Managed Alcohol Programs in the Context of the COVID-19 Pandemic: A Pilot Study

by

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B.Sc. (Honours), Mount Allison University, 2018

B.Sc., McGill University, 2014

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I acknowledge and respect the lək^{w}əŋən peoples on whose traditional territory the university stands and the Songhees, Esquimalt, and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day.

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Abstract

Introduction: Managed Alcohol Programs (MAPs) are a harm reduction strategy designed for individuals with severe alcohol use disorders (AUD) experiencing unstable housing. During the COVID-19 pandemic, there was a rapid development of MAPs to assist with physical distancing and isolation and to reduce the harms associated with severe AUD, high-risk drinking, and unstable housing. The unprecedented context of the COVID-19 pandemic and the rapid development of MAPs resulted in the implementation of new MAP models. MAPs may be critical for stabilizing alcohol consumption patterns, reducing alcohol-related harms, and reducing the risk of COVID-19 infection and COVID-19-related harms in this population of individuals with severe AUD experiencing housing instability. This mixed methods pilot study provides a mixed description of nine MAP participants in MAPs that emerged in the context of the COVID-19 pandemic in British Columbia. There are no other studies to date that have included programs using a clinician scattered-site outreach or fixed-site MAP model. This is also the first study of health-authority based MAPs. **Objectives:** 1) To describe the specific characteristics of the MAPs operating in the context of the COVID-19 pandemic; 2) To explore whether entry into a MAP was associated with improvements in the health, safety, and well-being of individual participants; 3) To explore whether entry into a MAP was associated with reductions in their usage of emergency, hospital, police, and correctional services; 4) To explore whether entry into a MAP was associated with their having less hazardous patterns of alcohol use; 5) To explore whether entry into a MAP was associated with improvements in participants' ability to follow COVID-19-related physical distancing and hygiene guidelines; 6) To illustrate participant's goals related to MAP participation. **Methods:** This pilot research uses a longitudinal mixed methods quantitative and qualitative design. Data were collected between November 2020 and March 2021. An assessment of mental and physical health, safety, well-being, health services and police service usages, and patterns of alcohol and other substance use, quality of

life, wellbeing, physical distancing and risk behaviours, and alcohol-related harms was conducted using a series of standardized scales, non-standardized questions, and open-ended questions. Trained interviewers administered the surveys to nine participants at baseline, and every 2 weeks for up to 3 months following the initial interview. A one-time semi-structured qualitative interview was also conducted with four of the MAP participants. Four MAP managers, staff, and clinicians participated in semi-structured qualitative interview interviews about their program history, development, and key program dimensions. **Results**: This pilot study provides a mixed description of nine MAP participants in British Columbia in the context of the COVID-19 pandemic. MAP participants described improved capacity to follow COVID-19 guidelines, enhanced housing stability, improved health, safety, and wellbeing, and experienced fewer alcohol-related harms. Seven participants also reduced their drinking. However, six participants reported a high frequency of other substance use while on the MAP. In qualitative interviews, each MAP participant described positive outcomes after joining the program. Individual case findings illustrate differences in outcomes for each participant. **Limitations:** Study limitations include the small sample size, the lack of a comparison or control group, and the use of some retrospective data. **Implications:** The results are consistent with other research finding that MAPs can serve as an important part of the treatment continuum for unstably housed people with AUDs, particularly in the current context of the COVID-19 pandemic. The findings also indicate that there may be value in extending this alcohol harm reduction approach beyond the duration of the pandemic and that it be further integrated into the substance use treatment continuum. Recommendations for future research with MAPs are discussed.

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Introduction

Alcohol Use and Alcohol-Related Harms

Alcohol is the recreational drug most often consumed by Canadians. Of Canadians who drink, 27.3% consume above Canada's Low-Risk Alcohol Drinking Guidelines, 6.8% experience alcohol use disorders (AUD), and the incidence of alcohol-related deaths and hospitalizations has been increasing in recent years (Bains, 2019; World Health Organization (WHO), 2018; Zhao et al., 2015). The symptoms of AUD can include alcohol cravings, tolerance, and withdrawal, and an inability to limit the amount of alcohol consumed (American Psychiatric Association, 2013). There are additional physical health risks associated with alcohol consumption, including injury, cancer, and liver disease (Rehm et al., 2009); these health risks are greater in people with severe AUD experiencing unstable housing (Muckle et al., 2012; Witkiewitz & Alan Marlatt, 2006). In North America, the occurrence of severe AUD is higher in people experiencing unstable housing than in the general population (Fazel et al., 2008). Unstably housed individuals with severe AUD face barriers to accessing shelter due to their alcohol consumption (Williams, 2011). The consumption of non-beverage alcohol (NBA: e.g., mouthwash, rubbing alcohol) further contributes to the potential of harms in people with severe AUD experiencing unstable housing (Podymow et al., 2006).

Managed Alcohol Programs

The first Managed Alcohol Program (MAP) was opened in Toronto in 1997 after an inquiry into the deaths of three unhoused individuals. It was discovered that drinking had prevented them from accessing adequate shelter, as Toronto did not have shelters or supportive housing that allowed for continued alcohol use (Svoboda, 2009). Thus, the first Canadian MAP, Seaton House, was opened to address the needs of vulnerable individual experiencing housing instability and to address the service barriers associated with alcohol use (Pauly et al., 2016).

MAPs are a harm reduction strategy designed for individuals with severe AUD, unstable housing, and previous unsuccessful treatment attempts. MAPs aim to reduce the barriers to accessing shelter, and provide access to individualized doses of beverage alcohol, as well as increased access to healthcare, food, and other social supports (Pauly et al., 2018). Importantly, alcohol harm reduction does not necessitate a reduction in alcohol consumption; rather, MAPs mitigate the risks associated with hazardous drinking by addressing the key elements of hazardous drinking, namely: the product being consumed, the pattern of consumption, and the context of consumption (Stockwell & Pauly, 2018).

Research including 13 community-based MAPs from across Canada outlines the six key dimensions of MAPs: program goals and eligibility criteria, funding and money management, alcohol administration, food and accommodation, primary care services, and social and cultural connections (Pauly et al., 2018). Each program has individually established eligibility criteria for program entry, though common criteria include a history of illicit drinking, chronic homelessness, repeated unsuccessful attempts at abstinence-based treatments, and frequent use of police and emergency services. All programs include only adults of legal drinking age. Typically, MAPs are funded through multiple provincial or regional sources, including housing funds and special grants. Some of the programs included in this research provided help with money management. Each program has policies for alcohol dispensing and an established administration protocol, though programs can be tailored (in terms of concentration, amount, and frequency of alcohol delivery) to meet individual needs (Pauly et al., 2018). MAPs also provide clients with one to three meals per day. MAPs can provide housing in the form of shelter, transitional housing, or permanent supportive housing, though there are also day-programs that do not offer any accommodation on-site, as well as hospital-based MAPs. The health authority-based MAPs that were developed during the COVID-19 pandemic are shelter or housing-based MAPs with clinician outreach. These programs are offered as a scattered site outreach model where alcohol is delivered up to three times daily by clinical staff or as a fixed site outreach model where health authority staff are on-site for more frequent alcohol administration. MAPs also connect individuals to primary care services through on-site or embedded services; many programs also include clinical health monitoring through regular assessments. Finally, some MAPs encourage participation in activities to re-establish social and cultural connections. Overall, MAPs share the common goal of preventing and reducing harms related to drinking while also increasing access to housing, healthcare, and social services (Pauly et al., 2018). There are an estimated 39 Managed Alcohol Programs in Canada (Canadian Institute for Substance Use Research (CISUR), 2020).

Initial evaluations of a MAP in Ottawa found that the 17 participants reported decreased police contacts and emergency department visits, and increased health and wellbeing (Podymow et al., 2006). A pilot study conducted in Thunder Bay, Ontario, found that MAP participants had significantly fewer police contacts, detox admissions, emergency room presentations, and also used NBA significantly less frequently compared with before MAP entry and with controls who did not enrol in a MAP (Vallance et al., 2016). The MAP participants in this pilot study described the program as a community, with new and increased opportunities to reconnect with their families,

reported feeling safer in the program, had improved quality of life, and demonstrated housing stability (Pauly et al., 2016).

A more extensive comparison between 175 MAP participants and 189 controls from five Canadian MAP sites (Hamilton, Ottawa, Toronto, Thunder Bay, and Vancouver) assessed changes in patterns of alcohol consumption, harms, and health following program initiation (Stockwell et al., 2018). Participants who had been in the program longer than 2 months reported significantly more drinking days over the last 30 days, though drank fewer standard drinks per drinking day compared to controls (Stockwell et al., 2018). Moreover, the MAP participants reported significantly fewer alcohol-related harms in various domains, including safety, social, legal, and withdrawal (Stockwell et al., 2018). MAP participation was also associated with fewer negative coping strategies when alcohol was unaffordable (Erickson et al., 2018). Common, more positive, coping strategies included re-budgeting, waiting for money, or going without alcohol, though negative coping strategies such as the use of illicit drugs or NBA persisted (Erickson et al., 2018). Further, long-term MAP participation (greater than 2 months) was associated with a greater likelihood of seeking treatment compared to controls. Qualitative interviews conducted with a subsample of participants from the five Canadian MAP sites indicated that participation in the program interrupted harmful patterns of drinking, criminalization, and stigma by providing accommodation and a consistent supply of alcohol (Pauly et al., 2019; Pauly et al., 2016). Further, MAP participation enhanced feelings of safety and community; participants were more likely to retain their housing than controls, and experienced increased safety and improved quality of life compared to their life prior to initiating the program (e.g., on the streets or in shelters) (Pauly et al., 2019; Pauly et al., 2016).

An additional qualitative study of 14 MAP participants in a day program of a peer-run Managed Alcohol Program in Vancouver, British Columbia, reported that that the alcohol management and supports provided by the program facilitated positive changes, including reduced NBA consumption, increased wellbeing, and changes in harmful drinking patterns (Pauly et al., 2020). A more recent comparison of 59 MAP participants and 116 local controls from six Canadian MAP sites (Toronto, Ottawa, Hamilton, Thunder Bay, Sudbury, and Vancouver) assessed changes in alcohol consumption and related harms over 12 months (Stockwell et al., 2021). Though MAP participants and controls showed similar reductions in alcohol use (both in number of drinks per day and in number of drinking days per month), MAP participants reported significantly fewer harms at 0-2 and at 6 months (Stockwell et al., 2021). Moreover, participants who left the MAP showed deterioration in liver functioning (Stockwell et al., 2021).

There are, however, some barriers to the implementation and effectiveness of MAPs. A survey of 97 nurses in Vancouver found that the nurses generally support alcohol harm reduction in the form of hospital-based MAPs, though there were concerns associated with continuous, daily alcohol administration and related harms (Parappilly et al., 2020). Research also identifies the need for suitable eligibility criteria and individualized programs that tailor alcohol administration in terms of concentration, amount, and frequency of delivery (Chow et al., 2018). Moreover, continued drinking outside of the MAP may contribute to ongoing patterns of risky alcohol consumption and associated harms. Research comparing the total alcohol consumption (including both MAP-provided and additional outside drinks) self-reported by 65 participants to their MAP records found a significant under-reporting of outside drinking (Chow et al., 2018). Moreover, the number of outside drinks consumed was estimated to be between 2.71 and 9.94 mean drinks per day per MAP site (Chow et al., 2018). Recent research shows that MAP policies regarding outside drinking may be a significant predictor of drinking outcomes (Stockwell et al., 2021). Participants in MAPs with clear and effective policies regarding outside drinking reported reduced mean drinks per day, reduced NBA consumption, and less alcohol-related harms compared to controls (Stockwell et al., 2021). In contrast, participants in MAPs with less effective policies reported higher alcohol and NBA consumption compared to controls (Stockwell et al., 2021).

Critics of MAPs as an alcohol harm reduction approach describe their apprehension about the program, namely about "giving alcohol to alcoholics" (Coutts, 2014). Others criticize the program by suggesting that the provision of alcohol is used to sedate unhoused individuals with severe AUD enough to separate them from the rest of the population (Bird, 2016). Common concerns related to MAPs include the belief that the provision of alcohol will ultimately increase alcohol consumption and alcohol-related harms, while impairing individuals' capacity to follow COVID-19 safety procedures. However, others discuss how MAPs may provide the necessary stability to reduce alcohol-related harms in the context of the COVID-19 pandemic (Parkes et al., 2020). Overall, the existing research indicates that MAPs can be effective for stabilizing alcohol consumption patterns, at reducing the consumption of non-beverage alcohol, at reducing other alcohol-related harms (e.g., housing instability, withdrawal seizures), and at increasing quality of life. However, no research has examined the novel MAP models that have emerged during the COVID-19 pandemic and the impact of these MAPs on COVID-19 infection and COVID-19-related harms. This research adds to the body of evidence by including individuals who are participating in outreach MAP models in the context of the COVID-19 pandemic.

The COVID-19 Pandemic

On March 11th, 2020, the World Health Organization (WHO) declared that the SARS-CoV-2 epidemic should be characterized as a pandemic (World Health Organization (WHO), 2020). The symptoms of the novel, highly contagious and infectious coronavirus illness (COVID-19) most commonly include fever, fatigue, dry cough, muscle pain, and shortness of breath (World Health Organization (WHO), 2021). Thus, the WHO recommends safety precautions against the spread of COVID-19, including physical distancing, wearing a mask or facial covering, avoiding crowds and close contact, and regular hand cleaning (World Health Organization (WHO), 2021).

Individuals with severe alcohol dependence and unstable housing are at greater risk of experiencing negative health outcomes during the COVID-19 pandemic, as they have a greater risk of severe withdrawal symptoms (e.g., seizures) and alcohol-related harms due to the limits imposed on alcohol purchasing. For example, access to alcohol may be limited due to public safety measures (e.g., curfews and crowd limitations) and socioeconomic factors that may affect purchasing ability (e.g., loss of income from pan handling, closure of bottle depots). These individuals may also experience severe COVID-19 symptoms due to existing, severe health comorbidities (e.g., cancer and liver disease) (Centers for Disease Control and Prevention, 2020; Muckle et al., 2012; Witkiewitz & Alan Marlatt, 2006).

Public access to alcohol has remained relatively consistent in Canada throughout the pandemic, as liquor stores were deemed an essential service at the provincial level (Hobin & Smith, 2020). In fact, many Canadian jurisdictions (British Columbia included) are witnessing substantial increases in alcohol sales (Hobin & Smith, 2020). Preliminary data from a national survey indicates an increase in alcohol consumption in 19% of Canadians aged 15–54 during the first phase of the COVID-19 pandemic (Rotermann, 2020). Research reliably demonstrates a positive association between exposure to mass traumatic events (e.g., a natural disaster) and population-level alcohol consumption (Cerdá et al., 2011; Keyes et al., 2011). In fact, individuals with pre-existing AUDs have been shown to be more likely to report increased drinking following traumatic events (Keyes et al., 2011; North et al., 2011). Thus, it is likely that the Canadian population of interest – individuals with severe AUD in unstable housing – are exhibiting harmful patterns of alcohol use in the current context of the global pandemic.

On March 26th, 2020, the British Columbia Center on Substance Use (BCCSU) released an interim clinical guidance for health care providers to support people who use drugs and alcohol, and to help reduce the risk of overdose, withdrawal, and COVID-19 infection among people who use

drugs and alcohol in the context of COVID-19. Managed Alcohol Programs are listed in the guidance document as an option for individuals at high risk for severe alcohol withdrawal (Ahamad, 2020; Canadian Institute for Substance Use Research, 2020). In addition, the BCCSU and the Canadian Institute for Substance Use Research (CISUR) developed an operational guidance document for the implementation of MAPs for vulnerable populations (Canadian Institute for Substance Use Research, 2020). In response, there has been a development of MAPs in British Columbia to reduce harms associated with severe AUD, high-risk drinking, and unstable housing in the current context of the COVID-19 pandemic. The newly developed MAPs use both scattered-site and fixed-site outreach models. The scattered-site outreach model involves daily alcohol delivery to scattered sites, while the fixed-site model involves on-site alcohol provision.

Study Purpose

Managed Alcohol Programs may be critical for stabilizing alcohol consumption patterns, for reducing alcohol-related harms, and for reducing the risk of COVID-19 infection and COVID-19-related harms among vulnerable people with AUDs. This pilot study provides a mixed description of data from nine MAP participants in British Columbia in the context of the COVID-19 pandemic. The mixed methods design allows for an understanding of both the impacts and the implementation of the newly emerged MAPs in the context of the COVID-19 pandemic. Past research including MAP participants has used this methodology (e.g., Pauly et al., 2018, Stockwell et al., 2013), though no research has examined the novel MAP models that have emerged during the COVID-19 pandemic. The current research investigates whether MAPs can assist in reducing the risk of COVID-19 infection in participants by supporting physical distancing measures, while improving their individual safety, stability, mental and physical health, and reducing alcohol-related harms. Specific research objectives are listed below.

This small pilot study is part of the larger Canadian Managed Alcohol Program Study (CMAPS). The CMAPS evaluation began in 2013 and provides qualitative and qualitative findings about programs across Canada. The four main components of CMAPS are: 1) the Community of Practice (CoP) for individuals who are currently working in a MAP, who are interested in learning more about MAPS, and for individuals who are interested in starting a MAP; 2) Qualitative interviews with MAP participants and with MAP managers, staff, and clinicians; 3) Quantitative surveys with MAP participants and controls; 4) Secondary data such as service use, health data, shelter data, and MAP records from MAP participants and controls. The CMAPS has contributed a significant amount of research to the body of evidence evaluating MAPs.

Research Questions

The purpose of this research is to provide a mixed description of nine MAP participants in the Managed Alcohol Programs that have emerged in the context of the COVID-19 pandemic in British Columbia. The intent of this research is to explore whether MAPs might contribute to reductions in individual harms in the context of the COVID-19 pandemic. The mixed methods design is used to understand the real-life phenomenon of the novel MAPs from several different perspectives. The specific objectives of this research are: 1) To describe the specific characteristics of the MAPs operating in the context of the COVID-19 pandemic; 2) To explore whether entry into a MAP was associated with improvements in the health, safety, and well-being of individual participants; 3) To explore whether entry into a MAP was associated with reductions in their usage of emergency, hospital, police, and correctional services; 4) To explore whether entry into a MAP was associated with their having less hazardous patterns of alcohol use; 5) To explore whether entry into a MAP was associated with improvements in participants' ability to follow COVID-19-related physical distancing and hygiene guidelines; 6) To illustrate participant's goals related to MAP participation. It is hypothesized that: 1) The results will help inform the development of program and policy recommendations for MAPs in the context of the COVID-19 pandemic; 2) There will be improvements in the health, safety, and well-being of individual participants following entry into a MAP; 3) There will be reductions in the usage of emergency, hospital, police, and correctional services following entry into a MAP; 4) Individual participants will demonstrate less hazardous patterns of alcohol use following entry into a MAP; 5) There will be improvements in individual participants' ability to follow COVID-19-related physical distancing and hygiene guidelines following entry into a MAP; 6) Individual participant goals related to MAP participation will change and develop over time. It is expected that participants' narratives will support the quantitative findings.

Methodology

Design

This pilot research uses a parallel mixed methods design to provide a mixed description of nine MAP participants from the newly emerging MAPs in the context of the COVID-19 pandemic. Given the context, a parallel mixed methods design had the advantage of undertaking different types of data collection simultaneously with converging of findings at the end. In-depth quantitative surveys of MAP participants were collected (at baseline and every 2 weeks for up to 3 months) by phone between November 2020 and March 2021. One-time individual semi-structured qualitative interviews were also conducted with four participants after at least 2 quantitative surveys were complete. All eligible MAP participants enrolled at each site (detailed below) were invited to participate in this research. One-time individual semi-structured qualitative interviews were also conducted with four MAP managers, staff, and clinicians from each MAP site to identify the specific characteristics of the MAPs operating in the context of the COVID-19 pandemic. All managers, staff, and clinicians at each site were invited to participate in this research.

The mixed methods study design was chosen for the following purposes: 1) to illustrate the individual experiences of MAP participants; 2) to provide context to the research findings (i.e., the COVID-19 pandemic); 3) to increase the utility and practical applicability of the research findings within context (Schoonenboom & Johnson, 2017). Given the unprecedented context of the COVID-19 pandemic and the nature of an alcohol harm reduction treatment approach, a contextualized, mixed account of participant experiences within the program will best illustrate the experiences of participants and the effects of the novel MAPS in-context.

Methods

Participants

MAP Participants. Participants included nine individuals enrolled in a Managed Alcohol Program started in British Columbia during the COVID-19 pandemic. The programs included the Individualized Managed Alcohol Program in the Vancouver Island Health Authority, the Surrey Managed Alcohol Program located in the Fraser Health Authority, and the Interior Health COVID-19 MAP for Vulnerable Populations located in the Interior Health Authority. The nine individuals who completed the quantitative surveys participated in baseline surveys as well as biweekly follow-up interviews for up to 3 months. Eligibility criteria included: 1) currently enrolled in a MAP; 2) ability to provide free and informed consent; 3) ability to speak comfortably in English. MAP participants were also invited to participate in a qualitative interview. Eligibility criteria included: 1)

greater than 7 days experience in a MAP; 2) willingness to talk about their experiences prior to and in the MAP; 3) ability to speak comfortably in English. Four of the nine participants agreed to participate in these interviews.

MAP Managers, Staff, and Clinicians. Four MAP managers, staff, and clinicians also participated in one-time qualitative interviews. At least one participant was from each of the participating MAP sites. Eligibility criteria included: 1) currently employed as a MAP manager, staff, or clinician; 2) willingness to talk about their experiences; 3) ability to speak comfortably in English.

Programs

The COVID-19 MAP models are described in more detail below. The Individualized Managed Alcohol Program provided eligible individuals with alcohol delivery or fixed amounts of on-site alcohol. Individuals were able to remain in their housing post-MAP. The Surrey Managed Alcohol Program provided eligible individuals with fixed amounts of on-site alcohol, though offered alcohol delivery if housing status changed. The Interior Health COVID-19 MAP for Vulnerable Populations offered MAP to individuals only during the quarantine period of COVID-19 risk and recovery (e.g., if an individual was waiting for a COVID-19 test result, or if an individual tested positive for COVID-19).

Procedure

COVID-19 Restrictions

In March 2020, the University of Victoria Research Ethics Board distributed a bulletin announcing that all research involving in-person activities and interactions was suspended until further notice (Gibbons, 2020). Exceptions were made for research arising from or related to the COVID-19 pandemic. As the present research included MAPs that had emerged in the context the COVID-19 pandemic, postponing the study would have limited data and conclusions regarding the role of MAPs during the COVID-19 pandemic, as well as recommendations for programs and policies in the context of COVID-19.

All new and ongoing research required a COVID-19 risk mitigation and safety plan. To mitigate risk in this research, study recruitment was conducted in the MAP facilities by MAP staff during routine contact (e.g., during alcohol distribution), following Health Authority safety protocols. Each participating MAP agreed to facilitate participant recruitment and data collection (see Appendix A). Briefly, MAP staff participation involved ongoing communication with researchers to schedule interviews, as well as distribution and collection of study cellphones and gift cards. All MAP managers, staff, and clinician interviews were conducted over the phone. While

these safety measures prevented increases in COVID-19 risk, they impacted recruitment and data collection. First, the large burden already on MAP staff due to the COVID-19 pandemic limited their time and their capacity to facilitate this research. Moreover, vulnerable individuals such as MAP participants are typically interviewed in-person, as they often face considerable stigma and thus may feel distrustful. Establishing trusting relationships with participants was limited by the use of cellphones.

Recruitment

Managed Alcohol Programs. Through extensive community engagement and relationships established during past work with MAPs across Canada, and discussions within the MAP CoP, identification of emerging programs was facilitated, and relationships were quickly established with newly emerging MAPs. We contacted programs located in several regional health authorities: Vancouver Island Health Authority, Fraser Health Authority, Interior Health Authority, and Vancouver Coastal Health Authority. We discussed with and received input from programs on our proposed evaluation of the newly emerging MAPs in the context of the COVID-19 pandemic including the evaluation materials, evaluation methods, and the requirements from each site related to participant recruitment and data collection (see Appendix A). The Vancouver Coastal Health Authority program declined to participate due to the immense burden already on MAP managers, staff, and clinicians due to the COVID-19 pandemic. All other programs had the capacity to participate and were included in this pilot study. All eligible MAP participants and MAP managers, staff, and clinicians from each of these programs were invited to participate in this research.

Quantitative. MAP participants at each site were approached during routine contact with MAP managers, staff, or clinicians (e.g., during alcohol delivery), informed about the study, and given an information letter outlining the quantitative surveys and participation (see Appendix B). If they were interested, they were given the option to use a prepaid study-provided cellphone to contact the research team at the number listed on the letter if they did not wish to use their own phone or did not have access to a phone. All participants chose to use the prepaid study-provided cellphone. Once the participant contacted the research team, an interviewer trained in ethical research and research methods explained the research, answered questions, verified eligibility, and asked for verbal consent prior to conducting an interview. Participants were compensated for their time following each interview. The desired number of participants in the quantitative survey was 30 participants. However, given the current context of the COVID-19 pandemic (and associated

research restrictions, physical distancing, quarantine, and lockdown measures), data from only nine participants are included in this research.

Qualitative. MAP participants in the quantitative surveys were also informed about the qualitative research interviews by researchers and trained interviewers throughout the course of the study. Interested participants at each site were again approached during routine contact with MAP managers, staff, or clinicians and given an information letter outlining the qualitative surveys and participation (see Appendix C). MAP managers, staff, and clinicians were informed about the study through email (see Appendix D). Like recruitment for the quantitative survey, interested individuals could contact researchers for further information and were given the option to use a prepaid study-provided cellphone for the interview. All participants chose to use the prepaid study-provided cellphone. Once the participant contacted with the research team, a trained interviewer explained the research, answered questions, verified eligibility, and asked for verbal consent prior to conducting the one-time qualitative interview. All participants were compensated for their time following the interview. The desired number of MAP participants in the qualitative portion of the study was 10 participants. However, as a result of the current context of the COVID-19 pandemic, it was only possible to include qualitative data from four of the participants who also participated in the quantitative interviews. Qualitative data from four MAP managers, staff, and clinicians is included in this research.

Data Collection

Data were collected between November 2020 and May 2021 through quantitative surveys and individual semi-structured interviews. Trained researchers administered the survey to participants at baseline, and every 2 weeks for up to 3 months following. Semi-structured qualitative interviews were also conducted with participants after at least 2 quantitative surveys. All surveys and interviews were conducted by phone. Participants were given $25.00 cash gift cards as compensation. Participants did not need to fully complete the interview to receive the honoraria; participants were told they could choose to end the interview at any time.

