the-phone instead of being able to see them in person:

> *"I can't go into appointments, so we're doing it all over the phone, and since I don't have her phone number, and she blocks the number before she calls me, it just becomes quite a hassle to deal with my actual doctor, because I have to phone her clinic, and then the receptionist texts her, and then the doctor phones me, and if I miss it, I have to call the clinic again because I can't have her personal number. No doctor will give their OAT patient their personal number. So that it has also been a pain in the ass." (BN.02)*

Because many OAT programs moved to an over-the-phone format, and/or were providing carries to participants, they no longer required participants to come in for urinalysis tests. While some participants preferred not having to come in to the office to do this, others felt that these tests provided accountability and were a way to ensure they remained on track and maintained their treatment appropriately (including not using other substances). The disruption in this service, and the inability to receive urinalysis tests, therefore resulted in further unintended consequences for these participants:

> "*With the fact that not seeing your doctor you didn't have to do your pee test right? The thing I found that it was something that you sort of seem to take for granted a little bit, because I found myself using more often than I usually was. And so, personally, it was sort of like, if anything, it was just damaging myself over anybody right. And so it just sort of shows that it really helps being able to have that, knowing that you've got to go and do a urine sample and stuff right? Because then you know you're going to be busted or whatever and then that's not a good thing right?" (BN.34)*

Even for participants who were already receiving carries before COVID-19, they still relied on urinalysis tests to keep them accountable: *"Those [urine tests] were keeping me on track. I can't have dirty pee, or I won't get my carries. Whereas now I get my 7 carries and all my medication and it's fine." (ON.25)*

In terms of an increase in the ability to receive carries during COVID-19, there were some instances where participants noted that they disliked this change as they did not have a safe space to store their OAT medication and it left them vulnerable to theft or victimization, which was especially true for those who were homeless or transient:

> *"I've been on Suboxone for the last year or 6 months. But before COVID, my doctor only gives it to me and I was going to daily dispense when I was in the shelter, but now I can only get it weekly. And that's hard for me because I don't like to carry it on me because I'm on the street right, and people steal, I've had so many things stolen from me." (ON.77)*

Other changes to OAT delivery were also recognized. While some participants noted that their carries were delivered to them, others expressed the complete opposite. In situations where participants would normally have their OAT delivered to them, they were now required to go and pick it up, which was more inconvenient. When specifically asked if this change was more or less convenient, one participant responded: *"Less convenient. Because every time I leave my room, I'm touching door knobs… and I'm at high risk..." (BN.13)*

Beyond changes to service operation, one interesting thing to note was that two participants in Quebec pointed out a negative change in the quality of the methadone formulation: *"The product has changed to cheaper, and now, it's less working it seems, because if you drink it, it looks like you're drinking toothpaste mixed with medication. It's not like it used to be. It's made it disgusting" (QN.10).* The second participant conveyed a similar anecdote:

> "*The only problem I found is that for the last two weeks when I went to take my methadone, two weeks ago when I took it, I said let's see, it tastes like, well, weird, it tastes really chemical, not good. Then she [methadone doctor] said oh you noticed, it's because the government doesn't want to pay for methadone anymore, they're just paying for generic." (QN.32)*

Similar to capacity issues noted for harm reduction services, participants detailed a lack of capacity for OAT services, with reductions in the hours of operation, which made it extremely difficult for participants to access their treatment. At times, this would result in an inability to receive their medication and/or missing a dose: *"Also the methadone clinic used to be from 8 till 12, and now it's from 8:30 till 10:00. So sometimes I miss my Suboxone." (AN.14)*. This led participants to feel disappointed and upset, and for some, it impeded any progress they had made towards reducing their substance use and getting their lives on track. When asked how one participant was feeling due to the fact that they missed their OAT dose, they responded: *"I feel really shitty about it. I worked really hard to get my life back in order and now I feel like it's slowly slipping back into shit." (AN.18*)

Limited hours of OAT services also contributed to many participants feeling frustrated due to an inability to access the clinic or to be able to get a hold of someone to speak to, which was frustrating for those who were trying to get enrolled in an OAT program in order to curb their substance use: *"It's hard to get a hold of people, it's only open certain days, certain times. And it's hard to get a hold of someone to figure out when they're open, when they're available." (AN.10)*

Other capacity issues included increases in wait times: *"They're just letting one person into the building at a time and there'll be a long wait and some days you don't even get in apparently. I*

don't want to stand there with a bunch of people who aren't obviously socially distancing" (AN.18). Some participants elaborated on the waiting periods and explained that many OAT services had a lack of organization and did not streamline service users by priority or specific service, which contributed to increased wait times:

> *"There's lineups at the methadone clinic that only allow five people up at a time. It doesn't matter if you're there to see the doctor or you're there to sample, everybody's in the same line…which really isn't fair because people that are just sampling - or people running in just to get their drink - they're going to be two seconds, and the people that are going to sit up there for two hours and wait for a doctor, do you know what I mean?" (ON.11)*

This made it difficult for some participants who would try and access their OAT clinic as quickly as possible in order to limit the amount of time they were potentially exposed to the virus. Additionally, participants were wary of visiting the clinics due to questionable sanitization methods:

> *"I try and go as quick as possible and seeing them as little as possible. Because, like I said, it's just you know - I just don't trust them. I just don't trust it to be clean, it only gets cleaned once a day. For example, I refused the sample when COVID came out, like give a urine sample, because I didn't want to go into the bathroom where everybody, like maybe 20 people have gone in today you know?"* (ON 11).

While not common, there were a few instances where critical closures of OAT programs were noted: "*And it [OAT clinic] was just closed because of COVID, and there was no information on how to get a hold of them" (BN.41).*

4.9.3 Addiction Counselling/Self-help Groups/Drop-in Services

Other crucial substance-use related services that participants discussed were addiction counselling, drop-in programs and self-help groups such as alcoholics or narcotics anonymous (AA/NA) meetings, the utilization of which were discussed by 46% (n=91) of participants. While a few of those (*n=9; 10% of 91*) indicated positive changes to the accessibility of these programs, some (*n=27; 30% of 91*) indicated access had remained the same, and the majority (*67%; n=61 of 91*) identified negative changes.

For those that expressed positive changes to such services, a few participants referenced changes to the format of these services from in-person to online platforms, and indicated they preferred this:

> *"Like the supports and the counselling and all that got better since COVID because it's all on- like it's all digital. Like it's all on Zoom. Like before you'd have to book time and the workers were always busy and they're always like frantic like with no time. So it's like it's nice to be able to like actually sit down and have a session with them like over Zoom." (ON.05)*

For some, this was specifically related to not having to leave the house, whether due to fear of contracting the virus or mobility issues: *"I actually prefer over the phone. So when it comes to that stuff, because it's harder for me to get out of the house with mobility issues" (ON.01).* Other participants reiterated this sentiment: *"It's kind of like they come to me. It might be easier and more effective if you ask me. And avoid transportation and everything else, coming up with bus fare and everything else. It's a pain in the ass." (PN.11)*

In addition to expressing their preference for online methods, some participants explained that the services had actually increased capacity and become more accessible and available due to the fact that they were now online: *"The counselling went to telephone counselling; where I used to go to [Bruce House] to get it, and now they're doing it over the phone. And it's gone from once a month to every two weeks. So they've really stepped it up there" (ON.29).*

While some participants expressed these changes as beneficial, many explained that they felt the opposite and conveyed discomfort and feelings of awkwardness towards online meetings. This, in turn, reduced the quality of the service for participants, and in some instances, even deterred them from accessing these services in the future. For these participants, preference was given to face-to-face meetings, where rapport could be developed between the service provider and the patient, and where participants felt more comfortable opening up and expressing themselves:

> *"We did have an NA meeting for a while where I live and I would go at least once a week but since has been on - I mean they do online kind of stuff, and I'm not really comfortable with that. And, you know, so I haven't attended any kind of meeting since this outbreak and they've closed the churches and meetings and things like that." (AN.27)*

For some, the transition to online and over-the-phone formats also made it difficult for participants to find a counsellor during the pandemic:

> *"I was in rehabilitation about 5 months ago, I did okay with that for a while, but then I relapsed. Since then I have been having a really hard time especially with COVID, trying to reconnect and find a proper counsellor or therapist for myself, any sort of program. For me to be comfortable with somebody to do rehabilitation with, I would kind of have to see them one-on-one to feel them out you know. It definitely makes it difficult in that sense." (BN.03)*

Participants also detailed access issues related to a reduction in the frequency of meetings with counselors or therapists. For instance, participants who would normally meet their counsellor once a week for several hours, were now only able to meet them using an online platform, once bi-weekly for an hour maximum. As such, the majority of participants expressed that they wished they could have better and more frequent access to their counsellors.

Additionally, in some cases, and for those that did have access to a counsellor, some participants referenced being provided with a new and different counsellor at every meeting, which was outlined as difficult. Not only did it subject them to having to re-tell their stories and potentially re-traumatize them each time, but also because they wanted to have consistency in order to build rapport and trust their counsellor: *"Each time you access the services they send you to a different*

counsellor so when COVID started I've used three different counsellors." (PN.25). Other difficulties included inability to contact their counselor, with many indicating they has been unresponsive since COVID-19. At times, this led participants to increase their substance use or even relapse: *"I've been trying to get a hold of my psychiatrist and I haven't been able to. That's part of the reason why I started using too, is because I could not, cannot, get a hold of my psychiatrist." (ON.07)*

Another major concern that was raised was the fact that not everyone had the resources or ability to access the internet and utilize services online:

> *"So it's just really frustrating because all of these groups have relocated online. Everything is online and the population that I work with doesn't have access to any of that stuff, and it just feels like they're trying to like drag people to it, and it's just not accessible. And it's just really heartbreaking because like they're just constantly left out of everything." (ON.07)*

Additionally, some group counselling services have shifted to one-on-one counselling, since the service could no longer accommodate group settings due to social distancing measures. Some participants did not prefer this change as they felt more comfortable in group settings.

While these changes were significant, an even more important issue that arose was related to a reduction in the capacity of some programs, where participants were no longer able to access certain services during regular hours, as the hours at drop-in locations had been reduced:

> *"Also, their drop-in hours are completely gone, you can't even, you know, like I used to use and then go to the [Alley Centre] and kind of hand out and socialize, talk to the staff etcetera; but that's completely gone too, I can't use and go hang out anywhere where I feel safe or non-judged you know."(AN.33)*

Other access issues articulated by participants included reduced access to resources within these services such as hot meals, showers, clothing donations, and food supplies, or simply a place to hang out indoors away from the services: When asked about access to a drop-in service, one participant noted: *"Phone call only. No showers. No washrooms."* (ON.61)

Some participants also indicated that programs they usually relied on had simply shut down instead of moving to an online format which meant they were no longer available, such as self-help groups. This was expressed as problematic by many participants who were desperate to attend a meeting and/or seek help:

> *"I usually have an NA group I go to but I can't go to that anymore. And I can't go to the hospital. Like it's a small town. So, if you wanted to kill yourself today, you gotta wait until Thursday. Like that's how it is now. The detox clinic in the hospital, the suicide watch in the hospital, all of that, you can try it but you're not getting help till Thursday." (AN.12)*

Some participants were discouraged with the inability to access self-help groups as they

considered them integral to maintaining sobriety and working towards their substance use and other goals:

> *"Well I was attending a group like AA, a self-help group, and we're not meeting anymore. And that was kind of helped me keeping my substance use either to the same or trying to reduce it a little. I'm not really doing anything to make efforts to reduce my substance use…and I feel down more depressed or whatever, because I'm not making any progress. I'm not getting any better doing anything towards treating my addiction. I'm just kind of at a plateau like everything's on hold." (ON.56)*

For some participants, the inaccessibility and lack of access to such critical support groups and programs had resulted in an increased use of substances, or feelings of depression and isolation:

> *"Well my concerns are that, you know, as a drug user and someone with mental health issues, I have no access to any services that I can go and talk to somebody with, you know? Like for instance, my therapy, right, it's very difficult for someone who's trying and stay a bit clean. You know, I go to some meetings and that's fine, but it's hard to do any of that…I'm isolated, I'm really isolated." (ON.49)*

4.9.4 Detoxification and Treatment Services

With regards to detoxification and treatment services, 16% (n=31) of participants referenced the use of these programs during COVID-19, and no participants mentioned any positive changes to their accessibility. However, *19%* (*n=6 of 31*) noted that these services remained the same, while the majority (*n=20; 65% of 31*) noted negative changes to these services which affected their accessibility.

Related to lack of access, limited capacity for detoxification services was noted as problematic for some participants, with a significant decrease in the number of detox beds available. For instance, a frustrated participant explained: *"Someone had 24 beds, they went in there and told them they could only have 8 beds. So like, you know that's awful right? Like you've got people going to get help and they can't even get help because of COVID-19. Like are you kidding me?" (PN.37).* Additionally, limitations in the criteria for accepting participants were also expressed:

> *"Yeah I wasn't able to get into detox. And the next one that I called, they were only taking people with like acute withdrawals and because I had just like relapsed, like I had only been like that for like a week and that, they said that they only have a limited amount of beds and they need it for the people with acute withdrawal." (ON.37)*

Long wait-lists for detoxification programs were also noted by participants. This lack of access was especially challenging since it was critical that participants could get timely access to these programs when they made the decision to get support. Many participants documented this as a negative change specifically due to COVID-19: *"No, I usually don't have any issues getting in. Usually I get in like within one or two days but with this COVID, I put my name in a month ago and still waiting. They can only take so many people in now." (AN.38)*

For those who were in detox when COVID-19 began, due to mandatory closures, some

participants were required to leave the program, which had detrimental effects such as being put out on the streets, and in some cases, they would relapse or increase their substance use. For instance, one participant spoke about their experience of being 'kicked out' of a detox program at the beginning of COVID-19:

> *"And right at the beginning when it [COVID] first became serious I was in a detox, and detox kind of threw me out along with everyone else there because they decided to close their, like, active status, right? Like they stopped taking new intakes, they chased out all the active ones and they're no longer in service." (ON.70)*

In addition to reductions in detoxification and treatment program capacity, some participants indicated they were unable to access residential/inpatient treatment due to program closures or programs refusing to accept new patients. Overall, participants expressed frustration with the reduction in capacity or outright closure of detox and treatment services:

> *"So it's made it harder with the COVID thing because I mean they've shut so much shit down and like I say, when we say we want to go, it's like now or never, right? So it would be nice - even if you could get sent somewhere until we get there, there should be a spot. You know, even to transition to it, you know what I mean? Because I think we would see a lot more success in society with it if there was." (BN.29)*

4.10 General Services Accessibility and Changes

In addition to specific substance use-related services and programs, we were also interested in understanding how COVID-19 impacted general service access. When asked about access to non-substance use related services, participants discussed changes in access to medical professionals and medical services, pharmacies and medications, shelters and housing services, food banks, and other miscellaneous services.

