

# **A LIBERALISED MODEL FOR THE LEGALISATION OF CANNABIS IN NEW ZEALAND**

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# INTRODUCTION

The global cannabis landscape is rapidly changing. Many states are recognising that their approach to cannabis has been flawed. These states have, however, largely varied their approaches to cannabis reform. This dissertation will outline the best-legalised model for cannabis in New Zealand. Although there are other options for cannabis liberalisation, the purpose of this dissertation is to analyse what the best-legalised model should be. The justifications for the legalisation of cannabis are extensive but will not be covered in great depth in this dissertation.<sup>1</sup>

The dissertation will be structured in three main parts. The first chapter will outline the historical and current cannabis landscape both within New Zealand and abroad. This will include an evaluation of the international laws that are relevant to cannabis and the different liberalised cannabis models used globally. The second chapter will explain the principles, practical considerations, and goals of the model. The third and final chapter is where the majority of the discussion will be focused. It will cover what the best cannabis model should be within a liberal New Zealand context. This will determine whether a commercial model is optimal and what the appropriate restrictions should be on a commercial model. These restrictions will apply to three key areas. They are production and distribution, sale, and purchase of commercial cannabis. Subsequently, the public use of cannabis, other methods of cannabis production and any other relevant considerations will be examined.

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<sup>1</sup> Martin Carcieri *California's proposition 19: Selective Prohibition and Equal Basic Liberties* (2012) 46 U.S.F.L. Rev 689  
Eric Blumenson and Eva Nilsen *No Rational Basis: The Pragmatic Case for Marijuana Law Reform* (2009) 17 Va. J. Soc. Pol'y & L 43  
Carole Shapiro *Law v Laughter: The War Against the Evil Weed and Big Screen Reefer Sanity* (2004) 29 Okla. City U.L. Rev. 795

# CHAPTER 1: CANNABIS LANDSCAPE

In order to determine how to structure a legalised cannabis model in New Zealand the context surrounding cannabis ought to be examined. This context will include an overview of the history of cannabis laws, the cannabis situation in New Zealand and the liberalised cannabis models used globally.

## HISTORY OF CANNABIS LAWS

Cannabis prohibition in New Zealand came about in 1927<sup>2</sup> when cannabis was added to the prohibited substances in the 1925 Geneva Convention on Traffic in Opium and Others Drugs.<sup>3</sup> The Convention took little consideration of scientific studies, for example the *Report of the Indian Hemp Drugs Commission*<sup>4</sup> that concluded prohibition was unjustified was essentially ignored. Instead of following this report, anecdotal evidence about the damaging use of hashish in Egypt was used to justify prohibition.<sup>5</sup> From this the Dangerous Drugs Bill 1927 was brought forward as the continued use of such drugs “results in pernicious habits and the utter physical and mental demoralization of the individuals so addicted.”<sup>6</sup> At this time domestic use of cannabis was essentially non-existent and as a result little public debate occurred.<sup>7</sup>

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<sup>2</sup> Kevin Dawkins “International law and legalizing cannabis” (1997) 8 NZLJ 281 at 282

<sup>3</sup> Geneva Convention on Traffic in Opium and Others Drugs (signed 19 February 1925, entered into force 25 September 1928)

<sup>4</sup> *Report of the Indian Hemp Drugs Commission, 1893-1894* (Simla, India: Government Central Printing House, 1894)

<sup>5</sup> Dawkins, above n 2, at 282

<sup>6</sup> Hon J Young, Minister of Health, (1927) 214 NZPD 636-637 as cited in Dawkins, above n 2, at 283

<sup>7</sup> Dawkins, above n 2, at 281

By the 1960s the prohibition of cannabis was entrenched and culminated in the 1961 Single Convention on Narcotic Drugs<sup>8</sup>, which was ratified in 1963 and soon followed by the Narcotics Act 1965. These laws were implemented with little consideration of alternatives.<sup>9</sup> These early beginnings of cannabis law show that minimal consideration was given to the merits of prohibition and show a focus on protecting the morality of society.

## **CANNABIS SITUATION IN NEW ZEALAND**

### ***Prohibition***

Today cannabis is prohibited under the Misuse of Drugs Act 1975. The majority of cannabis products are classified in Class C and cannabis preparations, namely cannabis resin and oil, classified in Class B. The maximum penalty for cannabis possession is three months imprisonment or a \$500 fine, but as outlined in section 7(2)(b) of the Misuse of Drugs Act 1975 a prison sentence should only be imposed if an offender has previous convictions or exceptional circumstances exist.

However, the prohibition of cannabis in New Zealand has largely failed. The 2012/13 New Zealand Health Survey found that 42 percent of New Zealand adults have experimented with cannabis with 11 percent having used cannabis in the past 12

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<sup>8</sup> Single Convention on Narcotic Drugs 1961 520 UNTS 151 (signed 30 March 1961, entered into force 13 December 1964)

<sup>9</sup> Dawkins, above n 2, at 282

months.<sup>10</sup> In 2012 The United States Office on Drugs and Crime also found that Australia and New Zealand had the highest prevalence of reported cannabis use.<sup>11</sup>

As a result, New Zealand's approach towards cannabis enforcement has softened in recent years. The mean number of prosecutions and convictions has declined in the past decade with the average number of people imprisoned for cannabis use declining 63 percent from 2000 to 2008 when compared with 1990 to 1999.<sup>12</sup> The pre-charge warning scheme implemented in 2010 has further softened enforcement. This scheme is often applied to those with small amounts of cannabis and avoids any criminal proceedings. The Centre for Social and Health Outcomes at Massey University has found "[t]here has been a decline in the number of prosecutions and convictions for cannabis use offences in New Zealand over the past decade or so."<sup>13</sup> However, this discretionary policy has the potential to discriminate against certain subsections of the population, particularly minorities and has the potential to undermine the rule of law if applied haphazardly. As affirmed by the Human Rights Commission "[t]here is evidence of bias at different points throughout the system from apprehensions to sentencing, which notably contributes to the higher rates of Maori and Pacific imprisonment."<sup>14</sup> For example, in 1996 Maori accounted for 42 percent of cannabis possession convictions<sup>15</sup> and Maori cannabis users are arrested at three times the rate of non-Maori users.<sup>16</sup>

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<sup>10</sup> Cannabis Use 2012/13: New Zealand Health Survey (Ministry of Health, May 2015) at 2

<sup>11</sup> UNODC, *World Drug Report 2012* (United Nations publication, Sales No. E.12.XI.1) at 8

<sup>12</sup> Chris Wilkins "Conviction and Sentencing for Cannabis Use Offences in New Zealand, 1990-2008" (Centre for Social and Health Outcomes Research and Evaluation (SHORE), Massey University, October 2009) at 3

<sup>13</sup> Wilkins, above n 12, at 3

<sup>14</sup> Human Rights Commission, *A fair go for all? Addressing Structural Discrimination in Public Services* (Human Rights Commission, July 2012) at 34

<sup>15</sup> Sally Abel "Cannabis in New Zealand: Policy and Prospects" (Alcohol and Public Research Unit, University of Auckland, 2010) at 6

<sup>16</sup> Human Rights Commission, above n 14, at 36

The public attitudes towards cannabis have also ameliorated. A recent Drug Foundation survey found that only 34 percent of New Zealanders believed that personal possession of cannabis should remain illegal.<sup>17</sup> Attitudes towards home-grown cannabis have also liberalised, with 24 percent of New Zealanders supporting reform in 1997<sup>18</sup> compared to 52 percent supporting reform in 2016.<sup>19</sup>

In short, prohibition has essentially failed to have any real impact on the cannabis economy in New Zealand. Police intervention has only managed to seize approximately one-third of the cannabis produced<sup>20</sup> and New Zealand's climate and geography make cannabis production and distribution quite easy.<sup>21</sup> Prohibition has been unable to beat the laws of supply and demand and as such gangs have a monopoly on the cannabis market and often use their profits to fund more illicit activities.<sup>22</sup>

### ***International Law Considerations***

New Zealand has signed and ratified three international conventions, which limit its freedom to reform cannabis laws. These are the 1961 Single Convention on Narcotic Drugs<sup>23</sup> amended by the Protocol of 1972<sup>24</sup>, the 1971 Convention on Psychotropic

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<sup>17</sup> NZ Drug Foundation, "Majority backs cannabis law change" (15 August 2016, NZ Drug Foundation < <https://www.drugfoundation.org.nz/media/majority-back-cannabis-law-change>>)

<sup>18</sup> Above n 17

<sup>19</sup> Above n 17

<sup>20</sup> Kevin Dawkins "Cannabis Prohibition: Taking Stock of the Evidence" (2001) 10 Otago LR 39 at 58

<sup>21</sup> Dawkins, above n 20, at 58

<sup>22</sup> Dawkins, above n 20, at 57

<sup>23</sup> Single Convention on Narcotic Drugs, above n 8

<sup>24</sup> Protocol of 1972 Amending the Single Convention on Narcotic Drugs 1961 975 UNTS 000 (signed 15 December 1972, entered into force 8 August 1975)

Substances<sup>25</sup> and the 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.<sup>26</sup>

Under the 1961 Convention, cannabis is subject to the general control measures including article 4(1)(c) which “[limits] exclusively to medical and scientific purposes the production... use and possession of drugs”, article 33 which outlines that parties must not permit the possession of cannabis “except under legal authority”<sup>27</sup>, and article 36(1) which requires parties to make breaches of these articles a “punishable offence”. However, cultivation of the cannabis plant falls outside these measures and is governed by articles 22 and 28(1), which outline that “if a party permits the cultivation of the cannabis plant”<sup>28</sup> then it is subject to a variety of limitations.<sup>29</sup>

It is likely that New Zealand could still fulfill its obligations under the 1961 Convention without criminalising possession for personal use or the private non-profit cultivation of cannabis as each party is left to determine whether a prohibition on growing is the most suitable measure.<sup>30</sup> Furthermore, article 36(1) allows parties to decide whether or not to impose criminal sanctions on “any other action which in the opinion of such Party may be contrary to the provisions of this Convention.”<sup>31</sup>

However, a commercial cannabis model would be prohibited, as there is a general obligation in article 4(1)(c) to prohibit the manufacture and production of cannabis.

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<sup>25</sup> Convention on Psychotropic Substances 1019 UNTS 175 (signed 13 September 1971, entered into force August 1976)

<sup>26</sup> United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances 1582 UNTS 95 (opened for signature 20 December 1988, entered into force 11 November 1990)

<sup>27</sup> Single Convention on Narcotic Drugs, above n 8, art 33

<sup>28</sup> Single Convention on Narcotic Drugs, above n 8, art 28

<sup>29</sup> Single Convention on Narcotic Drugs, above n 8, art 22

<sup>30</sup> Dawkins, above n 2, at 282

<sup>31</sup> Dawkins, above n 2, at 283

Neil Boister, a legal professor, noted that “there appears little doubt that Parties are obliged in terms of article 36(1) to criminalize purchase and possession for onward trafficking.”<sup>32</sup>

The 1971 Convention contains a general obligation under article 7 to prohibit possession and use of synthesised tetrahydrocannabinol (THC), the main psychoactive chemical in cannabis.<sup>33</sup> This, however, is unlikely to be particularly relevant to a cannabis model as cannabis is generally dealt with in a raw or slightly altered state.<sup>34</sup> Therefore this Convention is unlikely to greatly prohibit a commercial cannabis model.

The 1988 Convention essentially adopts the drug-scheduling regime under the 1961 and 1971 Conventions.<sup>35</sup> Article 3(1)(a)(i) requires each party to criminalise “production, manufacture, extraction; preparation, offering, offering for sale, distribution, sale, delivery on any terms whatsoever, brokerage, dispatch, dispatch in transit, transport, importation or exportation of any narcotic drug or any psychotropic substance contrary to the provisions of the 1961 Convention, the 1961 Convention as amended or the 1971 Convention.” Thus, this article clearly prohibits the creation of a commercial cannabis model. Moreover, Article 3(2) prohibits “possession... for personal consumption”, meaning that this Convention is likely to prohibit a model of decriminalisation.<sup>36</sup>

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<sup>32</sup> Neil Boister “Decriminalizing personal use of cannabis in New Zealand: the problems and possibilities of International Law” (1999) 5 New Zealand Yearbook of New Zealand Jurisprudence 55 at 58

<sup>33</sup> Convention on Psychotropic Substances, above n 25, art 7

<sup>34</sup> Boister, above n 32, at 60

<sup>35</sup> Boister, above n 32, at 61

<sup>36</sup> Dawkins, above n 2, at 283

These conventions essentially bar the legalisation of cannabis but there are a variety of policy options. The first is an amendment to the treaties as provided for in article 47 of the 1961 Convention, article 30 of the 1971 Convention and article 31 of the 1988 Convention. If no objections were received, then the amendment would come into force, or in the case of objections, a conference of all the parties to the treaty may discuss the amendment.<sup>37</sup>

The second option is to denounce the conventions and, in the alternative, attach reservations that would allow for a legally regulated cannabis market. However, these are politically very contentious moves for New Zealand. The third option is to simply ignore the treaties as Uruguay and a number of individual states in the United States (US) have done.<sup>38</sup> The United States Deputy Attorney-General essentially affirmed this position of ignoring the treaty.<sup>39</sup> This position is unlikely to change as well given that a majority of the US supports cannabis legalisation<sup>40</sup> and that the Democratic Party wants “the federal government to remove marijuana from the list of “Schedule 1” federal controlled substances and to appropriately regulate it, providing a reasoned pathway for future legalization.”<sup>41</sup> Thus, because the US, the key driver behind cannabis prohibition, has ignored the treaties this may be a legitimately viable political option. Moreover, as more states liberalise their approach to cannabis there

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<sup>37</sup> Steve Rolles, *How to Regulate Cannabis A Practical Guide* (Transform Drug Policy Foundation, May 2014) at 217

<sup>38</sup> *INCB President urges Uruguay to remain within the international drug control treaties, noting draft cannabis legislation* UNIS/NAR/1176 (2013)

<sup>39</sup> James Cole “Memorandum for all United States attorneys” (United States Department of Justice, 29 August 2013)

<sup>40</sup> Pew Research Center “Majority now supports legalizing marijuana” (4 April 2013) PewResearchCenter <<http://www.people-press.org/2013/04/04/majority-now-supports-legalizing-marijuana/>>

<sup>41</sup> Democratic Platform Committee “2016 Democratic Party Platform” (21 July 2016) at 16

may be significant pressure to alter the treaties.<sup>42</sup> Thus, it is likely that a commercial cannabis model will be politically viable on the international stage in the near future.