Quantitative. Quantitative survey data were collected in electronic form using Survey Monkey. Trained researchers completed the surveys while asking the participants the survey questions over the phone. Data were automatically uploaded to Survey Monkey. Research instruments included both standardized scales, non-standardized scales, and open-ended questions (see Appendix E)**.** Following each interview, participants and researchers chose an appointment time for a follow-up survey phone call.

Qualitative. Qualitative interviews were conducted over the phone, recorded, and then transcribed verbatim.

Materials

An assessment of mental and physical health, safety, health services and police service usages, and patterns of substance, quality of life, wellbeing, physical distancing and risk behaviours, and alcohol-related harms was conducted using a series of standardized scales, non-standardized questions, and open-ended questions (see Appendices D and E). Apart from a scale developed to assess COVID-19 risk behaviours (detailed below), these assessments were developed for previous CMAPS evaluations (e.g., Stockwell et al, 2018; Stockwell et al, 2021). A series of indicators were included in the baseline interview, at each follow-up interview, and in the final interview. Details of each indicator and differing timelines of use are listed below.

Quantitative Survey Measures: Baseline Interview Only

Harmful Alcohol Consumption. The Alcohol Use Disorders Identification Test (AUDIT) was used to assess hazardous and harmful patterns of alcohol consumption (Saunders et al., 1993). The AUDIT consists of 10 items assessing alcohol consumption, drinking behaviour, and alcohol-related problems in the past 12 months with possible item scores ranging from 0 to 4. Scores of 8 or higher indicate hazardous and harmful patterns of alcohol use. This measure was administered only at baseline to assess patterns of harmful alcohol consumption prior to entry in a MAP.

Quantitative Survey Measures: Baseline and Final Interviews

Alcohol Dependence. The Severity of Alcohol Dependence Questionnaire (SADQ) was used as a measure of the severity of alcohol dependence and risk of withdrawal (Stockwell et al., 1994). The SADQ consists of 20 items, with each item having a possible score ranging from 0 to 3. Scores greater than 30 indicate severe dependence, scores between 16 and 30 indicate moderate dependence, and scores below 16 indicate mild dependence. This measure was administered at baseline to assess the severity of alcohol dependence in the 6 months prior to entry in a MAP and in the final interview (assessing the past 6 months in the program).

Program Goals and Expectations. Participants were asked about their drinking goals related to participation in the MAP (e.g., withdrawal prevention, safer drinking, reduced consumption). Participants were asked whether they would be interested in additional services as part of the program (e.g., safer drinking education, job training). Participants were also asked to expand on their program goals (in an open-ended question format). This measure was used at baseline and at the final interview to assess goal change and development.

Quantitative Survey Measures: All Interviews

Physical Distancing and Risk Behaviours. The Physical Distancing and Risk Behaviours Scale is a custom instrument developed for the present research and includes 20-items designed to measure an individual's ability to follow physical distancing and hygiene guidelines and related behaviours in the current context of the COVID-19 pandemic. Items were developed and adapted from the Duke Social Support Index (Wardian et al., 2013) and other measures of social isolation validated for the general population (Zavaleta et al., 2017). Each item has a possible score ranging from 0 to 1, with higher scores indicating better ability. Subscales include measures of physical distancing, hygiene, and specific COVID-19 risk. All items are summed to create a total score and subscale items are summed to create scores of physical distancing, hygiene, and specific COVID-19 risk. This measure was used to assess changes in participants' ability to follow physical distancing and hygiene guidelines following entry into a MAP.

Housing. Structured survey questions in the housing domain assessed housing status and housing quality in the past 2 weeks (Toro et al., 1997; Tsemberis et al., 2003). Each item assessing housing quality and satisfaction for each housing domain (safety, privacy, affordability, spaciousness, and friendliness) has a possible score ranging from very dissatisfied/bad (1) to very satisfied/good (5). This measure was used to assess changes in housing status and quality following entry into a MAP.

Alcohol-Related Harms. The Harms Related to Drinking Scale is a non-standardized instrument consisting of 14 items used to assess alcohol-related harms across various domains (e.g., housing, relationships, financial). This instrument was initially developed as part of the evaluation of Canadian Managed Alcohol Programs and research shows reductions in these self-reported harms for MAP participants over time (Stockwell et al., 2018; Stockwell et al., 2021). Participants are asked whether they have experienced a specific alcohol-related harm, and whether that experience was in the last 2 weeks. This measure was used to assess patterns of change in alcohol-related harms following entry into a MAP.

Quality of Life and Health. Quality of life and health were assessed using the EQ-5D, which measures health across 5 dimensions: mobility, self-care, usual activities, pain and discomfort, and anxiety and depression (Herdman et al., 2011). Participants are asked to indicate the level of severity of problems as either no problems (1), slight problems (2), moderate problems (3), severe problems (4), or unable to do (as the most severe option; 5) in the past 2 weeks. Participants were

asked to indicate their overall health on a scale from 0 to 100. This measure was used to assess changes in health following entry into a MAP.

Health Care and Police Contact. Participants were asked if they had been admitted to an emergency department, hospital, or had received treatment from any healthcare provider in the past 2 weeks. They were also be asked whether they had contact with police or had been charged with an offence in the past 2 weeks. This measure was used to assess changes in access to healthcare, health care usage, and police contact following entry into a MAP.

Alcohol Use. Alcohol use was measured using a series of structured questions. Questions relate to the number of days alcohol was used, how much was used (converted to standard drinks), the kind of alcohol that was most used (e.g., beer or hard liquor/spirits), the brand of alcohol that was most used, from where it was procured (e.g., from the liquor store or from a friend), and the associated cost (in $/mL) in the past 2 weeks. This measure was used at baseline to assess alcohol consumption prior to entry in a MAP, and at each follow-up interview (including the final interview) to assess patterns of change in alcohol consumption following entry into a MAP. Self-reported consumption at each point was converted into daily quantity and frequency in terms of standard drinks (1 standard drink = 13.6g ethanol) and expressed as: a) total drinks per day; b) drinking days per week; c) number of high consumption days per week. These indicators were calculated for beverage alcohol, included both MAP-provided and additional outside drinks, and both combined. Participants were asked about their Managed Alcohol Plan. Specifically, how long the plan had been running, how many times a day alcohol was delivered, and how much alcohol was delivered (converted into standard drinks). Participants were asked whether they were given cannabis in addition to alcohol as part of their Managed Alcohol Plan. Participants were asked about their Managed Alcohol Plan at each interview to assess patterns of change in their alcohol management.

Non-Beverage Alcohol Use. Non-beverage alcohol (NBA) use questions measured NBA use (i.e., was NBA consumed or not), the number of days it was consumed, the type that was used (e.g., rubbing alcohol or mouthwash), and the amount of NBA that was consumed in the past 2 weeks. This measure was used to assess patterns of change in NBA consumption following entry into a MAP.

Physical Withdrawal. Select items that loaded significantly onto the physical withdrawal factor of the SADQ were used as a measure of physical withdrawal (Stockwell et al., 1994). This measure was used to assess patterns of change in the physical withdrawal aspect of alcohol dependence following entry into a MAP.

Other Substance Use History. Participants were asked about their history of experiences with substances other than alcohol (e.g., tobacco, amphetamines, and medications to reduce alcohol craving). Participants were asked if they had ever used the substance (only at baseline), if they had used in the past year (only at baseline), and if they had used in the past 2 weeks (at every follow-up including the final). This measure was used to assess patterns of change in other substance use following entry into a MAP.

Qualitative

MAP Participants. Qualitative interviews were conducted using a semi-structured interview guide (see Appendix F). The select questions used in this research focused on experiences prior to and within the MAP and goals and expectations related to participation in the MAP: 1) Can you tell me about what life was like before you started with the Managed Alcohol Program (MAP)? 2) What difference (impact) has this site had on […]? 3) What do you hope to get out of this MAP? How do you think this MAP can help you? What are your current goals for being in this MAP? What do you hope will happen in the future?

MAP Staff, Managers, and Clinicians. Qualitative interviews were conducted using a semi-structured interview guide (see Appendix G). The questions focused on experiences as a MAP manager, staff, or clinician and descriptions of the program history, development, and key dimensions.

Analyses

Quantitative

The primary focus of this research was on experiences of progress and change for each individual participant. A similar approach employing in-depth surveys and qualitative interviews was used in a small-scale pilot study was conducted at the Station Street MAP in Vancouver, British Columbia, (Stockwell, 2013). The present research analyzed each research objective as detailed below. All measures were averaged across all available data points collected during pre-MAP, MAP, and post-MAP (see Table 1).

Objective 1: To describe the specific characteristics of the MAPs operating in the context of the COVID-19 pandemic. A thorough description of the MAPs operating in British Columbia in the context of the COVID-19 pandemic is presented below, including the Individualized Managed Alcohol Program, the Surrey Managed Alcohol Program, and the Interior Health COVID-19 MAP for Vulnerable Populations.

Objective 2: To explore whether entry into a MAP was associated with improvements in the health, safety, and well-being of individual participants. Baseline and all subsequent assessments of the following indicators were used: housing, Harms Related to Drinking scale, and the EQ-5D. Available ratings of overall housing quality and satisfaction for each housing domain were averaged to create MAP and post-MAP scores for each participant. The number of alcohol-related harms experienced across all domains were averaged to create pre-MAP, MAP, and post-MAP scores for each participant. EQ-5D health scale scores (ranging from 0 to 100) were averaged to create pre-MAP, MAP, and post-MAP scores for each participant. The level of severity of problems across all 5 health dimensions were averaged to create pre-MAP, MAP, and post-MAP scores for each participant.

Objective 3: To explore whether entry into a MAP was associated with reductions in their usage of emergency, hospital, police, and correctional services. Baseline and all subsequent assessments of health care and police contacts were used. The average number of health contacts (including ER, hospital, and other healthcare) and the average number of police contacts were calculated to create pre-MAP, MAP, and post-MAP scores for each participant.

Objective 4: To explore whether entry into a MAP was associated with their having less hazardous patterns of alcohol use. Baseline and all subsequent assessments of the following indicators were used: alcohol use, Managed Alcohol Plan, non-beverage alcohol use, AUDIT, SADQ, and other substance use history. The average amount and frequency of alcohol use in terms of standard drinks was calculated pre-MAP, MAP, and post-MAP s for each participant in terms of: a) average total drinks per day; b) average number of drinking days per week; c) average number of high consumption days per week. No participants reported consumption of non-beverage alcohol at any point pre-MAP, during MAP, or post-MAP. The baseline AUDIT items were summed to assess patterns of harmful alcohol consumption for each participant. The SADQ item sums were averaged to create pre-MAP, MAP, and post-MAP dependence scores for each participant. Items assessing physical withdrawal were summed and averaged to create pre-MAP, MAP, and post-MAP physical withdrawal scores for each participant. The average frequency of other substance use (in terms of days of use) was calculated pre-MAP, MAP, and post-MAP s for each participant. Tobacco was excluded from the average frequency calculations because it was used by 100% of participants every day in the 2 weeks pre-MAP, on 13.92 days during MAP, and on 13.71 days post-MAP.

Objective 5: To explore whether entry into a MAP was associated with improvements in participants' ability to follow COVID-19-related physical distancing and hygiene

guidelines. Baseline and all subsequent assessments of the Physical Distancing and Risk Behaviours Scale were used. All available total and subscale scores were averaged to create pre-MAP, MAP, and post-MAP scores for each participant.

Objective 6: To illustrate participant's goals related to MAP participation. Baseline and final assessments of participant goals and expectations of MAP participation were reviewed and the overall frequency of interest in each goal and potential service was calculated.

Qualitative

Qualitative interviews were analysed using thematic analysis (Braun & Clarke, 2006). Thematic analysis is a qualitative analysis method used to identify, organize, and report patterns or themes within the data (Braun & Clarke, 2006). Using this method, MAP participant interview transcripts were read, re-read, and coded inductively for themes related to the experiences, goals, and expectations of being in a MAP, particularly during the COVID-19 pandemic. The themes contribute to the narrative around all research objectives. MAP manager, staff, and clinician interview transcripts were read, re-read, and key program characteristics were identified.

In addition to a full thematic presentation of themes from MAP participant interviews, a cross-case comparison joint display is used to compare and contrast the qualitative goal data with key quantitative results (Guetterman et al., 2015; "Multiple-Case Designs," 2012; Vaughan Dickson et al., 2011). Key quantitative results include goals and expectations, time in MAP, change in total alcohol consumption (total drinks per day, drinking days per week, and number of high consumption days per week), change in alcohol-related harms, change in health status, and change in housing status. The joint display contains a row for each participant, and a column for each key indicator.

Results

COVID-19 MAP Models

The clinician-scattered site outreach or fixed-site MAP models were the most common forms of health-authority based MAPs during the COVID-19 pandemic (see the bulletin entitled *Managed Alcohol Programs: Settings and Models of Delivery* for more details on other Canadian MAP models: (Canadian Institute for Substance Use Research (CISUR), 2021). The alcohol harm reduction approach differs between the scattered-site and the fixed-site models. In the scattered-site outreach model, alcohol is delivered by clinical staff to scattered sites up to three times daily. Clinical staff can include a combination of regulated and unregulated (e.g., outreach workers) healthcare providers. In the fixed-site model, on-site health authority staff provide alcohol multiple times per day (up to hourly administrations). These models were used by each of the COVID-19 health-authority based MAPs included in this research: the Individualized Managed Alcohol Program (iMAP: Vancouver Island Health Authority), the Surrey Managed Alcohol Program (Fraser Health Authority), and the Interior Health COVID-19 MAP for Vulnerable Populations (Interior Health Authority). Four MAP staff, managers, and clinicians from the COVID-19 health-authority based MAPs participated in this research and data were analyzed for key program dimensions. The programs can be described using six key dimensions: program goals and eligibility, food and accommodation, mode of alcohol administration, funding and money management, primary care services and clinical monitoring, and social and cultural connections.

Program Goals and Program Eligibility

While each program determines their own individual screening and eligibility criteria, MAPs are appropriate for individuals with severe AUD experiencing unstable housing who engage in high-risk drinking (see the BCCSU interim guidance document and the CISUR operational guidance for program screening tools: (Ahamad, 2020; Canadian Institute for Substance Use Research, 2020). Specific program goals and eligibility criteria for the COVID-19 health-authority based MAPs included in this research are detailed below.

The primary goal of the iMAP is to reduce the health, social, and financial harms associated with severe AUD and homelessness. Criteria for eligibility include a history of long-term daily heavy drinking (typically 15 or more standard drinks per day), NBA use, and alcohol-related harms, being at high risk of withdrawal and related complications (e.g., seizures), and residence in supported housing or temporary sheltering locations. Individuals must also meet the criteria for intensive case management (ICM) (i.e., have a persistent and severe substance use disorder).

The primary goal of the Surrey MAP is to manage alcohol intake, intoxication, and withdrawal. Criteria for eligibility include a history of hospitalizations related to alcohol use. Criteria for exclusion include other substance use. There are no criteria related to housing status; individuals can live at the shelter where the MAP is located, at another shelter, or be unhoused.

The primary goal of the Interior Health COVID-19 MAP for vulnerable populations is to advocate for the value of MAPs and highlight the benefits for vulnerable populations. Criteria for eligibility include having an AUD or a history of high-risk drinking and being at high risk of withdrawal, requiring self-isolation related to COVID-19 infection (e.g., testing positive or waiting for a test result), and requiring additional monitoring from Interior Health Mental Health and Substance Use Services during self-solation. If the individual is unhoused, they can be referred to the interim vulnerable populations' isolation housing for the duration of their COVID-19 isolation period. There is some advocacy to broaden the eligibility criteria beyond a self-isolation period. In fact, some individuals have been able to participate in the MAP beyond the period of self-isolation.

Food and Accommodation

The provision of food services differs between each program. The iMAP occasionally offers coffee or snacks and clients can be connected to Souper Meals, a program that offers prepared meals at a discounted price. Clients of the Surrey MAP are offered meals at the shelter where the alcohol is distributed. Clients of the Interior Health COVID-19 MAP for Vulnerable Populations are not offered meals as part of the MAP unless they are housed in the vulnerable populations' isolation housing.

None of the COVID-19 health-authority based MAPs provide accommodation. The iMAP is not a residential program though it is only available to people who are in housing (including supported housing or temporary shelter). Housing is also not part of the Surrey MAP. Clients who are unhoused visit the shelter where the MAP is located to access their alcohol. Clients of the Interior Health COVID-19 MAP for Vulnerable Populations are referred to the interim vulnerable populations' isolation housing if they are identified as requiring isolation due to COVID-19 infection and determined to be vulnerable. However, clients may also be housed in other types of accommodation, including shelters and permanent supportive housing.

Mode of Alcohol Administration

The mode of alcohol administration and delivery differs between each program. The iMAP delivers alcohol twice a day. Clients receive a wellness check with each alcohol delivery, which includes a Clinical Institute Withdrawal Assessment Alcohol Scale (CIWA) assessment, an

intoxication scale, a COVID-19 screen, and pulse and oxygen monitoring. A nurse, social worker, or DASW (someone in a discipline allied with social work) delivers the alcohol and performs the wellness check. The iMAP provides a choice of beer and vodka. The maximum dosage the program can provide is 16 standard drinks per day. Alcohol doses can be altered if there is visible alcohol present in the client's home.

Clients of the Surrey MAP who reside in the shelter where the MAP is located can access alcohol from 8:00AM to 10:00PM; outreach clients who are unhoused or at another shelter are able to access alcohol from 8:00AM until 4:00PM. There is a MAP room at the shelter where clients can drink their alcohol. The Surrey MAP offers a choice of beer and vodka. A physician writes the client a prescription for the alcohol and the dosage includes hourly limits. Clients may be refused alcohol if they appear intoxicated.

Clients of the Interior Health COVID-19 MAP for Vulnerable Populations typically receive daily alcohol deliveries, though schedules may differ based on client characteristics and available resources. Clients receive a wellness check with each alcohol delivery, which includes an intoxication screen, an alcohol withdrawal screen, and other health assessments. The Interior Health COVID-19 MAP for Vulnerable Populations offers a choice of beer and wine. A physician determines the alcohol dosage for each client. The maximum dosage is 18 standard drinks in a 24-hour period.

Program Funding and Money Management

Typically, the health authorities subsidize some of the alcohol costs for each program and clients also contribute to the alcohol costs. The iMAP is funded through provincial funding and there is cost sharing between the program and the clients. There is no data available regarding funding for the Surrey MAP or the Interior Health COVID-19 MAP for Vulnerable Populations. The iMAP also offers money management services to clients. Money management services are not offered in the Surrey MAP. There is no data available regarding money management services provided by the Interior Health COVID-19 MAP for Vulnerable Populations.

Primary Care Services and Clinical Monitoring

All the COVID-19 health-authority based MAPs provide connections to primary care services and have ongoing and regular clinical assessments. The iMAP connects clients with primary care services provided by the Cool Aid Community Health Centre. The iMAP recently merged with the ICM so clients are also receiving ICM care, including psychosocial support, mental health and substance use support, and psychosocial rehabilitation. The Surrey MAP provides clients with the opportunity to connect to a physician or community nurse practitioner. The Interior Health

COVID-19 MAP for Vulnerable Populations also provides clients with the opportunity to connect to other resources, including counselling services and day treatment programs.

Social and Cultural Connections

Clients at each of the COVID-19 health-authority based MAPs are encouraged to access services beyond the MAP. Only the iMAP offers additional services in the MAP. As part of ICM, clients receive psychosocial rehabilitation supports (e.g., life skills and budgeting training). Cultural supports are also available for Indigenous people as part of the iMAP. The Surrey MAP does not offer additional social or cultural supports; any additional programming is provided by the shelter. There are cultural supports for Indigenous people in development. The Interior Health COVID-19 MAP for Vulnerable Populations does not offer additional social or cultural supports.

MAP Participant Characteristics

Six men and three women with a mean age of 54.10 years (range 40 to 70) participated in this study. Participants identified themselves as White (n = 6) or Indigenous (n = 3); seven had completed at least some post-secondary education; four were never married and four divorced or separated. Six participants were unemployed, and all participants were on some form of income assistance or welfare. Participants reported a mean number of 19.85 standard drinks per day pre-MAP (range 3.42 to 36.88 standard drinks per day). All participants reported drinking every day of the week in the 2 weeks pre-MAP except one participant who only drank on 7 days. No participants reported consumption of non-beverage alcohol at any point pre-MAP, during MAP, or post-MAP. Eight participants met the criteria for alcohol dependence pre-MAP by scoring above 15 on the AUDIT, and one participant met the criteria for hazardous or harmful alcohol consumption by scoring between 8 and 14 on the AUDIT (Saunders et al., 1993). Four participants met the criteria for severe alcohol dependence pre-MAP by scoring greater than 30 on the SADQ, three participants met the criteria for moderate alcohol dependence pre-MAP by scoring between 16 and 30 on the SADQ, and two participants met the criteria for mild alcohol dependence pre-MAP by scoring less than 16 on the SADQ. Eight participants were living in an emergency shelter or outdoors (on the street, in a park, or in a tent) prior to joining the MAP. Table 1 outlines participants' MAP and study involvement.

Table 1

MAP Participant Program and Study Involvement Overview

Participant ID	Time in MAP at baseline	Completed surveys [a]	Goals [b]			Service interest [b]	
			Baseline	Final	Achieved	Baseline	Final
P1	8 months	Pre-MAP [c], 1, 2, 3, 5	• To reduce my drinking	*Data not available*	*Data not available*	• Job training and/or paid work • Permanent housing	*Data not available*
P3 [d]	6 months	Pre-MAP, baseline, 1, 2, 3, 5, 6 (final)	• To reduce my drinking • To prevent withdrawal and seizures	*Unsure*	*Unsure*	• Safer drinking education • Permanent housing	*Unsure*
P4	8 months	Pre-MAP, baseline, 1, 6 (final)	*Unsure*	*Unsure*	*Unsure*	*Unsure*	*Unsure*
P5	6 months	Pre-MAP, baseline, 1, 2, 3, 4, 6 (final)	• To maintain my drinking • To prevent withdrawals and seizures	• To maintain my drinking • To reduce my drinking • To prevent withdrawals and seizures • Safer drinking	• To maintain my drinking • To reduce my drinking • To prevent withdrawal and seizures • Safer drinking	• Primary care • Permanent housing • Volunteer opportunities	• Primary care • Safer drinking education • Job training and/or paid work • Permanent housing
P6	2 months	Pre-MAP, baseline, 1, 2, 4, 5, 6 (final)	• To maintain my drinking • To reduce my drinking • To prevent withdrawal and seizures	• To maintain my drinking • To reduce my drinking • To prevent withdrawal and seizures	• To maintain my drinking • To reduce my drinking • To prevent withdrawal and seizures	• Job training and/or paid work • Volunteer opportunities	• Primary care • Job training and/or paid work • Volunteer opportunities • Permanent housing
P7 [d]	6 months	Pre-MAP, baseline, 1, 2, 3, 4, 6 (final)	• To reduce my drinking • To quit drinking	• To reduce my drinking	• To reduce my drinking	• Job training and/or paid work • Volunteer opportunities	*Unsure*
P8	10 months	Pre-MAP, baseline, 1, 2	• To maintain my drinking	*Data not available*	*Data not available*	• Permanent housing	*Data not available*
P9	3 months	Pre-MAP, baseline, 1, 3, 4, 6 (final)	• To reduce my drinking • To prevent withdrawal and seizures • To switch to cannabis (cannabis substitution)	• To reduce my drinking • To prevent withdrawal and seizures • To switch to cannabis (cannabis substitution)	*Unsure*	• Primary care • Job training and/or paid work • Volunteer opportunities • Permanent housing	*Unsure*
P10	10 months	Pre-MAP, baseline	*Data not available*	*Data not available*	*Data not available*	*Data not available*	*Data not available*

Note. [a] Reasons for incomplete follow-up interviews included being too intoxicated, COVID-19 restrictions, the MAP being short-staffed and therefore unable to provide the cellphone for the interview, the participant losing interest, MAP staff unable to find the participant, study timeline limitations, and the participant being removed from the study due to cognitive reasons. [b] This goal and service interest data are from the quantitative surveys. Related qualitative data will be presented below. [c] The first interview consisted of retrospective questions about outcomes pre-MAP (pre-MAP) as well as questions about outcomes in the past 2 weeks while on MAP (baseline). [d] P3 left the MAP after 6 weeks in the study; P7 left the MAP after 2.5 weeks in the study. Both participants continued with their follow-up interviews.

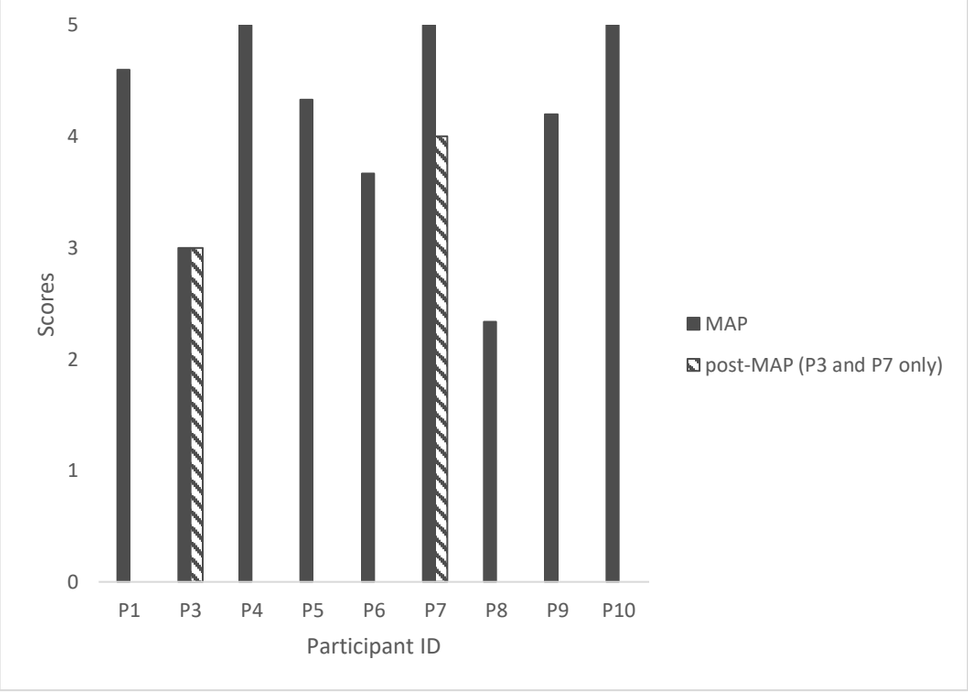
Health and Wellbeing Outcomes

Health, Safety, and Wellbeing

Participants reported improved health, safety, and wellbeing, as well as an increase in access to health and other services. Seven participants rated the overall quality of their MAP accommodation highly (see Figure 1). Average satisfaction scores (rated from 1 to 5) for each housing domain were also high overall: *affordability mean* = 3.27; *safety mean* = 4.38; *spaciousness mean* = 4.31; *privacy mean* = 4.20; *friendliness mean* = 4.29. Participants P3 and P7 rated their post-MAP housing as follows: *affordability mean* = 2.5; *safety mean* = 4.1; *spaciousness mean* = 3.6; *privacy mean* = 2.75; *friendliness mean* = 3.65. Six participants were unhoused prior to joining the MAP and three were living in shelters or social housing. All unhoused participants were provided with accommodation prior to this study. All participants remained housed during the study, though one participant was evicted from one shelter and relocated to another while still on MAP.