4.10.1 Accessing Medical Professionals and Medical Services

In terms of access to medical professionals and services such as doctor's offices and walk-in clinics, 58% (n=116) of participants indicated they had utilized these services during COVID-19. Of those who had accessed these services, a few (*n=11; 9% of 116*) reported positive changes, *41%* (*n=47 of 116*) reported no significant changes, and the majority (*n=60; 52% of 116*) reported negative changes to the accessibility of these programs.

Specific changes to the operation of doctor's offices and appointments included the ways in which participants now interacted and accessed their doctors, where over-the-phone appointments had replaced in-person appointments. A few participants indicated that they perceived this as a positive change, and that they preferred this format, citing factors such as being more convenient since they did not have to leave the house: *"Things are much, much easier now in that I don't have to go anywhere" (ON.67).* Other participants explained that this made the service more accessible since it was quicker to access and easier to book appointments: *"I like it. I even find it's more practical because I'm often sick in the morning, I don't know why, like pregnant women. So I had to cancel my appointments or I couldn't show up. So, that solves*

the problem" (QN.17). A reduction in wait times due to this change in format was also noted as a positive change: *"It works, well I would say, that if you don't need to go to the doctor in person, it works even better than it worked before. Because before, you had to wait two weeks, maximum it was 14 days when you called for an appointment." (QN.22)*

While some participants indicated a preference for over-the-phone appointments, most indicated that when it came to accessing their doctor, they preferred in-person and face-to-face appointments. Participants explained that they felt there was a reduced quality in care when not seeing their doctor in-person, and that they were less comfortable with this format:

> *"The fact that I can't get to see my doctor or mental health, and for me, with social anxieties and also addictions combined, just speaking on the phone with someone, that does not work for me. I've had two friends pass away, one from an actual OD, and one where drugs were related and she burned to death in fire. They couldn't access services, and didn't have phones where they could find out certain information, it's just been a snowball. But I can go to the liquor store and get the booze I need, which pisses me off, even though I need it. But I can't go to my doctor, it's a little backwards to me." (BN.05)*

Participants also noted that drop-ins to see their doctor were also put on hold due to COVID-19: *"I used to be able to just walk into her office and then she'd be able to come in and see me, but since all of this has been shut down, I haven't been able to talk to her very often." (BN.14)*

Beyond changes to the ways in which participants could contact or have appointments with their doctors, a reduction in the capacity of medical professionals and services was noted. Wait-lists and reduced access – including a complete inability – to see their doctor were commonly expressed: *"I can't get an appointment because you know what, cause of COVID-19. Oh my God, it's driving me crazy" (ON.58)*. Participants indicated they often had to wait an extensive amount of time to see their doctor:

> "*I waited three hours to see my psychiatrist yesterday. And yet again, despite the three-hour wait, I was declined access to my meds one more time because you know somebody in [province name] support didn't fax over the emergency approval." (PN.13)*

Some general concerns regarding accessing medical services was the fear of COVID-19 exposure, which acted as a deterrent from seeking such services: *"I wouldn't go because I'm too worried about it. My daughter needs to but everybody is too worried to go. I have a grandson who has special needs who's not doing very good, but my daughters worried sick about taking him to the hospital, she's worried he'll contract it there, and he already has a low immune system." (PN.18)*

Many participants expressed concerns about not being able to see their doctor for a specific health reason, and worried that it may become aggravated due to the delay. One participant in particular indicated major difficulties seeing her doctor since COVID-19 began, despite being pregnant: *"I can't. It sucks. I'm over halfway through the whole pregnancy and I've only seen a doctor once. I only had one ultrasound. I've only seen a doctor once." (ON.83)*

Other accessibility issues faced by participants included clinics being completely unresponsive to participants when they did try and make an appointment: *"Since this week I've been calling every day, five times, at least five times, because I called yesterday afternoon too, because I was thinking, maybe because it's morning. Yesterday, I called at exactly 1:38 PM, I stayed on the phone for 25 minutes and I never got a hold of anyone." (QN.06)*

Importantly, the decreased availability and accessibility of medical professionals and services resulted in some participants increasing their substance use, as they were not able to get their prescriptions refilled*:*

> *"I'm also diagnosed with ADHD too, so I also get prescription amphetamines as well through a psychiatrist and I haven't even been able to get those renewed or whatnot through my psychiatrist because I can't even get an appointment. So therefore, it's forcing me now to use more street drugs, you know what I mean?" (ON.09)*

Outright closures of walk-in clinics and doctors' offices were further cited by many participants. When asked about accessibility, many participants explained their doctor's office was simply closed: *"No, my doctors closed. I have a lump in my breast, I just found it and I don't know what to do" (ON.11).* Some participants explained that they were confused as to what to do in order to seek medical care, and that they were unsure when the services would reopen: *"All I was told was that services wouldn't be available and that was it. I wasn't told when I could, when anybody would see me, nothing. So, as of now, I have no idea when I'm going to have the opportunity to do that" (ON.75).* Another participant reiterated this concern:

> *"Everything's been shut down. I've got my doctor, my specialist. He phoned me once since it started and we did an over the phone assessment. Who else? Dentist, that's completely shut down. Most of the services didn't offer any alternatives, they just said they would be back in touch with you once things got better." (ON.42)*

4.10.2 Accessing Pharmacies and Medications

In relation to accessibility of pharmacies and medication, over half 62% (n=124) of participants indicated that they had accessed a pharmacy during COVID-19. Some of these participants (*n=16; 13% of 124*) reported positive changes to their accessibility, while the majority (*n=84; 68% of 124*) reported no significant changes, and a quarter (*n=31; 25% of 124*) reported negative changes.

In terms of positive changes to the accessibility of pharmacies and medication accessibility, some participants indicated an increase. For instance, some pharmacies had implemented delivery options in order to mitigate the risk of virus exposure to their customer's which participants felt was beneficial since they no longer had to leave their house to receive their medication:

> "*They [pharmacy] do home deliveries and that now. Which is convenient. As long as I can tuck away and hide from people. I have COPD and asthma. So I'm definitely one of the most vulnerable part of the population, so I avoid people at all costs. I don't want to die. I just got a brand-new grandson." (PN.11)*

Other positive impacts noted were increases in the amount of prescriptions provided at one time to participants, which ensured that participants did not have to go to the pharmacy as frequently to pick up their medications: *"It been better and easier. I used to go every day for my medication and now they give it to me weekly, because of COVID." (AN.24)*

However, many participants indicated negative changes to pharmacies, with a reduction in the hours of operation being one of the major themes. It was emphasized that reduced hours did not always accommodate their lifestyles, and it was difficult for participants to pick up their prescriptions and medications within restricted timeframes:

> "*I just didn't go pick them [medications] up from the store, and I find that's just because of my drug use. I find that the drug stores have reduced hours and mine isn't open until 10 anymore, it's open until 6, and if I'm up all night using, I'm not waking up until 4:00 sometimes." (AN.01)*

This resulted in some participants stating that they were not able to pick up their medications at all, or having to wait until the next day when they opened:

> "*No their hours actually at first when COVID first hit I didn't go for my daily dispense for about four or five days in a row. The fifth day I was pretty anxious so I had walked down there and it was only about one o'clock or two o'clock but they were closed, and I didn't know. It was when the pandemic first broke out." (AN.33)*

Some participants also mentioned that they were no longer able to go inside certain pharmacies, and they had to call ahead and wait outside for someone to bring them their prescriptions.

When discussing access to prescriptions, some participants stated that they had received a reduction in their medication supply. This resulted in participants having to visit pharmacies more frequently: "*I have to visit the pharmacy more frequently, because they're only allowing one inhaler because people are hoarding, so the pharmaceutical companies have put a 1 per person cap on them. Which means I have to go to the pharmacist more often" (BN.01).* These participants explained that the inability to get an extended prescription, coupled with having to frequently visit the pharmacy, was potentially putting them at an increased risk for exposure to the virus: *"I have to attend the pharmacy every day and I get enough for that day only, and then I have to attend again the following day, seven days a week. So I feel that puts me more at risk." (ON.56)*

Some participants even spoke about their experiences with pharmacies running out of their medication entirely: *"Yeah I went to the pharmacy to go pick up a prescription for my Ventolin and they told me that they didn't have any. So yeah, it's hard to access the stuff that I need, the prescriptions" (BN.14)*. This was also expressed by another participant: *"So for my prescription, the one I receive, there's a back order for my one medication. So I've had to change pharmacies." (ON.03)*

4.10.3 Accessing Shelters and Housing Services

The use of shelters and housing services during COVID-19 was also mentioned by 21% (n=42) of participants. Of those, over a quarter (*n=11; 26% of 42*) expressed positive changes to accessibility, just under a quarter (*n=10; 24% of 42*) reported no changes, while the majority (*n=27; 64% of 42*) expressed negative changes to their accessibility.

Some participants indicated that they experienced greater access to shelter services, as some pop-up shelters and alternative housing, such as hotels/motels had become available due to COVID-19 in order to accommodate the increased demand and need for homeless and street-entrenched people to be able to self-isolate:

> "*Pop up shelters started happening around the city. Which were able to take in other people that were being shifted out from the other shelters, so I was a lucky customer of one of the shelters that been funded by the government. First of all, they are being funded by the community themselves, and not they're being funded by the government. Right now, we're being put up in a hotel. So I've been here for about a month and a week, and before that I was staying at a shelter that was basically like a gym, and they had cots and stuff like that." (AN.13)*

Pop-up shelters and supportive housing options in hotels/motels were seen as beneficial as they allowed many participants to be able to stay somewhere safely and self-isolate during COVID-19, which for some, was a catalyst to decreasing their substance use and stabilizing their lives.

While pop-up shelters were viewed as a positive outcome of COVID-19, other shelters underwent significant operational changes, some of which were identified as a negative. For instance, some participants acknowledged that certain programs that were normally provided had stopped running, and there were many restrictions implemented including the inability to leave their rooms during certain time periods: *"Well we can only eat dinner at certain times, only allowed paper cups of coffee now. No programs running. No help because nobody's working anymore. You basically eat, sleep and get up and be miserable again. I haven't had any help in like two weeks." (AN.14)*

In addition to these changes, many shelters underwent a reduction in capacity in terms of how many residents they were able to house at any given time: *"There's only 6 beds. I'm lucky enough to have one. Compared to before that, there's like 20" (AN.14).* For some, this meant that they were unable to get into a shelter during COVID-19, which was frustrating for participants who often did not have anywhere else to go: *"They only have so many rooms and they'll only allow one person per room right now. So like yeah, I got- and they don't do emergency beds anymore or anything, so there's just no getting in really." (BN.37)*

While some shelters remained open but were operating in a reduced capacity, many simply closed and were no longer accepting people: "*Because the shelters even closed so there's not even a shelter, it's been closed since this pandemic" (BN.32).* This negatively impacted the ability for some people to be able to safely self-isolate or have access to critical resources: *"A lot of people assume that people who do drugs are junkies and are dirty and blah blah, but this community, I see nothing, but they wanted to isolate, but they had nowhere to isolate." (BN.05)*

4.10.4 Accessing Food Banks and Food Services

The utilization of food banks was commonly discussed by participants, where 49% (n=97) reported accessing these services during COVID-19. In terms of accessibility, both negative and positive changes were noted, with a small proportion of participants (*n=19; 20% of 97*) indicating positive changes, and the same proportion (*n=38; 39% of 97*) indicating negative changes and no changes, respectively.

In terms of positive changes to the accessibility of food banks and food services, some participants explained that they were now offering delivery options, where this service had not been provided pre-COVID-19:

> *"So they offer like, food bank, and so they are delivering, when previously, the previous years that I was eligible I wouldn't access that because like you have to take time out of you know, doing drugs, or acquiring drugs to go down and to pick up the food. But now, they're delivering, so that's like a bonus and I'm accessing that. And they're more than accessible because they're delivering." (ON.31)*

A few participants also mentioned that food services were not requiring users to show identification in order to access their resources, which had previously been a requirement. This was considered beneficial and increased accessibility, especially for those who did not have identification or were homeless and did not have a fixed address.

