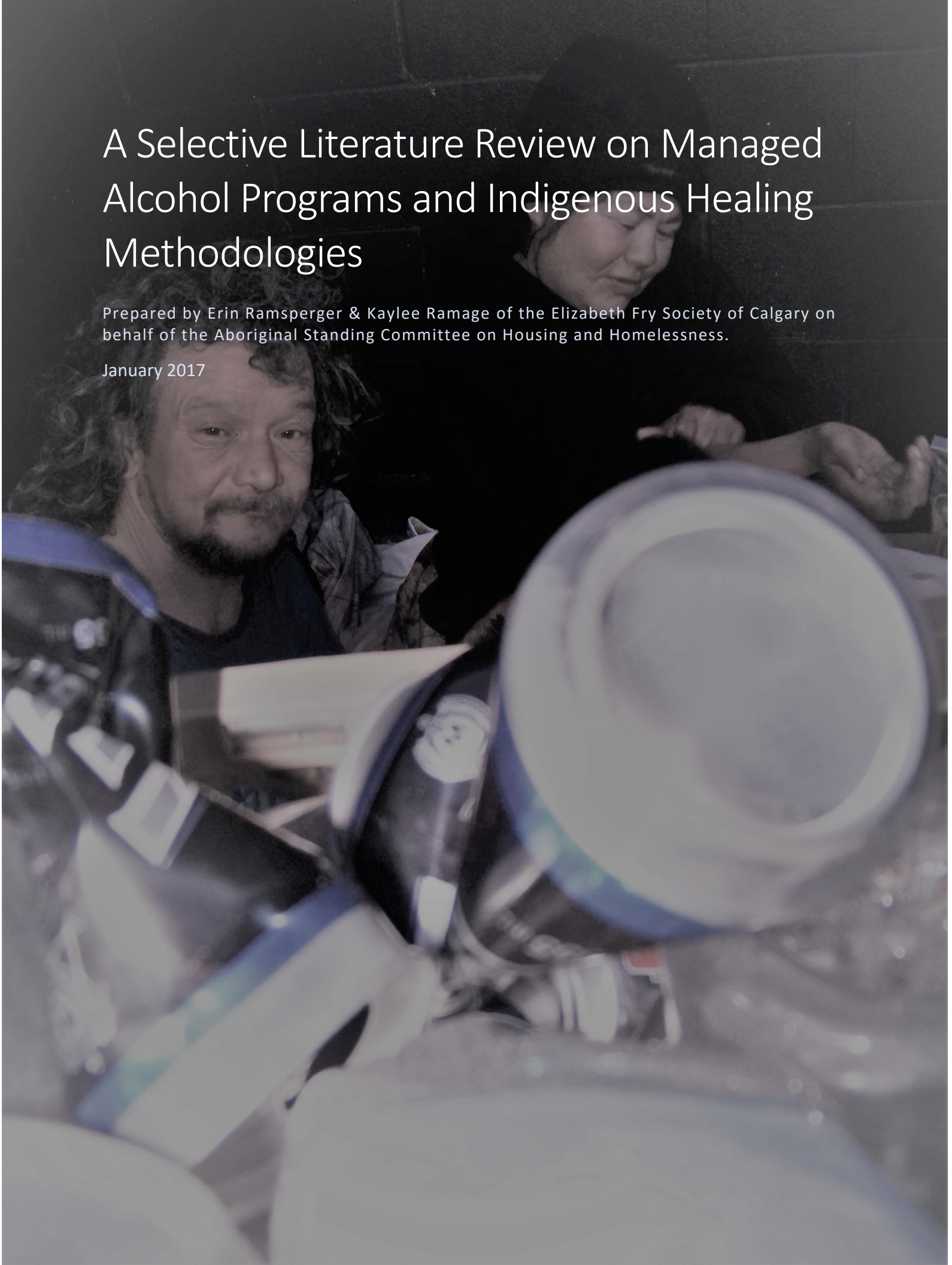

A Selective Literature Review on Managed Alcohol Programs and Indigenous Healing Methodologies

Prepared by Erin Ramsperger & Kaylee Ramage of the Elizabeth Fry Society of Calgary on behalf of the Aboriginal Standing Committee on Housing and Homelessness.

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Introduction

The Aboriginal Standing Committee on Housing and Homelessness (ASCHH) is a working group of community partners and agencies that have been addressing the issues of homelessness and housing since 1999 through a community table. Throughout 2010-2012, the committee worked upon the development of a Plan to End Aboriginal Homelessness in response to the unique needs of the urban Indigenous community. This document was launched in December 2012, and recognized by the Calgary Homeless Foundation in 2015 as the Indigenous plan under the city's 10-year Plan to End Homelessness.

One of the critical recommendations of the ASCHH Plan to End Aboriginal Homelessness was the implementation of housing programs and projects that would provide opportunities to address addiction in meaningful and more direct approaches. As such the concept of the Managed Alcohol Program became one of the committee's priority projects. The concept evolved from previous Co-Chair Scott Calling Last's visit to Toronto's Seaton House that was providing a palliative care approach of assisting measured doses of alcohol to chronic drinkers to prevent withdrawal while staying in the shelter system. This concept resonated deeply for the committee and has become focal project for the committee over the past 5 years.

As a community, we see a growing need for culturally relevant programming that recognizes culture and spirituality as a foundation of treatment supports. In addition, managed alcohol is essential to addressing the chronic and pervasive issues of alcoholism amongst Indigenous populations that has affected homelessness, high risk lifestyles, as well as chronic health conditions that often lead to early death. In particular, Calgary's growing population of young Indigenous peoples who have entered the shelter system and absolute homelessness has increased the immediacy of ensuring that options exist that integrate the MAP philosophies while utilizing culture and spirituality as a foundational process.

Although MAP originated as a palliative care approach to supporting predominantly older men with chronic alcoholism, as a community, we hope to respond by providing an interventive

approach to addressing the needs of younger chronically addicted Indigenous men and women. Future projects in the City of Calgary should contribute to reducing the long term affects and risks associated with non-beverage alcohol consumption and/or death associated with risky and/or chronic use of alcohol. In particular Calgary has seen a huge increase in deaths of Indigenous men and women who have either been impacted by long term disability or death in relationship to chronic stages of alcoholism while in their 20's and 30's.

The Aboriginal Standing Committee on Housing and Homelessness continues to work on the development of a Managed Alcohol Program that will be culturally relevant in response to the needs of the community. This work on this project is intended to become a part of building capacity for the community in order to respond to the need of our most vulnerable populations.