## **DIFFERENT LIBERALISED CANNABIS MODELS**

Internationally the support for cannabis prohibition is falling. The United States Office on Drugs and Crime estimate that 180 million people use cannabis annually<sup>43</sup> with an expenditure of up to 120 billion Euros.<sup>44</sup> As a result, more than half of all the US states have liberalised their approach to cannabis along with numerous countries such as Colombia, Argentina, the Netherlands, Uruguay, Peru, Spain and Canada.

These states that have liberalised their approach to cannabis have taken vastly different approaches. In broad terms it is useful to break the different models into four categories.

The first of these categories is decriminalisation of personal use which means that cannabis possession is no longer a criminal offence but simply a regulatory breach. Consequently, those caught with small amounts of cannabis are subject to only light penalties, akin to a minor traffic violation. The more liberal laws within this category also allow citizens to grow and share small amounts of cannabis for personal use.<sup>45</sup>

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<sup>42</sup> David Bewley-Taylor “The Contemporary International Drug Control System: A History of UNGASS Decade” (IDEAS Report, The London School of Economics and Political Science, 2012) at 5

<sup>43</sup> UNODC, *World Drug Report 2013* (United Nations publication, Sales No. E.13.XI.6) at xi

<sup>44</sup> Beau Kilmer and Rosalie Pacula “Estimating the size of the global drug market: A demand-side approach” (Technical report, RAND Corporation, 2009) at xi

<sup>45</sup> Association Medical Cannabis Spain “Is Cannabis Legal in Spain?” Cannabis Spain <<http://www.cannabis-spain.com/legal/>>

This category is the most popular liberalised approach to cannabis with a large number of states and US states having this style of cannabis law.<sup>46</sup>

The second category is the de-facto legalisation of the sale and purchase of cannabis for personal use. The Netherlands is the only state to have such an approach towards cannabis. Through what is called a “policy of tolerance”<sup>47</sup>, the sale and purchase of less than five grams of cannabis to those over 18 years of age is permitted within their cannabis “coffee shops”.<sup>48</sup> Possession of up to five grams of cannabis is also tolerated.<sup>49</sup> However, the production of more than five cannabis plants remains a criminal offence meaning that much of the cannabis sold in “legal” sales is produced criminally.<sup>50</sup>

The third category is de-facto legalisation through medical cannabis laws. These models generally prescribe cannabis so liberally that it can essentially be purchased as easily as alcohol or tobacco.<sup>51</sup> The production of this medical cannabis is legalised and regulated and such a model is applied by Canada and some states of the US.<sup>52</sup>

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<sup>46</sup> Ari Rosmarin and Niamh Eastwood “A quiet revolution: drug decriminalisation in practice across the globe” (2013) Release <[http://www.release.org.uk/sites/release.org.uk/files/pdf/publications/Release\\_Quiet\\_Revolution\\_2013.pdf](http://www.release.org.uk/sites/release.org.uk/files/pdf/publications/Release_Quiet_Revolution_2013.pdf)>

<sup>47</sup> Government of the Netherlands “Toleration policy regarding soft drugs and coffee shops” Government NL <<https://www.government.nl/topics/drugs/contents/toleration-policy-regarding-soft-drugs-and-coffee-shops>>

<sup>48</sup> Robert MacCoun “What Can We Learn from the Dutch Cannabis Coffeeshop Experience?” (Working paper, RAND Drug Policy Research Center, July 2010) at 1

<sup>49</sup> MacCoun, above n 48, at 1

<sup>50</sup> Government of the Netherlands, above n 47

<sup>51</sup> United Patients Group “Conditions That Quality for Medical Marijuana Card in California” (15 February 2012) United Patients Group <https://unitedpatientsgroup.com/blog/2012/02/15/conditions-that-qualify-for-medical-marijuana-card-in-california/>

Medical marijuana “Medical Marijuana and Insomnia” Medical marijuana <https://www.medicalmarijuana.com/medical-marijuana-treatments-cannabis-uses/medical-marijuana-and-insomnia/>

Justin Caba “Medical Marijuana Prescriptions: 7 Ways You Can Obtain An Identification Card” (20 April 2013) Medical Daily <<http://www.medicaldaily.com/medical-marijuana-prescriptions-7-ways-you-can-obtain-identification-card-245125>>

<sup>52</sup> ProCon “25 Legal medical Marijuana States and DC” ProCon.org <<http://medicalmarijuana.procon.org/view.resource.php?resourceID=000881>>

The final and most liberal category of cannabis laws is that of full legalisation which regulates cannabis production, sale, purchase and use. Such models are a relatively recent phenomenon and are likely reflective of globally changing attitudes towards cannabis. Colorado, Oregon, Alaska, Washington State, Washington DC and Uruguay have all adopted a form of full legalisation with the degree of state control and restrictions varying across the models.<sup>53</sup>

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<sup>53</sup> Inter-American Drug Abuse Control Commission (CICAD) “Comparison of Marijuana Laws/Regulations: Colorado, Washington, Uruguay, Oregon, Alaska and District of Columbia” (11 November 2014) OAS  
<[http://www.cicad.oas.org/Main/Template.asp?File=/drogas/cannabis/comparativeLegalAnalysis\\_ENG.asp](http://www.cicad.oas.org/Main/Template.asp?File=/drogas/cannabis/comparativeLegalAnalysis_ENG.asp)>

## CHAPTER TWO: REASONS BEHIND THE MODEL

### PRINCIPLES BEHIND THE MODEL

The overarching principle of the model is one of liberalism, specifically John Stuart Mill's harm principle. This outlines that the causing of harm to others is the only legitimate principle for legislative invasions of liberty.<sup>54</sup> The New Zealand Law Commission concluded that "New Zealanders live in a free and democratic society and are at liberty to behave as they choose, provided their actions respect the rights of others".<sup>55</sup>

However, the harm principle only applies when individuals are able to freely choose the best option for their lives.<sup>56</sup> When a person does not have the "necessary information, maturity or faculties"<sup>57</sup> to assess a decision then restrictions can be applied. Such a situation can occur with minors or particularly coercive products such as tobacco.<sup>58</sup>

The cost to society is also a relevant consideration in determining the most appropriate model in New Zealand.<sup>59</sup> While orthodox application of the harm principle would not consider societal costs<sup>60</sup>, New Zealand has bought health care into

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<sup>54</sup> Joel Feinberg *The Moral Limits of the Criminal Law Volume 1: Harm to Others* (1<sup>st</sup> ed, Oxford University Press, New York, 1984) at 11

<sup>55</sup> Law Commission *Controlling and Regulating Drugs* (NZLC R122, 2011) at 1.44

<sup>56</sup> Michael Lacey "Mill's 'harm principle'" (Routledge Taylor & Francis Group, 2008) at 4

<sup>57</sup> Law Commission, above n 55, at 1.45

<sup>58</sup> Law Commission, above n 55, at 1.45

<sup>59</sup> Law Commission, above n 55, at 1.44

<sup>60</sup> Lacey, above n 56, at 5

the public sphere meaning citizens pay for each others costs, and thus society has a strong interest in reducing these costs.

Finally, the restrictions applied in the model should be the minimum required to achieve the goal in order to minimise the impact on each citizen's autonomy. This is in line with the New Zealand Law Commission's approach.<sup>61</sup>

## **GOALS AND PRACTICAL CONSIDERATIONS**

Limiting the availability of cannabis is a major harm reduction tool. However, such limitations can unjustifiably limit the autonomy of individuals while also having the perverse effect of leading to increased harm. This harm ought to be considered before imposing restrictions on the availability of cannabis.

The first such harm is the presence of the criminal black market for cannabis. The illegal cannabis market was estimated between one and three billion dollars annually in 2002<sup>62</sup> and a large portion of this market is used to fund criminal gangs and further criminal activity in New Zealand.<sup>63</sup> The flow-on effects of such a market are often violence and corruption. The United States Office on Drugs considers these harms as the strongest reasons against prohibition and such harms can also arise as a result of stringent restrictions.<sup>64</sup> In addition, products sold in this illegal market are not subject

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<sup>61</sup> Law Commission, above n 55, at 1.48

<sup>62</sup> Chris Wilkins, Krishna Bhatta and Sally Casswell "Demand Side Estimate of the Dollar Value of the Cannabis Black Market in New Zealand" (2002) 21 Drug and Alcohol Review 145 at 1

<sup>63</sup> Wilkins, above n 62, at 1

<sup>64</sup> UNODC *World Drug Report 2009* (United Nations publication, Sales No. E.09.XI.12) at 163 as cited in *Controlling and Regulating Drugs*, above n 55, at 4.18

to quality or safety restrictions and hence present more danger than products sold legally.

The costs of enforcement are another relevant consideration. This policy displacement can draw public funds away from more beneficial programmes.<sup>65</sup> The current annual cost of cannabis prohibition in New Zealand is estimated at \$400 million and such a cost ought to be minimised.<sup>66</sup> As well, approximately \$150 million annually in tax revenue is foregone.<sup>67</sup> Geographical displacement of harm can also occur where tight controls in one location move the drug-related harm to another area, leading to a disproportionate impact on certain locations.<sup>68</sup>

Another relevant consideration is substance displacement. This is when consumers cannot access their drug of choice and hence consume another drug. For example, The United States Office on Drugs has noted that the amphetamine-type market has grown while the market for cannabis, cocaine and opiates has appeared to shrink.<sup>69</sup> This phenomenon has the potential to move cannabis users to more harmful drugs, often obtained on the black market.

Lastly, regulations ought to be clear and provide certainty to regulated groups. They should also aim to be consistent with alcohol and tobacco regulations so as not to discriminate against cannabis users relatively to other, legal, psychoactive

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<sup>65</sup> Law Commission, above n 55, at 4.18

<sup>66</sup> Internal forum at the Treasury “Drug Classification note” (29 January 2013) at 6 (Obtained under Official Information Act 1982 Request to Office of Hon Bill English, Minister of Finance) at 6 <<https://cannabis.org.nz/sites/cannabis.org.nz/files/Suepercent20Grey.pdf>>

<sup>67</sup> Drug Classification note, above n 66 at 6

<sup>68</sup> Law Commission, above n 55, at 4.18

<sup>69</sup> UNODC *World Drug Report 2009* (United Nations publication, Sales No. E.09.XI.12) at 9 as cited in *Controlling and Regulating Drugs*, above n 55, at 4.18

substances.<sup>70</sup> However, a more restrictive model may be justified where cannabis presents substantially different harms to alcohol and tobacco. There may also be situations where tobacco and alcohol laws have substantively failed to achieve their purpose.<sup>71</sup>

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<sup>70</sup> Rolles, above n 37, at 23

<sup>71</sup> Rolles, above n 37, at 43

## CHAPTER THREE: FORMATION OF THE MODEL

The starting point for the model will be one of full legalisation. While the purpose of this dissertation is not to justify the legalisation of cannabis, it is worth briefly discussing the issues with non-legalised models. Under a model of decriminalisation, cannabis remains unregulated meaning that users know little about its potency or quality.<sup>72</sup> Decriminalisation also keeps the production and profits of cannabis in the hands of criminal groups thus undermining a key goal of cannabis reform.<sup>73</sup> Decriminalisation can also have perverse consequences. In Canada, decriminalisation has led to more people being caught by law enforcement for cannabis possession and the subsequent fines serve as a regressive penalty as they punish lower income individuals more severely.<sup>74</sup>

Decriminalisation can also exacerbate racial discrimination, because in Canada “racialised minorities... [had] a higher chance of being arrested and prosecuted for a cannabis use offence.”<sup>75</sup> Such a problem is likely to occur in New Zealand as well given the three-to-one disparity in cannabis arrest rates among Maori.<sup>76</sup> The Dutch and Spanish approaches also encounter these issues as production still remains with criminal gangs and the discretion in enforcement still exists.

De facto legalisation through liberal medical cannabis laws also runs into a variety of issues. The first is that it undermines the rule of law by operating in a disingenuous

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<sup>72</sup> Centre for Addiction and Mental Health “Cannabis Policy Framework” (Centre for Addiction and Mental Health, Toronto, October 2014) at 9

<sup>73</sup> Centre for Addiction and Mental Health, above n 72, at 9

<sup>74</sup> Centre for Addiction and Mental Health, above n 72, at 10

<sup>75</sup> Centre for Addiction and Mental Health, above n 72, at 10

<sup>76</sup> Human Rights Commission, above n 14, at 36

fashion, as cannabis will knowingly be used recreationally under these medical laws meaning the law would essentially be ignored. Secondly, it sends the message that cannabis is an appropriate or even the optimal medicine to use in all of the cases that it is prescribed, for example with insomnia, anxiety, depression, headaches or anorexia.<sup>77</sup> Thirdly, it undermines the integrity of medical professionals and citizens by making them complicit in this disingenuous law. Such a system is also likely to under-supply the desired cannabis products, which may proliferate the black market. Finally, by operating under a fake pretext the model may fail to adequately address the actual concerns of recreational cannabis. Therefore, a legalised cannabis model is likely to be the most appropriate.