Figure 1

Average Overall Housing Quality



Note. Participant ratings of overall housing quality were averaged across all data points collected during MAP and post-MAP. Participants rated their current place from 1 (very bad) to 5 (very good). P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

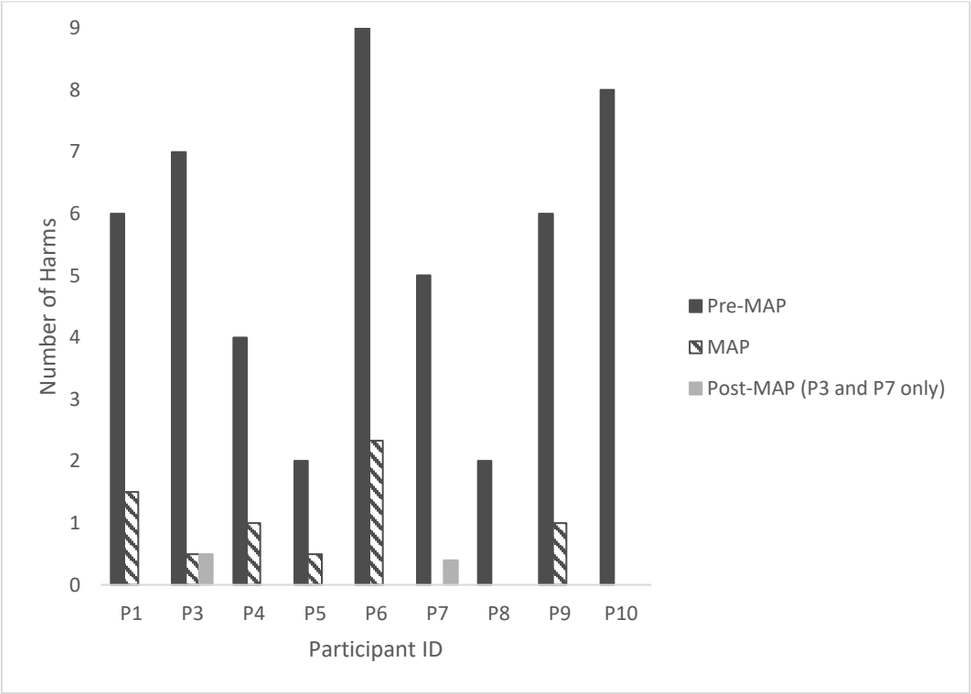
Alcohol-Related Harms

All participants indicated a decrease in the number of alcohol-related harms compared to pre-MAP. Figure 2 shows the average number of harms experienced across all domains at each time point. Specifically, participants reported decreased harms for the social, physical health, home life, work, financial, legal, housing, and the physical assault domains. One participant reported an

increase in learning related harms. Only one participant experienced harms related to passing out and seizures at each time point.

Figure 2

Average Number of Alcohol-Related Harms



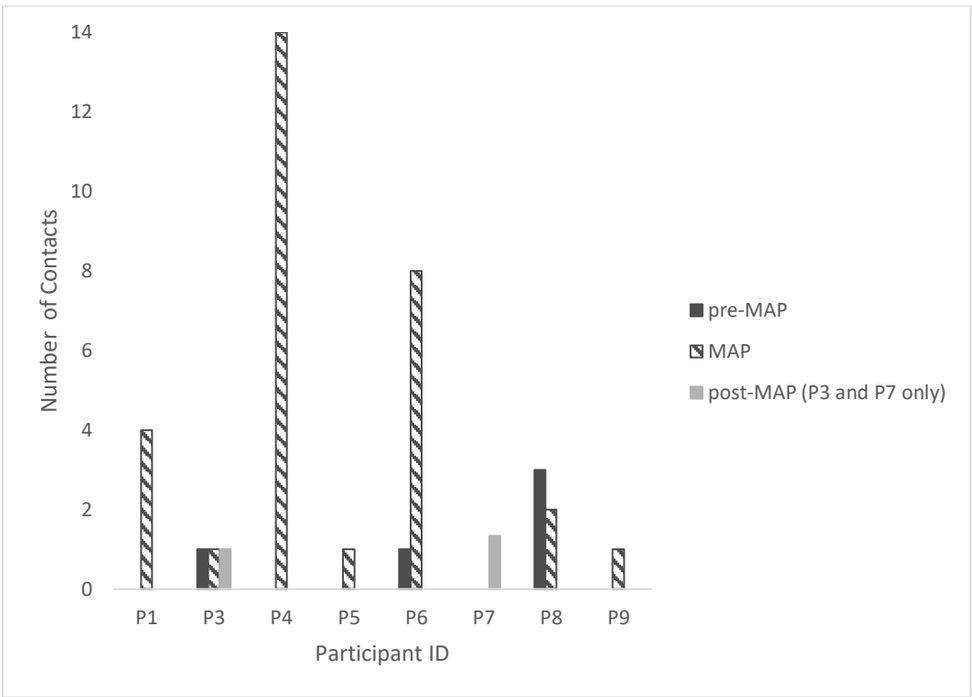
Note. The number of harms experienced across all domains (including social, physical, home, work, financial, legal, housing, learning, assault, seizures, and passing out) were averaged across all data points collected during pre-MAP, MAP, and post-MAP. Scores of 0 indicate no harms experiened. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Service Usage

The average frequency of health service usage showed no change from pre-MAP to MAP in the number of ER and hospital visits. There was some change in the number of police contacts: one participant reported four contacts in the 2 weeks pre-MAP, another two participants reported one police contact each while on MAP, and another participant reported one police contact post-MAP. No participants were charged with an offence pre-MAP, during MAP, or post-MAP. The frequency of other healthcare contacts increased while on MAP (including contacts with nurses, doctors, pharmacists, and a neurologist). This increase was likely due to the nurse and other healthcare workers who are part of the MAP staff team and the available services at each COVID-19 MAP site. Figure 3 shows the average frequency of health service usage pre-MAP, during MAP, and post-MAP for each participant.

Figure 3

Average Frequency of Health Service Usage



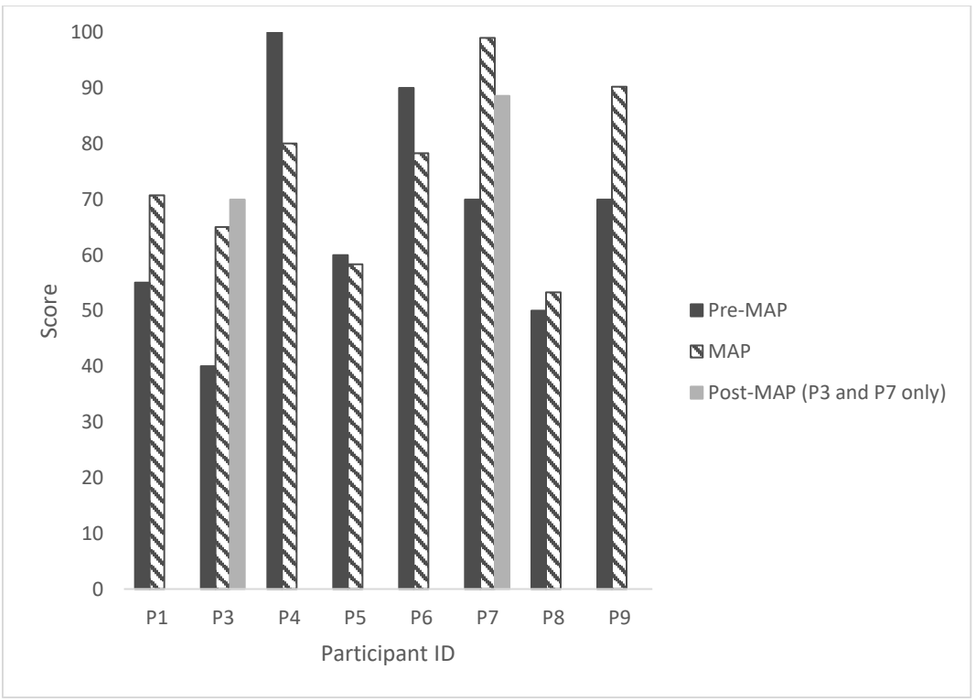
Note. The number of contacts across all health care domains (including the number of emergency room visits, hospital visits, and other healthcare contacts) were averaged across all data points collected during pre-MAP, MAP, and post-MAP. Scores of 0 indicate no contacts. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Quality of Life and Health Status (EQ-5D)

Five participants reported an increase (ranging from 3% to 25%) in overall health on MAP compared to pre-MAP as indicated by increases in their self-reported health scale number. Three participants showed decreases (ranging from 2% to 20%) in their health scale number. Details for each participant are shown in Figure 4.

Figure 4

Average Health Scale Score (EQ-5D)

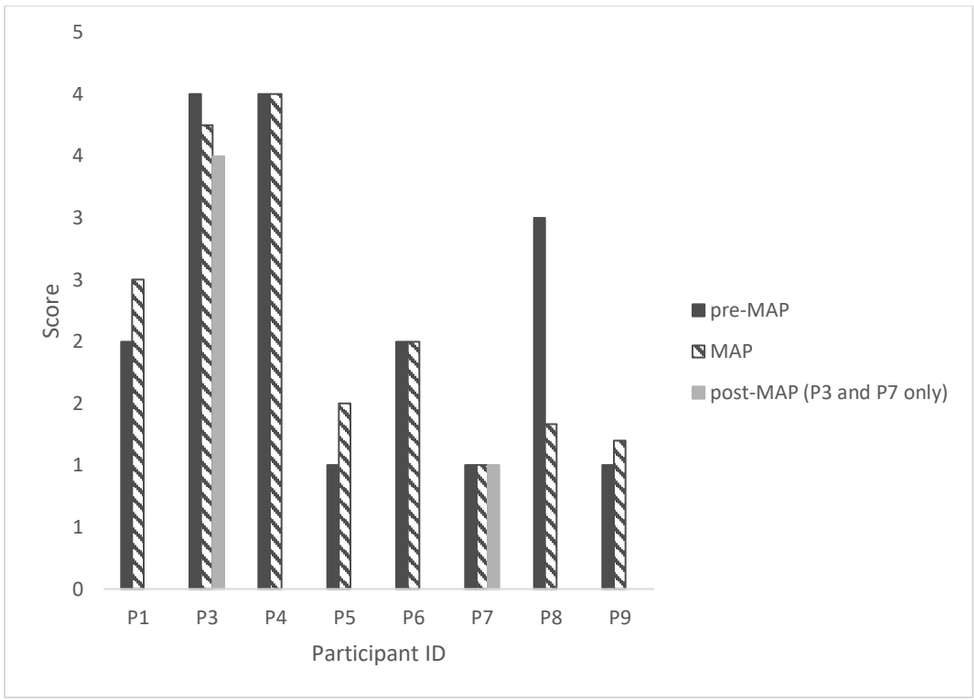


Note. The EQ-5D asks participants to indicate their health on a scale from 0 (meaning the worst health) to 100 (meaning the best health). Health scale scores were averaged across all data points collected during pre-MAP, MAP, and post-MAP. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Participant ratings of health showed changes across 5 the dimensions (mobility, self-care, usual activities, pain and discomfort, and anxiety and depression) compared to pre-MAP. More participants decreased than increased in the level of severity of problems in the domains of mobility, self-care, usual activities, and anxiety and depression. An equal number of participants showed increases in the level of severity of pain and discomfort as showed decreases. Details of changes in the level of severity of problems across all 5 dimensions are shown in Figures 5 to 9.

Figure 5

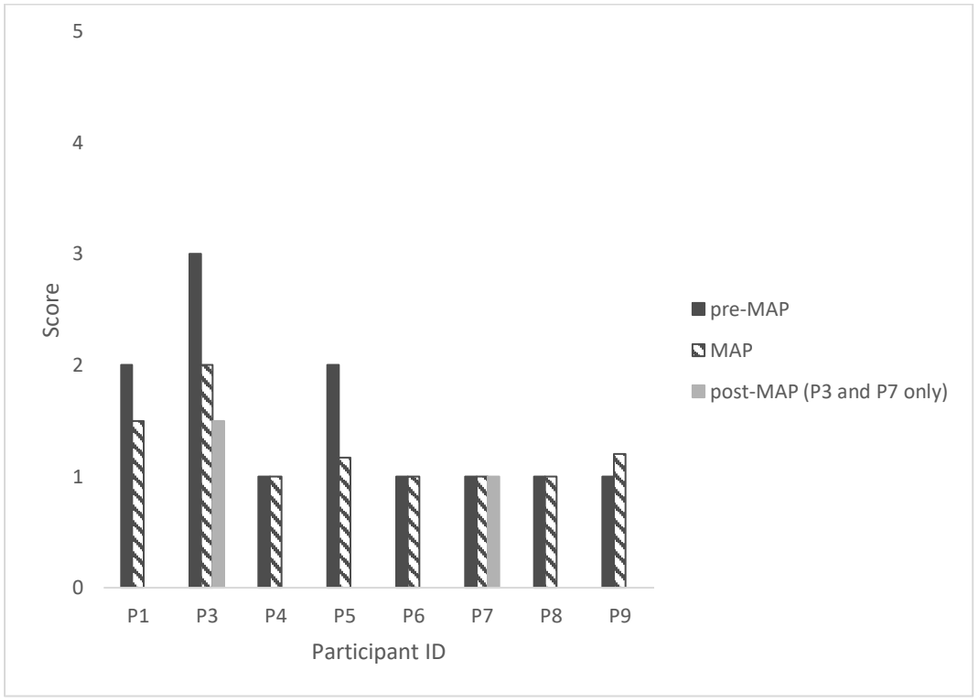
Average Mobility Scores (EQ-5D)



Note. Participants were asked to indicate the level of severity of mobility problems as either no problems (1), slight (2), moderate (3), severe (4), or unable to walk (5) in the past 2 weeks. Ratings were averaged across all data points collected during pre-MAP, MAP, and post-MAP. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Figure 6

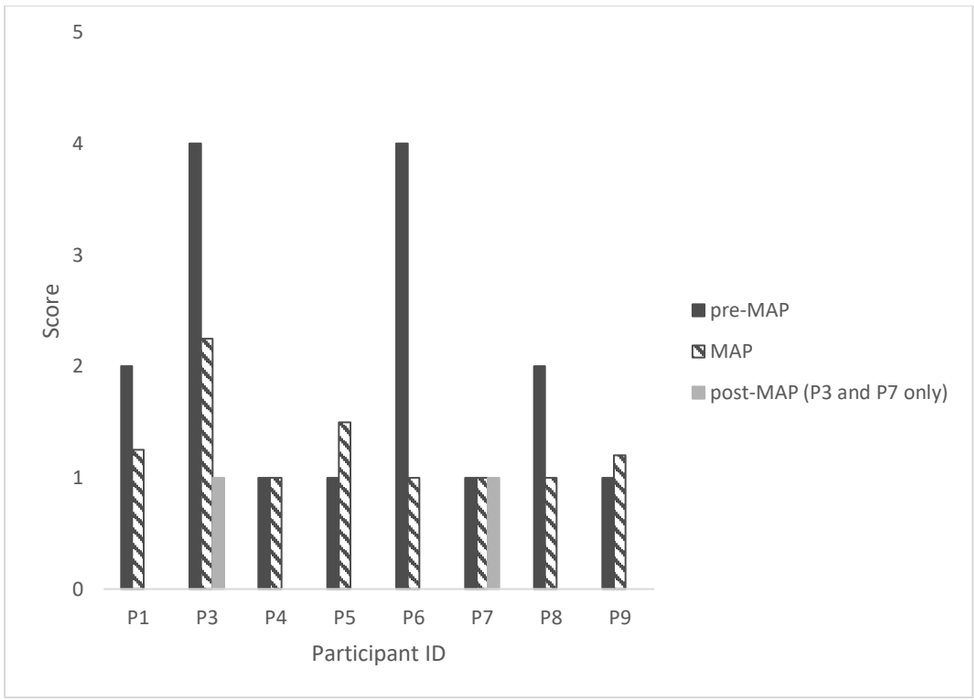
Average Self-Care Scores (EQ-5D)



Note. Participants were asked to indicate the level of severity of self-care problems as either no problems (1), slight (2), moderate (3), severe (4), or unable to do (5) in the past 2 weeks. Ratings were averaged across all data points collected during pre-MAP, MAP, and post-MAP. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Figure 7

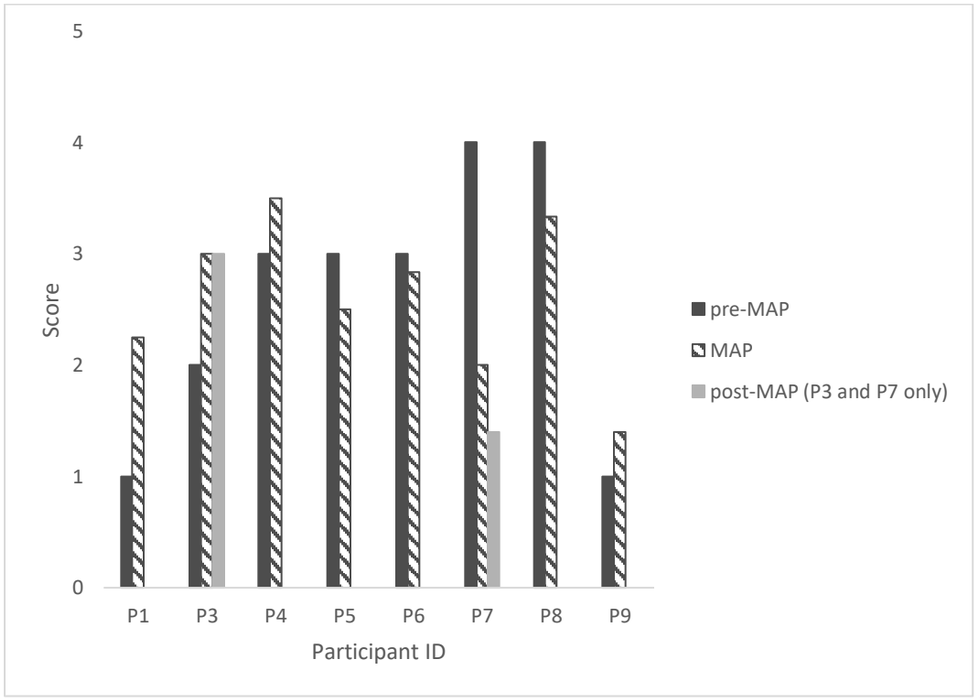
Average Usual Activities Scores (EQ-5D)



Note. Participants were asked to indicate the level of severity of usual activity problems as either no problems (1), slight (2), moderate (3), severe (4), or unable to do (5) in the past 2 weeks. Ratings were averaged across all data points collected during pre-MAP, MAP, and post-MAP. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Figure 8

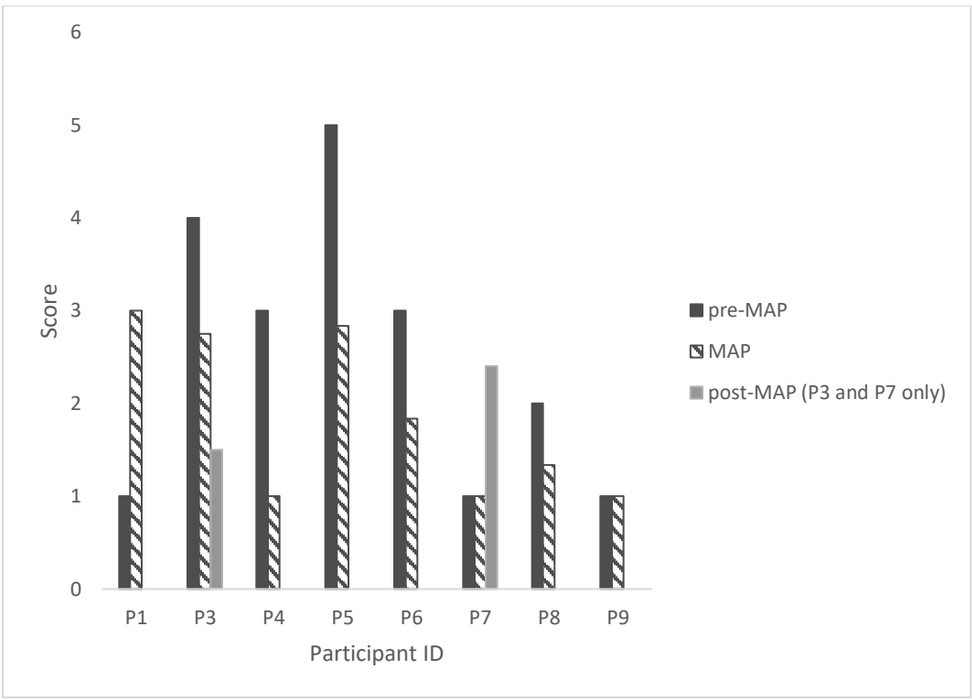
Average Pain and Discomfort Scores (EQ-5D)



Note. Participants were asked to indicate the level of severity of pain and discomfort as either no pain (1), slight pain (2), moderate pain (3), severe pain (4), or extreme pain (5) in the past 2 weeks. Ratings were averaged across all data points collected during pre-MAP, MAP, and post-MAP. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Figure 9

Average Anxiety and Depression Scores (EQ-5D)



Note. Participants were asked to indicate the level of severity of anxiety and depression as either not anxious (1), slight anxious (2), moderately anxious (3), severely anxious (4), or extremely anxious (5) in the past 2 weeks. Ratings were averaged across all data points collected during pre-MAP, MAP, and post-MAP. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

"We were just coping": life before MAP

In qualitative interviews, four participants described their lives prior to starting with the MAP and how they were focused on daily survival or coping, "binning" (collecting bottles and cans) or panhandling to make money for alcohol, food, and cigarettes. As one participant explained, "Like I said we were just coping […] like day to day to day. […] it's got nothing to do with depression or any of that stuff man, but we just coped." Another participant stated, "I was panhandling to survive day by day."

All participants were homeless prior to joining the MAP. One participant shared their experience of being homeless and how the COVID-19 pandemic changed their situation:

> I was homeless and kind of couch surfing…for about four years I guess and…I wasn't working and I just I got you know slack-off-ish I guess and I don't know I, it was definitely different. But yeah, I was homeless, and I don't know this COVID kind of got me in this hotel that I'm in in right now.

Many participants provided examples of how impactful their housing was. Participants indicated that the MAP provided a stable and safe alternative to life outdoors. As one participant explained, "Yes it's nice to have a warm bed and a roof like I'm getting to the age where I can't be

outside anymore. Well, I could be outside but I won't last too long." This participant, and another, highlighted the impact of the "*roof over my head*" and contrasted it to the life on the street, "[…] I'm pretty chill, happy to have a roof over my head and food every day and getting back to a normal life I guess other than being on the street and begging people for change and shit." Another participant described the change from having to travel long distances to being able to remain at home:

> Well, no I don't really know how to say it, but it helped us immensely you know that that way we didn't have to go wander, like we walked like 15 kilometres a day and I'm not very mobile. So, it helped huge.

Another participant described the difficulties of holding a job while living in a park:

> Well during the summer lived in [a] park but then I, you know bylaw comes and like there was the 7/7 rule and they come, and the cops take all your things. So like where I was working at the time and I'd come back from work and I'd come home to nothing.

Two participants described how the program increased their access to healthcare and other services. One participant provided examples of the services they were helped with while on the MAP, "[…] yeah well they help me get my ID, um, doctor's appointment and I got a dentist appointment coming up." Another participant made references to the healthcare workers on staff:

> You know the people that come and see us […] is it there's a nurses' station downstairs they pop in every now and again to see how we're doing; I think they call it a wellness check or something like that. Or where a couple of, couple of the outreach workers coming just knock on the door and go "you guys OK?" They come by every now and again like every day or two or once a week at least.

This participant and two others highlighted the positive relationships they have with the MAP staff. As one participant described, "Oh I'm at the [hotel name] and I'd have to say 99.9% of the staff I met are good people." Another participant described their affection and respect for MAP staff:

> I think the staff is absolutely splendid they're very chill but they are fabulous and yeah I have the utmost respect for them and they are actually, they are really beautiful people and that's all I have to say about that.

Another participant described the impact of the MAP on their friendships and quality of life:

> And I have a friend that comes over every now and again and has a sleepover and he does a lot to around here to help […] no like just like tidying and dishes and that kind of stuff. He's a good man.

Participants all shared their experiences of life prior to joining the MAP and highlighted the contrast to their life on the program. They noted the role of the COVID-19 pandemic and the benefits of MAP housing. Participants shared their positive experiences with increased access to healthcare, the benefits to their personal relationships, and the positive impact of the MAP staff.

