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Essay



Translating the lived experience of illicit drinkers into program guidance for cannabis substitution: Experiences from the Canadian Managed Alcohol Program Study

Aaron Bailey^{a,*}, Myles Harps^a, Clint Belcher^a, Henry Williams^a, Cecil Amos^a, Brent Donovan^b, George Sedore^a, SOLID Victoria^b, Brittany Graham^a, Sybil Goulet-Stock^c, Jenny Cartwright^d, Jennifer Robinson^e, Amanda Farrell-Low^d, Mark Willson^b, Christy Sutherland^f, Tim Stockwell^c, Bernie Pauly^g, the Eastside Illicit Drinkers Group for Education^a

^a Vancouver Area Network of Drug Users, 380 E Hastings Street, Vancouver BC V6A 1P4, Canada

^b SOLID Victoria, 1056 N Park Street, Victoria, BC V8T 1C6, Canada

^c Department of Psychology, University of Victoria, 3800 Finnerty Rd, Cornett Building (COR), A236, Victoria, BC V8P 5C2, Canada

^d Canadian Institute for Substance Use Research, University of Victoria, 2300 McKenzie Ave, Victoria, BC V8N 5M8, Canada

^e Department of Anthropology, University of Victoria, 3800 Finnerty Rd, Cornett Building (COR), B228, Victoria, BC V8P 5C2, Canada

^f PHS Community Services Society, 9 E Hastings St, Vancouver, BC V6A 1M9, Canada

^g Department of Nursing, University of Victoria, 3800 Finnerty Rd, HSD Building, A402A, Victoria BC V8P 5C2, Canada

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ABSTRACT

A small but growing body of research has suggested the potential for cannabis substitution to support Managed Alcohol Program (MAP) service users to reduce acute and chronic alcohol-related harms. In 2022, researchers from the Canadian Managed Alcohol Program Study (CMAPS) noted a dearth of accessible, alcohol-specific educational resources to support service users and program staff to implement cannabis substitution pilots at several MAP sites in Canada. In this essay, we draw on over 10-years of collaboration between CMAPS, and organizations of people with lived experience (the Eastside Illicit Drinkers Group for Education (EIDGE) and SOLID Victoria) to describe our experiences co-creating cannabis education resources where none existed to support MAP sites interested in beginning to provide cannabis to participants. The research team relied on the unique lived experiences and informal cannabis-related harm reduction strategies described by EIDGE and SOLID members to create cannabis education resources that were accurate and relevant to MAP sites. EIDGE was familiar with creating peer-oriented educational resources and convened meetings and focus groups to engage peers. CMAPS research team members created standard cannabis unit equivalencies to support program delivery, and clinical advisors ensured that the stated risks and benefits of cannabis substitution, as well as tapering guidance for withdrawal management, were safe and feasible. The collaboration ultimately produced tailored client-facing and provider-facing resources. Our experience demonstrates that the lived expertise of drinkers can play an integral role in creating alcohol harm reduction informational materials, specifically those related to cannabis substitution, when combined with data from rigorous, community-based programs of research like CMAPS. We close by listing additional considerations for cannabis substitution program design for MAP settings emerging from this process of collaboration between illicit drinkers, service providers, clinicians, and researchers for consideration by other programs.

Introduction & background

The Canadian Substance Use Costs and Harms project estimates that alcohol use, alcohol use disorders, and alcohol-related harms

contributed approximately \$19 billion in costs to the public and private sector in 2020 ([Canadian Substance Use Costs and Harms Scientific Working Group, 2023](#)). Alcohol-related health care costs, criminal justice expenditures, lost productivity, and other direct costs alone

* Corresponding author at: 380 East Hastings Street, V6A 1P4, Vancouver, B.C., Canada.

E-mail address: aaron@vandu.org (A. Bailey).

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represented 40% of total costs and harms attributable to substance use in Canada during this time period ([Canadian Substance Use Costs and Harms Scientific Working Group, 2023](#)). These findings are unsurprising. Even low-to-moderate levels of alcohol use are associated with increased risk of multiple cancers, alcohol-induced liver disease, interpersonal violence, accidental injury, neurologic disorders, gastrointestinal illness, motor vehicle accidents, and premature all-cause mortality ([Iranpour & Nakhaee, 2019](#); [Zhao et al., 2023](#)). Policies that restrict the price and availability of alcohol, including aggressive taxation, minimum unit pricing, labeling, volumetric taxes, liquor retail monopoly, and local limitations on outlet density are known to reduce these harmful effects for the majority of the Canadian population. ([Anderson et al., 2021](#); [Campbell et al., 2009](#); [Elder et al., 2010](#); [Giesbrecht et al., 2013](#); [Gmel et al., 2016](#); [Hobin et al., 2018](#); [Martin-Moreno et al., 2013](#); [Room & Örnberg, 2019](#); [Stockwell, 2014](#); [2017](#); [Stockwell et al., 2009](#)).

However, people with heavy, long-term patterns of alcohol use, physiological and psychological dependencies, extremely low-incomes, precarious housing situations, and histories of non-beverage alcohol consumption may be unlikely to benefit from otherwise evidence-based supply-side controls on alcohol's availability and accessibility ([Dimova et al., 2023](#); [Emslie et al., 2023](#); [Erickson et al., 2018](#)). People who use illicit alcohol, defined as non-beverage alcohol (i.e. mouthwash, hand sanitizer, or rubbing alcohol) - or - homemade alcohol - or - who drink in ways that are criminalized, face high barriers to involvement in organizing activities by and for drug users and often lack access to evidence-based harm reduction services ([BCCDC, 2013](#); [Brown et al., 2018](#); [Crabtree, 2015](#); [Crabtree et al., 2016](#); [2018](#); [Eastside Illicit Drinkers Group for Education, 2018](#); [Pauly, Brown et al., 2021](#), [Pauly, King et al., 2021](#); [Westenberg et al., 2021](#)). Illicit drinkers are typically long-term drinkers with high consumption patterns who are likely to be precariously housed, experience dangerous withdrawal symptoms, and interact frequently with emergency services including police ([Brown et al., 2018](#); [Crabtree, 2015](#); [Crabtree et al., 2016](#); [2018](#); [Eastside Illicit Drinkers Group for Education, 2018](#)). Intense structural marginalization and discrimination in healthcare settings places illicit drinkers at high risk of traffic-related injury, falls and other accidents, hypothermia, heat injury, dehydration, and interpersonal violence ([Crabtree, 2015](#); [Eastside Illicit Drinkers Group for Education, 2018](#)).

The Eastside Illicit Drinkers Group for Education (EIDGE) was formed in 2011 as an affiliate group of the Vancouver Area Network of Drug Users in response to the dearth of alcohol harm reduction resources in Vancouver's Downtown Eastside ([Crabtree et al., 2016](#)). In this context of unmet need and exclusion from the mainstream unregulated drug harm reduction movement, drinkers living in Vancouver's Downtown Eastside, over 80 % of whom identify as Indigenous, have historically relied on informal mutual aid to keep one another safe ([Crabtree, 2015](#); [Crabtree et al., 2016](#); [Eastside Illicit Drinkers Group for Education, 2018](#)). Alcohol harm reduction strategies based on their experience of illicit drinking include advice on safe tapering and hydration, sharing alcohol when needed, directing peers to safe drinking places where harassment from police and bylaw enforcement is less likely, and checking-in on drinkers especially in hot, cold, or wet weather ([Crabtree, 2015](#); [Crabtree et al., 2018](#)). Many of these informal peer support strategies have been formalized, resourced, and expanded by EIDGE.

Since 2014, EIDGE has worked closely with the Canadian Managed Alcohol Program Study (CMAPS) at the University of Victoria's Canadian Institute for Substance Use Research leaders of Managed Alcohol Program (MAP) research ([Chow et al., 2018](#); [Erickson et al., 2018](#); [Ivsins et al., 2019](#); [Pauly et al., 2016](#); [Pauly et al., 2018](#); [Pauly et al., 2019](#); [Pauly, Brown et al., 2021](#), [Pauly, King et al., 2021](#); [Schiff et al., 2019](#); [Stockwell & Pauly, 2018](#); [Stockwell et al., 2018](#); [Stockwell et al., 2021](#); [Vallance et al., 2016](#); [Westenberg et al., 2021](#); [Zhao et al., 2022](#)). MAPs are an evidence-based form of alcohol harm reduction for illicit drinkers involving the regular provision of controlled amounts of beverage alcohol in addition to clinical support, individual case management, social support, and typically some form of housing or accommodation.

As of February 2022, over 40 MAPs are currently operating across eight provinces and one territory in Canada. MAPs in Canada programs are funded by provincial health authorities and administered by non-profit health service organizations, who are sometimes granted specific exemptions in order to operate in compliance with Canadian liquor laws ([BC LCRB, 2022](#); [CMAPS, 2022](#)). The ongoing collaboration between EIDGE and CMAPS ensures that research outputs produced through the Canadian Institute for Substance Use Research are effectively communicated to illicit drinkers and service providers while supporting peer involvement in the research process. In turn, EIDGE has benefitted from the research-related oversight, expertise, and resources provided by the CMAPS suite of projects. Between 2019 and 2022, CMAPS research beginning to explore of cannabis substitution's possible efficacy as an alcohol harm reduction tool for MAP clients created an opportunity for EIDGE members to advise health research related to cannabis and alcohol harm reduction. The federal government of Canada legalized recreational cannabis use in 2018 through the passage of the Cannabis Act. Among other significant changes to criminal law, the Act created a standard national regulatory framework through which private firms could become "Licensed Producers" authorized by Health Canada to grow and distribute cannabis products to private retailers or government monopolies (Fischer, Russell, and Boyd, 2020). Cannabis retail policy varies from province to province in Canada, with some jurisdictions opting to preserve strict publicly owned monopolies, others privatizing the industry, and some choosing a hybrid approach (Fischer et al., 2020). Variations of medical cannabis programs have also operated in Canada since 2001, and Health Canada regulates the use of cannabis products in research activities. In this relatively new policy context, cannabis has emerged as a promising (and legally permissible) area of investigation for the CMAPS team.

In this essay, we discuss with examples the process of collaboration between EIDGE and CMAPS that informed the development of client-facing and service provider-facing educational materials for Canadian MAPs participating in CMAPS, specifically peer-informed resources for MAPs interested in piloting cannabis substitution. This case study is grounded in the context of nearly 10 years of collaborative knowledge translation between EIDGE and CMAPS, and takes place at the outset of yearlong pilot study of cannabis substitution that is currently underway at 4 sites across Canada at the time of writing. We recount previous successes in creating accessible harm reduction resources for illicit drinkers and describe a possible "blueprint" for translating community knowledge into harm reduction education through our most recent work to advance two interrelated claims. First, we build on existing literature that argues the importance of acknowledging the grounded expertise of people who use drugs, including illicit drinkers, as a legitimate form of knowledge for drug policy and harm reduction practice. Second, we argue that the current dearth of scholarly work research related to cannabis substitution as an alcohol harm reduction tool for MAP service users presents an important opportunity to engage with illicit drinkers' rich lived experiences of cannabis use in order to inform program guidance and reduce alcohol-related harm alongside community-based researchers. We close our essay by outlining additional considerations for cannabis substitution program design for MAP settings emerging from this process of collaboration between illicit drinkers, service providers, clinicians, and researchers.

