Shining a Light on Alcoholism in Canada

A Synthesis Map: In Words

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Introduction

Alcohol addiction is a truly wicked problem in Canada. While the negative consequences of problem drinking are constantly projected at us, Canadians have yet to engage in the critical discussions necessary to make a lasting change. Instead, we further complicate our relationship with alcohol by using it as a tool to help us socialize, to celebrate success, to cope with difficult moments, to get a promotion, and to help us relax. Alcohol has turned into a multi-use tool in Canadian society, which results in dangerous drinking behaviours that can eventually lead to a debilitating addiction.

In an effort to tackle this problem, our team opted to look at the cycle of alcohol addiction to gain a better understanding of what the issues are, what they cost us, and how we can intervene. In order to illustrate this system and the problems involved in it, we have created a synthesis map that outlines alcoholism in the Canadian context, and its cost to Canadians, how we receive mixed messages about alcohol, the treatment options available, and then identify areas for intervention. This report is to act as a companion document to our synthesis map and allow readers to gain a more fulsome understanding of our process, findings, and how to read the map in greater detail. It is our intention to shine a light on the issue of alcoholism in Canada, address some of the problems we have identified, and ultimately educate Canadians on how to maintain positive relationships with alcohol.

Synthesis maps hold a plethora of information. We will describe our map moving from left to right and then from top to bottom.

Shining a Light on Alcoholism in Canada

The theme of the map is to shine a light on the issue of alcohol addiction and potential points of intervention. As a group, we decided to tackle this topic as we have all had alcoholism touch our lives in one way or another. We did not realize how complex of an issue it was until we began to probe further into it. There is a lot buried beneath the surface, including information that is not very transparent to the general public as it is not frequently reported on. It is for this reason that we start the map in the dark, and the flashlight then shines a light on the situation.

What is in the black areas of the map are the facts that may not be extremely surprising to the audience; however, what is in the light is the information that surprised us, and we believe that it is important for people to know. In understanding the Canadian culture of alcohol there is hope that we would be more mindful about our decisions to drink, and the reasons why we pick up the bottle and therefore curb how much we drink.

Alcohol Use in Canada

Canadians have a complicated relationship with alcohol. It is an acceptable and omnipresent part of our everyday lives; with 80% of Canadians choosing to consume alcohol (Public Health Agency of Canada, 2015). We see our parents drink as children. We watch advertisements for beer, wine, and spirits on the television. We grow up in a culture that associates drinking with fun, relaxation, and sophistication. Everywhere we turn, there's a bottle just waiting to be poured. But alcohol is also associated with self-medication, negative health outcomes, addiction and sometimes death. Despite such dangers looming large over every drink we have, Canadians see alcohol consumption as just another part of our daily lives: it is the glue that binds colleagues after a long day at work, the fix to calm our nerves on a first date, the grease on the wheels of our social lives with friends and family.

But alcohol's cultural elasticity (about which we say more below) makes us forget a fundamental truth: it is an addictive, mind-altering drug - and the consequences of its misuse range from social isolation to criminal convictions, regrettable behaviour to deteriorating mental health, and chronic illness to premature death. According to the Chief Public Health Officer of Canada, over 3.1 million Canadians drink so excessively that they risk immediate injury or harm - both to themselves and others (Public Health Agency of Canada, 2015). A further 4.4 million Canadians face chronic health problems as a result of their drinking habits, leaving them more likely to develop various cancers, liver cirrhosis, and heart problems (Public Health Agency of Canada, 2015). With 4 in 10 Canadians drinking enough to risk injury, harm, chronic health problems or death, this is certainly an issue which must be addressed (Public Health Agency of Canada, 2015).

Canada on the World Scale

Canadians are relatively heavy drinkers compared to other countries. This is partly explained by Canada being a high-income country with a low Muslim population. (The heaviest consumption, however, is in Eastern Europe.)

Highlights of World Health Organization 2010 survey (WHO, 2014)	**Canada**	**Americas**	**World**
Average consumption (litres of pure alcohol per year)	10.2	8.4	6.2
Current drinkers (% of population 15+ that drank alcohol within the past 12 months)	77%	61.5%	38.3%
Heavy episodic drinking, among population 15+ (Consumed at least 60 grams or more of pure alcohol on at least one occasion in the past 30 days)	17.8%	13.7%	7.5%
Heavy episodic drinking among 15-19 year olds	33.2%	18.4%	11.7%

Global Strategy for Prevention

The Canadian and provincial governments have already implemented many of the prevention measures recommended by the World Health Organization (WHO, 2016):

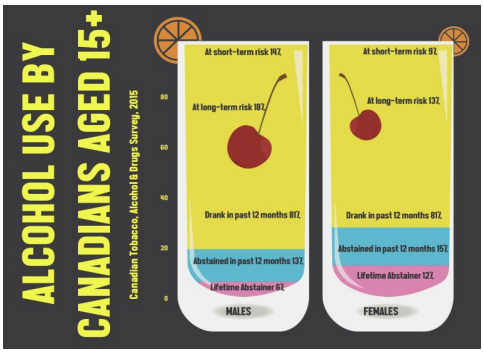
- Excise tax on beer, wine and spirits
- Legal minimum age for sales of alcoholic beverages
- Restrictions on sales: hours, days, places, density, events, intoxicated persons, gas stations
- Penalties for driving with a blood alcohol concentration above a maximum
- Regulations on alcohol advertising
- Government support for prevention, community action and monitoring

However, adding the following prevention measures could affect Canada's drinking culture:

- Restrictions on alcohol product placement, sponsorship and sales promotion
- Health warning labels on alcohol advertisements and containers

Canadian Consumption Patterns

This graph summarizes data from the 2015 *Canadian Tobacco, Alcohol and Drugs Survey* (Health Canada, 2016). This biennial survey measures consumption by interviewing over 15,000 Canadians about their drinking over the previous 7 days and past 12 months (see the questionnaire: Statistics Canada, 2015).



The survey's estimate of how many Canadians are exceeding the *Low-Risk Drinking Guidelines* (see below) is reflected in the cherries (chronic, guideline 1) and lemon slices (acute, guideline 2).

More notable results from Health Canada (2016):

- On average, 76.9% of Canadians over 15 consumed alcohol in the past 12 months.
- 15.2% of Canadians exceeded the chronic *Low-Risk Drinking Guideline* and 11.7% exceeded the acute guideline.
- 82.1% of Quebecers drank in the past year, making them least likely to abstain, but Quebec had near-average levels of people exceeding the *Low-Risk Drinking Guidelines.*

- Newfoundlanders were more likely to abstain than the average Canadian (73.7% drank in the past year). But Newfoundlanders were the most likely to exceed both of the *Low-Risk Drinking Guidelines* (20.3% chronic, 15.7% acute).
- The average adult, aged 25+, started drinking at age 18.7.
- 59.1% of youth ages 15-19 had consumed alcohol in the past 12 months.
- College-age Canadians are more likely to exceed both of the *Low-Risk Drinking Guidelines* than younger and older age groups:

Exceeds Guideline	Ages 15-19	Ages 20-24	Ages 25+
1 Chronic	9.1	**22.9**	15.0
2 Acute	6.6	**19.4**	11.4

Low-Risk Drinking Guidelines

Canada's *Low-Risk Drinking Guidelines* (CCSA, 2013) are provided as a brochure for the general public, and as more detailed guidelines for family doctors and other health practitioners for advising their patients about alcohol use.