The next section of this dissertation will cover the different options within a legalised model.

## **DIRECT PURCHASE OF CANNABIS**

There are two options to facilitate the direct purchase of cannabis. A state-based model, where the state is directly responsible for certain steps of the process, or a business-focused model where the state regulates the process without direct involvement.

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<sup>77</sup> Justin Caba “Medical Marijuana Prescriptions: 7 Ways You Can Obtain An Identification Card” (20 April 2013) Medical Daily <<http://www.medicaldaily.com/medical-marijuana-prescriptions-7-ways-you-can-obtain-identification-card-245125>>

Medical marijuana “Medical Marijuana and Insomnia” Medical marijuana <https://www.medicalmarijuana.com/medical-marijuana-treatments-cannabis-uses/medical-marijuana-and-insomnia/>

United Patients Group “Conditions That Qualify for Medical Marijuana Card in California” (15 February 2012) United Patients Group <<https://unitedpatientsgroup.com/blog/2012/02/15/conditions-that-qualify-for-medical-marijuana-card-in-california/>>

In Uruguay's state-based model the government is responsible for the retail stage of the process. The benefit of such a model is that it prevents the over-commercialisation of cannabis and allows the government to directly control the price. Colorado, Washington State and Oregon all implement a type of regulated market model. Such a model allows businesses to operate at each stage of the cannabis market subject to varying degrees of restrictions and controls.

A regulated market model is recommended for a number of reasons. Firstly, over-commercialisation can be stopped by implementing other forms of control, for example an advertising ban including plain packaging laws can severely minimise the risks of a commercial model.<sup>78</sup> Furthermore, the price of cannabis can be effectively controlled through the use of an excise tax as is done with tobacco.<sup>79</sup> A commercial model also allows the market to operate which is likely to provide the consumer with a better quality and quantity of cannabis products. By contrast, a state controlled model may under perform thus sending consumers to the black market. Finally, a commercial model provides citizens with more autonomy as it allows the private sector to be involved at all stages of the cannabis market. A regulated commercial model is therefore recommended.

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<sup>78</sup> See advertising section for further discussion

<sup>79</sup> See tax and price section for further discussion

## COMMERCIAL CANNABIS

The evaluation of a regulated commercial cannabis model will be divided into three parts: production and distribution, sale, and purchase of commercial cannabis.

### *Production and Distribution*

The key goals of regulations on the production of cannabis are to ensure product safety and quality and to prevent the leakage of cannabis from the system into unregulated markets.<sup>80</sup> A variety of regulations can facilitate these goals.

### *Licensing System*

It is recommended that a licence be required in order to produce and distribute cannabis products. A licensing body, the cannabis regulatory authority, should be set up in order to regulate the awarding of licences. This body would also be responsible for oversight of the producers. As with alcohol, this licence can be revoked and the holder unable to reapply for five years if the restrictions outlined below have been breached three times within three years.<sup>81</sup> Moreover, fines can be applied depending on the severity and size of the breach.

In order to obtain a licence a variety of criteria will have to be fulfilled. In addition to the basic health and safety requirements of a business operation there are other potential restrictions. To minimise illegal sales and the proliferation of the cannabis

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<sup>80</sup> Rolles, above n 37, at 49

<sup>81</sup> Sale and Supply of Alcohol Act 2012 ss 289, 290, 292

black market it may be appropriate to restrict those with a criminal record from obtaining a licence. Such a restriction is likely to be inappropriate if applied to its fullest extent, for example restricting low-level cannabis offenders from producing cannabis may be a disproportionate punishment for their crimes, especially given that these offenders may be particularly passionate about producing cannabis. This rule may also exacerbate the effects of unjust racial disparity in criminal justice in New Zealand by further restricting the opportunities of low-level offenders.<sup>82</sup> However, those convicted of serious and related crimes ought to be excluded. The purpose of this ban is to prevent those likely to sell cannabis on the black market from being able to produce cannabis. As such, those with a conviction for drug trafficking or dealing ought to be prohibited from obtaining a licence.

Another potential restriction is to limit the number of licences available for producers as has been done in Washington State.<sup>83</sup> However, such a move is not recommended as this interference with the free market is likely to lower economic efficiency by reducing competition and would also concentrate power into a small number of producers' hands.

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<sup>82</sup> Bronwyn Morrison *Identifying and Responding to Bias in the Criminal Justice System: A Review of International and New Zealand Research* (Ministry of Justice, Research Report, November 2009) at 11

<sup>83</sup> Canadian Centre on Substance Abuse "Cannabis Regulation: Lessons Learned in Colorado and Washington State" (Canadian Centre on Substance Abuse, 2015) at 9

## *Quantity Limits*

A limit on the quantity of cannabis that can be produced can help to reduce the risk of cannabis leaking from the system into illegal areas. One type of limit is to restrict the maximum space that can be used for production. Washington State has employed a three-tier system based on the size of the operation with a maximum of two million square feet available for cannabis production statewide.<sup>84</sup>

There are various justifications for such a restriction. Firstly, to limit the power of each individual producer in order to prevent the emergence of powerful commercial cannabis companies that can distort the public interest.<sup>85</sup> While there may be arguments that lobbying power in New Zealand is not particularly prevalent, the alcohol lobby has had some success in distorting the public interest. For example, in the 1995 Ministry of Health drug review the Quay Group successfully avoided linking the consumption of alcohol with other drugs thus providing alcohol producers with more protection.<sup>86</sup> Secondly, given that cannabis production is still illegal under federal law in the US, Washington State was trying to avoid coming under the auspices of the Justice Department, especially given that the Justice Department had said the size of the cannabis operations would be an important consideration in determining whether to enforce federal law.<sup>87</sup> The final reason was to reduce the opportunities for cannabis leakage into the black market, particularly in neighbouring states, by keeping a tighter control on each producer.

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<sup>84</sup> Washington State Liquor Control Board “Proposed Rules Highlights” (4 September 2013) at 2

<sup>85</sup> Piper McDaniel “Is California’s Cottage Cannabis Industry About to Go Up in Smoke?” (3 May 2016) Narratively < <http://narrative.ly/is-californias-cottage-cannabis-industry-about-to-go-up-in-smoke/>>

<sup>86</sup> Abel, above n 15, at 8

<sup>87</sup> Rolles, above n 37, at 61

Yet there are concerns with imposing production limits. Firstly, if these limits lead to an undersupply of cannabis in the market then profitable opportunities will appear for illegal producers undermining a key goal of the model. Secondly, limiting the size of each producer will inherently mean a greater number of producers will operate in the market. This will limit the efficiency of cannabis production as larger operations can make cannabis more cheaply than smaller operations by taking advantage of economies of scale.<sup>88</sup> The regulatory cost would also be increased, as more operations will have to be overseen. Lastly, size-based production limits may lead producers to focus on high potency products in an attempt to maximise the profits from their limited space, although potency production limits may minimise this at the expense of increasing regulatory costs.<sup>89</sup>

The justifications for imposing limits on production in the US are less prevalent in New Zealand. Firstly, New Zealand does not have to contend with having a conflicting federal law. Secondly, the rise of powerful cannabis producers who can distort the public interest is much more difficult as they will not be able to unduly influence demand through advertising or packaging<sup>90</sup> as can be done in the US. Thirdly, New Zealand does not have directly neighbouring states and so cannabis leakage to other states is far more difficult. Therefore, given the benefits of imposing production limits are small and there are a variety of costs associated with doing so, it is not recommended to impose production limits.

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<sup>88</sup> Economies of scale means that units can be produced more efficiently in larger businesses as these businesses can invest in superior technology and resources

<sup>89</sup> Rolles, above n 37, at 62

<sup>90</sup> See advertising section for further discussion

## *Separating Production from Sale*

Another regulatory measure is to separate the production of cannabis from the sale. The major issue with such separation is that businesses will be less efficient as they will not be able to capitalise on the economies of scale that would arise with a larger operation.<sup>91</sup> Washington State has adopted such a policy.<sup>92</sup>

An alternative and opposite option, adopted by Colorado, is vertical integration. This policy forces outlets to produce at least 70 percent of what they sell and limits their sales to other retailers at 30 percent of what they produce.<sup>93</sup> Such a model may make seed-to-sale tracking easier<sup>94</sup> given that the cannabis changes hands less often. However, such a policy can act as a barrier to entry for new businesses attempting to enter the market, as happened in Colorado.<sup>95</sup> Such a barrier can unnecessarily drive up the price of cannabis, increasing the profits of the remaining businesses. It is also of note that Colorado's vertical integration policy arose due to their existing medical cannabis laws that required such integration and thus such a policy was seen as the fairest approach.<sup>96</sup> An additional concern is that favouring larger businesses concentrates cannabis profits in the hands of a small number of groups. This can give more power and influence to such groups leading to adverse consequences such as increased lobbying power or the ability to influence consumer demand.<sup>97</sup> Although as outlined previously, this is not of large concern in New Zealand.

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<sup>91</sup> Angela Hawken and James Priege "Economies of Scale in the Production of Cannabis" (Washington State Liquor and Cannabis Board, BOTEK Analysis Corporation, October 2013)

<sup>92</sup> Washington State Liquor Control Board, above n 91, at 2

<sup>93</sup> Retail Marijuana Rules Colorado R 211 E. 5.

<sup>94</sup> See security section for further of seed-to-sale requirements

<sup>95</sup> Rolles, above n 37, at 54

<sup>96</sup> Rolles, above n 37, at 53

<sup>97</sup> Piper McDaniel, above n 85

## *Security*

Cannabis products present a unique security risk given its high value per kilogram<sup>98</sup> and restricted status in many states. This increased risk may justify tighter regulations where financially viable. Canada has adopted strict regulations that require producers to operate indoors within restricted areas and have strong intrusion detection methods.<sup>99</sup>

However, such regulations are unlikely to be tenable in New Zealand, which has a fertile climate to grow cannabis, as much of the production is done outdoors.<sup>100</sup> As such, banning the outdoor production of cannabis would be very inefficient. Besides, there is no evidence to suggest outdoor facilities cannot be adequately protected as, for example, in Washington State outdoor production is required to be fenced off and contain surveillance systems.<sup>101</sup> Such outdoor production also has less environmental impact, as it does not require the high intensity lighting that indoor production does.<sup>102</sup>

Nonetheless, some form of security regulation will be required to prevent leakage from the system and it is recommended that Washington State's set of regulations for video surveillance of all production and preparation areas be adopted.<sup>103</sup> These regulations should be taken as well as minimum standards requiring that all production and preparation areas are fenced, each access point locked and alarmed, and floodlighting able to illuminate the entire area.

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<sup>98</sup> Rolles, above n 37, at 59

<sup>99</sup> Access to Cannabis for Medical Purposes Regulations (ACMPR) SOR 2016 c 52 s c

<sup>100</sup> Dawkins, above n 20, at 54

<sup>101</sup> Washington Administrative Code (WAC) Title 314 Chapter 314-55 s 314-55-084

<sup>102</sup> Rolles, above n 37, at 60

<sup>103</sup> Washington Administrative Code, above n 101, at s 314-55-084

Another recommended security measure is seed-to-sale tracking which is designed to prevent the leakage of cannabis to those who should not obtain it, particularly minors. The regulation requires radio frequency identification for each plant, which tracks the plant as it is harvested, processed and sold. Such regulation has been effective in Colorado at minimising cannabis leakage from the system<sup>104</sup>

### *Testing*

In order to protect the quality and potency of cannabis available on the market, a rigorous testing system should be implemented. For example, Washington State requires that each producer submit samples of their product to an independent, state-accredited, testing laboratory on a regular schedule. If the standards are not met then the entire cannabis lot from that sample must be destroyed.<sup>105</sup> Other jurisdictions have similar processes for medical cannabis such as Canada and the Netherlands where cannabis is produced and tested in accordance with a set standard.<sup>106</sup>

Although these testing requirements will impose an additional cost on producers, they are not particularly onerous. For example, Steephill Laboratories in California charges \$520 per test.<sup>107</sup> If such tests were done on 10 percent of the lots then the cost to producers would be only 12 cents per gram and at a 50 percent testing rate only 59

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<sup>104</sup> Sara Schmitt “Legal Marijuana Coming Into Focus” (Colorado Health Institute, An Analysis of Colorado’s Policy Landscape, 20 April 2015) at 8

<sup>105</sup> Washington Administrative Code (WAC) Title 314 Chapter 314-55 s 314-55-220

<sup>106</sup> Rolles, above n 37, at 58

<sup>107</sup> Jonathan Caulkins, Beau Kilmer, Robert MacCoun, Rosalie Liccardo Pacula and Peter Reuter “Design considerations for legalizing cannabis: lessons by analysis of California’s Proposition 19” (Society for the Study of Addiction, 22 June 2011) at 4

cents per gram.<sup>108</sup> These costs are a tiny proportion of producer revenue and are not a significant reason to limit testing. Costs will likely reduce even further as testing becomes more standardised and efficient.

As such, it is recommended that a testing regime be required for cannabis producers. Tests would have to be carried out regularly and submitted to the cannabis regulatory authority and would cover potency, safety and quality. A failed test ought to lead to the destruction of that batch of cannabis. The cannabis regulatory authority should also have the discretion to increase the frequency and intensity of testing as required. For example, producers that fail more tests would be required to submit to more testing.