Managed Alcohol Programs and their Need

Managed alcohol programs (MAPs) were developed as harm reduction housing programs for individuals who experience chronic homelessness and severe alcohol dependency. MAPs help to reduce the harms of alcohol dependency by providing measured portions of alcohol to their residents throughout the day. This acknowledgement of alcohol addictions and the provision of alcohol allows residents to focus on other aspects of their life, achieve housing where they may otherwise be refused, reduce their non-beverage alcohol consumption, and, in some cases, overcome their addiction. MAPs are also viewed as a compassionate response that improves the quality of life for those experiencing chronic homelessness and alcohol addiction (both of which are associated with poor health, early mortality, poverty, and increased service utilization).

Within the Housing First model, housing programs may seek to reduce harms for individuals experiencing chronic homelessness and severe alcohol addiction by providing stable housing without requiring abstinence from alcohol or drugs and/or sobriety and by tolerating the use of alcohol within the housing programs. Housing First programs are associated with decreased service utilization (e.g., interactions with healthcare or police) and decreased alcohol consumption (Collins et al., 2012; Larimer et al., 2009; Pauly, Reist, Belle-Isle, & Schactman, 2013). MAP programs are a subset of the Housing First model where alcohol is not only tolerated, but provided to the clients as a way to help stabilize them.

Prevalence rates for alcohol use among the homeless is high, with up to 38% of homeless adults experiencing alcohol addiction (Fazel, Khosla, Doll, & Geddes, 2008). The rate of severe alcohol dependence is higher in homeless populations than in the general population for both men and women (Fazel, Khosla, Doll, & Geddes, 2008; Fazel, Geddes, & Kushel, 2014). In Canada, Indigenous people are over-represented among the homeless population and are more likely to experience alcohol-related harms (Hwang, 2001 Alcohol addiction has severe health effects, resulting in high use of crisis health services such as the emergency department (Kushel et al.,

2001). Furthermore, homelessness is associated with chronic illnesses, longer hospital stays, and increased mortality (Farrell et al., 2000; Hwang et al., 1997; Salit et al., 1998).

Many individuals experiencing homelessness may resort to non-beverage alcohol (e.g., rubbing alcohol, hand sanitizer, and mouthwash) as they can be obtained easily and are relatively low-cost. Non-beverage alcohol (NBA) consumption may have a variety of additional health risks when consumed in large volumes, especially due to the high concentration of ethanol in certain types of NBA. For example, one 500 ml. bottle of 95% rubbing alcohol is equivalent to 28 standard drinks (Vallance et al., 2016).

There is a significant need for innovative supports for individuals experiencing chronic homelessness and severe alcohol addiction. The following literature review will examine existing Managed Alcohol Programs in Canada; the available evidence of their impact on clients' service utilization, health, and overall quality of life; and the need for Indigenous components to addictions treatment.

Effectiveness of MAP Programs

Many of the MAP programs in Canada have been evaluated recently to determine the impact of the MAP approach on client behaviors, service utilization, and health outcomes, as well as the cost-benefit of the program.

The **Kwai Kii Win Centre** in Thunder Bay, ON studied 18 MAP participants and 20 controls (Pauly et al., 2016). Significant differences between the MAP participants and the control group were found with length of stay (MAP participants stayed in programming longer), safety (MAP participants felt safer), spaciousness of housing, privacy of housing, and overall quality. The evaluation also conducted qualitative interviews with MAP participants, which confirmed the safety and satisfaction of the MAP program environment. The authors note that certain findings correspond with First Nations principles for recovery and healing from substance use, including

principles of respect and centering on the spirit for healing. MAP participants began to regain a sense of self, home, and family as they began to stabilize through the program. This study shows that more research is necessary to understand MAP as a program which can enhance healing of historical trauma and can engage the Indigenous culture as treatment for addictions (Gone, 2013).

Furthermore, the evaluation (Vallance et al., 2016) showed that MAP participants, compared to the same participants when they were not in the program, had 41% fewer police contacts, 33% fewer police contacts leading to custody time, 87% fewer detox admissions, and 32% fewer hospital admissions. Compared with controls, the MAP participants had 43% fewer police contacts, 70% fewer detox admissions, and 47% fewer emergency room visits. In addition, non-beverage alcohol use was significantly less frequent in MAP participants as compared to the controls ($p<0.05$). Further research is needed to determine whether the overall volume of alcohol consumption was decreased in MAP participants versus controls.

A **MAP program in Ottawa, ON** was evaluated (Podymow et al., 2006), using data from 17 participants. Participants reported decreased consumption of beverage and non-beverage alcohol (although an analysis of individual paired differences of blood markers of alcoholism during the program compared to 2 years before enrolment in the program were not significant). Based on self-report data, the absolute amount of alcohol consumed decreased from an average 46 drinks/day before enrolment in the MAP to 8 drinks per day (n=11). This evaluation also found that, on average, police encounters decreased by 51% and emergency department visits decreased by 36% for participants in the MAP program.

An evaluation of the **Station Street MAP in Vancouver, BC** found that all participants (n=7) were able to maintain their housing and were satisfied with their housing quality. Participants reported greater well-being and improved mental health. This study found a reduction in frequency and quantity of non-beverage alcohol consumption and reductions in alcohol-related

harms (i.e., social, financial, and withdrawal seizures). The potential benefits and risks from a MAP in relation to alcohol-related harms is shown in Figure 1.

Figure 1: MAP Risks and Benefits (Stockwell et al., 2013).