Increased resources and services for food products were also noted by a small number of participants: *"A few extra meals from churches and such. And a lot more supplies coming from places like the churches and the food banks and stuff like that. Yeah, actually, I found there's been a great increase in that way, which is a good thing" (ON.13).* Others elaborated on the quality of the food that was now being provided: "*With all of this we get a lot more food, a lot more vegetables and fruits which was never- you know, was rare before but now…yeah, they've definitely improved their services in that way." (ON.45)*

Additionally, a few participants noted decreases in wait times for food due to changes in food bank operations which had implemented pop-up tents outside their facility, or were utilizing a 'walk-up window', where participants could quickly pick up food items or meals: *"You don't have to wait as long because they don't want to have anyone hanging around sort of thing so it's organized better than it was before" (ON.42).* Other participants reiterated this positive change: "*It's actually a lot quicker because they're just handing them out, right. Before it was people used to stand and eat, it took longer because they were dining in, right?" (ON.50)*

While some participants viewed these changes as positive, most participants detailed accessibility issues which had negatively impacted them. For instance, some participants noted that food banks were requiring users to call in and schedule a pick-up time in advance, which was difficult and perceived as a nuisance as it was hard to plan ahead and determine when they would need to replenish their food supply: "*Food banks are hard to do too because you have to call it in and you can be waiting hours on the phone to speak to someone. I've tried that already and I couldn't even get through and I gave up." (ON.40)*

Other issues included a substantial decrease in the quality of food, with many food items being reported as expired: "*Even the food has changed, how they get their food services. I had to take pictures being handed out because they are disgusting. Expired chocolate bars" (BN.05).* Some participants expressed that the decrease in both the quality and quantity of food had impacted their physical health, especially when they felt as though they were being provided unhealthy food options: *"Well the food bank in [city name] is really, really horrible. They give you like rotten vegetables and like expired all kinds of foods. They give you junk food, like cupcakes and cake and just a bunch of junk that like doesn't do you- you can't even make anything with it." (BN.41)*

Additionally, participants expressed that they did not have an option to select the items that they wanted, which they had been able to do pre-COVID-19: *"You can't go downstairs and pick out your own food. They have bags done up and you don't get meat. Yeah, there's certain things you don't get" (ON.59).* Similarly, at drop-in services which provided hot meals, participants expressed that the number of meals they received had been reduced: *"It used to be three meals a day, and now they have one meal" (ON.68).*

A reduction in hours of operation at food banks, and consequential accessibility issues, were also noted, as well as a reduction in the amount of resources available and distributed: "*You're allowed to go once a month to the food bank, and they give you a week's supply of food. That's not enough" (ON.78)*. In addition to only being able to receive food within a specified and limited frequency, the amount of food that participants received had also been reduced: *"The food has been less now, cause everybody goes to the food banks, and then they're running out of food, you know." (ON.82)*

The addition of screening and social distancing measures had also resulted in longer wait times for individuals, with some participants indicating that they had to wait for hours to receive food: *"I had a problem waiting for, like, a half hour or two hours, because they have to do all the, like, cautious stuff, like do this, do that. It's driving me nuts, right? Usually I was in and out" (AN.21)*. This was a major deterrent to accessing food for some participants: "*The food banks aren't really letting people in-like, you know, it's a long wait for everything. So for me, I'm agoraphobic, I can't wait in line, it freaks me out. Like I don't like being out in public, you know." (ON.49)*

While some food banks were no longer requiring identification, others were still requiring users to have an address in order to access the service, which was an obstacle for those who did not have identification, were homeless, or did not have a fixed address: *"Actually accessing food banks has even been more difficult because of homelessness, because if you don't have an address, you can't get it" (BN.38).* This was also noted by another participant: "*Food banks are fucked. They're really bad. Just because the line ups are out the block, and it's just hard. I also, without having an address, it's hard to sign up for multiple ones. So usually I get a couple things from [food bank name] but I can't go to an actual food bank because I don't have an address." (ON.77)*

Complete closures of food banks were also commonly cited by participants. This inaccessibility

was expressed as being extremely problematic as many participants had relied on these food banks as their primary source of food. As a result, many participants discussed experiencing food insecurity, detailing how they had gone days without food*: "It was the longest I went without food and that was six days" (BN.20).* Some participants even acknowledged that they had resorted to stealing food because they could not access food banks. As a response to these closures, some community members had opened up their own food distribution programs which caused concerns regarding food security and COVID-19 health measures. As such, the closures of food banks were seen as posing additional health risks to those who required access to them:

> *"So food access has become a real barrier in our community. Many of the offices are closed, they're not providing services, we have community members who have amped up their own kind of, their own independent distribution of food, and there are some concerns around what that looks like, that they are not implementing best practices around food security and safety in COVID. So there are some risks that are going along with this response to lack of effective best practice approaches to other food services." (BN.01)*

4.10.5 Accessing Miscellaneous Services

Lastly, the usage of miscellaneous services, such as government services, grocery stores, court offices, public transportation, laundromats, etc. were mentioned by 45% of participants (n=89), *9%* (*n=8 of 89*) of whom indicated positive changes to accessibility, *13%* (*n=12 of 89*) reported no changes, and three quarters (*n=67; 75% of 89*) indicated negative changes.

In terms of positive changes to accessing miscellaneous services, these were all strictly related to an increased accessibility of transportation. Some communities had decided to waive the fee for public transit, which participants felt was beneficial:

> *"As far as transportation is concerned in [city name], their metro system is still available, they made it free for the whole city so to get on the bus. All the routes are basically running the same, they maybe not running like every 20 minutes, they maybe running once an hour. Social distancing is required on the buses, and they made it free. So transportation to and from the services is available." (AN.13)*

However, most participants indicated accessibility issues and negative changes to public transportation, such as route closures and reduced schedules. This resulted in difficulties or the inability to access essential services such as prescription medications, grocery stores or clinics:

> "*Buses are a little more difficult because you know, they'll only take so many people on a bus and there are only so many buses and they were like cancelling some on certain routes and things like that. So it's definitely been harder to get around and so like you know, I've been hitchhiking more than I used too, and that too can be difficult at times because of the COVID, people are afraid to pick me up because you know, you never know." (BN.37)*

For those who had to visit an OAT clinic or pharmacy daily to pick up their medication, reductions in transportation were particularly detrimental. For instance, one participant expressed

that in order to access their Suboxone they had to walk a far distance daily, which took up a significant amount of time: *"Two to three house if I'm walking, because the buses have stopped down here as well, they only work so many hours" (AN.36).* Additionally, participants noted general concerns about using public transit due to the increased risk of COVID-19 exposure, and general transportation was challenging since many rideshare programs and services were not operational due to COVID-19 restrictions: *"Transportation being another issue, because nobody wants me in their car anymore, right?" (BN.38).*

Beyond transportation issues, other negative changes to accessing services included reduced hours for grocery stores, gas stations, post offices, banks and other general stores, which limited accessibility of key resources:

> "*We go to pick it up but the liquor stores are now closed a lot earlier. So then I didn't know that, so now we have to try and plan how much we're going to drink. Now it's like we better buy a 2-4 because it's going to be closed, and now we have it we're going to drink it all." (PN.07)*

Participants also indicated that they had to schedule their pick-up of groceries in advance, which was problematic for some who had issues with scheduling or could not plan in advance. Long lines were also referenced by participants, due to the increased screening measures and reduced physical capacity of people allowed into the store.

Reduced access to the court system and government services was also noted by some participants. In particular, challenges accessing government assistance (e.g., welfare, disability, etc.) were raised: *"I'm constantly emailing and emailing and calling and calling and not getting a response" (ON.13).* The inability to get in touch with individual caseworkers was commonly discussed:

> *"And since everybody has a certain worker you have to speak to your worker, right? So my worker's only in three times a week, so if I want to ask something about my file or get something changed I have to wait more than a week sometimes." (ON.38)*

Other participants encountered similar issues: "*Everything's put on hold, I can't access the workers, I can't apply for low income housing, I can't- there's nothing. My disability worker, I can't see with an appointment. The hours are reduced. Just everything's on hold it seems" (ON.56).* Some participants explained how the inaccessibility had gotten exponentially worse since COVID-19, and that caseworkers were completely unresponsive:

> *"The caseworkers are no longer monitoring their emails or phones. And it's three to five business days to get back. It was always bad. But before I used to be able to send off an email to my caseworker and get a reply within 24 hours. Now you get an automatic reply saying this email- we've changed the way we're doing things in COVID. This email is no longer being monitored." (ON.68)*

Other issues were related to general government services being closed: "*Service Canada is closed. And service Ontario or whatever is open sometimes, but it's really long line ups and*

they're only doing minimum stuff right" (ON.77), with long line ups commonly cited: *"Even the Government of Canada, I wanted to change my address for tax returns and I wasn't even able to. I've been waiting a total of 8 hours in 4 days. Then I never got the line, in 8 hours of waiting time. It doesn't make sense anymore." (QN.10)*

Participants who identified as homeless also expressed frustration with closures of different facilities and public places, which impacted the ways in which they could sleep or shower:

> *"None of these places are open, none of us have nowhere to go, and if we go somewhere we're always getting kicked out of there. Even the beach we're not allowed to be. The trails, we're not allowed to be in the bushes, we're always getting kicked out." (BN.20)*

Another participant reiterated this frustration: *"Before the COVID started, I was able to go to the community centre and have a shower every day" (BN.27).* Additionally, closures to clothing depots were noted by some participants, which resulted in them not having a change of clothes or having to visit friends to acquire something to wear. Other issues included the closures of schools, restaurants, malls, and daycares for participants who had young children.

4.10.6 Cultural Supports and Services

In terms of changes to the accessibility of cultural supports and services, nearly one fifth (n=39; 20 %) of participants reported they had tried to utilize these services during COVID-19, the majority (*n=24; 62% of 39*) of whom indicated access issues. For instance, some participants noted the closures of spiritual outlets such as churches: *"Spiritually, there's no church either anywhere. All church is cancelled, so difficult on that too. It's just really hard" (ON. 56).* Some Indigenous-specific services were also noted as being negatively impacted, such as closures to band offices:

> "*Like I'm trying to get a new status card from the band I live with, but they've been closed for a while. They dealing by appointment. So the band office being closed is definitely slowing down the process, but like I said, I'm hoping they open soon." (AN.25).*

Other supports like drumming, smudging, sweat lodges, the Native Women's Centre, Friendship Centres and arts and crafts programming was also noted as being shut down due to COVID-19: *"I don't think we can do any smudges or anything like that because I don't think we can be in groups" (PN.07).* Another participant expressed the same sentiment: "*Well they usually have these pow-wows things that I go to, but they can't have those because they have too many people there sometimes. But they want to have one, but you have to social distance, and that's kind of hard because there's always so many people" (PN.12).*

4.11 Economic, Social and Health-Related Impacts of COVID-19

While participants explained that COVID-19 had affected numerous domains of their lives, including their substance use and access to services, they also indicated significant impacts to their economic and social well-being, as well as their overall health, including both physical and

mental health effects.

4.11.1 Economic Impacts

In terms of the economic impact of COVID-19, nearly all participants (n=199; 99.5%) discussed whether it had affected their financial situation, with the majority (*n=151; 76% of 199*) of those indicating that they had been negatively impacted, with most (*n=92; 61% of 151*) experiencing some form of job insecurity. For instance, many participants indicated that they had lost their jobs entirely due to COVID-19: "*I finally got my first job in seven years and I was let go because they had to close, so I wasn't getting that money anymore" (ON.48).* Losing their job meant that they were no longer able to bring in the income they relied on: "*Definitely impacted my ways to make money because my work has completely shut down right now" (PN.01)*. Some participants noted that COVID-19 had impacted their ability to seek and gain employment due to the fear of contracting the virus. "*I can't go out and get a job. I have COPD, there's no way I can go out around people. It's affected everything in my life." (PN.11)*

Others noted that they were in the process of applying for jobs, but it had been put on hold due to COVID-19, while some simply could not find any employment at all since no one was hiring: *"Well just in general, there's no jobs. How can you make money when they aren't any jobs? It's like, it's insane. We can't work, then you don't make money right? I mean that's just how it goes" (PN.37).* In some instances, not being able to find a job had led participants to reluctantly commit crimes or engage in illegal activities to support themselves: "*I can't find a job anywhere...I had a job before COVID. But I don't now. And I can't find another job because there's nowhere to work because everything is shut down. I don't want to be doing illegal stuff all the time. I don't want to end up in jail. I don't want to end up locked up" (ON.83).*

Some participants were working precarious and high-risk positions (e.g., working in close contact with people) and had to stop due to COVID-19: "*Also I was a sex worker, and there's definitely no way in hell I'm doing that now, at all" (AN.17)*. Others noted how their work hours had reduced significantly, especially for those that were self-employed or were working in positions that required physical interactions: "*Usually I would ask people to clean their houses and stuff and no one wants me to clean up their houses no more, and no one wants me to do anything. I have less messages, less jobs to do… ever since COVID started there's no one messaging me" (AN.30)*. A reduction in work hours caused a lot of instability and precariousness in employment, which led to significant financial loss:

> "*Right now my hours at work are just completely all over the place. Like, I really don't know what I'm going to get from day to day with work right now, because, I'm what they typically call a helper at work, and I work with drivers, so many drivers are getting sick, or not coming into work, so the nature of my work and the location of my work is changing daily." (BN.03)*

Importantly, some participants noted how the decrease in job stability resulted in an increase in substance use:

> "*I used to do odd jobs and stuff and then with COVID going on nobody wants you going to their house especially, right? And especially people you don't know. So, my work kind*

of slowed down, so yeah, my drug use kind of went up, my smoking marijuana went up, everything went up for sure." (AN.28)

Some participants elaborated that the increase in substance use was due to having more 'time on their hands' due to job loss during COVID-19: "*Oh I have like three or four different jobs that I do part-time and all of them are on hold because of this. So basically, I'm at home and have way more time on my hands than I ever used to. So yeah, that's definitely made my using go up substantially." (BN.15)*

As a specific financial effect, housing insecurity was mentioned by a sub-sample (*n=14; 9% of 151*) of participants. Some participants explained that due to the noted financial and job insecurity, they were concerned that they would lose their housing or not be able to pay their rent and/or mortgages: "*Well I don't have any money. I can't pay rent, I can't get a place to stay, nobody trusts me to pay rent because I get my money from welfare and nobody thinks that welfare's gonna have enough money for a long tim*e" *(AN.14).* One participant reported that because they were unable to work due to COVID-19, they had to seek refuge in a women's shelter for housing support: "*And with COVID, this is one of the reasons why I had to go to a shelter was because the work I was doing, I wasn't able to work. So I didn't have any money, obviously, to pay the bills such as rent." (AN.20)*

4.11.1.1 Supplemental Income

When discussing financial impacts, some participants explained that they had had to rely on other means of supplemental income in order to make ends meet. Most commonly, (*n=58; 38% of 151*) of those who indicated their finances had been affected stated that they applied for Canada's Emergency Response Benefit (CERB) for financial relief. Many participants explained that CERB had been beneficial and necessary for them:

> "*I was self-employed before so there was a period where I wasn't able to work for a little while, but then the benefits kicked in. Once I went through that two-week period of no income, that's actually been really helpful. That actually provides a lot of stability" (AN.17).*

A common theme that was discussed among those who applied for CERB was confusion as to whether or not they would eventually have to pay the government back, and whether or not it would affect their entitlement to the money they currently received for those who were on government assistance, yet had still applied to CERB. For those who applied, some participants expressed that it was a seamless and relatively easy application process: "*It was very seamless, pretty easy. The money came direct deposit right to my bank account within 2 and a half days." (PN.01)*

Some participants went as far as to say that receiving CERB was the only way they would have been able to survive during COVID-19: "*I had to make the choice because I wouldn't have been able to survive any other way. Once they [CERB] approved it for self-employed people, I applied." (BN.05)*

In terms of the total amount of money that participants received from CERB, some indicated that the amount was actually more than they would normally bring in, and that this was especially helpful:

> "*Well honestly, right now I am getting more from the benefit than I would've from working, so it's helpful right now. Especially because I am trying to transition into like being more on methadone and to using less. So it's kind of helping in that time you know? Without having to take time off work myself you know?" (ON.08)*

In relation to how they spent the CERB, some used it to purchase necessities or pay for rent or housing: *"I spent it on mostly for- a roof over my head" (PN.44)*. However, some participants mentioned how they spent the entirety of the CERB benefit on substances: "*I'm afraid I'm going to lose my house now. I already got the money [CERB], I spent it all on fucking drugs and now, how I'm going to pay my rent? You're supposed to pay your rent out if that money." (AN.09)*

Besides using CERB as a means to enhance their income and provide financial stability during COVID-19, some participants (*n=47; 31% of 151*) discussed engaging in other activities to supplement their income, including shoplifting, drug dealing, pan handling, sex work/escorting, and other miscellaneous activities: *"I've been doing a lot of fraudulent activities and things, or stealing from liquor stores and stuff" (ON.77).* Some participants mentioned how they started selling their medications for income: "*So yes, I did have to sell some of my meds sometimes in order to get some things that I needed to get" (AN.20).* Others elaborated on this explained that they would sell different medications in order to be able to purchase their substance of choice since they were having difficulties acquiring it: *"If I can get a prescription like T3s, then I'll sell them, to get the Percs. It's hard for me to get those prescriptions, but if I happen to get some, then I'll sell them" (PN.09)*. Finally, other participants mentioned partaking in side jobs such as housecleaning, mowing the lawn, collecting empties, selling their things or driving other people around for money.

