GREAT EXPECTATIONS? PERCEPTIONS OF CANNABIS REGULATION IN ABBOTSFORD, BRITISH COLUMBIA

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Executive Summary

On October 17th, 2018, Canada will become the first G7 country, and second country worldwide, to legalize recreational cannabis on the federal level. Given that few nations have taken this step, the impact on municipalities and communities is still unknown. The main objective of this report is to provide insight into the expectations around and unintended consequences of recreational cannabis legalization. The hope is that this insight can help identify unforeseen concerns and provide recommendations to minimize or eliminate these problems. To do this, 20 semi-structured interviews were conducted with key stakeholders in the city of Abbotsford. The interviews lasted about 30 minutes on average and drew from a variety of groups including business people, dispensary owners, police, residents, and service providers. After the interviews were completed an analysis of the data was conducted using NVivo analysis software.

Several recurring themes were identified during the analysis. First, many of the participants mentioned that there was a lack of honest information about cannabis available to the general public. This refers to not only misleading information about benefits and risks associated with using cannabis, but also a lack of information about how to properly use cannabis and a lack of clear guidelines about what constitutes abuse of cannabis. Second, overly restrictive regulatory policies will be costly and may prove to be counterproductive and lead to a more persistent black market by excluding smaller growers. British Columbia has a well-established cannabis growing subculture that developed during the years of prohibition; it is highly unlikely that they will stop growing if they are not given equal footing in the legal market. Third, many were concerned about the feasibility of large-scale production. Some mentioned that the quality of cannabis might be significantly reduced compared to craft growing operations while others mentioned concerns about licensed producers pushing out smaller producers. There have also been some complaints around some of the large-scale cannabis production facilities that merit attention.

Several recommendations emerged from the findings. Honest, evidence-based education and informational programs about cannabis could be useful in de-glamourizing the use of cannabis and removing the stigma associated with legitimate uses of the drug. These programs should be informed by not only researchers and medical experts, but also by people who have experience using cannabis and those work in the cannabis industry. Over regulation of cannabis should be viewed as a serious concern. If taxes are too high or regulations are overly strict, the black market will continue to thrive. Much of the potential to curb the black market hinges on the ability of the licensed producers to supply a high-quality product that can compete with cannabis supplied by smaller and mid-sized craft growing operations. Therefore, to further limit the black market, efforts should be made to provide land for legitimate craft growing operations. Bans on cannabis dispensaries will be associated with several challenges and unintended consequences. Closing down dispensaries that are currently operating will be costly, and they may not shut down immediately even after law enforcement intervention. There is also evidence to suggest that in some cases, closing down dispensaries can actually increase crime in a neighborhood because they encourage more foot traffic and "eyes-on-the-street". The black market will flourish in these areas to fill the void, and unregulated cannabis will continue to be sold alongside other more dangerous drugs by local dealers. Finally, people who are obtaining medical cannabis will be forced to either deal with the criminal subculture or to rely on an untested mail order system for their needs.

Federal Goals of Recreational Cannabis Legalization

During the 2014 Canadian federal election, Liberal Party candidate Justin Trudeau ran on a platform that included a promise to legalize recreational cannabis. Trudeau won the election quite easily, and upon his arrival into office the new Prime Minister pushed forward with the plan to end cannabis prohibition. Numerous obstacles emerged as consultations of legalization began, including backlash from the United Nations for violating treaties concerning drug policy, opposition from political Conservatives and members of his own Liberal Party, and complaints from federal and municipal law enforcement over the feasibility of policing recreational cannabis.

In April of 2017 the federal Liberal Party of Canada tabled the Cannabis Act, which would legalize and regulate recreational cannabis while strengthening the penalties against impaired driving and exerting greater control over the ability of minors to access this drug. At roughly the same time, it was also announced that the date to legalize recreational marijuana would be changed because of the negative optics around associating this event with Canada Day. Later in the year, the date was again moved back because of concerns raised by provincial and municipal law enforcement officials associated with the challenges of enforcing new laws and regulations around public use, impaired driving, and other contentious issues. In March of 2018, the Cannabis Act passed the Senate on its second reading despite last minute concerns that it would not receive approval. Bill C-45 was officially passed by the Senate on June 19th, 2018; legal cannabis is set to be sold in stores starting on October 17th, 2018.

To clarify some of the goals around cannabis regulation, the federal government appointed a special task force of experts in public health, law, substance abuse, and law enforcement. Their mandate was "to consult and provide advice on the design of a new legislative and regulatory framework for legal access to cannabis, consistent with the government's commitment to "legalize, regulate, and restrict access" (Health, Canada, 2016, pg. 4). In their final report, they identified a number of goals that they hoped to achieve with cannabis regulation.

The first goal identified was to *minimize the harms of use* by limiting cannabis purchases to those aged 18 and older, placing restrictions on advertising and labeling, educating the public about risks, and offering a taxation scheme to encourage health while discouraging black market sale of cannabis. A second important goal discussed in the report was to *establish a safe supply chain* by regulating cultivation and distribution and placing limitations on home grow operations. The third goal established was to *enforce public safety* by developing clear and enforceable penalties for impaired driving and trafficking to youth, restricting areas where cannabis can be smoked or vaped, and educating the public about the dangers of impaired driving. The fourth and final goal was to *ensure appropriate medical access* by maintaining a separate access system for medical users and ensuring the product is affordable for and available to the people who need it (Health Canada, 2016).

Because cannabis legalization on the federal level is a recent phenomenon, research in this area is limited. Little is known about how people in middle and smaller-sized communities feel about recreational cannabis legalization, how the black market may respond, how legalization will impact (or has impacted) organized crime, and how different regulatory schemes address concerns and achieve goals associated with cannabis regulation.

This report will review the recent national and international research in variety of areas to help provide an informed discussion of the impact of cannabis regulation on society. To ensure that effective implementation takes place and to maximize the likelihood of achieving a proper regulatory fit for the community, some knowledge about local stakeholder concerns and expectations around cannabis regulation can help provide insight into what can be expected after regulation is put into place. The research conducted here consists of 20 semi-structured qualitative interviews conducted with five stakeholder groups in the city of Abbotsford, British Columbia. The second part of this report will present an analysis of the findings and offer some stakeholder insights into the challenges that may be faced by policy-makers and law enforcement after legalization.

Many of these stakeholders are acutely aware of the problems created by black market cannabis and illegal grow operations because they have experienced them for many years. These experiences are important to be aware of especially when considering the data obtained from the interviews with various stakeholders in this area. With all of this in mind, it seems appropriate to start by offering a basic history of the cannabis trade in British Columbia. This will help provide some basic knowledge of the local community and its history with this drug while also informing the research being undertaken here.

A Brief History of "B.C. Bud"

Illegal marijuana from British Columbia or "B.C. bud", as it is sometimes called, started to gain worldwide notoriety in the late 90s and early 2000s. Stop the Violence B.C. (2013) claims that throughout the last two decades B.C has seen this wealthy industry expand with the assistance of high-tech grow enterprises and has become increasingly taken over by organized criminal groups. While the majority of cannabis produced in B.C. is exported to other provinces or the United States, there still exists a large domestic market capable of generating hundreds of millions of dollars for organized crime. During this time period, involvement of organized crime in the illegal cannabis market was perhaps at its height (U.S. DEA, 2000). This trend seems to have continued until about 2012 when both Washington State and Colorado voted to legalize recreational marijuana statewide (Edwards, 2017).

In addition to its location and climate, there are several reasons as to why cannabis cultivation has become such a lucrative business in British Columbia. The province has a thriving market of cannabis users that is estimated to be well over 430,000 people. Other drugs, like heroin and cocaine, must be imported from other regions since they are not produced locally. The option to grow cannabis in large quantities locally results in a potential greater profit margin for marijuana as opposed to other drugs (Stop the Violence B.C., 2013). There is also evidence to suggest that in B.C., cannabis laws have not been consistently enforced leading to less deterrence, and increasing public acceptance of the drug. For example, Easton (2004) notes that possession-related crimes in B.C. are far less likely to be "cleared by charge" (resulting in criminal charges being laid) than in other provinces, and this disparity was greatest in regards to cannabis. Pauls, Plecas, Cohen, and Haarhoff (2012) offer further insight into the situation in B.C.:

> The low rate of charges associated to marihuana possession offences clearly indicates that the possession of marihuana results in little formal consequences beyond the loss of the marihuana. This may be a factor in the increased public tolerance for the drug. The lack of response to marihuana possession may serve as a message from the government that they find it acceptable for people to possess marihuana, but are reluctant to make formal changes to legalize the substance (pg. 11)

Pauls and his colleagues (2012) go on to demonstrate that cannabis charges were most commonly laid against those with lengthy criminal records for other offenses and assert that 70% of cannabis possession cases were dealt with a warning from police (i.e., police discretion).

Accompanying the proliferation of the illegal cannabis industry was the increase in amount, size, and sophistication of indoor illegal grow operations (Diplock, Plecas, & Garis, 2013). These enterprises carry with them intrinsic risks to B.C property owners and communities. The most harmful are those that are located in residential areas. Plecas, Diplock, & Garis (2012) claim that indoor illegal marijuana grows almost always result in some form of structural contamination or hazard to the building they are based in. Because standard houses are not suited to provide optimal conditions for plant growth, these operations require multiple building modifications to create a sufficient environment. These modifications include, but are not limited to, increased electrical power, revamped ventilation systems, boosted air flow, dehumidification, and counter-detection measures (Plecas et al., 2012).

Comparative Research on Cannabis Regulation

While the federal government has offered some regulatory measures, they offered few universal guidelines that provinces or municipalities must follow. Provinces have further stipulated how cannabis will be regulated (e.g., through private licensing & dispensaries or government monopoly through the liquor control board); however, municipalities may place further restrictions on it as they see fit. Some municipalities in B.C., specifically Richmond and North Vancouver, have voted in favor of an outright ban on cannabis dispensaries in an attempt to limit consumption in their communities. They have also introduced stricter public smoking regulations with more severe penalties (Shepherd, 2018; Wood, 2018).

Because the provinces have been given leeway to determine how cannabis will be regulated, it seems reasonable to assume that there will be some variation in regulatory policy between provinces and perhaps within provinces between different municipalities and regions. According to the Canadian Centre on Substance Abuse (2015) the "devil is in the details", and identifying clear policy goals will ensure a consistent strategic approach and can provide measures to evaluate and monitor progress and impact. Addiction expert Benedikt Fischer notes that: "Although much attention has been on possible adverse outcomes related to use (e.g., use in young people, impaired driving, and brain and mental health harms) the possible effects of cannabis legalization will depend on many implementation details, including effective regulation of cannabis production and

retail distribution" (2017, p. 356). Different regulatory approaches vary in their ability to achieve common goals and to deal with concerning issues around cannabis legalization (Kamin, 2016). For example, some regulatory schemes are more effective at controlling illicit markets while others excel at generating economic opportunities and revenue. Caulkins and his colleagues (2016) state that different regulatory schemes are "…really a broad category of options encompassing considerable scope for fine-tuning. And a bad implementation of a good strategy might underperform relative to a wise implementation of an inferior one" (pg. 49).

