Submission No 106

INQUIRY INTO IMPACT OF THE REGULATORY FRAMEWORK FOR CANNABIS IN NEW SOUTH WALES

Name: Professor Nicholas Lintzeris

Date Received: 17 May 2024

Inquiry into the impact of the regulatory framework for cannabis in New South Wales

Submission by Professor Nicholas Lintzeris, BMedSci, MBBS, PhD, FAChAM

May 2024

I welcome the opportunity to make this submission to the Legislative Council Portfolio Committee No. 1's *Inquiry into the impact of the regulatory framework for cannabis in New South Wales.*

Overarching Summary of Submission

Currently in NSW, cultivation, quality control and distribution of cannabis are largely in the hands of criminal gangs. Profits from the sale of cannabis go to criminal gangs. The taxpayer receives no benefit from the sale if this product – rather – it is costing the Australian society over $4.5 billion dollars per annum in criminal justice costs, lost productivity, health costs and motor vehicle accidents – much of which falls upon the taxpayer to fund.

The current regulatory model impacts negatively upon individuals – with criminal convictions contributing to impaired social relationships and impaired employment prospects for individuals, which falls most heavily on disadvantaged groups in society – especially First Nations people and those form poorer socioeconomic backgrounds.

Evidence from international jurisdictions that have legalised cannabis indicate that the "sky does not fall in" following legalisation – with little evidence to suggest increases in mental health presentations, and whilst there is some evidence of increased overall prevalence of cannabis use in populations following legalisation, there is little evidence that legalisation is associated with increased frequency of cannabis use nor cannabis use disorders at population levels.

Australia has recently introduced a model for medicinal cannabis that demonstrates our ability to establish a legal cannabis industry with high levels of quality control, providing employment for thousands of Australians, and with an estimated 200-250,000 Australians being prescribed cannabis per annum (in 2022). We have the ability to establish the necessary infrastructure to supply a regulated cannabis model that extends beyond medicinal cannabis indications.

I provide a brief summary of my background and expertise in this area, before addressing some of the terms of reference of the Inquiry. I conclude with a summary of the key aspects of how a regulated medicinal cannabis framework for NSW could be structured.

My background relevant to this submission

I am a Conjoint Professor of Addiction Medicine at the Faculty of Medicine and Health, University of Sydney, and an Addiction Medicine Specialist with almost 35 years of experience working in the Alcohol and other Drug (AOD) sector in clinical, research and policy roles. I have held the following positions, relevant to this Inquiry:

- Chief Addiction Medicine Specialist for NSW Ministry of Health (Mental Health Drug Alcohol Office) 2011-13
- Clinical Director, The Lambert Initiative in Therapeutic Cannabinoids, University of Sydney, 2014-2016
- President of the Chapter of Addiction Medicine, Royal Australasian College of Physicians, 2020-2022
- Director, Drug and Alcohol Services, South Eastern Sydney Local Health District, NSW Health 2010-2024
- Senior Staff Specialist in Addiction Medicine since 2007 in NSW (Sydney and South Eastern Sydney LHDs), with hands-on involvement in treating patients with substance use disorders, including cannabis.
- Private practice (as a Specialist in Addiction Medicine) 2021-23, during which I had experience prescribing medicinal cannabis – predominately for patients with cannabis use disorder.

I completed my PhD (ANU, awarded 2002) on the subject of buprenorphine treatment for heroin withdrawal, and undertook a NHMRC Post-doctoral Fellowship (2002-06) at the National Addiction Centre in London, UK which involved the establishment of the first British randomised controlled trial (RCT) of diamorphine (heroin) for the treatment of heroin dependence.

I have been actively involved in research regarding the treatment of cannabis use disorder (CUD), leading five separate NHMRC-funded RCTs of interventions for treatment of CUD, and in this regard, I am the leading clinician researcher and academic in Australia regarding interventions for the treatment of CUD. Three of these clinical trials have involved medicinal cannabis products (nabiximols[1,2], cannabidiol[3]) as the investigational medications. The two RCTs of nabiximols are the leading international studies on this issue to date, developing an evidence base and legitimate treatment approach for patients with cannabis use disorder.