4.11.2 Social Impacts

When it comes to the social impact of COVID-19, public health measures implemented by the Government such as self-isolation and social distancing inevitably impacted participants' social lives. Of those who discussed their social situation (n=184; 92%), more than half (*n=109; 59% of 184*) stated that their social situation or network had been impacted due to COVID-19. For the remaining participants who stated that COVID-19 had not impacted their social lives (*n=77; 42% of 184*), the majority of indicated that they did not have much of a social circle prior to COVID-19 anyway, and that the impact was therefore minimal or non-existent: *"I'm not a horribly social person anyway, I have some good friends and I limit my interactions to them. And so, no, it hasn't changed that much. I'm not married, I don't have children, I'm single, all my family is dead." (AN.16)*

Others mentioned how they still see their friends and family but are mindful of social distancing recommendations: "*Still talk to people, I just got to keep the social distancing, right" (BN.28),* while others continued to see their family and friends, regardless of COVID-19: "*I have a small circle that we've decided it's worth the risk. So that's just my family, his family and then a couple friends" (PN.14)*. A few participants who were homeless or street-entrenched indicated

that their social situation had not been impacted by COVID-19 since their living situation has remained the same: "*We don't really have a choice. We're pretty well all homeless, right? So what are we supposed to do? We're the only ones outside" (ON.61).* Notably, some participants explained how they are staying inside more and not going out as much, and that this has resulted in a lack of interaction with people, which in turn had a positive impact on their lives:

> "*Well to be honest with you it's kind of a good thing, because it puts me in less situations where I can be getting into trouble…I find since COVID, and since trying to keep my distance, it's actually been more of a positive thing for me, because I haven't been involved with social gatherings, and I haven't been put in situations where I've needed to do things to get money to get my drugs. Although it sucks to not be hanging out with your buddies, it has turned out a little bit better for me because I'm not putting myself in as many negative situations as I have in the past." (AN.13)*

However, of those who indicated there had been an impact on their social lives, the majority indicated that this impact had been negative. A reduction in social gatherings and limiting the number of people participants physically interacted with were among the top issues that emerged when discussing the impacts on social situations. Participants indicated that they stopped hanging out with many of their friends and families: "*Well my family hasn't been coming to visit me, or I don't want to go visit them because everybody just keeping their kids indoors and themselves. And I can't not go visit them and I really want to see my grandchildren. I haven't seen them for a month and a half now" (BN.22)*. For those who did occasionally visit friends and family, they would often maintain social distancing behaviors: *"I don't hang out with a lot of people. But my little social networks that I do have, it has changed. I might've seen one or two people since this. I'll just pull up in my car" (AN.04)*. Some participants expressed frustration and anger about staying inside and not being able to interact or see friends and family:

> "*Like I want to go and see people, but like I said, because there's COVID, and if I did, it would be a distance and it's only supposed to be, like, someone who's living in your household, and stuff like that. Not to have people to come over and stuff. That makes me mad." (ON.21)*

For participants who lived with someone else (e.g., significant other, roommate, etc), staying home and increasing the amount of time spent together had resulted in an increase in strained relationships and related negative effects: "*We're fighting all the time, our drug use is going up, we're using different types of drugs now" (AN.12).* These issues were elaborated by others: *"It's just lately I find that being isolated, it causes more problems between relationships too. So there's a lot of stress and arguments, and he said, she said, and bringing up the past." (ON.40)*

Finally, not being able to see friends and family and maintain social activities subsequently negatively impacted participants' mental health, and discussions around loneliness and depression emerged: *"Yeah, not having nobody like your friends there, you fall into depression and anxiety." (BN.20)*

4.11.2.1 Criminalization

A select and specific sub-category of social impacts that was noted by some participants was

criminalization (including being approached, targeted, harassed, ticketed, arrested, etc. by the police). Most participants indicated that they had not experienced criminalization, while some actually felt as though they were less likely to experience it during the pandemic for a number of reasons. Some participants explained that this was because they were not currently committing crimes (e.g., shoplifting since most of the stores were closed). Other reasons included the perception that the police were operating on a reduced capacity in terms of the number of officers working, and that they were not arresting people right now since the criminal justice and court system were also operating at a reduced capacity. In contrast, some participants (n=42; 21%) felt that they were at an increased risk of experiencing criminalization and felt as though there had been an increased police presence in their community since COVID-19, which resulted in difficulties remaining inconspicuous:

> *"So definitely a lot of people I know, yes, who are more on the street, are facing increased criminalization because of like, things are less anonymous. It's harder to be discreet and there's much more police in public space." (ON.06)*

Some related this increased risk to a decrease in the capacity or outright closure of services, which meant that they now had nowhere to go and had to use substances in other, more publicly visible areas:

> *"I either use in an alleyway or use on my own or, like, put myself at risk of being arrested by security for trespassing in places I'm not supposed to be to use. To gain the luxury to use in private I'd have to break into certain places, like construction sites, porta-potties. Cops come and check these areas all the time, and every time I see a cop check the area they always hand out tickets." (ON.70)*

Relatedly, some participants expressed that since there were not very many people out in public, and because they now had to line up outside different services to receive support or seek substances, this ultimately exposed them and made their interactions more visible to others (including the police), which in turn contributed to a fear of criminalization or victimization:

> *"Now because of that, there's like a group of people waiting outside to get in. And people who dwell on the street and use drugs typically make a lot of enemies. Right? So you're bound to run into someone you don't want to run into when you're stuck waiting with them outside, so there's always assault charges being handed out outside of these places because of, like, owed money or people are talking shit about each other, whatever it is, right?" (ON.70)*

Some participants felt exposed and at risk for being ticketed by the police for not socially distancing in particular, and explained that this had a negative impact on them, especially because they had no means to pay the fines:

> *"I've gotten a fine already there when COVID first hit for $1000, the same with my girlfriend. We were walking in a group of four or five. We were trying to distance ourselves, but I guess it was only two or three feet. There was probably about $5000 in fines between all the people in the group. I'm going to fight them off. I'm on income*

assist, so I can't afford to pay $1000. Even if I pay them installments for the rest of it, six, seven years, good luck." (AN.24)

This was particularly relevant for participants that were homeless or street-entrenched, and often hung out in places where they were visible on the street, increasing their chances of being ticketed:

> *"There was so less amount of people out that you couldn't even make contact, and when you made contact, people were like running away from me like the plague. And if they weren't running away from you, then the police were chasing you for doing what you were doing…At the beginning of COVID they were just handing out tickets left right and centre. And the majority, like 90% of people who got tickets, were people that can't afford it and should not have been given them, such as homeless people." (AN.13)*

Due to stores being closed, some participants explained that they can no longer shoplift, and because there are so few people in public, they cannot panhandle to acquire money for necessities or substances so they have had to resort to other criminal activities, which increased their risk of criminalization: The lack of people on the street also resulted in difficulties for some female participants whom engage in sex work to get clients, and as a result, they had to resort to other criminal activities:

> *"Yeah, they're [charges] all related to substance use. It's because of the fact that there's not that many men out looking for women because of the virus. So I had to resort to other criminal activities to feed my kids. So I'd shoplift or whatever it took to get what I had to get. I got caught for shoplifting a couple of times." (AN.38)*

Some participants who were homeless or street-entrenched felt as though they had nowhere to go where they would not be noticeable to police, and as such were more vulnerable to criminalization and victimization by the police:

> *"It's because I've been homeless and living on the streets for like probably two years pretty much, I've had to resort for stealing for food and things like that. So you know when all the businesses were closed and things like that it was really difficult to get food. And the shelters even were closing, like it was really hard to get food. The police were out like full force, you know, like looking for everybody to arrest and you know they were constantly harassing us. And it was just really, really difficult to be homeless." (BN.41)*

Due to the increase in price of substances and the decreased ability to acquire money, they had to resort to selling or trafficking substances in order to make ends meet, and felt as though this increased their risk of being arrested:

> *"I've been maybe engaging in activities that are more illegal, or had to hustle more money. I had to commit more crimes to make more money. So even resorting to dealing myself at times. I was released from jail about a year ago and I was trying to stay clean, away from trafficking and away from crimes. Because of the price increase, the lack of availability, I've resorted to going to the city myself and get involved here, and start*

trafficking again. It makes me more nervous about re-offending and going back to jail." (ON.56)

A few participants expressed that their dealers felt more at risk for criminalization due to being more visible to police when meeting with clients, and that this increased their own personal risk:

> *"When I do go and procure street drugs and the dealer feels like they are more afraid because there are more chances of getting caught, then if they get caught I'll get caught with them. So there is that risk that there is more risk for them, so there is more risk for me to go to them" (BN.03)*

Similarly, some participants described a fear of criminalization when interacting with their dealers, from either having to travel further to meet them, or having to buy more substances at a time because of the lack of availability and not wanting to further expose themselves:

> *"More surveillance in the community, now that there's tickets being handed out to people which is another concern. I am travelling further distances to get my supply, and people are purchasing more, so you don't have to make as many trips. So you have more drugs on you, and you're driving further from home so you're more at risk." (PN.01)*

Lastly, some participants expressed that the fear of criminalization brought on by COVID-19 had subsequently increased their anxiety and mental health-related issues:

> ***"****It's hard on your mental health. You know you can't go outside, you're scared that you're going to get a fine or a ticket and that causes anxiety. And definitely with my clients I see a lot of them getting tickets for just being in a space. Like if they're sitting on a park bench or I guess loitering in front of some where the police are being called and they're getting tickets. And they're never going to pay those tickets so yeah." (ON.41)*

4.11.3 Health Impacts

Participants detailed a number of health impacts, including both physical and mental health issues which they had experienced as a direct result of COVID-19. These impacts were often contingent and influenced by a number of other related factors, such as whether their substance use had increased, whether they had underlying health issues, and/or whether or not they had been able to access care, treatment or support for any issues they were experiencing.

4.11.3.1 Physical Health Impacts

Regarding the physical health impacts of COVID-19, most participants (n=181; 91%) discussed whether or not they had experienced physical impacts, with more than half (*n=99; 55% of 181*) indicating that they had, including both positive and negative experiences. Notably, a couple participants indicated that COVID-19 had benefited their physical health, and had been a catalyst to getting their health in order, especially if they were able to reduce their substance use. As such, they detailed some of the positive physical effects that they had experienced:

> *"I'd say it's improved. I'm able to – like I have back issues so working in an office was*

actually pretty tough. I'm able to lie down now on my breaks, which is huge. I'm able to exercise more often because I don't have to commute. I haven't eaten fast food in two months because I'm always at home. Honestly, my physical health has gotten better." (PN.25)

Nonetheless, for most participants, the main physical health impacts reported were negative, and often related to disrupted sleep and eating patterns that had subsequent effects such as fluctuations in weight, as well as increased tiredness and lethargy. For many participants, social isolation and boredom led them to eat and sleep more:

"I'm pretty sure I'm packing on some weight which sucks because I was just losing it, but now I have no motivation to do anything and I've been sleeping. I have a screwed up sleep schedule, one day I sleep all day and then I can't sleep all night. I have severe sleep insomnia so I gotta like control my sleep schedule. I didn't want to get out of bed today because I was bored." (AN.05)

While many of these participants explained that they had gained weight due to eating more and generally being less physically active since they were mostly confined to their homes, some elaborated that their weight gain was specifically associated with a decrease in their substance use and the consequential effects of an increased appetite:

"I'm sitting around bored and so, it's like now, like, I'm eating more you know what I mean? Like as opposed to not eating and using much drugs which prevents me from eating right? So then, because I'm not using so much drugs my appetite's more. So again, it's becoming lazy, fatigued, you know, out of shape. Like all that stuff is being impacted just because of COVID and being in isolation you know?" (ON.09)

However, other participants indicated that COVID-19 had the opposite effect, explaining that they had barely been sleeping or eating: *"I've lost a bit of weight for sure. Some days I don't even eat. Like I just don't have an appetite some days. I bet you I didn't sleep 8 hours in a dozen days. So the sleep thing is a problem for sure" (BN.33)*. Some of these physical health issues were specifically correlated to an increased lack of sleep:

"Physically, I guess, my insomnia for these last few weeks has – you know, it affects how I feel physically. Like sometimes I get arthritis in my right ankle and if I don't get a good night's sleep or, you know, where I'm tossing and turning all night long, when I wake up in the morning, you know, I've got aches and pains. So that part, not sleeping properly is affecting me physically." (ON.28)

Sleep deprivation and decreased appetite or food intake were often purported to be the result of, or dependent on, other related issues, such as fluctuations in substance use, including increased withdrawal symptoms, increased stress, depression or anxiety, as well as reductions in the capacity of food resources such as food banks. Specifically, nearly one fifth of participants (n=38; 19%) reported that they had experienced some form of food insecurity during COVID-19, where they either could not afford food, or were unable to acquire it from external sources. Some explained that this had directly resulted in negative physical impacts:

> *"Yeah, I can't – like I mean I want to go to the food bank, but I can't go because I'm worried that I'm going to get sick, so I don't go. I haven't gone once since the virus. I go to the grocery store, but I don't have enough money to buy a lot of food so, you know, I'm eating a lot less than I should be, and I'm a lot less healthy, I think." (ON.49)*

Many participants linked physical health impacts directly to their substance use. For some, the increased physical pain and issues they had experienced during COVID-19 had contributed to an increased use in substances, often as a means to cope with the pain:

> *"When COVID first started coming up, we were so busy, we were working such long hours and I was physically ruined. My back was really bad, I was aching all over, despite being on methadone and stuff, the pain was unbearable, I was using more. I would come home from work after a long day and use again to just to cope with the idea of being able to go in again tomorrow. And I was kind of eating less at the time too, I lost some weight, just physically in a lot of pain." (BN.03)*

While others elaborated on the ways in which their increased substance use affected them physically:

> *"Oh yeah, for sure it's negative. Basically, it's affecting my health right, not good for my physical and mental well-being. It's taking its toll. For me it's physical too. I had an illness, I'm diagnosed, I'm not sure what it is, but when I use more, it gets worse, so the more I use, the worse it gets physically." (BN.13)*

In this sense, the physical impacts of COVID-19 were often cyclical, where participants felt more pain from an increased lack of sleep and movement, which led them to increasingly use more substances to deal with the pain, which in turn, led them to experience more negative physical impacts overall.