Mobilizing the grounded expertise of illicit drinkers

EIDGE is unique in its position as the sole drug user group in North America that is led by, and with the intention of organizing for, people who use non-beverage alcohol and who drink in ways that are often criminalized. Operating under the oversight of the democratic structures of the Vancouver Area Network of Drug Users, EIDGE's activities are directed by the desires of the membership, typically focusing on neighborhood issues that are deemed relevant to the health and safety of drinkers. Conversations at weekly meetings frequently turn to the need

for more educational resources as attendees share their lived knowledge and emphasize the importance of people who use alcohol taking community safety into their own hands. Informational resources are also viewed as a means of communicating drinkers' unique needs and experiences to health care professionals, social service workers, and policymakers in order to directly challenge discriminatory practices that repeatedly traumatize drinkers in community and in care settings. By producing, co-producing, and circulating an alcohol-specific collection of pamphlets, bulletins, flyers, and policy documents, EIDGE members promote the knowledge and expertise that generations of illicit drinkers have developed while politicizing its mobilization. Traditionally, alcohol-related health promotion efforts in Canada have focused on primarily on advocating for supply-side alcohol controls at the population level and individual behavior change (Giesbrecht et al., 2020; Schouri-Mychasiw et al., 2020; Vallance et al., 2021). While evidence-based for the general population, policies that reduce the accessibility of affordable beverage alcohol can have a regressive impact on a the relatively small, intensely marginalized group of illicit drinkers represented by EIDGE (Bailey et al., 2023; BCCDC, 2013; Crabtree et al., 2018; Dimova et al., 2023; Eastside Illicit Drinkers Group for Education, 2018; Emslie et al., 2023; Erickson et al., 2018; Westenberg et al., 2021). By centering the experiences of people who actively use alcohol and their harm reduction measures there is a more robust conversation as to what alcohol harm reduction, clinical encounters and public health policies should be to support this highly marginalized population.

Since its inception, EIDGE has been involved in creating two types of alcohol harm reduction-oriented resources. Most commonly, EIDGE creates informational resources in direct response to the demands of the membership. Insights into the lived experiences of drinkers are documented in weekly meetings, steering committee meetings, surveys, and small focus groups to be summarized in a graphic resource by a supporting EIDGE staff member. Repeat revisions, group discussions, and updates ensure that this information is relevant and correct. In one representative case, attendees at several open meetings between 2021 and 2022 expressed the need for a clear resource directing people who used alcohol to resources that were inclusive of drinkers, which are few in the Downtown Eastside. Facilitated conversations at proceeding meetings, each attended by between 15 and 30 members, quickly identified alcohol-friendly shelters, safe indoor spaces, public washrooms, harm reduction sites, the neighborhood MAP, detox centers, water fountains, places to buy beverage alcohol, public parks noted to be safe, and quiet places to drink as desired content for a "Drinkers Map of the Downtown Eastside"(Appendix 1a). The "Drinkers Map" has since been revised to meet the seasonal needs of the community, changing its content as needed from heat response amenities to emergency warming centers. The map serves as a formal means for sharing illicit drinkers' nuanced expertise on neighborhood amenities, such as safe public spaces and washrooms, and their roles in reducing alcohol-related harm for this community. A later section of this essay will detail the mechanics of an EIDGE consultation meeting related to the design of educational resources for cannabis substitution.

In addition to creating resources at the request of EIDGE members, EIDGE and CMAPS have collaborated to translate research findings and program guidance produced by the Canadian Institute for Substance Use Research into community-facing visuals. In one instance, EIDGE program staff assisted the CMAPS team in translating standard drink calculations into an infographic that included commonly used forms of non-beverage alcohol such as rubbing alcohol or mouth wash. Collaboration on producing such resources is mutually beneficial; EIDGE's work can be supported and shared by dedicated knowledge translation resources within CMAPS, and affiliated researchers benefit from reciprocal access to community guidance and lived knowledge. All of the informational resources that have been created by EIDGE and CMAPS are summarized in Table 1.

Table 1

A summary of informational alcohol harm reduction resources produced by EIDGE or co-produced by EIDGE and CMAPS between 2018 and 2023.

Resource title	Description	Authors /distributors
Counting Your Drinks (2018)	A poster visualizing how many "standard drinks" are in a standard container of beer, wine, hard liquor, sherry, hand sanitizer, mouthwash, or rubbing alcohol.	CMAPS / CISUR
Safer Drinking Tips (2018)	A poster highlighting generalizable alcohol harm reduction strategies	EIDGE
Think Before You Drink (2019)	A pamphlet highlighting basic alcohol harm reduction strategies designed for circulation to illicit drinkers	EIDGE
COVID-19 Safer Drinking Tips (2020)	A poster describing basic alcohol harm reduction strategies and safe tapering methods in response to service disruptions related to the COVID-19 pandemic	CMAPS / CISUR
Scale up of Managed Alcohol Programs (2020)	A CISUR research bulletin co-produced by CMAPS research staff and EIDGE to support the scaling up of emergency MAPs during the COVID-19 pandemic.	CMAPS / CISUR
"Drinkers Rights" cards / stickers (2021)	A wallet-sized card and sticker featuring a statement for police or bylaw officers designed to prevent alcohol confiscation, pour-outs, or ticketing	PIVOT Legal Society / EIDGE
Substituting cannabis in a Managed Alcohol Program: Could it work? (2021)	An infographic summarizing the findings of CMAPS' 2021 feasibility study of cannabis substitution for MAP clients	CMAPS / CISUR
Drinkers Map of the Downtown Eastside (2022)	An accessible map of drinker-friendly services, locations, and amenities in Vancouver's Downtown Eastside	EIDGE
Water and Washrooms Map of the Downtown Eastside (2022)	An accessible map of water fountains, washrooms, misting stations, cooling centers, and drinker-friendly service locations in Vancouver's Downtown Eastside	EIDGE
Staying Warm and Dry in the Downtown Eastside (2022)	An accessible map of Emergency Warming Centres, drinker-friendly services and service locations in Vancouver's Downtown Eastside	EIDGE
Navigating Hospital-based Managed Alcohol Programs in Vancouver (2022)	A patient advocacy pamphlet produced in collaboration with clinical staff from St. Paul's Hospital, detailing general eligibility criteria for hospital-based MAP at several sites in Vancouver	EIDGE
Cannabis and Alcohol Harm Reduction: Tips and information for people who drink and are interested in using cannabis as a harm reduction tool (2023)	A pamphlet highlighting illicit drinkers' self-reported benefits of cannabis use for the management of their drinking, accompanied by basic cannabis harm reduction information and safe tapering guidance	EIDGE, SOLID Outreach, CMAPS, and CISUR
Alcohol Harm Reduction & Cannabis: Basic information for harm reduction workers and	A pamphlet highlighting illicit drinkers' self-reported benefits of cannabis use for the management of their drinking, accompanied by	EIDGE, SOLID Outreach, CMAPS, and CISUR

(continued on next page)

Table 1 (continued)

Resource title	Description	Authors /distributors
other service providers (2023)	basic cannabis harm reduction information, safe tapering guidance, and operational considerations for harm reduction staff and other service providers	

Coming together to study cannabis substitution

Some evidence exists to support the use of cannabis as a substitute for alcohol and a means of reducing alcohol-related harm among high-risk drinkers (Gunn, Aston, & Metrik, 2022; Lau et al., 2015; Lucas et al., 2013; Mikuriya, 2004; Reiman, 2009; Risso et al., 2020; Subbaraman, 2014,; 2016). However, existing studies are largely retrospective in nature and primarily reflect the experiences of medical cannabis patients. To expand this body of knowledge, CMAPS has documented the capacity of MAP sites to act as wellness, care, and referral hubs for long-term, heavy alcohol users. These sites can connect isolated illicit drinkers with social, housing, medical, and harm reduction supports that include medication-assisted substitution among other services (Pauly et al., 2019). Although MAP participation frequently reduces acute, social, and chronic harms related to alcohol-use and the intense structural marginalization for participants, many illicit drinkers enrolled in MAP remain at risk for the long-term harms of heavy alcohol use (Chow et al., 2018; Erickson et al., 2018; Ivsins et al., 2019; Pauly et al., 2016; Pauly et al., 2018; Pauly et al., 2019; Pauly, Brown et al., 2021, Pauly, King et al., 2021; Schiff et al., 2019; Stockwell & Pauly, 2018; Stockwell et al., 2018; Stockwell et al., 2021; Vallance et al., 2016; Westenberg et al., 2021; Zhao et al., 2022). Service providers and researchers who study MAP efficacy are increasingly interested in the potential for novel interventions, like cannabis substitution, to support clients to voluntarily reduce their overall alcohol consumption over time. (Pauly, Brown et al., 2021, Pauly, King et al., 2021). Generally, cannabis substitution programs for illicit drugs other than alcohol offer people who access the unregulated drug supply access to medical or grey-market low or no cost cannabis as a tool for reducing illicit substance use and related harms (Nichol et al., 2019; Valleriani et al., 2020). The heightened toxicity of North America's street drug supply beginning in the mid 2010's motivated several promising studies of cannabis' utility as a less harmful substitute to street opioids including fentanyl. Available evidence suggests that cannabis use supports people who use illicit drug users to manage pain and other symptoms, treat withdrawal, reduce cravings, and potentially moderate use of unregulated opioids and stimulants (Lake et al., 2019; Lau et al., 2015; Lucas et al., 2013; Mok et al., 2021, Mok et al., 2023; Reddon et al., 2024, Reddon, Lake et al., 2023; Socias et al., 2017). While not without harms of its own, cannabis' mild risk profile relative to alcohol and potential substitution effects also points to its potential use as a client-empowering, harm reducing substitute for alcohol in MAP settings (Gunn, Aston, & Metrik, 2022; Pauly, Brown et al., 2021, Pauly, King et al., 2021; Subbaraman, 2014).

Piloting cannabis substitution in MAPs

CMAPS began to conduct a preliminary feasibility study of cannabis substitution for MAP clients involving service users and program staff from multiple MAP sites across Canada in 2019 (Pauly, Brown et al., 2021, Pauly, King et al., 2021). This was done with a view of MAPs as a promising setting for the evaluation of cannabis substitution for alcohol and preceded a pilot project that is underway at 4 program sites as of fall 2023. Results of the feasibility study showed that 84 % of service users expressed an interest in cannabis substitution if a program was to be offered at their MAP, with nearly two-thirds (63.2 %) of clients reporting some form of self-directed daily or weekly cannabis substitution to

manage alcohol consumption and withdrawal symptoms (Pauly, Brown et al., 2021). MAP service users stated that a cannabis substitution program should be accompanied by increased access to social supports, and most respondents indicated a preference for a staff administered program entailing partial substitution of cannabis for alcohol (Pauly, Brown et al., 2021). Organizational staff and management underlined that investments in personnel and cannabis-specific education would be required to support the success of partial cannabis substitution (Pauly, Brown et al., 2021). The feasibility study =reflected a generally strong interest in cannabis substitution from MAP clients and staff, in addition to highlighting the importance of staff in contributing to the success of such a program, and the need for alcohol-specific cannabis education resources for all parties involved (Pauly, Brown et al., 2021). Participants in the initial feasibility study agreed on the usefulness of educational resources for service users and staff that included purported benefits of cannabis use for drinkers, basic cannabis education, relevant harm reduction information, operational guidance for staff, and clinical guidance for high-risk tapering.