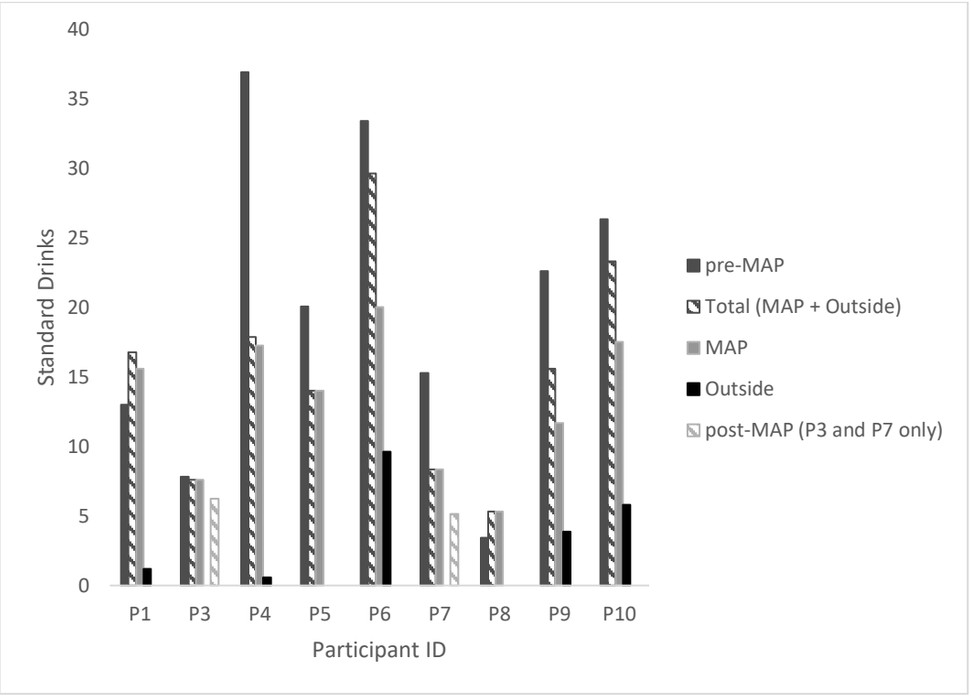
Alcohol and Other Substance Use Outcomes

Total Alcohol Consumption

Participants reported consuming on average 19.85 standard drinks per drinking day in the 2 weeks prior to joining the MAP. Participants consumed on average 15.37 standard drinks per drinking day while in the program – including both MAP drinks (on average 13.03 standard drinks per drinking day) and outside drinks (on average 2.34 standard drinks per drinking day). Outside drinks are not provided by the MAPs but are procured by the participants outside of the program. Five participants reported consuming outside drinks. No participants reported non-beverage alcohol use at any point in the study. Figure 10 shows the average number of standard drinks consumed per day by each participant. Most participants reduced their drinking (n = 7), and two participants increased their drinking.

Figure 10

Average Daily Drinks in Standard Drinks

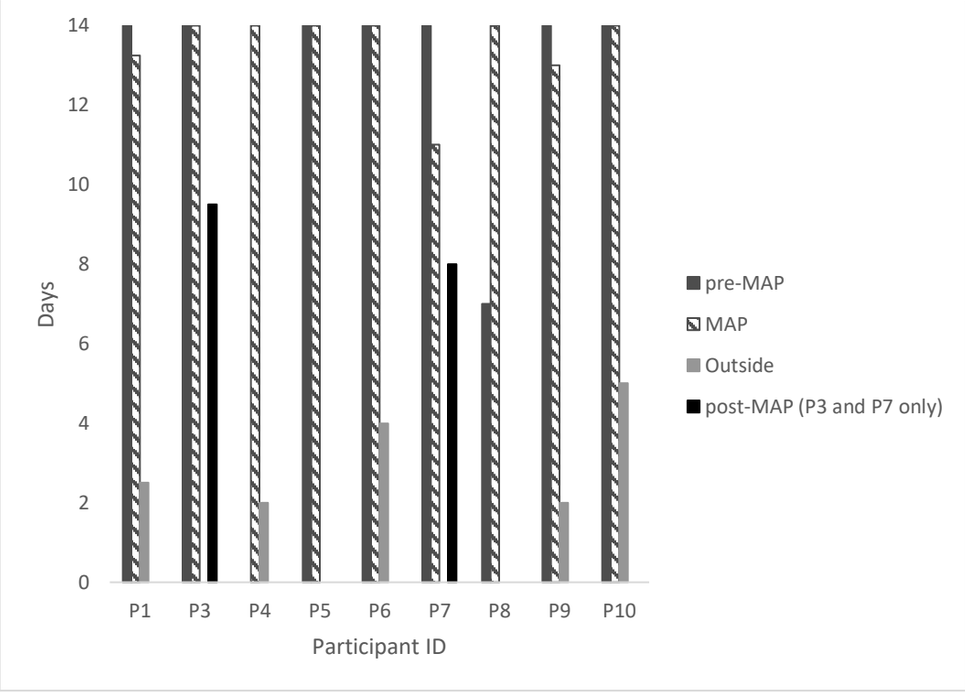


Note. Participants were asked to report how and what they consumed on a typical drinking day in the past 2 weeks, which was converted into standard drinks per drinking day by the interviewer. The number of standard drinks was averaged across all data points collected during pre-MAP, MAP, and post-MAP. Scores of 0 indicate no alcohol consumed. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Seven participants reported drinking every day in the 2 weeks prior to joining the MAP; one participant reported drinking on seven days, and one could not recall the number of days. While in the MAP participants reported drinking MAP drinks on average 13.47 days and outside drinks on average 1.72 days for every 2-week interval (n = 5). Figure 11 shows the average number of drinking days reported by each participant at each time point. All participants reported high consumption days (greater than 5 standard drinks per day) every day pre-MAP, while in MAP, and post-MAP, except for P7 who reported no high consumption days in their final interview (which was conducted post-MAP).

Figure 11

Average Number of Drinking Days



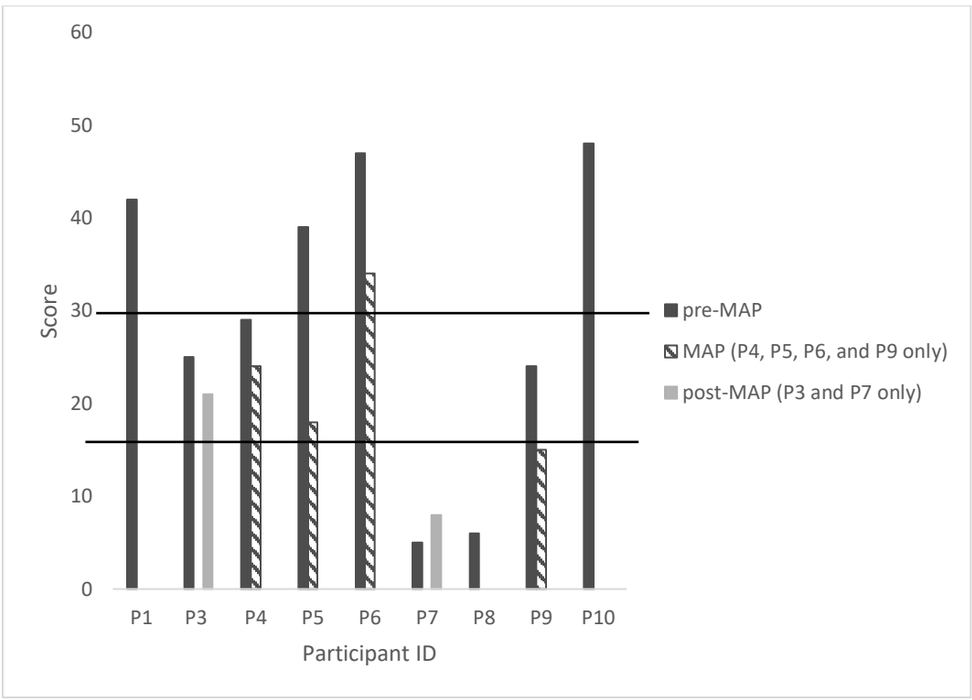
Note. Participants were asked to report on how many days they drank alcohol in the past 2 weeks. The number of drinking days was averaged across all data points collected during pre-MAP, MAP, and post-MAP. P4 was drinking alcohol prior to entry in the MAP but could not recall the number of days. Scores of 0 indicate no alcohol consumed. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Severity of Dependence

The SADQ measured participants' dependence on alcohol pre-MAP and at the final surveys while on MAP and post-MAP. All participants reported a decrease in the degree of dependence in the final surveys compared to pre-MAP (see Figure 12). Seven participants also showed a decrease in the physical withdrawal subscale of the SADQ compared to pre-MAP (see Figure 13).

Figure 12

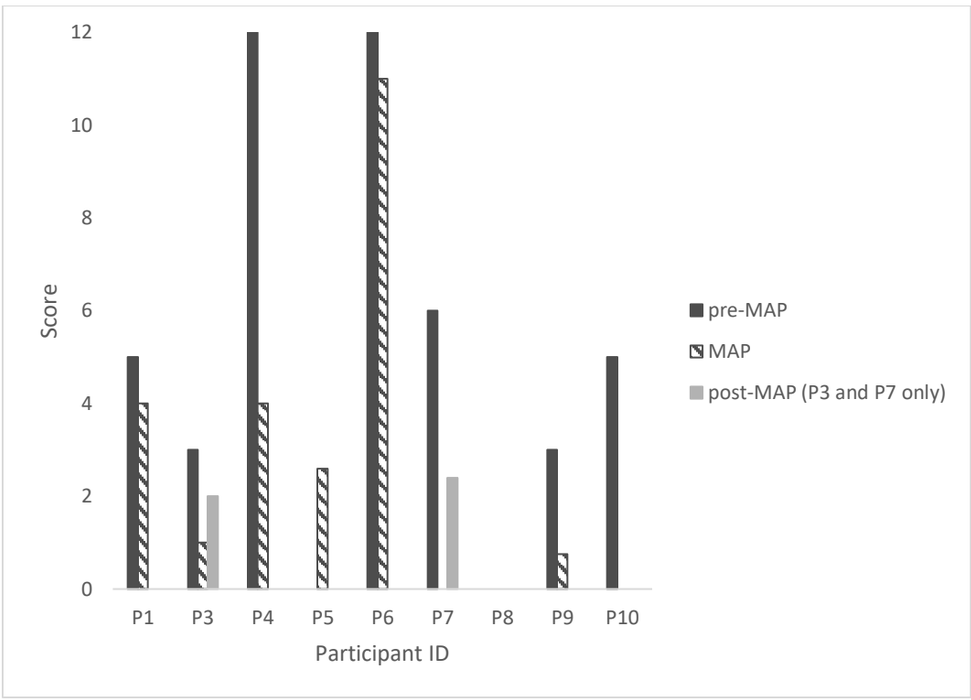
Severity of Alcohol Dependence Questionnaire (SADQ) Scores



Note. The SADQ consists of 20 items, with each item having a possible score ranging from 0 to 3. Scores greater than 30 indicate severe dependence, scores between 16 and 30 indicate moderate dependence, and scores below 16 indicate mild dependence. Cut-off scores are indicated by bold lines. The SADQ measures alcohol dependence in the past 6 months. Pre-MAP scores indicate the severity of dependence in the 6 months prior to joining the MAP. MAP and post-MAP scores indicate the severity of dependence in the 6 months prior to the final interview, including time on MAP and post-MAP. P1, P8, and P10 did not complete the final interview and no final SADQ scores are available. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Figure 13

Average SADQ Physical Withdrawal Scores



Note. SADQ items measuring physical withdrawal were repeated at each follow-up interview to assess patterns of change in the physical withdrawal aspect of alcohol dependence. The timeline of assessment was adjusted to measure physical withdrawal in the past 2 weeks. Scores were averaged across all data points collected during pre-MAP, MAP, and post-MAP. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Managed Alcohol Plans

Participants were asked about their Managed Alcohol Plans at each interview. Details about each Managed Alcohol Plan are shown in Table 2. Most plans were consistent in terms of total standard drinks delivered. No participants were given cannabis in addition to alcohol as part of their Managed Alcohol Plan.

Table 2

Participant Managed Alcohol Plans over the Course of the Study

			Total standard drinks delivered per day						
ID	Time in MAP at baseline	Frequency of daily delivery	Baseline	Follow-up 1	Follow-up 2	Follow-up 3	Follow-up 4	Follow-up 5	Final
P1	8 months	10 [a]		16.7	16.7	16.7	16.7	16.7	
P3	6 months	2	6.24	8.32	10.40	10.40		n/a [b]	n/a [b]
P4	8 months	2	14.34	14.48					20.04
P5	6 months	2	14.37	14.37	14.37	14.37	14.37		14.37
P6	2 months	2	20.04	20.04	20.04		20.04	20.04	20.04
P7	6 months	2	10.40	n/a [b]	n/a [b]	n/a [b]	n/a [b]		n/a [b]
P8	10 months	1	5.50	5.50	5.06				
P9	3 months	2	11.69	11.69		11.69	11.69		11.69

Note. [a] Alcohol was not delivered to the participant; they were able to pick-up their alcohol on-site within this daily limit.

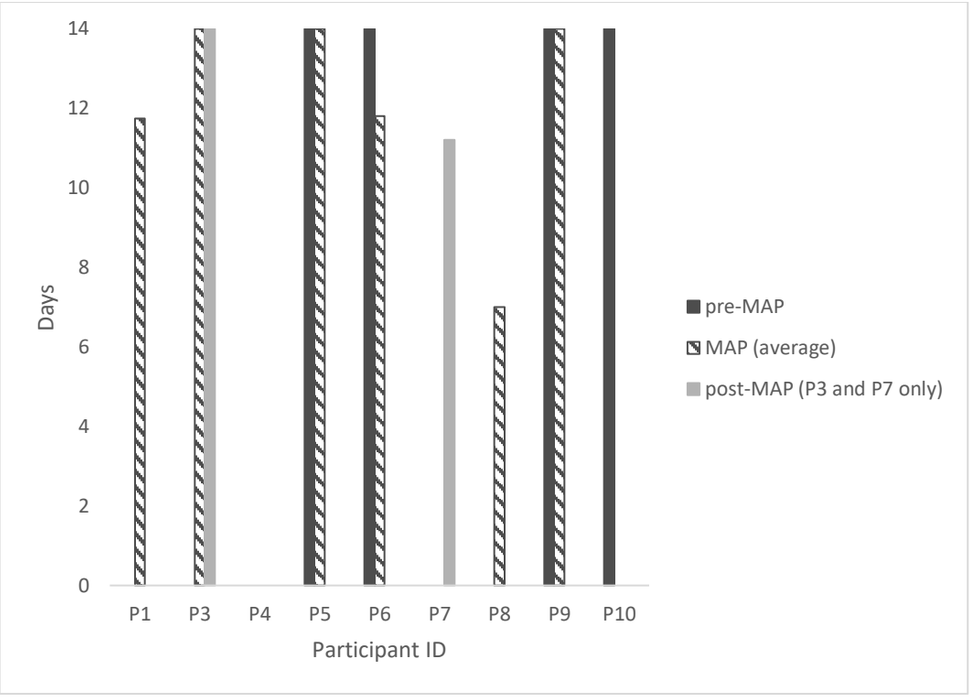
[b] Participants were interviewed post-MAP.

Other Substance Use

Participants reported a high frequency of other substance use throughout the course of the study. Most participants reported an increase or no change in the number of other substance use days compared to pre-MAP (see Figure 14). Substances used included cannabis, crack, crystal meth, medication to reduce alcohol craving or withdrawal, antidepressants (pre-MAP only), cocaine (while on MAP only), and benzodiazepines (while on MAP only).

Figure 14

Average Number of Other Substance Use Days

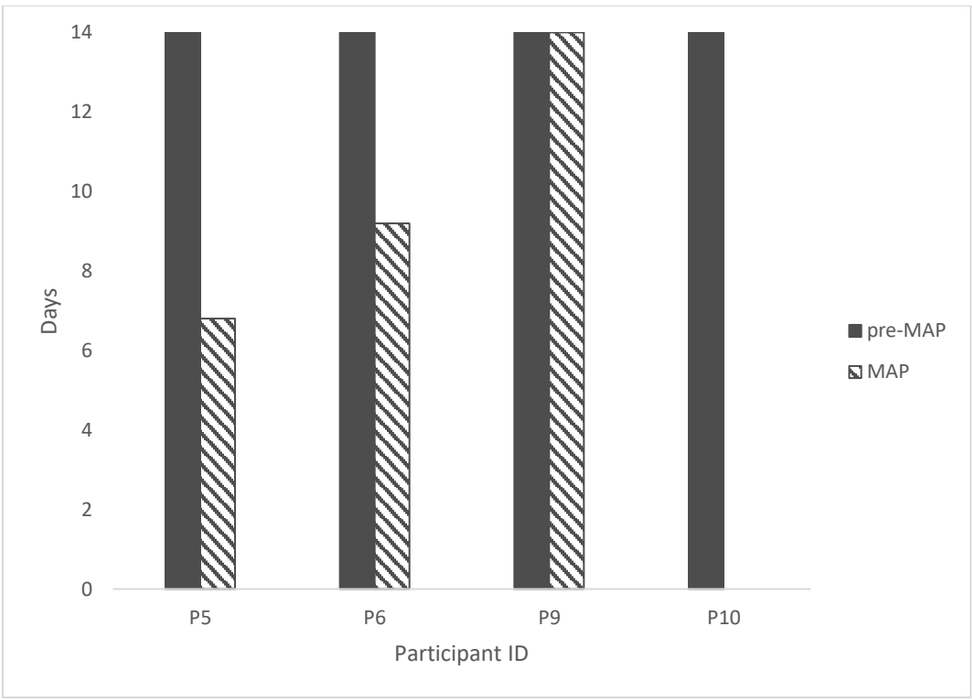


Note. Participants were asked to report on how many days they used other substances in the past 2 weeks. The number of days was averaged across all data points collected during pre-MAP, MAP, and post-MAP. These values are excluding tobacco, which was used by 100% of participants every day in the 2 weeks pre-MAP, on 13.92 days during MAP, and on 13.71 days post-MAP. Scores of 0 indicate no other substance use. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

The four participants who used cannabis reported an average of 14 days of use pre-MAP and 10 days of use during MAP. One participant reported getting their cannabis from a retail store and three participants reported getting their cannabis from a community cannabis program.

Figure 15

Average Number of Cannabis Use Days



Note. Participants were asked to report on how many days they used cannabis in the past 2 weeks. The number of days was averaged across all data points collected during pre-MAP, MAP, and post-MAP. Scores of 0 indicate no cannabis use.

"Oh, I just think it's a great program and very beneficial to somebody like me": The impacts of MAP on alcohol use

In qualitative interviews, participants all shared their experiences of positive impacts provided by the MAP. Though some were unable to provide specific examples of the program's impact, the program was only spoken about in a positive manner. As one participant stated, "Oh, I just think it's a great program and very beneficial to somebody like me." In contrast to life prior to the MAP, the MAP provided a safe space, stable access to alcohol, and opportunities for positive financial change and friendship.

Most participants described how they consumed much more alcohol prior to joining the MAP. This participant explained how drinking was a way to cope with their pain and their problems:

> "Well I do it more I guess under control, right, like I know how to spread it out and not get out of control whereas before when I was just homeless I was just drinking to I guess kind of numb my pain and problems or um yeah at least here I know I'm safe and comfortable in my own space and don't have to worry about drinking outside in public or on the streets or yeah I'm definitely happy to be able to have my own space to do that."

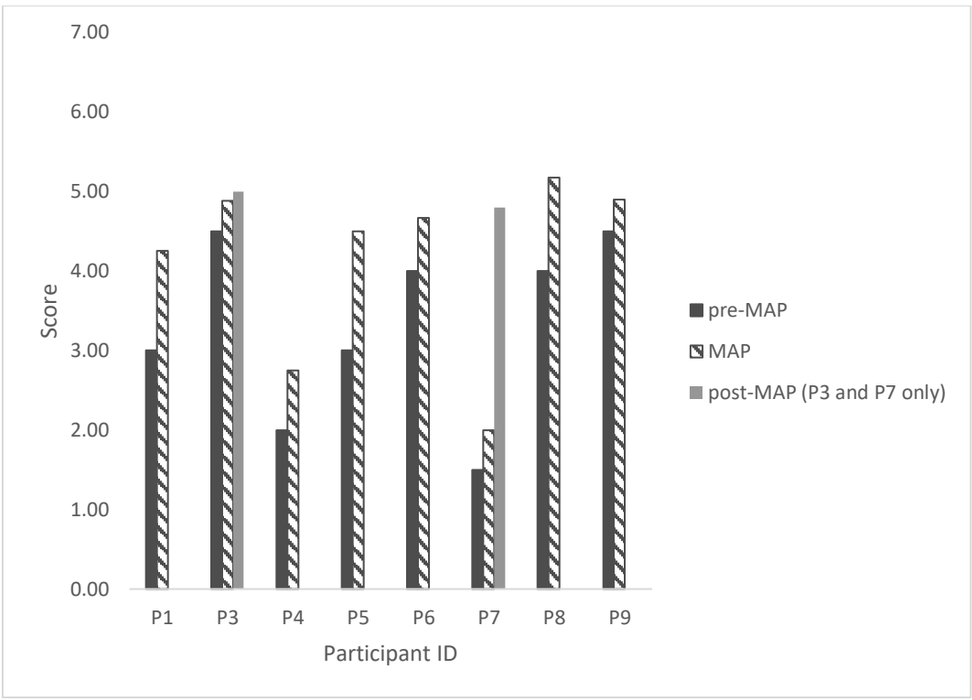
This participant identified the safety and stability provided by the MAP. When describing life before joining the MAP, participants frequently contrasted it with life on the MAP, highlighting the changes in environment, lifestyle, and patterns of unsafe drinking. All participants outlined the positive impact of the MAP on their drinking. For example, one participant stated, "Uh it's really cut me [my alcohol use] down a lot […] Uh yeah that's a positive yeah." Another participant explained, "Well, I mean, I'm drinking a lot less than I used."

Physical Distancing and COVID-19 Related Outcomes

Scores on the Physical Distancing and Risk Behaviours scale remained low throughout the course of the study. The highest possible total score on the Physical Distancing and Risk Behaviours scale is 20, with higher scores indicating improved ability to follow COVID-19-related physical distancing and hygiene guidelines. Participants reported a total average score of 10.25 in the 2 weeks prior to joining the MAP. While in the MAP, participants scored on average 13.83. All participants showed increases in the Physical Distancing subscale of the Physical Distancing and Risk Behaviours scale; five participants showed increases in the Hygiene subscale; and six participants showed increases in the COVID-19 Risk subscale. Details of subscale scores are shown in Figures 16 to 18. No participants contracted COVID-19 during the course of the study.

Figure 16

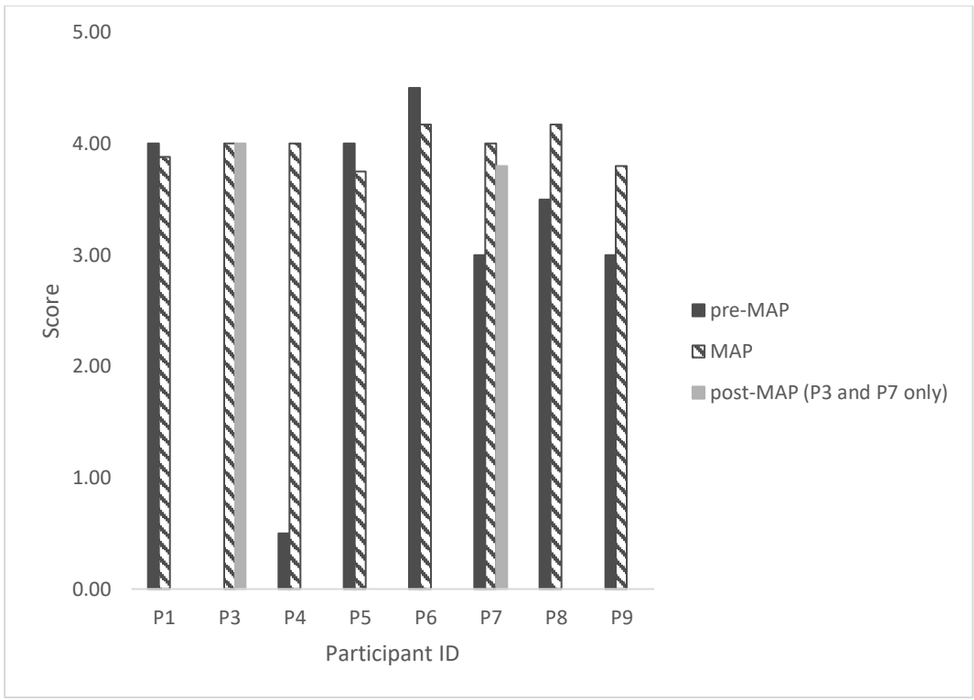
Physical Distancing Subscale Scores (Physical Distancing and Risk Behaviours scale)



Note. Higher scores indicate better ability to follow the physical distancing guidelines. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Figure 17

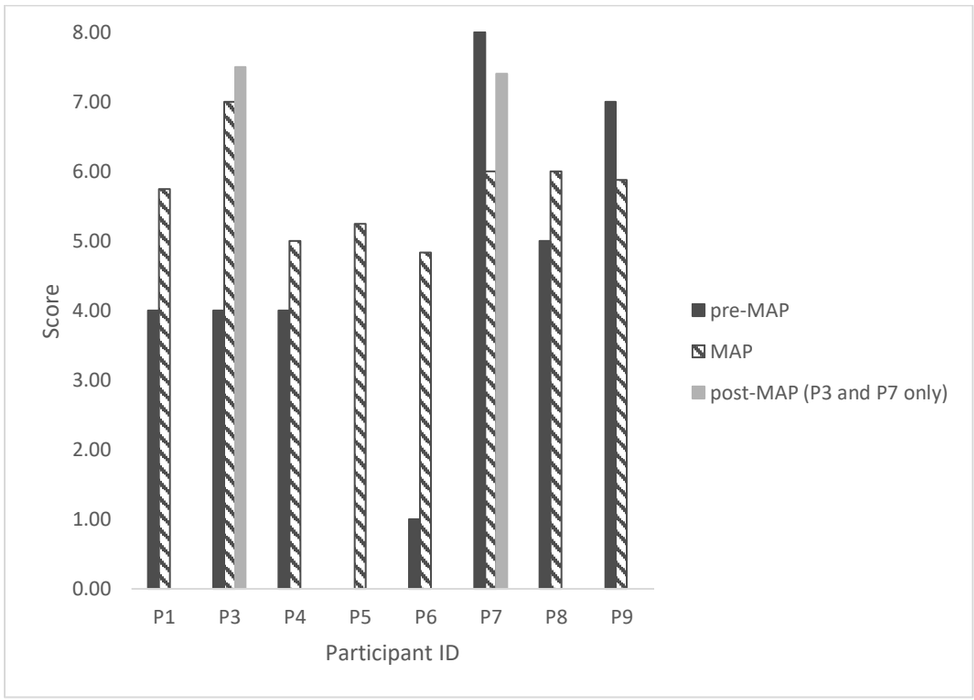
Hygiene Subscale Scores (Physical Distancing and Risk Behaviours scale)



Note. Higher scores indicate better ability to follow the hygiene guidelines. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

Figure 18

COVID-19 Risk Scores (Physical Distancing and Risk Behaviours scale)



Note. Higher scores indicate better ability to follow the COVID-19 related risk guidelines. P3 and P7 left the MAP during the study but continued with their follow-up interviews post-MAP.