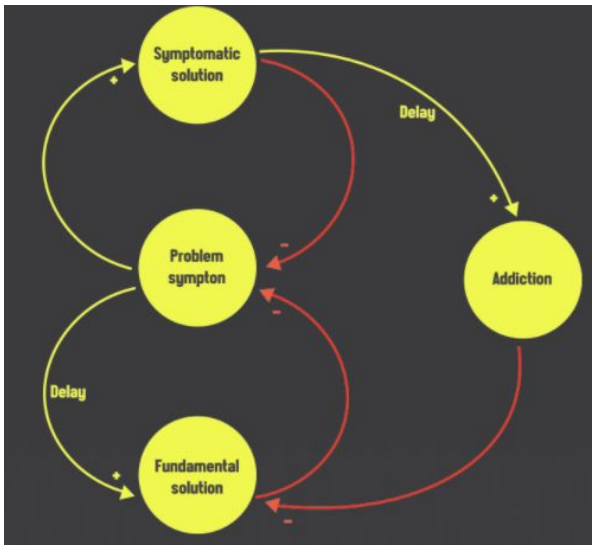
These guidelines were based on evidence compiled by Butt, Beirness et al (2011). Our map illustrates guidelines 1 and 2, and the following chart further summarizes CCSA (2013):

Guideline	**Women**	**Men**	**Everyone**
1 (Chronic) Reducing the risk of long-term alcohol related harms	0-2 drinks/day 0-10 drinks/week	0-3 drinks/day 0-15 drinks/week	Some non-drinking days
2 (Acute) Reducing the risk of short-term alcohol related harms	No more than 3 drinks in one day (occasionally)	No more than 4 drinks in one day (occasionally)	Combine with food & non-alcoholic beverages; avoid risky

			situations
3 (Contraindications)	Abstain when driving, operating machinery, working, sports, responsible for others, taking medication that interacts with alcohol, etc.		
4 (Pregnancy)	Abstain when pregnant, breastfeeding, or planning to be pregnant		
5 (Youth)	Delay drinking until age 18 or 19. Until age 24, never exceed 2 drinks/day (women) or 3 drinks/day (men).		

Alcohol as a Systemic Problem

Alcoholism is an example of a system archetype known as "Shifting the Burden." In this archetype, the tension between symptomatic and fundamental solutions to a problem produce a negative side-effect. Symptomatic solutions tend to be relatively easy and more immediate, while fundamental solutions only arise over longer periods of time and with significant effort.



Many alcoholics drink to escape emotional distress. This self-medication serves as a symptomatic solution to the problem symptom of mental anguish. A fundamental solution to this problem would be to directly confront the source of the symptom - to engage with and work through the trauma, loneliness, shame and grief that the alcoholic desperately tries to escape through drinking. But improving our mental health takes time and effort - and for many, it is a lifelong struggle. Reaching for the bottle produces an immediate effect with minimal effort. But a reliance on the symptomatic solution of drinking leaves the actual problem unresolved. It can develop into a dangerous addiction that prevents the alcoholic from reaching

the solution of confronting their pain and learning to move on from it - or at least leave with it - in a manner that is healthy, and that contributes to a more meaningful sense of self.

Stakeholders

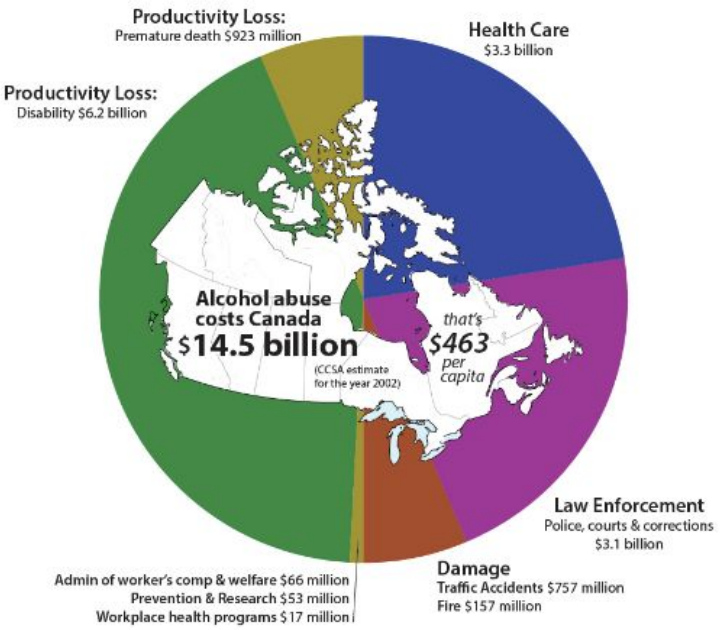
Alcohol abuse falls into a complex system with various stakeholders. While the primary stakeholder is the individual who is consuming alcohol, there are many others found throughout the system. They include family, friends and peers, medical professionals, the location of care, as well as government. Each stakeholder has a potential role to play as we endeavour to break the system of addiction. In finding an opportunity for intervention within the system, these stakeholders will need to be involved to ensure that the interventions can be successful. While each stakeholder may not directly influence the individual at the center, they are all intertwined at some point along the way. Some have relationships with multiple stakeholders with varying degrees of influence, such as government, which funds hospitals and social services, regulates therapists and counselors and administers the criminal justice system. On a social level, an alcoholic's family and friends have the potential to wield a tremendous amount of influence over their decisions - for better or worse. Such relationships present a myriad of potential intervention points to improve alcohol abuse prevention and rehabilitation efforts in Canada that include social, financial, educational and legislative avenues (Boltwood et al., 2017).

The Increasing Cost of Alcohol Abuse

If you're like the average Canadian household, you'll spend $858 a year on alcohol consumption (Public Health Agency of Canada, 2015). Considering 22 million of us partake in the occasional glass of wine or pint of beer, it comes as no surprise that alcohol is a big money maker. In fact, Canadians spend roughly $20.1 billion on alcohol every year (Public Health Agency of Canada, 2015). However, the financial impact of alcohol consumption is not just

found on our dinner bills or bar tabs, we feel it in hospital and police budgets, disability payments and productivity losses, prevention programs, and research.

We don't just pay for alcohol consumption with our wallets; we also pay for it with our physical and mental health - and sometimes our lives. In the short term, alcohol consumption is responsible for psychosis, delirium, vision impairment, risky behaviour, decreased motor functions and poor decision-making. In the long term, alcohol abuse is linked to anxiety and depression, strokes, brain damage, heart disease, hypertension, cancer, liver failure and premature death.



While alcohol is mostly seen as something fun, social and positive, excessive drinking and abuse of alcohol can have serious negative costs to the Canadian economic system (Public Health Agency of Canada, 2015). Alcohol abuse costs Canada $14.1 billion dollars yearly. This includes a great cost to the healthcare system, of $3.3 billion dollars, as well as law enforcement, damages and productivity losses due to premature death. However, the largest associated cost is productivity loss due to disability; where the problem has spiraled out of control so badly that one needs to remove themselves from work, and essentially from the social and economic system as they are no longer able to fully function within it.

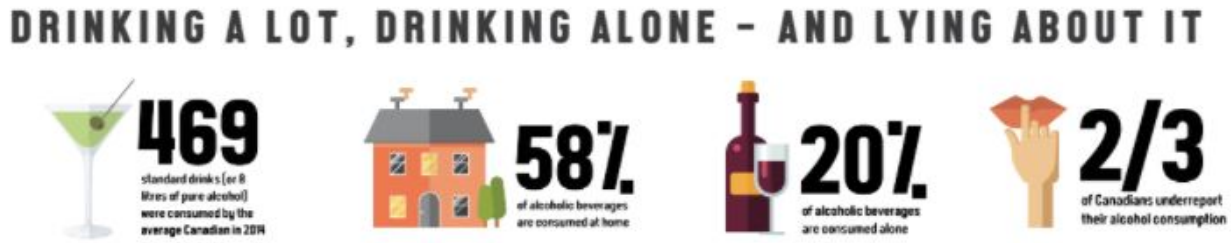
It is clear that Canadians drink a lot, potential more than the average person would assume. This goes to show that this is a larger problem than we think. It is just hidden.

Alcohol-Related Hospitalizations and Deaths

As previously stated, Canadians have a complicated relationship with alcohol, and our inability to appropriately understand this relationship is having significant societal impacts. Beyond the monetary costs of alcohol abuse in Canada, perhaps the most startling consequence is the rate of hospitalizations and deaths that it is responsible for on an annual basis. These are the costs that cannot be recovered. The lack of critical dialogue around alcohol consumption and the resulting ambiguity surrounding the role of alcohol in our society has resulted in a “fuzzy line” around alcohol abuse, which has resulted remarkable societal impacts.

According to Ramstedt (2005), alcohol abuse is a critical factor in 25% of all suicides in Canada. This is a shocking statistic as it highlights the use of alcohol as a coping mechanism, further illustrating our complicated relationship with it. In addition do this, the *Strategies to reduce alcohol-related harms and costs in Canada: A comparison of provincial policies* (Giesbrecht et al, 2016) report indicates that alcohol consumption played a vital role in 34% of automobile crash deaths, and is responsible for 8% of all deaths under the age of 70 and 7% of all hospitalizations in Canada. Although these numbers do not present as being as significant as the monetary costs, it is important to recognize that the cost of a life is immeasurable. Once lost, human lives cannot be recovered, and the ripple effect this has on families, friends, and loved ones is impossible to measure.

