

Cannabis and Synthetic Cannabinoids: Current Law and Data on Legalisation

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What are cannabinoids?

Cannabinoids are a group of substances that bind to cannabinoid receptors. Cannabinoids specifically interact with these membrane-bound receptors in order to produce their physiological and behavioural effects. There are three general types of cannabinoids: endocannabinoids (produced naturally in the bodies of humans and other animals), phytocannabinoids (found in the cannabis plant) and synthetic cannabinoids (manufactured chemically).¹

The most notable and researched cannabinoid is delta-9-tetrahydrocannabinol ("THC"), a phytocannabinoid that acts as the primary psychoactive compound in cannabis.

Addictiveness and reported reactions

The topic of whether cannabis can be considered "addictive", and in what way, has been debated for decades. When describing "addiction", some still tend to use an older perspective, which is now seen as out-dated by experts. This point of view proposes that some drugs may be considered physically addictive — producing severe withdrawal — while others are psychologically addictive and only cause craving. The paradigm for physical addiction is heroin, which causes acute withdrawal sickness. Because marijuana cessation is not linked with such severe, physically uncontrollable symptoms, many traditionalists do not regard marijuana as physically addictive. ²

The New Zealand Drug Foundation, on the other hand, considers that cannabis can be both physically and psychologically addictive.³ The Diagnostic and Statistical Manual of Mental Disorders⁴ (psychiatry's handbook of all mental conditions) does not use the word "addiction" as a diagnostic term because of its uncertain definition and its potentially negative connotation. Instead, the more neutral term substance use disorder is used to describe the wide range of the disorder, from a mild form to a severe state of chronically relapsing, compulsive drug taking.⁵ The essential feature of a substance use disorder is a cluster of cognitive, behavioural, and physiological symptoms indicating that the individual continues using the substance despite significant substance-related problems.⁶ The diagnostic criteria for cannabis use disorder include: the persistent use of cannabis, in light of various negative consequences resulting from its use; tolerance; and withdrawal.

New to the most recent (5th) edition of the Manual is the recognition that abrupt cessation of daily or near-daily cannabis use often results in the onset of a cannabis withdrawal syndrome. Common symptoms of withdrawal include irritability, anger or aggression, anxiety, depressed mood, restlessness, sleep difficulty, and decreased appetite or weight loss.

¹ Roger Pertwee (ed) Cannabinoids (Springer, New York, 2005) at p 2.

² Maia Szalavitz *Is Marijuana Addictive? It Depends How You Define Addiction* (TIME Magazine, online ed, New York, Oct 19 2010).

³ NZ Drug Foundation "Cannabis: Dependence, addiction and overdose risk" <www.drugfoundation.org.nz>.
⁴ American Psychiatric Association *Diagnostic and Statistical Manual of Mental Disorders* (5th ed (online),

⁴ American Psychiatric Association *Diagnostic and Statistical Manual of Mental Disorders* (5th ed (online), American Psychiatric Publishing, Arlington, 2013).

⁵ At "Recording Procedures for Substance Use Disorders".

⁶ At "Substance Use Disorders".

Although typically not as severe as alcohol or opiate withdrawal, the cannabis withdrawal syndrome can cause significant distress and contribute to difficulty quitting or relapse among those trying to abstain. Among individuals who have used cannabis regularly during some period of their lifetime, up to one-third report having experienced cannabis withdrawal.

However, the long half-life and other pharmacokinetic properties of THC result in a delayed expression of withdrawal symptoms. Due to the lack of contiguity between drug cessation and withdrawal responses, there is room to debate the degree of causation and correlation. Further, there are, as always, issues with reporting. Some individuals who use cannabis multiple times per day do not perceive themselves as (and thus do not report) spending an excessive amount of time under the influence or recovering from the effects of cannabis, despite being intoxicated on cannabis or coming down from it effects for the majority of most days.8

How does marijuana compare to "classically addictive" drugs? Estimates vary, but compared with tobacco, which hooks about 20% to 30% of smokers, marijuana is much less addictive, coming in at 9% to 10%. In contrast, 23% to 25% of heroin users get addicted, along with 15% of alcohol users and 15% to 20% of those who use cocaine.