A key aspect of my career has focussed on the development, evaluation and implementation of medications to treat a range of substance use disorders – including medicinal cannabinoids for cannabis use disorder, various opioid medications (including buprenorphine, methadone, diamorphine, hydromorphone) for the treatment of opioid use disorder; and stimulant medications (lisdexamphetamine) for the treatment of methamphetamine use disorder. In this regard, the study

---

[1] Lintzeris N, Bhardwaj A, Mills L, Dunlop A, Copeland J, McGregor I, Bruno R, Gugusheff J, Phung N, Montebello M, Chan T, Kirby A, Hall M, Jefferies M, Luksza J, Shanahan M, Kevin R, Allsop D; Agonist Replacement for Cannabis Dependence (ARCD) study group. Nabiximols for the Treatment of Cannabis Dependence: A Randomized Clinical Trial. JAMA Intern Med. 2019;179(9):1242-1253. doi: 10.1001/jamainternmed.2019.1993..

[2] Allsop DJ, Copeland J, Lintzeris N, Dunlop AJ, Montebello M, Sadler C, Rivas GR, Holland RM, Muhleisen P, Norberg MM, Booth J, McGregor IS. Nabiximols as an agonist replacement therapy during cannabis withdrawal: a randomized clinical trial. JAMA Psychiatry. 2014 Mar;71(3):281-91. doi: 10.1001/jamapsychiatry.2013.3947..

[3] Bhardwaj AK, Mills L, Doyle M, Sahid A, Montebello M, Monds L, Arunogiri S, Haber P, Lorenzetti V, Lubman DI, Malouf P, Harrod ME, Dunlop A, Freeman T, Lintzeris N. A phase III multisite randomised controlled trial to compare the efficacy of cannabidiol to placebo in the treatment of cannabis use disorder: the CBD-CUD study protocol. BMC Psychiatry. 2024 Mar 4;24(1):175. doi: 10.1186/s12888-024-05616-3..

of medicinal cannabis for CUD is an extension of my career's focus on examining models of regulated medicinal drug supply for patients with substance use disorders.

I have also been actively involved in research regarding medical cannabis in Australia. In addition to RCTs for CUD, I have also been involved in clinical trials of medicinal cannabis in the areas of palliative care, cancer chemotherapy, epilepsy and driving safety. I have led the 'Cannabis As Medicine Surveys'[4] conducted by the University of Sydney (2016, 2018, 2020, 2022) – a serious of biannual research studies examining consumer perspectives regarding medical cannabis use in Australia, tracking developments since 2016.

I have over 250 peer review journal publications in the field of substance use, including 50 publications specifically related to cannabis use disorder or medicinal cannabis.

I am on the Board of the Australian Medicinal Cannabis Association since 2022, and the Penington Institute since 2019.

At a more personal level, I have also had family members with histories of cannabis use disorder, and have experienced the impact of dependent cannabis use upon their lives, including the legal consequences of the current Australian regulatory framework.

TOR A. The historical development and implementation of the regulatory framework for cannabis

The historical development of laws regarding cannabis use in Australia are not my area of expertise with the exception of two areas:

(a) *The development and implementation of court diversion programs for people apprehended with cannabis (either pre- or post-sentencing).* There are several schemes currently available in NSW:
   1. Cannabis Cautioning Scheme (since 2000)
   2. MERIT program (pre-sentencing 12-week AOD treatment program for people with non-violent and non-trafficking drug related offences)
   3. Diversion under the Young Offenders Act 1997
   4. Adult Drug Court – a post-sentencing 2-year AOD treatment program
   5. Early Drug Diversion Initiative (since early 2024)

These diversion systems are all discretionary (largely dependent on police or courts in their application), and as identified on the NSW Police website[5] – the possession and use of cannabis remains illegal in NSW, and these schemes are not a form of decriminalisation. Indeed, most offenders do proceed to court, with only a minority of potential cases resulting with a court diversion program (11.7% vs 43.9% for Aboriginal and non-Aboriginal people respectively were diverted using the Cannabis Cautioning Scheme[6] – highlighting the disparity in its application in the real world).