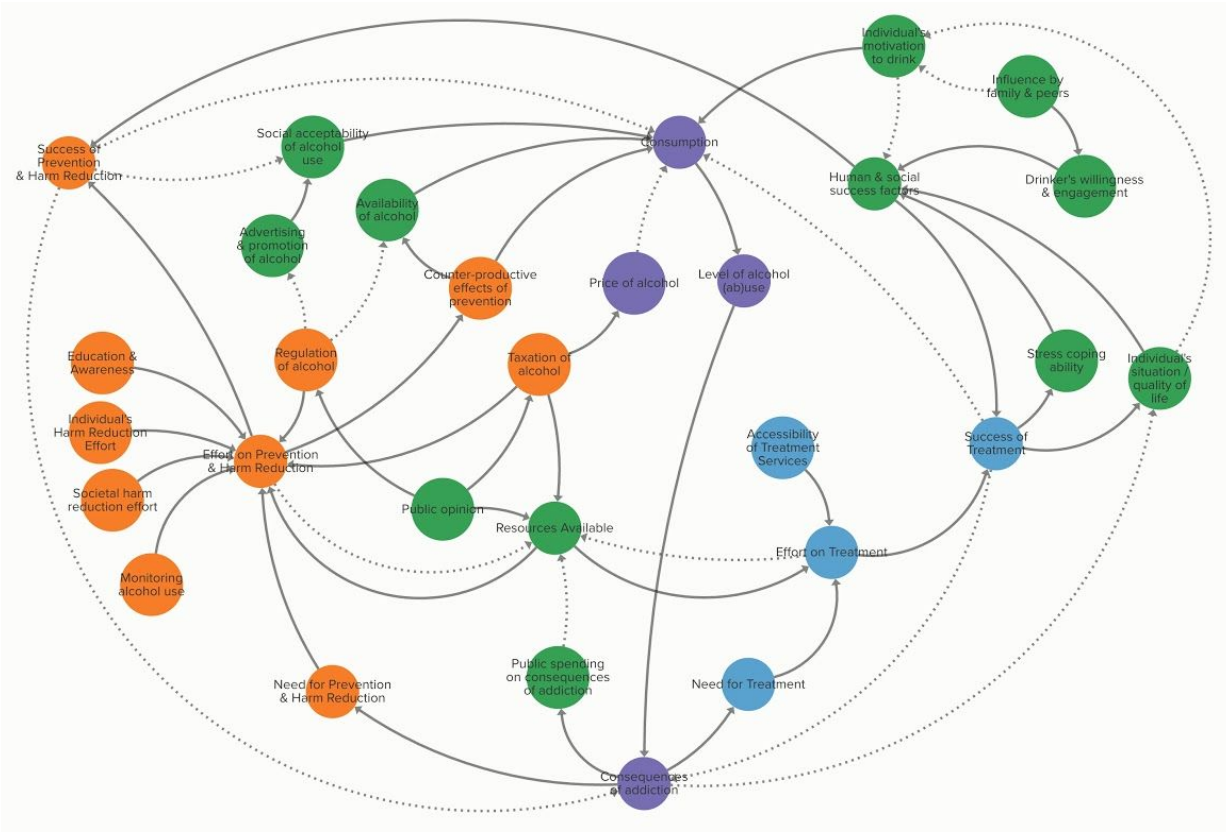
Drinking Alone and Lying About It



These numbers struck us as surprising that Canadians drank so much and predominantly in their home. Most of all, the amount of Canadians who drink alone is quite high at 20%, and if we can assume that ⅔ of Canadians underreport their consumption that this number would be higher (Boesveld, 2015). Alcohol consumption seems to be a dirty little secret that people do not want to talk about with any sort of real truth because in doing so, it could highlight a true problem that would, therefore, need addressing.

A Complex System, a Wicked Problem

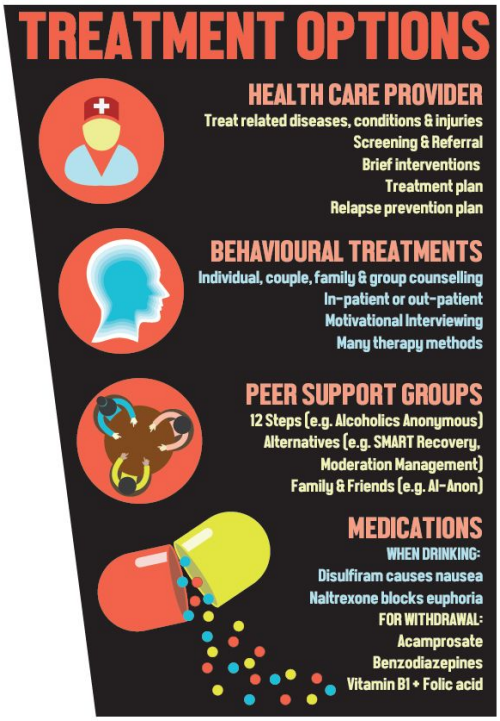
Alcohol use is part of a complex social system, as demonstrated in this causal loop diagram from our earlier research (Boltwood, Hogan et al, 2017). (Solid lines indicate one variable influencing another in the same direction. Dashed lines indicate that the related variables move in opposite directions.)



An individual's consumption is influenced by their genetics, family background, education, advertising & mass media, subcultures, work environment, life stressors, and level of physical dependence on alcohol. When high alcohol consumption leads to widespread negative health and social consequences, policymakers are likely to act to increase prevention efforts (including regulation, taxation, and education) as well as to improve access to treatment for alcoholism. But the success of prevention and treatment depends not only on policy and funding, but on human factors: cultural expectations, social pressures, family support, and personal mental health.

And so we conclude that alcohol abuse is a "wicked problem" (Rittel & Webber, 1973). There are many reasons for drinking and consequences of addiction; it is difficult to define the problem or discern solutions. Any intervention in alcohol abuse, of an individual or throughout society, will have unpredictable results that cannot simply be reversed.

Treatment Plan Options



Throughout our discussions about treatment, it became abundantly clear that although treatment is available, there are significant areas for intervention with respect to the way treatment is offered, how it is accessed, and who should be involved. In spite of the fact that there are a variety of treatment options available to those suffering from alcoholism, and their families, we found ourselves wondering: are any of them right?

The process for accessing treatment for those dealing with alcoholism, as well as their families, is wrought with significant barriers that can be overwhelming for all involved. Common knowledge tells us that one of the most difficult aspects of dealing with alcoholism is first recognizing and admitting the problem. Once a person has completed this crucial step in their recovery, they may believe that their next step, accessing treatment, is the easy part. Unfortunately, for many addicts, accessing treatment is an overwhelming and convoluted process, where there is difficulty determining a clear path to appropriate treatment methods for an individual. This may require addicts to re-tell their story as they struggle to find their path to success.

There is no one-size-fits-all treatment method that will be effective for every person with an alcohol use disorder. One of the principles established by the US federal Substance Abuse and Mental Health Services Administration is “Recovery occurs via many pathways” (del Vecchio, 2012). Thus, someone suffering from alcohol addiction needs a treatment plan composed of the many options available.

Throughout our research, we have identified four treatment categories: Healthcare Providers, Behavioural Treatments, Peer Support Groups, and Medications.

Healthcare Providers

Healthcare providers look at addictions treatment through a medical lens. Treatment from healthcare providers typically involves a screening and referral process, which includes brief interventions and relapse prevention plans. It is important to consider relapse prevention as part of the treatment process as it "seeks to identify high-risk situations in which an individual is vulnerable to relapse and to use both cognitive and behavioural coping strategies to prevent future relapses in similar situations" (Donovan and Marlatt, 2008, p. 1). With the ultimate goal being to "provide the skills to prevent a complete relapse, regardless of the situation or impending risk factors" (Donovan and Marlatt, 2008, p. 1).

Furthermore, Canadian family doctors and other health professionals now have the Screening, Brief Intervention, and Referral, also known as SBIR, (CFPC, 2012), a guide to identifying and assisting patients who exceed the Low-Risk Drinking Guidelines (CCSA, 2013). This SBIR guide outlines motivational interviewing, medications, peer-support groups, and withdrawal management.