Before describing how EIDGE and CMAPS collaborated to produce resources to meet this expressed need, it is useful to position this work within the larger context of CMAPS cannabis substitution pilot study. Reflecting the high levels of support apparent in the 2019 feasibility study, CMAPS received funding from Health Canada's Substance Use and Addictions Program spanning early 2022 to spring 2024 to support a multi-site pilot of cannabis substitution at Canadian MAPs, with CMAPS conducting independent evaluation. The collaboration detailed in this essay took place in the early summer of 2022, in advance of the launch of cannabis substitution pilots at three sites and in direct response to the stated needs of feasibility study participants.

Under the terms of the pilot study, MAP sites and other programs serving long-term, heavy illicit drinkers are funded to acquire legal cannabis through Health Canada-approved channels, design a unique partial-substitution program in alignment with CMAPS eligibility criteria, and implement the program for a period between 6 months to one year. Mixed methods data including baseline interviews, weekly questionnaires, individual records review, and follow-up interviews at 3 and 6 months are then compiled and analyzed by CMAPS. Evaluations of these data are forthcoming in other research publications. For the purposes of this essay, we emphasize the importance of peer-directed resource development in equipping participants, some of whom lacking experience providing cannabis to clients, with pragmatic guidance informed by lived knowledge and clinical expertise. In spite of the legal status of non-medical cannabis in Canada and a rich body of scholarship investigating cannabis substitution for people who use other drugs, no guidance materials existed for alcohol-specific cannabis substitution that were relevant for MAP sites in 2022. Our coalition was subsequently asked by interested sites to create such resources for their organizations, participants, and supporting clinical teams in the absence of established scholarly or clinical guidance, EIDGE members who have used cannabis to reduce alcohol-related harms for decades were best positioned to provide the CMAPS team with invaluable support to document the benefits and risks of cannabis use for long-term, heavy alcohol users as well as strategies for cross titration from alcohol to cannabis. CMAPS approached the EIDGE Program Coordinator to propose a collaboration similar to those previously undertaken by the research team and EIDGE, which was enthusiastically accepted.

Resource creation

The process of creating two alcohol harm reduction-oriented cannabis resources involved a strategic division of labor between CMAPS researchers, clinical advisors, EIDGE members, and participants and staff at Victoria's SOLID Outreach, as well as EIDGE support staff. Early conversations amongst the research team in the spring of 2022 confirmed the need for two specific resources - one intended for service users and one intended for program staff, sharing core information but

tailored to the specific audiences. As shown previously by [Table 1](#), CMAPS and EIDGE relied on an established history of co-producing harm reduction-informed informational resources to ensure that sites and clients preparing to implement cannabis substitution had effective supports. EIDGE was well-positioned to create a resource for peer and service users, while the CMAPS Research Coordinator could translate and bolster the resulting content into a staff-facing resource. During the summer of 2022, EIDGE members, many of whom are also enrolled in the PHS Drinkers Lounge, convened multiple focus groups, steering committee meetings, and weekly general meetings which focused on cannabis. When possible, leading CMAPS researchers brought program staff and participants from SOLID Outreach Society, Victoria's organization of people who use illicit drugs with whom they also had long standing relationships, to join the discussion via Zoom in order to share their expertise. We'll proceed to describe how EIDGE collected, curated, and shared illicit drinkers' experiences using cannabis with the CMAPS team as to offer research partnerships elsewhere a blueprint for adaptable action.

EIDGE's consultation with its members was distinct from CMAPS' formal evaluation of cannabis substitution, allowing discussion amongst illicit drinkers to be flexible, efficient, and non-disruptive of the group's daily work. Informal but focused conversations and notetaking were used in place of formal qualitative methods to gather purported benefits of cannabis use and safer use strategies for drinkers as they were practiced by members. After meeting with the CMAPS research team and SOLID Victoria in June of 2022, a group of EIDGE members (MH, CB, HW, and CA) planned a small, unstructured focus group to discuss the benefits and harms of cannabis use according to their lived experience. Conversations were facilitated by the EIDGE Program Coordinator, who worked with the EIDGE steering committee to identify and invite members who were known to be enthusiastic and knowledgeable cannabis users. Identifying such expertise was not difficult for EIDGE – Conversations about alcohol harm reduction are directed by members, who have been intrigued by the idea of voluntary cannabis substitution for drinkers before and since the CMAPS feasibility study in 2019. Open ended questions like “As a drinker, why do you use cannabis?” and “What does cannabis do for you?” were offered to the group by the Program Coordinator, who kept a rough speakers list and recorded participant responses in his notes. These informal conversations, made possible by experiential knowledge held by EIDGE, resulted in a long list of reported benefits of cannabis use that were specific to drinkers and suggestions around program features that would make a cannabis substitution program successful or people who drink alcohol. Meeting notes and minutes taken by AB illustrate the nuanced understandings of cannabis' use as a harm reduction tool EIDGE members possess and provide a basic general blueprint for what consultation looked like in the context of the specific, relationship-based collaboration detailed here. A significant number of EIDGE members were already using gray market and legal cannabis to regulate their alcohol use and manage related harms. In the informal focus group convened by EIDGE, members reported using cannabis to reduce their alcohol intake, manage withdrawal symptoms, improve appetite, keep hydrated, calm gastrointestinal symptoms related and unrelated to their alcohol use, treat anxiety, aid sleep, and manage chronic pain. Each of these benefits were specifically viewed as deliberate forms of alcohol harm reduction. EIDGE members emphasized the importance of eating consistently and good nutrition to the health of long-term, heavy drinkers, and viewed cannabis as a supportive tool. The group also expressed a clear preference for a diversity of products in an ideal cannabis substitution program for drinkers. For example, participant stated that smoking cannabis harmed his already poorly functioning lungs, while others avoided edible products because of stomach issues. According to this group, specific characteristics of a cannabis substitution program for drinkers that would be conducive to its success included having access to pre-rolled cannabis flower to assist drinkers experiencing tremors and having ready access to other medications to reduce alcohol cravings.

While the EIDGE membership had anecdotal experiences using cannabis, SOLID Victoria had operated a low-cost, peer-administered cannabis cooperative program for illicit drug users since 2018. SOLID contributed a wealth of expertise in separate research meetings related to the day-to-day operations of a low-barrier cannabis substitution program. Notes from meetings between CMAPS researchers, EIDGE, and SOLID, and EIDGE-specific focus groups were compiled by the EIDGE Program Coordinator, who began work to translate drinkers recommendations into a concise tri-fold pamphlet intended for service users. EIDGE's involvement provided illicit drinkers with an opportunity to fill pressing gaps in the health sciences and public health literature with forms of grounded expertise typically inaccessible and unavailable to academics.

Within the research team, only EIDGE and SOLID membership reported lived experience of cannabis use as an alcohol harm reduction tool for heavy, long-term alcohol use. Similarly, the scientific understanding of the risk profile of cannabis, its pharmacology relative to alcohol, risk reduction information, guidance for safe use alongside long-term alcohol use, and applicability to popular models for MAP delivery fell within the expertise of CMAPS researchers and clinical advisors. The CMAPS Research Coordinator, informed by senior researchers, subsequently led the creation of a provider-facing research bulletin intended to function as a form of program guidance for sites interested in supporting clients to consider cannabis as an alcohol harm reduction tool. The provider-facing resource situates cannabis substitution within the existing literature, includes guidance for monitoring alcohol-related harms, and advises program staff on the principles of motivational interviewing. External clinical guidance was sought out in order to ensure that the suggested tapering schedule included in the bulletin was safe. Providing advice that struck a reasonable balance between up-to-date guidelines for safe alcohol withdrawal management and the unique, likely exceptionally high rates of consumption relative to the general population reported by some MAP clients, required careful collaboration by the team over several weeks in order to create consensus for the recommendations ([Fig. 1](#)).

Following EIDGE's focus group and discussions with both CMAPS and SOLID, drinkers feedback was briefly brought before the general membership of EIDGE and the Downtown Eastside Drinkers Mix, an affiliate group of EIDGE, to validate our results and make suggested changes. [Fig. 2](#) depicts a regular meeting of the Downtown Eastside Drinkers Mix, where members of EIDGE and the PHS Drinkers Lounge come together to discuss alcohol policy advocacy and involvement in research. After doing so, the EIDGE Program Coordinator began work translating discussion notes into an accessible paper resource using Canva, a browser-based design program. First drafts of service user-facing and provider-facing resources were circulated to all parties involved for feedback, and changes to language and content were made as needed over several months. Email threads became the primary means of communication related to the clinical components of each resource, EIDGE Steering Committee meetings and one-on-one discussions with engaged members allowed illicit drinkers to provide regular feedback on new drafts as they were created. Eventually, two distinct resources were designed and made ready for circulation.

Supporting service users and staff with tailored guidance

Multiple rounds of revisions and feedback from peers and the research team resulted in two final resources. [Fig. 3](#) depicts the client-facing resource designed by the EIDGE Program Coordinator and closely advised by EIDGE. The client-facing resource ([Fig. 3](#)) was designed to be visually interesting tri-fold pamphlet that used plain language and prioritized space in the document for illicit drinkers reflections on the reported effects of cannabis use. Formatting of this type meant that ease of circulation of the final resource from the Vancouver Area Network of Drug Users office from which EIDGE is situated would be similar to previous pamphlets created by EIDGE. In comparison, the



Fig. 1. EIDGE Steering Committee members Myles Harps and George Sedore address a December 2022 meeting of the Downtown Eastside Drinkers Mix in Oppenheimer Park. Regular open meetings and a peer-led democratic structure allow EIDGE and the Drinkers Mix to consult dozens of illicit drinkers each week on priority policy issues.

provider-facing resource (Fig. 3) was formatted as a “Research Bulletin” from the Canadian Institute for Substance Use Research, reflecting a format that is likely to be familiar to clinicians, researchers, and some frontline staff. This resource includes similar safety information to the client-facing document, but takes greater care to clearly reference all relevant scholarship and lay out suggested program features for providers, like regular withdrawal assessment via the Prediction of Alcohol Withdrawal Severity Scale and recommending regular liver function testing. Both documents include strict, clinically-informed recommendations on safe alcohol tapering. While much of the content between these resources is the same and informed by collaboration with peers, their different framings (and content, in some cases) encouraged interest and uptake from different parts of the alcohol harm reduction community. While the reception of these resource has been anecdotally positive according to the EIDGE Program Coordination, an empirical discussion of their efficacy in changing knowledge and attitudes towards cannabis and alcohol harm reduction is beyond the scope of this essay. Instead, we emphasize the importance of the knowledge exchange processes that led to their creation as an important case study to be adapted to other community-based research projects.