Mental illness

There is growing evidence reliably linking cannabis with mental health problems. However, the direction of the causation remains unclear; does cannabis actually cause mental illness, or are people with mental illness simply pre-disposed towards cannabis use? Individuals who are susceptible to mental illness put themselves at greater risk of psychotic symptoms when using cannabis. Young people using cannabis regularly have rates of psychotic symptoms that are between 1.5 to 2.5 higher than those not using cannabis. ¹⁰ Further, cannabis appears to make psychotic symptoms worse for people with schizophrenia. 11 Cannabis use, particularly heavy and frequent use, has been linked to a condition called 'cannabis psychosis'. Episodes of cannabis psychosis are characterised by delusions, confusion, memory loss and hallucinations and could last several days. 12

In addition to findings linking cannabis use to increased risks of psychosis or psychotic disorders, there is growing evidence to suggest increased rates of depression, anxiety and suicidal thoughts amongst heavy cannabis users. 13

¹⁰ David Ferguson and Joseph Boden "Cannabis use in adolescence" in Peter Gluckman (ed) *Improving the* transition: reducing social and psychological morbidity during adolescence (Office of the Prime Minister's Chief Science Advisor, Wellington, 2011).

⁷ Divya Ramesh and others "Marijuana Dependence: Not Just Smoke and Mirrors" (2011) 52(3) ILAR Journal

⁸ American Psychiatric Association, above n 4, at "Cannabis use disorder: associated features supporting diagnosis".

⁹ Maia Szalavitz, above n 2.

¹¹ Wayne D Hall "Cannabis Use and the Mental Health of Young People" (2006) 40(2) Australian and New Zealand Journal of Psychiatry 105.

¹² NZ Drug Foundation "Cannabis: Cannabis and psychosis" <www.drugfoundation.org.nz>.

¹³ Patton GC and others "Cannabis use and mental health in young people: cohort study" (2002) 325 BMJ 1195.

<u>Synthetic cannabinoids – physical effects</u>

Synthetic cannabinoids are structurally different from THC but are designed to mimic its effects. "Spice", "Kronic", "Puff", "Aroma", and "Magic Dragon" are among the many synthetic cannabinoids that have been sold in the marketplace. They fall into seven major structural groups, however, there are hundreds of different synthetic cannabinoid compounds and more are constantly being produced to keep in step with legal controls. ¹⁴ Because new ones are always being developed, very little known about their health effects. It has been reported that the toxic and adverse effects of certain synthetic cannabinoids can be significant, including heart palpitations, rapid breathing and heart rate, nausea, vomiting, hallucinations, seizures, and psychotic episodes. ¹⁵

Similarly, there is limited research evidence about dependence and addiction on synthetic cannabinoids. Studies of certain synthetic cannabinoids have found evidence of tolerance and withdrawal symptoms.¹⁶

¹⁴ NZ Drug Foundation "Synthetic cannabis: What they are" <www.drugfoundation.org.nz>.

¹⁵ NZ Drug Foundation "Synthetic cannabis: Health effects" <www.drugfoundation.org.nz>.

¹⁶ NZ Drug Foundation "Synthetic cannabis: Dependence, addiction, and overdose risk" <www.drugfoundation.org.nz>.