Behavioural Treatments

Behavioural treatments are similar to services offered by traditional healthcare providers, but with a focus on mental health over physical health. Behavioural treatments include individual, couples, family, and group counseling for those suffering from alcoholism, and many other therapy based methods that can be either in-patient or out-patient. Included in this is a unique treatment method called motivational interviewing, which "is a directive, client-centred counseling style for eliciting behaviour change by helping clients to explore and resolve ambivalence" (Miller and Rollnick, 1995).

Peer Support Groups

Often when we think of treatment for alcoholism, we conjure up images of peer support programs. This type of treatment allows addicts to attend peer-based support programs such as Alcoholics Anonymous and other alternatives to learn techniques such as moderation

management, or abstinence strategies. Furthermore, peer support groups such as Al-Anon exist to help support families, friends, and loved ones and assist them in learning to appropriately support those managing an alcohol addiction.

The SBIR Process (CFPC, 2012) for conducting outpatient withdrawal recommends Alcoholics Anonymous without mentioning the secular alternatives to 12-step groups. The SBIR guide also recommends against sweat lodges, because of dehydration, rather than advising health professionals how to integrate Indigenous culture into alcoholism treatment. These are examples of the limitations on health-professional knowledge that can, in turn, limit an alcoholic's treatment options, and thus limit their ability to recover.

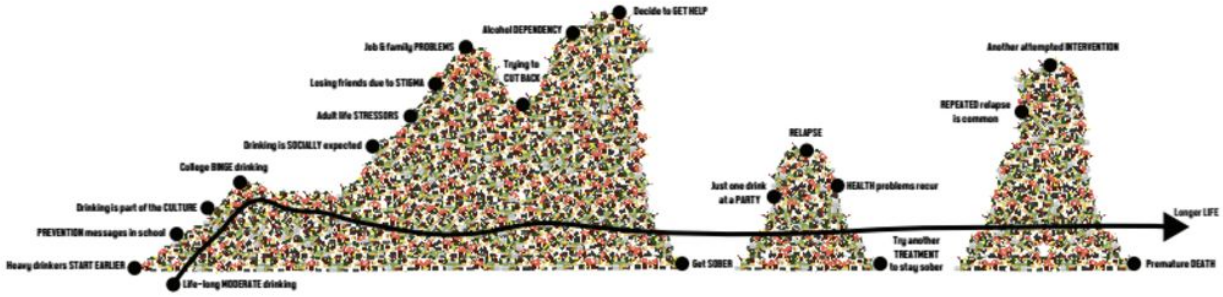
Medications

Another relatively common practice for the treatment of alcoholism is the use of medications. Medications are used to help addicts through their recovery journey in two different ways. Some medications are used to help addicts manage cravings, and others are used to help quell withdrawal symptoms. These medications can be used in conjunction with other treatment methods.

As stated, while there are many options for treatment available to alcoholics, it is difficult for them to understand what methods will best suit their needs. Given that this process is difficult to navigate, it can leave people feeling helpless and frustrated. Critical analysis and evaluation of treatment methods are addressed throughout this report.

In compiling our list of treatment options, we referred to: NIAAA (2014), Practical Recovery (n.d.), CFPC (2012), Brande (2016), Gorski (2003), Harmon (2011), Huebner (2011), DeSimone et al (2014), as well as peer support group websites for Al-Anon (n.d.), LifeRing (n.d.), SMART Recovery (n.d.), and Moderation Management (n.d.).

Alcohol's Influence Along the Life-line



This graphic represents the fluctuations in alcohol consumption levels by two composite personas: a life-long moderate drinker (the black line) and an alcoholic (the piles of coloured bottles, with representative events as follows).

Event	**Discussion**
Heavy drinkers start earlier	Drinking before age 14 is associated with later alcohol abuse, according to WHO (2014). Mattick et al (2017) found that adolescents supplied with alcohol (by anyone) were likely to start drinking earlier. But if parents supplied the alcohol, the adolescents were less likely to binge drink.
Prevention messages in school	"Public health units across the country collaborate with school boards, parent groups and community partners to plan and support alcohol-related education and awareness." (CCSA, n.d.-b)
Drinking is part of the culture Drinking is socially expected	"...people drink: to be social, to create a positive mood, to cope, or to conform" (Public Health Agency of Canada, 2015). See Mixed Cultural Messages below.
College binge drinking	See the statistics about young people in Canadian Consumption Patterns and Canada on the World Scale. Youth drinking is influenced by social pressures, but may also be a way of coping with academic and personal stress (Public Health Agency of Canada, 2015).
Adult life stressors	Alcohol may be used as a way to cope with the stress of life transitions (marriage, divorce, starting or losing a job, becoming a parent) or other difficulties with family, finances, etc. (Public Health Agency of Canada, 2015).

Losing friends due to stigma	From our personal experience, people may avoid socializing with a peer who drinks to excess. This may be due to stigma, a reluctance to make an intervention with the drinker, or a reluctance to watch them decline into alcoholism. See further discussion below.
Job & family problems	"Both the drinker and others may be affected by the consequences, such as job or productivity loss, break-up and dysfunction in family life, including domestic violence. This in turn can result in harm to physical or mental health" (WHO, 2014).
Trying to cut back Alcohol dependency	Once made aware of their heavy drinking's impact, a person may decide to reduce their consumption levels. If the person has become physically or psychologically dependent on alcohol, they are likely to return to higher consumption levels.
Decide to get help Get sober	The heavy drinker recognizes their problem, starts a treatment program, and stops drinking. This may include medical assistance with withdrawal symptoms.
Just one drink at a party Relapse	"People with drinking problems are most likely to relapse during periods of stress or when exposed to people or places associated with past drinking." (NIAAA, 2014) Gorski (2003) discusses triggers for relapse.
Health problems recur	Alcohol use disorders can cause many diseases, conditions and injuries. The health consequences are summarized by the World Health Organization (WHO, 2014) and by the Public Health Agency of Canada (2015).
Try another treatment to stay sober	A treatment that "may work for one person may not be a good fit for someone else". (NIAAA, 2014) See Treatment Options.
Repeated relapse is common	"Relapse is common among people who overcome alcohol problems." (NIAAA, 2014)
Another attempted intervention	"Support from friends and family members is important in overcoming alcohol problems" (NIAAA, 2014)
Premature death	"In 2002, 4,258 deaths in Canada were related to alcohol abuse. The majority of these deaths were due to alcoholic liver disease, motor vehicle accidents and alcohol-related suicides." (Public Health Agency of Canada, 2015)

Mixed Cultural Messages

Alcohol consumption in Canada is motivated by wildly different and often contradictory cultural messages and perceptions. It is socially acceptable and sometimes encouraged to drink alcohol for a wide variety of purposes: to celebrate, to relax, to take the edge off a bad day. Despite this liberal attitude towards drinking, alcohol dependency and abuse are socially stigmatized and arbitrarily defined: at what point does one cross the threshold from irresponsible drinking to life-threatening addiction? Is there a difference between the two? And if so, does it matter?

Alcohol has played a part in Canadian history and culture for a long time. It has become so ingrained that it has shaped our drinking behaviours and redefined the norms seen by society (Public Health Agency of Canada, 2015). The image of a man in plaid holding out a beer defines the Canadian stereotype.

Living in a multicultural society with many immigrants, alcohol is something that many people have in common. To illustrate this, Wooksoo Kim's 2009 study entitled Drinking Culture of Elderly Korean Immigrants in Canada: A Focus Group Study discusses the drinking culture of elderly Korean immigrants in Canada. The study indicates that alcohol consumption rates of Korean immigrants are lower than their white counterparts, but also that the Korean immigrants "modified their drinking behavior in accordance with the social and legal environment of their new country" (Kim, 2009). To reinforce this, in a recent World Cafe held by OCAD students, Hogan, Spiegel & Woods (2017), one participant stated that as she is 'brown and Pakistani' people often don't know if she will drink or not, and when she does, there is a sense of relief from others, that now they'll have something to talk to her about.

Drinking is a part of not only adulthood but also the experimentation phase that teenagers experience as they get older. The expectations put on youth are however unrealistic, and education on alcohol and low-risk versus high-risk drinking is weak. People are expected to abstain from drinking until 18 or 19 years of age, and then drink responsibly from then on. It is clear that this does not occur as Health Canada (2015) reported that 59% of 15-19 year old Canadians drank alcohol in the past month, and college-age Canadians were most inclined

towards excessive drinking (see statistics above). The cultural norm of youth drinking still occurs, despite the drinking-age laws and the known risks that can occur to teenagers as their brains have not fully developed (Public Health Agency of Canada, 2015).