"Oh isolating is a good thing": MAP in the context of COVID-19

In qualitative interviews, participants explained how the housing and regular servings of alcohol in the MAP allowed them to better implement some of the COVID-19 safety guidelines. As one participant stated, "Well it helps me stay con-contained and…yeah it's, they've helped me a lot."

Two participants in particular highlighted how the MAP allowed them to isolate rather than be in public collecting bottles. One participant stated:

> […] like I said it keeps me from having to go out during COVID to do a bottle run 'cause I can stay here and nurse the beers all day otherwise I'd have to go out and run into people and stuff.

The other participant explained, "Oh isolating is a good thing 'cause I don't have to go out on a bottle run […] which would put me out there and so um it's helping me from having to out in public."

Overall, participants identified the positive benefits of the program on their ability to implement COVID-19 safety guidelines, particularly isolation.

Program Goals and Expectations

At baseline, five participants identified the goal of reducing their drinking and four identified the goal of preventing withdrawal and seizures related to drinking. In the final surveys, four participants identified the goals of reducing their drinking. However, there was variability in goals (see Table 1). Interest in additional MAP services was also variable. At baseline, five participants were interested in permanent housing, four were interested in job training and paid work, and four were interested in volunteer opportunities. In the final surveys, four participants were unsure which additional MAP service they were interested in.

"It was what it was and it helped us": goals related to the MAP

In qualitative interviews, most participants described goals of decreasing their drinking and maintaining a stable alcohol intake over time. For example, when asked what they were hoping to get out of the MAP, one participant explained:

> Um I guess just controlling it and you know the seven beers a day it helps me get by and I… I don't know what else to say… it I would like to kind of wean myself off the 8% and maybe just go down to a 5% beer. Cause necessarily I don't have to drink every day, but I just know that my body needs it.

Another participant described how they have been successfully decreasing their drinking in the MAP:

> Well, what I did was I started cutting down they were given that I think they were giving me six beer day maybe even a little bit more and then I just said like cut it down a little bit yeah but I got eight beers a day and then I said OK that's, that's a little bit too much right now so I could I cut back two beer a day.

This same participant also highlighted that they did not have any specific hopes or expectations about the MAP because they knew what the MAP provided and so accepted the program as it was:

> […] well they [the MAP staff] were very up, they are very straightforward with us and just said OK this is what's happening so there was no miscommunication or confusion or anything like that it was relatively easy. […] no, I didn't know there was there was no expectation or stuff like that; it was what it was and it helped us, so.

Another participant had similar views about the MAP, goals, and expectations: "Everything that I'm already getting is like immaculate, is enough, so I don't think there is anything more that I could possibly want to expect."

One participant had the additional goal of saving money to get their own place. They explained how the regulated servings of alcohol in the MAP could eventually help them to save enough money:

> Yeah, yeah I'm thinking of just cutting it in half maybe just the morning beer and not the night beer […] but yeah so if um I get off this program then I can save some money and then we're gonna try to get a place together [with their brother-in-law].

While participants did reference the changes in their drinking patterns, they mostly highlighted the current advantages of being on the program rather than future goals. For example, one participant continuously referenced the overall, general benefits of being in the program: "oh it just made my life easier man".

Cross-Case Comparison

A cross-case comparison joint display comparing and contrasting the individual qualitative goal data with changes in key quantitative results is shown in Table 3.

Table 3

Cross-Case Comparison and Mixed Methods Integration of Qualitative Goal Data and Changes in Key Quantitative Outcomes

Participant ID	Goals and expectations (qualitative)	Time in MAP at baseline	Alcohol Consumption		Pre-MAP AUDIT	Pre-MAP SADQ	Alcohol-related harms	Quality of Life and Health status (EQ-5D)	Housing status
			Total drinks per drinking day	Drinking days					
P1	*Data not available*	8 months	Participant increased on average 3.76 drinks/day from 13 drinks/day pre-MAP	Participant decreased on average 0.75 drinking days	24 (alcohol dependence)	42 (severe dependence)	Participant experienced on average 4.5 less harms (pre-MAP harms = 6)	Participant increased in their average health scale score by 16 points	Participant was evicted and relocated to another shelter while on MAP
P3	The participant described themselves as "*beyond help*", though wanted to quit drinking (described this goal as "*the big one*") and explained how the program helped with moderation and being "*okay*". Though they did not have any expectations about MAP, they achieved their goal of decreasing their drinking.	6 months	Participant decreased on average 0.19 drinks/day while on MAP from 7.8 drinks/day pre-MAP, and decreased an additional 1.37 drinks/day post-MAP	Participant reported no change in drinking days (every day) while on MAP, and decreased on average 4.5 drinking days post-MAP	20 (alcohol dependence)	25 (moderate dependence)	Participant experienced on average 6.5 less harms, and remained at that level post-MAP (pre-MAP harms = 7)	Participant increased in their average health scale score by 25 points, and increased another 5 points post-MAP	Participant maintained their housing
P4	The participant explained how the program was helping them "*figure things out*" and that they have made "*huge progress*". They explained that they want to stabilize their drinking, but that it takes time: "*Anything worth having does not happen overnight. I'm going to get there, it just takes some time.*"	8 months	Participant decreased on average 19.04 drinks/day from 36.88 drinks/day pre-MAP	Participant reported drinking every day on MAP (no data available for pre-MAP)	19 (alcohol dependence)	29 (moderate dependence)	Participant experienced on average 3 less harms (pre-MAP harms = 4)	Participant decreased in their average health scale score by 20 points	Participant maintained their housing
P5	This participant did not elaborate on their goals at baseline. In the final interview, they described how they were drinking less and working towards getting an apartment.	6 months	Participant decreased on average 6.04 drinks/day from 20.04 drinks/day pre-MAP	Participant reported no change in drinking days (every day)	26 (alcohol dependence)	39 (severe dependence)	Participant experienced on average 1.5 less harms (pre-MAP harms = 2)	Participant decreased in their average health scale score by 2 points	Participant maintained their housing
P6	At baseline, this participant explained that they want to reconnect with family. In the final interview they	2 months	Participant decreased on average 3.78 drinks/day from 33.40 drinks/day pre-MAP	Participant reported no change in drinking days (every day)	34 (alcohol dependence)	47 (severe dependence)	Participant experienced on average 6.67 less	Participant decreased in their average health scale score by 12 points	Participant maintained their housing

	shared the idea of moving home, in addition to being motivated to go back to work.						harms (pre-MAP harms = 9)		
P7	This participant first explained how they would eventually like to quit drinking, but that responsible drinking to avoid withdrawal was sufficient. In the final interview, they detailed how they had decreased their drinking: *"Yes[I] definitely achieved that goal. When I started I was drinking 13-14 beers a day, and now I'm at 3-4. Quite a reduction and I don't drink every day now."*	6 months	Participant decreased on average 6.95 drinks/day while on MAP from 15.27 drinks/day pre-MAP, and decreased an additional 3.19 drinks/day post-MAP	Participant decreased on average 3 drinking days on MAP, and decreased an additional 3 days post-MAP	19 (alcohol dependence)	5 (mild dependence)	Participant experienced on average 5 less harms, but increased by 0.4 post-MAP (pre-MAP harms = 5)	Participant increased in their average health scale score by 29 points, but decreased by 10 points post-MAP	Participant maintained their housing
P8	*Data not available*	10 months	Participant increased on average 1.91 drinks/day from 3.42 drinks/day pre-MAP	Participant increased on average 7 drinking days	8 (hazardous or harmful alcohol consumption)	6 (mild dependence)	Participant experienced on average 2 less harms (pre-MAP harms = 2)	Participant increased in their average health scale score by 3 points	Participant maintained their housing
P9	At baseline, this participant explained how they want to control their drinking: *"It goes down like water for me, and I don't want to be intoxicated that easily."* In the final interview, they explained the stability provided by the MAP: *"[…] I'm kind of like stabilized I don't want to say stabilized with the seven beers, but it helps me get through the day."*	3 months	Participant decreased on average 7 drinks/day from 22.57 drinks/day pre-MAP	Participant decreased on average 1 drinking day	21(alcohol dependence)	24 (moderate dependence)	Participant experienced on average 5 less harms (pre-MAP harms = 6)	Participant increased in their average health scale score by 20 points	Participant maintained their housing
P10	*Data not available*	10 months	Participant decreased on average 3 drinks/day from 26.30 drinks/day pre-MAP	Participant reported no change in drinking days (every day)	32 (alcohol dependence)	48 (severe dependence)	Participant experienced 8 harms pre-MAP (no data available on MAP harms)	*Data not available*	Participant maintained their housing

Individual Case Findings

Table 3 integrates the summaries of participant goals with quantitative outcomes. Participants 1, 8, and 10 did not elaborate on their goals when given the opportunity. Interestingly, the two participants who drank more after joining the program did not expand on their goals related to MAP participation. Both participants who left the MAP but continued to participate in the research show continued positive outcomes post-MAP, including reduced drinking (in terms of both standard drinks and drinking days) and fewer alcohol-related harms. Of note, both of these participants had clear goals and expectations related to the MAP. Perhaps having clear goals or having a clear understanding of the program's services and purpose facilitates more positive outcomes in the longer term.

Participant 1

Participant 1 did not elaborate on their goals and expectations related to MAP participation. This participant's alcohol consumption increased after joining the program and they showed a reduction in the number of drinking days (thus reported drinking more across fewer days). However, this participant also reported fewer alcohol-related harms and improved health. This participant had been in the program for 8 months in the first interview, so it is possible that the initial impacts of the program on drinking were not accurately captured. Of note, this participant did not complete their final interview because they chose to move into a detoxification treatment program. This individual outcome is congruent with research showing that long-term MAP participation (greater than 2 months) is associated with a greater likelihood of seeking treatment compared to controls (Erickson et al., 2018).

Participant 3

Participant 3 expressed a desire to quit drinking but focused on their goal of reducing their consumption. They also expressed a clear understanding of the MAP and the services available. This

participant left the MAP after 6 weeks in the study. Nevertheless, they clearly succeeded in their goal as they drank less while on the MAP and continued to decrease their drinking (in terms of both standard drinks and drinking days) post-MAP. Moreover, this participant reported fewer alcohol-related harms and improved health. This participant had been in the program for 6 months at the time of the first interview, which may be a significant period for the salience of the impacts of MAP participation. It is notable that this participant continued to improve post-MAP.

Participant 4

Participant 4 was imprecise in their description of goals and expectations related to MAP participation, though clearly stated an understanding of the time commitment necessary for change. This participant drank less after they joined the MAP and experienced fewer alcohol-related harms. However, they also reported some deterioration in their health. This participant had been in the program for 8 months at the time of the first interview. Perhaps their deterioration in health is a result of the long-term, high-volume alcohol consumption; though the consistent administration of alcohol may reduce acute health issues (e.g., withdrawal seizures), it is possible that chronic health issues are not impacted in the same way (Stockwell et al., 2013). This participant may also have had other health issues that were not captured in these data.

Participant 5

Participant 5 did not elaborate on their goals during the baseline interview but described the reduction in their drinking and their desire to continue with this pattern in the final interview. This participant drank less after they joined the MAP and reported fewer alcohol-related harms. However, they also reported a slight deterioration in their health. This participant had been in the program for 6 months at the time of the first interview. It is possible that slight improvements in their health could have been captured earlier (e.g., at 3 months). It is also possible that the program

allowed them to focus on other mental and physical health concerns, or that their deterioration in health is a result of the long-term, high-volume alcohol consumption.

Participant 6

Participant 6 described their desire to reconnect with family and to return to work. Despite not elaborating on any specific drinking goals, this participant drank less after they joined the MAP and experienced fewer alcohol-related harms. However, they also reported some deterioration in their health. This participant had been in the program for 2 months at the time of the first interview. Their results are consistent with the 0 to 2 months period for the salience of the early impact of MAP participation on alcohol-related harms (Stockwell et al., 2021). It is possible that the deterioration in their physical health would have occurred regardless of MAP participation, given their high level of drinking pre-MAP, though the continuous alcohol provision by the program may have also had an impact on their health throughout the course of the study.

Participant 7

Participant 7 expressed a desire to quit drinking but focused on their goal of reducing their consumption and experience of alcohol-related harms. This participant drank less after they joined the MAP (in terms of both standard drinks and drinking days), reported fewer alcohol-related harms, and reported improved health. This participant left the MAP after 2.5 weeks in the study and continued to decrease their drinking post-MAP (in terms of standard drinks, drinking days, and high-consumption days). This participant had been in the program for 6 months at the time of the first interview, which may be a significant period for the salience of the medium-term impact of MAP participation (Stockwell et al., 2021). It is notable that this participant continued to improve post-MAP.

Participant 8

Participant 8 did not elaborate on their goals and expectations related to MAP participation. This participant drank more after joining the program (in terms of both standard drinks and drinking days). However, they experienced fewer alcohol-related harms and reported improved health. This participant had been in the program for 10 months in the first interview. Perhaps the stable, continuous drinking pattern facilitated by the program was beneficial to them both in terms of reduced alcohol-related harms and health concerns.

Participant 9

Participant 9 described wanting to control their drinking and limit intoxication. This participant drank less after joining the program (in terms of both standard drinks and drinking days). They also experienced fewer alcohol-related harms and reported improved health. This participant had been in the program for 3 months in the first interview; some research indicates 3 months as a salient period for improvements related to MAP participation (Stockwell et al., 2013). It is notable that this participant demonstrated positive changes in all key outcomes.

Participant 10

Participant 10 did not elaborate on their goals and expectations related to MAP participation. This participant drank less after joining the program and reported fewer alcohol-related harms. This participant had been in the program for 10 months in the first interview. Perhaps the stable, continuous drinking pattern facilitated by the program was beneficial to them in the longer-term.

Discussion

This pilot study provides a mixed description of the progress of nine MAP participants in British Columbia in the context of the COVID-19 pandemic. There are no other studies to date which have included programs using a clinician scattered-site outreach or fixed-site MAP model. This is also the first study of health-authority based MAPs. The findings of this study extend past research showing that MAPs enhance housing stability and feelings of safety and reduce alcohol-related harms, and further add to the existing literature by including MAPs operating in the new and unprecedented context of the COVID-19 pandemic. The findings of this research also address the common fears of MAP critics, as participants reported reductions in alcohol use, alcohol-related harms, and COVID-19 risk behaviours, and attributed these benefits to program participation.

The purpose of this research was to provide a description of nine MAP participants, and to illustrate whether MAP participation can reduce individual risk of COVID-19 infection by supporting physical distancing measures, while improving safety, stability, mental and physical health, and reducing alcohol-related harms. The specific objectives of this research were: 1) To describe the specific characteristics of the MAPs operating in the context of the COVID-19 pandemic; 2) To explore whether entry into a MAP was associated with improvements in the health, safety, and well-being of individual participants; 3) To explore whether entry into a MAP was associated with reductions in their usage of emergency, hospital, police, and correctional services; 4) To explore whether entry into a MAP was associated with their having less hazardous patterns of alcohol use; 5) To explore whether entry into a MAP was associated with improvements in participants' ability to follow COVID-19-related physical distancing and hygiene guidelines; 6) To illustrate participant's goals related to MAP participation.

The findings suggest that the MAPs mostly helped these participants improve their ability to follow COVID-19 guidelines, enhance housing stability, improve health, safety, and wellbeing, and

reduce alcohol-related harms. In fact, each participant described positive outcomes after joining the program. While alcohol harm reduction does not necessitate a reduction of alcohol consumption (Stockwell & Pauly, 2018), the majority of participants reduced their drinking. Moreover, most participants drank in a steady, continuous pattern over the course of the study. Participants also described the safe setting provided by the MAPs, a positive aspect of the program that has been previously highlighted in qualitative interviews (Pauly et al., 2019; Pauly et al., 2016). Similar to the initial evaluations of a MAP in Ottawa (Podymow et al., 2006) and pilot research conducted in Thunder Bay (Vallance et al., 2016), MAP participants in the present research also reported fewer police contacts and many reported improved health and wellbeing following entry into the program. As was found in other research including MAP participants (Stockwell et al., 2018; Stockwell et al., 2021), participants in the present research reported fewer alcohol related harms while on the MAP.

Health, Safety, and Wellbeing

Another key program objective was achieved as all participants maintained their housing or shelter throughout the course of the study. Individuals with severe AUD experiencing unstable housing are often unable to access and maintain stable housing due to their alcohol use (Williams, 2011), thus MAPs aim to provide stable housing to this vulnerable population of individuals with severe AUD experiencing unstable housing. Most participants also expressed a high degree of satisfaction with the overall quality of their housing, particularly in terms of safety, spaciousness, privacy, and friendliness. Participants described the positive impact of their housing in discussions of limited mobility and their ability to remain home, stable, and safe in the MAP. Accommodation was not provided by the health-authority based MAPs, though these results illustrate the potential importance of housing as part of MAP.

There was also a reduction in alcohol-related harms compared to pre-MAP, in the domains of social, physical health, home life, work, financial, legal, housing, and physical assault. Participants

decreased from an average of 5.4 harms pre-MAP to 0.75 harms while on the MAP. Two participants actually reported no alcohol-related harms while on the MAP. The reduction in harms can be related to the housing and shelter facilitated by the program. However, the average time spent in the MAP at the first interview was 6.56 months (ranging from 2 to 10 months). Some research shows that participants experience fewer harms between 0 and 2 months and at 6 months (Stockwell et al., 2021), and other research shows a greater improvement at 3 months compared to 6 months (Stockwell et al., 2013). These individual outcomes in the present research show some variability in the timeline of program impact. Given that most participants were interviewed about their life pre-MAP retrospectively, it is possible that the early impacts of the program were missed. Importantly, this variability also highlights the importance of individualized programs and the potential positive impact of additional program resources (e.g., support workers and peer support opportunities).

The majority of participants exhibited improved health compared to pre-MAP, though three participants reported some deterioration in their overall health. The participants who reported reduced health were struggling with pain and discomfort, mobility, and daily activities. It is possible that some individuals were using alcohol for pain management before joining the MAP, particularly given the high amounts of alcohol consumed pre-MAP. Reductions in mobility and daily activities may be related to the COVID-19 restrictions imposed on outdoor activity (e.g., remain indoors). Perhaps the shift from basic survival pre-MAP provided these participants with the opportunity to assess their other, less critical, mental and physical health concerns. Given the complex nature of MAP participants' health, it is also possible that these declines in health may have occurred despite their participation in MAP (Stockwell et al., 2013).

Participants showed a corresponding increase in their health service access. The frequency of contact with other healthcare providers (including nurses, doctors, and pharmacists) increased

considerably when participants joined the MAPs. Though this contact was not anticipated, it is possible that the daily alcohol deliveries by clinical or health authority staff provided an avenue for the increase. While it could be argued that the increase in health service usage also increases health costs, it is anticipated that it will, more importantly, lead to better individualized treatment and better long-term health (Stockwell et al., 2013).

Alcohol and Other Substance Use

It is clear that the majority of participants drank less alcohol after joining the program. There were also reductions in alcohol dependence and in the degree of physical withdrawal. In fact, all participants reported a decrease in the degree of dependence in the final surveys compared to pre-MAP and seven participants also showed a decrease in physical withdrawal specifically. Though there were no reductions in the number of drinking days or in the number of high consumption days, it can be argued that the program's continuous alcohol administration allowed for a level drinking pattern in most participants (a benefit of MAPs described in past research: Stockwell et al., 2013).

Five participants continued to drink outside of the program, and it is possible that participants under-reported their outside drinking, as was found in other research (Chow et al., 2018). Continued drinking outside of the MAP may facilitate ongoing patterns of risky alcohol consumption and associated harms. In fact, MAP policies regarding outside drinking may be a significant predictor of drinking outcomes (Stockwell et al., 2021). Participants in MAPs with clear and effective policies regarding outside drinking reported reduced alcohol and NBA consumption, and fewer alcohol-related harms compared to controls. In contrast, participants in MAPs with less effective policies reported higher alcohol and NBA consumption compared to controls (Stockwell et al., 2021). Outside drinking is an issue that should be investigated in future research. Of particular interest is

the role of MAP drinking policies, and the evolution of the drinking policies in the newly established health-authority based MAPs.

No participants reported consuming NBA at any point in the study. This finding is significant, as the consumption of NBA is not uncommon in MAP participants, particularly prior to joining a MAP (Podymow et al., 2006; Stockwell et al., 2013). However, six participants continued to consume other substances while on MAP (including cannabis, crack, crystal meth, cocaine, and benzos), which is an area of potential concern. However, when excluding cannabis, medication to reduce withdrawal, antidepressants, and other medication (e.g., for sleep), there is no increase in the number of days of other substance use while on MAP from pre-MAP. Future research should consider the impact of the COVID-19 MAP setting on other substance use. Specifically, the impact of the inclusion of both individuals who use alcohol and individuals who use other substances in the same housing. It is possible that the mixed setting of the COVID-19 MAPs inadvertently increased access and exposure to substances other than alcohol. Participants in this research may have previously only been part of communities of individuals who use alcohol, and this mixed setting may have enabled other substance use despite the continuous access to beverage alcohol provided by the MAP.

COVID-19

Though the results of this small study cannot be generalized beyond this sample, there are nonetheless important results to be considered. First, while on the MAP, participants' ability to follow COVID-19-related physical distancing and hygiene guidelines improved compared to pre-MAP. Facilitating individuals' ability to isolate and maintain safe practices during the COVID-19 pandemic was a key objective of the health-authority based MAPs. However, average scores remained low on the Physical Distancing and Risk Behaviours scale. It is possible that while participants had greater access to physically distanced housing, running water, cleaning supplies, and

COVID-19 testing, they continued to socialize and buy items from grocery and liquor stores in person. Feelings of isolation were not uncommon during the pandemic. In fact, in an ongoing study evaluating the mental health of Canadians during the COVID-19 pandemic, 20.4 to 23.7 percent of participants reported feeling lonely (Centre for Addiction and Mental Health (CAMH), 2021a). The suggested means of combating feelings of loneliness and isolation include communicating through video chat, phone calls, and messaging apps, or staying distracted with work, hobbies, music, or movies (Centre for Addiction and Mental Health (CAMH), 2021b). It is not surprising therefore that the study population of individuals with severe AUD experiencing unstable housing sought the continued company of others for support during this unprecedented time, as many were likely unable to carry out these suggested activities.

Importantly, no participants contracted COVID-19 during the course of the study. Given that health-authority based MAPs were developed in response to the COVID-19 pandemic, this result is of particular significance. Individuals with severe AUD experiencing unstable housing were, and continue to be, at greater risk of experiencing negative health outcomes during the COVID-19 pandemic, including severe withdrawal symptoms, alcohol-related harms, and severe COVID-19 symptoms (Centers for Disease Control and Prevention, 2020; Muckle et al., 2012; Witkiewitz & Alan Marlatt, 2006). Thus, the absence of COVID-19 cases in the present study is a significant achievement of the newly developed programs.

Goals and Expectations

Participants expressed continued interest in reducing their drinking while on MAP, including two participants who expressed an interest in quitting drinking. And it is worth repeating that seven participants achieved their goal of reducing their drinking. Participants also expressed interest in permanent housing, job training, and paid work. These results highlight some potential areas for program service expansion.

Qualitative Findings

The four participants who completed qualitative interviews shared their experiences of life before and on the MAP, and described their goals related to participation in the MAP. There are other studies in which participants describe their experiences with the program (Evans et al., 2015; Pauly et al., 2019; Pauly et al., 2016). In this other research, the MAP is described as a safe place that facilitates the reduction of harms and improves the quality of life through improved housing conditions and nonjudgmental treatment (Pauly et al., 2019; Pauly et al., 2016). The present findings expand the understanding of MAPs by highlighting their impact during the unprecedented and complex context of the COVID-19 pandemic. Participants contrasted life before joining the MAP to life on the MAP, highlighting the safety and stability provided by the program. Importantly, these findings help to contextualize the quantitative results. For example, consider the housing satisfaction scores, which are on average less than the best possible response. Without the description of the survival-focused lifestyle enacted by most participants pre-MAP, these scores, and the impact of the provision of MAP housing, cannot be fully understood. Participant illustrations also support the quantitative survey findings related to pain, alcohol use, and mobility issues.

These findings expand the understanding of life on the MAP, as participants highlighted their goals and expectations of the program. It is evident from the qualitative interviews that participants valued the program and the positive impact resulting from their participation. As such, these findings outline the potential role of MAPs as an important part of the treatment continuum, though future research should consider other influences on experiences in the program during the COVID-19 pandemic (e.g., ethnicity, gender).

Implications

The results are consistent with other research finding that MAPs can serve as an important part of the treatment continuum for unstably housed people with AUDs, particularly in the current

context of the COVID-19 pandemic. Importantly, the findings also indicate that there would be value in extending this alcohol harm reduction approach beyond the duration of the pandemic and that it be further integrated into the substance use treatment continuum. Other research shows that there is a place in the harm reduction movement for MAPs, as these programs address the intersecting harms of homelessness and alcohol use (Ivsins et al., 2019). The results show that MAPs can help reduce hazardous patterns of alcohol use in the context of the COVID-19 pandemic; though participants consumed high volumes of alcohol, they maintained steady drinking patterns, consumed safely within their housing, and experienced fewer alcohol-related harms. Notably, there seemed to be some association between participants' goals related to MAP participation, their understanding of the supports provided by the program, and positive outcomes. This finding highlights a potential area for program service expansion in terms of individualised program education and management.

Though the results of this research are encouraging, there are concerns associated with the continuous, daily alcohol administration provided by the programs. Long-term health risks such as cancer, liver disease, and other chronic diseases should not be discounted (Rehm et al., 2009). Other research on MAPs has suggested that while the provision of regular doses of alcohol may reduce acute harms (e.g., social harms and risk of withdrawal), there may be an increased risk of chronic physical health issues due to the continuous, daily alcohol consumption (Stockwell et al., 2013). However, participants in this research expressed a continued interest in reducing their drinking while on MAP, and most participants did reduce their drinking while on the program. Moreover, two participants expressed an interest in quitting drinking completely. Additional longer-term research is needed to establish whether MAPs can facilitate long-term reductions in drinking (and abstinence from alcohol, if desired), and whether longer-term MAP participation is associated with increased

risk of chronic physical health issues. Programs should also consider implementing ongoing clinical assessments to evaluate long-term harms.