Online promotion, printing, and distribution to participating CMAPS sites and harm reduction organizations throughout Vancouver’s Downtown Eastside began in winter 2022. Although CMAPS was not conducting an evaluation of any cannabis substitution programs in Vancouver at this time, EIDGE and a number of members at Vancouver’s Community Managed Alcohol Program expressed an interest in sharing both resources around the Downtown Eastside. In this instance, CMAPS’ close working relationship with EIDGE permitted a novel alcohol harm reduction resource to be circulated to high-risk drinkers living in Vancouver immediately after it was completed, significantly shortening the gap between academic knowledge production and mobilization to only days. The printed and online forms of both documents were presented to pilot sites outside of Vancouver before or shortly after baseline research interviews were completed in order to support the delivery of cannabis substitution itself, as requested by participants in CMAPS’ 2019

feasibility study. In the final section of this essay, we reflect on lessons learned during the process of resource co-creation, and pay specific attention to the relevance of our collaborative experience that could be applied to the design of novel cannabis substitution programs elsewhere. We also reflect on how the dynamic relationship between peer organizations, clinicians, and harm reduction researchers developed more broadly in this setting.

Lessons for the design of alcohol-focused cannabis substitution programs

The partnership between CMAPS, EIDGE, and SOLID Victoria proved to be invaluable for the production of CMAPS’ cannabis resources. Collaborations between academic researchers and people with lived experience of substance use, particularly the membership of organized drug user groups, have become increasingly and justifiably common within the harm reduction literature (Ashford et al., 2018; Chang et al., 2021; Faulkner-Gurstein, 2017; Greer et al., 2016; Greer et al., 2020; Jozaghi, 2014; Jozaghi et al., 2018; Kennedy et al., 2019; Kerr et al., 2006; Marshall et al., 2015; Olding et al., 2021). Creating space for peer co-researchers who are responsible for brokering community research ethics and conducting data collection have become indispensable parts of the community-based harm reduction research process (Boilevin et al., 2019; Boyd & Murray, 2017; Boyd et al., 2017; Chang et al., 2021; Neufeld et al., 2019). Despite the growing popularity of this form of peer-involved work, few concrete examples exist that describe the processes for meaningfully incorporating the grounded expertise of people who use drugs into the day-to-day operations of an academic project. In the above case study, we have documented how EIDGE, a member democracy created to represent illicit drinkers, and CMAPS, a federally funded, multi-year research project at the University of Victoria’s Canadian Institute for Substance Use Research, relied on relationships established through years of collaboration and mutual support to create essential guidance for a novel alcohol harm reduction intervention involving cannabis substitution for MAP clients. Having established a

REDUCING THE HARMS OF ALCOHOL

People drink for many personal reasons, and not everyone is ready or willing to cut down on their alcohol intake or stop altogether, and that's ok. That being said, we know that heavy alcohol use causes harm to the body, and these harms are quite serious for drinkers. In the short term, alcohol use can impair your decision making, cause blackouts, make you vulnerable to falls and accidents, and lead to dehydration. In the long term, daily, heavy drinking can increase your risk of liver and kidney damage, several cancers, stomach issues, high blood pressure, injury to the brain and nervous system, and harm your immune system. Physical dependence on alcohol can also lead to acute withdrawals, which have the potential to cause seizures, delirium, and other harms.

That's where alcohol harm reduction comes in. This approach tries to meet people where they are with their drinking and reduce the harms of alcohol use in a way that doesn't require abstinence and respects their choices. We asked the members of the Eastside Illicit Drinkers Group for Education, PHS Drinkers Lounge Community Alcohol Program, and SOLID Outreach Society how they used cannabis as an alcohol harm reduction tool, and what advice they had for peers and staff who were involved with a CSP program. This resource reflects those conversations, and is intended to support the implementation of CST programs for people who use alcohol elsewhere.

REMEMBER: START LOW AND GO SLOW

Everyone responds to cannabis in a unique way, and different cannabis products will produce different effects. Consider what types and strengths of cannabis will work best for you. When in doubt, try a small amount of cannabis and slowly increase the dose until you reach a desired effect.

- | | |
|---|---|
| <p>Regular joint / Dried cannabis flower</p> <ul style="list-style-type: none"> Smoked cannabis will produce a less intense effect than an edible cannabis product containing the same amount of THC. You should feel an effect shortly after inhaling. Take 1 or 2 puffs, and wait a few minutes to see how you feel. Take more if necessary. Participants with histories of lung or breathing problems should exercise caution and consider consulting a health care provider before use. | <p>Cannabis edibles</p> <ul style="list-style-type: none"> The same amount of THC in a cannabis edible will be felt more strongly and differently than the same amount in a joint. It can take up to 2 hours for cannabis edibles to work, and their effects will last for a longer period of time. If you are trying edibles, start with a small amount (i.e. 2.5mg or 5mg), and wait to take more until you feel something. Try not to consume too much, too quickly. |
|---|---|

Source: <https://www.ccsa.ca/sites/default/files/16022019-06-02-37-Things-About-Edible-Cannabis-2019-en.pdf>

SOME FACTS ON CANNABIS

HOW DOES IT WORK?

- Chemicals called cannabinoids, including **THC** and **CBD**, interact with your body. THC creates a high, while CBD does not. Mixed research suggests CBD may relieve pain and promote healing.
- There are several different ways of using cannabis. Depending on how you use it, cannabis will effect you differently.

HOW CAN I USE IT, AND WHAT ARE THE TRADEOFFS?^{1,2}

Smoking

Pro: Smoking cannabis is quick, accessible, and allows you to control exactly how high you want to be.

Con: Smoking of any sort will harm your lungs.

Vaporizing flower

Pro: Vaporizing has many of the same benefits of smoking, but with less harm to your lungs.

Con: Vaporizers can be expensive and difficult to access.

Vaporizing oil

Pro: Vaporizing oil has many of the same benefits of smoking or vaporizing, but allows you to avoid inhaling smoke.

Con: Vapes and oil can be expensive, and the health risks of vaping THC oil aren't well understood.

Edibles

Pro: Edibles are a good way to avoid inhaling smoke or vapour of any kind.

Con: Edibles take a while to kick-in, and once they have, it is difficult to control how high you are. They can also irritate your stomach.

Oils, extracts, and teas

Pro: Oils, extracts, and teas are an easy and low-risk way to use cannabis.

Cons: These products can be expensive and hard to access. You should still start low and go slow.

1. If you have a history of psychosis, anxiety, depression, or a diagnosis of schizophrenia or schizoaffective disorder, cannabis could make your symptoms worse. These risks increase with more use of more potent cannabis products.
2. The risks of cannabis use vary. Talk to your health care provider about your medical history and what cannabis could do for you.

WHERE CAN I LEARN MORE?

THE CANADIAN MANAGED ALCOHOL PROGRAM (CMAPS) STUDY



CMAPS is a national study of Managed Alcohol Programs in Canada based out of the Canadian Institute for Substance Use Research at the University of Victoria. The CMAPS project rigorously evaluates MAPs in Canada and generate insights into their implementation and effectiveness.

FOR MORE INFORMATION, VISIT: WWW.CMAPS.CA

THE CANADIAN INSTITUTE FOR SUBSTANCE USE RESEARCH (CISUR)



University of Victoria
Canadian Institute for Substance Use Research

CISUR is a network of individuals and groups based at the University of Victoria who conduct research about substance use and work with organizations of people who use alcohol and other drugs to develop projects and resources like this one. Check out the following online resources to learn more about cannabis and alcohol harm reduction:

Cannabis substitution for drinkers:

- <https://www.uvic.ca/research/centres/cisur/assets/docs/infographic-cannabis-substitution.pdf>

Cannabis harm reduction:

- <https://www.uvic.ca/research/centres/cisur/assets/docs/take-care-with-cannabis.pdf>
- <https://www.heretohelp.bc.ca/infosheet/safer-cannabis-use-marijuana-hash-hash-oil>

CONTACT THE CMAPS TEAM:

GENERAL INQUIRIES

cisur@uvic.ca

CANNABIS SUBSTITUTION PROJECT INFORMATION

aaronbailey@uvic.ca

This initiative is supported by Health Canada's Substance Use and Addictions Program (SUAP), Santé Canada Health Canada

CANNABIS AND ALCOHOL HARM REDUCTION

TIPS AND INFORMATION FOR PEOPLE WHO DRINK AND ARE INTERESTED IN USING CANNABIS AS A HARM REDUCTION TOOL



THE BENEFITS OF CANNABIS

Drinker's themselves have reported several benefits from using cannabis that relate to their alcohol use. At the same time, researchers are starting to document these benefits. We have heard that cannabis can help with the following:

- Cutting down on the number of drinks you need or want each day**
 - Some people use cannabis in place of alcohol. When they would normally have another drink, they substitute a joint or an edible. This allows them to drink less throughout the day without adverse effects.

If you're interested in substituting cannabis for alcohol or using it to help with acute withdrawal, go slowly and don't do it alone. Make sure to taper your drinks carefully, access a daytox or other withdrawal management service, talk to program staff, or call a friend, especially if you have a history of alcohol withdrawal seizure.

- Coming off or cutting down on other drugs, like opioids and stimulants**
 - Other people report using cannabis to cut down on other drugs while keeping their alcohol use steady or reducing it. This includes depressants like down (fentanyl), or stimulants like side (meth) and rock (crack).
- Self-management of symptoms as your blood alcohol content drops, together with other supports**
 - Cannabis can also help to reduce or manage the uncomfortable symptoms of withdrawing from alcohol or other drugs, at home or in a detox setting.
 - Cannabis can also help you to want to drink more water and improve your appetite when you're hungover.
- Maintaining your appetite and soothing your digestive system**
 - Alcohol irritates the digestive system and can reduce your appetite, putting many drinkers at risk of weight loss and nutrition problems. Cannabis can calm digestive problems and bring back your appetite.
- Sleep, relaxation, and pain relief**
 - Many people live with chronic pain, anxiety, and can have trouble sleeping. Many forms of cannabis can help, and may replace alcohol as a means of self-treatment.

WHAT SHOULD I LOOK FOR IN A SERVICE THAT PROVIDES CANNABIS/

Many things make a good Cannabis Substitution Program for people who use alcohol. Here are some questions to ask when joining a cannabis program:

1. What are the types of cannabis that the program provides? It's nice to have options for strength and route of use to find the best fit for you.
2. Can you ask for a vape or other non-smoking way to use the cannabis?
3. Do they provide pre-rolled joints? This is important if you are not able to roll your own joint.
4. Are staff able to provide you with information about the local cannabis market?
5. Can you access primary care in order to try out some medications to decrease alcohol cravings, if you would like to combine this with your cannabis substitution.
6. What are the policies around sharing cannabis?
7. Are they able to provide deliveries, if that is something you need?

A Note on Safe Tapering

- Follow the established protocols for tapering your drinking. Overall, reducing by 1 standard drink per day each week is reasonable, up to 2 standard drinks per day each week. For example, if someone is drinking 10 drinks per day, they could reduce to 8-9 drinks per day in Week 1 and to 6-7 drinks per day in Week 2.
- Slower reductions are best to minimize withdrawal symptoms and to decrease the risk of seizure. 1 standard drink is equal to a 350mL of 5% beer, 5oz of 12% wine, or 1.5oz of 40% distilled alcohol.