The media does not help in this. According to Snyder et al. (2006), alcohol advertising is a contributor to increased drinking amongst teenagers, resulting in an increase in drinking within this age group over the past couple of years. The media also provides people with conflicting messages. We hear that drinking is the cool thing to do, it is what young, successful professionals do to have fun. But we may also get the message that drinking is a dangerous activity and that people's lives are falling apart because of alcoholism.

Regardless of the situation, alcohol is present. While the media presents mixed messages, so does the health research. We are told that drinking is dangerous: it can severely pose negative effects on the heart, liver, and brain and impact a person's mortality (Public Health Agency of Canada, 2015). On the flip side, there have also been reports that moderate drinking has been linked to reducing cardiovascular problems. So how is the population expected to understand the risks and benefits, and weigh whether to drink or not and how much is acceptable?

Canadians have a perception of what alcoholism looks like, and generally do not identify themselves as fitting that image. Cultural Probes were recently examined, and the ones that asked participants to draw what alcoholism looked like had some interesting insights (Hogan et al., 2017). They drew disheveled looking men, looking tattered and worn. If this is our cultural view of alcoholism, then it would likely be very hard to self-identify a problem.

Most also perceive alcohol as a social and fun part of life. A photo of a table littered with alcohol bottles represents a fun night out with friends. A recent social media study (Addict Aide, 2016) explored how easy it can be to miss the signs of alcoholism. They created a fake account and posted three photos a day of a young woman, holding some sort of alcoholic beverage in every image. The photos amassed 50,000 likes, and there were no comments about this potentially being an issue.

The ‘Fuzzy Line’

Our group discussed the concept of what we called ‘The Fuzzy Line’ a lot in our research and the creation of the synthesis map. The Canadian culture aids in creating this fuzzy line although it has no real definition and, it could be said, that many do not realize its existence.

The Chief Public Health Officer of Canada acknowledges that in spite of its risks, alcohol is a socially-accepted drug - so long as you are not underage, pregnant, driving, or violent. There is a stigma both for abstainers and for alcohol abusers. Alcohol has health and social benefits as well as risks (Public Health Agency of Canada, 2015). So lay people need to dissect many conflicting messages about alcohol, from mass media, advertising, and even health literature.

We know that Canadians drink, and they often begin to do so in teenage years, with binge drinking episodes occurring during college and university years (Public Health Agency of Canada, 2015). No one seems to question this period in a person’s life, nor do they question how much alcohol is being consumed or considering the health risks attached.

Interestingly, there seems to be a point along the timeline of life, where all of a sudden a person can cross over the line of acceptable drinking to stigmatized drinking. What this magic number is, is undetermined, unclear, unpredictable and inconsistent. It seems to depend on age, life responsibilities, the ability to function, as well as the drinking patterns of peers. If one stops meeting the societal norms and expectations, they have crossed the line.

According to the World Health Organization, “When an individual crosses culture-specific boundaries [of acceptable drinking behaviour], he or she may experience socioeconomic consequences such as loss of earnings, unemployment or family problems, stigma, and barriers to accessing health care.” (WHO, 2014)

Furthermore, it is not clear to people when or how they should intervene in someone’s heavy drinking. At what point has a drinker crossed that fuzzy line, justifying that socially-awkward intervention? What is an effective way to suggest that your loved one, friend

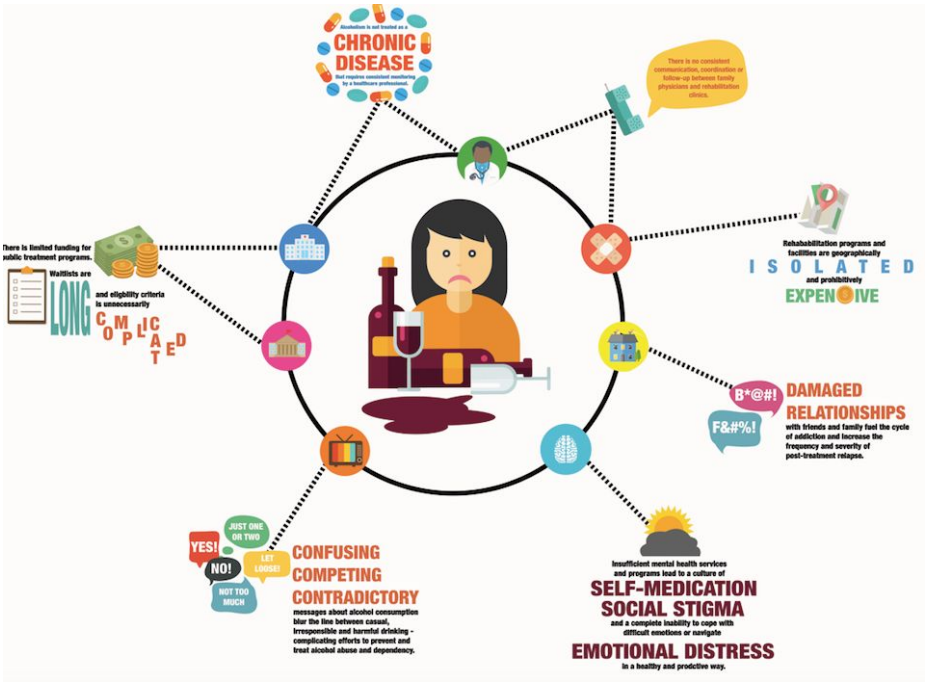
or coworker get help? Is it hypocritical to tell your drinking buddy that they are drinking too much?

The fuzzy line is a real reason that we need proper education to eliminate stigma and increase awareness of this issue, as we recommend below.

Insights

Through rigorous research and inquiry, we were able to identify seven problem areas that are ripe for positive intervention:

1. Inadequate medical classifications of alcoholism
2. Lack of coordination and communication between health professionals (i.e., family doctors) and addiction treatment centers
3. The physical isolation and high costs associated with most rehabilitation programs
4. The negative ripple effects that damaged personal relationships can have on recovery efforts
5. Insufficient education and training in handling emotional distress without self-medication
6. The confusing and contradictory messages around alcohol consumption
7. Underfunded public treatment programs with unnecessarily strict eligibility requirements .



Inadequate medical classifications of alcoholism

Alcoholism can seriously damage one's physical, emotional and mental health. Despite how obvious this observation is, it is not reflected in how society - or even the medical community - sees it as a disease or its treatment. Most medical professionals regard alcoholism as a pathological or behavioural problem with negative impacts on one's health, but there are some in the medical community who believe our understanding of alcoholism must be completely redefined. For example, there is significant evidence that points to alcoholism as a more chronic, long-term condition that requires constant follow-up with medical professionals, alongside medical treatments such as anti-alcohol drugs (T. McLellan et al., 2000). There is a significant risk of over-medicalizing what in many cases is the product of emotional distress and declining mental health, but even in these situations, there appears to be little reason why alcoholism shouldn't be treated with ongoing visits to one's family doctor and other medical professionals. By shifting our understanding of alcoholism from an acute behavioural problem to one of chronic disease that requires long-term management, we can radically alter how we understand alcohol addiction and help those struggling to get free of its grasp.

Lack of coordination between health professionals and addiction treatment centres

Our limited conception of alcoholism also informs other aspects of treatment. Most notably, beyond the detox phase upon entering rehab, there is little-to-no involvement of medical professionals. More alarmingly, because many rehab clinics are private entities that are unconnected to public healthcare systems and facilities, there is virtually no communication between or coordination with one's personal medical professionals (Markus Heilig, 2015). This is not only true of addictions treatment but also mental health treatment programs: while your family doctor might prescribe you antidepressants, your therapist will likely have no knowledge of that unless you volunteer to tell them yourself. This lack of coordination makes long-term management and follow-up difficult, if not impossible, and many addictions researchers and professionals believe it might be a large factor in high and early relapse rates among recovering alcoholics (Ibid).

Physical isolation and high costs of rehabilitation programs

When most people think of rehabilitation programs, they often think of facilities in the woods or by the beach, where addicts are treated away from the stresses of their everyday lives. But most of these programs are privately owned and extremely cost-prohibitive. This means that alcoholics of more modest economic means often struggle to access the help they need unless they can be covered by insurance plans or employers - neither of which are common practices (T. McLellan et al., 2000). While some public programs exist, they have their own access barriers that will be addressed below.