Cannabis: Current Law

In New Zealand, natural forms of the drug cannabis are illegal. Synthetic cannabis is legal but regulated under the Psychoactive Substances Act 2013. The law concerning natural cannabis is found primarily in the Misuse of Drugs Act 1975. Cannabis is mostly defined in this Act as a Class C drug, for cannabis plant and seed, although cannabis preparations such as resin and oil are categorised as Class B. 17 The Act provides penalties of up to three months imprisonment or a fine of up to \$500 for cannabis possession. 18 The supply and cultivation of cannabis both derive significantly harsher penalties than this, with cultivation receiving up to seven years imprisonment and supply receiving up to eight years for the Class C forms of the drug, and up to fourteen years for Class B forms. 19 There are no exceptions for medical use. Section 6(6) of the Misuse of Drugs Act 1975 presumes that possession of the drug is for the purpose of supply if it meets the amount stipulated in schedule 5 of the Act. Therefore, the Crown need not prove intent to supply in order to apply the harsher penalty. The Supreme Court has discussed this in the case of R v Hansen.²⁰ In that case, it was argued that this presumption contravenes the presumption of innocence in s 25(c) of the New Zealand Bill of Rights 1990. The majority agreed that the provision was an unjustifiable limitation on the right to be presumed innocent.²¹ However, s 6(6) was sufficiently clear that the Court decided it could not restrict its application²²

Does the law disadvantage any particular group?

Other than the legal discrepancy between possession and supply, the New Zealand laws on cannabis in and of themselves do not explicitly disadvantage any particular group. However, the implementation of these laws at an administrative and procedural level has had the effect of disadvantaging certain groups.

Firstly, the law disadvantages those who are convicted or arrested on charges of possession, often based on this supply-possession distinction. Many cannabis users are already socially disadvantaged, and criminal penalties for possession of cannabis often entail additional costs including disruption of relationships, and loss of housing, and employment. This can have a particularly severe impact on some young offenders, because despite the fact that cannabis possession remains a minor criminal offence, a conviction can have long-term impacts, for example, on employment prospects.

Maori have also been negatively impacted by New Zealand's cannabis laws. The Drug Use in New Zealand Survey from 2007-2008 found that Maori men and women were 50% more likely to use cannabis, making them more obvious targets in terms of the enforcement of cannabis laws. Research has shown Maori are more likely to be arrested and convicted for

¹⁷ Misuse of Drugs Act 1975, sch 2; Misuse of Drugs Act 1975, sch 3.

¹⁸ s 7 (2).

 $^{^{19}}$ ss 9, 6.

²⁰ R v Hansen [2007] NZSC 7, [2007] 3 NZLR 1.

²¹ At [37]-[38], [273]-[281].

²² At [6], [57], [60], [61], [90], [94], [191], [192], [269], [270].

²³ Fergusson DM, Swain-Campbell NR, Horwood LJ. "Arrests and convictions for cannabis related offences in a New Zealand birth cohort" (2003) 70 Drug and Alcohol Dependence (1).

cannabis offences compared to other demographics in New Zealand. A study by Professor David Ferguson suggest this negative impact is due to the presence of discriminatory processes within enforcement institutions.²⁴ As Maori come into more frequent contact with police and law enforcement institutions from an early age, they are more likely to be targeted for cannabis offences and as such are overrepresented in criminal statistics.

A recent survey on drug use in New Zealand found that 71.2% of New Zealanders had used cannabis at least once in their lives, and 35.3% had used it in the last year. More respondents had used cannabis than tobacco (68.8% lifetime use and 33.5% in the last year). Use on this scale suggests both that the drug is socially acceptable, and that groups subject to increased exposure to police and government agencies are likely to be overrepresented in cannabis possession statistics. If so, that is likely to have a discriminatory effect.

Cannabis crime statistics

Recorded offences for illicit drugs in 2012 conducted by Statistics New Zealand shows the number of recorded offences for selling, giving, supplying and dealing in cannabis rising by almost half from the year 2011 to 2012. ²⁶ This is a concerning trend for New Zealand, and points to the possible over-criminalisation and prosecution of cannabis possession, especially considering that possession is a minor charge and one which more than half the population admit to having engaged in in their lifetime.