4.11.3.2 COVID-19 Symptoms and Testing

While many participants detailed negative physical effects related to COVID-19, most people did not experience any COVID-19 symptoms nor sought care for virus-related issues. Among the few participants (n=51; 26%) who indicated they had experienced symptoms, most expressed that official COVID-19 'symptoms' were ambiguous and quite broad, and often mimicked those they experienced from other issues, such as allergies, colds or flus, or even substance use and withdrawal symptoms (e.g., a runny nose, fever, chills or sweats, as well as coughing). As such, it was difficult to differentiate between COVID-19 symptoms and other health issues: *"Oh, just kind of like fever, sweat, that's drugs and things. Like it's hard to tell whether it's a withdrawal symptom or it's a COVID symptom, or it's just the flu or it's a cough. You don't really know" (ON.11).* Some participants explained that the symptoms also mirrored other physical ailments or diagnoses they had, such those who had compromised immune systems: *"I had a fever once and – I mean I'm living with AIDS, so I have no idea. It was probably just a little cold. I had a fever and I was throwing up and stuff like that. But it was probably more of the AIDS-related than it was the COVID." (ON.68)*

Whether or not participants could decipher which symptoms were actually COVID-19 related, many (*n=20; 39% of 51*) of those who indicated experiencing symptoms did not get tested for COVID-19. Reasons included symptoms subsiding within a couple of days, or an inability to get tested for a variety of reasons including not knowing how or where to do so, or not being 'qualified' since testing was only being done on select high-risk populations (e.g., those who had recently travelled or been in contact with someone who had it):

> *"There was a day or two that I thought that I was showing signs, and I didn't know who to contact, this was early in the COVID thing. So I did take a couple days off of work, but after two days I was completely back to normal and I felt ok. At the time you couldn't go to the hospital anyways, and as far as I knew they didn't have a lot of testing facilities up at that point." (BN.03)*

Others indicated they could not afford transportation (or did not want to risk travelling) to testing centres to get tested:

> *"My mom said, "Go and get tested" I said, "Mom what do you want me to do? How am I going to get tested, I'm not going to take a bus?" and at the time I had no finances for taking an Uber or a taxi or anything, you know. So even if I needed to be tested I wouldn't have been tested because I wouldn't have known how to do it." (ON.30)*

One participant further detailed how stringent testing criteria was a structural barrier for many people who use substances to be able to be tested:

> *"I mean I only was able to get access because I'm also a frontline worker. Testing criteria is too restrictive. So many people who use drugs, including people I'm in contact with, are unable to get tested even when they are symptomatic because the testing criteria is currently symptomatic plus high-risk groups, and that's not the case for many people who use drugs who don't live in shelters." (ON.06)*

Among those who experienced symptoms, some participants (*n=31; 61% of 51*) reported that they were tested for COVID-19, with all indicating negative test results. Some participants got tested out of precaution, while others got tested by nature of visiting the hospital and it was compulsory, whereas others were tested due to their living situation (e.g., for those in shelters or motels, they often had mandatory testing done on a frequent basis):

> *"I've been tested twice because there was a scare at the gymnasium [shelter] to start with, and then when we moved to the hotel here, everybody got checked, because one day there was a scare here. So both times I've been checked, it came back negative." (AN.13)*

Those who were tested detailed a variety of mixed experiences where some reported they were treated horribly, while others had easy and unremarkable experiences. For some participants who were homeless, they were put up in a hotel in order to be able to self-isolate where they were provided with lots of support, which they indicated was beneficial. However, once the self-isolation period had ended, they were 'forced' back out on the street:

"When I was tested for COVID, they put me in a hotel because they considered everyone to be positive until the results came back. And I had no way to self-isolate. I'm homeless. So the healthcare services paid for the hotel room. Yeah, they put up in a hotel and they delivered meals to us and delivered my medication and stuff. The harm reduction nurses were coming around to make sure that our condition didn't get any worse or anything. While we waited for results, we were offered lots of support. Once the results came back negative, we had to leave the hotel. We were actually given an hour of sleep and they called the police to make sure we would leave. They put us back on the street, yeah. They paid for our cabs, everybody's cab. The cab going nowhere. Downtown to the street." (ON.56)

4.11.3.3 Mental Health Impacts

In terms of other health-related effects, the vast majority (n=194; 97%) of participants discussed whether or not they had experienced mental health impacts due to COVID-19, most of whom (*n=140; 72% of 194*) reported experiencing some form of impact, including both positive and negative impacts. Similar to physical effects, a select few participants reported positive mental health impacts, such as experiencing a reduction in panic or anxiety attacks since there were less people out in public. Others explained that they were able to stabilize their daily routines (including their OAT), which had positively impacted their mental health:

"I would say actually that my mental health is improving a bit throughout this. I guess maybe being able to take some time to just relax and focus on other things. And also the fact of being on methadone I don't have to worry every day about being sick. I know that I get up and I can go get my drink and I'll feel okay and I can get through the day. So that's definitely good." (ON.08)

However, most participants indicated that COVID-19 had prompted negative feelings and impacts on their mental health, including an increase in general anxiety related to concerns about contracting the virus: *"Yeah there is anxiety because of COVID. Just – yeah, just anxiety. Always worried about trying not to catch it" (ON.69),* as well as mixed emotional and mental feelings and impacts: *"Yeah, loneliness right? Anger too. I feel a lot of anger and frustration, and confusion" (BN.13).* Some participants explained that their underlying mental health diagnoses had worsened and were contributing to the adverse mental health issues they were experiencing:

"Just, I have a lot of stress. I have extreme PTSD, and I'm bipolar and borderline schizophrenia as well. And, also like financially, because obviously I use drugs. And so, I guess [it's] worse because I'm experiencing a lot more stress. I'm really claustrophobic and just I feel like I'm just suffocating and I'm just like so stressed. Like I'm a lot more depressed. Like I feel like what I want doesn't even matter. Like my feelings don't even matter anymore and I'm just like, I feel alone." (ON.48)

Other participants elaborated on how self-isolation and having to physically distance from all their friends and family was taking a toll on their mental health and was contributing to feelings of loneliness, sadness and depression:

"I don't know. I can be a bit manic I guess, is the best way to put it. Depressed some

days, because of what I said, I like people around, it's just the whole isolation thing. It gives everyone a bit of fatigue and depression. With me, it's kind of tenfold because I have that background of mine, anxiety and depression." (AN.19)

For some, these feelings were amplified by social stigmatization where they felt especially ostracized by people, which had prompted suicidal thoughts and/or self-harming behaviors:

"I've never thought of suicide in my life until a couple of months ago. Just the way people treat you, like you're just a dirt bag now because of the COVID. And because there's the COVID virus going around and it's like you're a drug addict, that's like a double whammy. They really think you're a dirt bag. I have OCD and antisocial personality disorder. I think it's making it worse." (AN.38)

Whereas for others, their feelings had manifested into anger, frustration and irritation, and they indicated they were having trouble controlling their emotions and they were taking them out on people: *"My emotions are coming out in the worst ways, like my anger is like top notch." (BN.14)* Participants also expressed that they were afraid for themselves and others, and had sometimes become fearful and paranoid:

"It's made me more worried about people that use [drugs]. I fear every day that I'm going to get a phone call that one of the persons I know has died. So I think it's a bit more anxiety as far as people dying. Sometimes I get fucked up over it you know, I guess. Because I'm in the house too much, so I'm seeing people go by my house all the time and I think they're looking in my window, which sometimes they are, but other times they're not. Because I'm always here and I'm always seeing things like that, and it bothers me. I'm more paranoid." (ON.10)

Notably, some participants explicitly linked their increased anxiety, depression and other mental health issues to a desire to use substances, and an increase or relapse in substance use:

"It actually initiated my substance use again. I was clean for two years off of opioids, and a year and a half off of meth, prior to the stressing of COVID. I don't know, we were struggling before all this COVID thing happened, there was a lot of dynamics to the whole situation, right? And then, now it's come to a point where like my mental health has deteriorated to a point where I can't even keep a job. Like there's a lot of things going on, right? and it's just – I fell back into using meth." (PN.41)

Participants employed a variety of coping mechanisms in order to cope with the negative emotional and mental health impacts of COVID-19, including keeping busy by watching TV and doing household chores: "*I try to do things around the house to keep my mind off of it, like clean spots I've cleaned 10 times, that kind of thing" (ON.23)*, relying on their social networks, and engaging in physical activity: *"Um I've pretty much just been staying active a lot more and keep my mind off the needing and the wanting of it" (ON.23).* However, the most common coping mechanism reported was an increase in substance use.

"Well, I'm drinking more. I'm drinking and I'm doing drugs, like – that's how I'm trying

to cope. And it came at the worst time because I was trying to like…I was trying my hardest to try and get clean and stuff and this just really backfired on my ass because now it's like, what a bad time too, you know?" (ON.81)

Participants explained how an increase in substance use as a coping mechanism for mental health issues in-and-of-itself was contributing to added stress, anxiety and depression, which was further compounded by not being able to access supports to address these issues or their substance use in general:

> *"How I'm coping? I'm getting stressed out over it. I don't want to be increasing my tolerance, but it has been. I'm stressed out over the fact that I have to tell my doctor that I've used, because I've been so good at like resisting temptation, like to stay away from cocaine. So like I've just been annoyed with the world and everything and like with me moving and then just- so I use. Like you know, an addict does, you use something to take your mind off something, right. So I'm stressed out about that. I'm just concerned that like my tolerance I want it to go back down, because I don't want it to build up and have to like acquire more, because like with opioids, you know, you go on the nod, right, and I don't want to be going on the nod the when I'm at work because I don't want to put myself at risk." (ON.22)*

4.12 Suggestions for Helpful or Beneficial Services during COVID-19

One of the evident impacts of the COVID-19 pandemic and quarantine measures on PWUD was reduced access to health and social support services. As such, we asked participants to provide suggestions for supports and services that they felt they needed or would be beneficial for them during COVID-19. The most common suggestions from those that responded included continued access to harm reduction and treatment services, more support for mental health and financial needs, access to shelters and housing, more information about COVID-19, and improved access to an unadulterated substance supply through safe supply programs. The most prominent suggestions have been categorized into the following subheadings: Substance use-related supports and services; mental health supports and services; financial supports; services specific to marginalized populations; and access to safe supply.

