

SOLID OUTREACH SOCIETY

NEX OUTREACH HEALTH EDUCATION HARM REDUCTION

1056 North Park St * V8T 1C6 * 250 – 891 – 9299 * info@solidvictoria.org

Feb 18 2020

Re: temporary rezoning application for 1056 North Park

Dear Mayor and Council,

This is a rezoning application for a "Temporary use permit (3yrs) for Health Service delivering comprehensive harm reduction for individuals with substance use disorder, including provision of cannabis to members onsite."

Description of Proposal

This rezoning is to address city zoning requirements for one part of our overall programs: *to allow us to distribute free and at-cost cannabis products to individuals to assist with withdrawal and/or reducing opiate use during the ongoing overdose emergency.* All our other peer-to-peer harm reduction services including support groups, access to safer use supplies and assistance accessing health services and income supports, are covered under the current commercial zoning at this address.

This proposal includes no changes to the infrastructure of this address. It is solely to meet city requirements for distribution of cannabis, while recognizing that our low-barrier therapeutic model for cannabis distribution is incompatible with current city zoning regulations that are limited to recreational retail uses.

The language of our rezoning request is intended to address a gap in current municipal zoning regulations that is geared towards recreational selling of cannabis, and which only allows distribution of cannabis with a 'cannabis retail storefront' zoning designation. This cannabis retail storefront designation is unsuitable to our service, which is aimed specifically at serving individuals who are currently denied access by recreation-oriented regulatory framework for cannabis which disallows subsidized and low-cost access to cannabis. (We are currently working with the province to address this regulatory issue for accessible cannabis).

A good analogy for this proposal is the difference between a liquor store as a retail service, and a managed alcohol program as a health service. We are seeking rezoning that is reflective of our distribution of cannabis as an overdose prevention tool that is a component of our low-barrier health services that serves individuals who often do not access health services elsewhere in Victoria.

This is a pilot overdose prevention project we are undertaking in consultation with researchers at UVic's Canadian Institute for Substance Use Research (see report attached), and with Chief Medical Health Officer Richard Stanwick (see letter of support attached). At this point, there is promising evidence showing the role of cannabis substitution in reducing the risk of illicit drug overdoses among those at most risk (see M-J Milloy 2020) and improving the health and wellbeing of individuals who use the program (see Pauly, Urbanosky and Nichol, 2019).

Community plan

Our service is compatible with community plan values of:

- Inclusivity and Accessibility: Respect and respond to the perspectives, values and needs of Victoria's many individuals, groups and communities.

- Individual Well-Being: Help ensure that all residents have secure access to basic needs, such as food, housing and services, as well as the skills and abilities required to flourish.
- Adaptive and Responsive: Remain flexible and adaptive and ensure that mechanisms are in place to deal with changing, unpredictable circumstances.

Benefits and amenities

Primary benefits to community include life-saving overdose prevention services for low-income and precariously housed residents. Further benefits include health benefits to individuals who use cannabis to limit and manage their use of illicit drugs.

Need and demand

The need for effective low-barrier overdose prevention services is acute in the blocks around our service. This location is walking distance from Pandora 900-block and downtown, where many low-income individuals who use illicit drugs reside. There is no current zoning at other locations that meets this particular requirement for Health Services including distribution of cannabis to individuals with substance use disorder. Under the current regulatory framework, any location where we provide this service would require a similar rezoning.

Neighborhood and Impacts

The cannabis substitution service enabled by this rezoning serves individuals who already reside in this neighborhood and within walking distance of this neighborhood. Impacts may include increased foot traffic on North Park via Vancouver 9am – 4pm Mon-Sat. Impacts also may include increased risk of loitering, petty theft and other infractions related to lack of income and housing in the surrounding area.

If we are not successful in rezoning to allow our cannabis substitution program to continue, this could result in a reduction of daily walk-ins to some degree. However, this will also negatively impact the health and well-being of those who continue to access our service, as individuals who access our services will be compelled to use available illicit street drugs due to lack of access to subsidized cannabis products that meet their needs for relief of psychic and physical pain. We are not convinced that suspending this program will reduce neighborhood impacts outlined above, though it may reduce somewhat the number of individuals accessing our service. It appears to us that opposition of some neighbors to our rezoning application is based on an opposition to the very presence of a service for people who are street-involved in the neighborhood (an issue that is not addressed by the rezoning process), and not specifically to our services or to the current rezoning application for our cannabis substitution program.

To address the neighborhood impacts outlined above, we have a street ambassador who does a regular block walk to ensure appropriate use of sidewalks by individuals who may be accessing our services. We also encourage members to stay inside our service at all times to discourage congregation on the street. Our service is designed to create a sense of belonging and community for individuals who do not have this – a sense of belonging that encourages mutual aid and mutual respect towards each other and to others in our community. This is always a process, but we believe we are assisting in creating this sense of working together with respect for all residents of North Park, including individuals who lack appropriate housing in our neighborhood.

Sincerely,

Mark Willson, Director of Programs
on behalf of SOLID board of directors

December 17, 2019

TO WHOM IT MAY CONCERN

Re: S.O.L.I.D. Outreach Temporary Use Permit Application

I am writing today in support of the temporary use application recently submitted to your office by S.O.L.I.D., a local organization providing support, education, and advocacy for our community members who use illicit substances. We understand that this application is currently under review by your office and I welcome the opportunity to share my support with you during the review process.

On April 14, 2016 Dr. Perry Kendall, Provincial Health Officer, under the *Public Health Act of British Columbia*, declared a Public Health Emergency because of the unparalleled number of deaths from opioid ingestion. Since that declaration, thousands of individuals have died in British Columbia from opioid overdose. This crisis has spawned a variety of responses such as making previously restricted naloxone readily available to the public and the creation of overdose prevention sites that were previously not allowed by law. Through community-based efforts by healthcare providers, people with lived experience, and elected officials, the number of fatal and non-fatal opioid overdoses has been blunted. Leveling an upward trend is not enough. Further progress to reduce the rate of overdoses has been realized through enhancements in care and treatment, drug testing and other facility-based interventions. Despite these efforts, the number of overdoses and overdose deaths remain unacceptably high.