Fig. 2. The client-facing cannabis educational resource designed by EIDGE, SOLID, and CMAPS.

close working relationship with EIDGE since the first iteration of their project in 2014, CMAPS drew from illicit drinkers' experiences to identify the potential of cannabis substitution for MAP clients and then returned to the community to create guidance materials where none previously existed. In doing so, CMAPS acknowledged validity in the organizing experiences of the EIDGE membership and EIDGE's long history of translating lived experiences into educational materials. The clinical and methodological expertise of CMAPS team members was then required to refine this knowledge and make it generalizable in addition to supporting the implementation and systematic evaluation of cannabis

substitution at harm reduction sites. Similarly, SOLID Victoria held unique experience providing a low-barrier cannabis substitution program to a community of illicit drug users and drinkers living in Victoria, and as such could speak to the day-to-day realities of supporting a successful program. While achieving complete parity between clinically-relevant grounded expertise and academic knowledge in health research is a highly fraught exercise, the process of creating the informational resources discussed in this essay took deliberate care to situate the lived and scientific understandings of alcohol harm reduction on equal footing. Our experience illustrates the importance of

ALCOHOL HARM REDUCTION & CANNABIS

BASIC INFORMATION FOR HARM REDUCTION WORKERS AND OTHER SERVICE PROVIDERS

In Canada, alcohol use contributes to 36% of total costs attributable to substance use, including healthcare costs, lost productivity costs, criminal justice costs, and other costs (e.g., motor vehicle damage) [1]. Alcohol use can also contribute to the experience of health and social harms. Some of the physical health risks associated with alcohol consumption include poisoning, injury, cancer, depression, suicidality, and liver disease [2,3]. Moreover, as the typical amount of daily alcohol consumption increases, so does the risk of health harms [4]

These health risks are also greater in people with severe alcohol use disorders (AUDs) who are experiencing unstable housing [5,6]. The consumption of non-beverage alcohol (NBA: e.g., mouthwash, rubbing alcohol) can also contribute to the potential of harms in people with severe AUD experiencing unstable housing [7].

While cannabis use is not without harm, the scale of harm of cannabis is substantially lower than that of alcohol [8,9]. In fact, a review of cannabis substitution for alcohol research [10] shows that cannabis meets or partially meets 6 of the following criteria for substitution therapy [11]:

1. *It should reduce alcohol use and related harms.*
2. *It should ideally be free of harms, or at least less harmful than alcohol.*
3. *Misuse should be less than that of alcohol.*
4. *It should be shown that it can substitute for alcohol and not be used along with alcohol.*
5. *It should be safer in overdose than alcohol.*
6. *It should ideally not potentiate the effects of alcohol especially if either drug is taken in overdose.*
7. *It should offer significant health economic benefits.*

There are several potential therapeutic benefits of cannabis as well. Some research has indicated that cannabis use is related to reductions in self-reported use of alcohol, opioids, tobacco, prescription drugs, and other illicit substances [12, 13]. Other research shows that cannabis contributes to reductions in pain, anxiety, appetite loss, and insomnia [12,14,15] as well as to reductions in alcohol cravings and withdrawal symptoms [16-18].



Santé Canada Health Canada

This initiative is supported by Health Canada's Substance Use and Addictions Program (SUAP).



Fig. 3. The provider-facing cannabis educational resource designed by EIDGE, SOLID, and CMAPS.

considering peer input when gaps in the harm reduction literature are discovered and highlights the richness of the input from illicit drinking communities in Vancouver and Victoria for academic knowledge products.

We also note the importance of acknowledging the inevitability of tension and disagreement that can exist between drug user organizing

efforts and health research. In this case, we believe that occasional instances of disagreement ultimately improved the quality of both resources by forcing team members to work through different understandings of substance use and diverse clinical backgrounds while encouraging community buy-in. Some productive disagreement over the inclusion of information related to gray market cannabis in the client-

THE BENEFITS OF CANNABIS SUBSTITUTION



Drinker's themselves have reported several benefits from using cannabis that relate to their alcohol use. At the same time, researchers are starting to document these benefits. We have heard that cannabis can help with the following:

- **Cutting down on the number of drinks you need or want each day**
 - Some people use cannabis in place of alcohol. When they would normally have another drink, they substitute a joint or an edible. This allows them to drink less throughout the day without adverse effects.
- **Coming off or cutting down on other drugs, like opioids and stimulants**
 - Other people report using cannabis to cut down on other drugs while keeping their alcohol use steady or reducing it. This includes depressants like down (fentanyl), or stimulants like side (meth) and rock (crack).
- **Self-management of symptoms as your blood alcohol content drops, together with other supports**
 - Cannabis can also help to reduce or manage the uncomfortable symptoms of withdrawing from alcohol or other drugs, at home or in a detox setting.
 - Cannabis can also help you to want to drink more water and improve your appetite when you're hungover.
- **Maintaining your appetite and soothing your digestive system**
 - Alcohol irritates the digestive system and can reduce your appetite, putting many drinkers at risk of weight loss and nutrition problems. Cannabis can calm digestive problems and bring back your appetite.
- **Sleep, relaxation, and pain relief**
 - Many people live with chronic pain, anxiety, and can have trouble sleeping. Many forms of cannabis can help, and may replace alcohol has a means of self-treatment.

If a client is interested in substituting cannabis for alcohol or using it to help with acute withdrawal, support them to go slowly and ensure that they do not do it alone. Advise them to taper their drinks carefully, access a daytox or other withdrawal management service, talk to program staff, or call a friend, especially if they have a history of alcohol withdrawal seizure.

METHODS OF CANNABIS INGESTION, ONSET OF EFFECTS, AND HARM

	SMOKING	VAPING	EDIBLES AND GUMMIES	BEVERAGES
ONSET OF EFFECTS	Seconds to minutes after inhaling	Seconds to minutes after inhaling	30 minutes to 2 hours after ingestion	30 minutes to 2 hours after ingestion
PEAK EFFECTS	30 minutes	30 minutes	4 hours	4 hours
LENGTH OF EFFECT	Up to 6 hours*	Up to 6 hours*	Up to 12 hours*	Up to 12 hours*
HARMS	Smoking cannabis can have negative effects on the respiratory system (e.g. cough, lung cancer, infection).	Vaping may prevent some of the negative effects on the respiratory system associated with smoking [25]	Less respiratory risks than smoking	Less respiratory risks than smoking

*Some residual effects can last up to 24 hours

For more detailed information including bioavailability and dosing ranges, please visit the Government of Canada website "Information for Health Care Professionals: Cannabis (Marihuana, Marijuana) and the Cannabinoids".

Fig. 3. (continued).

facing resource is one example of this nuance. Initial discussions between EIDGE Steering Committee members and staff identified program staff knowledge of and ability to refer illicit drinkers to sources of affordable gray market or legal, recreational cannabis as useful for service users in deciding whether or not a cannabis substitution program is right for them. Given the frequency at which illicit drinkers reported using cannabis independently to reduce alcohol-related harm and drawing from a lived understanding of the context of the Downtown

Eastside cannabis market, EIDGE staff decided to include this consideration in the service user-facing resource. The clinical advisory team would ultimately recommend the removal of this recommendation in a later round of revisions after careful review as they felt it might be outside the scope of expertise for a MAP staff. Arguing for its importance in the context of the neighborhood in which it operates, EIDGE acknowledged this feedback but did not remove the recommendation. The gray market cannabis consideration fell beyond the scope of

CONSIDERATIONS FOR SUBSTITUTING ALCOHOL WITH CANNABIS PRODUCTS



It is recommended to follow the established protocols for adjusting clients' alcohol dosages. Overall, reductions of 1 standard drink per day each week are reasonable, up to 2 standard drinks per day each week. For example, if someone is drinking 10 drinks per day, they could reduce to 8-9 drinks per day in Week 1 and to 6-7 drinks per day in Week 2. Slower reductions are best to minimize withdrawal symptoms and to decrease the risk of seizure. A standard drink is equal to a 350mL of 5% beer, 5oz of 12% wine, or 1.5oz of 40% distilled alcohol.

- The Prediction of Alcohol Withdrawal Severity Scale (PAWSS) can be used to estimate the risk of severe alcohol withdrawal [28].
- If the client is new to cannabis, begin with a low dose: for example, an edible product with 2.5mg THC or less, or dried flower with 10% THC or less [26].
- Liver function tests are recommended to monitor liver health: alanine aminotransferase (ALT), aspartate transaminase (AST), gamma-glutamyl transferase (GGT), serum bilirubin, serum albumin
- The alcohol taper schedule and cannabis substitution plan should be determined by each client's individual goals and responses to the alcohol taper. Frequent contact with clients who are substitution alcohol for cannabis is recommended to reassess their goals.
- Motivational interviewing can help clients make the changes needed to reach their goals [29, 30] The principles of motivational interviewing are:

1. **Resist the "righting reflex": do not tell clients the "solution" or the "right way."**
2. **Empower the client.**
3. **Understand the client's motivations and explore the discrepancy between their goals and current behaviours.**
4. **Express empathy through reflective listening.**

RISK PROFILE OF CANNABIS

There are also some risks associated with cannabis use and contraindications to participation in a cannabis substitution program.

- Cannabis use is associated with impaired cognition, memory, and psychomotor skills, respiratory harms, cancer, and motor vehicle collisions.
- Cannabis use is also associated with mental health harms, such as psychosis, affective disorder, depression, schizophrenia, and anxiety [21-25].
- Individuals who are pregnant, breastfeeding, or who have a predisposition or family history of psychosis are at a higher risk of harms related to cannabis use.
- Cannabis substitution for alcohol is contraindicated for individuals with a history of alcohol-related withdrawal seizures and psychosis.



RECOMMENDATIONS FOR LOWER RISK USE

- Know the THC and CBD content of the product being consumed [26].
- Products containing high CBD:THC ratios may attenuate some of the negative THC- related outcomes [27].
- Avoid synthetic cannabinoid products [27].
- Intended doses may be exceeded due to the delayed onset of edibles and beverages, which may result in increased impairment [27].
- Driving should be avoided for at least 6 hours after using cannabis of any form [27].

REMEMBER: START LOW AND GO SLOW

Everyone responds to cannabis in a unique way, and different cannabis products will produce different effects. Consider what types and strengths of cannabis will work best for you. When in doubt, try a small amount of cannabis and slowly increase the dose until you reach a desired effect.

Regular joint / Dried cannabis flower



- Smoked cannabis will produce a less intense effect than an edible cannabis product containing the same amount of THC.
- You should feel an effect shortly after inhaling. Take 1 or 2 puffs, and wait a few minutes to see how you feel. Take more if necessary.
- Participants with histories of lung or breathing problems should exercise caution and consider consulting a health care provider before use.

Cannabis edibles



- The same amount of THC in a cannabis edible will be felt more strongly and differently than the same amount in a joint.
- It can take up to 2 hours for cannabis edibles to work, and their effects will last for a longer period of time.
- If you are trying edibles, start with a small amount (i.e. 2.5mg or 5mg), and wait to take more until you feel something. Try not to consume too much, too quickly.

Source: <https://www.ccsa.ca/sites/default/files/2019-06/CCSA-7-Things-About-Edible-Cannabis-2019-en.pdf>

Fig. 3. (continued).

familiarity of clinical advisors, but was deemed essential by illicit drinkers and program staff, and thus was included in the final resource as an important area of expertise for MAP staff to develop. Similarly, the clinical advisory team was best positioned to author safe tapering guidance to be included in both informational resources. Some ongoing conversations between medical practitioners, program staff, and senior researchers was also required to establish the magnitude of the recommended safe taper for cannabis substitution clients, given the diverse clinical and frontline experience from team members, which ranged from primary care practice to inpatient medical detox. Creating clear

language to communicate the recommendation required several revisions. Acknowledging these discussions and sitting with them through the process ensured that the final content of each resource was relevant, accurate, and minimized risk for illicit drinkers who are interested in using cannabis as an alcohol harm reduction tool.