This pilot study outlines the key elements of the different models of alcohol administration. In the scattered-site outreach model, alcohol is delivered by clinical staff to scattered sites up to three times daily. It is possible that this model enhances individual autonomy, as clients are able to plan around their delivery schedule. However, this model may also contribute to anxiety and uncertainty between deliveries and may facilitate binge drinking patterns and outside alcohol consumption. Outreach MAPs rely on clients to manage their consumption, reduce binge drinking patterns, and manage outside alcohol consumption to ensure that harms are not increased. In contrast, in the fixed-site model, on-site health authority staff provide alcohol multiple times per day. This model ensures that clients pace their alcohol consumption, though the hourly administrations decrease client autonomy. It is also possible that the hourly doses of alcohol may increase overall consumption. Additional research including programs using a clinician scattered-site outreach model and programs using a fixed-site model is needed to further understand the impact of their differing alcohol harm reduction approach.

An important finding of this research is the impact of MAPs for individuals who use alcohol in the context of the COVID-19 pandemic. The risk mitigation guidance document released by the BCCSU led to the development of MAPs in BC to reduce harms associated with severe AUD, high-risk drinking, and unstable housing in the current context of the COVID-19 pandemic. The health-authority based MAPs in BC addressed each of these concerns, and thus should be considered as a valuable harm reduction strategy. However, there is some indication that some of these programs will be discontinued at the end of the pandemic. Alcohol policy in Canada typically endorses a reduction or cessation of alcohol use; these policies and resulting interventions are often inaccessible to individuals with severe AUD who are experiencing housing instability (Ivsins et al., 2019).

Alcohol harm reduction practices such as Housing First – wherein individuals are placed in low-barrier, non-abstinence based housing – is an effective evidence-based practice that helps individuals maintain housing (Aubry et al., 2019). However, MAPs provide additional services that may work together to better mitigate the harms associated with severe AUD and homelessness. Moreover, there are limited numbers of both MAPs and housing first programs in Canada (Ivsins et al., 2019; Pauly et al., 2018). Future research should consider the roles of alcohol provision and management, of housing, and of additional supports provided in the MAPs.

Though the COVID-19 pandemic caused the proliferation of MAPs across BC, there is a clear need for continuation and expansion of these programs beyond the confines of the pandemic (Kouimtsidis et al., 2021). In fact, the World Health Organization advocates for alcohol problems on a continuum and having a broader range of prevention and treatment alternatives (World Health Organization (WHO), 2001). It is unlikely that the severe alcohol dependence, housing instability, and harms experiences by the individuals in the program become insignificant at the end of the pandemic. The newly developed MAPs offer essential support through the provision and management of beverage alcohol, housing, and help individuals adhere to the COVID-19 health and safety guidelines. While adhering to COVID-19 guidelines may no longer be a main concern after the pandemic, MAP participants will remain a vulnerable population in need of additional support. The findings of this research add to the growing body of literature evidencing the need for the integration of alcohol harm reduction along the treatment continuum (Kouimtsidis et al., 2021).

Limitations

This study has several limitations, including the small sample size and the lack of a comparison or control group. Future research should ideally include a larger, more representative sample with a comparison group of similar individuals who are not on the MAP. Another limitation is the use of some retrospective data. Participants were not recruited as soon as they joined the

program, and there is some variability in the length of their MAP participation at baseline. It is possible that the positive outcomes noted in this research are due to a comparison of life pre-COVID-19 to life on the MAP, rather than a comparison of life pre-MAP to life on the MAP.

The limitations imposed by the COVID-19 health and safety guidelines on research should also be noted (namely, limits to recruitment and data collection). Despite strict practices, this research included rich data from nine individuals. Future research should continue to evaluate the clinician scattered-site outreach or fixed-site MAP model. Ideal research practices would involve participant recruitment at the start of the MAP. Additional services in MAPs should also be examined, including the benefits of having full-time services and staff on the program, light meal provision, and permanent housing services.

The small sample size limits the generalizability of the research findings. There is no possibility to draw causal conclusions with this data. However, the strength of the mixed methods design is the integration multiple sources of evidence, which enhances the understanding of the phenomenon (Caracelli & Greene, 1997; Greene et al., 1989). While an experimental design may have produced more evaluative data and conclusions, the mixed methods design increases the practical applicability of the research findings (Schoonenboom & Johnson, 2017). Thus, the results may still inform future research, policy, and programs in the ongoing context of the COVID-19 pandemic.

Some underreporting can also be expected in these results. Typically, data (both quantitative surveys and qualitative interviews) are collected in-person from this population of individuals with severe AUD experiencing unstable housing. MAP participants often face considerable stigma and marginalization and as a result often feel cautious and have high levels of distrust. Thus, face-to-face interviews are used to establish the crucial trust between the interviewer and the interviewee. Due to the limitations imposed by the COVID-19 health and safety guidelines, all surveys and interviews

were conducted over the phone using study-provided cellphones. Overall, the use of study-provided cellphones was successful and highlights the potential for future multi-site research using this method.

Conclusion

This pilot study provides a mixed description of MAP participants in British Columbia in the context of the COVID-19 pandemic. This is the first study including programs that are using a clinician scattered-site outreach or fixed-site model; this is also the first study including the newly emerged health-authority based MAPs operating in the unprecedented context of the COVID-19 pandemic. The purpose of this research was to provide a description of nine MAP participants, and to investigate whether participation in MAPs might assist in reducing the risk of COVID-19 infection by supporting physical distancing measures, while improving safety, stability, mental and physical health, and reducing alcohol-related harms.

While generalizable conclusions about the effectiveness of MAPs during the COVID-19 pandemic are not possible from this small pilot study, the findings are promising. Many harm reduction objectives of the programs were met: all participants remained housed, most reduced their drinking and maintained a stable consumption pattern, and all experienced fewer alcohol-related harms. Most participants expressed a high degree of housing satisfaction and highlighted their feelings of comfort and safety in the program. These findings illustrate the importance of housing as part of MAP. The mode of alcohol administration (as multiple daily deliveries) helped participants remain safe during the pandemic. It is also apparent that this type of delivery allowed for more flexibility and autonomy in the lives of participants (Canadian Institute for Substance Use Research (CISUR), 2021). Thus, this research provides evidence in support of MAPs as an important part of the treatment continuum, particularly in the current context of the COVID-19 pandemic. This pilot study also shows the importance of community engagement and strong relationships in this field of research. Importantly, these findings also support the extended use of alcohol harm reduction beyond the duration of the pandemic and their integration into the substance use treatment continuum.

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Appendix A: Details of COVID-MAP Evaluation Site Participation

University of Victoria
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Room number PO Box 1700 STN CSC Victoria BC V8W 2Y2 Canada
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DATE: June 2020

SUBJECT: Details of COVID-MAP Evaluation Site Participation

Recruitment of MAP Participants

- Program Staff will be asked to share Information about the proposed MAP research during routine contact (e.g., during alcohol distribution). This would involve the program staff providing an information letter about the study to MAP clients outlining the opportunity to participate in either the quantitative or qualitative interviews (see attached recruitment documents).
- Anyone interested in participating or wanting more information about the study would contact researchers directly or indicate their interest to the program staff who would then communicate potential interest to the researchers.

MAP Participant Data Collection

- Program staff/managers will be in possession of research-provided prepaid cellphones to give to participants who either did not want to use their own phone or did not have access to a phone.
- Program staff/managers will receive from the research team gift cards. Individual participants will be given gift cards following interviews.
- Program staff/managers will receive from the research team-cellphone battery banks and/or chargers. During routine contact (e.g., alcohol distribution), for those participants with research provided cellphones, they will be asked if their phones need charging prior to follow-up interviews.
- The program will work with the research team to access program records including entry and discharge dates, amount of alcohol given per day in the program, reported outside alcohol use, and any health-related data routinely conducted in the program as part of regular clinical care, or recorded frequency of health service use.

Appendix B: Quantitative Recruitment and Information Letter (MAP Participants)

MANAGED ALCOHOL PROGRAMS: IMPLEMENTATION AND EFFECTIVENESS DURING THE COVID-19 PANDEMIC: RESEARCH INTERVIEWS

If you are in a managed alcohol program, we would like to interview you for our research project called Managed Alcohol Programs: Implementation and Effectiveness during the COVID-19 Pandemic. Participation is voluntary. If you decide not to participate, it will not affect the services you get from any agency or organization, including [NAME OF MAP].

PURPOSE

We want to see how people's lives change when they join a managed alcohol program, and what they think of the program, particularly during COVID-19.

INTERVIEWS

The interview will take about 1-hour and ask about your physical health, mental health, alcohol and other substance use, contacts with law enforcement agencies, contacts with healthcare services and providers, housing history, quality of life, demographic information and your experiences in the program. It would also include 15-minute follow-up interviews every two weeks for three months. We would like to do another 1hour interview with you at the end of the three months. These interviews will be done over the phone. If you do not have a cellphone, the staff can give you one so that you can get in touch with the researchers. The staff can also help you charge the phone when needed.

In addition, with your permission, we would also like to use some information that the managed alcohol program collects about your liver function tests, your clinical ratings, the amount of alcohol they provide you as well as your frequency and type of health service use.

You will be given a $25 cash gift card after each full-length interview and a $25 cash gift card for each of the biweekly follow-up interviews.

LEAD RESEARCHERS

The lead researchers are: Dr. Bernie Pauly and Dr. Tim Stockwell from Canadian Institute for Substance Use Research (CISUR) at the University of Victoria.

FUNDERS

This research is funded by Canadian Institutes of Health Research.

CONFIDENTIALITY

We plan to use this information in publications, presentations and reports. We won't be including the names of the people we interview. All research data will be kept in a secure location at the University of Victoria and on password protected computers. We will remove from the transcripts any information that would identify individual participants.

CONTACT

If you would like more information about the research project, or would like to set up a time for an interview, please contact Meaghan Brown: mbrown25@uvic.ca, 250-588-1459

Or let staff know you are interested, and they will contact the researchers. Let the staff know where you can be reached, and when is the best time to call. If you do not have a cellphone, the staff can give you one so that you can get in touch with the researchers.

If you decide you're interested in doing an interview, the researchers will ask you some questions to make sure you qualify for the study.

You can also contact Dr. Bernie Pauly for further information about the study: bpauly@uvic.ca, 250-472-5915

Appendix C: Qualitative Recruitment and Information Letter (MAP Participants)

MANAGED ALCOHOL PROGRAMS: IMPLEMENTATION AND EFFECTIVENESS DURING THE COVID-19 PANDEMIC: RESEARCH INTERVIEWS

If you are in a managed alcohol program, we would like to interview you for our research project called Managed Alcohol Programs: Implementation and Effectiveness during the COVID-19 Pandemic. Participation is voluntary. If you decide not to participate, it will not affect the services you get from any agency or organization, including [NAME OF MAP].

PURPOSE

We want to see how people's lives change when they join a managed alcohol program, and what they think of the program, particularly during COVID-19.

INTERVIEWS

The interview would be 30-45min of open-ended questions about the managed alcohol program. We would like to record and transcribe the interviews. You will receive a $25 cash gift card as a thank you for participating. These interviews will be done over the phone. If you do not have a cellphone, the staff can give you one so that you can get in touch with the researchers. The staff can also help you charge the phone when needed.

LEAD RESEARCHERS

The lead researchers are: Dr. Bernie Pauly and Dr. Tim Stockwell from Canadian Institute for Substance Use Research (CISUR) at the University of Victoria.

FUNDERS

This research is being funded by Canadian Institutes of Health Research.

CONFIDENTIALITY

We plan to use this information in publications, presentations and reports. We won't be including the names of the people we interview. Transcripts and digital recordings will be kept in a secure location at the University of Victoria and on password protected computers. We will remove from the transcripts any information that would identify individual participants.

CONTACT

If you would like more information about the research project, or would like to set up a time for an interview, please contact Meaghan Brown: mbrown25@uvic.ca, 250-588-1459

Or let staff know you are interested, and they will contact the researchers. Let the staff know where you can be reached, and when is the best time to call. If you do not have a cellphone, the staff can give you one so that you can get in touch with the researchers.

If you decide you're interested in doing an interview, the researchers will ask you some questions to make sure you qualify for the study.

You can also contact Dr. Bernie Pauly for further information about the study: bpauly@uvic.ca, 250-472-5915

Appendix D: Qualitative Recruitment and Information Letter (MAP Staff)

MANAGED ALCOHOL PROGRAMS: IMPLEMENTATION AND EFFECTIVENESS DURING THE COVID-19 PANDEMIC: RESEARCH INTERVIEWS

We would like to interview staff and managers at managed alcohol programs as part of our evaluation of these programs during COVID-19. If you are a staff or manager at a managed alcohol program, we would like to interview you for our research project called Managed Alcohol Programs: Implementation and Effectiveness during the COVID-19 Pandemic. Participation is voluntary.

PURPOSE

The purpose of these interviews is to get an idea of how the program started and staff experiences running the program during the COVID-19 pandemic. These interviews are also a way to collect information that would be helpful to other organizations wanting to start similar programs.

INTERVIEWS

The interview would be 30-45 minutes of open-ended questions about the managed alcohol program and would be conducted over the phone. We would like to record and transcribe the interviews.

You can decline participation. Although you may have been informed of this research by a supervisor, your participation is not a requirement of your employment. Your decision to participate fully or in part will not affect your relationship with your employer, the researchers, or the University of Victoria.

LEAD RESEARCHERS

The lead researchers are: Dr. Bernie Pauly and Dr. Tim Stockwell from Canadian Institute for Substance Use Research (CISUR) at the University of Victoria.

FUNDERS

This research is being funded by Canadian Institutes of Health Research.

CONFIDENTIALITY

We plan to use this information in publications, presentations, and reports. We won't be including the names of the people we interview. Transcripts and digital recordings will be kept in a secure location at the University of Victoria and on password protected computers. We will remove from the transcripts any information that would identify individual participants. It is possible that management and other staff may be aware that you participated in the study because of your absence from your work during the research activity..

CONTACT

If you would like more information about the research project, or would like to set up a time for an interview, please contact Meaghan Brown: mbrown25@uvic.ca, 250-588-1459

If you decide you're interested in doing an interview, the researchers will ask you some questions to make sure you qualify for the study.

You can also contact Dr. Bernie Pauly for further information about the study: bpauly@uvic.ca, 250-472-5915

Appendix E: Quantitative Instruments

A. Background
A.01 What is your age? OO years
A.02 What is your gender? ☐ Female ☐ Male ☐ Transgender ☐ Intersex ☐ Other:_____
A.03 If you are comfortable disclosing, how do you describe your sexual orientation? Heterosexual/Straight Homosexual/Gay or Lesbian Bisexual Unsure/Questioning Prefer not to disclose
A.04 Were you born in Canada? ☐ Yes ☐ No (SKIP TO A.05)
If YES, in which province or territory were you born? British Columbia Alberta Saskatchewan Manitoba Ontario Québec New Brunswick Nova Scotia Prince Edward Island Newfoundland & Labrador Yukon Northwest Territories Nunavut (SKIP TO A.07)
A.05 Which country were you born in? _____
A.06 What year did you come to Canada? I arrived in OOOO

A.07 What ethnic group or family background do you identify yourself as?
(*check ALL that apply*)

- ☐ White
- ☐ Chinese
- ☐ South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)
- ☐ Black (e.g., African, Jamaican or Caribbean)
- ☐ Filipino
- ☐ Latin American
- ☐ Southeast Asian (e.g., Cambodian, Indonesian, Laotian, Vietnamese, etc.)
- ☐ Arab (e.g., Arabic speaking, Maghrebi)
- ☐ West Asian (e.g., Afghan, Iranian, Israeli, Turk, etc.)
- ☐ Japanese
- ☐ Korean
- ☐ Indigenous (e.g., First Nations, Metis, Inuit)
- ☐ Other (specify) _____
- ☐ Don't know
- ☐ Refused

A.07a If YES to Indigenous, please specify:

- ☐ First Nations
- ☐ Metis
- ☐ Inuit
- ☐ N/A *(for those that did not select Aboriginal in the ethnicity question)*

A.08 What is the language you feel most comfortable speaking?

- ☐ English
- ☐ French
- ☐ Other (specify) _____

A.09 What is the highest level of education you have completed?
(check ONE box only)

- ☐ No schooling
- ☐ Some elementary schooling
- ☐ Completed elementary school
- ☐ Some high school
- ☐ Completed high school
- ☐ Some community college

- ☐ Some technical school
- ☐ Completed community college
- ☐ Completed technical school
- ☐ Some university
- ☐ Completed Bachelor's Degree
- ☐ Post graduate training: MA, MSc., MSW
- ☐ Post graduate training: PhD, "Doctorate"
- ☐ Professional degree (Law, Medicine, Dentistry)
- ☐ Don't know
- ☐ Refused

A.10 What is your current marital status?
(check ONE box only)

Married
Living common-law (living with partner)
Widowed
Separated
Divorced
Single, never married
Don't know
Refused

A.Hep1 Have you ever been told by a physician or other health care provider that you have hepatitis?

Yes
No (SKIP TO A.11)
Unsure (SKIP TO A.11)

A.Hep2 IF YES, was this:
(check ALL that apply)

Hep A
Hep B
Hep C
Unsure

A.Hep3 When were you diagnosed?
(MM / YYYY)

OO / **OOOO**

A.11 Are you currently in any form of drug or alcohol treatment or support group (excluding MAP's)? (e.g., methadone, 12-step, outpatient day program, individual counselor, etc.)

- ☐ Yes
- ☐ No
- ☐ Don't know
- ☐ Refused

A.11b Approximately how many other times were you in a MAP in the PAST 5 YEARS?
Exclude the current stay in your count.

It doesn't matter if they were just in for one day then discharged. That counts as 1 time.

(Note: We will have response from 0 upward.

Current MAP participants who have never been in MAP previously would respond with 0)

Enter number of times _____

A.11c How long did you usually stay each time you were on the MAP in the PAST 5 YEARS?
(excluding current stay)

_____

A.12 What is your current PRIMARY employment status?

Unemployed
Employed (incl. self-employed)
Volunteer work, unpaid
Employed in a special work program
Retired
Student
Housewife/husband
Other (Specify)
Don't know
Declined

A.12a If other (specify):

_____

A.13 What are your current sources of income?
Read out list. *Record all that apply. Use the Other category for consumer run-business income, family support, student loans etc. Regular work is a fixed number of hours per week, casual is no fixed number of hours per week.*

Earnings from regular work
Long-term Disability (Private Insurer)
Earnings from casual work
Personal Needs Allowance
Unemployment insurance
Selling papers, souvenirs, crafts
Disability income
Panhandling
Welfare/income assistance (PPMB status)
Busking (entertaining for cash)
Pension, incl. Old age security, CPP, veteran's pension
Squeegeeing
Collecting/recycling
Other (specify)

A.13a Other (specify):

_____

A.14 In the study, we recognize that there may be other sources of income that you may have used to survive on the street. Please know that your confidentiality is protected if you would like to tell me about these sources of income, but like the other questions you do not have to tell me about them.
Record what they tell you. Provide examples "such as sex work or selling or running drugs" if needed.

_____

_____

_____
A.15 How much spending money do you have in a week from all sources? *Enter as dollars, round up to the nearest dollar. If clarification is required, we are looking for gross income, before tax.* _____
A.16 Do you pay rent? Yes No (SKIP TO SECTION B)
A.17 If YES, how much do you pay per month? (If you don't know the exact amount, please provide an estimate) $_____ Don't know
A.18 Is any portion of your rent paid directly by income assistance to your landlord? Yes No (SKIP TO A.20)
A.19 If YES, do you know how much? $_____ Don't know
A.20 Do you live in a subsidized housing unit? Yes (SKIP TO SECTION B) No Don't know
A.21 Do you receive a market rental subsidy? Yes No (SKIP TO SECTION B) Don't know (SKIP TO SECTION B)
A.22 If YES, what is the amount of your rental subsidy? $_____ Don't know

B. Housing (At Home Survey)

B.01 I would like you to think about the **2 WEEKS BEFORE** you entered the Managed Alcohol Program. Please tell me the number of nights you stayed in the following places during those **14 DAYS BEFORE entering the program?**

Location	Where did you stay the last night before MAP? *(Check one ONLY)*	# of nights in the 14 days before MAP *(Respond for all that apply)*
Outdoors/Street/Park (including tent)		
Public Buildings (e.g., bus depot/train station)		
Abandoned building		
Car/van		
Camping		
Couch surfing (e.g., place in a house not normally used for sleeping such as a living room or kitchen		
Mobile Home or trailer		
Emergency Shelter (mixed genders)		
Emergency Shelter for Men		
Emergency Shelter for Women		
Hotel/ Motel		
Transitional Housing (temporary accommodation for 3 months to 3 years)		
Hospital		
Prison		
Detox Program		
Treatment Program		
Market or Rental Unit		
Social or Public Housing (including supported housing)		
Purchased House (Home ownership)		
Managed Alcohol Program location (specify):		
Other (specify):		
Rooming House without onsite supports (not transitional housing)		

IF HOUSED 14 DAYS OR MORE PRIOR TO MAP, answer the following three questions (B.02 – B.04), otherwise go to B.05: *Note: Being "housed" only includes "Market or Rental Unit", "Social or Public Housing", Purchased House"*

B.02 How long have you been in your current housing? _____months

B.03 How many times have you moved in the past three years? _____times

B.04 Have you been homeless in the past three years?

- ☐ Yes
- ☐ No (SKIP TO B.10)

B.05 In the PAST 12 MONTHS, how many times have you been homeless (including the present time if currently homeless)?

- ☐ 1 time
- ☐ 2 times
- ☐ 3 times
- ☐ 4 times
- ☐ 5 times
- ☐ 6 times
- ☐ More than 6 times
- ☐ Don't know
- ☐ Not homeless in the past 12 months

B.06 In the past 3 years, how many times have you been homeless (including the present time if currently homeless)?

- ☐ 1 time
- ☐ 2 times
- ☐ 3 times
- ☐ 4 times
- ☐ 5 times
- ☐ 6 times
- ☐ More than 6 times
- ☐ Don't know

B.07 **IF CURRENTLY HOMELESS**, how long is it since you have lived in a permanent housing situation?

- ☐ 7 days or less
- ☐ 8-30 days
- ☐ 2 months
- ☐ 3 months
- ☐ 4 months
- ☐ 5 months
- ☐ 6 months
- ☐ 7 months
- ☐ 8 months
- ☐ 9 months
- ☐ 10 months
- ☐ 11 months
- ☐ 12 months
- ☐ 1-2 years
- ☐ 2-3 years
- ☐ More than 3 years
- ☐ Don't know
- ☐ N/A – Not currently homeless

B.08 **IF CURRENTLY HOMELESS**, what do you think is keeping you from getting permanent housing? *(check ALL that apply)*

- ☐ Can't afford rent
- ☐ No job / no income
- ☐ No money for moving costs (e.g., damage deposit, first months' rent)
- ☐ No transportation
- ☐ Bad credit
- ☐ Eviction record

- ☐ Criminal record
- ☐ Don't want housing
- ☐ Alcohol / drug use
- ☐ Other (specify): _____
- ☐ N/A – Not currently homeless

B.09 How long have you been living in this area? *(If response is more than the upper limit of the category, but less than the start of the next category, code the higher category. E.g., If the response is 3.2 months, code it as 4-6 months.)*

- ☐ 7 days or less
- ☐ 8-30 days
- ☐ 1-3 months
- ☐ 4-6 months
- ☐ 7-11 months
- ☐ 1-2 years
- ☐ 3-5 years
- ☐ 6-10 years
- ☐ More than 10 years

Choice
I would like you to answer each statement I read about the place you're staying in, using one of the following answers: very dissatisfied, dissatisfied, neither satisfied nor dissatisfied, satisfied, very satisfied.

How do you feel about:

B.10 How long you will be able to stay in your current place?

- ☐ Very dissatisfied
- ☐ Dissatisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Satisfied
- ☐ Very satisfied
- ☐ Don't know
- ☐ Declined

B.11 How affordable your place is?

- ☐ Very dissatisfied
- ☐ Dissatisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Satisfied
- ☐ Very satisfied
- ☐ Don't know
- ☐ Declined

Quality
Now some questions about the quality of where you currently stay. This time the answers are:
very bad, somewhat bad, neither good nor bad, somewhat good, very good.

B.12 How would you rate your current place for safety?

- ☐ Very bad
- ☐ Somewhat bad
- ☐ Neither
- ☐ Somewhat good
- ☐ Very good
- ☐ Don't know
- ☐ Declined

B.13 How about spaciousness (that is, feeling like you have enough space to stay comfortably)?

- ☐ Very bad
- ☐ Somewhat bad
- ☐ Neither
- ☐ Somewhat good
- ☐ Very good
- ☐ Don't know
- ☐ Declined

B.14 How about privacy? By privacy, we mean feeling like you will not be disturbed by other people.

- ☐ Very bad
- ☐ Somewhat bad
- ☐ Neither
- ☐ Somewhat good
- ☐ Very good
- ☐ Don't know
- ☐ Declined

B.15 How about friendliness? That is, feeling like you are in a pleasant and welcoming place.

- ☐ Very bad
- ☐ Somewhat bad
- ☐ Neither
- ☐ Somewhat good
- ☐ Very good
- ☐ Don't know
- ☐ Declined

B.16 And how would you rate your current place for overall quality?

- ☐ Very bad
- ☐ Somewhat bad
- ☐ Neither
- ☐ Somewhat good
- ☐ Very good
- ☐ Don't know
- ☐ Declined

B.17 If you left the Managed Alcohol Program, would you be able to keep your housing/shelter?

- ☐ Yes
- ☐ No

- ☐ Don't know
- ☐ Refused

B.18 If in the MAP 14 or more DAYS (if NOT, SKIP to SECTION C) I would like you to think about the **LAST 2 WEEKS before today**. Please tell me the number of nights you stayed in the following places during those **14 DAYS?**

Location	# of nights in the **past 14 days** *(Respond for all that apply)*
Outdoors/Street/Park (including tent)	
Public Buildings (e.g., bus depot/train station)	
Abandoned building	
Car/van	
Camping	
Couch surfing (e.g., place in a house not normally used for sleeping such as a living room or kitchen	
Mobile Home or trailer	
Emergency Shelter (mixed genders)	
Emergency Shelter for Men	
Emergency Shelter for Women	
Hotel/ Motel	
Transitional Housing (temporary accommodation for 3 months to 3 years)	
Hospital	
Prison	
Detox Program	
Treatment Program	
Market or Rental Unit	
Social or Public Housing (including supported housing)	
Purchased House (Home ownership)	
Managed Alcohol Program location (specify):	
Other (specify):	
Rooming House without onsite supports (not transitional housing)	

C. Alcohol Use

Interviewer Reference:
Definition of a DRINK

Note: A "drink" is equal to a 12 oz can or bottle of beer, mixed drink or cooler (~340 ml), OR a 5 oz glass of wine (~120 ml), OR a 1½oz shot of liquor (~40ml).