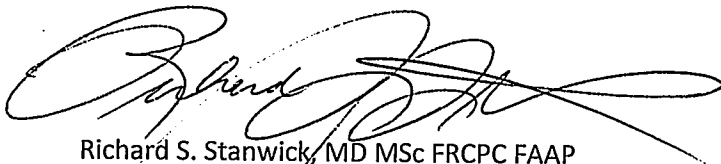
Our province supports the provision of pharmaceutical grade opioids under medical supervision as a form of harm reduction by ensuring both safety of supply and the opportunity to link people to care where they are receiving that safe supply. This accepted approach to harm reduction has been adopted locally by S.O.L.I.D., an organization of people with lived experience of substance use. S.O.L.I.D. provides harm reduction supplies, naloxone training, peer support, and other services. It also has been seeking out less dangerous means of addressing opioid dependency including withdrawal symptoms. They have gained experiential knowledge on using cannabis, a now legal product in Canada, as an alternative to opioid substitution that successfully addresses withdrawal, pain management, and at times replaces the ingestion of opioids. Their Cannabis Substitution Program only engages established opioid users and provides an opportunity to connect these individuals with supportive services including support groups, harm reduction supplies, supervised consumption services and linkage to care, if desired. The potential

benefits of this harm reduction initiative has attracted the attention of University of Victoria researchers and the interest of Island Health. It is notable that promising evidence is emerging from research studies on the potential efficacy of so-called cannabis substitution programs in providing equitable access to cannabis and reducing the risk of illicit drug overdoses among those at highest risk. Indeed, emerging evidence suggests that cannabis has a potential role as part of a broader strategy to support people who use other substances.

The Cannabis Substitution Program at S.O.L.I.D. faces a number of possible impediments to fully exploring the potential of this novel approach. An early and very significant one is that S.O.L.I.D. does not have the appropriate zoning for employing this cannabis alternative to individuals with established opioid dependency. The application submitted to your department aims to address this first of what likely will be a number of barriers to achieving mainstream harm reduction. Other challenges going forward will include ensuring a safe and sanctioned supply of product, as is being done with medically supervised pharmaceutical grade opioids.

As the physician tasked with serving our region as the Chief Medical Health Officer, I would be supportive of S.O.L.I.D.'s temporary use permit application with the City of Victoria be given serious consideration. Complying with legislation is a requirement for Island Health to engage and to work with S.O.L.I.D. in exploring and evaluating the potential of cannabis substitution to reduce overdose deaths in our region.

In conclusion, meeting legal requirements of the site is central to S.O.L.I.D., their research associates and health partners investigating a novel form of harm reduction for a contaminated and deadly drug supply on our streets.



Richard S. Stanwick, MD MSc FRCPC FAAP
Chief Medical Health Officer

c.c. Dawn Nedzelski, Chief Nursing Officer, Island Health
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A peer-run cannabis substitution program: Experiences and outcomes over the first year

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In conjunction with **SOLID Outreach**

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Updated September 8, 2019



**University
of Victoria**

Canadian Institute
for Substance
Use Research

Institut canadien
de recherche sur
l'usage de substances

Summary

High rates of overdoses in BC and elsewhere in North America over the past few years have made plain the shortcomings and lack of preparedness of health and social service systems for addressing the needs of people who use drugs. In response to these and other concerns, peer-run organizations are playing a lead role in shaping harm reduction and other support services in their communities. One example is the development and implementation of grassroots Cannabis Substitution Programs (CSP) – dispensing cannabis for therapeutic use by their members to substitute for the use of other drugs. [SOLID Outreach](#), a non-profit peer-run harm reduction organization in Victoria, BC, has been operating a CSP since December 2017. As part of an ongoing program of research conducted in collaboration with SOLID Outreach, we undertook an evaluation of the CSP in 2019. We conducted a secondary analysis of program records on participant experiences and their perceptions of positive and negative effects on their health and wellbeing, collected over the first year of program operations. The analysis identified a number of themes in people’s experiences of the program; primarily, participants reported accessing the CSP because they were interested in reducing their use of other substances, and many reported positive effects in this area. As peer-run organizations continue to shape community responses to substance use and overdoses, opportunities to evaluate the implementation and outcomes of such grassroots efforts should not be lost. While additional work is needed to investigate the differential effects of various cannabinoids and products, results from this evaluation add to a growing body of research pointing towards cannabis as a promising substitution agent in this population.

Introduction

Overdose deaths have been escalating in North America for over a decade (Rudd, Aleshire et al. 2016, National Institute on Drug Abuse 2019, Special Advisory Committee on the Epidemic of Opioid Overdoses 2019). The illicit drug overdose crisis in North America has had devastating impacts on individuals, families and communities including premature loss of life and even lowering life expectancy (Haskins 2019, Office of The Provincial Health Officer 2019). There were 11 500 opioid-related deaths in Canada between 2016-2018, of which 94% were deemed to be accidental (Government of Canada, 2019). The province of British Columbia (BC) is experiencing the highest rate of overdose deaths in the country with 1525 deaths in 2018. The province saw a dramatic rise in overdoses from 5.9 per 100,000 in 2012 to 30.3 per 100,000 in 2017 (British Columbia Coroner's Service May 15, 2019) prompting the BC Provincial Health Officer to declare a public health emergency in April, 2016 (BC Centre for Disease Control 2017, BC Ministry of Health April 14, 2016). Three years later, this state of emergency remains in effect. The high rate of overdose deaths continues unabated with an estimated four deaths per day in BC. Overdoses are the top cause of unnatural death in the province with illicit fentanyl detected in 87% drug overdose deaths in BC (British Columbia Coroner's Service May 15, 2019). Victoria, BC is one of the top three townships in the province impacted by overdose deaths.