Another issue with rehabilitation programs as we understand them is that they are largely inpatient - meaning that participants must give up weeks or months of their lives to seek treatment, often in an isolated location. While our common assumption is that a wellness centre in Muskoka provides a more comforting and quiet environment in which to seek recovery, some addiction professionals have voiced concerns over the institutionalization of what is nothing more than a response to human suffering (Mate, 2008). If we are to take that view of alcoholism,

then isolating someone away from their real lives seems to be counterintuitive to the healing process. A quiet lake in the far north might be a more comfortable place in which to explore difficult memories, traumas or emotions, but it is also a place insulated from the stresses of people's real lives.

Negative ripple effects of damaged personal relationships on recovery efforts

Many alcoholics inflict serious damage on their personal relationships with friends, family, colleagues and loved ones. Some might do this through violence or abuse, others through neglect and yet others through sheer emotional despondency. Even a "high functioning alcoholic" often suffers from broken social bonds with those they love because of their drinking habits. While this reality is commonly understood to be an unfortunate consequence of alcohol addiction, medical evidence suggests that it has very real effects on an individual's ability to recover and return to a happy, healthy life.

In particular, Vuchinich and Tucker (1996) conducted a study on the relapse rates of patients with different levels of damage to personal relationships before entering treatment and found a surprising discrepancy between those who had serious breakdowns of their social lives before treatment and those who did not:

"Results showed that the more participants' pretreatment alcohol consumption had impaired their intimate relations, family relations, and vocational functioning, the more likely posttreatment events in these areas were to be associated with drinking episodes. Posttreatment drinking episodes preceded by events were more severe than those not preceded by events, which suggests that relapses and lapses may be differentiated by the environmental conditions that existed before and when drinking begins." (Vuchinich and Tucker, 1996)

What studies like these indicate is that getting family, friends, colleagues and loved ones to develop a compassionate understanding of what an alcoholic is going through *before* they

enter treatment can have significant and positive effects on their recovery process and limit both the chance, frequency and severity of relapses.

Insufficient education and training in handling emotional distress without self-medication

Many alcoholics drink to escape difficult memories, traumatic events or disturbing emotions. But emerging science and research is telling us that perhaps the most productive, healthy and beneficial way to move beyond these thoughts is not to move beyond them at all, but to be present with them. The destigmatization of mental health has opened up important space to discuss how we handle our emotions, and in a culture of instant gratification, we naturally turn towards more immediate fixes that do not address the underlying cause of addiction. This is why we chose to highlight alcoholism's similarity to the "Shifting the Burden" systems archetype.

Similarly, the rise in mindfulness as a scientific and therapeutic practice is showing positive signs of success in treating anxiety, depression and negative emotional responses to stress, trauma, and illness. Dr. Gabor Mate wrote about such an important shift in our thinking about addictive behaviour in his fascinating book "In the Realm of Hungry Ghosts," in which he draws on decades of his experience working with drug addicts in Vancouver's Downtown Eastside to conclude that most addictions - while requiring medical detox, follow-up, and treatment - are responses to physical, mental, emotional and spiritual pain (Mate, 2008).

As a society, we do not teach children - or anyone for that matter - tools and methods to cope with emotional distress in a healthy way. We ask people to talk to someone or to seek help, but as someone struggling with a deteriorating sense of self continues to drink dangerously, it becomes harder and harder for them to reach out. We need, to be honest about the human experience, and know that we will face moments of intense pain, desperation, and loneliness - and once we recognize and accept that fact, then it is imperative upon us as a society to develop policies, platforms, tools and resources to prepare people - particularly young people - to face these moments without reaching for the bottle.

Confusing and contradictory messages around alcohol consumption

As noted previously, our society gives people wildly contradictory messages about alcohol consumption. It is simultaneously the relaxing reward after a stressful day and the dangerous drug of self-medication. With such extreme classifications - and much more in between them - it is no wonder that people struggle to get a hold on their drinking habits. One of the consequences of this confusion is that personal alcohol consumption has largely been moved behind closed doors and into the privacy of one's home. Almost 60 per cent of drinks are consumed in one's home, and 20 percent are consumed entirely alone. Such patterns exhibit how confusing messages, shame and stigma around alcohol consumption and dependency are driving dangerous habits into areas where people might not see them - even those closest to someone struggling with addiction.

This is truly a wicked problem if there ever was one. Reorienting our cultural messages around alcohol consumption to foster healthier relationships with alcohol, while warning of the dangers of overconsumption without pushing people underground or publicly shaming them is a difficult, complex and nuanced task.

Underfunded public treatment programs with unnecessarily strict eligibility requirements

Some public treatment programs do exist for alcoholism, but as with much of Canada's public healthcare system, they are underfunded, and waiting lists are long. Most public programs are detoxification-only and are not meant to be more lengthy treatment programs involving counseling or support groups. But one particularly challenging aspect of these programs is a set of strict eligibility requirements that seem counterproductive at best and unrealistic at worst. One website describes the steps that an individual must take to qualify for any assistance from the Ontario Health Insurance Plan:

1. You will need to be sober (A medically-supervised withdrawal unit is suggested for those with severe alcohol use and dependency).
2. Once you are sober, book an appointment with a drug and alcohol counselor at the closest local mental health and addiction office.
3. The counselor will likely (1) refer you to an outpatient program as an interim solution and (2) put you on a waitlist for a residential treatment program.
4. Once waitlisted, it is important to stay sober before your intake date (which could be weeks to months). This means going to peer-support meetings, attending outpatient therapy, keeping busy and not becoming idle (e.g. volunteering, going to the gym, or anything that will keep you occupied until it's treatment time).
5. Once in residential treatment, clients will spend their time in an intensified treatment program. With the pre-treatment sober time and new personal knowledge and understanding of coping, relapse prevention, and self-awareness, a person can hopefully return home and learn to flourish in life.

Asking an alcoholic to stay sober for months to access treatment to become sober seems almost cruel, but at the very least ineffective. The vast majority of people struggling with alcoholism do not have tens of thousands of dollars to spend on private rehab programs, and therefore might naturally seek help from the public system. As it stands now, they will likely find themselves without much formal support.

Solutions and Areas for Intervention

We have divided our intervention recommendations into three categories: strong connections, smart treatment and sound minds.

Strong Connections

As there currently is no formal connection between rehabilitation and medical professionals, or any avenue in which someone suffering from alcohol addiction can seek help, we recommend regular communication between interested parties and stakeholders (McLellan, 2002). As there is no formal 'one patient chart' in Canada, due to a diversity of

health information systems that do not communicate, it is imperative for communication to happen for all parties to be on the same page and have the same expectations. This also removes some of the onus off the alcoholic to have to repeat their story many times, remember important details, etc. The health teams need to be more involved to have a stronger action plan in place to properly address the patient's issues and provide adequate support and follow-ups.

Our personal experience with loved ones in the rehab system has shown that families and loved ones may be quite removed from the process. With a stronger integration of loved ones, there is a greater chance for proper education, empathy, and support for the alcoholic and therefore a greater chance that they will be able to stick to their rehabilitation plan and not suffer further relapses. In involving families and loved ones, they will better be able to spot early signs of alcoholism and know how to intervene in a positive way.

Smart Treatment

While primary health care physicians are taught about screening for dangerous addiction patterns, conversations with patients need to be happening earlier and more proactively. In doing so, proper education can be given as early as adolescence and to catch warning signs earlier on. This is encouraged by the new Screening, Brief Intervention and Referral guidelines (CFPC, 2012).

Getting into an alcohol treatment program can be quite difficult, as described above: there are long waiting lists, and many centres require patients to be sober before being able to attend). There needs to be an increase in funding as well as a revision of eligibility requirements for these programs so that they can be more accessible.

Treatment plan goals need to be revised. Most treatment programs look towards full abstinence as a sign of success. The Moderation Management movement posits that some people can have a positive relationship with alcohol, with controlled drinking; the key is to

understand what one needs to cope with negative or positive emotions. Treatment plans, therefore, need to be more inclusive and adaptive to individual needs to determine what works.