Most policy discussions around cannabis regulation fixate on three modes of regulation: prohibition; legalization; and decriminalization. Presenting policy options in this way is somewhat misleading because it conceals a number of methods of regulating cannabis. It is also important to note that many people, including experts and scholars, tend to use the terms drug legalization and drug decriminalization interchangeably when the two have entirely different meanings (Rolles, 2017). On the one hand, drug legalization refers to ending prohibition of drugs entirely and regulating them in a legal market. In this scenario, drugs might be available in commercial and retail outlets, and would be used recreationally like alcohol; the state generates revenue from taxes on these items. On the other hand, drug decriminalization removes the criminal penalties from possessing drugs for personal use; possession is treated as a civil or administrative offense subject to a fine and/or enrollment in a drug treatment program. Under this legal framework, drug selling or dealing would still be prohibited and might be subject to criminal penalties (Rolles, 2017).

Another misconception is that cannabis regulation occurs in some uniform or monolithic way; in reality, there are a variety of regulatory options each with their own benefits and shortcomings (Caulkins et al., 2016). As Kamin (2016) notes, "…each regulatory alternative is really just an umbrella term for a set of more specific approaches to marijuana in a post-prohibition world" (pg. 17). Rolles (2017) suggests that there is no single regulatory model for drugs but a "range of regulatory tools that can be deployed in a variety of ways, depending on the risk of the particular product" (pg. 57).

Research is somewhat limited in this area because recreational cannabis legalization on the federal level is a recent phenomenon; the research examining non-metropolitan and rural communities is especially sparse. In an unpublished master's thesis, Victory (2016) interviewed 14 city planners in rural areas of Colorado to examine how different municipalities responded to marijuana legalization in that state. He found that regulatory schemes ought to be tailored to the physical and moral character of individual communities and that there was "no one-size fits all" approach with regard to regulating cannabis in different rural municipalities. Further, his research indicates that more politically conservative communities tended to treat recreational cannabis shops as a nuisance and used zoning and regulatory powers to segregate shops outside the city. Progressive communities often responded by attempting to integrate the shops into their neighborhoods and seem to have reaped economic benefits by doing so.

In their analysis of options for cannabis policies in Vermont, Caulkins and his colleagues (2016) identified a variety of options for regulating the supply. They state that these different supply strategies each represent a broad category of options that lend themselves to considerable fine-tuning and adjusting. Further, they point out that the intelligent application of a weak strategy could outperform poor implementation of a good strategy. Given these facts, the process of

developing a strategy for regulating supply should be viewed more as a shifting design process, rather than a black and white, clearly laid out set of regulations (Caulkins et al., 2015). It should also be noted that other aspects of regulation are also important to consider (e.g., licensing schemes, operation regulations, & land use restrictions); however, the focus here will be on accessing supply. The two options most commonly discussed in the US include decriminalization and commercial regulation similar to alcohol. There are also eight middle-ground options including: allowing adults to grow their own; allowing distribution within small clubs or co-ops (a.k.a., Spanish model); permitting locally-controlled retail sales (a.k.a., Dutch-style coffee shop model); implementing a government supply chain monopoly; turning over responsibility of supply to a public authority; allowing sales by non-profit organizations only; allowing sales by for-benefit companies; and allowing sales from a few closely monitored and licensed distributors. Finally, there are two extreme options that involve either increasing sanctions or completely repealing cannabis prohibition without regulations on the drug (Caulkins et al., 2015).

Some of these options require more explanation (e.g., co-op clubs and locally controlled retail sales) or are no longer relevant given that Canada has legalized recreational cannabis (i.e., decriminalization, increasing sanctions, & supply from public authority). Another problem is that some of the modes of regulation (e.g., government monopolies, non-profit control) could only be effectively implemented at the provincial level, rather than the municipal level. The approach taken by the US states that have legalized recreational cannabis is comparable to the approach taken to alcohol regulation. There are restrictions on legal age to purchase, where the product can be sold, packaging, and quality controls. Further, alcohol and tobacco are sold separately in separate locations and marijuana is only sold in specialized shops. This approach ensures that economic efficiency and opportunities from this new market will be maximized (Caulkins et al., 2015). In addition, it allows for greater control over the product, which could lead to less use amongst young people (Spitoff & Kahan, 2014; Maffey, Neuwirth, Dunn & Crawford, 2018; CDC, 2018). The downside is that public health could potentially be compromised because sellers will be motivated to win over new customers and keep them using the product.

Based on the experiences of other areas that have tried it, allowing users to grow small amounts of cannabis seems to have very little effect by itself. However, allowing individuals to grow a small number of plants alongside some other form of distribution could help siphon some activity away from the more troubling participants in the black market (e.g., organized crime). Small home-growing operations could also reduce the amount of revenue taken in by the government in tax, but the extent to which this would happen is unclear. Colorado allows six plants per household and has still generated considerable tax revenue from their sales of cannabis and cannabis related products.

Another interesting option involves cannabis clubs or collectives of people who grow and share cannabis (a.k.a., Spanish model). This option could be encouraged by municipalities who have chosen to ban the commercial sale of cannabis as it might have the potential to limit the illegal market while confining production to more artisanal or craft methods (Caulkins et al., 2015). There is some evidence that users may actually prefer this approach to large-scale commercial production as it would encourage higher quality cannabis and would likely lead to more localized economic opportunities (Osborne & Fogel, 2017).

Government monopolies have some advantages when compared to other regulation options. The first advantage is that considerable research suggests that alcohol monopolies tend to produce better public health outcomes when compared to other regulatory options that exert less control (Pacula, Kilmer, et al., 2014). However, this is operating under the highly suspect assumption that alcohol and marijuana present similar levels of risk with regards to one's physical and mental health; many studies have concluded that marijuana is much safer than alcohol based on a number of metrics (see, for example, Winstock, Barrett, Maier, & Ferris, 2018). A second advantage of a government run supply is that it will be easier to shift to a US style commercial approach than it would be to move in a more restrictive direction. More specifically, under the US style commercial approach, economic interests will become more quickly entrenched and will be able to influence politicians and voters with profits. Unfortunately, some of the advantages of state monopolies are offset by some disadvantages. Profit motivation will be much lower for a government run cannabis industry which will lead to less tax revenue. It is reasonable to argue that tax revenue should not be a major motivator, but enough revenue must be generated to fund the regulatory apparatus. This should cover some law enforcement costs as well (i.e., against illegal grow operations and to limit the diversion of cannabis to the black market). As Caulkins and his colleagues (2015) point out, government run organizations tend to be inefficient; however, they suggest that this is not a major issue given that production costs of cannabis are quite low. These authors seem to overlook the fact that inefficiency will also greatly reduce the economic opportunities created by the cannabis industry because there would be little motivation to grow the market.

Limiting sales to non-profit organizations is another option to ensure the cannabis industry operates in the interest of the public rather than the interest of shareholders. These organizations are managed by a board and requirements can be placed on membership and composition of these boards (e.g., the board may be required to have a certain number of members who are child welfare advocates or experts in public health). These restrictions can be used to guide the activity of the industry; however, the managing board may still pursue revenue, and this may lead to some growth in the industry albeit slower growth when compared to the commercial model (Caulkins et al., 2015). The non-profit model shares many of the advantages and disadvantages of the government monopoly as it would produce a high level of control of the market and industry; however, it would also cause the market to grow very slowly and economic activity might be minimized more than if the government operated the supply chain.

The for-benefit model represents a hybrid of the commercial and non-profit approaches. In for-benefit companies, concerns around increasing shareholder profits are tempered by a focus on improving environmental and social conditions (Caulkins et al., 2015). Economic opportunities would not be produced as quickly but growth would be tempered, and one could be ensured that profitable cannabis businesses would be giving back to the community.

The last of the middle ground options involves limiting the licenses available for cannabis production and distribution. Limiting licenses would have the effect of making the licenses valuable and would decrease the likelihood that a license holder would violate regulations and jeopardize their license. This approach is also helpful for exerting a greater level of control over the industry because there would only be a few licensed producers to monitor (Caulkins et al., 2015).

As with the other approaches, there are some drawbacks to this method of regulation. It is easy to imagine a scenario in which this approach would create serious problems with enforcement and the black market. If production and distribution are too limited and demand is too high, the black market would be able to exist and thrive. This would be exacerbated further if several of the licensed producers failed to supply quality product, and if the licenses became valuable enough due to their scarcity, it could attract the interest of organized crime groups. This model seems particularly problematic for an area like British Columbia, in which the cannabis trade is already quite entrenched and where demand for the product is high.

Osborne and Fogel (2017) conducted in-depth interviews with recreational cannabis users in Alberta from a variety of occupations, including white collar workers, professionals, and graduate students about their views on legalization. Not surprisingly, they found that the vast majority supported legalization for a variety of reasons:

> (a) it is unjust to keep cannabis illegal when other more harmful substances such as alcohol and nicotine are legal
>
> (b) there are significant taxation and economic opportunities to be gained by the Canadian government
>
> (c) the crime and violence associated with the illegal trade of cannabis would be significantly reduced
>
> (d) cannabis prohibition is a waste of the criminal justice system's financial resources
>
> (e) government regulation would ensure a safer product for consumption
>
> (f) legalization would reduce the stigma associated with cannabis use (Osborne & Fogel, 2017: 24).

Perhaps more surprising are findings suggesting that legalization of cannabis would have little impact on patterns of use; paradoxically, some users thought that legalization might actually result in them using less frequently, rather than more. Reasons for this included a drop in the quality of marijuana if regulated by the government and increased prices due to taxation. However, most claimed that it simply would not affect their habit, as their lifestyle controls their frequency of use. In other words, for most of this sample, use was not compulsive, but rather something done recreationally in a particular setting and situation. Another notable finding was that users did not see marijuana legalization as leading to more use of other illegal substances (e.g., cocaine, heroin)

A few conclusions can be drawn from this literature review. Approaches that are thought to encourage public health by restricting consumption of cannabis also limit tax revenue and economic activity. If supply is overly restricted, it will provide opportunities for the black market – on the more extreme end, organized crime could remain highly involved if the product becomes profitable enough. It will be easier to move from a more restrictive model to a less restrictive model for various reasons. As the cannabis industry grows, it will gain political power and influence similar to alcohol and tobacco, so it will be important to be aware of how different communities

view recreational legalization. Finally, variation in communities and regions should be considered when selecting a regulatory approach. In B.C., there are many people who have grown cannabis illegally for many years on a fairly small-scale. When adopting a regulatory framework, one should consider how they will be brought in to the legal market and allowed to compete on equal footing with the larger licensed producers.

Regulating Cannabis in British Columbia: The Details

B.C.'s approach to cannabis regulation will be a mixed public/private model similar to what is used to regulate alcohol. More specifically, the wholesale distribution of recreational marijuana will be managed through the Liquor Distribution Branch (LDB) of British Columbia. The retail model will be a hybrid or a mix between public and private suppliers; mail order will be managed solely by the government (British Columbia, 2018). The LDB will be responsible for running the government run dispensaries and Liquor Control and Licensing Branch (LCLB) will oversee the licensing and monitoring of the retail sector of cannabis and has been re-named the Liquor and Cannabis Regulation Branch (LCRB) to reflect its new duties. The rules used to regulate cannabis dispensaries will be similar to those used to regulate liquor stores. Cannabis retail stores must also have positive recommendations from their local governments. Further, individuals who have operated illegal dispensaries and those with criminal records are not necessarily barred from the application process (British Columbia, 2018).

At this point, the provincial government is not considering licensing any kind of consumption lounges or consumption sites. Retail stores must also be self-contained businesses and are not permitted to sell liquor, cigarettes, soda, snacks, or other non-cannabis items, although exceptions may be made for rural areas. Retail will be allowed to sell dried cannabis, cannabis oil (in limited THC concentrations), and cannabis seeds; consumption of cannabis is not permitted on the premises. There will be no edibles or extracts for at least one year based on federal guidelines (British Columbia, 2018).