These testing laboratories should also be subject to a licensing regime, under control of the cannabis regulatory authority, to ensure they are accurate. Clear standards need to be established with allowable margins of error. The guidelines of jurisdictions that allow for medical or recreation cannabis serve a good indicator of the appropriate testing methods.<sup>109</sup> These laboratories should be subject to regular review by the cannabis regulatory authority to ensure they remain accurate.

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<sup>108</sup> Caulkins, above n 107, at 5

<sup>109</sup> For further information:

Pete Unger, Roger Brauninger, Chris Hudalla, Mowgli Holmes and Bethany Sherman “Standards for Cannabis Testing Laboratories” (Cannabis Safety Institute, December 2014)

<<http://cannabissafetyinstitute.org/wp-content/uploads/2015/01/Standards-for-cannabis-Testing-Laboratories.pdf>>

William Anderson “Cannabis Testing Labs: Standards and Accreditation” (BOTEC Analysis Corporation, 26 August 2013) <<http://liq.wa.gov/publications/Marijuana/BOTECpercent20reports/2b-Accrediting-Labs-Final-Corrected.pdf>>

Colorado Department of Revenue “Business License Applicant Criteria – Retail Marijuana” (Colorado Official State Web Portal)

<<https://www.colorado.gov/pacific/enforcement/business-licence-applicants-retail-marijuana-2>>

ORELAP Sampling Subcommittee “Protocol for Collecting Samples of Usable Marijuana” (Oregon Environmental Laboratory Accreditation Programme, Oregon State Public Health Laboratory, June 2016)

## *Sale of Commercial Cannabis*

A number of restrictions should be applied to the sale of cannabis in order to minimise the potential harm where appropriate.

### *Licensing System*

In order to sell cannabis a licence ought to be required for both vendors and managers. The cannabis regulatory authority would be responsible for awarding and overseeing these licences. It is recommended that this system mirrors the off-licence requirements for alcohol, albeit with a few different restrictions. The purpose of these restrictions is to meet demand without encouraging cannabis use or facilitating the black market. Firstly, cannabis licences should only be granted to specialty cannabis stores which are only able to sell cannabis and cannabis-related products thus excluding grocery stores, liquor stores, taverns and hotels. This ought to be done to limit overexposure and availability of cannabis products that can lead to inflated demand, as has happened with alcohol. The Alcohol Drug Association of New Zealand has argued that the proliferation of retail alcohol outlets has led to the over-commercialisation of alcohol and caused consumers to lose sight of its status as a psychoactive drug.<sup>110</sup> For example, the practice of cross-selling can inflate demand by providing products together, as may have happened with alcohol and supermarkets.<sup>111</sup>

The counter-arguments of the New Zealand Law Commission do not apply to cannabis. The first argument that “the continued association between food and alcohol

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<sup>110</sup> Law Commission *Alcohol in our Lives: Curbing the Harm* (NZLC R114, 2010) at 8.31

<sup>111</sup> Law Commission, above n 110, at 8.35

remains valid as part of an overall strategy to foster a more responsible and moderate drinking culture”<sup>112</sup> is not relevant to cannabis as intoxication is not reduced by the consumption of food. The second argument that “restricting all alcohol sales to specialist liquor retailers... would unreasonably restrict access for consumers who, for two decades now, have enjoyed the convenience of purchasing alcohol as part of their household’s supermarket shop”<sup>113</sup> is also irrelevant as cannabis has not been available in supermarkets.

As with alcohol, this licence can be revoked and the holder is unable to reapply for five years if the restrictions outlined below have been breached three times within three years.<sup>114</sup> Fines can also be applied depending on the severity and size of the breach.

A restriction on the number of available licences is not recommended as this may under-supply vendors and has the potential to move vendors to inconvenient locations for consumers, thus potentially proliferating the black market, as has been found in Washington State and the Netherlands.<sup>115</sup>

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<sup>112</sup> Law Commission, above n 110, at 8.38

<sup>113</sup> Law Commission, above n 110, at 8.37

<sup>114</sup> Sale and Supply of Alcohol Act 2012 ss 289, 290, 292

<sup>115</sup> Canadian Centre on Substance Abuse, above n 83, at 9

EMCDDA “A cannabis reader: global issues and local experiences” (Monograph series 8, Volume 1, European Monitoring Centre for Drugs and Drug Addiction, Lisbon, 2008) at 150

## *Store Restrictions*

Cannabis vendors should be subject to a number of restrictions. Firstly, vendors should be limited in what they can display. In Washington State vendors are limited to only one sign displaying the business name.<sup>116</sup> Such a name should exclude specific references to cannabis and any storefront imagery should be banned. The inside of the store should also refrain from any advertising to limit any increase in demand that the advertising could cause. As shown with tobacco, point-of-sale advertising can increase demand and lower self-control.<sup>117</sup> Although these requirements are more restrictive than with alcohol, there is a strong argument that alcohol regulation should take the same restrictions and move towards tobacco style restrictions given the addictive and damaging potential of alcohol.

While the opening hours of vendors can also be restricted, it is not necessary. The primary reason for restricting alcohol sales is the increase of violent incidents due to night time drinking.<sup>118</sup> However, cannabis use is not linked to an increase in violence, in fact cannabis use may lead to a reduction in violence.<sup>119</sup> Accordingly, there is little principled reason to treat it differently from tobacco in this regard and so cannabis ought to be sellable at all hours as tobacco is.

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<sup>116</sup> Washington Administrative Code (WAC) Title 314 Chapter 314-55 s 314-55-160

<sup>117</sup> Janine Paynter and Richard Edwards “The impact of tobacco promotion at the point-of-sale : a systematic review” (January 2009) 11 Oxford Journals 25 at 25

<sup>118</sup> Law Commission, above n 55, at 9.30

<sup>119</sup> Law Commission *Controlling and Regulating Drugs* (NZLC IP16, 2010) at 2.38

Drug Policy Alliance, “Status Report: Marijuana Legalization in Washington After 1 Year of Retail Sales and 2.5 Years of Legal Possession” Drug Policy (July 2015)

<[http://www.drugpolicy.org/sites/default/files/Drug\\_Policy\\_Alliance\\_Status\\_Report\\_Marijuana\\_Legalization\\_in\\_Washington\\_July2015.pdf](http://www.drugpolicy.org/sites/default/files/Drug_Policy_Alliance_Status_Report_Marijuana_Legalization_in_Washington_July2015.pdf)>

Any irresponsible promotion of cannabis should also be illegal. Section 237 of the Sale and Supply of Alcohol Act 2012 defines what constitutes irresponsible promotion for alcohol and the potential penalties for such irresponsible promotion. Cannabis should be subject to the same laws, including restrictions on offering free cannabis, offering discounts of 25 percent or more below ordinary price and offering prizes that are linked to the purchase of cannabis. In addition to the restrictions on alcohol, cannabis sellers should also be unable to offer a loyalty programme that provides rewards or discounts to purchasers as this type of scheme can increase the demand for cannabis.

### *Internet Sales*

In the jurisdictions that have legalised cannabis sales, internet purchases are still unavailable.<sup>120</sup> The justification for this is apparent, which is to stop minors accessing cannabis and to keep a better control on the flow of cannabis. However, tobacco and alcohol can be bought online and there is little principled reason to distinguish cannabis in New Zealand.<sup>121</sup> The New Zealand Law Commission report on alcohol noted that internet sales are less likely to result in harm as there is a delay between purchase and acquisition meaning there will be less “casual, unplanned purchases”<sup>122</sup>. Furthermore, internet sales can provide for those unable to reach a vendor, meaning they will not turn to black market deliveries instead. However, there are important restrictions that should be in place to minimise the access of minors.

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<sup>120</sup> Inter-American Drug Abuse Control Commission (CICAD), above n 53  
Oregon Health Authority “Frequently Asked Questions” Oregon.Gov  
<<http://public.health.oregon.gov/DiseasesConditions/ChronicDisease/MedicalMarijuanaProgram/Pages/top20.aspx>>

<sup>121</sup> Law Commission, above n 110, at 8.103

<sup>122</sup> Law Commission, above n 110, at 8.108

The first requirement is that any internet retailer would be subject to the same restrictions as an off-licence cannabis vendor. This would mean that the websites must not advertise cannabis and the packaging must remain advertising free.<sup>123</sup> As recommended for internet alcohol sales, the physical premises of an internet retailer will have the same requirements as a vendor to ensure that inspectors and police can find and visit a physical location.<sup>124</sup>

Moreover, purchasers must verify they are over 18 years of age and the consequences of making a false representation should be explicit. A credit card should be the only method of purchase for individuals, as credit cards cannot be issued to those under 18 years of age.<sup>125</sup> Moreover, delivery should be done person-to-person and age verified upon delivery. Without a person-to-person delivery requirement, minors may obtain cannabis that is left unattended in mailboxes and without age verification, minors will be able to directly receive cannabis if they have fraudulently used an adult's credit card to purchase it.

### *Advertising*

There are strong reasons to implement a blanket ban on the advertising of cannabis products and the lessons of tobacco advertising provide many of these reasons. Initially tobacco products could be marketed essentially without restriction which included sponsorships and product placement designed to associate tobacco with a desirable lifestyle and improve its public image.<sup>126</sup> This laissez-faire attitude has been

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<sup>123</sup> See advertising section for further discussion

<sup>124</sup> Law Commission, above n 110, at 8.109

<sup>125</sup> Law Commission, above n 110, at 8.110

<sup>126</sup> Rolles, above n 37, at 152

heavily linked to the increased use of tobacco in most Western countries.<sup>127</sup> Partial bans also tended to prove ineffective as the tobacco companies tended to redirect their advertising into the sources of advertising that remained legal. As such, the level of overall advertising and exposure was not adequately affected.<sup>128</sup> The World Health Organisation affirms the inadequacy of partial bans noting that “[p]artial... bans have little or no effect on smoking prevalence, and enable the industry to promote and sell its products to young people who have not yet started using tobacco.”<sup>129</sup> Alcohol advertising serves as an example of this as there is evidence “linking alcohol advertising and media exposure to alcohol use among young people.”<sup>130</sup>

Allowing any advertising of cannabis is likely to greatly increase its use. Given the addictive potential, youth exposure, and possible societal harms of inflated cannabis use created by advertising, the recommended solution is a complete ban on all forms of cannabis advertising as is done with tobacco in the Smoke-free Environments Act 1990 with the added condition of plain packaging laws as outlined below.

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<sup>127</sup> Chris Lovato, Allison Watts and Lindsay Stead “Impact of tobacco advertising and promotion on increasing adolescent smoking behaviours” (Cochrane Tobacco Addiction Group, October 2011)

<sup>128</sup> Ronald Davis, Elizabeth Gilpin, Barbara Loken, K. Viswanath and Melanie Wakefield “The role of the media in promoting and reducing tobacco use” (US Department of Health and Human Services, National Institutes of Health, National Cancer Institute Tobacco Control, Monograph 19, 2008) at 16

<sup>129</sup> World Health Organization “Enforcing bans on tobacco advertising, promotion and sponsorship” (World Health Organization, WHO report on the global tobacco epidemic, 2013) at 27

<sup>130</sup> Eleanor Winpenny, Sunil Patil, Marc Elliott, Lidia Villalba van Dijk, Saba Hinrichs, Theresa Marteau and Ellen Nolte “Assessment of young people’s exposure to alcohol marketing in audiovisual and online media” (RAND Europe, September 2012) at 99

## *Packaging*

Packaging requirements should be imposed on cannabis products to minimise the dangers of children accidentally consuming cannabis products and to limit the exposure of cannabis in society.

The first recommended requirement is that cannabis packaging should be opaque. Such packaging should also be re-sealable and have child resistant measures. This would be done in order to limit the possibilities of children accidentally obtaining cannabis. There would also be a requirement for home-grown cannabis to be stored in child resistant packaging. Such a requirement is of a low burden to producers<sup>131</sup> given the minimal cost of mass-producing such containers and of high societal value given the damage cannabis consumption could do to a child.

This labeling should include information on both THC and Cannabidiol (CBD) which ought to be included as it has a large impact on potency.<sup>132</sup> A standardised measure of potency should also be applied to cannabis labels, akin to the standard drink measure applied to alcohol. In addition, cannabis vendors should be required to have written information about cannabis potency and risk available to provide to consumers. These measures should limit cannabis overdose but also facilitate and maintain consumer autonomy. A measure of 10 milligrams of THC per serving is used in Colorado and

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<sup>131</sup> Rolles, above n 37, at 119

<sup>132</sup> A Zuardi, J Crippa, J Hallak, F Moreira and F Guimarães “Cannabidiol, a Cannabis sativa constituent, as an antipsychotic drug.” (2006) 39 Brazilian Journal of Medical and Biological Research 421 at 421

Washington State as higher doses had lead to too many cases of overdose<sup>133</sup>, therefore 10 milligrams per serving or standard measure is recommended.

The second recommendation is that cannabis products be subject to plain packaging laws. Packaging should be limited to providing product and safety information without marketing. This packaging should include the potential risks of consuming cannabis. The reason for this recommendation is that branding and designed packaging can largely increase the appeal of the product. For alcohol and tobacco, packaging has been used to increase demand by making a product seem more attractive and by placement in the media.<sup>134</sup> While in the United Kingdom (UK) such alcohol branding has led to greater brand recognition of alcohol than certain foods<sup>135</sup>, plain packaging laws can help reduce the appeal of cannabis to minors. Given the potential addictive qualities of cannabis and the coercive power of advertising, plain packaging laws are recommended. Australia's tobacco plain packaging law has been relatively successful<sup>136</sup> and given New Zealand's likely move to plain packaging for tobacco<sup>137</sup> it makes sense to implement these laws for cannabis.