Patterns of Risky Drinking	Heavy Episodic Drinking	Non-Beverage Alcohol (NBA) Consumption	Drinking in Unsafe Settings	High Volumes of Alcohol Consumed Over the Long-Term
Potential harms	Violence, injuries, poisoning, seizures, unstable housing, legal and social problems	Exacerbate chronic diseases, higher ethanol consumption, poisoning	Violence, injuries, freezing, problems with police, intoxication from hurried consumption	Liver cirrhosis, cancers, other chronic diseases, dependence, housing and social problems, nutritional deficiencies
Potential MAP benefits	Smooth drinking pattern, fewer injuries & seizures, secure housing, improved relationships	Reduced consumption of NBA	Shelter from cold, protected supply of alcohol, personal safety, food	Housing security, reduced consumption, improved nutrition
Potential MAP risks	Higher blood alcohol concentrations if non-MAP consumption continues	Increased ethanol consumption if MAP drinks are additive	Less exercise, unhealthy weight gain for some	Fewer abstinent days may increase liver disease risk
Remedial Strategies	1. Protocols to manage non-MAP drinking	1. Protocols for non-MAP drinking 2. Ensure no increase in ethanol consumption	1. Incorporate leisure and physical activities 2. Nutrition advice	1. Strict eligibility criteria 2. No increase in amount or frequency of use 3. Medication to assist with regular days off 4. Offer detox referrals

Thus, MAP programs have been showed to decrease service utilization, improve health outcomes, and stabilize alcohol intake. However, all of the evaluations are based on small numbers of participants; further research is necessary to fully understand the positive impacts of MAP programming. As well, an environmental scan of existing program processes and procedures will help to determine which aspects of MAP are more useful for curbing harmful alcohol consumption. See Table 1 for more information regarding outcomes.

Cost Effectiveness

The University of Victoria Centre for Addictions Research recently conducted a cost-benefit analysis of the Kwae Kii Win Centre Managed Alcohol Program in Thunder Bay (2016). The Kwae Kii Win Centre MAP is a 15-bed program for homeless individuals with severe alcohol dependence. The study reviewed MAP participants' annual service utilization as compared to their utilization prior to entry into the program and compared to a control group (made up of those who would have been eligible for the program but were not participating in the MAP). On average, MAP participants received 3.69 days of inpatient treatment (compared to 6.42 days prior to program entry and 5.98 for controls); 0 nights in emergency shelter (compared to 99 nights prior to program entry and 97 for controls); 1.03 days in detoxification services (compared to 18.86 days prior to program entry and 20.72 for controls); 13.94 emergency department visits (compared to 13 visits prior to program entry and 26.1 for controls); and 4.24 days in police detention (compared to 12.95 days prior to program entry and 14.1 for controls). Thus, the annual service utilization cost of MAP participants was $13 379 as compared to $45 304 per program participant before entry into the MAP program and $48 969 for controls. The average cost for service delivery of the MAP was $29 306 per participant. Thus, the annual cost of service utilization and program participation by MAP participants was $42 685 per year with a potential savings of $2619 to $6284 and a return on investment of between $1.09 and $1.21 for every dollar invested in the MAP.

Need for Indigenous Perspective in MAP Programming

Indigenous peoples have experienced decades of historical trauma, due to a loss of culture, the devastation of Indigenous family structures through residential schools, and considerable abuses related to colonization and assimilation policies. As a result, Indigenous peoples are over-represented in the homeless population (Hwang, 2001; Reading & Wien, 2009). Due to this history, a reconnection to culture and the integration of cultural components for treatment programs for alcohol and drug addiction for Indigenous populations. Research has shown that including Indigenous healing and ceremony into treatment can help to promote sobriety and healing. Brady (1995) identifies that programs which promote Indigenous identity and include

traditional cultural beliefs and practices into treatment have proven to have successful outcomes in working with Indigenous populations. In particular, cultural interventions can be used in this context to help with healing from addiction.

From a traditional Indigenous cultural viewpoint addiction is perceived beyond the biomedical model of mainstream medicine. An Indigenous view of alcohol addiction is that alcohol in itself has a spirit that is destructive to the Indigenous way of life and that addiction disrupts traditional cultural systems (Brady, 1995).

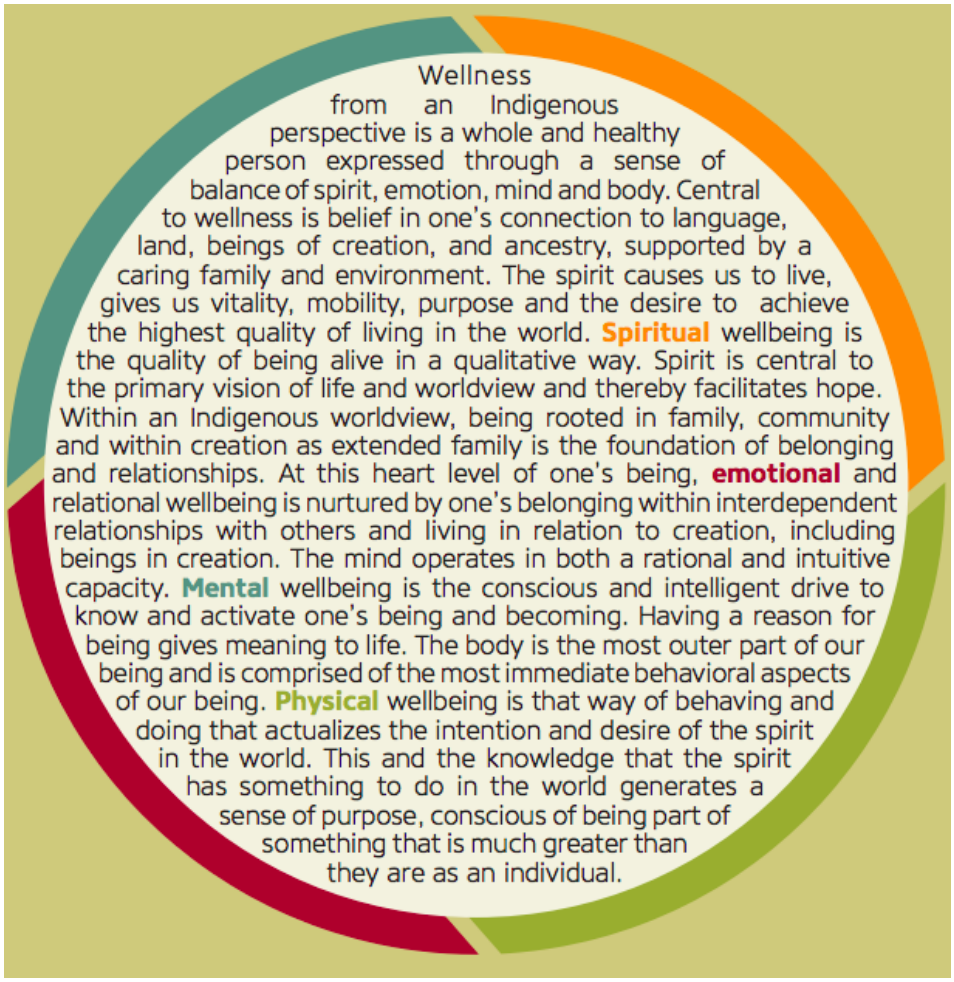
Elder Dila Provost Houle, of the Piikani First Nation, provides a teaching on the issue of addiction and the context of the *spirit* of alcohol and drugs. Dila uses the concept of substances in relationship to spirituality, exemplifying the use of tobacco. *"Tobacco is the sacred herb of the plains people and is used in ceremony. Within the ceremony and the people who this herb was given to, the spirit is positive. Outside the ceremony and the people, tobacco has a negative spirit that becomes addictive".* Alcohol was not given to Indigenous cultures; therefore its spirit when used by Indigenous peoples becomes negative. Within this teaching, Indigenous people using alcohol or drugs are no longer connected to their spirit while under the influence. Their spirit is outside them. Healing indigenous populations requires supporting a return of the spirit.