Promotion, branding, and packaging will also be limited. For instance, branding will be limited to licensed federal producers (British Columbia, 2018). When promoting and packaging the product, celebrity testimonials and endorsements, and using characters or animals (real or fictional) are all prohibited. Further, one cannot associate use of cannabis with recreation, glamour, daring, vitality or excitement (*Cannabis Act,* 2018).

In March of 2018, the Canadian Federal Government released rules around micro-cultivation. Micro-cultivation permits would authorize a grow area of up to 200 square meters (2,153 square feet). With a micro-processing permit, one could process up to 600 kilograms (1,322 pounds) of dried cannabis (or equivalent) per year, or the entire output of a single micro-cultivation license (Lamars, 2018). Some are concerned that the limitations on space may compromise the ability of smaller, craft growers to compete because licensed producers will be able to undercut them in price. In a province with many illegal growers like B.C., this could cause problems in the effort to eliminate the black market as the illegal cannabis industry currently generates a great deal of underground economic opportunities (Rendell, 2018).

Expectations and Goals of Cannabis Legalization[1]

A review of the literature associated with changes in cannabis legislation reveals that supporters often have a variety of post-prohibition expectations. These expectations could also be viewed as goals, and they often inform one's policy preferences. Kamin (2016) has identified several common goals of legalizing recreational cannabis. The first goal, referred to as *free market capitalism,* encourages profit and product innovation. This is ideal for disrupting the black market, but profit motive as a guiding policy will encourage businesses to develop new products and entice new, heavy using customers. The supply architecture that most directly fits with this goal is the commercial style regulation that has been embraced by the US states that have legalized recreational cannabis.

Harm reduction, another common goal for proponents of cannabis legalization, seeks to reduce the harm caused by the use of the drug. This approach can include a variety of options, from simple decriminalization to providing access to the drug (i.e., to ensure clean supply or to reduce more harmful versions of the drug like synthetic marijuana). This lack of specificity leaves the goal open to interpretation and can create logical problems when trying to formulate policies around regulation. For example, since CO and WA legalized recreational cannabis, there has been a great deal of media coverage devoted to problems associated with high potency forms of cannabis like edibles and concentrates. There have been cases of users ingesting too much THC and having bad experiences sometimes ending with a panicked visit to the emergency room.

Some harm reduction advocates have supported placing additional restrictions on these forms of cannabis; however, other supporters of harm reduction might argue that limiting high potency cannabis is problematic for a variety of reasons. There is no question that inhaling hot smoke into one's lungs is unhealthy; this damage is virtually eliminated if one consumes edibles and is minimized through use of concentrates because there is either less of the substance inhaled, or more often, the substance is used in a vaporizer which has been proven to be much safer when compared to smoking. When considering availability, one must also consider the likelihood that the consumer would simply go to the black market if concentrates and edibles were restricted. This could lead to more use of impure or tainted substances and would force consumers to interact with illegal drug dealers and be exposed to more opportunities to take other dangerous illegal drugs.

It is easy to see how the goal of harm reduction might not produce very clear policy options. Supply architectures that most fit harm reduction goals include cannabis clubs & collectives, non-profit, for-benefit, and allowing adults to grow their own. Other approaches might fit as well depending on how the individual defines harm reduction. For example, if one supports making cannabis freely available, unlimited licensing and a less regulated commercial model might be supported.

The goal of *revenue generation* attempts to capture as much revenue as possible and move it to public coffers through taxes and reduced use of criminal justice system resources. This will conflict

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[1] These expectations/goals and also concerns around recreational legalization are derived from national and international research and the experiences of jurisdictions that have legalized recreational cannabis (particularly from Colorado and Washington State).

with other harm reduction and public health goals because government may become dependent on the tax money (Kamin, 2016). Regulations against illegal dealers and growers will still have to be enforced; these enforcement costs will be covered by tax revenue, so in order to generate more taxes will need to be increased further. The commercial supply architecture with a fairly hefty tax would fit with this goal. Home-growing would be minimal or outlawed altogether because they would take away from the goal of creating revenue.

Another goal relates to *minimal government* (i.e., personal freedom) which aims to reduce government interference with individual behavior. Again, a commercial supply architecture with few regulations and taxes would encourage home-growing operations. This goal is similar and has overlap with the goal of *free market capitalism* discussed above; however, this goal would emphasize the right of individuals to grow their own cannabis at home (e.g., Washington State embraced the free market model but did not allow home-growing).

A final goal commonly mentioned is *reducing or eliminating black market involvement with cannabis* (Health Canada, 2017). Prime Minister Trudeau emphasized the focus on this goal in the following quote:

> ...there are billions upon billions of dollars flowing into the pockets of organized crime, street gangs and gun-runners, because of the illicit marijuana trade, and if we can get that out of the criminal elements and into a more regulated fashion we will reduce the amount of criminal activity that's profiting from those, and that has offshoots into so many other criminal activities (as quoted in Ingraham, 2016, para. 4)

The terminology here requires some unpacking as many people confuse eliminating organized crime with eliminating the black market. One should not expect organized crime to be greatly hampered by recreational cannabis; part of the reason for this may be that organized crime involvement with the cannabis trade is already limited and seems to have declined as cannabis laws have loosened in the U.S. (Capler & Boyd, 2017). In recent times, organized crime groups in Canada seem to have diverted their attention away from cannabis. For example, there is evidence to suggest that organized crime groups are moving into cybercrime because it poses much less risk and offers much higher rewards when compared to drug smuggling and distribution (Beare, 2015; Byrne & Kimball, 2017).

Lindsey Houghton, spokesman of British Columbia's anti-gang task force notes that organized criminal groups act "like legitimate businesses, [and] are going to engage in activities that are going to make them the most profit" (Hager, 2017: para.18-21). He believes that this has resulted in a shift of focus by organized crime groups from marijuana to chemical drugs like fentanyl. According to Houghton: "the profit margin for the same quantity of fentanyl versus marijuana is significantly greater...never mind the startup and labour intensity that goes into massive large-scale marijuana grow operations...you need a small kitchen and a pill press to produce thousands and thousands of pills of fentanyl" (Hager, 2017: para 21-24). Of course, legal risks and penalties are far more severe for fentanyl production when compared to illegal cannabis growing operations; however, this

seems to have made little difference to organized crime groups. One might speculate that these groups tend to focus on benefits and disregard many of the risk and penalties, calling into question the effectiveness of drug prohibition more generally.

Other commentators believe that domestic marijuana sales have not been a significant money-maker for organized crime for years now, and that the profits of marijuana growth for organized criminal groups have paled in comparison to those of heroin (Langton, 2018). There are several reasons as to why marijuana as a product is simply not as profitable anymore for organized crime. First, one must consider its size and bulk; he outlines that "an ounce of weed is the size of a small sandwich, has a strong, easily detectable scent and retails for maybe $200", as opposed to an ounce of harder to detect cocaine that "is the size of a Brazil nut and sells for about $2,000" (Langton, 2018: para. 7). Further, marijuana does not possess the physically addictive qualities of drugs like heroin, cocaine, fentanyl, or methamphetamines[2], and the user is capable of opting to not purchase the drug if they are not satisfied with the product. The effects of those more addictive drugs result in a far more profitable and obedient clientele (Langton, 2018).

Many of the points made in the preceding paragraphs correspond to predictions made by Cohen and Felson's (1978) routine activities theory. According to this theory, criminals, and especially organized crime groups, will gravitate towards drugs and activities that offer the highest profit margins with the lowest risk of detection. Marijuana is a cheap, bulky, messy, and pungent drug when compared to the more valuable, lighter, and more easily concealable forms of drugs like powders and pills. Statistics from Colorado suggest that an estimated 70% of the black market has been eliminated in the years following legalization. However, some regions of Canada may see more of a disruption since the vast majority of the black market marijuana in Colorado and Washington is likely being exported to surrounding states. Given that Canada has legalized cannabis nationwide, the statistics will likely look somewhat different.

It is important to consider all of these goals when deciding on how to regulate; a regulatory system placing too much emphasis on one goal would have serious defects (Kamin, 2016). Another potential problem that ought to be considered is that of over regulation. Most consumers of cannabis (all things equal) would prefer to purchase from legal suppliers. Following prohibition most of the illegal alcohol trade moved to above ground legal operations; the states that had the most problems with black market alcohol were those that preserved the black market by instituting excessive regulation and taxation (Miron, 2017).

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[2] This is not to suggest that there is no such thing as cannabis dependency or that people cannot use cannabis a problematic way. However, the likelihood of become addicted to cannabis is much lower when compared to other drugs (Vestal, 2018). Further, the complications and physical impact associated with cannabis withdrawal are much less serious when compared to other street drugs. Surprisingly, alcohol withdrawal is amongst the most serious of all drugs, legal and illegal.

Concerns around Cannabis Legalization

Frequently raised concerns around recreational legalization include increased use by young people, impact on other substance use (e.g., gateway effect), increased crime and public disorder (including drugged driving), and various other public and personal health impacts. Anti-cannabis groups like Smart Approaches to Marijuana (S.A.M.) (https://learnaboutsam.org/) and Clear the Air Now (http://www.cleartheairnow.org/) have identified many of these concerns in their crusades against recreational cannabis legalization. The research reviewed here will include any relevant findings about effects of medical cannabis law as well as recreational cannabis. Very few states have had regulation in place for long enough to gather substantial data. In some cases, the relevant insight gained from medical cannabis research will be limited; however, it still can provide a rough approximation for what to expect when prohibition on recreational cannabis ends.

INCREASED USE BY YOUNG PEOPLE

Cannabis consumption is quite common in Canada. According to Statistics Canada, in 2012, 43% of Canadians reported that they used cannabis at least once in their life, with 12% using it within the past year and 94% of those who used within the last year used more than once. The average user is 18 to 30 years of age with slightly more male users than females (Goltz, & Bogdanov, 2016). Second only to alcohol, cannabis is the most commonly used intoxicant in Canada, with 17% of youth reporting usage in 2014-2015 (Minaker, Bonham, Elton- Marshall, Leos- Toro, Wild, Hammond, 2017). Despite indications of such widespread use of cannabis in Canada, especially amongst younger Canadians, cannabis still remains illegal. Goltz and Bogdanov (2016) assert that despite this existing regulatory regime being recently upheld by the Supreme Court of Canada, and despite the resources devoted to prosecution by law enforcement, cannabis provisions fail to act as a deterrent to youth and other users.

The failure of cannabis prohibition has been recognized by several federal jurisdictions, including the Netherlands, Portugal, and Uruguay, and has led to various forms of decriminalization and legalization (Goltz, & Bogdanov, 2016). Initially, drug prohibition was implemented using racist propaganda; in fact, many would argue that this was essentially an attempt to criminalize the behaviors of minority people and immigrants (Chilea, & Chilea, 2011). As reflected in the years of alcohol prohibition, such approaches are not effective, and this era was defined by bootlegging and the creation of a prosperous alcohol black market for organized crime. Many commentators view the modern "War on Drugs" as ineffective for many of the same reasons (Rolles, 2017). Despite cannabis prohibition, the problem remains that it is readily available to teenagers, many reporting that they could obtain it fairly easily.

One issue stemming from concern about youth use of cannabis has been referred to as the gateway drug hypothesis. This refers to the use of certain drugs that cause the use of harder drugs in sequence (Hall, & Lynskey, 2005). This term was coined in 1984 by Dr. Robert L. DuPont, Jr. (Kleinig, 2015). DuPont's sociological thesis is mainly used to demonize cannabis through the broad observation that youth who use alcohol and tobacco would eventually use cannabis, which is illicit regardless of age. Kleinig (2015) asserts that because cannabis is illegal, youth who begin to use it were seen as removing a psychological barrier to using other, harder drugs. This sociological

"truth" has impacted drug policies over the years and has developed into a justification for the status quo.