4.12.1 Substance Use-Related Supports and Services

As noted, participants experienced increased barriers to accessing substance use-related services, including service closures, reduced hours and lack of awareness about service changes during the quarantine. In this context, participants who provided suggestions indicated that they needed additional and continued support for their substance use as the pandemic unfolds. Suggestions included better access to mobile needle exchange services, better access to OAT and extended OAT prescription renewals, access to counseling and self-help groups, access to an anonymous helpline or phone application for PWUD who were using alone, increased accessibility including longer hours for substance use services, as well as more information and awareness about service changes. The following quotes highlight participants' suggestions for substance use services during the pandemic:

4.12.1.1 Access to Mobile Needle Exchange Services:

> *"The vans and stuff are not, like they're not being used right now because of this. And that's definitely like probably affecting people because not just safe supply but like safe tools as well you know? For people who inject and stuff, that's extremely, extremely important. And I already know that especially some of my friend group aren't the best at getting their safe supplies. So definitely with the van not being around that's a bit of a – even more of an issue. Because the van will come right to you right? So if you have to go get it sometimes you know people aren't really willing to, or they're not able to go. Or they're not able to get it because of the times. Some people are you know stocking up on stuff and not letting other people have access to it." (ON.08)*

4.12.1.2 Access to Opioid Agonist Treatment and Related Programs

> *"I would say greater availability of substitution treatments to address – for those who are interested, who want those treatments – but then also to address issues in availability of drugs and address withdrawal. So specifically different supply, opioid programs, and stimulant replacements for drugs." (ON.06)*

4.12.1.3 Access to Extended OAT Prescription Renewals and Home Delivery Options

> *"Yeah definitely. Even the whole having to come back and physically see somebody to renew it, it's like my diseases don't go away, I'm still not well. There's been times where I've had to go in when I'm really feeling shitty and it's like, couldn't you just have renewed it? There's nothing else you can do for me, you know that, you know I have flare ups. So definitely extending the time frames. And the restrictions with the government are really tough and that's something that they really need to change. Because it's as far as changing your medication or looking at other options, it means there needs to be some flexibility there." (ON.01)*

4.12.1.4 Access to Counseling and Self-Help Groups

> *"I would say, as I said earlier, maybe therapy, or being able to go to AA groups, something that could help me, but right now, in the situation we're in, it's impossible." (QN.28)*

4.12.1.5 Access to an Anonymous Helpline/Application for People who Use Substances Alone

> *"Yeah, I really think it's a cool concept for people who use alone. I was talking to somebody earlier about it, like in the sense of people who die from overdoses are the people who use alone, or in and out of recovery or periods of incarceration. If there was just like a line you could call, an anonymous line because even when it's too centralized and you have drug users working there, it's not anonymous enough. You need to have a nationwide one and you've got to go 24 hours a day. Think of all the rural areas you could reach that never have safe consumption sites or overdose prevention site." (AN.04)*

4.12.2 Mental Health Supports and Services

Several participants mentioned the need for policymakers to consider expanding access to mental health support and services that go beyond the status quo. A key suggestion was to implement interim supports to help individuals cope with the emotional impacts of the pandemic. Further, participants felt that mental health services in general and emotional supports for COVID-19 in particular should be expanded through various mediums including emergency phone lines and web-based services to ensure continued and timely access to needed supports:

> *"Maybe, I mean this might already be out there, but maybe like a number for like mental health support or, you know, especially during the pandemic. Like specifically for this, you know. I've seen it on Facebook a lot and like suicides have gone up and such for, from COVID, so...you know, and stuff like that, like I mean people with mental health issues, it's difficult, worse than me. Like schizophrenia or bipolar or stuff like that, I mean I could see, I could see how that definitely affects them. So, I think there should be some more support for mental health, definitely for people in need or people in danger, you know, anything like that." (AN.28)*

4.12.3 Financial supports

Another key suggestion for helpful services was financial support to help supplement loss of income as some participants lost their means of earning money due to quarantine and social distancing practices. While some participants indicated receiving emergency benefits (CERB), confusion regarding eligibility and restrictive requirements rendered some participants unqualified as they earned income in precarious ways, such as panhandling, sex work, and peer support work, or they did not have the means or ability to complete the application process. As the following quotes demonstrate, participants who expressed a need for income support suggested that the government reduce restrictions around the application requirements and/or introduce additional financial support for those who do not qualify for CERB:

> *"If there are benefits or money it should be distributed equally and fairly. I don't think people should be punished for being drug users or homeless. Consolidating the services, making them well known and lowering the barriers to accessing what's up for grabs and what's being offered. Being more centralized, louder about it, and make it easier for those that need the access. Take this as a time to learn." (BN.03)*

In particular, those who were already on government assistance or were low income felt disproportionately affected by the inability to apply for CERB, and suggested that the amount of money they receive from government assistance should be readjusted to match the amount that people receive from CERB:

> *"I think the $300 that they're giving everyone that's on welfare and disability, I think that's a joke. Like everybody else got like $2,000 or more than that, you know? And everyone on it that needs it the most, we get $300 bucks a month on our cheque; I think we should be the ones getting more than that. I think we should be the ones getting like a $1,000 extra on our cheques." (BN.41)*

4.12.4 Supports for Marginalized Populations

Some participants indicated the need for services to address the unique challenges faced by marginalized populations (e.g., homeless individuals and those living in shelters) due to quarantine measures. Participants demonstrated a critical need for housing support and adequate access to respite sites for these individuals during the pandemic, particularly when access to harm reduction services and public buildings had been eliminated or greatly reduced. The following quotes demonstrate instances where participants indicated the need for respite services during the pandemic:

4.12.4.1 Access to Community Buildings for Hygiene Purposes

> *"Well it would be helpful for like people – like for the community to have somewhere to go for us to get showered. Like another [service name] down here. Especially for the men because the women, we have [service name] which is the women's centre, but even they started making it – like I used to go in there every day and shower, now you have to make an appointment. They've actually changed it over there because they know – I actually made a huge stink over there because I hadn't showered in four days. I had my period. Like I needed a shower and they were denying me because they didn't have somebody to clean the bathroom after and I think that's bullshit." (BN.29)*

4.12.4.2 Access to COVID-19 Guidelines and Information

> *"If there were some kind of incentive for someone to make a call or to be a part of a survey or to do something like that, people do it. Especially people that are in need. So if there was even, like, hey you get, like, a $5 Tim card if you want to call and we can give you some extra information about you know, COVID, and you know, how it can affect you? Or if you have any questions about it, you know, something like that…Even if you had something kind of like, I know, there's not a lot of places for people to hang out but even like shelters, like even if there was, like, I know for myself if there's any more than, like, three or four pages I'm just going to skim down. But even if you have like a quick fact sheet." (AN.20)*

4.12.4.3 Access to Personal Protective Equipment

> *"The city transit, it's now – they're kind of requiring people to have a mask on to get on the transit. So I think maybe for the first couple of months they could hand out a mask to each person that gets on the bus so that – because not everybody carries one around. So instead of denying them a ride, maybe have a mask you could give them, like the bus driver could hand like so many out a day or something?" (PN.49)*

4.12.4.4 Access to Information about Services and Changes due to COVID-19

> *"I think just sharing information is really important. Access to services that are available, how people can navigate those systems. There is an influx of people wanting to go into treatment, and I'm wondering if it's related to, like I wonder why people want to*

go to treatment in larger numbers than they did before? Do they feel that they are safer being housed, and what are our treatment centres are doing?" (BN.01)

4.12.5 Support for 'Safe Supply' Programs

In terms of suggestions for specific helpful services, participants were asked if they supported the idea of a government-implemented 'safe supply' program (i.e., the provision of pharmaceutical-grade prescription substances to eligible participants, and 91% (n=182) responded, with *85%* (*n=154 of 182*) of those overwhelmingly conveying support for such programs. Overall, many participants strongly advocated for safe supply, and were hopeful that COVID-19 would prompt the Government to enhance its accessibility:

> *"I just hope they can realize and standardize and quicken the process for somebody who knows they would be responsible with safe supply and help themselves, especially during a time like COVID, so they can stop having to move around so much, stop having contact with people like the drug dealers, stop having to engage in illicit drugs, because not everyone plans on staying on this forever." (BN.03)*

Other participants elaborated that a safe supply would be helpful particularly during COVID-19 since it would ensure that they did not have to go into public and risk being exposed to the virus: *"Well, one, if there's safe supply to you wouldn't have to put yourself at risk by leaving your house and social distancing." (ON.37)*

Many participants further explained that obtaining a safe supply would be safer than using street-sourced substances, particularly in light of the decreased quality of substances and the overall increasingly toxic illicit substance supply: "*You know that will be good because there ain't going to be no poison or something in it, because you don't know what you're buying off the street" (AN.21).* This sentiment was reiterated by other participants:: "*You wouldn't have to worry about a tainted supply, which is more prevalent during COVID" (PN.10).*

Given their concerns about the increase in contaminated substances since COVID-19, some participants felt that it was important to have safe supply of not only opioids, but multiple substances, since the supply of all substances had been potentially contaminated:

> *"I mean it would be great if safe supply was opened up, because even though I do get a prescription, I'm not able to get the amount of substances that I actually use. And I have to purchase them and that obviously is really difficult. So I wish there was safe supply. And that it's a safe supply for multiple substances, not just a substance. Because I would love to able to address my cocaine wants and others. I would love to be able to have access to a regular opioid supply of the drugs that I actually use and want to use, as opposed to what I can purchase. And or stimulants." (ON.03)*

Some participants explained that not only would it help ensure their safety, but that safe supply would also be beneficial for a number of other reasons related to obtaining substances or money to purchase substances:

> *"Because I wouldn't have to be on the streets or go to the drug dealers to get them. And*

> *that way I wouldn't get introduced to new substances or get ripped off, or get my money stolen from me. I wouldn't have to suck dick for it. There's a lot of benefit aspects of that." (AN.14)*

Relatedly, it would reduce the risk of being criminalized for engaging in other criminal activities in order to support their substance habits: "*It [safe supply] would make it so that I don't have to do shoplifting and stuff, and get money" (BN.13).* Other participants elaborated on the way that a safe supply would save them money in the long run, and they would not have to resort to other means to supplement their income or waste their money on substances: *"Well it'd be a lot easier on my money, you know, like my budget and whatnot. Like, if it was prescribed it would be covered, and like, so I wouldn't have to spend" (BN.37).*

Some participants explained that they did not want to involve themselves with the black market to obtain substances, but that they had no choice. In this sense, they suggested that a safe supply would allow them the ease of obtaining a legal supply, akin to alcohol or cannabis, which would reduce their risk of being criminalized:

> "*I wish that the Canadian government would recognize that as a Canadian I should have the right to access safe supply of the substance of my choice, and be able to purchase a regulated supply, at a relatively safe location, and not be part of this criminalized market that we are subjected to." (BN.01)*

Another important point that participants conveyed was that being able to access a safe supply program would place them in contact with a supportive doctor and/or medical team, who they would feel comfortable discussing their substance use and any issues they were experiencing with. This would not only provide feelings of security, but would allow them to individually tailor their dosage to an optimal level which worked for them, as well as reduce the stigmatization that many participants feel when accessing services for substance use:

> *"So I think I would feel safer on a safe supply program and better, like, taken care of when it comes to my mental health, and like I would feel like I would have someone to talk to about my drug use and like what's working, what's not working, stuff like that." (ON.05)*

As a major overarching theme that emerged regarding support for safe supply programs, quite a few participants detailed how such a program would significantly reduce fatal and non-fatal overdoses related primarily to the toxic substance supply:

> *"I'm a big fan and 100% behind that [safe supply] because I don't want to see anybody go down that road of an OD or a fatal end to getting a drug out there and they don't know what's in it. Because people are taking risks and other people are taking chances, tough times right now." (AN.13)*

Multiple participants echoed this sentiment: "*Like I totally support safe supply. I think that's an excellent answer to risk of overdose. Yeah, like I feel like that is really the best answer for trying to treat risk of overdose" (BN.19).* Especially as it would allow them to access a consistent

supply which would help regulate their tolerance and reduce overdose risk: "*It [safe supply] would be consistent. That's one of the worst things of buying off the street, it's never the same and that's where a lot of people get into trouble with overdose right?" (BN.33)*

Regarding fluctuations in tolerance, one participant explained that a safe supply would be beneficial for not only daily substance users, but especially for occasional users who may have a reduced tolerance due to not using very often, which therefore poses an increased risk to experience an overdose when they do use:

> *"Well I think the government needs to open up safe supply to casual users as well, because there's a lot of people who have been off of substances, or trying not to use but their stress levels are reaching a point where they can't anymore, and the OD crisis is still going on. People like me who don't have a day in, day out, addiction that their dealing with, but they just want something every couple of weeks, there's nothing in place for that, and those people are the most at risk because they don't have the tolerance and they don't have the regular connections. There is a lot of coverage available for day in and day out users, people living in poverty and homeless people, but for folks who maybe who need a little pick me up now and then, there's nothing in place for that, and the situation being so stressful there's a lot of people who are going to reach out for something that they maybe didn't before." (BN.02)*

The increased consistency in substance quality as well as ability to acquire their substance of choice that safe supply would provide was also suggested as a way to ensure that participants would not experience withdrawal symptoms and related negative health effects: "*Well I wouldn't go through withdrawal ever if I had a safe supply" (ON.48).*

Importantly, some participants discussed how accessing safe supply would work towards reducing their use of illicit substances, and ultimately help them with their addiction:

> *"It takes the appeal of the drugs away a bit, you don't feel like you are doing anything rebellious, you just feel like you are on this schedule, you know, just like taking cough syrup. It really de-glamorizes the drugs themselves…I just think during COVID, now would be the time to keep the gates open, the doors open, and the barriers low. Give people a chance and try them out, and a little bit of trust for those people that can be responsible during these times." (BN.03)*

While there was significant support for safe supply overall, a few participants expressed skepticism and a lack of support for such a program. However, most supported the idea in theory, but articulated various concerns such as distrust with the government and suggested it would just be a way for the government to capitalize on people who use substances and are already marginalized: *"No, because the government would still screw it up. And why should the government make money off of us?" (ON.40).* A few participants also noted that a safe supply program would not only control the *quality*, but it would also control the *quantity*, which they believed would not be sufficient:

> *"If you could live within the prescribed amount of quantity. But it's never enough, so*

you're not going to live within it. You know, I mean when they prescribe something like that, right? It's going to be small amounts and it's just not going to be enough." (ON.68)

Others explained how they understood that safe supply programs may be useful for others, but that they were not for them and their particular substance of choice or pattern of use. Some participants also noted that they were able to manage their use without the support of a such a program.