Sound Minds

Dr. Gabor Mate (2008) wrote “Not all addictions are rooted in abuse or trauma, but I do believe they can all be traced to painful experience. A hurt is at the centre of all addictive behaviours. The wound may not be as deep and the ache not as excruciating, and it may even be entirely hidden - but it’s there”. As many individuals drink to cope with pain, a learned behaviour, they choose to use alcohol to numb the hurt. Early education and training in handling emotional distress and coping with stress will allow for individuals to be more mindful.

Strategies must be developed to shift Canada’s drinking culture towards a more careful and responsible consumption. In being more thoughtful about the reasons we are choosing to drink, and how much, we can be more cognisant about when we are going too far, and be more aware of when to stop.

Improved prevention programs could educate Canadians about how to have fun without alcohol, for example, How to host a sober party (Coffey, 2016). People organizing social and professional events should consider that if alcohol is served, some recovering alcoholics will not be able to attend, thus reinforcing their marginalization from society. Rectifying this would require educational messaging to event organizers, and providing affordable venues other than pubs.

As the stigma around alcohol is still quite prevalent, and quite unfair, education on social consequences and intervention strategies will help to combat this. The truth is that there is no one, defined, visualization of an alcoholic, it can be anyone, and everyone deserves to obtain help.

Appendix: Reflections

Alana

I was pleased to learn the Synthesis Map process. Next time my consulting client needs to describe their complex social system, I plan to make a large-format poster. I enjoy the "state of flow" when designing graphics, though I don't enjoy aggravating my repetitive strain injury with precision Adobe Illustrator work.

My strong training in compiling statistical evidence was expected to be helpful in this assignment. It also turned out to be a source of struggle with team-mates who wanted to map the human issues rather than show detailed numbers. Reflecting back, this may have been because we had different ideas of who our audience is.

For our synthesis map to be an effective influence on policy-makers, we would need to become (or bring in) experts on the vast literature of alcohol-use research. We would need more than 3 months of part-time work to do more iterations of hypothesizing, researching and communicating our conclusions. It was difficult for me to know what to prioritize within this assignment's constraints.

Creating this map was, for me, a good exercise in highlighting the information most relevant to a wide audience. It also gave me confidence in my ability to do collaborative graphic design.

Ashley

I found myself feeling frustrated for a good deal of the semester by how abstract this assignment was. The lack of rules, and how-to’s was difficult for me to wrap my head around, and all I knew was that I innately felt the need for the map to tell a story and hold a narrative as our topic is so ingrained in the behaviour of humans. In the end, after the practice run in class, I feel very proud of our group, and ultimately quite proud of myself. We really leveraged our individual strengths and worked as a team in order to get this done efficiently. Our map is

beautiful and I am thankful for those who were able to visually pull it together. At the beginning of the semester I had volunteered to try my skills at Adobe software so I could learn. With such tight timelines this no longer felt plausible and actually just sounded so stressful. I was so thankful to have a group member who had excellent skills (although before doing the synthesis map I don't think he would have thought he did...I sure hope he sees his talent now!). In seeing the positive reactions of our map, I feel that we came together to create something really great, and as an individual, I felt that perhaps I understood more than I gave myself credit for. I let my vulnerability and self-doubt get the best of me most times, leading to a difficult semester. If anything this has taught me more than the synthesis map and looking at systems. It has taught me to take a breath, take a step back, and to never doubt myself. I think that moving forward I have not only learned enough about alcoholism to provide education to my peers to try and change what I can of the culture in small ways; I have also learned another skill that I feel I can leverage moving forward to tell a story. The healthcare world needs a shakeup, and a synthesis map is a tool that I believe can instill a sense of wonder and intrigue in those that look at it, inspiring them to listen to the change that needs to happen.

Adam

I have decided to frame my reflection within the context of the three broad phases of the synthesis mapping process and the various successes and challenges associated with it. They are:

Pre-Synthesis Mapping Process
Mid-Synthesis Mapping Process
Post-Synthesis Mapping Process

Pre- Synthesis Mapping Process

In the interest of transparency, I felt mildly intimidated and a little vulnerable when starting the synthesis mapping process. Although I was confident that I would find the process interesting and meaningful, I had no previous experience with this type of work and recognized the amount of work we would have to complete in a relatively short amount of time. However, once the topics were chosen, and the groups were formed, I became more comfortable with the idea of the map as we focused on an exciting topic area that we all felt passionate about, and had experience with.

One of my goals for this semester was to be more involved in the graphic design aspects of our assignments. My hope was to challenge myself by learning a new skill while working on the synthesis map and also to focus less on the writing aspects of the assignment as this is a more comfortable area for me. However, as I learned more about the synthesis mapping process, I began to understand that the level of graphic design knowledge was beyond my scope, and it would be best for another team member to tackle this challenge. Although I was disappointed by this, I know that my limitations in this area would have been detrimental to the group.

Mid-Synthesis Mapping Process

If nothing else, the synthesis mapping process is a great team building assignment. It is challenging, thought provoking, and requires teams to work together towards a common goal based on mutual interest. As a team, we engaged in many interesting and passionate discussions around alcoholism, and the direction we wanted to follow when creating our story. It was fascinating to learn about the personal experiences of other team members and understand new perspectives and approaches to problem-solving. Although the process was stressful at times, and healthy conflict arose, I believe this is where we were at our most creative and we were always able to move forward in a productive way. I feel very fortunate to have worked with such a cohesive group of individuals who are comfortable sharing ideas, challenging each other, and offering support whenever it was needed. Furthermore, I am confident that most of my learning in this course happened through team meetings and conversations about systems, synthesis mapping, and how the course material related to our vision.

Post-Synthesis Mapping Process

Overall, I am very proud of the work that our team was able to accomplish, and the personal learning outcomes I achieved throughout the process. I was able to learn a lot through this process, both about alcoholism and about creating synthesis maps, and I consider all of this especially valuable. While I wish there were more time allotted for the assignment so that I could have participated in the graphic design process, I am more than pleased with the outcome of our finished product. Alastair certainly rose to the challenge and was able to put together an incredibly impressive map that clearly illustrates the story we are trying to tell. I learned more

than I expected to in this class (which is saying a lot since this is my first formal interaction with systems thinking), and I hope to use synthesis mapping in my future professional life.

Alastair

Synthesis maps were one of the projects that drew me into this program. Granted, at the time I was not entirely sure what they were or why you'd make one, but the idea of carefully investigating and mapping out a system, showing its parts and problems visually, and identifying intervention points for positive change all on one big, messy map seemed like a fascinating endeavour. But actually *doing* a synthesis map proved to be more frustrating, difficult and labour intensive than I had anticipated. Many times throughout the semester, I felt lost and out of my depth trying to piece together our research, insights, obstacles and interventions into a coherent visual narrative. We spent weeks agonizing over how to best tell our story and deliberating over what facts, statistics and information were most relevant to that story. In short, I think we had an information overload, and sorting through that sometimes felt tedious and never-ending.

But as time went on, things came into focus more clearly, and suddenly we could see our vision developing together. In the last few weeks before this assignment was due, we threw ourselves into the map wholeheartedly, selecting data and information to include, piecing together our narrative and even coming up with a fantastic visual theme (shining a light on alcoholism in Canada) - much thanks to the creative thinking of another group member. I worked on the map's overall layout, and it was nice to be able to flex my graphic design skills after a few years of relative dormancy. I was going through a large transition in my personal life as the semester ended, and so diving head-first into this map in the last few weeks of the semester distracted me from difficult personal circumstances that otherwise would have kept me laying in bed and avoiding the outside world.

Overall, as I look at our map, I feel tremendously proud of the world we did as a team. It is visually engaging, intellectually rich and emotionally deep. Given my personal experience of losing my mother to alcoholism when I was fourteen, this project proved to be somewhat of a healing experience. I had originally worried that the map would force me to ruminate over what could have been done to help her, but instead, it helped me think deeply about what she was going through in a more rational and practical way. I end this semester proud of the work we have done and the insights we have gained about how we might better help people struggling

with alcoholism with compassion and holistic interventions. It's not about looking back at my own experiences and lament the opportunities missed to help my own mother, but looking forward to how these insights might spark debate, discussion and action that give hope to another 14 year old somewhere in Canada looking to help his own mother escape the grips of loneliness, despair and addiction.