The gateway hypothesis remains controversial. In the United States, the acceptance of the gateway hypothesis has lead policymakers and health educators to establish goals around delaying cannabis use to decrease youth usage of other illicit drugs. However, in the Netherlands, drug policy analysts reject the notion of the gateway effect and argue that drug use patterns are attributable to cannabis and other illicit drugs being sold in the same black market under prohibition (Watson, Benson, & Joy, 2000; Hall, & Lynskey, 2005). In other words, cannabis prohibition results in cannabis being sold alongside other harder drugs and the situation presents cannabis users with the ever-present opportunity to try other drugs when obtaining cannabis. The Netherlands has led the development of progressive drug policies by decriminalizing cannabis to break the nexus between cannabis and harder drug use. The separating of the markets should, in turn, reduce, if not abolish, the associations between cannabis and illicit drug use (Watson, Benson, & Joy, 2000; Hall, & Lynskey, 2005). Given that the Netherlands started loosening cannabis laws in the 1970s, and has failed to re-prohibit cannabis, one could assume that the approach has been well-received and generally effective.

Another major problem with the gateway drug hypothesis is that it drastically oversimplifies the underlying motivations and processes by which youth become involved with illegal drug use. Motivation for youth to use cannabis is similar to alcohol consumption in terms of being associated with social facilitation and pressure (Anderson, Sitney, & White, 2015). In other words, becoming an underage alcohol or cannabis user has less to do with its legal status and more to do with the groups of people one associates with. Learning theories of crime and deviance, such as differential association and social learning theory argue that people learn criminal and deviant behaviours in the same way that they learn other behavior (Akers, 1998). Individuals who associate with criminal groups have learned to define criminal behaviour as favorable, whether it is reinforced through social rewards and rationalizations (Brauer, 2009).

If one is young and curious, experimental and somewhat rebellious, using alcohol or cigarettes becomes an avenue to express those traits.[3] This behavior may also be socially reinforced in a variety of ways by members of the peer group (e.g., higher status within the group, praise from the group, a sense of belonging, etc.). Some youth start with cigarettes due to accessibility, others begin with alcohol because usage can be more easily concealed (Kleinig, 2015). In fact, it seems as though most studies indicate that alcohol and cigarettes are much more likely to be gateway drugs when compared to cannabis (Kandel & Kandel, 2014; Kirby & Barry, 2012). To put it differently, it is very difficult to find people who smoked cannabis before experimenting with cigarettes and alcohol.

Based on the findings of several reports from Washington and Colorado, it also seems that concerns over increases in rates of young people using cannabis post recreational legalization were blown out of proportion (Rolles, 2017; CDC, 2018). After examining data on drug use collected from youth between the ages of 12 and 17, Grucza, Agrawal, Krauss, Bongu, Plunk, Cavazos-Rehg, and Bierut

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[3] One must also keep in mind that it is common for young people tend to engage in risk-taking behaviors and minor forms of deviance; in fact, some have argued that this is actually normal (Moffitt, 1993).

(2016) found that cannabis related disorders declined from 2002 to 2013. During this time period, many states have relaxed and loosened their cannabis laws. The authors of this study suggest that when dealing with youth, legality of cannabis may not be a major factor in the decision to use it. Another possibility is that the stigma associated with cannabis has been reduced, making people less likely to conceal a problem and more likely to get help.

INCREASES IN OTHER SUBSTANCE USE

Another concern held by some is that once legalized, cannabis will be used alongside other legal drugs such as tobacco or alcohol. However, others believe that cannabis may reduce alcohol consumption through a substitution effect (i.e., people replace drinking alcohol with consuming cannabis). Schauer and Peters (2018) assert that cannabis and tobacco alone carry their own health risks, however, when used together there may be added negative health effects (Barsky et al., 1998; Fligiel et al., 1997; Hall and Solowij, 1998). Tetrahydrocannabinol (THC), the psychoactive compound in cannabis has been shown to interact with nicotine to increase the rewarding effects (Valijent et al., 2002), which further increases dependency on one or both substances (Ford et al., 2002; Peters et al., 2012; Ream et al., 2008, as cited in Schauer, & Peters, 2018). Not only does co-usage lead to further dependency on both substances, it is also correlated with increased mental health risks and poor academic standing (Cohn, Johnson, Rath, & Villanti, 2016). Youth may also unknowingly be exposed to tobacco in the form of co-administered products, such as blunts and spliffs, which youth do not consider tobacco products (Schauer, & Peters, 2018). This type of shared use is popular amongst young adults and the negative health effects they face in this developmental period can lead to lifelong negative health behaviors (Cohn et al., 2016).

The relationship between alcohol and cannabis is more complex. Cannabis functions as a substitute for alcohol in some circumstances but may also act as a complement[4] (Guttmannova et al., 2016, as cited in Allen et al., 2018). Factors that may influence the relationship between alcohol and cannabis include price, availability and the perceived harmfulness by the user (Alter et al., 2006; Arria et al., 2008, as cited in Allen et al., 2018). Davis, Walton, Bohnert, Bourque, and Ilgen (2018) add that alcohol and cannabis co-use has been prevalent ever since the legalization of medical cannabis. This is due to the fact that both alcohol and medical cannabis have been viewed as an avenue of self-medicating and controlling pain (Davis et al., 2018).

The concurrent use of alcohol and cannabis is more common in young adults (Davis et al., 2018). Hechtman (2016) adds that some of these young people perceive little risk from co-usage. Research has demonstrated that alcohol and cannabis interact in various ways. Research also shows that even relatively low amounts of alcohol in a user's system can lead to high concentrations of THC in the individual, because alcohol dilates capillaries which makes it easier to absorb higher levels of THC. Cannabis also appears to delay the time to maximum alcohol concentration, which leads users to feel that they are no longer being alcohol-impaired even after several hours.

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[4] This refers to when an individual uses alcohol and marijuana simultaneously.

Evidence also shows that the legalization of recreational cannabis will impact the use of other substances such as opioids (Allen et al., 2018). There has been a great deal of emerging research dedicated to showing that the greater availability of cannabis may reduce reliance on pain medications and opioids (Kral et al., 2015; Bradford and Bradford, 2017; Lucas et al., 2016; Bachhuber et al., 2014). Powell and his colleagues (2017) found that in the United States there were 22,598 deaths in 2015 from prescription drug overdose deaths; over the same period the distribution of opioid analgesics quadrupled. These researchers also found that when state policies around medical cannabis were less tightly regulated, there was a reduction in opioid-related overdoses and hospital admissions. This indicates that progressive policies, with little state interference around cannabis use and distribution through dispensaries, have reduced some of the harms associated with the misuse of opioids (Powell, et al., 2017). These findings seem particularly relevant for the province of British Columbia as overdose deaths rose to unprecedented levels in 2016, and have remained at very high levels since.

INCREASES IN CRIME AND PUBLIC DISORDER

The idea that cannabis dispensaries attract crime has been used by policymakers as a means to ban them in the name of protecting children and families (Zheng, 2014). However, the reality of how cannabis dispensaries affect crime is not so simple. For example, Chang and Jacobsen (2017) argue that dispensaries could actually decrease crime. Dispensaries tend to have their own private security systems and guards to resolve disputes, and through the legitimizing of the cannabis trade, all participants have access to legal channels to protect themselves (Chang, & Jacobsen, 2017). Foot traffic through neighbourhoods is also increased by dispensaries, which can create an "eyes on the street" deterrent against crime (Jacobs, 1961 as cited in Chang, & Jacobsen, 2017). Further, if cannabis is used as a substitute for alcohol, crime rates may actually be reduced since drinking is often a factor in property and violent crimes (Carpenter, 2007; Carpenter, & Dobkin, 2015).

Chang and Jacobsen (2017) observed crime trends in areas where closure orders were given to dispensaries. The findings include an increase in crime - property crime and theft from vehicles - which was once deterred by foot traffic and the presence of bystanders. Restaurant closures were also studied, and the findings showed that business closures, in general, tended to increase petty crimes due to the lack of a bystander and clear opportunity (Chang, & Jacobsen, 2017). Another recent analysis of the effects of dispensaries on crime in California conducted by the RAND Corporation found that while there were some increases in DUIs associated with dispensaries there seemed to be no relationship between dispensaries and violent crime. In addition, the researchers found a significant negative relationship between dispensary openings and property crime; however, this may have been related to pre-existing trends towards gentrification and increased crime control (Hunt, Pacula, & Weinberger, 2018). Older studies indicated that there may be a positive relationship between medical cannabis dispensaries and crime. Contreras (2016) speculates on what may be causing this in the following passage:

> In the context of the City of Los Angeles, the association between medical marijuana dispensaries and crime rates may be tied to dispensaries' lack of

> banking access and regulation, necessarily making them a cash economy and possibly inviting a criminal element to blocks hosting these facilities (1088).

In other words, an absence of any type of regulation is thought to be responsible for creating criminal opportunities. Because they cannot legally use the banking system, dispensaries are forced to deal in large of amounts of cash thereby making them a very attractive target for potential criminals. These problems would likely vanish in US states if recreational cannabis was legalized federally in the U.S.

One of the common goals of policymakers is to set tax rates in order to eliminate the black market without increasing youth consumption (Pacula et al., 2014). Organized crime has long been identified as a government priority in Canada (Munch, & Silver, 2017). Police services throughout the country assert that 56% of drug-related incidents are committed for the benefit of organized crime (Munch, & Silver, 2017). However, Munch and Silver (2017) found that cannabis incidents were less likely to be identified as benefiting organized crime (31%), compared to 61% of other illicit drug incidents. Similarly, a report by Capler and Boyd (2017) argue that the label of organized crime can only be applied to a minority of individuals involved with the Canadian cannabis industry and that many are non-violent offenders who have minimal involvement with other criminal activities. The potential for profiting from cannabis has decreased for organized crime, and with government support for legal avenues the black market for cannabis can be eliminated (Alsharaiha, 2017). Further, the legal marijuana industry has the ability to invest in machines and labor-saving technologies to compete with and dominate the black market. Alsharaiha (2017) argues that in order to compete against the black market, the US federal government needs to allow the legal marijuana industry to benefit from business expense deductions just as any other legal enterprise.

Based on the experience of the US states that have legalized marijuana, little seems to have changed. Opponents' suggestions of increased crime and public disorder and increased use amongst youth have not come to pass; however, the lofty goals espoused by many proponents (e.g., elimination of black market, massive government revenue) took several years to materialize. However, it should be kept in mind that Canada has legalized cannabis on the federal level and the US has not; this could have an impact on many of the goals and concerns discussed above.

Methods

Research ethics approval for this research was received from the University of the Fraser Valley's Human Research Ethics Board in April of 2018. The interviews were conducted between May of 2018 and August of 2018. The data for this study was derived from 20 semi-structured interviews composed of 11 questions that focused on participants' feelings around goals/expectations and concerning issues stemming from recreational legalization, and their views on how cannabis should be regulated. These questions were formulated following a review of the recent literature on cannabis legalization and regulation. The sample was composed of five key stakeholder groups in

the community of Abbotsford[5] including dispensary owners, police officers, business people, service providers, and residents. It should be kept in mind that this sample was non-random and purposive. For example, the research team attempted to interview businesses and residents that were relatively close in proximity to cannabis dispensaries and who could offer some insight on cannabis legalization and regulation.[6] Similarly, the service providers interviewed all had experience in dealing with drug use or drug-using populations in some capacity.