Implications for peer involvement in cannabis substitution program design

CMAPS' collaboration with EIDGE, SOLID, and other partners to

REFERENCES

1. Canadian Substance Use Costs and Harms Scientific Working Group. Canadian substance use costs and harms 2015–2017. Ottawa, Ont.: Canadian Centre on Substance Use and Addiction;2020.
2. Rehm J, Mathers C, Popova S, Thavorncharoensap M, Teerawattananon Y, Patra J. Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders. *Lancet* (London, England). 2009;373(9682):2223-2233.
3. Sher L. Alcohol consumption and suicide. *Qjm*. 2006;99(1):57-61.
4. Rehm J, Rovira P, Llamas-Falcón L, Shield KD. Dose-Response Relationships between Levels of Alcohol Use and Risks of Mortality or Disease, for All People, by Age, Sex, and Specific Risk Factors. *Nutrients*. 2021;13(8).
5. Muckle W, Muckle J, Welch V, Tugwell P. Managed alcohol as a harm reduction intervention for alcohol addiction in populations at high risk for substance abuse. *Cochrane Database of Systematic Reviews*. 2012;12:Cd006747.
6. Witkiewitz K, Alan Marlatt G. Overview of harm reduction treatments for alcohol problems. *International Journal of Drug Policy*. 2006;17(4):285-294.
7. Podymow T, Turnbull J, Coyle D, Yetisir E, Wells G. Shelter-based managed alcohol administration to chronically homeless people addicted to alcohol. *CMAJ*. 2006;174(1):45-49.
8. Nutt D, King LA, Saulsbury W, Blakemore C. Development of a rational scale to assess the harm of drugs of potential misuse. *the Lancet*. 2007;369(9566):1047-1053.
9. Nutt DJ, King LA, Phillips LD. Drug harms in the UK: a multicriteria decision analysis. *Lancet* (London, England). 2010;376(9752):1558-1565.
10. Subbaraman MS. Can cannabis be considered a substitute medication for alcohol? *Alcohol and Alcoholism*. 2014;49(3):292-298.
11. Chick J, Nutt DJ. Substitution therapy for alcoholism: time for a reappraisal? *Journal of psychopharmacology* (Oxford, England). 2012;26(2):205-212.
12. Lucas P, Baron EP, Jikomes N. Medical cannabis patterns of use and substitution for opioids & other pharmaceutical drugs, alcohol, tobacco, and illicit substances; results from a cross-sectional survey of authorized patients. *Harm Reduction Journal*. 2019;16(1):9.
13. Lucas P, Walsh Z, Crosby K, et al. Substituting cannabis for prescription drugs, alcohol and other substances among medical cannabis patients: The impact of contextual factors. *Drug and Alcohol Review*. 2016;35(3):326-333.
14. Lau N, Sales P, Averill S, Murphy F, Sato SO, Murphy S. A safer alternative: Cannabis substitution as harm reduction. *Drug Alcohol Rev*. 2015;34(6):654-659.
15. Walsh Z, Gonzalez R, Crosby K, S. Thiessen M, Carroll C, Bonn-Miller MO. Medical cannabis and mental health: A guided systematic review. *Clinical Psychology Review*. 2017;51:15-29.
16. Lucas P, Reiman A, Earleywine M, et al. Cannabis as a substitute for alcohol and other drugs: A dispensary-based survey of substitution effect in Canadian medical cannabis patients. *Addiction Research & Theory*. 2013;21(5):435-442.
17. Reiman A. Cannabis as a substitute for alcohol and other drugs. *Harm Reduct J*. 2009;6:35.
18. Turna J, Patterson E, Van Ameringen M. Is cannabis treatment for anxiety, mood, and related disorders ready for prime time? *Depress Anxiety*. 2017;34(11):1006-1017.
19. Shiplo S, Asbridge M, Leatherdale ST, Hammond D. Medical cannabis use in Canada: vapourization and modes of delivery. *Harm Reduction Journal*. 2016;13(1):30.
20. Stockwell T, Vallance K, Martin G, et al. The price of getting high, stoned and drunk in BC: A comparison of minimum prices for alcohol and other psychoactive substances. *Canadian Institute for Substance Use Research*;2010.
21. Hall W, Stjepanović D, Caulkins J, et al. Public health implications of legalising the production and sale of cannabis for medicinal and recreational use. *The Lancet*. 2019;394(10208):1580-1590.
22. Campeny E, López-Pelayo H, Nutt D, et al. The blind men and the elephant: Systematic review of systematic reviews of cannabis use related health harms. *European Neuropsychopharmacology*. 2020;33:1-35.
23. Memedovich KA, Dowsett LE, Spackman E, Noseworthy T, Clement F. The adverse health effects and harms related to marijuana use: an overview review. *Canadian Medical Association Open Access Journal*. 2018;6(3):E339-E346.
24. Patel S, Khan S, Saipavankumar M, Hamid P. The association between cannabis use and schizophrenia: causative or curative? A systematic review. *Cureus*. 2020;12(7).
25. Memedovich KA, Dowsett LE, Spackman E, Noseworthy T, Clement F. The adverse health effects and harms related to marijuana use: an overview review. *Canadian Medical Association Open Access Journal*. 2018;6(3):E339-E346.
26. Røgeberg O, Elvik R. The effects of cannabis intoxication on motor vehicle collision revisited and revised. *Addiction*. 2016;111(8):1348-1359.
27. Røgeberg O, Elvik R. The effects of cannabis intoxication on motor vehicle collision revisited and revised. *Addiction*. 2016;111(8):1348-1359.
28. Canadian Centre on Substance Use and Addiction (CCSA). Cannabis: Inhaling vs Ingesting. 2019.
29. Fischer B, Russell C, Sabioni P, et al. Lower-Risk Cannabis Use Guidelines: A Comprehensive Update of Evidence and Recommendations. *American journal of public health*. 2017;107(8):e1-e12.
30. Maldonado JR, Sher Y, Ashouri JF, et al. The "Prediction of Alcohol Withdrawal Severity Scale"(PAWSS): systematic literature review and pilot study of a new scale for the prediction of complicated alcohol withdrawal syndrome. *Alcohol*. 2014;48(4):375-390.
31. Hall K, Gibbie T, Lubman DI. Motivational interviewing techniques - facilitating behaviour change in the general practice setting. *Aust Fam Physician*. 2012;41(9):660-667.
32. Silveira J, Chase C, Lee K, St-Onge N. Alcohol Use Disorder Tool. *Centre for Effective Practice*;2019.

WHERE CAN I LEARN MORE?


THE CANADIAN MANAGED ALCOHOL PROGRAM (CMAPS) STUDY




CMAPS is a national study of Managed Alcohol Programs in Canada based out of the Canadian Institute for Substance Use Research at the University of Victoria. The CMaPs project rigorously evaluates MAPs in Canada and generate insights into their implementation and effectiveness.

FOR MORE INFORMATION, VISIT: WWW.CMAPS.CA

CONTACT THE CMAPS TEAM:

 cisur@uvic.ca

CANNABIS SUBSTITUTION PROJECT INFORMATION:

 sybilgouletstock@uvic.ca

THE CANADIAN INSTITUTE FOR SUBSTANCE USE RESEARCH (CISUR)



University of Victoria

Canadian Institute for Substance Use Research

CISUR is a network of individuals and groups based at the University of Victoria who conduct research about substance use and work with organizations of people who use alcohol and other drugs to develop projects and resources like this one. Check out the following online resources to learn more about cannabis and alcohol harm reduction:

Cannabis substitution for drinkers:

- <https://www.uvic.ca/research/centres/cisur/assets/docs/infographic-cannabis-substitution.pdf>

Cannabis harm reduction:

- <https://www.uvic.ca/research/centres/cisur/assets/docs/take-care-with-cannabis.pdf>
- <https://www.heretohelp.bc.ca/infosheet/safer-cannabis-use-marijuana-hash-hash-oil>

Fig. 3. (continued).

produce and circulate EIDGE was formed in 2011 as an affiliate group of the Vancouver Area Network of Drug Users in response to the dearth of alcohol harm reduction resources in the Downtown Eastside (Crabtree, 2015; Crabtree et al., 2018). Peer-informed cannabis education resources for MAP clients is a novel example of community-engaged scholarship designed to meet the immediate needs of alcohol harm reduction service providers. We conclude by taking stock of lessons learned to develop a list of generalizable recommendations for the inclusion of people who use alcohol in the design of cannabis-related harm

reduction resources. While this list is not considered exhaustive by EIDGE, SOLID, the membership of the Drinkers' Lounge, and the CMAPS research team, we recommend that organizations and researchers working to design and implement cannabis substitutions for illicit drinkers and MAP clients:

- Build meaningful, practice-oriented, long-term relationships with service users to gauge interest in and need for a cannabis substitution program at a given site. Are service users interested in cannabis

substitution? Why or why not? What is required to facilitate such a program?

- Ensure that community-based research initiatives respect the autonomy of partnered service providers and peer-led drug user organizations. For example, programs should be permitted to design interventions to best meet the needs of their clients, especially if they have experience administering cannabis substitution programs.
- Be willing to integrate lived, academic, scientific, and medical knowledge into program design and guidance materials whenever possible. Where apparent tension exists between different ways of knowing, consider what will have the most meaningful health promoting impact on the ground.
- Account for the fact that a significant share of service users may already be using illicit and legal cannabis to manage alcohol-related harms, treat other health concerns, or recreationally. MAP clients and other illicit drinkers possess unique knowledge about how they use cannabis, and substitution programs for MAP clients should be designed to build on, and not disrupt or replace, service users' self-management of their symptoms. We consider recognizing this form of knowledge to be integral to the community-based research process.
- Recognize that free or low-cost cannabis provided by a MAP-based cannabis substitution program may disrupt some individuals' source of income. Care should be taken to ensure that unregulated cannabis sellers are made aware of the program and its intentions in order to adjust their own operations accordingly.
- MAP clients, illicit drinkers, and other people living with alcohol dependencies may use cannabis in unique ways or require unique supports in order to reduce alcohol related harms (For example, pre-rolled joints and/or concentrates for drinkers with poor dexterity or tremor). A variety of cannabis products at varying potencies should be provided in order to support service users to tailor cannabis substitution to meet their individual needs, symptoms, and preferences.
- Prevent the overmedicalization of cannabis substitution programs for MAP clients or require mandatory 1-to-1 substitution of cannabis products for drinks prescribed under an alcohol management plan. Participants should be free to co-design their plan for using cannabis as a form of substitution for alcohol and set their own goals alongside program staff.
- Acknowledge that cannabis substitution for MAP clients remains a novel intervention despite an emerging body of research. Medical oversight, closely supervised tapering with regular follow-up, staff and client education, and regular professional development for staff are likely required to support a successful program.
- Anticipate that program staff, organizational leadership, and service users may be interested in different or additional outcomes of cannabis substitution respectively and will benefit from unique information in many cases. Guidance materials prepared for each group should account for the expressed needs of each group and be subject to several rounds of feedback before they are published.