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<sup>133</sup> Canadian Centre on Substance Abuse, above n 83, at 7

<sup>134</sup> Rolles, above n 37, at 121

<sup>135</sup> Winpenny, above n 130, at 99

<sup>136</sup> Tasneem Chipty "Study of the Impact of the Tobacco Plain Packaging Measure on Smoking Prevalence in Australia" (Australia Department of Health, January 2016)

<sup>137</sup> Stacey Kirk "Tobacco plain packaging likely to be law by end of year – John Key" (15 February 2016) Stuff <<http://www.stuff.co.nz/national/politics/76917027/tobacco-plain-packaging-likely-to-be-law-by-end-of-year--john-key>>

## *Restrictions on Type of Cannabis Products*

Potency limits on cannabis products can be used to limit the dangers of overdose and over consumption. Potency is generally understood as the percentage of THC within the product, however the cannabis plant has over 80 different cannabinoids with THC being only one of them.<sup>138</sup> These cannabinoids can greatly alter the state of intoxication, particularly CBD, which is believed to have anti-psychotic effects and may greatly reduce the risk of cannabis-related mental illness.<sup>139</sup> In addition, differing methods of consumption and preparation greatly affect intoxication levels in users.<sup>140</sup> For example, edibles have a much longer and slower release of THC when compared to smoked cannabis.<sup>141</sup> This means that cannabis consumed in edible form will result in lower levels of intoxication and that intoxication will last for a longer period of time.

Furthermore, any potency threshold would be arbitrary and practically difficult to enforce. Cannabis production and testing is still an imperfect concept and thus enforcement outcomes are likely to be flawed. Thus, the effectiveness of potency limits is low. A better method of limiting over consumption is through clear and extensive labeling requirements for all cannabis products as outlined in the packaging section.

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<sup>138</sup> Rolles, above n 37, at 109

<sup>139</sup> A Zuardi, above n 132, at 421

<sup>140</sup> Rolles, above n 37, at 109

<sup>141</sup> Kristin Wong, Joanne E Brady and Guohua Li “Establishing legal limits for driving under the influence of marijuana” (Springer Open, Injury Epidemiology, October 2014) at 2.2.1  
Drug Policy Alliance, “Marijuana-Infused Products (“Edibles”)” Drug Policy (June 2014) at 1  
<[http://www.drugpolicy.org/sites/default/files/DPA\\_Edibles\\_and\\_Marijuana-Infused\\_Products\\_June2014\\_0.pdf](http://www.drugpolicy.org/sites/default/files/DPA_Edibles_and_Marijuana-Infused_Products_June2014_0.pdf)>

Another potential regulation is on cannabis-infused products. These products, often taken orally and referred to as “edibles,” are often a better option for consumers than smoking.<sup>142</sup> However, such products present an increased danger of excess consumption given the ease in which such products can be consumed.<sup>143</sup> Banning cannabis edibles is not recommended though. A prohibition on cannabis-infused products has the potential to create a black market for such products and may also lead to substance displacement thus moving the demand for such products to other drugs.<sup>144</sup> Cannabis-infused products also avoid the negative health impacts of smoking and the problems involved with second-hand smoke.

Nonetheless, such products ought to be subject to further restrictions than smoked cannabis products as edibles can be consumed more easily. Firstly, each unit of the product ought to be individually packaged to avoid dangers after the initial packaging has been opened. Secondly, each unit must have clear labeling and warnings to avoid the accidental consumption of such products.<sup>145</sup> This should include a warning about the potential onset time of up to two hours, the total intoxication time of up to eight hours and directions on how to safely dose, such as waiting two hours between consuming edibles.<sup>146</sup> As has been done in Washington State, cannabis products should not mimic popular snacks and candies to limit the appeal to children.<sup>147</sup> Finally, as found in Colorado, having a single item of food with multiple doses of THC in it introduced a high risk of overconsumption among naïve users. As a result

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<sup>142</sup> Drug Policy Alliance, above n 141, at 1

<sup>143</sup> Sara Schmitt, above n 104, at 14

<sup>144</sup> Law Commission, above n 55, at 4.18

<sup>145</sup> Drug Policy Alliance, above n 141, at 1

<sup>146</sup> Drug Policy Alliance, above n 141, at 1

<sup>147</sup> Canadian Centre on Substance Abuse, above n 83, at 9

of these findings, each edible should be separated into 10 milligram doses of THC as has been done in Colorado.<sup>148</sup>

Hash oil, an extremely potent form of cannabis with potential THC levels of over 80 percent<sup>149</sup>, should also be legal as banning the product may lead to the proliferation of the black market. However, such products should be packaged so that serving sizes can be easily ascertained to prevent overdose. This means that the oil container should have clear labeling of milligrams as well as a label outlining an appropriate dose. The oil container should also have a childproof lid to prevent accidental use by children.

The cannabis seed market should also be regulated to minimise the availability of seeds to minors. A licence, issued by the cannabis regulatory authority, would be required to produce or sell cannabis seeds and the business would be under the same restrictions and regulations as other vendors.

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<sup>148</sup> Canadian Centre on Substance Abuse, above n 83, at 7

<sup>149</sup> Colorado Marijuana “Safety with hash oil” (Colorado Official State Web Portal)  
< <https://www.colorado.gov/pacific/marijuana/safety-hash-oil>>

## *Purchase of Commercial Cannabis*

There are a number of potential restrictions and regulations that can be applied to the purchase of commercial cannabis in order to minimise the potential harms that can occur.

### *Age*

The first recommended restriction on the purchase of cannabis is a minimum age requirement of 18 years. The need for such a restriction is apparent given the vulnerability of minors to psychoactive drugs. Article 1 of the United Nations Convention on the Rights of the Child 1989 applies to “every human being below the age of eighteen years” and state parties are under a duty in article 33 to “take all appropriate measures... to protect children from... the use of narcotic drugs and psychotropic substances”<sup>150</sup>. Therefore, setting an age below 18 years of age would have international law ramifications. Furthermore, the threshold of 18 years of age is in line with New Zealand’s alcohol and tobacco restriction and any higher age would be inconsistent with the approach to other psychoactive substances and thus very difficult to justify on any principled basis.

To enforce this age restriction, penalties ought to be put in place comparable to alcohol under the Sale and Supply of Alcohol Act 2012. These penalties include fines for individuals and businesses as well as a potential suspension of licences. As with

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<sup>150</sup> See international law section for further discussion

alcohol, cannabis vendors should be encouraged to adopt conservative identity check policies such as verifying any person's age that appears to look under 25 years old.<sup>151</sup>

A further consideration is whether legal guardians should be able to supply their children with cannabis in a responsible manner as can be done with alcohol.<sup>152</sup> In principle, it is difficult to justify a difference to distinguish cannabis from alcohol in this regard. Practically, an argument may be raised that alcohol acts as a social lubricant and provides a social value, which is important to extend to minors. However, without a legalised cannabis market one cannot know whether cannabis would also act as a social lubricant. By allowing parents to provide cannabis to their child in a responsible manner they can effectively teach their children about the dangers rather than just exposing young adults to the entire legal cannabis market all at once. Consequently, it is recommended that the provisions of the Sale and Supply of Alcohol Act 2012 that allow for responsible supply of alcohol by legal guardians to minors be applied to cannabis.<sup>153</sup>

### *Transaction Limits*

Many of the legalised models for cannabis impose a limit on the amount of cannabis that can be purchased per transaction from a vendor.<sup>154</sup> The purpose of such a limit is to reduce secondary cannabis sales and illegal exports.<sup>155</sup> Care needs to be taken with such a limit that it is not set too low or individual users may turn to the black market

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<sup>151</sup> Restaurant Association of New Zealand "Staff Training for New Alcohol Laws" (Restaurant Association of New Zealand) <[https://www.restaurantnz.co.nz/Story?Action=View&Story\\_id=1694](https://www.restaurantnz.co.nz/Story?Action=View&Story_id=1694)>

<sup>152</sup> Sales and Supply of Alcohol Act 2012 s 241

<sup>153</sup> Sales and Supply of Alcohol Act 2012 s 241

<sup>154</sup> Inter-American Drug Abuse Control Commission (CICAD), above n 53

<sup>155</sup> Rolles, above n 37, at 138

instead. Limiting sales is a minor burden on purchasers, so it is recommended that a high limit of one ounce be placed as the maximum allowable amount per sale. Such a limit would allow approximately 75 percent of regular cannabis users to fulfill their needs with one purchase a month<sup>156</sup> and also make it difficult to obtain large amounts of cannabis. For other cannabis products the limit should be an equivalent amount of THC per sale, which is approximately 2.8 grams of THC.<sup>157</sup> A breach of this limit should result in significant financial penalties for the vendor, as a significant over-sale is likely to greatly increase the risk of cannabis leaking from the system.

Lastly, a licensing system for purchasers is not recommended. Such a system has large privacy implications as drug users would be on a centralised government database and may promote fears of leakage to employers or future anti-cannabis governments. These fears are likely to limit registrations meaning the cannabis black market would continue to operate strongly. Moreover, a registration system is likely to breach the right to privacy contained in article 22 of the International Covenant on Civil and Political Rights 1966, which New Zealand ratified in 1978.<sup>158</sup> A registration system also unjustly discriminates against cannabis users as no such system exists for alcohol or tobacco.

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<sup>156</sup> Independent Drug Monitoring Unit “Consumption patterns of regular cannabis users” IDMU at 3.5.1 <<http://www.idmu.co.uk/oldsite/ho13.htm>>

<sup>157</sup> Jeanne Meserve and Mike Ahlers “Marijuana potency surpasses 10 percent, U.S. says” (14 May 2009) CNN <http://edition.cnn.com/2009/HEALTH/05/14/marijuana.potency/index.html>  
10 percent times 28 grams

<sup>158</sup> International Covenant on Civil and Political Rights UNTS 2200A (opened for signature 16 December 1966, entered into force 23 March 1976)

## *Residency Requirements and Cannabis Tourism*

In order to prevent the harms that can result from tourists coming to New Zealand, specifically to purchase cannabis, a New Zealand residency requirement can be imposed on purchasers of cannabis. However, this is not recommended for a number of reasons. Firstly, New Zealand does not share common borders with any other state meaning that the leakage concerns of legalised models are far less applicable to New Zealand as transporting cannabis is far more difficult. New Zealand's remote location would discourage cannabis tourism, as supported by Tourism Industry Association chief executive Chris Roberts who says people are unlikely to fly such a long way for a joint.<sup>159</sup>

Another consideration is whether or not cannabis tourism is something that ought to be avoided. The main argument against such tourism is that those visiting to consume cannabis will cause social harm by acting against the public interest when intoxicated. However, the New Zealand Law Commission has noted "there is little support here or elsewhere for the view that cannabis intoxication itself causes users to commit crime".<sup>160</sup> Cannabis "generally inhibits aggression and violence in users"<sup>161</sup> and cannabis users are under considerably less pressure to commit offences in order to fund cannabis use due to "lower levels of dependence, a milder withdrawal effect... and [the] lower cost of cannabis."<sup>162</sup> Thus, it is highly unlikely cannabis tourists would commit offences to fund their use particularly given the cost of getting to New Zealand is much higher than the cost of cannabis.

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<sup>159</sup> Richard Meadows "The economics of legalising New Zealand's marijuana market" (17 April 2016) Stuff < <http://www.stuff.co.nz/business/better-business/78955429/The-economics-of-legalising-New-Zealands-marijuana-market>>

<sup>160</sup> Law Commission, above n 110, at 2.38

<sup>161</sup> Law Commission, above n 110, at 2.38

<sup>162</sup> Law Commission, above n 110, at 2.39

In the Netherlands, issues have arisen where neighbouring states' citizens have travelled to purchase cannabis and then returned home immediately.<sup>163</sup> For example, unlicensed dealers have appeared near the "coffee shops" to target visitors.<sup>164</sup> This has led to many cities implementing resident-only schemes.<sup>165</sup> However, New Zealand's geographical location essentially eliminates this potential harm due to the large costs involved to travel here and the relative ease of cannabis acquisition in most jurisdictions.

There are also considerable potential benefits to New Zealand from cannabis tourism. The major benefit is the revenue brought in from such tourism, which is not limited to just cannabis spending but also includes all the other spending of tourists. Given that the average expenditure of a foreigner visiting New Zealand for the purpose of a holiday was \$6,266 and that tourism directly contributes to 4.9 percent of New Zealand's total GDP<sup>166</sup>, there are likely to be strong positives for New Zealand if cannabis tourism were to occur.

As the benefits of cannabis tourism in New Zealand are quite significant and the potential harms are limited, it is not recommended to implement a residency requirement on cannabis buyers.

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<sup>163</sup> Rolles, above n 37, at 200

<sup>164</sup> Rolles, above n 37, at 200

<sup>165</sup> Steve Rolles "Cannabis policy in the Netherlands: moving forwards not backwards" (Transform Drug Policy Foundation, March 2014) at 2

<sup>166</sup> Ministry of Business, Innovation & Employment "Key Tourism Statistics" (21 September 2016) <<http://www.mbie.govt.nz/info-services/sectors-industries/tourism/documents-image-library/key-tourism-statistics.pdf>>

## **PUBLIC USE OF CANNABIS**

### *Public Outdoor Use*

The outdoor smoking of cannabis ought to be restricted to balance the interests of non-cannabis users and users. For non-users the major considerations are the impacts of second-hand smoke, whether they are health or nuisance-based. Such considerations mirror the reasons for restricting public tobacco use.<sup>167</sup> Reasons of public order used to justify more stringent restrictions on public consumption of alcohol are not as relevant for cannabis use as alcohol often promotes anti-social aggressive behaviours where cannabis does not.<sup>168</sup> It is recommended that the legality of outdoor cannabis smoking mirrors tobacco law as in the Smoke-free Environments Act 1990. This also allows for territorial authorities under section 145 of the Local Governments Act 2002 to create further restrictions where necessary. Cannabis use that does not produce smoke should be legal in public given the low level of potential harm.