Because of the complexity and diversity of Indigenous cultures across Canada, it is important to note that not all of the traditional teachings described in this rapid literature review will be appropriate for all Indigenous cultures; however, they describe a philosophy of adopting traditional methods into mainstream programming to use culture and spirituality as a form of treatment.

Another fundamental quality of culturally-focused treatment is the idea of Indigenous wellness, which goes beyond the physical and biomedical focus of mainstream treatment to include mind, body, emotion, and spirit (Hill, 2003). The National Native Addictions Partnership

Foundation and Elder Jim Dumont (2014) defined wellness in terms of cultural healing (as shown in Figure 2).

Figure 2: Definition of Wellness (NNAPF & Dumont, 2014)



The need for Indigenous culture in addictions treatment is well documented. In Canada, the National Native Alcohol and Drug Abuse Programs emphasize the importance of Indigenous traditional cultures to use with clients for healing and wellness (Rowan et al., 2014). A scoping review was conducted by Rowan and colleagues (2014) to better understand the characteristics of culture-based addictions programs and to examine their impact.

One potential component of Indigenous culture that can be integrated into addictions treatment is the Sweatlodge and the benefits of this traditional ceremony to support healing. In the review of studies by Rowan and colleagues (2014), sweatlodges were the most common cultural intervention identified (in 68% of studies). Smilie-Adjarwka (2009) indicates that the Sweatlodge ceremony promotes Indigenous identity, provides physical detoxification and cleansing, as well as leads to psychological and spiritual purification and renewal. Through participation, individuals achieve a level of physical and mental strength which leads to feelings of sense of accomplishment.

Another important component in healing through the use of Indigenous culture is the role of the Elder. Research has shown that Elders can play a major role throughout the healing process (Morrisette, McKenzie, & Morrisette, 1993) and can promote a connection to culture, identity, and support traditional knowledge and wisdom (Menzies, Bodnar, Harper, & CAMH, 2010).
In the review (Rowan et al., 2014), several cultural interventions were identified. These cultural interventions correspond to those identified in the study by Dumont and NNAPF (2014), recognizing that Indigenous culture is diverse and cultural interventions should be adapted as necessary to meet the localized needs of the population:

- Smudging and Prayer
- Sweatlodge ceremonies
- The role of dreams and their interpretation
- Fasting and vision quests
- Talking and Healing Circles
- Use of traditional languages in treatment
- Land-based activities (e.g., access to traditional environmental knowledge, medicine picking, and rites of passage)
- Socio-cultural interventions (e.g., feasts, and community based ceremonies)
- Traditional teachings (e.g., localized history)
- Natural foods and medicines (e.g., through ceremonial feasts, visits from a traditional healer)

- Use of the Medicine Wheel
- Singing and drumming
- Traditional dance
- Story-telling
- Cultural art or activities (beading, sculpting, etc.)
- Elders (i.e., access to spiritual Elders, guidance and support from Elders)

All of the programs identified used traditional Indigenous interventions alongside more mainstream interventions such as Alcoholics Anonymous, group sessions, and/or individual and family counselling. Only some studies used all of the Medicine Wheel wellness outcomes (physical, emotional, mental and spiritual) to measure success or progress in the programs. The outcomes of the studies showed that there are benefits of Indigenous cultural interventions that can help to improve client wellness, especially for addressing substance use issues). 74% of studies showed improvement with reducing or eliminating substance use problems. However, very few of the studies compared traditional methods for addressing substance use with more mainstream methods.

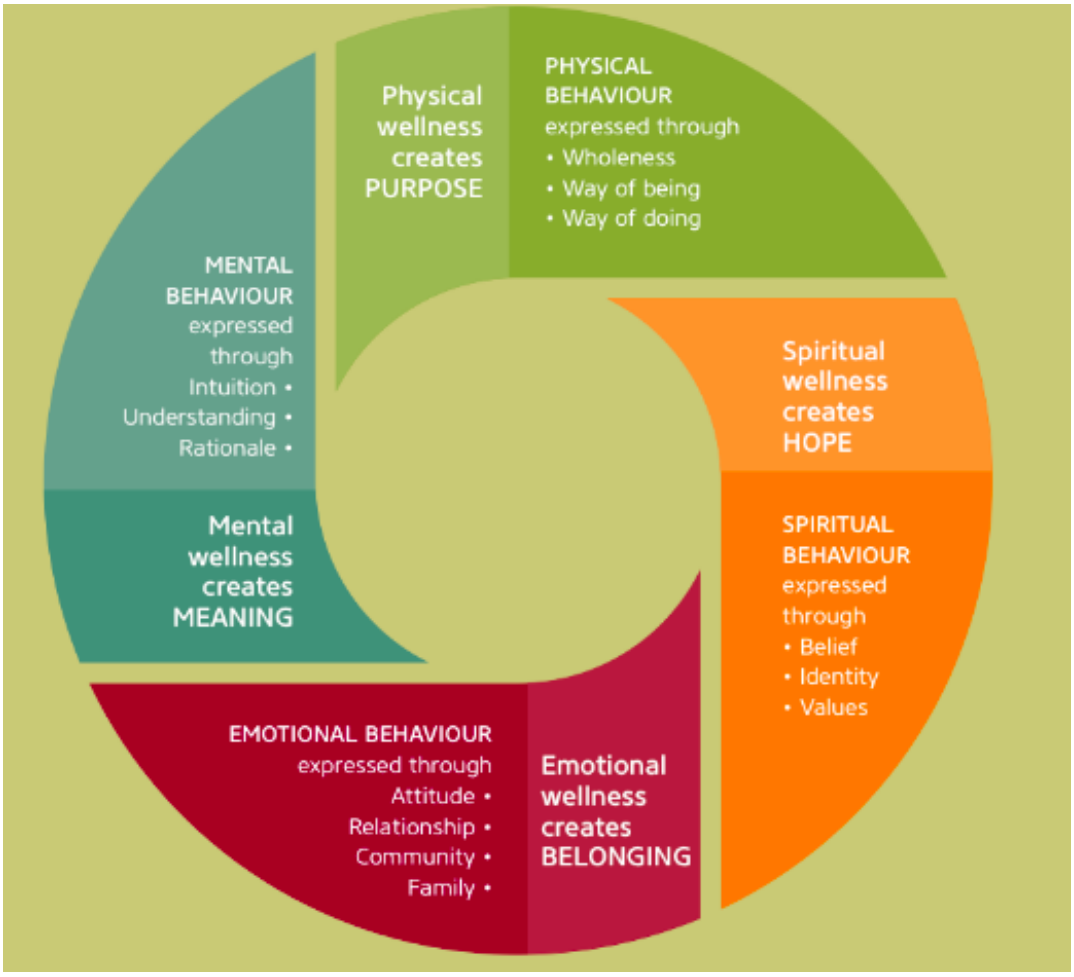
The authors recommend that future studies clearly describe the Indigenous cultural components of their program and how their clients engage with these components; use a broad range of outcome measures; analyze how gender, age, and the social determinants of health affect wellness outcomes. Additionally future studies should utilize a comparison group; and look at more general ideas of Indigenous cultural practices to make the interventions more generalizable across the diverse Indigenous communities in Canada.