1L mouthwash (26.9% alc) = 15.8 drinks
500ml rubbing alcohol (95% alc) = 27.9 drinks

C.01 What age were you when you first drank alcohol?

Enter age in years _____

C.02 I would like you to think about the **2 WEEKS BEFORE** you entered the Managed Alcohol Program. Please tell me about your alcohol use during those **14 DAYS BEFORE entering the program?**

C.03 In the **14 DAYS before entering MAP**, on about how many of these days did you drink any alcohol?

Enter number of days _____
Don't know
Refused
If answer is 0, SKIP TO C.09

C.04 In the **14 DAYS before entering MAP**, on those days when you drank, how much did you usually have? (*please record the type and quantity of drink, e.g., 2x 6oz wine, ½ a bottle of 750mL Sherry)*

_____

Don't know (SKIP TO C.05)
Refused (SKIP TO C.05)

C.04a *Interviewer:* Convert to Standard Drinks: _____ std drinks

C.05 In the **14 DAYS before entering MAP**, what kind of alcoholic drink did you drink the most of? (*check ONE box only*)

- ☐ Beer
- ☐ Hard liquor/spirits
- ☐ Fortified wine (Port, Sherry or vermouth)
- ☐ Table wine
- ☐ Cooler
- ☐ Rubbing Alcohol
- ☐ Mouthwash
- ☐ Hairspray

☐ Other (specify) _____ ☐ Don't know (SKIP TO ***C.09***) ☐ Refused (SKIP TO ***C.09***)
C.06 Thinking about the kind of alcoholic drink you had most of in the **14 DAYS before entering MAP**, what BRAND of drink was that usually? Name: _____ Don't know Refused
C.07 Thinking about the kind of alcoholic drink you had most of in the **14 DAYS before entering MAP**, where did you usually get it from? (*check ONE box only*) ☐ Liquor store ☐ Beer store ☐ Wine store ☐ Bar, club or restaurant ☐ Friend or acquaintance ☐ U-Vint or U-Brew store ☐ Homebrew ☐ Other (specify) _____ ☐ Don't know ☐ Refused
C.08 Thinking about the kind of alcoholic drink you had most of in the **14 DAYS before entering MAP**, how much did you usually pay for it? Note: Regular beer or cooler bottle/can=0.33 L; regular wine or spirit bottle=0.7L $ _____ per _____ (quantity in L or mL) OR if no payment, how did you usually obtain it? ☐ Gift ☐ Exchange not involving money ☐ Don't know ☐ Refused

C.09 If in the MAP 14 or more DAYS (if NOT, SKIP to SECTION D) I would like you to think about the last **2 WEEKS BEFORE TODAY**. Please tell me about your alcohol use during those **14 DAYS?**

C.10 In the PAST 14 DAYS, on about how many of these days did you drink any alcohol? Enter number of days _____ Don't know Refused If answer is 0, SKIP TO SECTION D
C.10a In the PAST 14 DAYS, on about how many of these days did you have MAP DRINKS? Enter number of days _____ Don't know Refused

C.10b In the PAST 14 DAYS, on about how many of these days did you drink OUTSIDE of MAP?

Enter number of days _____
Don't know
Refused

C.11 In the PAST 14 DAYS, on those days when you drank, how much did you usually have? (*please record the type and quantity of drink, e.g., 2x 6oz wine, ½ a bottle of 750mL Sherry)*

_____

Don't know (SKIP TO C.04)
Refused (SKIP TO C.04)

C.11a *Interviewer:* Convert to Standard Drinks: _____ std drinks

C.11b In the PAST 14 DAYS, on those days when you drank MAP DRINKS, how many MAP DRINKS did you usually have? (please record the type and quantity of drink, e.g., 2x 6oz wine, ½ a bottle of 750mL Sherry)
(DO NOT change answer to the question above even if the following contradicts it)

Don't know
Refused

C.11c Interviewer: Convert MAP DRINKS to Standard Drinks:

_____ std drinks

C.11d In the PAST 14 DAYS, on those days when you drank OUTSIDE of MAP, how much OUTSIDE DRINKS did you usually have? (please record the type and quantity of drink, e.g., 2x 6oz wine, ½ a bottle of 750mL Sherry)

_____
Don't know
Refused

C.11e Interviewer: Convert OUTSIDE DRINKS to Standard Drinks:

_____ std drinks

C.12 How often do you have **5** or more standard drinks on one occasion?

Never
Less than monthly
Monthly
Weekly
Daily or almost daily

C.13 In the PAST 14 DAYS, what kind of alcoholic drink did you drink the most of? (*check ONE box only*)

Beer
Hard liquor/spirits
Fortified wine (Port, Sherry or vermouth)

Table wine
Cooler
Rubbing Alcohol
Mouthwash
Hairspray
Other (specify) _____
Don't know (SKIP TO SECTION D)
Refused (SKIP TO SECTION D)

C.14 Thinking about the kind of alcoholic drink you had most of in the past 14 days, what BRAND of drink was that usually?

Name: _____
Don't know
Refused

C.15 Thinking about the kind of alcoholic drink you had most of in the past 14 days, where did you usually get it from? (*check ONE box only*)

Managed Alcohol Program (MAP)
Liquor store
Beer store
Wine store
Bar, club or restaurant
Friend or acquaintance
U-Vint or U-Brew store
Homebrew
Other (specify) _____
Don't know
Refused

C.16 Thinking about the kind of alcoholic drink you had most of in the past 14 days, how much did you usually pay for it?
Note: Regular beer or cooler bottle/can=0.33 L; regular wine or spirit bottle=0.7L

$ _____ per _____ (quantity in L or mL)
OR if no payment, how did you usually obtain it?
Gift
Exchange not involving money
Don't know
Refused

D. Non-Beverage Alcohol Use

D.01 I would like you to think about the **2 WEEKS BEFORE** you entered the Managed Alcohol Program. In those **14 DAYS BEFORE entering the program**, did you drink non-beverage alcohol? **That is, alcohol that is not intended for drinking, like Listerine, hand sanitizer, cooking wine, or rubbing alcohol.**

- ☐ Yes
- ☐ No **(SKIP TO D.04)**
- ☐ Don't know **(SKIP TO D.04)**
- ☐ Refused **(SKIP TO D.04)**

D.02 I would like you to think about the **2 WEEKS BEFORE** you entered the Managed Alcohol Program. In those **14 DAYS BEFORE entering the program**, how many days did you use non-beverage alcohol?
Enter number of days _____

- ☐ Don't know (SKIP TO D.05)
- ☐ Refused (SKIP TO D.05)

***If answer is more than 0 then continue, otherwise SKIP TO* D.05**.

D.03 I would like you to think about the **2 WEEKS BEFORE** you entered the Managed Alcohol Program. Please tell me what types of non-beverage alcohol you consumed during those **14 DAYS BEFORE entering the program?**

Type	Number of days item was used in the **14 DAYS before MAP**	How much did you usually drink on the days when you drank this? (Size of bottle x number per day)
Rubbing alcohol	……DAYS	
Mouthwash	……DAYS	
Hand sanitizer	……DAYS	
Cooking wine	……DAYS	
Vanilla Extract	……DAYS	
Hair spray	……DAYS	
Other *(specify)*	……DAYS	

D.04 **If in the MAP 14 or more DAYS (if NOT, SKIP to SECTION E).** I would like you to think about the **LAST 2 WEEKS before today**. In the **last 14 days**, how many days did you use non-beverage alcohol?
Enter number of days _____

- ☐ Don't know (SKIP TO SECTION E)
- ☐ Refused (SKIP TO SECTION E)

If answer is more than 0 then continue, otherwise SKIP TO SECTION E.

D.05 In **the last 14 days**, what types of non-beverage alcohol did you consume?

Type	Number of days item was used in the **PAST 14 DAYS**	How much did you usually drink on the days when you drank this? (Size of bottle x number per day)
Rubbing alcohol	……DAYS	
Mouthwash	……DAYS	
Hand sanitizer	……DAYS	
Cooking wine	……DAYS	
Vanilla Extract	……DAYS	
Hair spray	……DAYS	
Other *(specify)*	……DAYS	

E. Other Substance Use History

E.01 Please indicate what your experience is with each of the following substances:
Y = YES
N = NO
DK = DON'T KNOW

	Have you EVER used or tried… *(circle one)*	In the PAST 12 MONTHS, have you used… *(circle one)*
Tobacco	Y N DK	Y N DK
Cannabis**	Y N DK	Y N DK
Cocaine (powder)	Y N DK	Y N DK
Crack (Rock)	Y N DK	Y N DK
Amphetamine (speed)	Y N DK	Y N DK
Crystal Meth	Y N DK	Y N DK
Heroin	Y N DK	Y N DK
Ecstasy (incl. MDMA/MDA/MDEA)	Y N DK	Y N DK
"Speedballs" (Cocaine & Heroin)	Y N DK	Y N DK
Methadone**	Y N DK	Y N DK
Dilaudid**	Y N DK	Y N DK
Morphine / MS Contin**	Y N DK	Y N DK
Oxycodone / Percocet**	Y N DK	Y N DK
Codeine / T3's / T4's **	Y N DK	Y N DK
Benzo's ** (for sleep, anxiety and withdrawal) (e.g., Valium, Ativan, Librium)	Y N DK	Y N DK
Medications to reduce alcohol cravings** (e.g., Naltrexone (Revia), Acamprosate (Campral))	Y N DK	Y N DK
Antidepressants (e.g., Effexor, Cipralex, Wellbutrin)	Y N DK	Y N DK
Other: (for sleep, your nerves or to cope with withdrawal): _____	Y N DK	Y N DK

** *Interviewer: It does not matter whether or not the person had a prescription for the drug.*

E.02 I would like you to think about the **2 WEEKS BEFORE** you entered the Managed Alcohol Program. Please tell me about your experience with each of the following substances during those **14 DAYS BEFORE entering the program?**

	Number of days the drug was used in the **14 DAYS before MAP** *(write 0-14)*
Tobacco	……..Days
Cannabis**	……..Days
Cocaine (powder)	……..Days
Crack (Rock)	……..Days
Amphetamine (speed)	……..Days
Crystal Meth	……..Days
Heroin	……..Days
Ecstasy (incl. MDMA/MDA/MDEA)	……..Days
"Speedballs" (Cocaine & Heroin)	……..Days
Methadone**	……..Days
Dilaudid**	……..Days
Morphine / MS Contin**	……..Days
Oxycodone / Percocet**	……..Days

Codeine / T3's / T4's **	……..Days
Benzo's ** (for sleep, anxiety and withdrawal) (e.g., Valium, Ativan, Librium)	……..Days
Medications to reduce alcohol cravings** (e.g., Naltrexone (Revia), Acamprosate (Campral))	……..Days
Antidepressants (e.g., Effexor, Cipralex, Wellbutrin)	……..Days
Other: (for sleep, your nerves or to cope with withdrawal): _____	……..Days

*** Interviewer: It does not matter whether or not the person had a prescription for the drug.*

E02.a if YES to Cannabis, where do you get it from?

- ☐ **Is it a prescription:**
- ☐ **Is it from a community cannabis program?**
- ☐ **Is it from a retail store?**
- ☐ **Other:_____**

E.03 If in the MAP 14 or more DAYS (if NOT, SKIP to SECTION F). I would like you to think about the last **2 WEEKS BEFORE TODAY**. Please tell me about your experience with each of the following substances during the **PAST 14 DAYS?**

	Number of days the drug was used in the **PAST 14 DAYS** *(write 0-14)*
Tobacco	……..Days
Cannabis**	……..Days
Cocaine (powder)	……..Days
Crack (Rock)	……..Days
Amphetamine (speed)	……..Days
Crystal Meth	……..Days
Heroin	……..Days
Ecstasy (incl. MDMA/MDA/MDEA)	……..Days
"Speedballs" (Cocaine & Heroin)	……..Days
Methadone**	……..Days
Dilaudid**	……..Days
Morphine / MS Contin**	……..Days
Oxycodone / Percocet**	……..Days
Codeine / T3's / T4's **	……..Days
Benzo's ** (for sleep, anxiety and withdrawal) (e.g., Valium, Ativan, Librium)	……..Days
Medications to reduce alcohol cravings** (e.g., Naltrexone (Revia), Acamprosate (Campral))	……..Days
Antidepressants (e.g., Effexor, Cipralex, Wellbutrin)	……..Days
Other: (for sleep, your nerves or to cope with withdrawal): _____	……..Days

*** Interviewer: It does not matter whether or not the person had a prescription for the drug.*

E03.a if YES to Cannabis, where do you get it from?

- ☐ **Is it a prescription:**
- ☐ **Is it from a community cannabis program?**
- ☐ **Is it from a retail store?**
- ☐ **Other: _____**

F. Alcohol Use Disorder Test (WHO-AUDIT)

F. 01 How often during the PAST 12 MONTHS did you have a drink containing alcohol?

- ☐ Never (SKIP TO F.09)
- ☐ Monthly or less
- ☐ 2 to 4 times a month
- ☐ 2 to 3 times a week
- ☐ 4 or more times a week
- ☐ Don't know
- ☐ Refused

F. 02 During the PAST 12 MONTHS how many drinks containing alcohol did you have on a typical day when you were drinking?

- ☐ 1 or 2
- ☐ 3 or 4
- ☐ 5 or 6
- ☐ 7, 8, or 9
- ☐ 10 or more
- ☐ Don't know
- ☐ Refused

F.03 How often do you have six or more drinks on one occasion?

- ☐ Never (*Skip to Question F.09)*
- ☐ Less than monthly
- ☐ Monthly
- ☐ Weekly
- ☐ Daily or almost daily
- ☐ Don't know
- ☐ Refused

F.04 How often during the PAST 12 MONTHS have you found that you were not able to stop drinking once you had started?

- ☐ Never
- ☐ Less than monthly
- ☐ Monthly
- ☐ Weekly
- ☐ Daily or almost daily
- ☐ Don't know
- ☐ Refused

F.05 How often during the PAST 12 MONTHS have you failed to do what was normally expected from you because of drinking?

- ☐ Never
- ☐ Less than monthly
- ☐ Monthly
- ☐ Weekly
- ☐ Daily or almost daily
- ☐ Don't know
- ☐ Refused

F.06 How often during the PAST 12 MONTHS have you needed a first ALCOHOLIC drink in the morning to get yourself going after a heavy drinking session?

- ☐ Never
- ☐ Less than monthly
- ☐ Monthly
- ☐ Weekly
- ☐ Daily or almost daily
- ☐ Don't know
- ☐ Refused

F.07 How often during the PAST 12 MONTHS have you had a feeling of guilt or remorse after drinking?

- ☐ Never
- ☐ Less than monthly
- ☐ Monthly
- ☐ Weekly
- ☐ Daily or almost daily
- ☐ Don't know
- ☐ Refused

F.08 How often during the PAST 12 MONTHS have you been unable to remember what happened the night before because you had been drinking?

- ☐ Never
- ☐ Less than monthly
- ☐ Monthly
- ☐ Weekly
- ☐ Daily or almost daily
- ☐ Don't know
- ☐ Refused

F.09 Have you or someone else EVER been injured as a result of your drinking?
(If YES, ask if it was in the PAST 12 MONTHS?)

- ☐ No, never
- ☐ Yes, but not in the PAST 12 MONTHS
- ☐ Yes, during the PAST 12 MONTHS
- ☐ Don't know
- ☐ Refused

F.10 Has a relative, a friend, a doctor or other health worker EVER been concerned about your drinking or suggested you cut down?
(If YES, ask if it was in the PAST 12 MONTHS?)

- ☐ No, never
- ☐ Yes, but not in the PAST 12 MONTHS
- ☐ Yes, during the PAST 12 MONTHS
- ☐ Don't know
- ☐ Refused

Source:
Saunders JB, Aasland OG, Babor TF, de la Fuente JR, Grant M (1993) Development of the alcohol use disorders identification test (AUDIT). WHO collaborative project on early detection of persons with harmful alcohol consumption-II. *Addiction*:791-804.
Permission to use is not required

G. Severity of Alcohol Dependence Questionnaire (SADQ)

During the past **6 MONTHS:**

G.01 The day after drinking alcohol, I woke up feeling sweaty.

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.02 The day after drinking alcohol, my hands shook first thing in the morning.

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.03 The day after drinking alcohol, my whole body shook violently first thing in the morning if I didn't have a drink.

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.04 The day after drinking alcohol, I woke up absolutely drenched in sweat.

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.05 The day after drinking alcohol, I dreaded waking up in the morning.

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.06 The day after drinking alcohol, I was frightened of meeting people first thing in the morning.

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.07 The day after drinking alcohol, I felt at the edge of despair when I awoke.

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.08 The day after drinking alcohol, I felt very frightened when I awoke.

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.09 The day after drinking alcohol, I liked to have an alcoholic drink in the morning

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.10 The day after drinking alcohol, in the morning I always gulped my first few alcoholic drinks down as quickly as possible.

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.11 The day after drinking alcohol, I drank more alcohol in the morning to get rid of the shakes.

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.12 The day after drinking alcohol, I had a very strong craving for an alcoholic drink when I awoke.

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.13 I drank more than a quarter of a 750mL (26oz) bottle of spirits in a day (OR 1 bottle of table wine OR half a bottle of sherry or fortified wine OR 5 regular bottles or cans of beer)

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.14 I drank more than half a bottle of 750 mL (26oz) spirits in a day (OR 2 bottles of table wine OR 1 bottle of sherry or fortified wine OR 9 regular bottles or cans of beer)

- ☐ Never or Almost Never
- ☐ Sometimes
- ☐ Often
- ☐ Nearly Always

G.15 I drank more than one bottle of 750 mL (26oz) spirits in a day (OR 4 bottles of table wine OR 2 bottles of sherry or fortified wine OR 18 regular bottles or cans of beer)

- ☐ Never or Almost Never
- ☐ Sometimes

☐ Often ☐ Nearly Always
G.16 I drank more than two bottles of 750mL (26oz) spirits in a day (OR 8 bottles of table wine OR 4 bottles of sherry or fortified wine OR 36 regular bottles or cans of beer) ☐ Never or Almost Never ☐ Sometimes ☐ Often ☐ Nearly Always
Imagine the following situation: (1) You have **HARDLY DRUNK ANY ALCOHOL FOR A FEW WEEKS** (2) You then **DRINK VERY HEAVILY** for **TWO DAYS** ***How would you feel the morning after those two days of heavy drinking?***
G.17 I would start to sweat. ☐ Not at all ☐ Slightly ☐ Moderately ☐ Quite a lot
G.18 My hands would shake. ☐ Not at all ☐ Slightly ☐ Moderately ☐ Quite a lot
G.19 My body would shake. ☐ Not at all ☐ Slightly ☐ Moderately ☐ Quite a lot
G.20 I would be craving for a drink. ☐ Not at all ☐ Slightly ☐ Moderately ☐ Quite a lot

Source: Stockwell, T., Sitharthan T., Mcgrath, D., & Lang, E. (1994). The Measurement of Alcohol Dependence and Impaired Control in Community Samples. *Addiction*, 89(2), 167-174.
Permission to use is not required.

The Harms Related to Drinking Scale is a 14-item tool developed as part of the evaluation of Canadian Managed Alcohol Programs to assess alcohol-related harms. It is recommended that authorized staff members use the scale at program intake and at 30-day intervals following program initiation. For 30-day interval use, omit item H.05. It can be used to help identify the types of harm people may be experiencing and whether these change during the program.

H. Harms Related to Drinking Scale

I would like you to think about the **2 WEEKS BEFORE** you entered the Managed Alcohol Program. Please tell me about your experience with harms related to drinking during those **14 DAYS BEFORE entering the program?**

H.01 In the **14 DAYS before entering MAP**, was there a time that you felt your alcohol use had a harmful effect on your friendships or social life?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **14 DAYS before entering MAP**
- ☐ Yes, during the **14 DAYS before entering MAP**
- ☐ Don't know
- ☐ Refused

H.02 What about on your physical health? In the **14 DAYS before entering MAP,** was there a time that you felt your alcohol use had a harmful effect on your physical health?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **14 DAYS before entering MAP**
- ☐ Yes, during the **14 DAYS before entering MAP**
- ☐ Don't know
- ☐ Refused

H.03 What about on your home life or marriage? In the **14 DAYS before entering MAP,** was there a time that you felt your alcohol use had a harmful effect on your home life or marriage (or relationship)
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **14 DAYS before entering MAP**
- ☐ Yes, during the **14 DAYS before entering MAP**
- ☐ Don't know
- ☐ Refused

H.04 What about on your work, studies, or employment opportunities? In the **14 DAYS before entering MAP,** was there a time that you felt your alcohol use had a harmful effect on your work, studies, or employment opportunities?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **14 DAYS before entering MAP**
- ☐ Yes, during the **14 DAYS before entering MAP**
- ☐ Don't know
- ☐ Refused

H.05 During the **14 DAYS before entering MAP**, how many days, if any, were you away from work or school because of your drinking?

Enter number of days _____

Don't know
Refused
N/A

H.06 What about on your financial position? In the **14 DAYS before entering MAP,** was there a time that you felt your alcohol use had a harmful effect on your financial position?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **14 DAYS before entering MAP**
- ☐ Yes, during the **14 DAYS before entering MAP**
- ☐ Don't know
- ☐ Refused

H.07 What about legal problems? In the **14 DAYS before entering MAP**, was there a time when you had legal problems because of your alcohol use (e.g. contact with police/courts)?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **14 DAYS before entering MAP**
- ☐ Yes, during the **14 DAYS before entering MAP**
- ☐ Don't know
- ☐ Refused

H.08 What about housing problems? In the **14 DAYS before entering MAP**, was there a time when you had housing problems because of your alcohol use?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **14 DAYS before entering MAP**
- ☐ Yes, during the **14 DAYS before entering MAP**
- ☐ Don't know
- ☐ Refused

H.09 What about difficulty learning things? In the **14 DAYS before entering MAP**, was there a time when you had difficulty learning things because of your alcohol use?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **14 DAYS before entering MAP**
- ☐ Yes, during the **14 DAYS before entering MAP**
- ☐ Don't know
- ☐ Refused

H.10 During the **14 DAYS before entering MAP**, were you hit or physically assaulted by someone who had been drinking?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **14 DAYS before entering MAP**
- ☐ Yes, during the **14 DAYS before entering MAP**
- ☐ Don't know
- ☐ Refused

H.11 During the **14 DAYS before entering MAP,** did you experienced a seizure, convulsion or fit because of your drinking or the after-effects of drinking?

(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **14 DAYS before entering MAP**
- ☐ Yes, during the **14 DAYS before entering MAP**
- ☐ Don't know
- ☐ Refused

H.12 **IF YES** in the **14 days before entering MAP**, how many times during the **14 DAYS before entering MAP** did you had a seizure, convulsion or fit because of drinking or the after-effects of drinking?

Enter number of times _____

H.13 During the **14 DAYS before entering MAP,** did you pass out/lose consciousness because of your drinking?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **14 DAYS before entering MAP**
- ☐ Yes, during the **14 DAYS before entering MAP**
- ☐ Don't know
- ☐ Refused

H.14 **IF YES** in the **14 days before entering MAP**, how many times during the **14 days before entering MAP** did you pass out/lose consciousness because of your drinking?

Enter number of times _____

If in the MAP 14 or more DAYS (if NOT, SKIP to SECTION I) I would like you to think about the **last 2 WEEKS BEFORE TODAY**. Please tell me about your experience with harms related to drinking during those **14 DAYS?**

H.15 In the **PAST 14 DAYS**, was there a time that you felt your alcohol use had a harmful effect on your friendships or social life?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **PAST 14 DAYS**
- ☐ Yes, during the **PAST 14 DAYS**
- ☐ Don't know
- ☐ Refused

H.16 What about on your physical health? In the **PAST 14 DAYS,** was there a time that you felt your alcohol use had a harmful effect on your physical health?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **PAST 14 DAYS**
- ☐ Yes, during the **PAST 14 DAYS**
- ☐ Don't know
- ☐ Refused

H.17 What about on your home life or marriage? In the **PAST 14 DAYS,** was there a time that you felt your alcohol use had a harmful effect on your home life or marriage (or relationship)
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **PAST 14 DAYS**

- ☐ Yes, during the **PAST 14 DAYS**
- ☐ Don't know
- ☐ Refused

H.18 What about on your work, studies, or employment opportunities? In the **PAST 14 DAYS,** was there a time that you felt your alcohol use had a harmful effect on your work, studies, or employment opportunities?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **PAST 14 DAYS**
- ☐ Yes, during the **PAST 14 DAYS**
- ☐ Don't know
- ☐ Refused

H.19 During the **PAST 14 DAYS**, how many days, if any, were you away from work or school because of your drinking?

Enter number of days _____

- ☐ Don't know
- ☐ Refused
- ☐ N/A

H.20 What about on your financial position? In the **PAST 14 DAYS,** was there a time that you felt your alcohol use had a harmful effect on your financial position?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **PAST 14 DAYS**
- ☐ Yes, during the **PAST 14 DAYS**
- ☐ Don't know
- ☐ Refused

H.21 What about legal problems? In the **PAST 14 DAYS**, was there a time when you had legal problems because of your alcohol use (e.g. contact with police/courts)?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **PAST 14 DAYS**
- ☐ Yes, during the **PAST 14 DAYS**
- ☐ Don't know
- ☐ Refused

H.22 What about housing problems? In the **PAST 14 DAYS**, was there a time when you had housing problems because of your alcohol use?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **PAST 14 DAYS**
- ☐ Yes, during the **PAST 14 DAYS**
- ☐ Don't know
- ☐ Refused

H.23 What about difficulty learning things? In the **PAST 14 DAYS**, was there a time when you had difficulty learning things because of your alcohol use?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **PAST 14 DAYS**
- ☐ Yes, during the **PAST 14 DAYS**
- ☐ Don't know
- ☐ Refused

H.24 During the **PAST 14 DAYS**, were you hit or physically assaulted by someone who had been drinking?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **PAST 14 DAYS**
- ☐ Yes, during the **PAST 14 DAYS**
- ☐ Don't know
- ☐ Refused

H.25 During the **PAST 14 DAYS,** did you experienced a seizure, convulsion or fit because of your drinking or the after-effects of drinking?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **PAST 14 DAYS**
- ☐ Yes, during the **PAST 14 DAYS**
- ☐ Don't know
- ☐ Refused

H.26 **IF YES** in the **PAST 14 DAYS**, how many times during the **PAST 14 DAYS** did you had a seizure, convulsion or fit because of drinking or the after-effects of drinking?