²⁴ Fergusson at 20-21.

Stuff and Global Drug Survey "Global Drug Survey" Stuff.co.nz (April 2014) < http://origin-interactives.stuff.co.nz/gds/>; see also the worldwide results at > http://origin-interactives.stuff.co.nz/gds/>.

²⁶ Statistics New Zealand, Drug Crime in 2012 http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/yearbook/society/crime/drug-crime.aspx.

Observations from overseas: decriminalisation of cannabis

In the last half century, a number of countries have decriminalised or legalised cannabis. Countries where the cannabis possession is legal include Netherlands, North Korea and most recently Uruguay and the US state of Colorado which has legalised the sale of recreational cannabis.²⁷ Other parts of the US such as Nevada, New Mexico, California and Oregon have decriminalised the possession of marijuana for medical reasons and instead allowed for protection of its users.²⁸ Medical qualification, however, differs in each state, with New Mexico only permitting its use for serious illness such as cancer, epilepsy, multiple sclerosis and spinal damage, while in California medical marijuana is justified in cases of a severe migraine or 'any other illness which it provides relief for'. ²⁹ Other countries have gone even further, with Portugal decriminalising all drugs and replacing criminal law enforcement with a medical harm-reduction approach.³⁰ However, full legalisation is recent and rare enough that statistics on its effects are of limited availability.

Cannabis legalisation and adolescents

Data on the effect of legalisation on adolescents is limited, as is data on the effect of cannabis on young people's brains, since traditional studies would be unethical. However, it is hypothesised that adolescents may be more susceptible to negative side-effects of cannabis since their brains are still developing. Since the law change in Colorado in 2010 making it legal to possess cannabis for medical purposes Dr. Christian Thurstone, Colorado Child and Adolescent Psychiatric Society, exclaims that his clinic has been "inundated with young people reporting for marijuana-addiction treatment. ... Every day, we see the acute effects of the policy of legalization. And our kids are paying a great price."31 Drug-related expulsions in schools have increased 45 percent between 2008 and 2012 subsequent to the Colorado law reform of 2007 decriminalising cannabis. The official report of the Colorado Department of Education has recorded that the most drug-related suspensions since the 2008-2009 year are related to cannabis.³²

Cannabis legalisation and drug-related driving offences

It has been reported in Colorado that marijuana-impaired drivers and fatalities are on the rise. Between 2006 to 2011, the traffic fatalities in Colorado decreased by 16 percent but during this time traffic fatalities with drivers testing positive for marijuana spiked 114 percent.³³ However, it should be noted that cannabis was not legalised for medical use until most of the way through this period, and not legalised fully until after this period. A study which observed the relationship between the legalisation of medical cannabis in 19 states and

²⁷ "Where is Marijuana Legal" (20 April 2014) New Health Guide http://www.newhealthguide.org/Where-Is- Marijuana-Legal.html>.

[&]quot;World Drug Report 2013" (June 2013) United Nations Office on Drugs and Crimes http://www.unodc.org/unodc/secured/wdr/wdr2013/World_Drug_Report_2013.pdf.

²⁹ "World Drug Report 2013".

³⁰ European Monitoring Centre for Drugs and Drug Addiction "Drug treatment overview for Portugal".

³¹ Sheila Polk "Legalized marijuana: Colorado kids are paying the price" (6 January 2014) azcentral .

Polk.