For decades, people who use drugs have taken action to implement harm reduction measures in order to save lives and to improve health and well-being for members of their community (Friedman, de Jong et al. 2007). Collins et al (Collins, Clifasefi et al. 2012) describes two approaches to implementing harm reduction: top down and bottom up. There are many examples internationally, nationally and regionally where people who use drugs have driven harm reduction innovations through grassroots and drug user activism. For example, the establishment of harm reduction services to prevent HIV and overdoses by people who use drugs include needle exchange, supervised and assisted injection (Wood, Kerr et al. 2003, Kerr, Oleson et al. 2004, McNeil, Small et al. 2014). In response to the current overdose epidemic, grassroots activism and drug user organizing established "pop-up" unsanctioned sites in a few major cities in BC prior to legal sanctioning by the Ministry in 2016 (Wallace, Pagan et al. 2019). Zero deaths have occurred at any OPS and there is emerging evidence of deaths averted by harm reduction interventions (Irvine M, Kuo M et al. in press). It is anticipated that without such measures the rate of overdose deaths would be even higher. However, additional measures are needed to reduce the rate of overdose deaths. There have been calls by BC Provincial Health Officer for urgent decriminalization (Office of Provincial Health Officer, 2019) and the Health Officers Council of BC (2017) and Vancouver Police (2017) for safer supply initiatives.

The ongoing high rate of overdose deaths in BC is associated with an unsafe drug supply associated with the presence of fentanyl. Providing alternatives to the current unsafe drug supply is critical to take further action on overdose deaths. Initiatives to address the unsafe drug supply include the provision of drug checking strategies to reduce consumption of contaminated drugs as well as substitution programs that allow for individuals to substitute safer drugs in the context of a contaminated supply. Cannabis, a newly legal substance in Canada, has potential as a substitute for currently illegal drugs and as a strategy to reduce overdose deaths (Wiese and Wilson-Poe 2018). Lucas (2017) suggests that the rationale for cannabis substitution during an overdose epidemic is threefold "1) prior to opioid introduction in the treatment of chronic pain; 2) as an opioid reduction strategy for those patients already using opioids, and 3) as an adjunct therapy to methadone or suboxone treatment in order to increase

treatment success rates” (p.1). A time-series analysis conducted by Bachhuber et al. (2014) showed that US states allowing for medical cannabis use had a 24.8% lower mean annual overdose rate compared with other states. In this paper, we provide background re the history of cannabis in Canada, therapeutic uses and harms of cannabis, cannabis substitution programs and then describe the SOLID cannabis substitution program and findings of this peer run cannabis substitution program as a harm reduction strategy to reduce overdoses.

Background

History of Cannabis Use

The therapeutic benefits of cannabis have been documented in various cultures for centuries, recorded in historical texts with physical evidence of use dating back thousands of years in different regions around the world (Russo, 2007). Century-old accounts describe the use of cannabis in religious practices and rituals as well as the medicinal properties of the plant as an analgesic, anti-convulsant, appetite stimulant, mood booster, and anti-inflammatory (O’Shaughnessy, 1843; Von Bibra, 1855).

Despite increased popularization of cannabis for medical use in the 19th century (Grinspoon and Bakalar, 1993), an era of drug prohibition led to outlawing of cannabis in Canada in 1923 (Riley, 1998). The Canadian era of drug prohibition began prior to 1923 with the passing of the Opium Act in 1908. The 1908 Opium Act, was a race-based policy rooted in xenophobia used to target Chinese immigrants in British Columbia (Boyd, 2017). Criminalization of drugs became a tool of racial oppression, with harsh fines and lengthy sentences enforced by institutions with entrenched prejudicial values.

While research shows that cannabis use is similar across racial groups (National Survey on Drug Use and Health, 2013), Black and Indigenous peoples have historically been overrepresented in the prison system for possession across the country (Browne, 2018). Prior to cannabis legalization in Canada, a 2017 *Toronto Star* investigation found that despite the fact that White people represented over half of the population of Toronto, Black people were three times more likely to be arrested for possession of cannabis with no prior criminal record (Ranken and Contenta, 2017). Noting that discrimination leads to lack of access to private spaces creating higher visibility on the street, Gordon (2006) contends that drug enforcement of minority groups was a means of social control, and a tangible way to “other” certain social groups who are already racialized, potentially impoverished or marginalized in other ways.

In the past, scientifically inaccurate portrayals of cannabis as a gateway drug (leading to the use of “harder” drugs, like cocaine and heroin) have predominated (Kandel, 2003). Media campaigns based on the gateway narrative sensationalized cannabis use in an attempt to stigmatize behaviour (Yzer et al., 2003). The public health resistance to endorsing mainstream use of cannabis for recreational and medicinal purposes has long been a matter of political interest rather than policy borne out of scientific evidence linked to associated harms (Boyd, 1991). While there are still many unknowns, the available evidence points toward *both* benefits and harms associated with cannabis use that are based on an analysis of different situations and circumstances. As societies move toward more balanced approaches to policy and regulation of cannabis, misconceptions of cannabis use are being dismantled, creating new opportunities to better support communities that may benefit from its therapeutic properties.

Therapeutic Uses and Harms

A number of robust systematic reviews are available evaluating the evidence base for the therapeutic use and harms of cannabis use (for example, see National Academies of Sciences, 2017; World Health Organization, 2016). We provide a brief summary here to establish the context of the evaluation.

Several studies have found that the primary reason patients access medical cannabis is to treat chronic pain (Reiman, 2009; Haroutounian et al., 2016; Piper et al., 2017; Lucas and Walsh, 2017). There is evidence to suggest that cannabis is as, if not more, effective than opioids for pain, with the added benefit of less severe side-effects (Lau et al., 2014). Patients also report accessing medical cannabis for other concerns include anxiety, depression, and sleep problems, demonstrating a mounting interest in using cannabis to treat mental health conditions (Walsh et al., 2017). Cannabis has also been used as an effective appetite stimulant for people living with HIV and those undergoing treatment for cancer (Whiting et al., 2015).

While risks of overdose are minimal with cannabis, there are some potential harms associated with cannabis use. Individuals may experience temporary memory and psychomotor function impairment (Crean, Crane, and Mason, 2011) with potential for long term respiratory and bronchial problems when smoke inhalation is the primary method of administration (Tetrault et al., 2007). It should be noted that cannabis may not be suitable across all demographics and conditions, particularly for youth who are more susceptible to long-term cognitive impacts on the developing brain (Ammerman et al., 2015) and individuals with a pre-disposition to psychosis (Le Bec et al., 2009; Shah et al., 2017) as well as pre-existing respiratory problems when smoking is the main mode of consumption. While decreasing substance use of any kind is encouraged during pregnancy, literature surrounding cannabis use in pregnant women is contested, with mixed findings that while women report using cannabis to treat morning sickness, maternal cannabis use poses potential risks to the fetus (Mark and Terplin, 2017).