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<sup>167</sup> Rolles, above n 37, at 141

<sup>168</sup> Myerscough, Rodney, Taylor and Stuart "The effects of marijuana on human physical aggression." (1985) 49 *Journal of Personality and Social Psychology* 1541 at 1541

### *Public Indoor Use*

The public indoor use of cannabis is another consideration. The prime example of such use occurs in Amsterdam where “coffee shops” serve and cater for the use of cannabis.<sup>169</sup> While New Zealand does not sanction public indoor tobacco use,<sup>170</sup> cannabis use is arguably different. Tobacco smoking was so popular and widely spread that the harms resulting from second-hand smoke could not be stopped without a complete ban on indoor tobacco smoking. Cannabis venues are, however, not so widely spread in legalised models.<sup>171</sup> Those who enter such venues are consenting to any second-hand smoke and the limits on display will minimise cannabis exposure, as such the justification for banning such venues is limited. Therefore it is recommended that licensed indoor cannabis venues be allowed. Cannabis smoking at venues without a licence ought to be prohibited as tobacco smoking is under the Smoke-free Environments Act 1990.

To operate such a venue a licence would be required for both the business and the management under the oversight of the cannabis regulatory authority. It is recommended that the on-licence requirements for alcohol venues be adopted for cannabis. These venues should also only be able to sell cannabis, cannabis-related products and non-takeaway food and drink, with a majority of revenue coming from cannabis sales to prevent increased demand through cross-selling.<sup>172</sup> With regards to cannabis sales these stores would be able to sell the same products as the off-licence cannabis venues except the transaction limit should be reduced dramatically to

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<sup>169</sup> Amsterdam.info “Amsterdam Coffee shops Guide” (10 April 2016) Amsterdam.info  
<<http://www.amsterdam.info/coffeeshops/>>

<sup>170</sup> Smoke-free Environments Act 1990

<sup>171</sup> Amsterdam.info, above n 169

<sup>172</sup> See licensing section for further discussion

distinguish further between off-licence and on-licence venues and minimise the harm that can occur when cannabis is cross-sold.<sup>173</sup>

The limit should be high enough to accommodate users while also preventing the venue from being used as a takeaway vendor. The Netherlands has set a daily limit of five grams per person.<sup>174</sup> However the “coffee shops” are intended to double as on- and off-licence venues and thus can sell more cannabis than is necessary for a purely on-licence venue as many of their customers will take cannabis home. A more appropriate daily limit would be three grams per person, as this would accommodate 95 percent of regular cannabis users but also not provide a week’s supply for the average regular user.<sup>175</sup> This smaller limit of three grams decreases the chances of the venue being used for takeaway cannabis, as it would require multiple purchases a week to supply the average regular cannabis user.

The operating hours should also remain in line with alcohol to prevent a proliferation of nightlife even though cannabis lacks the aggressive anti-social effects of alcohol.<sup>176</sup> Premises would be barred from having both an alcohol and cannabis licence as the issues of second-hand smoke experienced with tobacco would occur and there are dangers in providing two different psychoactive substances in one venue.

The special licence would also be available for cannabis where appropriate. These on-licence cannabis venues would be restricted from advertising as outlined in the

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<sup>173</sup> See licensing section for further discussion

<sup>174</sup> Government of the Netherlands, above n 47

<sup>175</sup> Independent Drug Monitoring Unit, above n 156, at 3.5.1

<sup>176</sup> Myerscough, above n 168 at 1541

advertising section and be limited in their display as outlined in the store restrictions section.

As with alcohol and cannabis vendors, three breaches within three years of the restrictions outlined, as well as the restrictions on cannabis vendors, will lead to a revocation of the licence with the holder unable to apply for five years.<sup>177</sup> Breaches of any of the restrictions should lead to the same fines as in the Sale and Supply of Alcohol Act 2012 as there are few principled reasons to distinguish between the two.

## **OTHER METHODS OF PRODUCTION**

### ***Home-growing Cannabis***

Small-scale personal cannabis cultivation is part of many liberalised cannabis models and has been conducted with few problems.<sup>178</sup> A large reason for the low level of issues is that home-growing generally becomes a niche hobby in cannabis models that legalise commercial sales, as shown in the Netherlands.<sup>179</sup> Attempting to prohibit home cultivation for cannabis in a model that allows commercial cannabis sales makes little practical or philosophical sense as there is availability of cannabis elsewhere. Home-growing cannabis keeps some cannabis users from interacting with for-profit commercial cannabis businesses. Restricted commercial operations still have the potential to slightly inflate demand, for example, by providing a new product. Thus by allowing home-growing some consumers will not be exposed to commercial cannabis operations meaning their demand for cannabis will not be

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<sup>177</sup> Sale and Supply of Alcohol Act ss 289, 290, 292

<sup>178</sup> Rolles, above n 37, at 66

<sup>179</sup> Rolles, above n 37, at 67

inflated. However, a legal framework should be established to limit the negative impacts of home-growing cannabis.

There are two key issues that can arise from home-growing cannabis. The first is unlicensed commercial production and sales for profit. The second is the increased availability of cannabis to minors. The first restriction will be to limit home-growing to those 18 years and older. While the second restriction is on the number of plants that each adult can grow, the optimal number of plants that can be legally grown is challenging. The first consideration is that policing such restrictions is practically very difficult. This is because the police are likely to be reluctant to invest significant resources into pursuing minor home-growing violations given that such violations will be seen as low-harm issues. Such reluctance already exists with the New Zealand police in regards to arresting and charging low-level cannabis users.<sup>180</sup> If currently criminal behaviour with regards to cannabis is not heavily enforced then it seems very unlikely that minor growing violations in a legalised cannabis model will be pursued. The privacy of the home is generally not a right that is breached lightly and police may be reluctant to invade such a right for minor violations. This trepidation can be seen in the low levels of enforcement with regards to home-brew alcohol in most jurisdictions.<sup>181</sup>

Given this likely enforcement reluctance, the number of plants that can be legally grown ought to be set at a relatively high level. Harm would also occur when growers produce far in excess of what they consume and thus are encouraged to on-sell their cannabis. However, such a limit also ought to be high enough to allow individual

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<sup>180</sup> Wilkins, above n 12, at 3

<sup>181</sup> Rolles, above n 37, at 66

growers to produce enough cannabis for their own use. Otherwise, the legality of home-growing will be more symbolic as users will still have to obtain cannabis through commercial methods. The current limits in legalised models are a good starting point. They range from four plants total in Oregon<sup>182</sup> to six flowering plants in Uruguay<sup>183</sup> and Alaska.<sup>184</sup> While the amount of usable cannabis actually produced from each plant is rather variable, estimating the amount that an average plant produces and comparing this to the amount of cannabis individuals consume is still valuable.

The average lifecycle of a cannabis plant is generally between 13 weeks and 38 weeks, averaging approximately four months per cycle, with two of these months for flowering.<sup>185</sup> The average yield of a cannabis plant can vary greatly depending on the methods used and the skill involved.<sup>186</sup> The average yield from mature cannabis plants seized in the UK from 1994 to 2010 was 24.32g.<sup>187</sup> However, cannabis plants are generally grown by larger and more skilful organisations than the individuals who would obtain cannabis via home-growing. This means that the yield of the average home-grower would be lower. Ed Rosenthal, in a submission to the United States Congressional Sentencing Commission, estimated that the average mature cannabis plant yields approximately 10 grams. A lower yield than 24.32 grams is likely to be more accurate for New Zealand home-growers, but 10 grams is likely an

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<sup>182</sup> Control, Regulation, and Taxation of Marijuana and Industrial Hemp Act, Oregon Measure 91 s 6(a)

<sup>183</sup> Law No. 19,172 2013 (Uruguay), article 14

<sup>184</sup> Alaska Measure 2, s 17.38.020.

<sup>185</sup> The Montana Legislature “Cannabis Life Cycle” at 1-3

<[http://leg.mt.gov/content/Committees/Interim/2009\\_2010/Children\\_Family/Emerging-Issue/mmga-presentation-cannabis-life-cycle.pdf](http://leg.mt.gov/content/Committees/Interim/2009_2010/Children_Family/Emerging-Issue/mmga-presentation-cannabis-life-cycle.pdf)>

<sup>186</sup> Independent Drug Monitoring Unit “Cannabis Plants – Cultivation & Yields” (3 October 2016)

IDMU <<http://www.idmu.co.uk/cannabis-plants-cultivation-yields.htm>>

<sup>187</sup> Independent Drug Monitoring Unit, above n 186, at Table 1

underestimate as even the immature plants seized in the UK yielded an average of 19.23 grams per plant.<sup>188</sup>

At a yield of 20 grams per plant, with six flowering plants and an average flowering time of two and a half months per plant, a home-grower would be able to produce 576 grams of usable cannabis a year. At more conservative estimates of 15 grams per plant, six flowering plants and a three-month flowering period a grower would be able to produce 360 grams annually. A study of self-described regular cannabis users in the UK found that their average yearly intake was approximately 182 grams with the top 10 percent of users consuming approximately 728 grams annually.<sup>189</sup> The top one percent of users consumed approximately 2600 grams annually. Home-growing limits cannot reasonably accommodate the top one percent of users as any such limit would be so high as to be essentially pointless given that nearly all users would be able to grow far in excess of what they consume. Under the more conservative estimates an allowance of six flowering plants would accommodate the top 25 percent of regular cannabis users<sup>190</sup> whereas an allowance of four plants would accommodate half of regular cannabis users.<sup>191</sup>

Accommodating only half of regular cannabis users would severely limit the autonomy of many users. Adjusting for more than 75 percent of regular users would make the limits on home-growing too high as consumption among the heaviest users is significantly higher.<sup>192</sup> Thus attempting to accommodate 75 percent of regular users appears to strike the best balance between the competing concerns. To adjust for such

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<sup>188</sup> Independent Drug Monitoring Unit, above n 186, at Table 1

<sup>189</sup> Independent Drug Monitoring Unit, above n 156, at 3.5.1

<sup>190</sup> Independent Drug Monitoring Unit, above n 156, at 3.5.1

<sup>191</sup> Four plants taking four months per cycle yielding 15 grams each, totaling 180 grams annually

Independent Drug Monitoring Unit, above n 156, at 3.5.1

<sup>192</sup> Independent Drug Monitoring Unit, above n 156, at 3.5.1

users, home-growing limits need to allow for approximately 365 grams of production annually.<sup>193</sup> This amount is similar to the conservative production estimate from six flowering plants. The conservative estimate is preferable as any limit on autonomy ought to have a strong justification and given the figures around cannabis production are not well established taking more aggressive projections could lead to an unjustified limit on autonomy. Furthermore, any limit ought to be the minimum required to achieve the sought objective.

Minimising unlicensed sales for profit is the major objective of home-growing limits. If the more aggressive projection is correct and an additional 216 grams are produced annually,<sup>194</sup> via domestic cultivation, this only has a retail price of between approximately \$4320<sup>195</sup> and \$2314.<sup>196</sup> If this amount were sold illegally it is still likely to cause less harm than if the police failed to enforce home-growing limits adequately, which could occur if there was a public perception that the current limit was too small and thus unjust. Therefore, the recommended home-growing limit is six flowering plants per person.

Although licensing home-growers is a possibility, this would create a large amount of bureaucracy given the potential number of growers and is likely to be ignored unless such a law was enforced vigorously, which would be unlikely given the reasons outlined previously.<sup>197</sup> Thus a licensing system for home-growers is not recommended.

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<sup>193</sup> Independent Drug Monitoring Unit, above n 186, at 3.5.1

<sup>194</sup> 576 grams minus 360 grams

<sup>195</sup> \$20 per gram as cited in weed.nz “NZ weed prices: Are you getting ripped off?” weed.nz <<https://weed.nz/answers/nz-weed-prices/2016/>>

<sup>196</sup> \$300 per ounce as cited in Iweed.nz, above n 195

<sup>197</sup> Rolles, above n 37, at 67

Oregon and Alaska have an additional restriction on home-growing so that plants cannot be cultivated in public view.<sup>198</sup> Such a restriction will reduce theft of cannabis plants as potential thieves will not be able to locate cannabis plants as easily and also limit the exposure of minors to cannabis. The burden on growers created by this restriction is very low, for example a simple fence would move a backyard operation out of public view. Consequently, this restriction should be applied in New Zealand.

Uruguay has an additional restriction limiting the number of home-growers to one per household. This rule is designed to prevent commercial operations arising without a licence in large households. The concern with such a restriction is that multiple cannabis users living together would not be able to grow enough cannabis to supply them all. Such a requirement is likely to discriminate against lower socio-economic groups, as they tend to live in households with more people. Furthermore, minority groups tend to live in larger households and such a rule will burden them.<sup>199</sup> However, if multiple home-growers are allowed in one household then this could provide a loophole for criminal groups to produce cannabis which would undermine many of the benefits of cannabis legalisation such as defunding gangs, regulating the product, obtaining tax revenue and reducing enforcement costs. Therefore, it is recommended that households be limited to one home-grower. The burden imposed on multiple cannabis user households can be largely mitigated through the use of cannabis clubs. Such households would need to apply for a cannabis club licence and would then be free to produce additional cannabis.