³³ Polk.

driving fatalities found that legalisation was associated with an 8-11% decrease in traffic fatalities. It also found that legalisation in those states reduced alcohol consumption, suggesting that alcohol may be used as a substitute for cannabis.³⁴ A possible reason for the decrease in fatalities is that drivers under the influence of marijuana tend to drive slower and taking fewer risks while drivers under the influence of alcohol trend to drive faster and take more risks.³⁵

Cannabis legalisation and drug-related hospital admissions

A clear association is present between cannabis legalization and drug episode related emergency room (ER) admissions. During the 1970's medicinal marijuana use was legalized in the state of Oregon in the US. Subsequently the number of hospital admissions related to marijuana use decreased, suggesting that marijuana induced medical problems was reduced coincident with medicinal marijuana law reform.³⁶ A more recent study in the 1990's reported that legalisation of marijuana lead to an increase in ER marijuana episodes but a reduction in admission related to other drugs.³⁷ The researcher suggests that this may be due to individuals substituting other drugs with cannabis because of its reduced criminal penalties.³⁸

Cannabis legalisation and crime rates

Several studies have examined the relationship between marijuana use and criminal behaviour. It has been shown that marijuana dependence is related to a 280% increase in chances of violence in a sample of New Zealand adolescents, an association stronger than effects of alcohol and manic disorders. Research has also indicated that cannabis use during adolescence may influence violent behaviour in young adulthood. It is evident that cannabis use is correlated with an increase in violence. However, it could be argued that this relationship is due to its illegality and thereby would not be present in an environment in which cannabis use is legalised. That is, the effect is correlative, not causative.

Empirical research on the relationship between legalised cannabis laws (i.e., medicinal marijuana) and crime is limited and the significance of cannabis use on crime is unknown. Studies have shown that US states that permit the use of medical marijuana have higher rates of cannabis use and an increase in illicit drug use, yet other studies report no relationship

³⁴ D. Mark Anderson, Benjamin Hansen and Daniel I. Rees "Medical Marijuana Laws, Traffic Fatalities, and Alcohol Consumption" (2013) 56 Journal of Law and Economics 333.

³⁵ D. Mark Anderson and Daniel I. Rees "The Legalization of Recreational Marijuana How Likely is the Worst-Case Scenario?" (2013) 33 Journal of Policy Analysis and Management 221.

³⁶ P. Blachly "Effects of Decriminalization of Marijuana in Oregon" (1976) 282 Annals of the New York Academy of Sciences 405

³⁷ K. Model. 1993. "The effect of marijuana decriminalization on hospital emergency room episodes: 1975-1978" (1993) 88 *Journal of the American Statistical Association* 737.

³⁸ L. Arseneault and others "Mental disorders and violence in a total birth cohort" (2000) 57 Arch Gen Psychiatry 979.

³⁹ SS. Brady SS and others "Violence involvement, substance use, and sexual activity among Mexican-American and European-American adolescents." (2008) 43 J Adolesc Health 285.

⁴¹R. G. Morris and others "The effect of medical marijuana laws on crime: evidence from state panel data, 1990 2006." (2014) 9 PLoS One.

A recent study analysed multiple offences across several US states to explore whether medical marijuana law has an impact on crime rates. Their findings reported no positive association between medical marijuana law and any other crime type, and suggest that medical marijuana law is not responsible for higher crime rates and may in fact be related to a decrease in rates of assault and homicide. The authors note that this may be related to a reduction in alcohol use as a result of individuals substituting alcohol with cannabis. They also hypothesise that medical marijuana law policies reflect behaviors that have been established in the community, and therefore are unlikely to cause major changes in people's behaviour. Higher crime rates are therefore not expected in medical marijuana law states. The study findings need to be interpreted cautiously due to the presence of multiple interacting variables that could possibly the effects of medical marijuana law on crime, but initial reports from Colorado suggest there has been little change in the crime rate since legalisation, supporting its conclusions.