All of the interviews were done face-to-face and ranged from 22 to 47 minutes in length. Questions touched on a variety of issues related to cannabis regulation such as expectations/goals and concerning issues around recreational cannabis legalization. The rest of the questions dealt with regulatory issues including the availability of edibles and sites to consume cannabis (e.g., cafes) as well as the restrictions around advertising and branding. Interviews were recorded and the researchers took additional notes for later reference. After the interview, the recordings were transcribed into Microsoft Word documents. After all of the interviews were transcribed the data was transferred into NVivo analysis software for further analysis.

The analysis and discussion will focus both on identifying key themes that emerged across all of the groups. Unexpected themes in specific groups are also noted when they occurred as are surprising areas of agreement amongst stakeholder groups.

Results

THE BLACK MARKET, ORGANIZED CRIME, & OVERREGULATION

For a variety of reasons, nearly all of the respondents who discussed organized crime believed it would either be unaffected or affected in minor ways by recreational legalization. One could speculate that organized crime groups in Canada likely planned for recreational marijuana legalization and have almost certainly been impacted by legalization in Washington state and other West Coast states that have legalized or loosened marijuana laws (e.g., Oregon, Montana, & Alaska). Several dispensary owners agreed with this sentiment:

> *There will be a transition period, it is not as if you flip the switch, legalize it, and everything's kosher. No. Look at Colorado, Washington State, and California it is part of the transition, you still have parallel markets, still have black and legit market operating. A lot of people involved in the industry look at the curb players and still view them as organized crime. You look at Colorado, 70% of the black market was integrated into the regulatory framework.*

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[5] One resident interview was conducted with a person who lived in Aldergrove. This was justified by the fact that they lived very close to a large-scale growing operation managed by the Tweed Corporation. As will be discussed later, we felt this was relevant to Abbotsford because at the moment none of these operations are located close to the city; however, this many change in the future and we felt it important than emerging concerns be documented.

[6] In many cases, participants declined to be interviewed because they had no strong feelings on the topic or lacked knowledge in this area. In other words, there was some level of self-selection; however, this was not deemed to be problematic because little insight would be gained from a participant who had little to say about the subject matter.

According to the Arcview Market Research Group, after almost five years of legalization, the black and grey markets currently supply roughly 27% of marijuana in Colorado, so one should not expect unregulated markets to vanish instantly. In 2014, black and grey markets maintained 59% of the overall market, meaning that the legal market has enticed over 30% of consumers away from the unregulated market (Dayton & Adams, 2017). All of the police respondents referred to the rise of the grey market:

> *The other concern is about personal production. They are talking about four plants per house. That's not organized crime don't get me wrong. We will see a new breed of trafficker. People will be able to produce a lot more than they can consume. I think it's about 150 grams dried product for indoor plants or 250 grams for someone what they're doing for an outdoor plant. That's upwards of 1000 grams for somebody every three months. So, our concern is that you will see neighborhood dealers.*

However, one resident noted that they were simply more comfortable with a regulated market:

> *Honestly, I think if it is more easily accessible, there will probably be less gang involvement and that kind of thing. It might make it a less dangerous drug. If you can just go to the store and buy some why would you go to a scary guy's house where he might have a gun in the back?*

Another resident makes the point that dealers may still keep black market marijuana on hand for people who want to buy it alongside other harder drugs:

> *I don't think there's a way to reduce the black market. People will sell it illegally for the first bit. There are people who are younger who will want to do it, and if no one will 'boot' for them because it's very strictly regulated at first, they will go to a dealer. There will be people who this is their job for a while, especially people who deal more intense drugs. So, if you want to pick up something heavier, you will be like I will just pick up my weed while I am there.*

While there may still be a black market, the evidence suggests that the involvement of organized crime will continue to wane. Organized crime groups in the US are still attracted to the cannabis trade because federal legalization has not yet occurred. In other words, a great deal of organized crime activity in Colorado and Washington State involves transporting legal cannabis to states where it is prohibited. This highly profitable activity will not be readily available in Canada. However, this is but one factor and cannot be used to predict what will happen in B.C.

Overregulation and taxation were also cited frequently by 40% of respondents (8 out of 20) as a reason for why the black market will persist. The most obvious cause of this is taxes; if taxes are too high, the black market will continue to thrive. Interestingly, this point was made by both police and dispensary owners:

> *In Washington State, the pricing was originally incredibly expensive for 1 gram of marijuana. We saw this when cigarettes got so expensive, there was a large black market for cigarettes. So, if we see that the government is going to price it over $10, that probably won't work. We think the sweet spot is $7-8 range. If it gets much more expensive than that, people will go the black market.*

> *The legitimate, legal cannabis needs to be cheaper and higher quality than black market. Look at a regular weed smoker, why would they buy from a dispensary that is charging $12 or 14 per gram when they can get it from a buddy down the road for $10? They need to create a regulatory framework that will allow producers to produce a price point where they can profit.*

Another concern related to regulation expressed by several respondents referred to the exclusion of smaller craft growers from the regulated market. This will create problems in a province like B.C. with a long and rich history of marijuana growing and exporting. A dispensary owner voices this concern in the following passage:

> *I think the biggest thing is that everybody has an equal opportunity to thrive in this industry. If people can meet the regulations that they put forth, everybody should have a chance. There's this whole thing about monopolies and everything, they always stand up for the monopolies and government run stuff. I don't think that's fair. You see craft breweries and craft wineries, why not craft cannabis? It doesn't always have to be industrial and commercial. Everyone should have a fair go at it.*

Large-scale producers currently have contracts in place, while applications for micro production will not be reviewed until later this year after recreational legalization has come into effect. Smaller producers will also face challenges securing areas to grow since land must be secured through the Agricultural Land Reserve (ALR) or via a municipal license (Spriggs, 2018). Since there have been recent concerns about marijuana encroaching on traditional crop land used for food, and several municipalities have already banned marijuana dispensaries and have the ability to prohibit cannabis growing bunkers, it seems as if land for craft growing may be hard to obtain. Some believe that this could result in an over reliance on large scale production yielding a much inferior product compared to what consumers can now purchase at most dispensaries in the Lower Mainland. Several dispensary owners noted this problem:

> *One thing I am worried about is the LPs [Large-Scale Producers], like this is a craft in B.C., it is truly a craft. Our dispensary or the way we see it is, they bring the best*

product to the table...If we start with pesticides and GMOs, I mean everything we have done so far has been under regulation which is fine. But are we losing the actual craft of it and opening up that can of worms where it will no longer be done the natural way. You may lose focus on quality in favor of profit. Some products are good and demand for them will be high, the quality will go down as you try to satisfy the demand. It's a craft, so the resources aren't there and you lose the quality...So, now we will lose something that could be 100% Canadian. We are out-sourcing another one of our resources yet again.

Craft growers have, in some cases, been involved with organized crime in the past because cannabis has been an illegal commodity for nearly 100 years. However, Capler and Boyd (2017) argue that it would be incorrect to classify Canadian cannabis growers and distributors as organized crime groups:

> The website of Justice Canada notes that there is a lack of consensus about what constitutes organized crime. The posted article on definitional issues in organized crime indicates that the most common defining characteristics cited by those who study the phenomenon are 1) a continuing organized hierarchy; 2) rational profit through crime; 3) the use of force or threat; and 4) corruption to maintain immunity from arrest and/or prosecution...The best available evidence suggests that while many of the current cannabis producers and distributors seek a rational profit, the other categories do not apply: there is not a singular hierarchy of marijuana distribution in Canada, or in any province in Canada; there is only a very rare use of force or threat, and very rare instances of corruption to maintain immunity from arrest or prosecution (pgs. 3-4).

According to this definition, many of the craft growers would not fit the description of a typical member of an organized crime group. Lifelong cannabis activist Joel Pedersky-Cannon discusses some concerns over confusion of definitions in the following passage:

> One of our main points in that was we are not organized crime... To paint the picture in the media that all people that grow cannabis outside the commercial regulated system as somehow part of organized crime is completely false... It's one of the things I feel is still being put out there to the public as a justification for strict regulations (as quoted in Eckford, 2018, para. 15).

Public disorder and crime resulting from the use of cannabis proved to be of little concern to any of the stakeholder groups. For example, one police officer noted that there are few calls to dispensaries prior to legalization. Another officer surmised that crime patterns might change in more nuanced ways despite the fact that crime may not go up generally:

I don't see crime going up, particularly, it's not the kind of drug like opioids where people have to commit crime to sustain a habit. We are concerned about robberies and break and enter to dispensaries and stores. We saw this spike in other place like Colorado and Washington State. The commodity is so valuable.

DRIVING & ROAD SAFETY CONCERNS

A frequently mentioned concern related to drugged driving and road safety. A federally funded, anti-legalization group known as the Rocky Mountain High Intensity Drug Trafficking Area (RMHDA) has published yearly reports since 2014 about road safety changes after legalization. Every year a new report is published suggesting that cannabis legalization is causing numerous traffic accidents in Colorado. While it an indisputable fact that it is more common to find elevated THC levels in motorists involved in accidents after legalization, this does not necessarily mean that cannabis use is causing these accidents.

One central problem of these reports is that the authors operate under the assumption that the presence of THC metabolites can be equated with the cause of an accident. Of course, this reasoning is highly suspect considering that THC remains in the blood for up to 30 days after use. One would expect that after legalization more people would use cannabis and more will have it in their system. Further, following legalization of recreational cannabis, police are more likely to be wary of drugged driving and are more likely test for THC after accidents. In addition to these oversights, there are other documented methodological issues and inaccuracies in the RMHDA reports (for detailed critiques see Sullum, 2015 & 2016).

Part of the problem with the RMHDA reports is that they are overly reliant on one type of data. A more accurate way to examine the effect of cannabis on road safety would be to find data that would allow a comparison between states that have legalized cannabis versus those states where it remains illegal. A recent Canadian Senate report prepared by a group of doctors and drug use experts indicated that there was no reason to expect a spike in road fatalities following legalization. This report arrived at these conclusions by using a different dataset. Rather than looking at rates of driver impairment, these researchers also examined studies on overall traffic injuries and fatalities using fatal accident reporting (FAR) data (Lake, Kerr, Werb, Haines-Saah, Fischer, Thomas, Walsh, Ware, & Wood, 2018).

A recent study using FAR data revealed that when compared to eight control states that did not legalize cannabis, rates of motor crash fatalities did not increase in states that had legalized it. Strangely, several other studies using FAR data found that after the legalization of medical cannabis, there were significant reductions in motor vehicle fatalities especially amongst young adults. The authors speculate that this was a result of an underlying substitution effect and a reduction in binge-drinking which is common among this demographic (Lake et al., 2018).

Another report conducted by the US National Highway Traffic Safety Administration found that the negative impacts of cannabis on road safety may have been overblown (Compton, 2017). After a thorough review of the research on cannabis and impaired driving, the report found that once other factors were controlled for the link between cannabis impairment and crash involvement vanished. Compton (2017) explains below:

When the odds ratios were adjusted for demographic variable of age, gender, and race/ethnicity the significant increased risk of crash involvement associated with THC disappeared. The adjusted odds ratio for THC positive drivers was 1.05 (95% Confidence Limit of 0.86 – 1.27). This adjusted odds ratio was not statistically significant (pg. 39).