References

Addict Aide (2016) Like my addiction. Retrieved from: https://www.addictaide.fr/video/alcool-like-my-addiction/

Al-Anon Family Groups. (n.d.). Retrieved April 10, 2017, from http://www.al-anon.alateen.org/

Boesveld, S. (2015, May 15). How we drink: Here's everything you need to know about Canadians' overall boozy habits. National Post. Retrieved from http://news.nationalpost.com/life/how-we-drink-from-how-much-to-how-often-heres-everything-you-need-to-know-about-canadians-boozy-habits

Boltwood, A., Hogan, A., Spiegal, A., & Woods, A. (2017). Alcohol Addiction Systems Report. Unpublished manuscript, OCAD University.

Boltwood, A., Hogan, A., Spiegel, A, & Woods, A. (2017) Team 4: Alcohol addictions systems report. Introduction to Systems and Systemic Design, OCAD University

Brande, L. (2016). Types of Substance Abuse Treatment Programs. Retrieved April 10, 2017, from http://www.recovery.org/topics/types-of-substance-abuse-treatment-programs/

Butt, P., Beirness, D., Gliksman, L., Paradis, C., & Stockwell, T. (2011). Alcohol and Health in Canada: A Summary of Evidence and Guidelines for Low-Risk Drinking. Retrieved from http://www.ccsa.ca/Resource Library/2011-Summary-of-Evidence-and-Guidelines-for-Low-Risk Drinking-en.pdf

Canadian Centre for Substance Abuse. (n.d.-a). Addiction Recovery. Retrieved April 10, 2017, from http://www.ccsa.ca/Eng/topics/addiction-recovery/Pages/default.aspx

Canadian Centre on Substance Abuse, & National Alcohol Strategy Advisory Committee. (2013). Guidelines for Healthcare Providers to Promote Low-Risk Drinking Among Patients. Retrieved from http://www.ccsa.ca/Resource Library/2012-Guidelines-For-Healthcare-Providers-to-Promote-Low-Risk-Drinking-Among-Patients-en.pdf

Coffey, B. (2016). How to host a sober party. Retrieved April 10, 2017, from http://www.aquilarecovery.com/blog/how-to-host-a-sober-party

College of Family Physicians of Canada, & Canadian Centre on Substance Abuse. (2012). Alcohol Screening, Brief Intervention & Referral. Retrieved April 10, 2017, from http://sbir-diba.ca/

del Vecchio, P. (2012). SAMHSA's Working Definition of Recovery Updated. Retrieved April 18, 2017, from https://blog.samhsa.gov/2012/03/23/defintion-of-recovery-updated/#.WPbFvGe1uUk

DeSimone, E., Tilleman, J., & Powell, T. (2014). Treatment of Alcohol Withdrawal Syndrome. U.S. Pharmacist. Retrieved from http://www.medscape.com/viewarticle/835689_4

Donovan, D. M., & Marlatt, G. A. (2008). Relapse prevention: maintenance strategies in the treatment of addictive behaviors. New York: Guilford.

Giesbrecht, N., Wettlaufer, A., Simpson, S., April, N., Asbridge, M., Cukier, S., ... & Plamondon, L. (2016). Strategies to reduce alcohol-related harms and costs in Canada: A comparison of provincial policies. *The International Journal of Alcohol and Drug Research*, *5*(2), 33-45.

Gorski, T. (2003). How to Develop A Relapse Prevention Plan. Retrieved March 11, 2017, from http://www.tgorski.com/gorski_articles/developing_a_relapse_prevention_plan.htm

Harmon, K. (2011, July). Does Rehab Work as a Treatment for Alcoholism and Other Addictions? Scientific American. Retrieved from https://www.scientificamerican.com/article/does-rehab-work/

Health Canada, & Statistics Canada. (2017). Canadian Tobacco Alcohol and Drugs Survey (CTADS): Table 15. Alcohol indicators, by age group and sex, 2015. Retrieved April 10, 2017, from https://www.canada.ca/en/health-canada/services/canadian-tobacco-alcohol-drugs-survey/2015-supplementary-tables.html#a15

Hogan, A., Spiegel, A, & Woods, A. (2017). Project 2: Final report. Innovation Research Methods. OCAD University.

Huebner, R. B., & Kantor, L. W. (2011). Advances in Alcoholism Treatment. Alcohol Research & Health, 33(4), 295–299. Retrieved from https://pubs.niaaa.nih.gov/publications/arh334/295-299.pdf

Kim, W. (2009). Drinking Culture of Elderly Korean Immigrants in Canada: A Focus Group Study. Journal of Cross-Cultural Gerontology,24(4), 339-353.

Leong, M. (2018, June 8). Drinking away our savings. Financial Post. Retrieved from http://business.financialpost.com/personal-finance/young-money/how-much-money-we-waste-on-booze

LifeRing Alcohol and Drug Peer Support Groups. (n.d.). Philosophy and Ideas. Retrieved April 10, 2017, from http://liferingcanada.dreamhosters.com/philosophy-and-ideas

Maté, G. (2008). In the realm of hungry ghosts: Close encounters with addiction. Vintage Canada.

Mattick, R. P., Wadolowski, M., Aiken, A., Clare, P. J., Hutchinson, D., Najman, J., … Kypri, K. (2017). Parental supply of alcohol and alcohol consumption in adolescence: prospective cohort study. Psychological Medicine, 47(2), 267–278. https://doi.org/10.1017/S0033291716002373

Miller, W. R., & Rollnick, S. (1995). What is Motivational Interviewing? Behavioural and Cognitive Psychotherapy,23, 325-334.

McLellan, T. et al.(2000), “Drug dependence, a chronic medical illness: Implications for treatment, insurance, and outcomes evaluation.” Journal of the American Medical Association 284, no. 13, pp.1689–95.

McLellan, A (2002). Have we evaluated addiction treatment correctly? Implications from a chronic care persepective. Society for the study of addiction to alcohol and other drugs.

National Alcohol Strategy Working Group. (2007). Reducing Alcohol-Related Harm in Canada: Toward a Culture of Moderation: Recommendations for a National Alcohol Strategy. Retrieved from http://www.ccsa.ca/Resource Library/ccsa-023876-2007.pdf

National Institute on Alcohol Abuse and Alcoholism. (2014). Treatment for Alcohol Problems: Finding and Getting Help. Retrieved April 10, 2017, from https://pubs.niaaa.nih.gov/publications/treatment/treatment.htm

Practical Recovery. (n.d.). What is the Best Alcohol Treatment? Retrieved April 10, 2017, from https://www.practicalrecovery.com/addiction/what-is-the-best-alcohol-treatment/

Public Health Agency of Canada (2015) The chief public health officer’s report on the state of public health in Canada 2015: Alcohol consumption in Canada. Minister of Health 2015.

Ramstedt, M. (2005). Alcohol and suicide at the population level—the Canadian experience. Drug and Alcohol Review,24(3), 203-208.

Rehm, J., Baliunas, D., Brochu, S., Fischer, B., Gnam, W., Patra, J., … Taylor, B. (2006). The Costs of Substance Abuse in Canada 2002: Highlights. Retrieved from http://www.ccsa.ca/Resource Library/ccsa-011332-2006.pdf

Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a General Theory of Planning. Policy Sciences, 4(2), 155–169. https://doi.org/10.1007/BF01405730

SMART Recovery - Self Management for Addiction Recovery. (n.d.). Retrieved April 10, 2017, from http://www.smartrecovery.org/

Snyder, L.B., Milici, F.F., Slater, M., Sun, H., Strizhakova, Y. (2006) Effects of alcohol advertising exposure on drinking among youth. Archives of Pediatrics and Adolescent Medicine, 160(1) 18-24. Retreived from http://jamanetwork.com/journals/jamapediatrics/fullarticle/204410?hc_location=ufi

Statistics Canada. (2015). Canadian Tobacco, Alcohol and Drugs Survey, 2015 [Questionnaire]. Retrieved from http://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&a=1&&lang=en&Item_Id=299300&dis=1#qb306057

Vuchinich, R. E., & Tucker, J. A. (1996). "Alcoholic relapse, life events, and behavioral theories of choice: A prospective analysis." Experimental and Clinical Psychopharmacology, 4, pp.19–28.

Welcome to Moderation Management! (n.d.). Retrieved April 10, 2017, from http://www.moderation.org/

World Health Organization (2014). Global status report on alcohol and health - 2014 ed. Retrieved from http://www.who.int/substance_abuse/publications/global_alcohol_report/en/

World Health Organization. (2016). Global strategy to reduce harmful use of alcohol. World Health Organization. Retrieved from http://www.who.int/substance_abuse/activities/gsrhua/en/