The National Native Addictions Partnership Foundation and Elder Jim Dumont (2014) highlighted several aspects of Indigenous culture that are fundamental to a unified definition and are thought of as primary concepts of the Indigenous worldview. These include:

- **The Spirit** – the concept of the body-mind-heart-spirit that is central to all things and throughout all things. The Spirit being of primary importance to connecting all aspects of life to the central concept of being.
- **The Circle** – recognized as primary to all life and is the foundation to relating to and understanding life. The Circle is the same as wholeness and represents the interconnectedness and interdependence of life.
- **Harmony and Balance** – pre-supposes that all life consciously cares for one another that, while respecting autonomy, promotes inter-connectedness, equilibrium, and symmetry.
- **"All My Relations"** – recognizes all of nature as "persons" and the responsibility for maintaining good and harmonious relationships with all persons and things alive.
- **Kindness, caring, and respect** – honoring the interconnectedness of all life to promote individual and collective good.
- **Earth connection –** the idea that the Earth is a living, conscious being and recognition that Indigenous identity is defined by the land and the connection to nature. That this concept is essential to natural law and health and wellness based on the innate relationship of living a healthy lifestyle within having a positive connection to the land.
- **Path of Life Continuum –** understanding of the journey of the spirit and the connection to ancestors and those yet unborn.
- **Language** – recognition of language as the voice of the culture.

Through their project, the NNAPF and Elder Jim Dumont (2014) also created an Indigenous wellness framework to be used in Addictions treatment programs that have an Indigenous focus (Figure 3).

Figure 3: Indigenous Wellness Framework (NNAPF & Dumont, 2014)



The use of Indigenous cultures for healing from addictions, as described above, can be very effective in reducing substance use issues. For example, the Indigenous community of Alkali Lake, BC, employed traditional Indigenous healing methodologies and healers to help revive traditional dances, ceremonies, and spiritual practices as methods of re-connecting to culture. Through these measures, the community decreased its rate of alcohol abuse from 95% to 5% in only 10 years (Guillory, Willie, & Duran, 1988).

Consultation with Calgary Indigenous Community

Several Elders within Calgary and neighbouring First Nation communities were consulted regarding their thoughts on bringing an Indigenous perspective to the MAP programming. Several themes emerged:

- Understanding of Indigenous history and the events that have caused trauma in Indigenous communities and causes of addiction. This can be supported on an individual level (i.e., understanding own life and the events that cause alcohol addiction) but also as a community (intergenerational trauma, effects of colonization and assimilation polices, and internalized oppressions).
- Understanding that addictions cannot be dealt with as an individual problem, but needs to be viewed at as a community issue with community involved to support. Family can help, but there needs to be trusting relationships.
- Ceremony can be healing. This needs to be guided by Elders for their leadership and guidance. Elders play an important role in helping to *'unravel'* the issues through conversation. Elders need to be genuine.
- Indigenous cultural approaches should be incorporating ceremony into housing programs that are focused on healing. Some people do not understand their culture or they have been removed from it, but it can still be good to get them back to it in order to regain their identity. This includes the use of the Medicine Wheel. Different cultural teachings can all be incorporated into one program – there needs to be respect for each other's different cultural backgrounds. Because people may not know their culture, it is important to have it built-into the programming, as opposed to an 'opt-in' idea. One Elder noted that the most successful addictions programs that she had seen were those that used a cultural approach to healing.
- Need to understand a person's readiness for change. The mind can be a powerful tool that can either hold one back from making progress or support making positive change. Failure can be overcome through ensuring that there is access to cultural connections and supports that provide strength to one's own personal well-being and growth.

- Need for community supports that are in place for all transitions. Reconnecting with culture and creating community are important factors in supporting sustainable changes at every stage of recovery.

FASD & the need for Trauma-Informed Care

Fetal Alcohol Spectrum Disorder is an umbrella term that encompasses a variety of alcohol-related birth defects, including Fetal Alcohol Syndrome, Fetal Alcohol Effects and Alcohol Related Neurodevelopmental Disorders. The disorder is characterized by a number of deficits including facial abnormalities (smooth philtrum, thin vermillion border, and small palpebral fissures), growth deficiencies, microcephaly and central nervous system abnormalities (Brown & Connor, 2013; Chudley et al., 2005; Goodlet & Horn, 2001). It is well established that the disorder is the result of fetal exposure to alcohol through consumption by the mother. The Canadian Guidelines for the diagnosis of FASD report estimated prevalence in specific communities as low as 0.51 per 1000 live births, and as high as 191 per 1000 live births, or 0.05% to 19.1% (Chudley et al., 2005). In Alberta's FASD 10-year Strategic Plan (2008), it is reported that over 23,000 Albertans are currently living with FASD.