Cannabis Substitution Programs

The concept of substitution comes from economics theory describing how the availability of one product affects public demand for another as a result of decriminalization, increased availability and access (Hursh et al., 2005). In the context of substance use, substitution refers to “a conscious choice made by users to use one drug instead of, or in conjunction with another based on: perceived safety, level of addiction potential, effectiveness in relieving symptoms, access and level of acceptance” (p. 654, Lau et al., 2005). There is long history of therapeutic services that draw from substitution effects in the context of substance use, and a broad evidence base to support them. Examples include nicotine replacement therapy and opioid agonist therapy (predominantly buprenorphine/naloxone or methadone). There is growing interest and evidence supporting a role for cannabis as a promising substitution for other drugs, including alcohol and opioids.

The importance of evidence-based strategies for reducing harms of substance use cannot be overstated. On top of high levels of morbidity and mortality related to alcohol in Canada (costing Canadians an estimated \$15 billion annually), BC and North America are experiencing high levels of overdoses associated with strong synthetic opioids in the illicit drug supply. While service providers and organizations have responded to open supervised consumption and overdose prevention sites, and to enhance the reach and distribution of naloxone, rates of death are not declining. With high morbidity and mortality associated with illicit drug use, cannabis has the potential to be an effective harm reduction strategy to support those who use drugs (Wiese and Wilson-Poe 2018).

As noted, there is growing evidence supporting the substitution effects of cannabis for other substances? A self-report survey from medical cannabis dispensaries in Canada found that 41% of respondents reported using cannabis in place of alcohol, and 36.1% reported substituting cannabis for illicit drugs (Lucas et al., 2013). Common reasons patients favoured cannabis over other substances included perceptions of better symptom management and minimal withdrawal (Mikuriya, 2004; Reiman, 2009). Rieman and colleagues (2017) found that 80% of medical cannabis users reported cannabis to be more effective than opioid-based pain medication for treating chronic pain conditions, and were able to use less opioids as a result. Interestingly, jurisdictions that have legalized cannabis appear to show substantial reduction in rates of prescription drug use (Bradford and Bradford, 2016).

As noted earlier, a time-series analysis conducted by Bachhuber et al. (2014) showed that US states allowing for medical cannabis use had a 24.8% lower mean annual overdose rate compared with other states. Additionally, population health studies illustrate benefits of legal cannabis for public health and safety, with demonstrated effects of reduced rates of suicide (Anderson, Rees, and Sabia, 2014), automobile fatalities (Santaella-Tenorio et al., 2017) and violent crime (Morris et al., 2014) associated with substitution of cannabis for alcohol and other harmful substances. Together, this emerging body of evidence points toward a potential role for cannabis as part of a broader strategy to support people who use other drugs.

Stigma and Access to Cannabis

Despite increasingly progressive policy, stigma surrounding cannabis use has persisted. The most commonly cited barriers to acquiring cannabis are stigma and cost, signifying a need for better access to a safe supply, particularly for those in lower income brackets (Belle-Isle et al., 2014). Qualitative research examining what patients like least about medical cannabis have yielded similar findings, with patients noting difficulties accessing cannabis when on a fixed income, and internalized concerns such as “feeling like a criminal” (p. 572, Piper et al., 2017). While there is a dearth of recent literature examining physician support for prescribing cannabis in Canada since legalization, US studies have found that patients report feeling a lack of physician support and concealing their cannabis use due to perceived judgement (Lau et al., 2015; Piper et al., 2017). In a 2015 Canadian needs assessment, physicians expressed desire for knowledge regarding dosing and treatment plans, suggesting gaps in clinical knowledge that could potentially inhibit patient access (Ziemianski et al., 2015).

Shifting the conversation around cannabis from one based solely on harms to a more balanced one that also incorporates therapeutic properties has the potential to improve public perceptions, increasing access and availability. For example, in a discussion about the remedies of ayahuasca, Tupper (2008) presented a metaphor considering drugs as tools to create space for policy that realistically assesses risks and benefits of a substance by shifting focus away from a deficit perspective which views all drugs as inherently dangerous. Conceiving of cannabis as an “exit drug” or a “gateway to healing” could open up the space for opportunities for improved individual and population health, supporting a compassionate approach to treating problematic substance use (Lucas, 2012). This puts into clear perspective the use of cannabis as a harm reduction strategy for people who are currently using illicit drugs.

SOLID Outreach’s Cannabis Substitution Program

As part of their broader role in outreach, advocacy, and health education in support of people who use drugs in Victoria, and in response to the ongoing public health emergency involving overdoses, [SOLID Outreach](#) started a CSP in December 2017. The program was initiated by SOLID Outreach as a community, peer-based approach to supporting the health and well-being of their community of people with lived/living experiences of substance use. The purpose of the program was to test cannabis's potential as a substitution for more harmful substances, to improve health outcomes and reduce the risk of overdose. It is run by peers for peers. SOLID approached cannabis suppliers to enlist support for the program, and to request a free supply of cannabis. The majority of SOLID members live in poverty, and many are homeless or at risk homelessness. Because of this it was very important to the success of the program that cannabis be offered free of charge to participants. Participating suppliers came from local, provincial, and national sources. Initially, the program was offered on weekends, and participants could access joints and edibles. By mid 2018, the program had expanded operations to 5 days/week, making cannabis available free of charge on weekdays. SOLID staff also refined the program and its eligibility, to maximize access to those who were using cannabis to replace other drugs.

Over the course of its first year of operations, participants were asked to complete questionnaires that asked about their history of drug use and previous experiences with cannabis. Forms also invited participants to comment on how the program has affected their drug use, other effects that they have noticed, and what they hope to gain from the program.

Early on in the development of the CSP, our research team, located at the Canadian Institute for Substance Use Research (CISUR), were consulted by SOLID Outreach to assist with design of an internal evaluation to support the implementation of the CSP and examine its effects. The evaluation consisted of a secondary analysis of data collected on program forms from 172 participants who accessed the CSP during 2018. We used mixed quantitative and qualitative analysis to characterise participants' reasons for using the CSP and their perceptions of positive and negative effects on their health and wellbeing. This research was approved by the Research Ethics Board at the University of Victoria.