Effects of drug policy on the rate of cannabis use

There is a shift towards the liberalisation of cannabis laws in western democracies. Netherlands adopted de facto decriminalization of cannabis in 1976. During the 90's Belgium, Spain, Italy, Switzerland and Germany shifted their drug policies in Netherland's direction. Contrariwise, the United States has stiffened its criminal drug penalties during that time and cannabis related arrests have increased. Both approaches, although moving in opposite directions, are designed to deter the use of cannabis. Criminalisation is often explained as discouraging use, reducing availability and encouraging users to quit. However, although this is superficially logical, in a comparative study that evaluated users behavior in Amsterdam and San Fransisco, no evidence was found that decriminalisation increases use or that criminalization decreases use. Turthermore, criminalisation in San Francisco did not appear to be associated with lower use of other illicit drugs compared to Amsterdam. This data suggests that experienced users regulate their use according to an identifiable subcultural etiquette (i.e., when, with home, where, and how to use), more than according to law. Therefore, formal drug policies may be more effective if they are based on informal drug policies that users actually practice.

⁴² Morris and others.

⁴³ Morris and others.

⁴⁴ Morris and others.

⁴⁵ RT "Colorado crime levels see little change since marijuana legalization – study" RT USA (April 8, 2014) < http://rt.com/usa/colorado-crime-change-legalization-study-017/>

^{46 &}quot;World Drug Report 2013" (June 2013) United Nations Office on Drugs and Crimes http://www.unodc.org/unodc/secured/wdr/wdr2013/World_Drug_Report_2013.pdf.

⁴⁷ Craig Reinarman, Peter D. A. Cohen, Hendrien L. Kaal "The Limited Relevance of Drug Policy: Cannabis in Amsterdam and in San Francisco" (2004) 94 J Public Health 836.
⁴⁸ At 836.

<u>Current law on synthetic cannabinoids</u>

The stated purpose of the Psychoactive Substances Act 2013 is to "protect the health of, and minimize harm to, individuals who use psychoactive substances" by regulating the availability of these substances. ⁴⁹ Regulation is achieved through precautionarily prohibiting all psychoactive substances, except tobacco, alcohol, and medicines; with manufacturers having to bear the cost of clinical trials to establish that their product poses no more than a "low risk of harm" to users. ⁵⁰ Should they do so, the Psychoactive Substances Regulatory Authority (PSRA) constituted under the Act is required by Section 37 to approve that product for sale. ⁵¹ Until the regulations giving full force to the Act are implemented later this year, forty-two existing products have been granted interim approval, contingent on no evidence emerging that they pose more than that "low risk of harm". ⁵²

Parliament overwhelmingly supported the legislation; the Act passing 119-1. Associate Health Minister Peter Dunne has stated that this majority means legal highs "are here to stay".⁵³ Certainly, except for the Conservative Party, no party has stated any intention to reinvigorate the debate on prohibition. It now seems likely, therefore, that any change in policy on synthetics will alter regulation rather than prohibit them.

Public response to synthetic cannabis

In response to cases of serious harm apparently resulting from use of 'legal highs', protests were staged against the drugs in twenty-two centres across the country on April 5th. The Napier, Hastings, and Hamilton territorial authorities have all moved to restrict the sale of these products. Bans already exist in most Western jurisdictions. ⁵⁴ New Zealand, for two years from August 13th 2011, also had such a ban.

Medical effects of synthetic cannabis

A growing body of medical research confirms reports that synthetic cannabis may cause users, often addicted, to become agitated, paranoid, suicidal, and psychotic and the Ministry of Health has acknowledged that these synthetics produce more "adverse events" than 'natural' cannabis. ⁵⁵ The PSRA's October 2013 report *Safety Assessment of Psychoactive Products* notes that many reported adverse reactions to synthetics relate to users who have substituted chronic 'natural' cannabis use for the chronic use of synthetics. ⁵⁶ Whilst the report

⁴⁹ Psychoactive Substances Act 2013, s 3.

⁵⁰ Max Daly "Synthetic Solutions: The Global Response to 'Legal' Highs" Matters of Substance (online ed, Wellington, February 2014); Ministry of Health "Psychoactive Substances – Frequently Asked Questions" (26 July 2013) <www.health.govt.nz>; Psychoactive Substances Act 2013, s 4(e).

⁵¹ Psychoactive Substances Act 2013, s 37.