Individuals living with FASD often have significant issues with addictions, incarceration, and mental health issues and as such may be over-represented in the homeless sector. These individuals need a specialized understanding of their unique issues as they go through detoxification and treatment services for their addictions; this often does not occur because their underlying disability remains unrecognized by service providers. Because individuals with FASD are prone to addiction, it is likely that they will also make up a significant component of MAP program participants in Canada.

Thus, it is important to consider what strategies will work for individuals with FASD who need support for their addictions. Badry & Felske (2013) emphasized a trauma-informed system of care as an essential component of successful treatment of FASD (as studied in Northern Indigenous communities). Trauma-informed care allows service providers to work within a

framework that acknowledges trauma, its emotional and psychological tolls, and resulting coping strategies. It allows for a "big picture" approach to healing, working with the complex narrative of a person rather than a constellation of acute symptoms. Taking this notion a step further, Salmon and Clarren (2011) recommend a "multidirectional knowledge exchange" (p.433) involving numerous stakeholders in FASD research and care. Essentially, this idea emphasizes collaboration and integrated care management to address FASD from multiple perspectives and disciplines. Presumably this can include trauma-informed care, but also a number of additional origins of care to help enrich the narrative described above. FASD, a disorder that spans morphological, structural and functional expressions of disease and primary and secondary disabilities, and with strong correlation with adverse life events such as expulsion from school and confinement, must be addressed from multiple perspectives. Treatment goals should be aligned with a mitigation of negative symptoms of the disorder, while identifying and addressing underlying dynamic factors that might be contributing to those symptoms.

Finally, in addressing prevention, circumventing the need for treatment of FASD, Totten (2010) recommends targeting family violence, drug and alcohol abuse, poverty, the social determinants of health, and the history of colonization in Indigenous populations as potential points of intervention. Family violence and drug and alcohol abuse are factors that this paper has already shown are associated risk factors for adverse life outcomes in FASD. Supportive, education approaches to intervention should be strategized in order to reduce the risk of these factors. Poverty and the social determinants of health have not been discussed explicitly throughout this review, however it is widely accepted that higher socioeconomic status is associated with better social outcomes, including health. Strategizing for efforts to reduce poverty and improved access to social resources is intuitively linked to better health outcomes.

Finally, the history of trauma and colonization of indigenous people is a vast and complex social issue in Canadian society. Numerous sources link the history of Indigenous trauma to various negative outcomes, most aptly substance abuse and FASD prevalence. The Canadian climate

has shown improvement in treatment of Indigenous people, but targeted interventions capable of eliminating the negative consequences of colonization seem unreachable in the foreseeable future. Still, this is likely one of the most crucial factors requiring attention in addressing the issue of FASD in Canada, and incremental changes through supportive, well-informed care are necessary to continue stepping forward.

Considerations from Other Programs

Through the MAP Community of Practice, thoughts have been collected on issues related to MAP programming.

Drinking outside of the program

Many individuals who are involved in the MAP programs also choose to drink outside of the programs as well. This can be of concern to programs, as they do not want to over-serve and the overall philosophy of the programs is to stabilize and potentially reduce alcohol consumptions. To address this issue, some programs have specific times that participants have to be inside the building before a 'pour' to better monitor the intoxication of residents and limit outside drinking. Some programs check rooms to determine alcohol use.

Often, outside drinks are under-reported to staff (as participants may be worried about not being able to receive next drink within program). Thus, some programs have developed an infographic or other tools to measure outside drinking and increase accuracy. Sometimes, outside drinking can be due to the participant not wanting beverage choices of what is being served in-house (e.g., may want 'drink of choice' instead of white wine). There may be a need to think about serving alternative types of alcohol in-house.

What ranges of drinks are being delivered?

Numbers of drinks delivered in MAP programs are generally flexible and based on the needs of the participants. If the participant wants to cut back, the drinks may be staggered or watered

down. Drinks are generally delivered every hour or 90 minutes for a large portion of the day (e.g., 8 AM to 11 PM). Some programs offer an 'eye opener' or 1.5 standard drink as the first drink of the day. Overall, most programs offer up to 12-15 standard drinks per day.

Tapering Drink Doses

One of the goals of the MAP programs are to reduce alcohol consumption over time. Tapering alcohol consumption is usually done upon consultation with the individual. It is not required by the program, but rather done when the individual expresses interest or when their physician is recommending reducing their consumption. Tapering doses might support decreased consumption during the day or might mean taking a break for several days. Tapering is an option that should be discussed with medical staff to ensure that tapering is done safely.

Conclusion

This literature review found that Managed Alcohol Programs in Canada have shown positive benefits for clients who had previously experienced chronic homelessness. At least one of these programs showed a cost-benefit relationship in terms of service utilization as compared to program cost, per client. Overall, these programs showed a decrease in service utilization, increased satisfaction, increased health outcomes, and decreased non-beverage alcohol use. The main benefit noted in almost all existing MAP programs was an increase in the quality of life. This is an achievement that relates specifically to the population that Calgary is hoping to serve under MAP in order to reduce the harm, but increase capacity of life.

Furthermore, this literature review investigated core components of Indigenous healing for addictions. Several key principles were identified as well as many cultural activities that have been shown to positively impact addictions treatment. Cultural and Spirituality are essential components of any Indigenous program in order to repair the damages of historical and assimilation policies and provide a path of healing for Indigenous populations.

Currently there is limited information on the effectiveness of MAPs and in particular there is limited research on how certain components of Indigenous culture as treatment impact on treatment outcomes in such a setting

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Table 1: Discussion of Research Results for Managed Alcohol Programs