CRediT authorship contribution statement

Aaron Bailey: . **Myles Harps:** Data curation, Conceptualization. **Clint Belcher:** Data curation, Conceptualization. **Henry Williams:** Data curation, Conceptualization. **Cecil Amos:** Data curation, Conceptualization. **Brent Donovan:** Project administration, Data curation, Conceptualization. **George Sedore:** Writing – review & editing, Data curation, Conceptualization. **SOLID Victoria:** . **Brittany Graham:** Writing – review & editing, Data curation, Conceptualization. **Sybil Goulet-Stock:** Writing – review & editing, Project administration, Data curation, Conceptualization. **Jenny Cartwright:** Writing – review & editing, Project administration, Data curation, Conceptualization. **Jennifer Robinson:** Writing – review & editing, Project administration, Data curation, Conceptualization. **Amanda Farrell-Low:** Writing –

review & editing, Data curation, Conceptualization. **Mark Willson:** Writing – review & editing, Project administration, Data curation, Conceptualization. **Christy Sutherland:** Writing – review & editing, Data curation. **Tim Stockwell:** Writing – review & editing, Supervision. **Bernie Pauly:** Writing – review & editing, Supervision, Funding acquisition, Data curation, Conceptualization.

Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

A. Bailey and B. Graham are employed by the Vancouver Area Network of Drug Users (VANU) and Canadian Managed Alcohol Programs Study (CMAPS).

Ethics approval

The authors declare that they have obtained ethics approval from an appropriately constituted ethics committee/institutional review board where the research entailed animal or human participation.

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Rest in Power,
 Dave Butler
 Myles Harps
 Brent Donovan
 Senior
 Charles "Pablo" Pincott
 Elroy DesJarlais
 Boomer Bundy
 Adam Pierre
 Laura Lee Pierre
 Ron Kuehlke
 Loretta Brown
 Arthur Lakis
 Fernando Pacheco
 Donny Morris
 Skye

References

- Anderson, P., O'Donnell, A., Kaner, E., Llopis, E. J., Manthey, J., & Rehm, J. (2021). Impact of minimum unit pricing on alcohol purchases in Scotland and Wales: Controlled interrupted time series analyses. *The Lancet Public Health*, 6(8), e557–e565.
- Ashford, R. D., Curtis, B., & Brown, A. M. (2018). Peer-delivered harm reduction and recovery support services: Initial evaluation from a hybrid recovery community drop-in center and syringe exchange program. *Harm Reduction Journal*, 15(1), 1–9.

- Bailey, A., Graham, B., Harps, M., & Sedore, G. (2023). Vancouver's alcohol knowledge exchange: Lessons learned from creating a peer-involved alcohol harm reduction strategy in Vancouver's downtown eastside. *Harm Reduction Journal*, 20(1), 1–14.
- Boilevin L., Chapman J., Deane L., Fresz G., Joe D.J., Leech-Crier N., Winter P. (2019). A manifesto for ethical research in the downtown eastside. Unpublished report.
- Boyd, S., & Murray, D. (2017). *Ethics, research, and advocacy: The experiences of the NAOMI patients association in Vancouver's downtown eastside. Critical inquiries for social justice in mental health* (pp. 365–385). University of Toronto Press.
- Boyd, S., Murray, D., & MacPherson, D. (2017). Telling our stories: Heroin-assisted treatment and SNAP activism in the downtown eastside of Vancouver. *Harm Reduction Journal*, 14(1), 1–14.
- British Columbia Center for Disease Control. Illicit alcohol in British Columbia: Results from a qualitative research project. (2013). Retrieved from: <http://www.bccdc.ca/resource-gallery/Documents/Educational%20Materials/Epid/Other/IllicitAlcoholInBritishColumbiafullreportFINAL.pdf>.
- British Columbia Liquor and Cannabis Regulation Branch. (April 11th, 2022). Policy directive no. 22-07 Re: Managed alcohol programs. Retrieved from: https://www2.gov.bc.ca/assets/gov/employment-business-and-economic-development/business-management/liquor-regulation-licensing/policy-directives/policy_directive_22-07_managed_alcohol_programs.pdf.
- Brown, L., Skulsh, J., Morgan, R., Kuehlke, R., & Graham, B. (2018). Research into action? The eastside illicit drinkers group for education's (EIDGE) experiences as a community-based group in Vancouver, Canada. *Drug and Alcohol Review*, 37, S156–S158.
- Campbell, C. A., Hahn, R. A., Elder, R., Brewer, R., Chattopadhyay, S., Fielding, J., ... Task. (2009). The effectiveness of limiting alcohol outlet density as a means of reducing excessive alcohol consumption and alcohol-related harms. *American journal of preventive medicine*, 37(6), 556–569.
- Canadian Managed Alcohol Programs Study. (February 2022). Overview of Managed Alcohol Program (MAP) sites in Canada (and beyond). Retrieved from: <https://www.uvic.ca/research/centres/cisur/assets/docs/resource-overview-of-MAP-sites-in-Canada.pdf>.
- Canadian Substance Use Costs and Harms Scientific Working Group. (2023). *Canadian substance use costs and harms 2007–2020. (Prepared by the Canadian Institute for Substance Use Research and the Canadian Centre on Substance Use and Addiction.) Ottawa*. Ont.: Canadian Centre on Substance Use and Addiction.
- Chang, J., Shelly, S., Busz, M., Stoicescu, C., Iryawan, A. R., Madybaeva, D., ... & Guise, A. (2021). Peer driven or driven peers? A rapid review of peer involvement of people who use drugs in HIV and harm reduction services in low-and middle-income countries. *Harm Reduction Journal*, 18(1), 1–13.
- Chow, C., Wettlaufer, A., Zhao, J., Stockwell, T., Pauly, B., & Vallance, K. (2018). Counting the cold ones: A comparison of methods measuring total alcohol consumption of managed alcohol program participants. *Drug and Alcohol Review*, 37, S167–S173.
- Crabtree, A. (2015). *It's powerful to gather: A community-driven study of drug users' and illicit drinkers' priorities for harm reduction and health promotion in British Columbia, Canada*. University of British Columbia.
- Crabtree, A., Latham, N., Bird, L., & Buxton, J. (2016). Results of a participatory needs assessment demonstrate an opportunity to involve people who use alcohol in drug user activism and harm reduction. *Harm Reduction Journal*, 13(1), 1–9.
- Crabtree, A., Latham, N., Morgan, R., Pauly, B., Bungay, V., & Buxton, J. A. (2018). Perceived harms and harm reduction strategies among people who drink non-beverage alcohol: Community-based qualitative research in Vancouver. *Canada. International Journal of Drug Policy*, 59, 85–93.
- Dimova, E. D., Strachan, H., Johnsen, S., Emslie, C., Whiteford, M., Rush, R., ... Elliott, L. (2023). Alcohol minimum unit pricing and people experiencing homelessness: A qualitative study of stakeholders' perspectives and experiences. *Drug and Alcohol Review*, 42(1), 81–93. <https://doi.org/10.1111/dar.13548>
- Eastside Illicit Drinkers Group for Education. Understanding EIDGE: A peer research project exploring illicit alcohol use in the DTES. (2018). Retrieved from: <https://phabc.org/wp-content/uploads/2018/11/Graham-Understanding-EIDGE-presentation-PHABC-2018.pdf>.
- Elder, R. W., Lawrence, B., Ferguson, A., Naimi, T. S., Brewer, R. D., Chattopadhyay, S. K., Toomey, T. L., Fielding, J. E., & Task Force on Community Preventive Services. (2010). The effectiveness of tax policy interventions for reducing excessive alcohol consumption and related harms. *American Journal of Preventive Medicine*, 38(2), 217–229.
- Emslie, C., Dimova, E., O'Brien, R., Whiteford, M., Johnsen, S., Rush, R., Smith, I. D., Stockwell, T., Whittaker, A., & Elliott, L. (2023). The impact of alcohol minimum unit pricing on people with experience of homelessness: Qualitative study. *The International Journal of Drug Policy*, 118. <https://doi.org/10.1016/j.drugpo.2023.104095>, 104095–104095.
- Erickson, R. A., Stockwell, T., Pauly, B., Chow, C., Roemer, A., Zhao, J., Vallance, K., & Wettlaufer, A. (2018). How do people with homelessness and alcohol dependence cope when alcohol is unaffordable? A comparison of residents of Canadian managed alcohol programs and locally recruited controls. *Drug and Alcohol Review*, 37, S174–S183.
- Faulkner-Gurstein, R. (2017). The social logic of naloxone: Peer administration, harm reduction, and the transformation of social policy. *Social Science & Medicine*, 180, 20–27.
- Giesbrecht, N., Wettlaufer, A., April, N., Asbridge, M., Cukier, S., Mann, R., McAllister, J., Murie, A., Pauley, C., Plamondon, L., Stockwell, T., Thomas, G., Thompson, K., & Vallance, K. (2013). *Strategies to reduce alcohol-related harms and costs in Canada: A comparison of provincial policies*. Centre for Addictions & Mental Health.
- Gmel, G., Holmes, J., & Studer, J. (2016). Are alcohol outlet densities strongly associated with alcohol-related outcomes? A critical review of recent evidence. *Drug and Alcohol Review*, 35(1), 40–54.
- Greer, A., Bungay, V., Pauly, B., & Buxton, J. (2020). 'Peer' work as precarious: A qualitative study of work conditions and experiences of people who use drugs engaged in harm reduction work. *International Journal of Drug Policy*, 85, Article 102922.
- Greer, A. M., Luchenski, S. A., Amlani, A. A., Lacroix, K., Burmeister, C., & Buxton, J. A. (2016). Peer engagement in harm reduction strategies and services: A critical case study and evaluation framework from British Columbia, Canada. *BMC Public Health*, 16(1), 1–9.
- Gunn, R. L., Aston, E. R., & Metrik, J. (2022). Patterns of Cannabis and Alcohol Co-Use: Substitution Versus Complementary Effects. *Alcohol research : current reviews*, 42(1), Article 04.
- Hobin, E., Vallance, K., Zuo, F., Stockwell, T., Rosella, L., Simniceanu, A., & Hammond, D. (2018). Testing the efficacy of alcohol labels with standard drink information and national drinking guidelines on consumers' ability to estimate alcohol consumption. *Alcohol and Alcoholism*, 53(1), 3–11.
- Iranpour, A., & Nakhaee, N. (2019). A review of alcohol-related harms: A recent update. *Addiction & Health*, 11(2), 129.
- Ivins, A., Pauly, B., Brown, M., Evans, J., Gray, E., Schiff, R., Kryswaty, B., Vallance, K., & Stockwell, T. (2019). On the outside looking in: Finding a place for managed alcohol programs in the harm reduction movement. *International Journal of Drug Policy*, 67, 58–62.
- Jozaghi, E. (2014). The role of drug users' advocacy group in changing the dynamics of life in the downtown eastside of Vancouver, Canada. *Journal of Substance Use*, 19 (1–2), 213–218.
- Jozaghi, E., Greer, A. M., Lampkin, H., & Buxton, J. A. (2018). Activism and scientific research: 20 years of community action by the Vancouver area network of drug users. *Substance Abuse Treatment, Prevention, and Policy*, 13(1), 1–9.
- Kennedy, M. C., Boyd, J., Mayer, S., Collins, A., Kerr, T., & McNeil, R. (2019). Peer worker involvement in low-threshold supervised consumption facilities in the context of an overdose epidemic in Vancouver, Canada. *Social Science & Medicine*, 225, 60–68.
- Kerr, T., Small, W., Peeace, W., Douglas, D., Pierre, A., & Wood, E. (2006). Harm reduction by a "user-run" organization: A case study of the Vancouver area network of drug users (VANDU). *International Journal of Drug Policy*, 17(2), 61–69.
- Lake, S., Walsh, Z., Kerr, T., Cooper, Z. D., Buxton, J., Wood, E., Ware, M. A., & Milloy, M. J. (2019). Frequency of cannabis and illicit opioid use among people who use drugs and report chronic pain: A longitudinal analysis. *PLoS Medicine*, 16(11), Article e1002967.
- Lau, N., Sales, P., Averill, S., Murphy, F., Sato, S. O., & Murphy, S. (2015). A safer alternative: Cannabis substitution as harm reduction. *Drug and Alcohol Review*, 34(6), 654–659.
- Lucas, P., Reiman, A., Earleywine, M., McGowan, S. K., Oleson, M., Coward, M. P., & Thomas, B. (2013). Cannabis as a substitute for alcohol and other drugs: A dispensary-based survey of substitution effect in Canadian medical cannabis patients. *Addiction Research & Theory*, 21(5), 435–442.
- Marshall, Z., Dechman, M. K., Minichiello, A., Alcock, L., & Harris, G. E. (2015). Peering into the literature: A systematic review of the roles of people who inject drugs in harm reduction initiatives. *Drug and Alcohol Dependence*, 151, 1–14.
- Martin-Moreno, J. M., Harris, M. E., Breda, J., Möller, L., Alfonso-Sanchez, J. L., & Gorgojo, L. (2013). Enhanced labelling on alcoholic drinks: Reviewing the evidence to guide alcohol policy. *European Journal of Public Health*, 23(6), 1082–1087.
- Mikuriya, T. H. (2004). Cannabis as a substitute for alcohol: A harm-reduction approach. *Journal of Cannabis Therapeutics*, 4(1), 79–93.
- Mok, J., Milloy, M. J., Grant, C., Lake, S., DeBeck, K., Hayashi, K., Kerr, T., & Socias, M. E. (2021). Use of cannabis for harm reduction among people at high risk for overdose in Vancouver, Canada (2016–2018). *American Journal of Public Health*, 111(5), 969–972.
- Mok, J., Milloy, M. J., Grant, C., Lake, S., DeBeck, K., Hayashi, K., Kerr, T., & Socias, M. E. (2023). Use of cannabis as a harm reduction strategy among people who use drugs: A cohort study. *Cannabis and Cannabinoid Research*, 8(4), 670–678.
- Neufeld, S. D., Chapman, J., Crier, N., Marsh, S., McLeod, J., & Deane, L. A. (2019). Research 101: A process for developing local guidelines for ethical research in heavily researched communities. *Harm Reduction Journal*, 16(1), 1–11.
- Nichol, E., Urbanoski, K., & Pauly, B. (2019). A peer-run cannabis substitution program: Experiences and outcomes over the first year. Canadian Institute for Substance Use and Research & SOLID Outreach. http://solidvictoria.org/wpcontent/uploads/2019/09/SOLID_CSP-Report_First-Year-Experiences-and-Outcomes_September-8_-2019.pdf.
- Olding, M., Barker, A., McNeil, R., & Boyd, J. (2021). Essential work, precarious labour: The need for safer and equitable harm reduction work in the era of COVID-19. *International Journal of Drug Policy*, 90, Article 103076.
- Pauly, B., Brown, M., Chow, C., Wettlaufer, A., Graham, B., Urbanoski, K., Callaghan, R., Rose, C., Jordan, M., Stockwell, T., Thomas, G., & Sutherland, C. (2021). "If I knew I could get that every hour instead of alcohol, I would take the cannabis": Need and feasibility of cannabis substitution implementation in Canadian managed alcohol programs. *Harm Reduction Journal*, 18(1), 1–16.
- Pauly, B., Brown, M., Evans, J., Gray, E., Schiff, R., Ivins, A., Kryswaty, B., Vallance, K., & Stockwell, T. (2019). "There is a Place": Impacts of managed alcohol programs for people experiencing severe alcohol dependence and homelessness. *Harm Reduction Journal*, 16(1), 1–14.
- Pauly, B., Gray, E., Perkin, K., Chow, C., Vallance, K., Kryswaty, B., & Stockwell, T. (2016). Finding safety: A pilot study of managed alcohol program participants' perceptions of housing and quality of life. *Harm Reduction Journal*, 13, 1–11.