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<sup>198</sup> Inter-American Drug Abuse Control Commission (CICAD), above n 53

<sup>199</sup> Statistics New Zealand *Ethnicity and crowding: A detailed examination of crowding among ethnic groups in New Zealand 1986-2006* (Statistics New Zealand, ISBN 978-0-478-37765-1, 29 May 2012) at 10

### *Cannabis Growers Clubs*

Cannabis clubs are small production units that produce cannabis for its members. The value of such clubs is that they allow members to fulfill their cannabis requirements without exposing themselves to the potential coercive elements of the commercial system.<sup>200</sup> There are limited principled reasons to ban such clubs in a model that permits commercial and home-grown cannabis. It is recommended that cannabis clubs be permitted but be subject to a variety of restrictions in order to limit the potential harm that could occur. The restrictions on commercial production are, however, likely to be inappropriate for a number of reasons.

Firstly, the onerous quality requirements that exist for commercial production are unnecessary as members are closely related to the production process and can inspect each step of production and thus evaluate the quality themselves. Furthermore, the security requirements imposed on commercial operations are unnecessary as the small size of production limits the potential harm. Some restrictions, however, will be of value.

Uruguay and Spain have implemented cannabis clubs and the restrictions on these clubs are a good starting point for the appropriate restrictions in New Zealand. In Uruguay, cannabis clubs must be registered, must have between 15 and 45 members, can grow up to 99 plants and may distribute no more than 480 grams of cannabis to each member annually.<sup>201</sup> Spanish cannabis clubs differ from Uruguay in allowing two plants per member, a daily allowance of three grams per person and by having no

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<sup>200</sup> See home-growing section for further discussion

<sup>201</sup> John Walsh and Geoff Ramsey “Uruguay’s Drug Policy: Major Innovations, Major Challenges” (Center for 21<sup>st</sup> Century Security and Intelligence Latin America Initiative, Brookings, 2014) at 7

numerical membership restrictions.<sup>202</sup> Both Uruguayan and Spanish clubs are run on a not-for-profit basis.

The first recommendation is that clubs must be run on a not-for-profit basis. If clubs were allowed to make profits then they would essentially be small commercial producers and thus should be subject to the same restrictions as commercial producers. By running on a not-for-profit basis there will be no motivation for the clubs to encourage cannabis use or bring in new members. Clubs should also be prohibited from distributing cannabis to non-members in order to control the flow of cannabis and minimise the chance of minors obtaining it. Promotional activities should also be prohibited<sup>203</sup> as well as cultivating cannabis in public view.<sup>204</sup>

Quantity limitations on growing are intended to minimise the leakage of cannabis from the system to the black market or minors. As outlined in the home-growing section, the best balance between cannabis users and leakage prevention must accommodate for approximately 75 percent of regular cannabis users. However, given that the clubs have multiple members the required amount of cannabis per club will be the amount an average regular cannabis user intakes, which is approximately 182 grams annually.<sup>205</sup> Under the conservative estimates, outlined in the home-growing section, of 15 grams yield and a three-month flowering period, 180 grams of cannabis can be produced annually by three flowering plants which is the recommended limit. Clubs should not be limited in the amount they can distribute to each member in order to accommodate for heavier users.

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<sup>202</sup> Martin Alonso “Cannabis social clubs in Spain” (Series on Legislative Reform of Drug Policies Nr. 9, Transnational institute, January 2011) at 4

<<http://www.druglawreform.info/images/stories/documents/dlr9.pdf>>

<sup>203</sup> See advertising section for further discussion

<sup>204</sup> See home-growing section for further discussion

<sup>205</sup> Independent Drug Monitoring Unit, above n 186, at 3.5.1

Membership limits should also be applied to limit the size of the clubs which should only exist to serve a small group of members who wish to avoid interacting with the commercial cannabis market. If the clubs were able to grow immeasurably, then they ought to be subject to the same restrictions as commercial operations given the greater potential for cannabis-related harm to occur. Subjecting all clubs to the requirements of commercial operations would be too onerous and greatly limit their value.

The maximum number of members per club ought to be conservative. In Spain “most clubs have been approached by candidate growers who appeared to be less than trustworthy...who ‘see things big’” and wish to make commercial operations.<sup>206</sup> This suggests that if clubs are allowed to grow large then there is a risk that they will attempt to change into commercial operations or use the club as a springboard for commercial operation. If this were to occur, then clubs may have an incentive to increase cannabis use and club membership thus undermining a key justification for the clubs.

Uruguay, Spain and other jurisdictions that allow for cannabis clubs are yet to have commercial cannabis sales. As shown in the Netherlands, when a commercial supply becomes available then very few users opt to grow their own cannabis.<sup>207</sup> This suggests that those who wish to use cannabis clubs in New Zealand will be small groups of enthusiasts who enjoy growing their own cannabis, not simple cannabis users who need a method of acquisition.

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<sup>206</sup> Tom Decorte “Cannabis social clubs in Belgium: Organizational strengths and weaknesses, and threats to the model” (2015) 26 *International Journal of Drug Policy* 122 at 125

<sup>207</sup> Rolles, above n 37, at 67

Many of Uruguay's cannabis clubs have complained about the financial viability of the clubs, particularly the costs of security. Many of the clubs wished to increase the membership limit in order to raise more funds.<sup>208</sup> However, as outlined previously a large membership limit can cause a variety of issues. Hence, New Zealand's differing motivations for allowing cannabis clubs and the more relaxed requirements that can be imposed on smaller clubs suggest that a lower membership limit is optimal. Although Uruguay's clubs are limited to 99 plants<sup>209</sup>, they still have onerous security requirements. In New Zealand the number of plants that should be grown without considerable security requirements ought to be significantly less than 99 and a maximum of 10 members is suggested. This would allow a maximum of 30 plants at a time greatly limiting the security risks involved. No minimum amount of members is recommended as a small number of cannabis users living in the same home ought to be able to form a club so that they can all grow their own supply.<sup>210</sup> New Zealand's cannabis clubs will likely be the home of cannabis enthusiasts and small groups of friends should not be excluded from growing together.

Cannabis clubs have been used in Spain to front criminal growing operations.<sup>211</sup> By opting for a conservative membership limit, this risk is significantly reduced as the lower level of output allowed per club decreases the amount that can be produced. Exempting criminal gangs from operating such clubs can further reduce this risk.

Clubs should also be required to register with the cannabis regulatory authority in order to operate. Registration would grant a club licence that can be revoked if the

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<sup>208</sup> Rosario Queirolo, Maria Boidi and Jose Cruz "Cannabis clubs in Uruguay: The challenges of regulation" (2016) 34 *The International Journal of Drug Policy* 41 at 46

<sup>209</sup> Walsh, above n 201, at 7

<sup>210</sup> See home-growing section for further discussion

<sup>211</sup> Decorte, above n 206, at 122

restrictions are breached. Clubs should be required to record their cannabis production and distribution to allow for better tracking of cannabis. Cannabis club venues should also be subject to inspections to ensure that the requirements are being followed.

### *Exclusivity of Access*

In Uruguay citizens are only able to access one method of acquiring cannabis. They must select home-growing, a cannabis club, or commercial sales as their method of acquiring cannabis.<sup>212</sup> There is no principled reason to restrict access in such a way. Furthermore, as discussed in the home-growing section the police are unlikely to enforce such an arbitrary ban.

By limiting access in this way the cannabis black market may still continue to operate strongly as those who cannot fulfill their cannabis needs from one source are likely to turn to illicit sources. Therefore, it is not recommended to limit consumers to one method of accessing cannabis.

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<sup>212</sup> Walsh, above n 201, at 7

## **OTHER CONSIDERATIONS**

There are a variety of other considerations that are relevant to a legalised cannabis model.

### ***Independent Commission***

An independent commission will be established to oversee cannabis laws in New Zealand. The purpose of this commission would be to ensure policy is subject to regular review and offer suggested changes in the law if necessary. This is particularly important for cannabis as the market is untested in New Zealand and new evidence will need to be evaluated and incorporated into the law.

This body ought to be made up of experts from a wide array of fields. Experts should come from areas of drug policy, law, health, cannabis production, cannabis criminality, environmental studies, economics and any other area deemed relevant. Those with vested commercial interests in the success of the cannabis industry should be used sparingly so that power remains in the public interest.

The commission should offer regular reports, at least annually, on the state of cannabis laws in New Zealand with a requirement to take submissions from the public. The report should cover a wide range of areas including the prevalence of cannabis use, youth cannabis use, cannabis crime and the black market, tax revenue and appropriate pricing. The Minister of Health and the Minister of Justice may meet

with the panel to discuss any report so that the government can remain as responsive as possible to any required changes.

### ***Tax and Price***

The state can affect the cost of cannabis through a series of legal regulations. In a liberal society, taxation will be the predominant way to influence the price of cannabis. A fixed tax per unit of THC is likely to be the best form of taxation as THC is the main psychoactive chemical within cannabis. Alcohol and tobacco are taxed in the same way<sup>213</sup> and keeping taxation methods constant among these groups makes regulation simpler.

The aim of cannabis taxation should be to cover the externalities of cannabis use while keeping the price at a level that undercuts the cannabis black market. In projecting the externalities, care must be taken to ensure the cost is accurate, for example the projection of the health care costs of cannabis usage are likely to be overstated. This is because secondary codes are included in hospitalisation statistics, which include minor and potentially irrelevant things, leading to a ten-fold exaggeration in effects.<sup>214</sup> As a result, \$2.5 million is likely a more accurate figure than the \$25 to \$30 million claimed.<sup>215</sup>

The current black market price serves as a good indicator of the maximum price that legal cannabis could rise to and still undercut the black market. This price is

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<sup>213</sup> New Zealand Customs Services “Types of duties, fees & charges” (18 February 2014) New Zealand Customs Services <<http://www.customs.govt.nz/features/charges/feetypes/Pages/default.aspx>>

<sup>214</sup> Tony Wall “New cannabis: The Cornerstone of Illicit Drug Harm in New Zealand” *Sunday Star Times* (New Zealand, April 17 2016) at A8-A9

<sup>215</sup> Wall, above n 214, at A8-A9

approximately \$20 per gram or \$350 per ounce.<sup>216</sup> If the price of legal cannabis is too far above the illegal price then cannabis users are likely to continue to use the cannabis black market meaning that many of the benefits of legalisation will not come to fruition.<sup>217</sup> There is likely to be some flexibility here though as consumers are likely to prefer legal cannabis as the quality, consistency and range of products will be improved.<sup>218</sup> Furthermore, consumers would be likely to pay a premium to avoid purchasing cannabis from criminals.

Moreover, if the retail price of cannabis is raised too highly through taxation in the future, then illicit producers and sellers may gain a substantial advantage over licit suppliers thus facilitating the black market. This can be seen in the UK with tobacco where nine percent of cigarettes and 38 percent of hand-rolled tobacco is supplied illegally where tax makes up 77 percent of the total price.<sup>219</sup> However, such an effect is less prevalent in New Zealand as the estimated illicit tobacco market was only 1.8 percent to 3.9 percent in 2013<sup>220</sup> with a tax of 70 percent of the total retail price.<sup>221</sup> Such an effect is likely caused by New Zealand's remote geographical position and small size meaning the incentives to smuggle products into New Zealand are significantly decreased compared with other jurisdictions. However, this effect may be limited for cannabis due to New Zealand's large domestic cannabis production.<sup>222</sup>

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<sup>216</sup> Meadows, above n 159  
weed.nz, above n 211

<sup>217</sup> Rolles, above n 37, at 78

<sup>218</sup> Rolles, above n 37, at 80

<sup>219</sup> Action on Smoking and Health "The economics of tobacco" (ASH Fact Sheet, 2013) at 2

<sup>220</sup> A Ajmal *Tobacco tax and the illicit trade in tobacco products in New Zealand* (2015) 39 Aust N Z J Public Health 116 at 116

<sup>221</sup> Ministry of Health "Excise on Tobacco: Proposed Changes" (Ministry of Health, Regulatory impact statement, April 2010)

<sup>222</sup> Dawkins, above n 20, at 58

Finally, any use of taxation should consider the impact on cannabis users. Increases in price can unduly burden those with low incomes or those dependent on cannabis as such a tax is regressive, meaning that those with a lower income pay a higher proportion of their income in this tax.<sup>223</sup>

To summarise, the specific impacts of taxation levels on the illicit cannabis market and on consumers are somewhat uncertain. It is therefore recommended that the level of taxation be reviewed regularly and remain flexible so it is responsive to changes in the market. Minimising the cannabis black market must be a key consideration for any tax on cannabis. The Dutch experience has shown that pricing legal cannabis in line with illegal cannabis effectively minimises the black market.<sup>224</sup> Minimising the black market is a key goal of legalisation and so taxation should not move price above this level until the specific impacts in the New Zealand market have been seen.