Findings

Substance use and reasons for entering the program

Participants reported using a variety of substances when they entered the CSP, most commonly illicit opioids (including heroin, fentanyl, and a variety of prescription opioids), followed by amphetamines, cocaine, and alcohol (Table 1).

Table 1: Substances reported by CSP participants at intake

Substances	n
Opioids (excluding methadone/methadose)	70
Crystal methamphetamine or speed	69
Cocaine	51
Alcohol	46
Methadone/methadose	25

Anti-depressant/Anti-anxiety (Valium, Xanax, Mirtazapine, Trazodone, Aventyl, Paxil, Lorazepam, Venlafaxine, Prozac, Sertraline, Effexor)	19
Club Drugs (LSD, MDMA, PCP, Ketamine, GHB)	16
Anti-psychotic (Seroquel, Clopixon, Quetiapine)	7
Benzodiazepines (unspecified)	2
Adderall	2

* not mutually exclusive; one person could report multiple substances

People reported being interested in the CSP for a variety of reasons, most prominently to support them in **reducing or stopping their use of other substances** (Table 2). Commonly expressed sentiments were “I want to be opioid free” and “to keep me away from hard drugs.” Some participants identified wanting to reduce their use of pharmaceuticals (prescribed or otherwise), believing cannabis to be a healthier, safer alternative. One participant stated, *“I think it's better for my body to put as little amount of prescription pills in my body as I can. Also to stop using any other drugs. I'd like to only be using cannabis.”*

Table 2: Reported reasons for accessing CSP

Reasons	n
To get off drugs, reduce drug use/overdoses	75
Pain management	50
Improved health, better sleep and appetite	23
Reduce anxiety/depression symptoms	22
Save money	20
To find best way to consume	12
Be happier, more social, fewer mood swings	7
Reduce PTSD/ADD/ADHD symptoms	6
Reduce use of pharmaceuticals	6
Reduce stress	5
Get social support	5

* not mutually exclusive; one person could report multiple reasons

Interest in using cannabis to **treat both physical and mental health conditions** was also prevalent among participants. Fifty participants hoped cannabis would be an effective pain management strategy, with several participants listing some form of pain medication as part of their current drug use (as noted in Table 1). Similarly, nearly 10% of participants reported being prescribed an anti-depressant or anti-anxiety medication, with 22 participants hoping to relieve symptoms of anxiety and depression. A handful of participants reported wanting to reduce stress. Participants shared optimism in the program, stating *“to help me cope,” “to maintain balance,”* and *“to be happy once again”* as reasons for wanting to join the CSP. To improve overall health including better sleep and appetite were also common responses.

Echoed among participants was the ***desire to save money***. One person stated, “*I’m on PWD [Persons with Disabilities support] so I cannot afford to supply myself with cannabis.*” Others similarly shared “*no income*” and “*can’t afford it*” as reasons for accessing the CSP. Some participants felt that using cannabis would help them to be happier, be more social, and have fewer mood swings, while others wanted to find the best way to consume and learn more about the therapeutic benefits of cannabis, expressing interest in cannabis as a form of treatment but having little knowledge about it.

Program outcomes

Participants were generally positive about their experiences in the program and perceived a variety of improvements to their health and well-being (Table 3). Participants were not unanimous in endorsing any given effect. Below, we summarize the diversity of outcomes that people reported over their involvement with the CSP.

Table 3: Reported program outcomes

Outcomes	n
Reduced use of other drugs	58
Better sleep	47
Better pain management	41
Better appetite, healthier eating	39
Less anxiety, less stress	15
Better mood, fewer mood swings	13
Better control of withdrawal symptoms	13
Fewer cravings	11
Reduced use of pharmaceuticals	6
Better general health	5
Better social interactions	3
More energy	3
Better money management	2
More creativity	1

* not mutually exclusive; one person could report multiple outcomes

Of the 71 participants who answered the question regarding ***changes in drug use***, 58 attributed a decrease in drug use to the CSP. While some participants found that their drug use declined minimally, others noted that it was eliminated entirely. One person stated, “*I have cut down on cocaine to once a week. I have been weaning down on Methadose...since the legalization of cannabis, it is not so stigmatized.*” Another shared, “*Over the years I have pretty much tried everything under the sun. My main choice is crystal meth and weed. But since starting the program, my meth use has gone way down to nothing.*” Others said, “*I have been clean for 5 days. This program works,*” and “*my drug use is down 100%.*” Regarding withdrawal, several participants identified reduction in symptoms and described cannabis as an important aid in reducing their use of other drugs. As an effective pain management strategy, some participants noticed that they did not need to rely as much on their drug of choice. One person said that they “*reduced [their] alcohol use 2/3rds because of less pain*” while others stated, “*drinking has lessened, using less painkillers with no withdrawals physical or mental*” and “*I used to have*

to take Morphine 4 times daily. Now I am completely off Morphine. I would end up using again if it wasn't for cannabis. The edibles have been a big help." Others attributed their success in the program to a reduction in the use of pharmaceuticals after having regular access to cannabis. One participant stated, "I have ceased self-medicating with side effect heavy pharmaceuticals and also resist peer pressure daily to consume illicit drugs." While the vast majority of participants noted positive changes in drug use, one person found that cannabis use led to increased consumption of alcohol.

Several participants commented on **improvements in the length and quality of their sleep** upon being in the CSP, reducing the need for use of other drugs. One participant explained "it can give me a better alternative than opioids to help get and stay asleep. Also helps calm my nerves and anxiety I get from lack of proper sleep." Similarly, another respondent stated, "sleeping is better so less use of pain meds." In addition to reduction in drug use, adequate sleep resulting from cannabis use appeared to help participants in other domains of their life. For instance, one participant noted, "I am able to sleep 8 hours successfully - insomnia is regulated. This helps with work, social, and progress." Some participants identified having sleep conditions with symptoms that cannabis was able to alleviate; for instance, insomnia and sleep apnea became less severe for those who used cannabis at night.

Many participants noticed **changes in their appetite and diet** as a result of using cannabis. Common responses involved being able to eat on a regular schedule, regulating weight, and having a stronger appetite. One person with an abdominal hernia that caused nausea reported that cannabis helped them to sustain a healthy intake of food. For others, cannabis was found to improve diet and consumption of healthy food. Cannabis also was perceived to help with low appetite caused by depression and prescription medication containing side effects of nausea.