Citation	Sample Size/ Demographics	Location of Study	Outcomes
Pauly, B., Gray, E., Perkin, K., Chow, C., Vallance, K., Krysowaty, B., & Stockwell, T. (2016). Finding safety: A pilot study of managed alcohol program participants' perception of housing and quality of life? *Harm Reduction Journal*	18 MAP participants (7 F/11M) and 20 controls (8F/12 M) Mean age of participants = 42 years (25-61); mean age of controls = 37 years (21-50 years)	Kwae Kii Win Centre Thunder Bay, ON	• MAP participants more likely than controls to retain housing; increased satisfaction with housing and perceived housing quality • MAP participants experienced increased safety compared to life on the streets/jail/ shelter/ hospital
Vallance, K., Stockwell, T., Pauly, B., Chow, C., Gray, E., Krysowaty, 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*, 13.	18 MAP participants (7 F/11M) and 20 controls (8F/12 M) Mean age of participants = 42 years (25-61); mean age of controls = 37 years (21-50 years)	Kwae Kii Win Centre Thunder Bay, ON	• Compared with controls, MAP participants had: ○ 43% fewer police contacts ○ significantly fewer police contacts that resulted in custody time ○ 70% fewer detox admissions ○ 47% fewer emergency room admissions ○ Less frequent NBA
Podymow, T., Turnbull, J., Coyle, D., Yetisir, E., & Wells, G. (2006). Shelter-based managed alcohol administration to chronically homeless people addicted to alcohol. *CMAJ, 174*(1), 45-49.	17 MAP participants Mean age = 51 years Mean duration of alcoholism = 35 years	15-bed shelter in Ottawa	• Monthly mean group total of emergency department visits decreased from 13.5 to 8 (p=0.004) • Monthly police encounters decreased from 18.1 to 8.8 (p=0.018) • All program participants reported less alcohol consumption during MAP; changes in blood test findings were non-significant • Program participants reported improved hygiene, compliance with medical care, and improved health
Stockwell, T., Pauly, B., Chow, C., Vallance, K., Perkin, K. (2013). Evaluation of a Managed Alcohol Program in Vancouver. Early Findings and Reflections. *CARBC Bulletin 9, University of Victoria.* Retrieved from http://homelesshub.ca/sites/	Sample of 7 residents Mean age = 47.4 years (35-61)	Station Street MAP in Vancouver	• Participants reported: ○ High quality of housing (safety, privacy, affordability, spaciousness, friendliness) ○ Remaining in housing throughout evaluation (no evictions) ○ Improved physical and mental health, social functioning, and relationships ○ More likely to attend medical appointments

default/files/bulletin9-evaluation-managed-alcohol-program.pdf			○ Reduction in self-reported harms related to alcohol ○ Lower levels of NBA ○ Similar total alcohol consumption at baseline and throughout evaluation

Table 2: Discussion of Managed Alcohol Programs in Canada

Program Name	Location	Beds	Inclusion Criteria	Alcohol	Other Notes	Indigenous Considerations
Kwae Kii Win Centre	Thunder Bay, ON	15 beds	• Severe alcohol dependence • Chronic homelessness • High rate of police contacts	• 12% alcohol/volume white wine • Can receive up to one 6 oz drink hourly from 8 AM to 11 PM • External drinking discouraged • Participants not allowed to store alcohol on-site for later consumption • Must not be overly intoxicated • Must have been in facility for at least 60 minutes prior to dose • Cost = $30 000/year	Receive: • Meals • Budgeting • Primary health care • Life skills training • Counselling • Legal supports • Income supports 2 staff, 24/hours a day	• Weekly Elder visits • Drumming circle
Station Street	Vancouver, BC	80 resident building (up to 12 MAP participants)	• All genders	• Given hourly by staff • Timing/dose tailored to the individual • 7:30 AM to 10:30 PM • Cost = $30 000/year	•	•

DURC, Street Entrenched Managed Alcohol Program (SEMAP)	Vancouver, BC	200+ drinkers total	○ All genders	• Have a daily ration of alcohol with individually tailored dispensing schedules	• Run as a co-operative, money for alcohol contributed as a 'dues' system and 'buy-ins'	Have 5 day programs: 3 Brew-Masters at the Brew Co-Op 35-45 participants at the Drinker's Lounge 24 participants in Big MAPers (non-residential MAP) Illicit Alcohol Exchange Hydration Team
Carewest Rouleau Manor	Calgary, AB	Planning Stages, plan to open August 2016				
Peter Coyle Place	Calgary, AB	70 Resident building – between 20-30 MAP participants at a time	○ All genders	○ Individualized consumption and distribution contracts set up for clients that require management with times and amounts ○	○ Resident pay room and board, program subsidized by AHS	
Ambrose Place	Edmonton, AB	32 Residents	○ Indigenous-focused ○ All genders ○ Have physical health or	○ Alcohol dispensed by staff every 3-4 hours	○ AHS funded ○ Residents pay for rent, cable, telephone, and meals, and alcohol	

			mental health issues ○ Chronically homeless			
Urban Manor	Edmonton, AB	75 Residents	○ Males only ○ Chronically homeless ○ Over 18 years ○ Major physical and/or mental health issues	○ Daily ration; residents are responsible for purchasing alcohol ○	○ Funded by Government of Alberta Human Services ○ Residents contribute when able	
Harm Reduction Day Program / The Annex	Sudbury, ON	8 participants in day program	○ All genders	○ Measured doses of alcohol (wine) hourly 9am-8pm ○	○ Funding from Local Health Integration Network and CMHA, resident co-pay	
Downtown MAP	Hamilton, ON	23 participants	○ All genders	○ Alcohol dispensed hourly by staff	○ Funded by Local Health Integration Network ○ Have two 12-hour shifts, one nurse on during the day, life skill staff for 40 hours per week	
Annex Program, Seaton House	Toronto, ON	Up to 60 participants	○ Males only, 19 years+	○ Alcohol dispensed hourly by staff between 7:30 AM-11:00pm, tailored to client. ○ standard amount of 11 drink/day, varies based on client's request to reduce or increase the standard amount; done in consultation with	○ Funded by City of Toronto	

				physician based on level of addiction and relative harms associated with the addiction ○		
Regeneration Community Services – Art Manuel House	Toronto, ON	10 residents	○ All genders	○ Alcohol dispensed hourly by staff	○ Funded by Local Health Integration Network	
Shepherds of Good Hope, Downtown MAP, & Oaks Residence	Ottawa, ON	Shelter = 12-24 beds 4 spaces in Day Program 55 residential units (2 buildings)	○ All genders	○ Alcohol dispensed hourly by staff between 7:30am to 9:30pm; tailored to individual	Funding through regional health organization Residents contribute to costs of alcohol Strategies to reduce behavioral issues: ○ Time out of pour – when client presents as intoxicated; need to ensure right approach – non judgmental ○ Time out of the common area – getting them away from the situation to de-escalate ○ Behavioral Contracts ○ Care plans ○ Money management ○ Rapport building ○ Aggressive Incidents Scale	

References

Brady, M. 1995. Culture in Treatment, Culture as Treatment. A Critical Appraisal of Developments in Addictions Programs for Indigenous North Americans and Australians. *Soc. Sci. Med.* Vol. 41. No. 11 pp. 1487-1498.

Collins SE, Clifasefi SL, Dana EA, Andrasik MP, Stahl N, Kirouac M, et al. Where harm reduction meets housing first: exploring alcohol's role in a project-based housing first setting. Int J Drug Policy. 2012;23(2):111–9. doi: 10.1016/j.drugpo.2011.07.010.