As Director of Drug and Alcohol Services at SESLHD, I had oversite of two MERIT programs (pre-sentencing, Downing Centre and Sutherland Court) and an Adult Drug Court program (post-

[4] Lintzeris N, Mills L, Abelev SV, Suraev A, Arnold JC, McGregor IS. Medical cannabis use in Australia: consumer experiences from the online cannabis as medicine survey 2020 (CAMS-20). Harm Reduct J. 2022 Jul 30;19(1):88. doi: 10.1186/s12954-022-00666-w.
[5] https://www.police.nsw.gov.au/crime/drugs_and_alcohol/drugs/drug_pages/drug_programs_and_initiatives
[6] https://www.bocsar.nsw.gov.au/Pages/bocsar_publication/Pub_Summary/CJB/CJB258-Summary-Cannabis-cautioning.aspx

sentencing, the Downing Centre). Our experience at SESLHD is that approximately 10-15% of clients referred to MERIT programs have cannabis as their primary drug of concern. Whilst cannabis can be associated with a range of harms to the individual and their community, the harms are usually much less severe than the impact of heroin or methamphetamine dependence. Anecdotally, many people attend MERIT program largely to avoid further criminal sanctions rather than due to severe health problems arising from their cannabis use (in contrast to people with heroin or methamphetamine problems which have a much higher burden of disease and social impact). As there are limited places available on the MERIT program, these 10-15% of treatment places are being allocated to people with cannabis-related offences – when they could be better utilised provided treatment for people with methamphetamine or heroin use disorders.

Similarly, whilst the Early Drug Diversion Initiative only recently commenced in early 2024, it is highly likely that a majority of cases will involve cannabis related offences, with use of a high proportion of the programs resources targeting people with cannabis use. Rather than addressing more priority issues such as methamphetamine and heroin use. We await the program's evaluation.

b) A national framework for medicinal cannabis established by the TGA since 2016 that provides one approach to a regulated model of cannabis supply.

Since 2016, it has been legal for medical practitioners to prescribe a range of medicinal cannabis products to patients as unregistered medicines – that is – they have not been approved any the TGA for the treatment of any specific indication, and it is up to the treating doctor to prescribe these medicines under the Special Access or Authorised Prescriber schemes. TGA data indicates that in 2023, there were over 760,000 authorisations by the TGA (>630,000 Authorised Prescriber and >130,000 Special Access Scheme B approvals)[7].

Whilst it is difficult to translate this to actual patient numbers treated, the recent National Household Drug Survey (released 2024)[8] suggests that in 2022 approximately 200-250,000 Australians aged 14 or over were prescribed a medicinal cannabis product, with the overwhelming majority (82%) including some THC, and 18% for cannabidiol only.

In effect, Australia has already implemented one model of a regulated drug supply (requiring doctors and pharmacists as intermediaries). The Australian framework for medicinal cannabis (MC) is quite unique internationally. Unlike most other jurisdictions, the Australian framework involves:

- Strict licensing of medicinal cannabis producers and licensing of manufacturing conditions. This involves high levels of quality control in manufacture (Good Manufacturing Conditions), testing and labelling of products;
- MC products can only be prescribed by medical (or nurse) practitioners and dispensed by a pharmacy;
- No direct to consumer advertising is permitted.

There are now over 800 possible MC products that can be prescribed, and TGA data suggests the majority of supplies in 2023 involved oral liquid, oral capsules and herb (plant matter) for vaporisation. The price for prescribed herb ($10 to 12 per gram) is comparable to the cost of illicit cannabis on the black market ($10-20 per gram depending on whether buying in large or small

[7] https://www.tga.gov.au/products/unapproved-therapeutic-goods/medicinal-cannabis-hub/medicinal-cannabis-access-pathways-and-usage-data
[8] https://www.aihw.gov.au/reports/illicit-use-of-drugs/cannabis-ndshs

quantities). This highlights how competitive a legal Australian cannabis industry with high production and distribution standards - can be competitive with an illegal cannabis industry.

The most common conditions for which MC is prescribed are chronic pain, mental health conditions (anxiety, depression) and sleep disorders. Whilst there are very few cases whereby cannabis use disorder or cannabis dependence are listed as the primary indication (SAS-B TGA), a recent systematic review international estimates suggest that approximately 29% (95%CI 21-28%) of people using medical cannabis meet criteria for a cannabis use disorder, of whom approximately 20-40% meet criteria for cannabis dependence (mod-severe CUD)[9]. In our own Australian research[10], 32% of medical cannabis users met criteria for a cannabis use disorder, with 13% meeting criteria for dependence. Hence, we can estimate that of the 200-250,000 Australians prescribed medical cannabis in Australia in 2022, approximately 60-80,000 have a cannabis use disorder, and 25-35,000 are dependent to cannabis.