### ***Cannabis-impaired Driving***

Cannabis has been shown to “impair the skills related to safe driving”<sup>225</sup> which has been affirmed in a number of studies.<sup>226</sup> However, the effects of cannabis vary more between individuals than with alcohol because of differences in tolerance, smoking technique, and absorptions rates of THC.<sup>227</sup> Thus, cannabis-impaired driving ought to

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<sup>223</sup> Rolles, above n 37, at 78

<sup>224</sup> Rolles, above n 37, at 80

<sup>225</sup> EMCDDA, above n 115, at 175

<sup>226</sup> Mark Asbridge, Jill Hayden and Jennifer Cartwright *Acute cannabis consumption and motor vehicle collision risk: systematic review of observational studies and meta-analysis* (2012) 344 *British Medical Journal* 536-545

Mu-Chen Li, Joanne E Brady, Charles J DiMaggio, Arielle R Lusardi, Keane Y Tzong and Guohua Li (2012) *Marijuana use and motor vehicle crashes* (2012) 34 *Epidemiologic Reviews* 65–72

<sup>227</sup> C Kloeden, and A McLean “Alcohol, Drugs, and Traffic Safety” (Proceedings of the 13th International Conference on Alcohol, Drugs and Traffic Safety, Adelaide) at 295

be restricted but there are difficulties in determining and measuring the level of cannabis impairment.

To evaluate cannabis impairment, there are essentially two methods. The first is behavioural evaluation and the second is testing bodily fluids for the presence of cannabis.<sup>228</sup> Both of these methods have flaws. Behavioural assessments of cannabis impairment are subject to significant human error. A recent Canadian study found that multiple “studies do not provide strong support for the accuracy of officers trained in the... programme in detecting and correctly identifying the particular class(es) of drugs based solely on psychophysical assessment.”<sup>229</sup> Generally, “many cases were missed”<sup>230</sup> at lower levels of intoxication, and these levels of intoxication can still significantly impair driving abilities.<sup>231</sup> Field evaluations showed a greater success rate than the laboratory studies but it was concluded that the laboratory studies ought to be preferred as there were an undetermined number of impaired drivers who were stopped but not suspected of drug use.<sup>232</sup> Some members of the population will also be incapable of succeeding at sobriety tests leading to false positives. Finally, a comprehensive test for cannabis-impairment has yet to be determined.<sup>233</sup> Nonetheless, studies have found the presence of cannabis to be significantly related to performance on the one-leg stand.<sup>234</sup> Yet a recent Australian study has shown that standardised field sobriety tests including the one-leg stand test have resulted in only a 73.9 percent

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<sup>228</sup> EMCDDA, above n 115, at 188

<sup>229</sup> Akwasi Owusu-Bempah *Cannabis-impaired Driving: An Evaluation of Current Modes of Detection* (2014) 56 *Canadian Journal of Criminology and Criminal Justice* 219 at 233

<sup>230</sup> Owusu-Bempah, above n 229, at 233

<sup>231</sup> Mu-Chen Li, above n 226, at 70

<sup>232</sup> Owusu-Bempah, above n 229, at 236

<sup>233</sup> Rolles, above n 37, at 173

<sup>234</sup> WM Bosker, EL Theunissen, S Conen, KP Kuypers, WK Jeffery, HC Walls, GF Kauert, SW Toennes, MR Moeller, JG Ramaekers *A placebo-controlled study to assess standard field sobriety tests performance during alcohol and cannabis intoxication in heavy cannabis users and accuracy of point of collection testing devices for detecting THC in oral fluid* (2012) 223 *Psychopharmacology* 439 at 439

success rate in determining impairment.<sup>235</sup> Due to the low level of accuracy of such behavioural tests, they should not form the sole basis of any legal action.

The other option is drug testing of bodily fluids. There are three methods of testing: blood, urine and saliva.<sup>236</sup> Blood-testing can be done on either the whole blood or blood serum with the serum containing approximately twice the THC of the former.<sup>237</sup> Although blood-testing is currently “the ‘gold standard’ for assessing levels of cannabis and metabolites in the body”<sup>238</sup>, it still has a wide array of issues. Firstly, the results can be influenced by factors such as the storage temperature or the degree of binding to the inner surface of the vials.<sup>239</sup> Secondly, the presence of cannabis in the blood may not indicate impairment<sup>240</sup> as THC can be measured in the blood for approximately eight to twelve hours after the use of cannabis.<sup>241</sup> Thirdly, the drawing of blood is an invasive procedure and requires the use of a medical professional, as is done when testing for blood alcohol levels. The use of dried blood spot analysis is less invasive than traditional blood-testing, which may solve these issues, but there is great difficulty in collecting a sample on time.<sup>242</sup> This delay can also significantly affect the accuracy of the test given the “complex pharmacokinetic profile of THC.”<sup>243</sup>

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<sup>235</sup> Stough, Boorman, Odgen and Papafotiou, “An Evaluation of the Standardised Field Sobriety Test for the Detection of Impairment Associated with Cannabis with and without Alcohol” (National Drug Law Enforcement Research Fund, NDLERF Monograph No. 17, 2006) at 2  
<<http://www.ndlerf.gov.au/sites/default/files/publication-documents/summaries/mono-17-summary.pdf>>

<sup>236</sup> EMCDDA, above n 115, at 188

<sup>237</sup> Rolles, above n 37, at 179

<sup>238</sup> EMCDDA, above n 115, at 188

<sup>239</sup> EMCDDA, above n 115, at 188

<sup>240</sup> EMCDDA, above n 115, at 188

<sup>241</sup> US Department of Transportation National Highway Traffic Safety Administration “Cannabis / Marijuana ( $\Delta$  9 -Tetrahydrocannabinol, THC)” (2013) Drugs and Human Performance Fact Sheets  
<[www.nhtsa.gov/people/injury/research/job185drugs/cannabis.htm](http://www.nhtsa.gov/people/injury/research/job185drugs/cannabis.htm)>

<sup>242</sup> Rolles, above n 37, at 178

<sup>243</sup> Rolles, above n 37, at 178

Urine analysis is another widely used method to test for the presence of cannabis. However “urine tests do not permit an accurate assessment of when drug use occurred” and can detect the use of cannabis from weeks ago.<sup>244</sup> This means that urine tests do not accurately measure cannabis impairment but instead indicate whether cannabis has been used in the recent past. Consequently, urine tests are inappropriate for measuring cannabis-impaired driving.<sup>245</sup>

The final bodily fluid test is a saliva test. The presence of cannabis in saliva is believed to directly correlate to the “extent of the toxicological state of the individual at the time of testing”<sup>246</sup> and can also be taken by a police officer without any invasion of privacy thus making the process more efficient and accurate. However, there are currently issues with saliva testing. The current devices have been found to fail one in four times resulting in multiple tests on one subject thus diminishing the efficiency gains.<sup>247</sup> These testing devices have also been difficult to interpret for officers.<sup>248</sup> Lastly, the accuracy of the current devices is uncertain and the Rosita-2 Project, commissioned by the European Union, did not recommend the use of saliva testing.<sup>249</sup>

This analysis suggests that blood-testing for THC is the only bodily fluid test of value currently. However, implementing a per se test that deems a certain blood THC level as driving while impaired by cannabis is not recommended given the significant

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<sup>244</sup> EMCDDA, above n 115, at 189

<sup>245</sup> US Department of Transportation National Highway Traffic Safety Administration “Drugs and Human Performance Fact Sheets” (2004) at 9  
<[www.nhtsa.gov/People/injury/research/job185drugs/drugs\\_web.pdf](http://www.nhtsa.gov/People/injury/research/job185drugs/drugs_web.pdf)>

<sup>246</sup> Owusu-Bempah, above n 229, at 234

<sup>247</sup> Owusu-Bempah, above n 229, at 234

<sup>248</sup> Owusu-Bempah, above n 229, at 234

<sup>249</sup> Alain Verstraete and Elke Raes “Rosita-2 Project: Final Report” (2006)

<[www.rosita.org/members/docs/Rosita2percent20Finalpercent20reportpercent20May2006.pdf](http://www.rosita.org/members/docs/Rosita2percent20Finalpercent20reportpercent20May2006.pdf)>

chance of THC detection after any driving impairment has stopped.<sup>250</sup> Furthermore, per se laws have not been proven to reduce traffic fatalities in the US.<sup>251</sup> The counter-arguments of simplicity and ease of enforcement are not enough to justify potentially punishing a large number of non-impaired drivers.

It is recommended that blood-testing be used in combination with behavioural testing to determine cannabis-impaired driving. The first test would be a field sobriety test specified for cannabis use. At this stage the one leg standing testing is the most accurate<sup>252</sup> but more tests may be developed in the future and should be adopted as appropriate. If the sobriety test is failed, then a blood test should be undertaken to confirm the presence of THC. The appropriate level of THC required to fail the test is another area of contention.

The blood THC level should be set to implicate recent users without implicating those who are unimpaired by cannabis. A zero tolerance limit is not recommended as “the impairing effects of cannabis will have typically worn off roughly three hours after inhalation... [but] detection can last several days.”<sup>253</sup> This is in contrast to alcohol which is not stored in the body thus its presence is directly related to impairment.<sup>254</sup> In determining the appropriate level of THC allowed in the blood, attempting to equate cannabis intoxication with alcohol intoxication provides a good starting point. Under section 11 of the Land Transport Act 1998 the limit is set at 50 milligrams of alcohol per 100 millilitres of blood and section 57 sets a threshold of zero for drivers under 20

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<sup>250</sup> US Department of Transportation National Highway Traffic Safety Administration, above n 259  
Andrew Sewell, James Poling and Mehmet Sofuoglu *The effect of cannabis compared to alcohol on driving*, (2009) 18 American Journal on Addictions 185 at 188

<sup>251</sup> Daniel Rees and Mark Anderson “Per Se Drugged Driving Laws and Traffic Fatalities” (Social Sciences Research Network IZA Discussion Paper No.7048, 2012) at 1

<sup>252</sup> WM Bosker, above n 254, at 438

<sup>253</sup> Rolles, above n 37, at 173

<sup>254</sup> Rolles, above n 37, at 174

years of age. As outlined previously, this zero standard for youth drivers should not be adopted for cannabis. Studies have equated this blood alcohol concentration with between 10 nanograms of THC per millilitre of blood<sup>255</sup> and 3.8 nanograms per millilitre of blood.<sup>256</sup>

It is recommended to use a standard of 3.8 nanograms per millilitre of blood due to the prominence of the DRUID project study. Such a standard will lead to very few false positives, as this would require the failure of a field sobriety test and residual THC levels in the blood of at least 3.8 nanograms per millilitre. A higher standard has a significant risk of missing many impaired drivers because of the low accuracy of field sobriety tests and the potentially high amount of impairment required to breach a higher blood THC standard.

Lastly, studies have found that “[c]ombined use of THC and alcohol produced severe impairment of cognitive, psychomotor, and actual driving performance in experimental studies and sharply increased the crash risk in epidemiological analyses.”<sup>257</sup> It is recommended that the blood THC level required for impaired driving be halved if the blood alcohol concentration level has been breached to reflect the dangers of driving under the influence of both cannabis and alcohol.

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<sup>255</sup> F Grotenhermen, G Leson, G Berghaus, OH Drummer, HP Krüger, M Longo, H Moskowitz, B Perrine, JG Ramaekers, A Smiley and R Tunbridge *Developing limits for driving under cannabis* (2007) 102 *Addiction* 1910 at 1910

<sup>256</sup> EMCDDA “Driving under the influence of drugs, alcohol and medicines in Europe – findings from the DRUID project” (Thematic paper, European Monitoring Centre for Drugs and Drug Addiction, Lisbon, 2012) at 7

<sup>257</sup> JG Ramaekers, G Berghaus, M van Laar, OH Drummer *Dose related risk of motor vehicle crashes after cannabis use* (2004) 73 *Drug and Alcohol Dependence* 109 at 109

## *Medical Cannabis*

Medical cannabis legislation is best kept separate from recreational cannabis legislation. The issues related to medical cannabis are quite distinct from recreational cannabis legislation as they relate to the medical benefits of cannabis, the forms of allowable cannabis and the medical issues for which cannabis ought to be used. In general, the “efficacy and risk profile of cannabis-based medicines for certain medical conditions has for the most part, little or no bearing on the risks posed by cannabis to recreational users.”<sup>258</sup> There are some overlapping issues, for example security and testing requirements, but in general they are quite distinct. This dissertation will make no recommendations as to medical cannabis.

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<sup>258</sup> Rolles, above n 37, at 189

## CONCLUSION AND SUMMARY

Around the world the legal approach to cannabis is changing. New Zealand may soon have an opportunity to reform its cannabis laws as well. The purpose of this dissertation has been to outline the best-legalised model for cannabis laws in New Zealand. In summary, the model can be described as a more restrictive version of the commercial cannabis laws applied in Colorado, Oregon and Washington State.

The key recommendations for the production and distribution of commercial cannabis are to set up a licensing system and regulatory authority and to have stringent security and testing requirements. Quantity production limits and forced separation between cannabis producers and retailers is unnecessary. A licensing system similar to alcohol is recommended for the sale of commercial cannabis. Cannabis vendors should be banned from advertising, including on packaging and limited in their display. However, internet sales of cannabis along with edible cannabis products should be lawful. The purchase of commercial cannabis ought to be limited to those over 18 years of age and subject to a maximum transaction limit of 2.8 grams of THC per sale. No residency or registration should be required.

Cannabis “coffee shops” should be permitted under a licensing system similar to an on-licence alcohol venue. Although home-grown cannabis and cannabis clubs are recommended, they should be subject to production limitations and membership limits. Cannabis-impaired driving should be tested in a two-stage process including both a field sobriety test and a blood THC test.

Finally, the taxation of cannabis should not force cannabis prices higher than the black market and a commission should be established to evaluate and guide cannabis laws as new information arises.

These recommendations will facilitate autonomy and efficiency while also minimising the harm that cannabis can cause. It is important that cannabis laws are implemented correctly as cannabis is very prevalent in New Zealand. Over regulating will limit the benefits of liberalisation while under regulating will potentiate the harm that cannabis can cause. This model should strike the appropriate regulatory balance and optimise the role of cannabis in New Zealand.

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