The researchers also found much larger increases in likelihood of crash involvement when alcohol was present in a driver's system when compared to cannabis.

The debate around cannabis legalization and its effect on road safety has been dominated by extremists on both sides: opponents of legalization often cite an increased in rates of traffic accidents as a major reason as to why cannabis should remain prohibited while supporters of legalization sometimes minimize or fail to acknowledge the risks of driving high. Both of these positions are gross oversimplifications of reality – cannabis intoxication is qualitatively different from alcohol intoxication, but cannabis still impacts driving in other ways that should cause concern.

In their study comparing cannabis and alcohol impairment, Sewell, Poling, and Sofuoglu (2009) found that the detrimental effects of cannabis were more noticeable in tasks involving highly automatic driving functions (e.g., reaction time, maintaining a consistent speed), while alcohol was more likely to affect complex tasks that require concentration and focus. Further, the researchers found that cannabis users tend to better compensate for their deficiencies using various behavioral strategies (e.g., driving slowly and often under the speed limit). To make matters complicated, the study also indicated that the effects of cannabis vary between individuals when compared to alcohol because of individual differences in tolerance level, differences in smoking technique and devices, and differences in absorption levels of THC. A service provider notes the differences in tolerance and how this relates to driving:

> *I have some questions about drinking and driving versus smoking weed and driving. Some people who smoke frequently develop a tolerance and I question how much they're affected when they're driving versus someone who has no tolerance to it, who might, youth call it "greening out". If they haven't built up a tolerance and they smoke of the marijuana that's around, it gets them wasted...so they wouldn't be able to drive. I have some questions about the harms and unforeseen consequences from that.*

Finally, it should be kept in mind that alcohol and cannabis used together create greater intoxication levels than when they are used alone (Sewell, Poling, & Sofuoglu, 2009).

The preceding paragraphs illustrate why law enforcement respondents expressed great concern around the enforcement of drugged driving legislation. Novice and infrequent users and those who mix cannabis and alcohol will undoubtedly exhibit very high levels of impairment. However, more experienced users may not, and their use may be extremely hard to detect; the same may be true of

medical users. Distinguishing those who are truly impaired from those who are not will be very difficult. Two officers elaborate on the potential problems here:

> *Drugged driving is another thing we are concerned about. It's not a new problem, we know that people consume cannabis and have driven when they shouldn't have, but I think it's something we need to make sure we are very on top of and address...We really need to invest in education part of this. I don't think we have done nearly enough, I know the federal government has done a few things about youth and drugged driving. I think this is where we need to reinvest.*

> *Another concern is the road safety. I am not sure that we know how to analyze people who are under the influence, I know that they have roadside screening devices in places like CO, but there just hasn't been that much research that I am aware of. It doesn't appear there's much research on how much can you have in your system and how impaired you are on the roadway...How do we understand it in relation road safety?*

A service provider cites similar concerns:

> *I am concerned about the perception that it's not OK to drink and drive but its ok to smoke and drive. I am strong pusher of no substance use and driving. To me that's a big one: Will there be problems with people using and driving?*

The concerns outlined above around road safety indicate that there is a need for more honest education around the dangers of drugged driving and also mixing cannabis and alcohol (Sewell et al., 2009). The problem of responsible use of cannabis and more general concerns about a lack of education and misinformation is the topic of the next section.

EDUCATION & RESPONSIBLE USE

Participants from all of the stakeholder groups expressed worry about a lack of education around cannabis use. The majority of these concerns related to the public perception of marijuana and whether people understood the medicinal uses and benefits associated with the drug. In some cases, respondents mentioned that recreational users are actually using cannabis to address mental health problems without fully realizing it. One dispensary owner explains that this is why he started his business:

> *I have been a recreational user since university, 20-21, used it consistently for stress relief. I also suffer from severe anxiety, sometimes with panic attacks. That's when I started to learn about CBD...didn't even know what this was. Went to a dispensary and they told me about it. I learned about it. It was like a miracle drug. That's what drove me to open this.*

Many of the respondents mentioned that they felt a lack of reliable information and honest public discussion were responsible for creating this problem. It is worth noting that that this observation was echoed across all of the stakeholder groups. For example, a business owner makes this point in a general observation:

> *If anything, I think that as more knowledge gets out there as it becomes more conversational, that it will probably be used in a better way than it was before. Anytime you have an illegal product and you don't have people talking about it, you have dangers that come through lack of information. And, of course, from lack of information come fear and I think that is what is driving a lot of the concern about the negative influence of marijuana. We just haven't had enough public discussion.*

Another related set of concerns around education relates to responsible use of the drug. A resident noted that:

> *I would say there's people who don't respect it when they use it. If you respect a drug when you use it, you understand how much to use to get a certain effect and actually have a decent high and not hurt yourself or anyone else. But I feel like people won't look into it; it will be like alcohol where people just do it because it's ok to do and its legal and they aren't thinking that this was recently illegal and there are things that can go wrong.*

Further, the guidelines for dosing with marijuana are murky at best as one dispensary owner points out:

> *We have budtender education, so that tells you how to clip stems and leaves from buds. But do you have the education about how to correctly dose CBD? Because right now, we don't. It is trial and error. I can tell you what this will do, but you find your own sweet spot. We use personal experience and experience from clientele. We use a review system. That's all there is.*

Given the number of different preparations of cannabis (e.g., flower, hashish, shatter, edibles, & oils), it seems that creating a standardized system would be difficult. Police and service providers were particularly attuned to this concern:

> *One problem is that you can have a few beers and not be intoxicated. But how does that work with marijuana? We don't know that. Like percentage-wise with alcohol. So, a person can say I had five beers or shots. Just being educated around it is important. I don't know much about this. Maybe we can have a standardized dose or something.*

To complicate matters, it has also been shown that the effects of cannabis vary greatly between individuals when compared with alcohol (Sewell, Poling, & Sofuoglu, 2009). The concerns mentioned by the respondents in this section indicate that educational programs must go beyond merely explaining the dangers associated with cannabis use and offer guidelines for responsible use of the drug for people who choose to partake in it.

YOUTH, NORMALIZATION, & GLAMORIZATION

Another frequently referenced concern related to fears that legalization would lead to increased rates of use amongst young people. Several participants referred to the negative impacts that cannabis use can have on the developing brain. Somewhat surprisingly, very few respondents seemed concerned about increases in young people using because of easier access to the drug or the loss of stigma that comes with legalization. As a whole, stakeholders seemed to think that youth were already using cannabis and that legalization would have little impact on this. Most of the studies from the U.S. states that have legalized recreational cannabis indicate that levels of youth use have changed little (Grucza, Agrawal, Krauss, Bongu, Plunk, Cavazos-Rehg, & Bierut, 2016; Rolles, 2017; CDC, 2018).

The most prevalent concern expressed by all of the groups related to youth use was that aspects of recreational cannabis might be appealing to young children in a few different ways. First, edibles are often appealing to young people as a police officer and dispensary owner explain below:

> *There was an issue with youth in other states that allowed it. Do we allow gummy bears and candies and attract youth usage?*

> *A lot of the products are in a Lego brick form now. Each dot is 10 milligrams, so it's kind of an easy way to establish the dosage. Packaging should be more discreet, a lot of them sort of appeal to kids.*

Advertising and branding were also thought to be problematic for encouraging use by young people, and most respondents saw the need to limit advertising:

> *Major restrictions on tobacco have been wise. Early smoking ads were targeted at women (You've come a long way baby!!). It did impact me. When you're young, it will impact you. Look at this woman in a position of power, and she has a smoke, and that's like me. I do think media can be a powerful tool, so marijuana should be regulated like cigarettes and alcohol. It shouldn't be made out to be cool.*

Surprisingly, participants seemed to be less concerned with branding and celebrity endorsements; however, there were still a few fears about how this could potentially impact young people:

Let's be honest, this is a for money, for profit industry so I get that having Snoop Dogg connected with your business is going to help you sell more weed. Still I am very reluctant about anything that will encourage youth usage and that it's a cool product because Snoop Dogg has endorsed it or athletes that might endorse it. So, no, I am the same answer here. I don't endorse that.

It seems as though the concern over youth use can be connected to the need for strengthening education around cannabis. For example, in recent years professional athletes have started to use cannabis medicinally as a replacement for opiates to manage pain. It might make sense to point out that this is not the same as recreationally using cannabis. In cases of high-profile celebrity use, one could point out that this could be part of an image that is being marketed sell some kind of product (e.g., music, movies).

BUSINESS OPPORTUNITIES AND TAX REVENUE

Respondents from all of the stakeholder groups mentioned that cannabis regulation would have a net positive effect with regards to economics. It was clear that many respondents thought there would be more jobs and increased economic activity:

I know when I look at other jurisdictions like Colorado and Washington State, the industries themselves have been very good at bringing forward information in terms of such things as usage, the number of customers they have, the impact on the economy and taxation. So, I think that we're going to find that we will find that the cannabis industry itself will do a pretty good job that they bring forward those issues.

The opinions on increases in tax revenue were much more circumscribed as there were some questions about how much the costs of regulation would be. One of the businesspeople commented:

I think the expectations of the economic impact of the taxation side are unrealistic. I don't think out of the starting gate that this will be an economic windfall for government. I hope they look at it that way. Government is notorious for raising taxes. I think down the road we will see a gradual progression in increases in taxation. My initial concern is that I don't want to see the government price themselves out of the marketplace. Where there's going to be added pressure is that they have talked about taxation at the federal level. The management of the systems and implementation of regulation are at the provincial and municipal level. Where are the municipal resources going to come from to deal with that? Their primary way of raising revenue is local taxes.

There are indications that this concern is very well-founded especially in the first year of regulation. Bishop-Henchman and Scarboro (2016) point out that, while tax revenue in Colorado and

Washington State has been significant, it took several years to develop. This is especially true with respect to costs in the first year as consumers and suppliers must adapt to a new system after state and local authorities have spent considerable time and money implementing new regulatory frameworks. Finally, the original strategy of the Federal Liberal Party was to keep taxes low so as to discourage black market competition. Taken together, this all suggests that one should scale back expectation around how much tax revenue can be derived from this industry immediately.

POLICE RESOURCES AND HARM REDUCTION

Several participants mentioned that police resources that were used on cannabis could now be focused on other more serious forms of crime:

> *Great for revenue, and also for police. Two areas I can think of. Revenue can be raised for treatment, detox centers, prevention programs for youth. Second is to free up police resources and start focusing more on violent offenses. Will also lead to less incarceration and streets will be safer in the end because police can focus on violent crime rather than chasing down pot smokers; this is a more effective use of tax dollars. We can focus efforts to catch violent offenders.*

Interestingly, in an analysis of Uniform Crime Report data from 2010 to 2015, Makin, Willits, Wu, Dubois, Lu, Stohr, Koslicki, Stanton, Hemmens, Snyder and Lovrich (2018) found that cannabis legalization had no negative effects on police clearance rates. Interestingly, the evidence they examined suggested that some crime clearance rates have improved. The authors interpreted these findings as indicating that recreational legalization freed up police resources giving them more time to prosecute other more serious property and violent crimes.

In several of the interviews, discussion of how police resources are used led to a discussion of harm reduction. Several respondents mentioned that they did not agree with marijuana users being labeled as criminals. For example, one business person noted:

> *I think one of the goals is human rights. Even though I think any drug is bad in terms of its impact on society, I do believe that people should have the right to use marijuana. So, I think extending that, you don't want people to get criminal records unfairly and unnecessarily for substance that is no worse, or even as bad as, alcohol.*

A service provider expresses similar sentiments:

> *The most important purpose for regulating marijuana is to reduce harm from other dangerous drugs. The second most important, tied to first, is to stop criminalizing pot users, they are not criminal people. When marijuana is*

criminalized, it gives law enforcement ability to criminalize people more harshly. Pot smokers shouldn't be going through the criminal justice system.