Others cited **improvements in mental health** and reduced use of psychiatric medications (perceived as a positive outcome). It was noted that cannabis eliminated the need for prescription drugs, with statements such as, "I don't need to take a benzodiazepine drug every time I have a panic attack; I just keep smoking and eating cannabis and it works better" and, "I no longer take any anxiety meds and I'm also on a taper off Methadone." While some participants noticed no change in their mental health, many reported improvements to their overall wellbeing, with a reduction in the intensity of their depression and/or anxiety. One participant found that daily cannabis use helped them cope with PTSD triggers and resulting emotional pain. General stress was eased, with participants indicating that cannabis had a relaxing effect on mood. Some participants identified that certain strains had more positive effects than others, with a desire to learn about the nuances of THC and CBD dosing. One patient reported having an episode of psychosis initiated upon smoking cannabis.

Better overall mood was described by participants, with some perceived cognitive improvements such as enhanced memory, logical thinking and decision-making abilities. Participants reported having a clearer mind and more positive social interactions, with fewer mood swings or bouts of anger. Some participants found that the community at SOLID and their involvement in the program provided solace, as a result of feeling connected to others in similar life circumstances. The weekly check-ins were seen as a positive way to process emotions. Improvements in mental health led to major life improvements in some cases, exhibited by one person who stated, "I am able to keep housing, and am now holding down up to 10 hours of work, volunteer or community work. I am stabilizing my friendships and building community." One person noted that they felt using cannabis helped stimulate their creativity.

For participants who reported struggling with chronic conditions or various physical ailments, cannabis was perceived to **help substantially with pain management**. Headaches, back pain, joint pain, pressure

from hernias, pain from nerve damage, and general body aches and discomfort were assuaged with the use of cannabis. Participants reported higher energy levels, with more time spent being active and productive.

Finally, a number of participants reported **reduced financial stress**. One person stated, *“Being of PWD, I usually don’t have much money by month end, so being able to access THC daily is a relief”* while another shared *“Cannabis really helps me with my depression and ADD. I am on Disability so I don’t have money.”* Having access to free cannabis meant being able to prioritize both health and food necessities for one participant who stated, *“with cheaper and some free-of-charge cannabis, I have already started to buy better food. It is a bit of a toss-up between being in pain or being hungry sometimes.”* A few participants noticed that having access to free cannabis meant that they did not need to spend money on other drugs, resulting in less financial strain associated with reduced use of illicit substances.

Discussion

SOLID Outreach’s CSP was developed in response to the national overdose epidemic which has seen hundreds of lives lost in recent years. To better support PWUD, SOLID Outreach sought to bring free cannabis to a community of people with fixed incomes, many of whom are homeless, to ensure low-barrier access to a safe supply. The purpose of the program was to test cannabis’s potential as a substitution for more harmful substances, to improve health outcomes and reduce the risk of overdose. Collectively, participants had an extensive history of illicit drug use over time, exacerbated by the effects of mental illness, poverty, homelessness, racism, and stigma associated with drug use. The CSP provided a reprieve, with most participants reporting a reduction in their drug use ranging from minimal to no longer using. Reductions in drug use may be attributable to participants’ having fewer cravings and withdrawal symptoms associated with their drug of choice, and experiencing alleviation of other health conditions that have been linked to drug use (such as chronic pain and poor sleep). Several participants reported improved sleep which created a domino effect of improvements in other areas of their life, in addition to having a healthier appetite and diet. Changes in mental health were seen with many participants experiencing less anxiety, depression, and PTSD, as well as better mood. Such improvements for some meant no longer needing to rely on pharmaceuticals for mental health conditions, a finding that warrants further attention to assess effects in the longer term.

Another important area in which the CSP may exert its effects is in lowering the high levels of social exclusion and dislocation that is experienced by people who use drugs. This can be expected to translate into other tangible benefits to health and wellbeing, such as those named above. A few participants noted improved social interactions with less mood swings, and found the community at SOLID to be a critical source of social support and comradery. Encouraging interactions with supportive, non-judgemental staff at SOLID were found to be a positive aspect of the CSP.

One of the key strengths of the CSP, designed by peers for peers, is that it has successfully explored cannabis substitution within the context of the realities faced by people who use drugs and live in poverty. Such services and supports for those who experience numerous barriers to health have the potential to generate improvements in overall population health by reducing health inequities. Many participants reported homelessness and low income as stressors in their life, and found the CSP benefited them by eliminating the concern of being able to afford cannabis. By having access to a safe supply at no cost, participants were able to experience health benefits of cannabis use, reallocate their

earnings to things like food, and save money that would have otherwise been spent on illicit substances, resulting in less financial stress.

Participants exhibited incredible self-awareness in understanding what perpetuated their drug use. Trauma, anxiety, big life transitions such as homelessness, death of a loved one, or job loss were listed as reasons for using illicit drugs, and were associated with periods of higher use. Overwhelmingly, participants found that cannabis was an effective substitute for managing life stressors, and identified a preference of cannabis over other substances when given the choice. While some participants perceived cannabis use to be less stigmatized than other drugs, others expressed desire for changes in continued negative attitudes about cannabis consumption within a harm reduction context. Acceptance by the broader community was indicated as being an important part of access for some. Of participants that were asked about how the program could be improved, most said greater availability during the week.

This evaluation is not without limitations. Within the confines of this evaluation, we were unable to access a control or comparison group of people who did not access the CSP. As a secondary analysis of existing program data, we were limited to using what was available; repeated assessments of individuals to assess within-person changes over time was not possible with available data. Those who had negative experiences with the program would be more likely to drop-out, and not provide data. Further study of this program is warranted.

Despite these limitations, this evaluation generated valuable information that will be helpful to SOLID Outreach as the CSP evolves over time. More generally, as peer-run organizations continue to shape community responses to substance use and overdoses, opportunities to evaluate the implementation and outcomes of such grassroots efforts should not be lost. They contribute to the rapidly growing body of evidence on cannabis post-legalization in Canada, as well as to our knowledge of different approaches to responding to the high rates of overdoses. They generate hypotheses for further research and help to direct research into areas that are valued by the community.