4.12.5.1 Experiences with Safe Supply Programs

Interestingly, 11% (n=21) of participants reported that they had been engaged in a safe supply program at some point (whether previously or currently), and provided their experiences with these programs. All of them supported the idea of the program, and indicated that it had been beneficial for them in terms of getting their substance use under control as well as mitigating their risk of negative effects related to the toxic substance supply. Some participants explained that their access to safe supply programs had increased since COVID-19, and that a number of clinics and/or doctors were now providing these services where they had not done so before. Participants explained how being able to access a safe supply program during COVID-19 was especially helpful as it allowed them to socially isolate and distance as they were no longer required to go out into public and seek their substances: "*I think it is good to be able to access this right now, because people don't want to be necessarily going out having to see their dealer every single day. And that sort of lowers the risk of contracting COVID." (BN.19)*

Other participants explained that accessing a safe supply program during COVID-19 has resulted in a reduction in their use of illicit substances: *"I was recently able to obtain safe supply through my doctors who usually prescribe me opioid replacement methadone, so I've been using less street drugs. I was usually binge using street drugs on top of the opioid replacement therapy" (BN.03).*

A few participants went so far as to associate access to a safe supply to their ability to find a home and stabilize their lives and finances during COVID-19, as well as mitigate the risk of overdosing: *"It's [safe supply] been great, it enabled me to get off the street and stuff, because I wasn't blowing all my money on making myself not sick basically. And it's been a lot safer, there's no way I can overdose." (PN.10)*

While all participants explained that the safe supply programs they had been engaged in were beneficial, some provided anecdotes of negative experiences, including adverse reactions to the specific formulation of opioid provided, which was often a low-dose opioid such as hydromorphone (Dilaudid):

> *"Yeah, I'm having troubles with it personally because I'm finding that I'm allergic to the Dilaudid like I crush it up and use it but the site that I use it at, it turns red and it gets swollen and itchy. So I personally feel like for this program to be really effective, they should be using fentanyl instead of like Dilaudid. Like if someone's eating apples, give them apples instead of give them oranges or pears or whatever." (BN.19)*

Other participants detailed that the dose they received was not strong enough and did not give

them the high they were seeking, and as such, they would supplement their supply with street-sourced substances. Many participants explained that because so many substances were 'cut' with fentanyl and other potent substances/analogues, or that they had graduated from using less potent substances to stronger ones – including fentanyl – their tolerance had increased, and as such, they needed something equally as potent in order for the program to be optimally effective:

> *"I don't like hydro because it gives me like a heroin high. And it makes me sick. Like I get very, I full velocity vomit across the room kind of sick. Like I can't. It gives a very opiate high. Like I don't get sick on fentanyl, I feel better. My pain virtually goes away. Like, you know? It takes everything away and makes my life much better." (ON.77)*

Overall, participants who were engaged in safe supply programs indicated that being able to access these programs had been beneficial, and suggested scaling them up, especially in light of COVID-19.

5 IMPLICATIONS

The findings presented above demonstrate the varying impacts that PWUD have experienced due to COVID-19. As our findings highlight, important changes to substance use, substance supply, access to critical services as well as economic, social and health-related impacts among PWUD were attributed to COVID-19 and the unintended consequences of the public health measures put in place as a response to the pandemic. Below we summarize the most salient themes that emerged, and provide recommendations to reduce the harms associated with substance use during a pandemic.

5.1.1 Substance Use

Important changes to substance use frequency and characteristics were among the noted impacts PWUD faced due to COVID-19. The findings presented indicate variations in those whose substance use increased, decreased or remained the same. Most notably, 46% of participants indicated that their substance use had increased since COVID-19. Boredom due to continued self-isolation, substance use as a coping mechanism – particularly as a way to mitigate the mental and emotional impacts of COVID-19 – and issues related to substance supply such as decreases in potency, were noted as common justifications for this. In particular, the mental health impacts of COVID-19, including heightened stress levels, have served as a catalyst for increased substance use. Many participants indicated that their increased substance use had negatively impacted their lives. Of significant importance, some participants noted how COVID-19 had contributed to the loss of stability in their lives (e.g., jobs, daily routines, social supports), and they had consequently relapsed and/or increased their use. Additionally, the inaccessibility of substance use-related services and supports also greatly contributed to relapse and increased use for some participants. This was particularly impactful since participants were more likely to use at home and alone during the pandemic, and no longer had the ability to seek and utilize key supports. In some instances, this impeded their ability to minimize drug-related risks (e.g., a lack of access to harm reduction services contributed to the re-use of substance supplies). Taken together, the results highlight that COVID-19 contributed to an increase in substance use as well as other related unintended negative impacts, such as decreases in risk mitigation practices, including using alone or substituting for other illicit or licit substances.

5.1.2 Substance Supply Changes

The findings presented suggest that major changes to substance supply have taken place across Canada due to COVID-19, related to the quality, accessibility and cost. While these changes were often both substance-specific and affected by other factors, the majority of participants specified important and noteworthy changes including a significant decrease in the quality of substances, an increase in the cost or price of substances, and a decrease in accessibility or availability of substances. These changes to the drug supply impacted the physical and mental health of PWUD, and contributed to complex, multifaceted, and often negative impacts for participants, leaving them vulnerable to a volatile market and to changes in use that included an increasingly toxic and unaffordable supply of substances.

In terms of the quality, participants detailed accounts of an inconsistent and unreliable supply, including substances being heavily contaminated which resulted in a decrease in strength and potency. As such, substances commonly did not produce the intended effects, which contributed to increases in use. Many participants expressed frustration towards not being able to access the quality of substances that they were able to prior to COVID-19, and explained that this had an unintended negative effect on their lives including unwanted changes to tolerance levels, as well as an increased risk of experiencing negative effects from unknown substances. These issues led some participants to supplement their substances with other products, which compounded their risk and at times, increased withdrawal symptoms.

In addition to issues of substance quality, substantial increases in the cost or price of substances were noted. Although reasons as to why price inflation was experienced varied, many participants expressed frustration with the surges in price as it contributed to participants having to spend more money at a time when purchasing drugs. Mitigation strategies to reduce virus exposure or criminalization, such as buying more at a time, were conferred, which often resulted in participants using more since they had more available. The increases in price of substances further compounded many of the financial impacts that PWUD were already experiencing due to COVID-19.

As an additional substance supply complication, issues related to a decrease in availability and accessibility of substances were also conveyed. While some participants had to wait days to receive their substance, others substituted their substances with whatever was available and affordable, which increased their risk of ingesting potentially contaminated or unknown substances. Lockdown measures, and decreased visibility of suppliers on the street, contributed to the lack of accessibility to substances as participants experienced difficulties finding suppliers. This resulted in participants having to expand their supply networks to obtain substances, including utilizing suppliers they do not trust, which placed them at risk of receiving untrustworthy substances, being taken advantage of, as well as exposing themselves to the virus.

5.1.3 Risk for Overdose

In light of the aforementioned increases in substance use and changes to use characteristics, the findings suggest that these issues combined with an increasingly toxic substance supply is putting participants at a greater risk for experiencing harms, including fatal and non-fatal

overdoses. Increased isolation as required by COVID-19 public health measures has impeded PWUD's ability to mitigate drug-related risks, causing them to use alone in private dwellings where they are less likely to have an overdose attended to, or using more at a time as a coping mechanism to counter the isolation, stress and boredom they experienced. Additionally, changes to substance supply which has led to substitution and supplementation of other potentially dangerous products, as well as fluctuations in potency and quality of substances and in frequency of use and tolerance, has also increased the risk of overdose. Importantly, the lack of access to critical harm reduction services such as supervised consumption sites also contributed to a greater risk of overdose as well as a decreased probability of having an overdose medically reversed. As such, COVID-19 has had a detrimental impact on overdose prevention efforts and has left PWUD particularly at risk to experience an overdose.

5.1.4 Access to Critical Services

The implementation of public health guidelines to close non-essential services significantly impacted critical health and substance-use related services that PWUD commonly relied on. Most notably discussed were the closures or reductions in capacity of harm reduction services, which encompassed supervised consumption sites, needle exchange services and outreach programs. More than half of participants discussed the negative effects that COVID-19 has had on these services, even when they had remained open or were operating in an alternative manner. Overall, the findings suggest that a lack of access to these services has been detrimental for PWUD, as they either could not access the service at all, had limited access (such as long wait times or restricted hours) which at times acted as a deterrent to using the service, or had reduced resources and supports available. This often-led participants to use substances without the support of vital harm reduction services and medical care, which resulted in increased feelings of isolation and discouragement, inadequate access to sterile and safe equipment, and a lack of access to trained professionals and oversight. Combined, these impacts contributed to the potential for PWUD to experience greater harms including increases in substance use and relapse episodes, as well as an increased overdose risk.

Additionally, other critical services such as OAT, addiction counselling, self-help groups and treatment options were commonly reported as closed or operating in a reduced capacity. This further impacted access to such services as online models of delivery were not always ideal for participants, and inconsistencies in accessibility and difficulties reaching preferred services was detrimental for many. Importantly however, due to COVID-19, some participants described being able to receive take-home doses of OAT ('carries'), which was seen as a positive outcome for many as it allowed participants to stabilize their routines (including no longer needing to travel to pick up their OAT daily), socially isolate, and consequently decrease their substance use and risk for contracting the virus.

5.1.5 Economic, Social and Health Impacts

In terms of the economic impacts related to COVID-19, participants detailed experiencing significant negative financial effects such as an increase in job insecurity – including losing their jobs entirely – which in some cases led them to partake in illegal and risky activities in order to supplement their income. While many applied for CERB, some were already enrolled in government assistance programs, which rendered them unqualified for this benefit. Many of

these participants experienced financial hardship due to what they perceived as an inequality in the amount of money they received. Overall, participants explained that they were struggling to make ends meet and support their substance use, particularly due to the inability to engage in the activities they normally conducted to supplement their income, such as pan handling. This was compounded by the need to spend what little money they had on an increasingly costly substance supply.

While many indicated that their personal social networks had not been greatly affected by COVID-19, it was conveyed that substance use is inherently a social activity, where people often use substances in conjunction with others, and the ways in which they seek, obtain, and use substances is heavily dependent on social interactions. As such, the self-isolation and social distance measures instituted due to COVID-19 disrupted many participants' ability to maintain their current social lives, and therefore, affected their substance use and supply patterns. Additionally, participants expressed frustration related to the inability to see their friends and families, which often contributed to increased mental health issues.

Regarding the health impacts that PWUD reported experiencing during COVID-19, increased physical pain and related health issues were described, which often resulted in participants increasing their substance use as a coping mechanism. Food insecurity and hunger were commonly noted by a number of participants, prompted by a lack of access to food banks and services which further impacted their physical health. Importantly, our findings indicate a substantial increase in mental health concerns such as anxiety, depression, loneliness, stress, anger and fear. These were largely a result of experiencing additional socioeconomic vulnerabilities such as loss of income and social contacts and supports (including the loss of daily interactions with family and friends). Additionally, concerns about COVID-19 and new and significant barriers to substance and service access further compounded these issues. Our findings also suggest an exacerbation of symptoms of pre-existing mental health conditions, particularly as PWUD had largely lost the ability to access supports for these underlying problems.

5.2 Strengths and Limitations

The strength of the current study includes a large nationally representative sample of PWUD, inclusive of diverse participants who comprise a variety of demographics, backgrounds, experiences, and living situations, enabling us to assess a wide range of impacts related to COVID-19. However, limitations must be noted. It is important to note that given the cross-sectional nature of the study in conjunction with the rapidly developing pandemic, participant responses may be reflective of the situation at the time of the interview, and as such, the findings highlighted should be interpreted with caution.

While semi-structured interviews provide opportunities to comprehensively explore participant responses, not all participants were asked the same subsequent probes due to the naturally occurring phenomena of the one-on-one interview process. This resulted in a wide range of responses and experiences, which are entirely subjective and were based on participant's interpretation and understanding of the interview questions. Not all participants specified which substances they were currently using, and for those that did, many used street names to identify

them, which were not always clear or known to the research team. Additionally, due to variations in questions asked and responses received, drug use history and behaviors were not always distinct, which may have contributed to underreporting or misrepresentation, including in the use of specific substances (e.g., a participant may have been discussing use of multiple substances at a time, and it was not clear to which substances they were referring). Also, some participants did not indicate use of licit substances, such as cannabis or alcohol, as they may not have perceived these as 'drugs' per se.

Inherent to self-reported data, recall bias and social desirability bias may have affected the responses presented in this report. Reponses may further reflect more recent or consequential events rather than describe general substance use experiences and health behaviors over the course of the pandemic. Despite assuring confidentiality at the time of data collection, individuals may have underestimated their drug use patterns or substance supply experiences. Furthermore, when faced with questions regarding risky behaviors or other sensitive topics, participants may have chosen to avoid or underreport details due to fear of stigmatization or judgement.

Since interviews were not conducted in-person, participants were exposed to a variety of external factors that may have prevented them from responding accurately, such as distractions present in the home or surrounding environments as well as responding to questions while engaging in substance use. Related, sample characteristics of participants varied and may have been influenced by recruitment strategies and processes, where for some cities and provinces, participants were predominately composed of those visiting harm reduction and related services, while in other areas, participants had stable housing and learned about the study via social media or peer groups.

In addition, due to purposive sampling of participants, the concerns and experiences expressed by those interviewed for this study may differ from the general PWUD community. These participants were recruited in collaboration with the CRISM network contacts and the CRISM peer advisory group, thus may represent only a subset of the population and may not be generalizable. Nevertheless, they provide a rich understanding of the experiences of PWUD in relation to the COVID-19 pandemic.

Moreover, when coding the results, some participants provided contradictory responses, where they may have indicated experiencing both a negative and a positive impact related to a certain factor. The research team made every effort to delineate between them and account for both, however it may have contributed to a higher number of responses in some categories.

It is important to note that although efforts were made to retain the intended meaning and context of concepts highlighted by the Quebec-based Francophone participants, some experiences may have been lost during the transcription translation process and analysis.

5.3 Public Health Recommendations and Responses

These findings, in conjunction with specific services suggested by participants, warrant the need for accessible mental health and substance use supports for PWUD during the pandemic. Given

the increased mental health concerns among PWUD and the social impacts faced during the current pandemic, it is important for programs and services to consider mental health as an important outcome in implementing pandemic response measures and recommended changes, as well as to ensure that critical harm reduction and mental health supports remain accessible. It is a crucial period for increased awareness and information about available mental health supports and substance use services as PWUD are experiencing adverse impacts, which ultimately may result in increased substance use, or limited abilities to minimize substance use-related risks. Additionally, it is important for services to recognize the different experiences and challenges each individual may face, and as such, services must be tailored to their specific needs, where possible. A one-size-fits all approach for service provision will not always be an adequate response, as PWUD require different responses depending on their unique situation. For instance, while receiving OAT 'carries' and not having to conduct urinalysis tests was perceived as beneficial for some, others indicated they rely on daily OAT pick-up and weekly urinalysis tests for accountability, and as such, should be able to physically attend OAT appointments when warranted and desired. Additionally, the increased harms associated with substance use including riskier use due to a lack of access to sterile supplies, and the unprecedented rise in overdoses are clear indicators that specific harm-reduction services, such as supervised consumption services and/or outreach services, need to continue to operate, and a reduced capacity of service operationalization is not adequate.