Somewhat surprisingly, the lessening of the stigma against cannabis use, especially medical use, was referenced by over 25% (6 of 20) of the respondents:

I think it will lessen the stigma around so that people that need it for medical reasons will feel a little less judgement from others. Us younger age people don't care about it as it is. But people my grandma's age…My grandma has been using a cream for medicinal purposes and she doesn't tell her friends. Maybe lessening the stigma would be a big positive.

Even the conversation now, I talk to peers my age who want to explore medicinal uses of marijuana. In my opinion there will be an increase in use. For those people who thought they might be interested, but it's illegal, so it's a non-issue for law abiding citizens. There may be more exploration because it's legal now. There will be an increase in use I think not saying if it's bad or good.

Interestingly, the demographic that is seeing the highest increase in use is older people who are using cannabis to replace various medications (Han, Sherman, Mauro, Martins, Rotenberg, & Palamar, 2017). Powell, Liccardo Pacula, and Jacobson (2018) also found that daily doses for opioids filled on Medicare Part-D fell after dispensaries became more widespread following the introduction of medical marijuana laws in various US states. The opioid overdose crisis was also frequently mentioned or used as a basis for comparison. A police officer describes his views on the priority level of cannabis prohibition:

We all know you can't overdose and die from marijuana and it's not physically addictive, it's a carcinogen and it can do other things, but it's not like heroin where you have physiological dependence. We take something like that, we haven't been able to squish this…the War on Drugs as it applies to marijuana, it seems kind of chicken-shit to be honest compared to fentanyl…guys getting stoned and playing videogames versus people dying in the Downtown Eastside by the hundreds, it kind of seems chicken-shit.

Similarly, a business owner questions the relevance of extreme prohibition policies and refers to how this affects overdoses:

It has saved the lives of thousands of people…look at the opiate overdoses reduced by 25% in states that legalized it… that's huge, if you were opposed to this plant you have an agenda or are ignorant or you just don't to know; maybe you bought into Nancy Reagan's Just Say No Campaign and you just shut your mind off there. Anybody who has done any research whatsoever, has to be on the side of this. Not even close. It's either that or you are uneducated about it or you have an agenda

and are making money and this is just evil. So, you have to pick: which one are you?

As the previous quote implies, it is important to consider the effect that cannabis availability has on other forms of legal and illegal drug use – there is a growing body of evidence indicating that cannabis is often used as a substitute for other more dangerous drugs including crack cocaine (Socias, Kerr, Wood, Donga, Lakea, Hayashia, DeBecka, Jutras-Aswadd, Montanera, & Milloya, 2017), prescription opioids (Lucas, 2017; Powell, Liccardo Pacula, & Jacobson, 2018) and even alcohol (Lucas, Reiman, Earleywine, McGowan, Oleson, Coward & Thomas, 2013; Baggio, Chong and Kwon, 2017). Several respondents referred to anecdotal stories about these substitution effects. Service providers and dispensary owners seemed particularly aware of these use patterns:

This goes back to the question of stigma and a lack of knowledge about effects and proper dosing levels of cannabis. Doctors are often reluctant to prescribe to patients because there is a lack of research about the positive medical benefits of cannabis coupled with medical training that has been slow to acknowledge that cannabis has medical uses (e.g., pain reduction, epilepsy).

The goals of cannabis regulation should be focused on health benefits. We now have a safer alternative to opioids, painkillers, etc. Number one should be to ramp up clinical studies of the product. Other countries like Spain, Israel, Australia, and Germany are already doing it. Spending tons on the strains and studying the effect of terpene profiles. And there is no overdose risk like with opioids. People who get opioids eventually become addicts. Are we helping them?

HOME-GROW REGULATIONS

Respondents were almost unanimously supportive of allowing homeowners to grow a small number of plants on their property. The few dissenters mentioned that they felt it would have been wise to wait on allowing home-growing. As with drugged driving, the enforcement of home-growing regulations was viewed as particularly challenging by the police respondents:

We have been advocating to start slow and then you roll out different thing. My concern is that we are just throwing it all out. It's very hard to draw things back in, it's easier to roll it out. I am not opposed to home grows, but people always compare it to making beer and wine. But it's different, someone can grow 1000 grams of dried product, compare that...that's 1000s of highs versus beer, you need 6 beers or so or a bottle of wine. It's not apples to apples.

Given that we are still unsure as to how the consumers, the market, and criminals will react to federal legalization, the slow approach makes sense. However, if it is found that the black-market share is reduced from year to year and the regulated market is successful, it seems this policy should be reviewed and adjusted to be similar to laws around personal alcohol production.

The supporters of home-growing could also be broken into two groups. One group, nearly half of the respondents, seemed supportive of home-growing because it was a personal freedom:

> *My God created this plant like other plants, and for a government to keep this away, tell people they can't grow it...that is truly criminal right there. That goes against the laws of god and man. This should be just growing wild like Echinacea. People are always throwing the youth thing out there. That's the trump card. You can garner lots of support with people when you scare them about the youth. You know this has not killed anybody folks. Meanwhile alcohol and tobacco have killed many, many people. But those are still legal, and are often in the hands of children. And then you have European countries where kids can drink at the table. But there's never really a problem, because you know anything you tell a kid you can't have they are going to want. I think what we need to do is to take all the money we are spending on enforcing this and put it in to education. I am not saying legalize it across the board so every kid can get a hold of it. I am just saying there is far worse things to be concerned about out there. And your child drinking should be #1 on your list, not cannabis. You should definitely be able to grow in your house.*

The other smaller group, accounting for about 25% of the respondents, did not have a problem with home-growing as long as it was regulated and done by people who owned their homes or property:

> *We grow tomatoes at home, right? I brew beer at home. If someone has a huge electric bill and 20 lights going and they have converted their house in to a growing facility, then we should tax and fine the shit out of those guys. Make it known. What really hurts people is their pocketbook, not criminal charges. There should be lots of teeth to enforce this rule. Like if I start a brewery in my yard; you can't do that because it's not zoned for it. You can't run certain businesses out of your house. But to be honest, marijuana is not the scourge of our society.*

As discussed previously, another concern with home-growing relates to the black market and organized crime. Limited growing might affect organized crime because people will be given the ability to produce their own product. However, as mentioned previously, this could lead to a "new breed" of neighborhood grower-dealer.

PUBLIC USE AND CONSUMPTION SITES

The group was quite divided over the issue of smoking or vaping cannabis in public places. 60% (12 of 20) of the participants supported a limited form of public use. Of this group, most (8 of 12) thought it should be regulated similar to tobacco. A few of the respondents pointed out that this is different from tobacco and should be compared to drinking in public:

> *You're not allowed to drink in public places. You can't walk down the street with a case of beer. It is like that in certain countries. So I think those rules should apply. I still see it as a substance similar to alcohol. I don't compare it to smoking tobacco, I compare it alcohol.*

Respondents were nearly unanimous (95%) in their support of consumption sites of some kind (i.e., cafés and lounges). Again, most compared these to bars and pubs – if people who drink have places to go, why not cannabis users? This sentiment was reflected in many of the responses:

> *Why not? They're coming up with a marijuana drink, they realize that people will sit around and drink beer and want to capitalize. We need to get a pub culture going. If we got into brewing beer like in Abbotsford with the Fieldhouse, it's like a license to print money. We have models for this in society. We just need to go do the research.*

Others also thought that economic activity would increase as the regulated market takes hold:

> *I think these are great. I think we need to go even further. What we are looking at is a spa. If you start going to into what can be done, the benefits of smoking cannabis before a workout, so gyms, yoga studios, massages, acupuncture. If people need pain relief and need to smoke, they should be able to. A café would be fabulous. We have to look at what we have done with alcohol...it has no real benefits, but we have allowed it become legal.*

The biggest concerns raised about consumption sites related to ventilation, and how it could be ensured that employees of these establishments were not being exposed to harmful levels of smoke. Several respondents mentioned that they felt it was unfair if marijuana users were allowed to smoke indoors as cigarette smokers must smoke outside.

POSSESSION LIMITS

Half of the respondents raised concerns about the seemingly arbitrary limit of 30 grams that was placed on the possession of cannabis in public. A vast majority questioned why one could buy as much alcohol and as many cigarettes as they desired (two drugs that are arguably more dangerous than cannabis if overdoses and long-term health consequences are considered):

> *How much ginseng can we possess? Or echinacea? Or alcohol? Or even tobacco? They haven't put any regulations on these things. No, there shouldn't be limits. I mean, if we are going to legalize it, we need to legalize it. So, I think 30 grams is ridiculous...I don't think there should be any amount that past that point, you're*

going to be charged. I think that's ridiculous. Both recreational and medical should be unlimited.

30 grams seems arbitrary because you can buy how many cases of beer? If you go to the wedding and buy all the booze or how many growlers can you fill up? I just don't know why...it's the same in the states, you can have about an ounce. What's really going to happen? The police will catch you with an ounce and half? Are they going to arrest you?

Roughly One-third of the respondents (7 of 20) agreed with a restriction for various reasons. Somewhat surprisingly, two of the four dispensary owners interviewed thought the restriction of 30 grams for recreational cannabis was appropriate:

An ounce sounds approximately right. I don't know what you would do with an ounce per day. Unless you're going on a long camping trip or something. It's quite a bit. No one really needs more than ounce at a time. I would assume if you have more, you're selling to someone else.

To start out, a limit of 30 grams seems reasonable. As one of the police respondents noted previously, it is much easier to start with tighter regulations and loosen them as opposed to trying to make loose regulations more stringent. However, as with home-growing, policy-makers should consider revising this regulation to fit with alcohol and cigarette regulations if there are no initial problems with the rollout of recreational legalization.

Analysis

THE LINK BETWEEN EDUCATION, RESPONSIBLE USE, & STIGMA

A recurring theme in the interviews is the link between a lack of education and reliable information, and the responsible use of cannabis. Respondents from all of the stakeholder groups mentioned that there is a lack of honest information about cannabis in a variety of areas. For example, there is little to no information about how cannabis can be used in a healthy way. Doctors are reluctant to prescribe cannabis to patients because there is no way to ensure that the appropriate dose is being administered. People are unsure of what constitutes responsible cannabis use. For example, at what level does the average adult become ill from too much cannabis (i.e., "green out")?

How much cannabis can be used before driving and how long should one wait before driving after using cannabis? Again, there are no clear guidelines for any of these questions. Because of individual differences in tolerance levels, differences in method of administration, and absorption of THC, these questions may be very difficult to answer (Sewell et al., 2009). Many participants felt that this lack of information was caused, in part, by the fact that there is still a great deal of stigma associated with being a cannabis user, even a medical user, and the hope was that this would lessen after legalization.

More scientific research is obviously required here, but perhaps it would make sense to include medical and recreational cannabis users and experts from the cannabis industry in these discussions. As noted earlier, emerging research suggests that many drugs users have started to substitute cannabis for various drugs ranging from alcohol to cocaine to opioids (Baggio, Chong and Kwon, 2017; Lucas, 2017; Lucas, Reiman, Earleywine, McGowan, Oleson, Coward & Thomas, 2013; Powell, Liccardo Pacula, & Jacobson, 201; Socias, Kerr, Wood, Donga, Lakea, Hayashia, DeBecka, Jutras-Aswadd, Montanera, & Milloya, 2017). This suggests that some groups of users might have some interesting insights to offer on topics like the medical use of cannabis and the relational it has to the opioid crisis.