Conclusion

This study demonstrates the effectiveness of a peer-run cannabis substitution program initiated as a harm reduction approach to support people who use illicit drugs and alcohol. Run by and for people who use drugs, the CSP is a unique, low-barrier community service offering cannabis at no cost in an accessible location. Participants involved in the study reported long-term substance use and related problems, made worse in the context of poverty, racism, and mental illness. Key reasons for accessing the CSP were to reduce drug use and risk of overdose, as well as to help with physical pain and mental health. Key outcomes of the program aligned with its primary objective to reduce drug use and risk of overdose. Impressively, the vast majority of participants found cannabis to be an effective substitute for illicit drugs and alcohol, as well as pharmaceuticals for some. Fewer cravings and better management of withdrawal symptoms were reported. Other health improvements were seen in conjunction with cannabis use, including effective pain management, better sleep and appetite, and improved mental health. Benefits of social support and positive engagement with staff were noted. Of concern was that one person experienced psychosis associated with cannabis use, and one person found that their drinking increased in combination with their cannabis use. Desire for greater availability during the week and changes in societal attitudes about cannabis use illustrate the value of the CSP to the community, as explicitly stated by those accessing the service. While additional work is needed to investigate the differential effects of various cannabinoids (e.g., THC, CBD) and products (e.g., edibles, concentrates,

dried herb), results from this evaluation add to a growing body of research pointing towards cannabis as a promising substitution agent in this population.

References

- Ammerman, S., Ryan, S., Adelman, W. P., & Committee on Substance Abuse. (2015). The impact of marijuana policies on youth: clinical, research, and legal update. *Pediatrics*, 135(3), e769-e785.
- Anderson, D. M., Rees, D. I., & Sabia, J. J. (2014). Medical marijuana laws and suicides by gender and age. *American journal of public health*, 104(12), 2369-2376.
- Bachhuber, M. A., Saloner, B., Cunningham, C. O., & Barry, C. L. (2014). Medical cannabis laws and opioid analgesic overdose mortality in the United States, 1999-2010. *JAMA Internal Medicine*, 174(10), 1668-1673.
- Belle-Isle, L., Walsh, Z., Callaway, R., Lucas, P., Capler, R., Kay, R., & Holtzman, S. (2014). Barriers to access for Canadians who use cannabis for therapeutic purposes. *International Journal of Drug Policy*, 25(4), 691-699.
- Boyd, N. (1991). *High Society: Legal and Illegal Drugs in Canada*. Toronto, Key Porter Books.
- Boyd, S. C. (2017). *Busted: An illustrated history of drug prohibition in Canada*. Fernwood Publishing.
- Bradford, A. C., & Bradford, W. D. (2016). Medical marijuana laws reduce prescription medication use in Medicare Part D. *Health Affairs*, 35(7), 1230-1236.
- BC Centre for Disease Control. (2017). "Public health emergency in BC." from <http://www.bccdc.ca/about/news-stories/stories/public-health-emergency-in-bc>.
- BC Ministry of Health (April 14, 2016). Provincial health officer declares public health emergency [press release]. British Columbia Coroner's Service. (May 15, 2019). "Illicit drug overdose deaths: January 1, 2009 to March 31, 2019." from <https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/illicit-drug.pdf>.
- Browne, R. (2018). Black and Indigenous people are overrepresented in Canada's weed arrests. Vice News. Retrieved from https://news.vice.com/en_ca/article/d35eyq/black-and-indigenous-people-are-overrepresented-in-canadas-weed-arrests.
- Crean, R. D., Crane, N. A., & Mason, B. J. (2011). An evidence based review of acute and long-term effects of cannabis use on executive cognitive functions. *Journal of Addiction Medicine*, 5(1), 1-8.
- Friedman, S. R., W. de Jong, D. Rossi, G. Touze, R. Rockwell, D. C. Des Jarlais and R. Elovich (2007). "Harm reduction theory: Users' culture, micro-social indigenous harm reduction, and the self-organization and outside-organizing of users' groups." *International Journal of Drug Policy* 18(2): 107-117.
- Gordon, T. (2006). Neoliberalism, racism, and the war on drugs in Canada. *Social Justice*, 33(103), 59-78.
- Grinspoon, L. & Bakalar, J.B. (1993). *Marijuana the Forbidden Medicine*. New Haven, CT: Yale University Press.
- Haroutounian, S., Ratz, Y., Ginosar, Y., Furmanov, K., Saifi, F., Meidan, R., & Davidson, E. (2016). The effect of medicinal cannabis on pain and quality-of-life outcomes in chronic pain. *The Clinical journal of pain*, 32(12), 1036-1043.

Haskins, J. (2019). "Suicide, opioids tied to ongoing fall in US life expectancy: Third year of drop." The Nation's Health: A publication of the American Public Health Association **49**(1): 1-10.

Health Officers Council of British Columbia. *Preventing Opioid Related Overdoses/Poisonings and Deaths by Addressing the Determinants of British Columbia's Opioid Overdose Emergency*. November 10 2017.

Hursh, S. R., Galuska, C. M., Winger, G., & Woods, J. H. (2005). The economics of drug abuse: a quantitative assessment of drug demand. *Molecular interventions*, **5**(1), 20.

Irvine M, Kuo M, Buxton J, Balshaw R, Otterstatter M and e. a. MacDougall L (in press). "Modelling the combined impact of intervention in averting deaths during a synthetic-opioid overdose epidemic." Addiction
Kandel, D. B. (2003). Early exposure to marijuana and risk of later drug use – Reply. *Journal of the American Medical Association*, **290**(3), 331–332.

Kerr, T., M. Oleson and E. Wood (2004). "Harm-reduction activism: A case study of an unsanctioned user-run safe injection site." Canadian HIV/AIDS Policy and Law Review **9**(2): 13-19.

Lucas, P. and Z. Walsh (2017). "Medical cannabis access, use, and substitution for prescription opioids and othersubstances: A survey of authorized medical cannabis patients." International Journal of Drug Policy **42**: 30-35.

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.

Le Bec, P. B., Fatséas, M., Denis, C., Lavie, E., & Auriacombe, M. (2009). Cannabis and psychosis: search of a causal link through a critical and systematic review. *L'Encephale*, **35**(4), 377-385.