- Pauly, B., King, V., Smith, A., Tranquilli-Doherty, S., Wishart, M., Vallance, K., Stockwell, T., & Sutherland, C. (2021). Breaking the cycle of survival drinking: Insights from a non-residential, peer-initiated and peer-run managed alcohol program. *Drugs: Education, Prevention and Policy*, 28(2), 172–180.
- Pauly, B., Vallance, K., Wettlaufer, A., Chow, C., Brown, R., Evans, J., Gray, E., Krysovaty, B., Ivsins, A., Schiff, R., & Stockwell, T. (2018). Community managed alcohol programs in Canada: Overview of key dimensions and implementation. *Drug and Alcohol Review*, 37, S132–S139.
- Reddon, H., Lake, S., Socias, M. E., Hayashi, K., DeBeck, K., Walsh, Z., & Milloy, M. J. (2023). Cannabis use to manage opioid cravings among people who use unregulated opioids during a drug toxicity crisis. *International Journal of Drug Policy*, 119, Article 104113.
- Reddon, H., Socias, M. E., DeBeck, K., Hayashi, K., Walsh, Z., & Milloy, M. J. (2024). Cannabis use to manage stimulant cravings among people who use unregulated drugs. *Addictive Behaviors*, 148, 107867.
- Reiman, A. (2009). Cannabis as a substitute for alcohol and other drugs. *Harm Reduction Journal*, 6(1), 1–5.
- Risso, C., Boniface, S., Subbaraman, M. S., & Englund, A. (2020). Does cannabis complement or substitute alcohol consumption? A systematic review of human and animal studies. *Journal of Psychopharmacology*, 34(9), 938–954.
- Room, R., & Örnberg, J. C. (2019). Government monopoly as an instrument for public health and welfare: Lessons for cannabis from experience with alcohol monopolies. *International Journal of Drug Policy*, 74, 223–228.
- Schiff, R., Pauly, B., Hall, S., Vallance, K., Ivsins, A., Brown, M., Gray, E., Krysovaty, B., & Evans, J. (2019). Managed alcohol programs in the context of housing first. *Housing, Care and Support*, 22(4), 207–215.
- Schoueri-Mychasiw, N., Weerasinghe, A., Vallance, K., Stockwell, T., Zhao, J., Hammond, D., McGavock, J., Greenfield, T. K., Paradis, C., & Hobin, E. (2020). Examining the impact of alcohol labels on awareness and knowledge of national drinking guidelines: A real-world study in Yukon, Canada. *Journal of Studies on Alcohol and Drugs*, 81(2), 262–272.
- Socias, M. E., Kerr, T., Wood, E., Dong, H., Lake, S., Hayashi, K., DeBeck, K., Jutras-Aswad, D., Montaner, J., & Milloy, M. J. (2017). Intentional cannabis use to reduce crack cocaine use in a Canadian setting: A longitudinal analysis. *Addictive Behaviors*, 72, 138–143.
- Stockwell, T. (2014). Minimum unit pricing for alcohol. *BMJ*, 349.
- Stockwell, T. (2017). Minimum unit pricing for alcohol: The most cost-effective of cancer prevention strategies? *Expert Review of Anticancer Therapy*, 17(11), 981–983.
- Stockwell, T., & Pauly, B. (2018). Managed alcohol programs: Is it time for a more radical approach to reduce harms for people experiencing homelessness and alcohol use disorders? *Drug and Alcohol Review*, 37, S129–S131.
- Stockwell, T., Pauly, B., Chow, C., Erickson, R. A., Krysovaty, B., Roemer, A., Vallance, K., Wettlaufer, A., & Zhao, J. (2018). Does managing the consumption of people with severe alcohol dependence reduce harm? A comparison of participants in six Canadian managed alcohol programs with locally recruited controls. *Drug and Alcohol Review*, 37, S159–S166.
- Stockwell, T., Zhao, J., Macdonald, S., Pakula, B., Gruenewald, P., & Holder, H. (2009). Changes in per capita alcohol sales during the partial privatization of British Columbia's retail alcohol monopoly 2003–2008: A multi-level local area analysis. *Addiction (Abingdon, England)*, 104(11), 1827–1836.
- Stockwell, T., Zhao, J., Pauly, B., Chow, C., Vallance, K., Wettlaufer, A., Saunders, J.B., & Chick. (2021). Trajectories of alcohol use and related harms for managed alcohol program participants over 12 months compared with local controls: A quasi-experimental study. *Alcohol and Alcoholism*, 56(6), 651–659.
- Subbaraman, M. S. (2014). Can cannabis be considered a substitute medication for alcohol? *Alcohol and Alcoholism*, 49(3), 292–298.
- Subbaraman, M. S. (2016). Substitution and complementarity of alcohol and cannabis: A review of the literature. *Substance Use & Misuse*, 51(11), 1399–1414.
- Vallance, K., Stockwell, T., Pauly, B., Chow, C., Gray, E., Krysovaty, B., Perkin, K., & Zhao, J. (2016). Do managed alcohol programs change patterns of alcohol consumption and reduce related harm? A pilot study. *Harm Reduction Journal*, 13, 1–11.
- Vallance, K., Stockwell, T., Wettlaufer, A., Chow, C., Giesbrecht, N., April, N., & Thompson, K. (2021). The Canadian alcohol policy evaluation project: Findings from a review of provincial and territorial alcohol policies. *Drug and Alcohol Review*, 40(6), 937–945.
- Valleriani, J., Haines-Saah, R., Capler, R., Bluthenthal, R., Socias, M. E., Milloy, M. J., Kerr, T., & McNeil, R. (2020). The emergence of innovative cannabis distribution projects in the downtown eastside of Vancouver, Canada. *International Journal of Drug Policy*, 79, Article 102737.
- Westenberg, J. N., Kamel, M. M., Addorisio, S., Abusamak, M., Wong, J. S., Outadi, A., Jang, K.L., & Krausz, R.M. (2021). Non-beverage alcohol consumption among individuals experiencing chronic homelessness in Edmonton, Canada: A cross-sectional study. *Harm Reduction Journal*, 18(1), 1–11.
- Zhao, J., Stockwell, T., Naimi, T., Churchill, S., Clay, J., & Sher, A. (2023). Association between daily alcohol intake and risk of all-cause mortality: A systematic review and meta-analyses. *JAMA Network Open*, 6(3), Article e236185.
- Zhao, J., Stockwell, T., Pauly, B., Wettlaufer, A., & Chow, C. (2022). Participation in Canadian managed alcohol programs and associated probabilities of emergency room presentation, hospitalization and death: A retrospective cohort study. *Alcohol and Alcoholism*, 57(2), 246–260.