THE LIMITS OF TAXATION AND REGULATION

As noted in the results, many of the respondents believed that the black market would still exist after legalization and that organized crime would not be greatly affected. In first year of legalization in Colorado (2014), the black market retained 59% of the total market; however, this declined greatly in the following years as the legal market took hold. Further, we should not be too quick to interpret increases in cannabis sales in the years following legalization as increases in the number of people using the substance; instead, it could indicate that the black market is disappearing (Dayton & Adams, 2017). Further, problems with defining organized crime and distinguishing organized crime grow operations from black market craft growing operations can be difficult which could cause problems in assessing the impact on the black market.

Another sentiment expressed by several stakeholders was that tax revenue would be minimal and costs of regulation would be high. Many of the interviewees expressed that they felt cannabis would be over-regulated resulting in higher costs. As Bishop-Henchman and Scarboro (2016) note, first year costs of implementation in Colorado were quite high and it took several years for cannabis to grow into a profitable industry. The temptation amongst policy-makers initially will be to place higher taxes on cannabis to pay for the initial costs. Unfortunately, this can feed the black market. The noted economist Jeffery Miron explains the pitfalls of regulation in the following passage:

> If regulation is mild, it has no meaningful effect. Consider a rule that limits purchases to one ounce per customer per month. For most users an ounce lasts at least a month anyway. And consumers who want more can purchase at multiple stores or have friends or family purchase for them. If regulation is instead strict, it promotes continuation of the black market. Consider a requirement for registration of every purchase and enforcement of the rule of only one ounce per month across all stores in a state. This would be expensive and would place real barriers to using retail stores, ultimately resulting in less tax revenue, more need for enforcement, and perpetuation of the illegal market. Thus, legalization without excessive regulation or taxation is the only way to eliminate the black market. And this approach has the added virtue of maximizing tax revenue from legalized sales, minimizing enforcement costs, and respecting the freedom of those who wish to consume marijuana (2017, para. 10-12).

More broadly, the desire to control the cannabis market via overly aggressive regulation is misguided, and can simply result in the black market retaining greater control over the market. This is especially true in a province like B.C. which has a long history of growing cannabis illegally.

THE BLACK MARKET, CRAFT CANNABIS, & LICENSED PRODUCERS

Over aggressive attempts at regulation can result in a thriving black market. Because the federal government has delayed the process of licensing smaller scale growing operations and land might be limited (Spriggs, 2018), the conditions for a thriving black market may exist in B.C. Craft cannabis growers are organized, and are very devoted to this activity, as many were active when cannabis was criminalized and punished more consistently (https://www.craftcannabis.ca/). It is highly unlikely that these people will stop growing after legalization if they are unable to obtain licenses. As many of the police respondents mentioned with the number of growers in B.C., regulations on numbers of plants will be nearly to impossible to enforce.

Another concern arises from the large-scale production of cannabis by some of the licensed producers. Several dispensary owners noted that they were unsure if quality of industrially produced cannabis would measure up to what consumers have grown accustomed to in the B.C. market. James Walsh, a B.C. based cannabis consultant and co-founder of the B.C. Micro License Association also makes this point:

> Recreational cannabis will be available, but consumers shouldn't expect the same quality product that they're used to buying from local dispensaries. Licensed producers will grow cannabis on a large-scale, and the quality, variety and potency of accessible products will fall significantly in the new LDB-regulated retailers (as quoted in Spriggs, 2018, para. 7-10).

Walsh goes onto to say that the quality locally produced cannabis that B.C. is known for is often produced in the illicit craft sector. Further, the vast majority of the cannabis sold in over 100 Vancouver dispensaries was provided by black market growers using the *Access to Cannabis for Medical Purposes Regulations Act*, who then sold it to dispensaries illegally (Spriggs, 2018). In their study of cannabis users, Osborne and Fogel (2017) found that many of the participants thought the quality of cannabis might drop after legalization. However, this does not seem to have held true in the US states that legalized recreational cannabis, so it remains to be seen what will happen in Canada, and specifically the province of B.C.

As cannabis production has ramped up in the large-scale growing operations run by the licensed producers, there have been a growing number of complaints from residents living in the areas around them. These complaints range from excessive noise and bright lights late at night to overpowering cannabis odors that are poorly masked by what one resident referred to as "Febreze cannons" (Azpiri & Beha, 2018; Karstens-Smith, 2018; Saltman, 2018). One interview was

conducted with a resident who lived close to the Tweed growing operation in Aldergrove; this person echoed these concerns:

> *The large-scale growing of it is a problem. There's one out in Ontario, they have been fighting that one for a long time. There's one in Pitt Meadows that is bad, just horrible...They didn't do their research. Didn't do their due diligence. Washington State, Colorado, Oregon, have all had this legalization for a while and you don't hear many complaints about noise and smell of producers.*

Conclusions and Recommendations

As with many qualitative studies, the sample interviewed here should not be construed as being representative of Abbotsford as a whole.[7] Another potential problem was that this research did not interview cannabis users directly. One could argue that cannabis users are clearly a stakeholder group and deserved to be included. Some have also rightly pointed out that drug policy is more effective when drug users are consulted (Osborne & Fogel, 2016). However, the assumption here was that cannabis users come from all walks of life and would naturally appear in the sample. It is unclear as to whether or not this is true because no direct questions were asked about personal use.

The link between education and responsible, safe use cut through many of the different themes and issues that were explored. Many of the concerns about driving and increased use amongst youth could best be addressed by offering education that dispels both positive and negative myths around cannabis use. Educational programs should present an honest picture of known health consequences based on the scientific evidence. The harmful effects should not be blown out of proportion or invented (see, for example, Westoll, 2018). The benefits of using cannabis so publicized in the media should be tempered with more information about responsible ways to use cannabis. In addition, it would be helpful if educational programs about drug use included lessons on the effects of stigma and strategies for reducing stigma around drug use. This would not only be helpful in the transition from cannabis prohibition but also in addressing the ongoing opiate overdose crisis that is currently devastating Canada and the U.S.

It is clear that more honest research is needed about the effects of cannabis use on driving. This may involve rather complex studies that compare heavy users (i.e., medical cannabis patients) to occasional and new users. Educational programs have been very helpful in reducing drunk driving rates which suggests that there is no reason to assume the same could not be true with drugged driving. Ensuring that advertising and packaging is not appealing to youth seems to be a good idea; however, it is unclear as to why alcohol marketing is not treated with this level of scrutiny. For example, a stroll through one's local liquor store reveals that many craft beer products have colorful logos and mascots. There are also a variety of sweetened alcoholic beverages that one could definitely argue would appeal to young people. Further, there are alcohol infused energy drinks that have been proven to be quite dangerous; these are also very appealing to young people. The

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[7] With that in mind, four of eight unlicensed dispensaries operating in the city of Abbotsford were interviewed.

lack of regulatory consistency from substance to substance is interesting and worthy of more study and consideration.

In B.C. and many areas of the U.S. (e.g., California) cannabis has been de facto decriminalized in the sense that police rarely enforce cases of simple possession of cannabis (Pauls et al., 2012). This is essentially, an unregulated market place and has been shown to be problematic (Contreras, 2016). However, too much regulation can also cause problems because it creates a niche for the black market, resulting in an unregulated market that will eventually give rise to crime and disorder. The concerns and expectations mentioned by the stakeholders suggest that the public/private mixed model embraced by B.C. is appropriate. However, many participants voiced concerns about how the cannabis is being supplied. The larger licensed producers seemed to have been given priority over the smaller craft producers. If the licensed producers fail to provide a high-quality product, the black market in B.C. will continue to thrive.

Initial regulation costs will be quite high. If the government tries to regulate too much, the cost will only be increased, taxes will be higher on the product, and consumers will be expected to pay more per gram of cannabis. According to several participants with knowledge in this area, if the price reaches $10 per gram, the legal market will be unable to replace the black market. This would mean that one of the primary reasons offered by the Liberals for recreational cannabis legalization (i.e., reducing the black market) will not be achieved (Health Canada, 2016). Further, when assessing the success of recreational legalization, it must be kept in mind that it may take several years before tax revenue and profits surpass the initial costs.

Most of the respondents were supportive of having public consumption facilities of some kind (e.g., cafes, lounges) and many mentioned that if people have nowhere to go to consume cannabis, they will surely consume it in public.[8] Obviously, these facilities would not eliminate this but many respondents mentioned that they believed having them would reduce it.

It is also clear that there may need to be stricter regulation of large-scale grow operations and looser regulation of smaller, craft-growing operation. Large-scale production facilities that are located near residential areas have been causing problems for some residents. This is another area that is deserving of more study and consideration.

Some municipalities in B.C., including Richmond and North Vancouver, have chosen to ban recreational cannabis dispensaries. Areas that choose to do this may find that the void will be filled in a variety of overlapping ways. It's highly likely that many people will simply drive to a neighboring municipality that allows cannabis dispensaries. Many unlicensed dispensaries operating in these areas will likely continue to operate until permanently closed down by law enforcement. These municipalities will likely see the rise of the "neighborhood dealer" mentioned by some of the police and resident participants. These might be people who grow cannabis under home-growing regulations and sell to neighbors and friends or those who abuse the mail order system and sell the products at an inflated price. Some dealers in these areas may also continue to

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[8] Many also noted that this would happen regardless, but that the problem would be exacerbated by not having any options.

sell cannabis alongside other harder drugs. Pushing cannabis back into the black market will ensure that it continues to function as a gateway drug as the opportunity to do harder drugs will be ever present for some cannabis users in these areas since they will be buying from black market dealers.

Many of the remedies described above would require considerable policing resources that could prove to be extremely costly to the province and/or the municipality in question. Some studies have found that there is no negative effect on police clearance rates after recreational legalization. In some cases, clearance rates for other forms of crime rose suggesting that police resources had been freed up to solve other crimes (Makin et al., 2018). Finally, it is highly unlikely that enforcing laws around dealing cannabis will be a high police priority after recreational legalization of cannabis if we consider how it was dealt with prior to this.

Based on the research reviewed here crime rates may actually rise in these municipalities as there is some evidence to suggest that closing well-established dispensaries can cause criminal activity to flourish with less foot traffic and "eyes-on-the-street" (Chang & Jacobson, 2017). If these dispensaries close, there could also be an increase in street-dealing as some entity will have to fill the void. Street-dealing normally involves using cash, and as Contreras (2016) demonstrated in the context of decriminalization in California, this situation may lead to more corollary crimes related to the street deals (e.g., people attempting to rob dealers or users on their way to buy). Municipalities in Colorado that have taken this approach are considering reversing course because they are missing out on the economic opportunities that cannabis dispensaries can provide (Lee, 2017; see also Conklin, Huop, & Li, 2017).

The results of the research suggest that the relationship between licensed producers, craft growers, organized crime groups, and the black market deserve further consideration and analysis. Can licensed producers and craft producers co-exist in the legal market or will craft-growing remain restricted to the black market? How will this affect revenue and economic opportunities created by legalization? How has recreational legalization affected organized crime groups? Has there been a rise in small-scale, neighborhood dealers?

Another possible fruitful avenue for research would consist of geospatial crime analyses of cannabis outlets in Abbotsford and other similarly sized communities. This would be interesting not only because we know little about how cannabis dispensaries impact mid-sized and rural communities but also because Canada is the first G-8 nation to legalize recreational cannabis on the federal level.

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