Service providers should collaborate with PWUD to develop alternative solutions to continue providing services while also practicing public health pandemic measures. For instance, during the interviews some participants identified access to the internet as an important resource for social interactions as well as access to services and information. Access to technology (e.g., internet, phone, computer) may be an important solution to address the barriers to accessing services and social isolation experienced by PWUD during the pandemic. Services need to also consider additional barriers to service utilization by PWUD, such as the effects of additional screening measures (including increases in wait times), the impact of reduced hours of operation and how reduced capacity/resources can impede access. Based on concerns raised by PWUD there is a vital need for both increased capacity and resources for these services as a reduction in operations could have a significant negative impact on PWUD especially during these unprecedented and difficult times.

Changes to the drug supply – in terms of quality, price and availability – had detrimental health impacts on participants. Participants would often either purchase additional substances to 'make up' for the poor quality, substitute or supplement their substances if they had issues accessing their preferred substance, or spend a significant amount of their money, time and resources to ensure they did not go through withdrawal. These results suggest that access to a safe and consistent drug supply is needed to help mitigate the risks of supply changes. Support for safe supply was endorsed by the majority of participants. Many expressed a need for a reliable, consistent, unadulterated supply of their substance and explained that this would inevitably result in reduced harms and risks related to use, as well as alleviate concerns related to decreased accessibility and quality, and increased cost and overdose risk. Participants called on the Federal Government to enhance accessibility of safe supply programs, documenting how the negative impacts of COVID-19 should prompt them to take action and implement these programs across the country. Additionally, access to drug testing is of significant importance when dealing with a

potentially contaminated drug supply. As such, to reduce overdoses and poisonings, it seems imperative that harm reduction services offer drug-testing kits in an accessible manner, providing PWUD with the opportunity to test their substances in light of the toxic illicit substance supply and in the absence of safe supply programs.

Overall, PWUD have experienced significant and impactful changes to their lives in light of COVID-19. For many, this included an increase in mental health issues coupled by heightened use of toxic substances, and subsequent risk for experiencing related harms such as fatal overdoses. As such, the ways in which COVID-19 may be disproportionately affecting PWUD must be taken into consideration, and supports and services to address these issues should be made available to this important and vulnerable population.

6 REFERENCES

1. World Health Organization. WHO Director-General's opening remarks at the media briefing on COVID-19 - March 11, 2020. https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020. Published 2020. Accessed May 28, 2020.
2. Government of Canada. Coronavirus disease (COVID-19): Outbreak update - Current Situation. https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html?topic=tilelink#a1. Published 2020. Updated June 3, 2020. Accessed May 28, 2020.
3. Bahorik AL, Satre DD, Kline-Simon AH, Weisner CM, Campbell CI. Alcohol, cannabis, and opioid use disorders, and disease burden in an integrated health care system. *J Addict Med*. 2017;11:3–9.
4. Zhou F, Yu T, Du R, al e. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet*. 2020;395(10229):1054-1062.
5. Armitage R. Substance misuse during COVID-19: protecting people who use drugs. *Public Health*. 2020.
6. Ornell F, Ferreira Moura H, Nichterwitz Scherer J, Pechansky F, Kessler FHP, von Diemen L. The COVID-19 pandemic and its impact on substance use: Implications for prevention and treatment. *Psychiatry Research*. 2020;289(113096).
7. European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). *EMCDDA update on the implications of COVID-19 for people who use drugs (PWUD) and drug service providers*. Lisbon, Portugal: EMCDDA;2020.
8. Tsai J, Wilson M. COVID-19: a potential public health problem for homeless populations. *The Lancet Public Health*. 2020;5:186-187.
9. Canadian Centre on Substance Use and Addiction. *Changes related to COVID-19 in the illegal drug supply and access to services, and resulting health harms*. . Ottawa2020.
10. Government of Canada. Community-based measures to mitigate the spread of coronavirus disease (COVID-19) in Canada. https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/public-health-measures-mitigate-covid-19.html#_Preamble. Published 2020. Updated May 30, 2020. Accessed June 1, 2020.
11. European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). *Impact of COVID-19 on drug services and help-seeking in Europe*. Lisbon, Portugal: EMCDDA;2020.
12. Update on COVID-19 - Dr. Eileen de Villa, Medical Officer of Health, April 16 2020 [press release]. Toronto2020.
13. Bains C. 'There are very, very, very vulnerable people out there': Reduced addiction services during pandemic causing concern. *CTV News*April 9, 2020.
14. Toronto Public Health. *Toronto Overdose Action Plan: Status Report 2020*. Toronto: Toronto Public Health;2020.
15. Harris M, Johnson S, Mackin S, Saitz R, Walley AY, Taylor JL. Low barrier tele-buprenorphine in the time of COVID-19: A case report. *J Addict Med*. 2020.
16. Dunlop A, Lokuge B, Masters D, et al. Challenges in maintaining treatment services for people who use drugs during the COVID-19 pandemic. *Harm Reduction Journal*. 2020;17(26).
17. Green TC, Bratberg J, Finnell DS. Opioid use disorder and the COVID 19 pandemic: A call to sustain regulatory easements and further expand access to treatment. *Substance Abuse*. 2020;41(2):147-149.
18. Samuels EA, Clark SA, Wunsch C, et al. Innovation during COVID-19: Improving addiction treatment access. *Journal of Addiction Medicine*. 2020.
19. Bach P, Rabinson S, Sutherland C, Brar R. Innovative strategies to support physical distancing among individuals with active addiction. *Lancet Psychiatry*. 2020.

20. Jozaghi E, Maynard R, Hemm D, Marsh S. COVID-19 and people who use drugs: a call for action. *The Canadian Public Health Association*. 2020.
21. Chou KL, Liang KK, Sareen J. The association between social isolation and DSM-IV mood, anxiety, and substance use disorders: Wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions. . *Journal of Clinical Psychiatry*. 2011;72:1468-1476.
22. Ornell F, Schuch JB, Sordi AO, Kessler FHP. "Pandemic fear" and COVID-19: mental health burden and strategies *Braz J Psychiatry*. 2020;42(3):232-235.
23. Statistics Canada. *Canadians report lower self-perceived mental health during the COVID-19 pandemic*. OttawaApril 24, 2020.
24. Dozois DJ. Anxiety and depression in Canada during the COVID-19 pandemic: A national survey. *Canadian Psychology/Psychologie canadienne*. 2020.
25. Statistics Canada. *Canadians who report lower self-perceived mental health during the COVID-19 pandemic more likely to report increased use of cannabis, alcohol and tobacco*. OttawaMay 7, 2020.
26. Serafini K, Toohey MJ, Kiluk BD, Carroll KM. Anger and its association with substance use treatment outcomes in a sample of adolescents. *J Child Adolesc Subst Abuse* 2016;25(5):391–398.
27. Sinha R, Fox HC, Hong KA, Bergquist K, Bhagwagar Z, Siedlarz KM. Enhanced negative emotion and alcohol craving, and altered physiological responses following stress and cue exposure in alcohol dependent individuals. *Neuropsychopharmacology*. 2009;34(5):1198-1208.
28. NANOS Research. *COVID-19 and increased alcohol consumption: NANOS poll summary report*. Ottawa: Canadian Centre on Substance Use and Addiction;2020.
29. European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). *Impact of COVID-19 on patterns of drug use and drug-related harms in Europe*. Lisbon, Portugal: EMCDDA;2020.
30. Sun Y, Li Y, Bao Y, et al. Brief Report: Increased addictive internet and substance use behaviour during the COVID-19 pandemic in China. *The American Journal on Addictions*. 2020;29:268-270.
31. Dumas TM, Ellis W, Litt DM. What Does Adolescent Substance Use Look Like During the COVID-19 Pandemic? Examining Changes in Frequency, Social Contexts, and Pandemic-Related Predictors. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*. 2020;67(3):354-361.
32. European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Europol. *EU Drug Markets: Impact of COVID-19*. Luxembourg: Publications Office of the European Union;2020.
33. *World Drug Report 2020*. United Nations Publication. E.20.XI.6.
34. Draaisma M. Spike in overdose deaths prompts medical officer to call for federal, provincial help. *CBC News*June 2, 2020.
35. Government of British Columbia, Ministry of Public Safety & Solicitor General. *Illicit Drug Toxicity Deaths in BC: January 1, 2010 - May 31, 2020*. Victoria, BC2020.
36. Statement from the Chief Public Health Officer of Canada on COVID-19 [press release]. Ottawa, May 29, 2020 2020.
37. High number of overdose deaths in April 2020 [press release]. Toronto, ON, May 5, 2020 2020.
38. Health TPSaTP. Toronto Overdose Information System. Toronto Paramedic Services and Toronto Public Health. https://public.tableau.com/profile/tphseu#!/vizhome/TOISDashboard_Final/ParamedicResponse. Published 2020. Accessed 10 September 2020.
39. Bruneau J, Rehm J, Wild TC, et al. *Telemedicine Support for Addiction Services: National Rapid Guidance Document*. Montreal, Quebec: Canadian Research Initiative in Substance Misuse; May 15th, 2020 2020.
40. Node CQA. HEPCO Cohort. Centre de Recherche du CHUM. https://www.crismquebecatlantic.ca/en/cohorte-hepco/#:~:text=The%20Cohort%20of%20People%20Who,in%20people%20who%20use%20sub

stances. Published 2020. Accessed.
41. *NVivo qualitative data analysis software: Version 12* [computer program]. 2018.
42. Landis JR, Koch GG. The measurement of observer agreement for categorical data. *Biometrics*. 1977;33(1):159-174.

7 Appendix A: Interview Guide

Demographic Questions:

1. To which gender identify do you most identify with?
2. To which sex do you identify with?
3. To which ethnicity do you most identify with?

COVID-19 PWUD Semi-Structured Interview Protocol

1. Do you have concerns about COVID-19?
    - Probe: If yes: What are your concerns?
    - If no: Why? (ask them to elaborate on why they don't have concerns of COVID-19)
2. Has COVID-19 changed your substance use?
    - Probe: If yes: in which ways? (Increased? Decreased? Types of substance? Route of administration? Location of use?). Has this effect been negative? If so, what, if anything, have you done to cope/deal with this?
    - If no: what does your substance use look like? (Types of substance? Route of administration? Location of use?). Ask them to elaborate on why and how it has stayed the same.
    - Probe: Are you now more or less likely to use alone? Have you been using with other people in other ways, for example with other people over the phone? Do you feel like you are more or less at risk for overdose right now?
3. Has your substance supply changed due to COVID-19?
    - Probe: If yes: In which ways? (In terms of Supplier? Substance? Demand? Cost?) Ask them to elaborate on where and how they now receive their current supply compared to before COVID-19. What, if anything, have you done to cope/deal with this? Are you aware of what safe supply is?
    - If no change: why? (ask them to elaborate on why and how it has stayed the same)
4. Have you been able to access any of the **substance use** related services you would normally access since COVID-19? (e.g., OAT, supervised consumption sites, needle exchange,

addiction clinics, drop-in groups, etc.)

- Probe: If yes: Which services are you referring to? Have any of these services changed at all since COVD-19? If so, how have they changed? Ask them to elaborate on if and which ways the services they use have changed (e.g., hours, locations, personnel, etc.)
- Have you had to do things you wouldn't normally do, like re-use needles or syringes?
- Have the increased barriers impacted your treatment (i.e. not being able to access services as often as desired, difficulties traveling to services, etc.)

- If no: Can you please describe why you haven't been able to access services and how this has affected you? Ask them to elaborate on any problems they may have faced accessing services. What, if anything, have you done to cope/deal with this?

5. Have you been able to access **any other services** you would normally access since COVID-19? (e.g., government services, employment services, doctor's appointments, pharmacies, ID services etc.)

- Probe: If yes: Which services are you referring to? Have any of these services changed at all since COVD-19? Ask them to elaborate on if and which ways the services they use have changed (e.g., hours, locations, personnel, etc.)
- Have you sought care for COVID symptoms? If so, how did you seek care? Were you tested? Were you provided supports for self-isolation? Etc.

- If no: Can you please describe why you haven't been able to access services and how this has affected you? Ask them to elaborate on any problems they may have faced accessing services. What, if anything, have you done to cope/deal with this?

6. Were you able to self-isolate during COVID?
    - Probe: If yes: Under what circumstances did you choose to self-isolate? What did you do to self-isolate? How has this impacted you? Has your use become riskier? (e.g., Using alone? Overdoses? Criminalization? Wash your hands as needed?)

    - If no: how come? Ask them to elaborate on why they haven't self-isolated. (E.g., unable to? Don't understand/agree with the importance? Employment not permitting?) Have you experienced any issues with the law?)

7. Has COVID-19 impacted your ability to make money? Has it impacted your social groups in any way?
    - Probe: If yes: In which ways has it impacted you? (e.g., food security? loss of job/income? increased risky behaviors to gain income? Unable to utilize/rely on social networks?) What, if anything, have you done to cope/deal with this? Do you

have protective gear?

- If no: How come? Ask them to elaborate on how their social and financial well-being has remained the same.

8. Given how you self-identify, do you feel like you are impacted in specific ways, in comparison to others?

    - Probe: If yes: How so? How do you identify? (e.g. if they say as a PWUD, ask them if there are other ways that they also identify)
    - Probe: If no: How come? How do you identify?

9. Has COVID-19 impacted your physical, emotional, spiritual or mental health?
    - Probe: If yes: In which ways has it impacted you? Has there been anything specific that has impacted an existing mental health issue? (e.g., Is your drug use putting you at risk? Other physical issues? Increased stress? Feelings of safety?). What, if anything, have you done to cope/deal with this?
    - Has this impact on physical or mental health affected your ability to access medication for OAT and/or psychiatric medications? If so, in which ways?
    - Are you able to have access to cultural supports? (e.g. elders, knowledge translators, sacred medicines, smudge?)
    - If no: How come? Ask them to elaborate on how their physical and/or mental health has remained the same

10. In light of everything you mentioned, can you suggest some things that would be helpful for you during the current COVID-19 pandemic? (e.g., Related to substance use? Supply? Service utilization and access? Regarding self-isolation? Socially/economically? Physically/mentally?)

    - Do you think a prescribed, safe supply of your substance would be helpful now?

11. Is there anything else that you want to discuss related to COVID-19 and how it has impacted your substance use, ability to access services, or overall well-being?

    - Probe: Is there anything that we are not asking, that you would have liked us to ask?