Dumont, J. & National Native Addictions Partnership Foundation (2014). Honoring our culture as intervention in addictions Treatment. Bothwell, ON: University of Saskatchewan. Retrieved from http://www.addictionresearchchair.ca/wp-content/uploads/2012/04/FINAL-ReferenceGuide_June25_DIGITAL.pdf

Farrell S AT, Klodawsky F, Pettey D. Describing the homeless population of Ottawa–Carleton. Ottawa, Ontario: University of Ottawa; 2000

Fazel S, Geddes JR, Kushel M. The health of homeless people in high income countries: descriptive epidemiology, health consequences, and clinical and policy recommendations. Lancet. 2014;384(9953):1529–40

Fazel S, Khosla V, Doll H, Geddes J. The prevalence of mental disorders among the homeless in Western countries: systematic review and meta-regression analysis. PLOS Medicine. 2008;5(12):e225. doi:1-.1371/journal. pmed.0050225.

Gone JP. Redressing First Nations historical trauma: theorizing mechanisms for indigenous culture as mental health treatment. Transcult Psychiatry. 2013;50(5):683–706.

Guillory, B.M., Willie, E., & Duran, E.F. (1988). Analysis of a community organizing case study: Alkali Lake. *Journal of Rural Community Psychology, 9*(1), 27-36.

Hammond, K., Gagne, L., Pauly, B., & Stockwell, T. (2016*). A cost-benefit analysis of a Canadian Managed Alcohol Program.* Victoria, BC: Centre for Addictions Research of British Columbia. Retrieved from http://www.uvic.ca/research/centres/carbc/assets/docs/report-a-cost-benefit-analysis-of-a-canadian-map.pdf

Hill DM: Traditional Medicine in Contemporary Contexts: Protecting and Respecting Indigenous Knowledge and Medicine. 2003, Ottawa: National Aboriginal Health Organization

Hwang SW, Orav EJ, O'Connell JJ, Lebow JM, Brennan TA. Causes of death in homeless adults in Boston. *Ann Intern Med. 1997 Apr 15; 126(8):625-8.*

Hwang SW. Homelessness and health. Can Med Assoc J. 2001;164(2):229–33.

Kushel MB, Vittinghoff E, Haas JS Factors associated with the health care utilization of homeless persons. *JAMA. 2001 Jan 10; 285(2):200-6.*

Larimer M, Malone D, Garner M, Atkins D, Burlingham B, Lonczak H, et al. Health care and public service use and costs before and after provision of housing for chronically homeless persons with severe alcohol problems. JAMA. 2009;301(13):1349–57

Menzies, P., Bodnar, A., Harper, V., & Centre for Addiction and Mental Health. (2010). The role of the elder within a mainstream addiction and mental health hospital: Developing an integrated paradigm. *Native Social Work Journal, 7*, 87-107. Retrieved from https://zone.biblio.laurentian.ca/bitstream/10219/385/1/NSWJ-V7-art4-p87-107.PDF

Morrissette, V., McKenzie, B., & Morrissette, L. (1993). Towards an Aboriginal model of social work practice. Canadian Social Work Review, 10, 91-108.

Pauly BM, Reist D, Belle-Isle L, Schactman C. Housing and harm reduction: what is the role of harm reduction in addressing homelessness? International Journal of Drug Policy. 2013;24(4):284–90. doi:http://dx.doi.org/ 10.1016/j.drugpo.2013.03.008

Pauly, B., Gray, E., Perkin, K., Chow, C., Vallance, K., Krysowaty, 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*, 15.

Podymow, T., Turnbull, J., Coyle, D., Yetisir, E., & Wells, G. (2006). Shelter-based managed alcohol administration to chronically homeless people addicted to alcohol. *174*(1), 45-49.

Reading CL, Wien F. Health inequities and social determinants of Aboriginal peoples' health. Prince George, BC: National Collaborating Centre for Aboriginal Health; 2009.

Rowan, M., Poole, N., Shea, B., Gone, J.P., Mykota, D., Farag, M., Hopkins, C., Hall, L., Mushquash, C., & Dell, C. (2014). Cultural interventions to treat addictions in Indigenous populations: Findings from a scoping study. *Substance Abuse Treatment, Prevention, & Policy, 9*(34).

Salit SA, Kuhn EM, Hartz AJ, Vu JM, Mosso AL Hospitalization costs associated with homelessness in New York City. *N Engl J Med. 1998 Jun 11; 338(24):1734-40.*

Smillie-Adjarkwa, C. (2009). Aboriginal alcohol addiction in Ontario, Canada: A look at the history and current healing methods that are working in breaking the cycle of abuse. *Indigenous Policy Journal*. Retrieved from https://ipjournal.wordpress.com/2009/12/16/aboriginal-alcohol-addiction-in-ontario-canada-a-look-at-the-history-and-current-healing-methods-that-are-working-in-breaking-the-cycle-of-abuse/

Stockwell, T., Pauly, B., Chow, C., Vallance, K., & Perkin, K. (2013). Evaluation of a Managed Alcohol Program in Vancouver, BC. *CARBC Bulletin 9.* Retrieved from http://www.uvic.ca/research/centres/carbc/assets/docs/bulletin9-evaluation-managed-alcohol-program.pdf

University of Victoria. (2016). *Overview of Managed Alcohol Program (MAP) sites in Canada.* Retrieved from file:///Users/kayleeramage/Desktop/resource-overview-of-MAP-sites-in-Canada.pdf

Vallance, K., Stockwell, T., Pauly, B., Chow, C., Gray, E., Krysowaty, 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*, 13.

Welte JW, Barnes GM. Drinking among homeless and marginally housed adults in New York State. *J Stud Alcohol*1992;53:303-15. [PubMed]

Recognition

Elder Council: *Thank you to the following Elders for their contributions, wisdom and generous sharing of knowledge.*

- Wallace Alexson – Kahkewistahaw First Nation
- Dila Provost Houle – Pikkani First Nation
- Michael Smith – Pikkani First Nation
- Janis Laboucane – Metis Nation
- Blandine Baptiste – Piikani First Nation
- Mark Strikes With A Gun – Piikani First Nation
- John Chief Moon – Kainai First Nation
- Monica Chief Moon – Kainai First Nation
- Clarence Wolf Leg – Siksika First Nation

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