Enter number of times _____

H.27 During the **PAST 14 DAYS,** did you pass out/lose consciousness because of your drinking?
(Check only the most recent time frame)

- ☐ No, never
- ☐ Yes, but not in the **PAST 14 DAYS**
- ☐ Yes, during the **PAST 14 DAYS**
- ☐ Don't know
- ☐ Refused

H.28 **IF YES** in the **PAST 14 DAYS**, how many times during the **PAST 14 DAYS** did you pass out/lose consciousness because of your drinking?

Enter number of times _____

I. Quality of Life (EQ-5D)

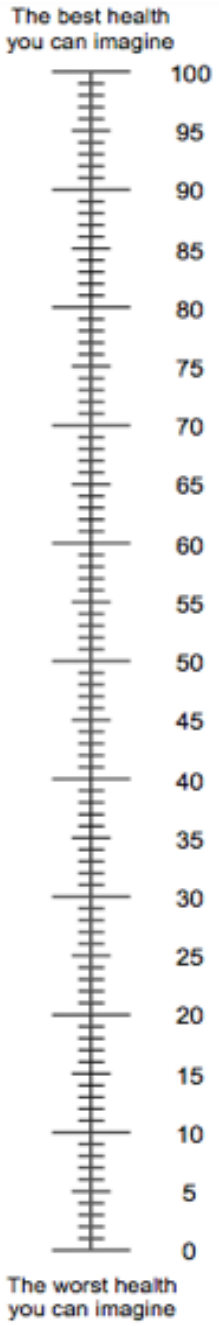
I would like you to think about the **2 WEEKS BEFORE** you entered the Managed Alcohol Program. Please tell me about your overall health during those **14 DAYS BEFORE entering the program?**
I.01 Under each heading, please tick the ONE box that best describes your overall health during those **14 DAYS BEFORE entering the MAP**.

MOBILITY	
I have no problems in walking about	☐
I have slight problems in walking about	☐
I have moderate problems in walking about	☐
I have severe problems in walking about	☐
I am unable to walk about	☐
SELF-CARE	
I have no problems washing or dressing myself	☐
I have slight problems washing or dressing myself	☐
I have moderate problems washing or dressing myself	☐
I have severe problems washing or dressing myself	☐
I am unable to wash or dress myself	☐
USUAL ACTIVITIES *(e.g. work, study, housework, family or leisure activities)*	
I have no problems doing my usual activities	☐
I have slight problems doing my usual activities	☐
I have moderate problems doing my usual activities	☐
I have severe problems doing my usual activities	☐
I am unable to do my usual activities	☐
PAIN/DISCOMFORT	
I have no pain or discomfort	☐
I have slight pain or discomfort	☐
I have moderate pain or discomfort	☐
I have severe pain or discomfort	☐
I have extreme pain or discomfort	☐
ANXIETY / DEPRESSION	
I am not anxious or depressed	☐
I am slightly anxious or depressed	☐
I am moderately anxious or depressed	☐
I am severely anxious or depressed	☐
I am extremely anxious or depressed	☐

I.02 We would like to know how good or bad your overall health was during those **14 DAYS BEFORE entering the MAP**.

- This scale is numbered from 0 to 100.
- 100 means the <u>best</u> health you can imagine.
- 0 means the <u>worst</u> health you can imagine.
- Mark an X on the scale to indicate how your overall health was during those **14 DAYS BEFORE entering the MAP**.
- Now, please write the number you marked on the scale in the box below

YOUR HEALTH BEFORE MAP = ☐



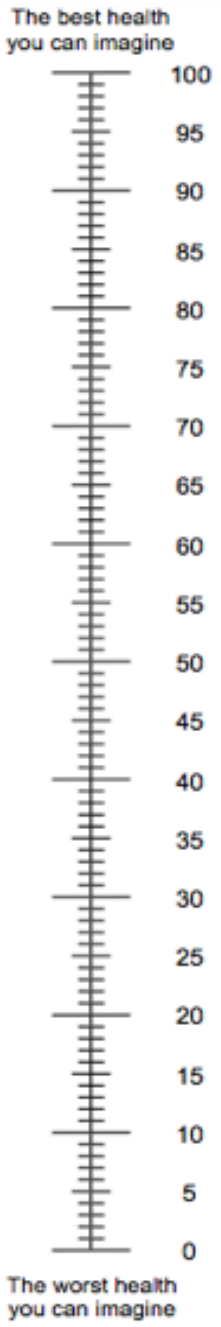
Source:
Herdman, M., Gudex, C., Lloyd, A., Janssen, M., Kind, P., Parkin, D., . . . Badia, X. (2011). Development and preliminary testing of the new five-level version of EQ-5D (EQ-5D-5L). *Qual Life Res*, *20*(10), 1727-1736.
Permission to use is required.

If in the MAP 14 or more DAYS (if NOT, SKIP to SECTION J) I would like you to think about the **last 2 WEEKS BEFORE TODAY**. Please tell me about your overall health during those **14 DAYS?**

I.03 Under each heading, please tick the ONE box that best describes your overall health during the past **14 DAYS**.

MOBILITY	
I have no problems in walking about	☐
I have slight problems in walking about	☐
I have moderate problems in walking about	☐
I have severe problems in walking about	☐
I am unable to walk about	☐
SELF-CARE	
I have no problems washing or dressing myself	☐
I have slight problems washing or dressing myself	☐
I have moderate problems washing or dressing myself	☐
I have severe problems washing or dressing myself	☐
I am unable to wash or dress myself	☐
USUAL ACTIVITIES *(e.g. work, study, housework, family or leisure activities)*	
I have no problems doing my usual activities	☐
I have slight problems doing my usual activities	☐
I have moderate problems doing my usual activities	☐
I have severe problems doing my usual activities	☐
I am unable to do my usual activities	☐
PAIN/DISCOMFORT	
I have no pain or discomfort	☐
I have slight pain or discomfort	☐
I have moderate pain or discomfort	☐
I have severe pain or discomfort	☐
I have extreme pain or discomfort	☐
ANXIETY / DEPRESSION	
I am not anxious or depressed	☐
I am slightly anxious or depressed	☐
I am moderately anxious or depressed	☐
I am severely anxious or depressed	☐
I am extremely anxious or depressed	☐

I.04 We would like to know how good or bad your overall health was during the **last 2 WEEKS BEFORE TODAY**.



- This scale is numbered from 0 to 100.
- 100 means the best health you can imagine.
- 0 means the worst health you can imagine.
- Mark an X on the scale to indicate how your overall health was during those **14 DAYS BEFORE TODAY**.
- Now, please write the number you marked on the scale in the box below

YOUR OVERALL HEALTH IN THE 2 WEEKS BEFORE TODAY = ☐

Source:
Herdman, M., Gudex, C., Lloyd, A., Janssen, M., Kind, P., Parkin, D., . . . Badia, X. (2011). Development and preliminary testing of the new five-level version of EQ-5D (EQ-5D-5L). *Qual Life Res*, *20*(10), 1727-1736.
Permission to use is required.

J. Alcohol Management Plan

Now we have a few questions about your managed alcohol plan during the COVID-19 crisis.

J.01 Do you have an alcohol management plan that involves your being provided with alcohol each day?

- ☐ Yes
- ☐ No (SKIP TO SECTION K)
- ☐ Unsure (SKIP TO SECTION K)

J.02 If YES, how long has this been running?

Number of days__or weeks___or months___

J.03 How many times a day is alcohol provided to you? _____

J.04 Is your supply of alcohol right?

- ☐ About right
- ☐ Not enough
- ☐ Too much
- ☐ Unsure

J.05 If **NOT ENOUGH** or **TOO MUCH**, is it because of:

- ☐ The frequency of delivery?
- ☐ The amount of alcohol?
- ☐ Both?
- ☐ Unsure

J.06a At what time usually is your FIRST delivery of alcohol? ____

J.06b How much are you given then? (Describe type of beverage, size and number of bottles/cans)

J.06c Interviewer converts to # Standard drinks:_____

J.07a At what time usually is your SECOND delivery of alcohol? ____

J.07b How much are you given then? (Describe type of beverage, size and number of bottles/cans)

J.07c Interviewer converts to # Standard drinks:_____

J.08a At what time usually is your THIRD delivery of alcohol? ____

J.08b How much are you given then? (Describe type of beverage, size and number of bottles/cans)

J.08c Interviewer converts to # Standard drinks:_____

J.09a Do you use cannabis in addition to alcohol?

- ☐ Yes
- ☐ No
- ☐ Unsure or refuse to answer

If, YES please tick all that apply:

- ☐ It is delivered as part of the management plan
- ☐ I use it to reduce craving and withdrawal from alcohol
- ☐ I use it instead of alcohol
- ☐ I use it while I am drinking

We have created a Social Distancing and Risk Behaviours scale for this project. It has 22-items developed to measure an individual's ability to follow social distancing and hygiene guidelines and related behaviours in the current context of COVID-19. Subscales include measures of external social distancing, hygiene, and specific COVID-19 risk.

I would like you to think about the **2 WEEKS BEFORE** you entered the Managed Alcohol Program. Please tell me about your physical and social distancing behaviours during those **14 DAYS BEFORE entering the program?**

<table>
<tr><th colspan="2">L. Physical Distancing and Risk Behaviours Scale</th></tr>
<tr><td>L.01 Did your housing 14 DAYS BEFORE entering MAP allow for social distancing from others that you do not live with?

Yes
No</td><td rowspan="2">L.05 How often in the 14 DAYS BEFORE entering MAP did you spend time outside your housing doing necessary tasks (e.g., go to the grocery store, pharmacy, or getting alcohol)?

Every day
Most days
Few days
Never</td></tr>
<tr><td>L.01a If NO, check all that apply:

Location is public (e.g., outdoors/street/park, public building, abandoned building)
Shared entryway (e.g., apartment building, hotel/motel, shelter)
Shared common spaces (e.g., laundry room)</td></tr>
<tr><td>L.02 How often in 14 DAYS BEFORE entering MAP did you spend time together with someone you live with?

Every day
Most days
Few days
Never</td><td>L.06 How often in the 14 DAYS BEFORE entering MAP did you spend time outside your housing doing things just for fun (e.g., going to the park or drinking with friends)?

Every day
Most days
Few days
Never</td></tr>
<tr><td>L.03 How often in the 14 DAYS BEFORE entering MAP did you meet face to face with friends or others that you do not live with?

Every day
Most days
Few days
Never</td><td>L.07 How would you feel about living with someone who was COVID-19 positive?

Comfortable
Neutral
Uncomfortable
Very uncomfortable</td></tr>
<tr><td>L.04 How often in the 14 DAYS BEFORE entering MAP did you go to meetings of clubs, religious meetings, or other groups that you belong to?

Every day
Most days
Few days
Never</td><td>L.07a Would they be able to physically distance themselves in your current housing situation?

Yes
No</td></tr>
</table>

L.8 How often in the 14 DAYS BEFORE entering MAP did you wash your hands with soap and water? Multiple times per day Every day Most days Few days Never	L.14 If YES, do you use your PPE (e.g., masks, gloves)? Yes No
L.9 Do you have access to running water? Yes No	L. 15 If YES, how often in the 14 DAYS BEFORE entering MAP did you wear your PPE (e.g., masks, gloves) when you spent time OUTDOORS around other people? Always Often Sometimes Rarely Never
L.10 Do you have access to soap? Yes No	L.16 If YES, how often in the 14 DAYS BEFORE entering MAP did you wear your PPE (e.g., masks, gloves) when you spent time INDOORS around other people? Always Often Sometimes Rarely Never
L.11 How often in the 14 DAYS BEFORE entering MAP did you sanitize your belongings? Multiple times per day Every day Most days Few days Never	L.17 Have you possibly come into contact with someone who has COVID-19 in the 14 DAYS BEFORE entering MAP? Yes No
L.12 Do you have access to other cleaning products (e.g., hand sanitizer)? Yes No	L.18 Do you have access to testing for COVID-19? Yes No
L.13 Do you have access to Personal Protective Equipment (PPE) (e.g., masks, gloves)? Check all that apply: Yes, masks Yes, gloves Yes, other: _____ No	L.19 Have you been tested? Yes No
	L.20 If YES, what was the result? Positive Negative Unsure/Prefer not to say

If in the MAP 14 or more DAYS (if NOT, SKIP to SECTION M) I would like you to think about the last **2 WEEKS BEFORE TODAY**. Please tell me about your physical and social distancing behaviours during those **14 DAYS?**

<table>
<tr>
<td>L.01 In the PAST 14 DAYS, did your housing allow for social distancing from others that you did not live with?

Yes
No</td>
<td rowspan="2">L.05 In the PAST 14 DAYS, how often did you spend time outside your housing doing necessary tasks (e.g., go to the grocery store, pharmacy, or getting alcohol)?

Every day
Most days
Few days
Never</td>
</tr>
<tr>
<td>L.01a If NO, check all that apply:

Location is public (e.g., outdoors/street/park, public building, abandoned building)
Shared entryway (e.g., apartment building, hotel/motel, shelter)
Shared common spaces (e.g., laundry room)</td>
</tr>
<tr>
<td>L.02 In the PAST 14 DAYS, how often did you spend time together with someone you live with?

Every day
Most days
Few days
Never</td>
<td>L.06 In the PAST 14 DAYS, how often did you spend time outside your housing doing things just for fun (e.g., going to the park or drinking with friends)?

Every day
Most days
Few days
Never</td>
</tr>
<tr>
<td>L.03 In the PAST 14 DAYS, how often did you meet face to face with friends or others that you do not live with?

Every day
Most days
Few days
Never</td>
<td>L.07 In the PAST 14 DAYS, how would you have felt about living with someone who was COVID-19 positive?

Comfortable
Neutral
Uncomfortable
Very uncomfortable</td>
</tr>
<tr>
<td>L.04 In the PAST 14 DAYS, how often did you go to meetings of clubs, religious meetings, or other groups that you belong to?

Every day
Most days
Few days
Never</td>
<td>L.07a Would they be able to physically distance themselves in your housing situation at the time?

Yes
No</td>
</tr>
</table>

L.08 In the PAST 14 DAYS, how often did you wash your hands with soap and water? Multiple times per day Every day Most days Few days Never	L.14If YES, did you use your PPE (e.g., masks, gloves)? Yes No
L.09 Did you have access to running water? Yes No	L.15 If YES, in the PAST 14 DAYS how often did you wear your PPE (e.g., masks, gloves) when you spent time OUTDOORS around other people? Always Often Sometimes Rarely Never
L.10 Did you have access to soap? Yes No	L.16 If YES, in the PAST 14 DAYS how often did you wear your PPE (e.g., masks, gloves) when you spent time INDOORS around other people? Always Often Sometimes Rarely Never
L.11 In the PAST 14 DAYS, how often did you sanitize your belongings? Multiple times per day Every day Most days Few days Never	L.17 Did you possibly come into contact with someone who has COVID-19 in the PAST 14 DAYS? Yes No
L.12 Did you have access to other cleaning products (e.g., hand sanitizer)? Yes No	L.18 Did you have access to testing for COVID-19 in the PAST 14 DAYS? Yes No
L.13 Did you have access to Personal Protective Equipment (PPE) (e.g., masks, gloves)? Check all that apply: Yes, masks Yes, gloves Yes, other: _____ No	L.19 Have you been tested? Yes No
	L.20 If YES, what was the result? Positive Negative Unsure/Prefer not to say

M. Health Care and Police Contact

I would like you to think about the **2 WEEKS BEFORE** you entered the Managed Alcohol Program. Please tell me about your any health care or police contacts you had during those **14 DAYS BEFORE entering the program?**

M.01 In the **14 DAYS BEFORE entering MAP,** were you admitted to the emergency department? ☐ Yes ☐ No ☐ Unsure ☐ Refuse to answer	M.04 In the **14 DAYS BEFORE entering MAP,** did you have any contact with the police? ☐ Yes ☐ No ☐ Unsure ☐ Refuse to answer
If YES, how many times: _____	**If YES, how many times: _____**
M.02 In the **14 DAYS BEFORE entering MAP,** were you admitted to the hospital? ☐ Yes ☐ No ☐ Unsure ☐ Refuse to answer	M.05 In the **14 DAYS BEFORE entering MAP,** were you charged with an offence? ☐ Yes ☐ No ☐ Unsure ☐ Refuse to answer
If YES, how many times: _____	**If YES, how many times: _____**
M.03 In the **14 DAYS BEFORE entering MAP,** did you receive treatment from any other healthcare provider? ☐ Yes ☐ No ☐ Unsure ☐ Refuse to answer **If YES, please specify: _____**	
If YES, how many times: _____	

If in the MAP 14 or more DAYS (if NOT, SKIP to SECTION N) I would like you to think about the last **2 WEEKS BEFORE TODAY**. Please tell me about your any health care or police contacts you had during those **last 14 DAYS?**

M.06 In the **PAST 14 DAYS** were you admitted to the emergency department? ☐ Yes ☐ No ☐ Unsure ☐ Refuse to answer	M.09 In the **PAST 14 DAYS,** did you have any contact with the police? ☐ Yes ☐ No ☐ Unsure ☐ Refuse to answer
If YES, how many times: _____	**If YES, how many times: _____**
M.07 In the **PAST 14 DAYS,** were you admitted to the hospital? ☐ Yes ☐ No ☐ Unsure ☐ Refuse to answer	M.10 In the **PAST 14 DAYS,** were you charged with an offence? ☐ Yes ☐ No ☐ Unsure ☐ Refuse to answer
If YES, how many times: _____	**If YES, how many times: _____**
M.08 In the **PAST 14 DAYS,** did you receive treatment from any other healthcare provider? ☐ Yes ☐ No ☐ Unsure ☐ Refuse to answer **If YES, please specify: _____**	
If YES, how many times: _____	

Now we have a few questions about your goals and expectations around the managed alcohol program.

N. Program Goals and Expectations	
N.01 What are your drinking goals related to participation in the Managed Alcohol Program? (You can choose more than one option) ☐ To maintain my drinking ☐ To reduce my drinking ☐ To prevent withdrawals and seizures related to drinking ☐ Safer drinking (e.g., reduce NBA consumption) ☐ To switch to cannabis (cannabis substitution) ☐ To quit drinking ☐ Unsure ☐ Refuse to answer	N.02 Would you be interested in any of these services as part of the Managed Alcohol Program? (You can choose more than one option) ☐ Primary care ☐ Safer Drinking education (reducing harm) ☐ Job training and/or paid work ☐ Volunteer opportunities ☐ Permanent housing ☐ Palliative care (end-of-life care) ☐ Unsure ☐ Refuse to answer
Expand on your program goals: _____ _____ _____ _____ _____ _____ _____ _____ _____	

If in the MAP 14 or more DAYS (if NOT, SKIP to END). I would like you to think about the 2 WEEKS BEFORE you entered the Managed Alcohol Program. During those 2 WEEKS:

O. Physical Withdrawal Questions	
O.01 The day after drinking alcohol, I woke up feeling sweaty. • Never or Almost Never • Sometimes • Often • Nearly Always	O.02 The day after drinking alcohol, my hands shook first thing in the morning. • Never or Almost Never • Sometimes • Often • Nearly Always
O.03 The day after drinking alcohol, my whole body shook violently first thing in the morning if I didn't have a drink. • Never or Almost Never • Sometimes • Often • Nearly Always	O.04 The day after drinking alcohol, I woke up absolutely drenched in sweat. • Never or Almost Never • Sometimes • Often • Nearly Always

I would like you to think about the last **2 WEEKS BEFORE TODAY**. **During the LAST 2 WEEKS:**

O. Physical Withdrawal Questions	
O.01 The day after drinking alcohol, I woke up feeling sweaty. • Never or Almost Never • Sometimes • Often • Nearly Always	O.02 The day after drinking alcohol, my hands shook first thing in the morning. • Never or Almost Never • Sometimes • Often • Nearly Always
O.03 The day after drinking alcohol, my whole body shook violently first thing in the morning if I didn't have a drink. • Never or Almost Never • Sometimes • Often • Nearly Always	O.04 The day after drinking alcohol, I woke up absolutely drenched in sweat. • Never or Almost Never • Sometimes • Often • Nearly Always

Appendix F: Qualitative Interview Guide (MAP Participants)

Qualitative questions for MAP participants with greater than 7 days experience.

1. How did COVID 19 affect you? How did it affect access to alcohol or your usual patterns of drinking?
2. How did you learn about the Managed Alcohol Program? What prompted you to join the Managed Alcohol Program? When did you start with the Managed Alcohol Program?
3. Tell me about what life was like before you started with the Managed Alcohol Program (MAP) (e.g., housing, alcohol use, non-beverage alcohol use, other substance use, quality of life, harms).
4. Have you ever heard of or been in a Managed Alcohol Program in the past?
5. How would you describe the Managed Alcohol Program to someone who did not know about such programs?
6. What are your expectations of this service? What do you hope to get out of this MAP?
7. How well does this MAP meet your needs/expectations?
8. What are your current goals for being in this MAP? What do you hope will happen in the future?
9. What has been your experience with the MAP (both positive, negative and neutral, ask for examples).
10. Tell me about how the MAP works, what kinds of rules and policies do they have? What do you think of these policies?
11. What are your thoughts on how the MAP is set up?
    a. What do you like about the site? What do you not like?
    b. What is the role of staff at the site?
    c. What are your relationships like with the staff and peers within the MAP?
12. What would you describe as working well that should not be changed?
13. What would you say should be changed to improve the MAP?
14. What do you not like?
    a. What does not work for you?
    c. Any rules you do not like?
15. What difference (impact) has this site had on:

a. Your ability to implement COVID 19 guidelines of hand washing, staying at home and isolating.
b. Your health (e.g., physical, mental, emotional, spiritual)
c. Your alcohol use
d. Stigma or feelings of safety, and personal wellbeing
e. Access to other services (e.g., referrals to housing, social services etc.)
f. Your income
g. Your relationships with others either in the MAP or outside the MAP, family, or friends?

16. What are the benefits of having the site? What are the risks in using the site?
17. Tell me whether or not you feel safe and welcome in the MAP? What helps you to feel safe and welcome?
18. How does this compare to other programs e.g., substance use programs, detox, treatment) you have participated in?
19. What are some reasons that you might drink outside the MAP? What are the reasons you think others might drink outside the MAP?
20. Does the MAP offer opportunities to be involved in managing and maintaining the program?
    a. **If yes:** What tasks do you participate in and how often? What difference (impact) has this made on your experience within the program.
    b. **If no:** Would you like to participate in managing and maintaining the program? What difference (impact) do you think it would make to your experience in the program?
21. Moving forward, what do you recommend?
22. What do you think we can learn about providing alcohol during COVID-19?

Appendix G: Qualitative Interview Guide (MAP Staff)

Qualitative questions for MAP staff, managers, and clinicians.

1. Please describe to me your role at the site.
    a. What is your position/title?
    b. How many years of experience in this role? What education?
    c. How long have you worked at the site?
2. What services were already being offering to people who use alcohol/ substances before the program was set-up? How were they working?
3. When did the service start? How did the program initially get started here? What was the need that prompted this program?
    a. How is/was COVID impacting people who drink and experiencing homelessness or at risk of homelessness? What did you observe about impacts of COVID on this population? For example, changes in harms or new or different harms of drinking and homelessness.
4. Were you involved in setting up the service/program? Skip, to Question 6 if answer is no. Can you tell me about the experience of getting this program implemented?
    a. What were the goals of setting this up?
    b. Who was involved in program implementation? (e.g. stakeholders)
    c. What were the barriers? What were some facilitators?
    d. How is the service funded? Did you receive any additional resources to implement the service?
    e. How is the alcohol supply funded?
    f. Are there ways in which this site has changed the agency here or the city in general?
5. Who is eligible to participate in the program? Please describe eligibility criteria.
    a. How many participants has the service supported since starting the program?
    b. What has been the typical length of stay for participants?
6. How did you and others react to the idea of setting up this service here?
7. Can you describe this site and the services to me?
    a. What are the goals of this service?
    b. How is the service organized? Assessment/Intakes, Delivery, etc.

i. What does service workflow look like? Can you describe the process of referral, admission, day-to-day delivery, and discharge from the service?

c. What are the different staff positions/roles?

i. Are any other staff, practitioners, and/or agencies outside of the health authority involved in the service? What are their roles and responsibilities?

ii. How are staff trained and/or educated to deliver the service?

d. What other types of supports are offered to participants as part of MAP? (e.g., meals, money management, healthcare, social and cultural supports?)

e. Tell me about the policies at the site? Storage of alcohol, delivery, wellness checks

f. How is this site similar or different than other MAPs you know about?

8. Who or what other services or resources does the MAP connect with?

a. Can you describe the relationship of the MAP with these services or resources?

b. What kind of feedback have you had about MAP from these services or resources?

9. Now, I'd like to ask about alcohol administration.

a. How often is alcohol served?

b. What type of alcohol is served?

c. How much alcohol is served at each dose?

d. Is there a maximum number of doses?

e. What are the reasons someone might miss a dose of alcohol?

f. What are the reasons someone might be refused a dose of alcohol?

g. What is your approach to drinking outside of the program?

10. Can you describe profiles of participants to date? (E.g., Gender, age, ethnicity, drinking, health, and social/housing status)? If they have a report or record, please ask for a copy.

11. What impacts have you observed for MAP participants? (e.g., Prompts: alcohol consumption and patterns, physical health, mental health, housing status and stability, financial; social and cultural connections).

12. How is this group's experience of COVID19 affected by being in the MAP? (Clarification: experience of having COVID19 or living through the COVID19 pandemic)

a. How successful do you think the program is at facilitating implementation of COVID 19 guidance related to handwashing, staying at home and isolation? *(Note however the person defines success)*

b. What would you say should be changed to improve meeting these guidelines?

13. How well do you think the intervention meets the needs of the individuals served? Do you think the service works better for some people than others? Who, what circumstances?
14. What are the issues or challenges of working in the program?
    a. With other staff?
    b. With participants?
15. How has the program changed over time?
    a. What have been the benefits and/or challenges of these changes?
16. How do you define harm reduction? How does this site fit with that definition?
    a. Have you noticed any notable successes or challenges in implementing harm reduction principles in this site?
    b. What was your experience in harm reduction prior to this?
17. What is the most important thing you have learned from working at the site?
18. What do you think this program contributes to the community? What difference has the site made for yourself, your agency, other agencies, the people using the site?
19. What kind of responses or feedback have you had on the program?
    b. From participants?
    b. From staff in your organization?
    c. The police?
    d. Other community members/neighbours?
    e. If applicable, Aboriginal, or other ethnic communities?
20. What have you learned about offering MAP during COVID19? What has COVID19 brought to light regarding services and resources for this population in general?
21. Moving forward, what do you recommend?
    a. What would you change about the program? What would you not change?
    b. Do you have any suggestions for other places that have not yet started these services?