⁵² Ministry of Health "Interim Product Approvals" (04 April 2014) <www.health.govt.nz>.

⁵³ Peter Dunne, Associate Minister for Health "Hamilton City Council Policy shows Psychoactive Substances Act has teeth" (Press Release, 11 March 2014).

⁵⁴ Daly, above n 34.

Darly, above in 34.

55 As reported in Simon Collins "Legal Highs Linked to Psychosis" The New Zealand Herald (online ed, Auckland, 5 April 2014).

⁵⁶ Psychoactive Substances Regulatory Authority Safety Assessment of Psychoactive Products Report (Ministry of Health, 1 October 2011) at 2-3.

notes that severe adverse events do also result from acute use, this indicates that the major harm associated with synthetics relates to chronic usage.

Medical literature identifies an inverse correlation between social deprivation and the problematic use of drugs.⁵⁷ Whilst drug use is seen in all socio-economic contexts, the most deprived members of society are the most likely to develop addictions. Furthermore, the most deprived individuals are the most the least likely and able in society to seek support for drug use; rendering them the least able to effectively combat drug problems.⁵⁸ Harms associated with drugs thus fall inequitably greatly on the socially marginalized.

These studies were undertaken in regards to illicit drugs. However, the identified normative effect of the law in discouraging illicit drug use means that 'legal' highs are more likely to be used in all communities than 'illegal ones' - including socially marginalized groups. Certainly, as legalization reduces the price of drugs, it seems likely that these licit substances will be even more likely to be used in poorer groups. Indeed, following the *Assessment's* statement that chronic natural cannabis users are the most likely to undertake chronic synthetic use, since marginalized groups demonstrate the greatest incidence of chronic cannabis use, it seems highly likely that socially marginalized groups will experience the greatest incidence of chronic, and thus problematic, synthetic cannabis use. ⁵⁹

Harm assessment

The harm assessment methodology adopted in the *Safety Assessment of Psychoactive Products* is predicated on the assumption that these products are intended for acute and intermittent use. ⁶⁰ Even though it does note the particular harms associated with chronic use, and accounts for them in adducing whether a product poses only a "low risk of harm", PSRA appears to regard chronic use of psychoactive substances as something other than their intended use. The manufacturers of these synthetics may indeed intend their acute and intermittent use – this has proved difficult to verify due to the manufacturers' low public profile. However, it appears that the most harmful use of these products is chronic. Furthermore, anecdotal and clinical evidence is emerging that the synthetics are more potent and addictive than the natural cannabinoids PSRA sees them as displacing. ⁶¹ PSRA's proposed standard, on the wording of the report, does not account for this.

This could be addressed by PSRA's standard for assessing whether synthetics pose only a "low risk of harm" being modified to recognize that synthetics are, at least practically, substances widely seen as being for chronic use amongst the most marginalized, and thus

⁵⁷ See Advisory Council on the Misuse of Drugs Drug Misuse and the Environment (United Kingdom Ministry of Health, 1998); Gabriele Schäfer "Family Functioning in Families with Alcohol and Other Drug Addiction" (2011) 37 Social Policy Journal of New Zealand 1; Sandro Galea, Arijit Nandi and David Vlahov "The Social Epidemiology of Substance Use" (2004) 26 Epidemiologic Rev 36.

⁵⁸ Advisory Council on the Misuse of Drugs, above n 41.

⁵⁹ See various, above n 41; Ministerial Committee on Drug Policy *National Drug Policy 2007-2012* (Ministry of Health, March 2007).

⁶⁰ Psychoactive Substances Regulatory Authority, above n 40.

⁶¹ As reported in Collins, above n 39; Psychoactive Substances Regulatory Authority, above n 40.

most vulnerable, members of our community – the individuals PSRA itself has noted are the most likely to take up the use of synthetics in noting the displacement of natural cannabis by synthetic products.