Lucas, P. (2012). Cannabis as an adjunct to or substitute for opiates in the treatment of chronic pain. *Journal of psychoactive drugs*, **44**(2), 125-133.

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.

Lucas, P., & Walsh, Z. (2017). Medical cannabis access, use, and substitution for prescription opioids and other substances: a survey of authorized medical cannabis patients. *International Journal of Drug Policy*, **42**, 30-35.

McNeil, R., W. Small, H. Lampkin, K. Shannon and T. Kerr (2014). "'People knew they could come here to get help': An ethnographic study of assisted injection practices at a peer-run 'unsanctioned' supervised drug consumption room in a Canadian setting." AIDS and Behavior **18**(3): 473-485.

Mikuriya, T. H. (2004). Cannabis as a substitute for alcohol: a harm-reduction approach. *Journal of Cannabis Therapeutics*, **4**(1), 79-93.

National Academies of Sciences, Engineering, and Medicine. (2017). The health effects of cannabis and cannabinoids: The current state of evidence and recommendations for research. Washington, DC: The National Academies Press.

National Institute on Drug Abuse. (2019). "Overdose death rates." Retrieved May 20, 2019, from <https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates>.

Office of The Provincial Health Officer (2019). Stopping the harm: Decriminalization of people who use drugs in BC. Victoria, BC, Office of the Provincial Health Officer

O'Shaughnessy, W.B.O. (1843). On the preparations of the Indian hemp, or gunjah. *Provincial Medical Journal*, 363–69.

Piper, B. J., DeKeuster, R. M., Beals, M. L., Cobb, C. M., Burchman, C. A., Perkinson, L., ... & Abess, A. T. (2017). Substitution of medical cannabis for pharmaceutical agents for pain, anxiety, and sleep. *Journal of Psychopharmacology*, 31(5), 569-575.

Rankin, J., & Contenta, S. (2017). Toronto marijuana arrests reveal 'startling' racial divide. *The Toronto Star*. Retrieved from <https://www.thestar.com/news/insight/2017/07/06/toronto-marijuana-arrests-reveal-startling-racial-divide.html>.

Reiman, A. (2009). Cannabis as a substitute for alcohol and other drugs. *Harm Reduction Journal*, 6(1), 35.

Reiman, A., Welty, M., & Solomon, P. (2017). Cannabis as a substitute for opioid-based pain medication: patient self-report. *Cannabis and cannabinoid research*, 2(1), 160-166.

Riley, D. (1998). Drugs and drug policy in Canada: A brief review & commentary. *Senate of Canada*.

Rudd, R. A., N. Aleshire, J. E. Zibbell and R. M. Gladden (2016). "Increases in drug and opioid overdose deaths—United States, 2000–2014." *MMWR Morb Mortal Wkly Rep* 64.

Russo, E. B. (2007). History of cannabis and its preparations in saga, science, and sobriquet. *Chemistry & biodiversity*, 4(8), 1614-1648.

Santaella-Tenorio, J., Mauro, C. M., Wall, M. M., Kim, J. H., Cerdá, M., Keyes, K. M., & Martins, S. S. (2017). US traffic fatalities, 1985–2014, and their relationship to medical marijuana laws. *American journal of public health*, 107(2), 336-342.

Shah, D., Chand, P., Bandawar, M., Benegal, V., & Murthy, P. (2017). Cannabis induced psychosis and subsequent psychiatric disorders. *Asian Journal of Psychiatry*, 30, 180-184.

Special Advisory Committee on the Epidemic of Opioid Overdoses (2019). National report: Apparent opioid-related deaths in Canada (January 2016 to September 2018). . Ottawa Public Health Agency of Canada.

Substance Abuse and Mental Health Services Administration. (2014). *Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings*, NSDUH Series H-48, HHS Publication No. (SMA) 14-4863. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Tetrault, J. M., Crothers, K., Moore, B. A., Mehra, R., Concato, J., & Fiellin, D. A. (2007). Effects of marijuana smoking on pulmonary function and respiratory complications: a systematic review. *Archives of Internal Medicine*, 167(3), 221-228.

Tupper, K. W. (2008). The globalization of ayahuasca: Harm reduction or benefit maximization? *International Journal of Drug Policy*, 19(4), 297-303.

Vancouver Police Department. *The Opioid Crisis: The Need for Treatment on Demand. Review and Recommendations*. May 2017.

Von Bibra, E. 1855. Die Narkotischen Genussmittel und der Mensch. Nuremberg: Verlag von Wilhelm Schmidt.

Wallace, B., F. Pagan and B. Pauly (2019). "The implementation of overdose prevention sites as a novel and nimble response during an illegal drug overdose public health emergency." International Journal of Drug Policy **66**: 64-72.

Walsh, Z., Gonzalez, R., Crosby, K., Thiessen, M. S., Carroll, C., & Bonn-Miller, M. O. (2017). Medical cannabis and mental health: A guided systematic review. *Clinical Psychology Review*, 51, 15-29.

Whiting, P. F., Wolff, R. F., Deshpande, S., Di Nisio, M., Duffy, S., Hernandez, A. V., & Schmidtkofer, S. (2015). Cannabinoids for medical use: a systematic review and meta- analysis. *JAMA*, 313(24), 2456-2473.

Wiese, B. and A. Wilson-Poe (2018). "Emerging evidence for cannabis' role in opioid use disorder." Cannabis and Cannabinoid Research **3.1**.

Wood, E., T. Kerr, P. M. Spittal, W. Small, M. W. Tyndall, M. V. O'shaughnessy and M. T. Schechter (2003). "An external evaluation of a peer-run "unsanctioned" syringe exchange program." Journal of Urban Health **80**(3): 455-464

World Health Organization. (2016). The health and social effects of nonmedical cannabis use. Geneva: World Health Organization.

Yzer, M. C., Cappella, J. N., Fishbein, M., Hornik, R., & Ahern, R. K. (2003). The effectiveness of gateway communications in anti-marijuana campaigns. *Journal of health communication*, 8(2), 129-143.

Ziemianski, D., Capler, R., Tekanoff, R., Lacasse, A., Luconi, F., & Ware, M. A. (2015). Cannabis in medicine: a national educational needs assessment among Canadian physicians. *BMC medical education*, 15(1), 52.