Whilst few TGA SAS-B approvals are for the treating cannabis use disorder – there is a growing number of clinicians that recognise this to be a legitimate treatment approach with an emerging evidence base from randomised controlled trials (see references 1-2, page 1), and from their own clinical experience. There are definite legal, social and health advantages for many patients with cannabis use disorder in accessing a legally prescribed product of known composition (known THC, CBD concentrations), grown under safe conditions (unlike much illicit hydroponic cultivation in Australia), and involving safer routes of administration (oral or vaporisation instead of smoking joints or bongs). Within a medical framework, it also enables regular contact with medical professionals attending to other health issues (e.g. mental health, nicotine dependence). Whilst some groups may be critical that “recreational” cannabis users are accessing medicinal cannabis – as a leading Addiction Medicine specialist, I believe there are ill-considered criticisms based on stigma and poor understanding of the nature and treatment of substance use disorders. I consider medicinal cannabis treatment to be a safe and effective approach to treating cannabis use disorder, and one that I believe will become more commonplace with time. Indeed, such criticisms are reminiscent of the criticisms made 30 to 40 years ago against methadone or buprenorphine treatment for heroin dependence, yet which have now become the dominant treatment paradigm for opioid dependence in Australia. Nicotine replacement therapy is another example of ‘safer drug’ substitution for the treatment of a substance use disorder.

Interestingly, the recent National Household Drug Survey identified that of the 12% of Australians used cannabis in the past year, of whom 8.8% used for non-medical reasons (~1,900,000 people) 1% (~200-250,000 people) for medical reasons only, and 2% (400-450,000) for medical and non-medical reasons. However – the vast majority of people sourced their cannabis illicitly – with only 7.5% of cannabis users accessing a prescription for medicinal cannabis, and only 30% of medical cannabis users accessing a prescription. This highlights that whilst medical cannabis is legally available across Australia, the vast majority of Australians using cannabis for medical reasons continue to use illegal supplies and continue to break the law – usually on a daily basis. Further regulatory reform is required.

---

[9] Dawson D, Stjepanović D, Lorenzetti V, Cheung C, Hall W, Leung J. The prevalence of cannabis use disorders in people who use medicinal cannabis: A systematic review and meta-analysis. Drug Alcohol Depend. 2024 Apr 1;257:111263. doi: 10.1016/j.drugalcdep.2024.111263. Epub 2024 Mar 8. PMID: 38493566.

[10] Mills L, Lintzeris N, O'Malley M, Arnold JC, McGregor IS. Prevalence and correlates of cannabis use disorder among Australians using cannabis products to treat a medical condition. Drug Alcohol Rev. 2022 Jul;41(5):1095-1108. doi: 10.1111/dar.13444. Epub 2022 Feb 16. PMID: 35172040.

I believe the medicinal cannabis framework to be relevant to this Inquiry as it demonstrates that Australia has already implemented a regulated model of cannabis supply, that supplies high quality cannabis products to a very large number of Australians (many with cannabis use disorder), and has established an Australian cannabis industry, creating thousands of jobs and attracted private equity investment. Twenty years ago – any debate regarding how we can regulate cannabis in Australia would have confronted challenges such as – where will the cannabis come from, which types of products and what quality control frameworks will be required. The medicinal cannabis experience over the past decade in Australia has demonstrated we have the ability to confidently address these challenges.

TORs (B) the socioeconomic impact of the current regulatory framework for cannabis; and (C) the historical, current and future financial cost of cannabis prohibition to the Government and the economy

The most recent estimates of the financial costs of cannabis prohibition in Australia are from 2015-16, and as such need to be adjusted for inflation (and hence an under-estimate of financial costs today).

Societal cost of cannabis use in Australia were estimated at $4.5 billion annually in 2015/16[11]. This comprised of $2.4 billion in crime-related costs, $714 million in healthcare, $560 million in workplace costs, $194 million in traffic accidents, and $470 million in other costs. The criminal justice system accounted for more than half of all tangible costs.

The Commonwealth's Parliamentary Budget Office has estimated that a regulated model of cannabis supply, involving taxation of cannabis products, would improve the country's fiscal balance by over $28 billion in its first decade of operation. Some experts have suggested this to be an over-estimate. For example, Williams and Rose, health economists from Queensland, have estimated $13 billion in the first decade to be a more realistic[12]. Both numbers point to considerable benefits to the economy. Ideally, a proportion of these taxation revenues could be used to target prevention and treatment programs targeting problematic cannabis use; and would enable redirection of much of the criminal justice budget ($2.4 billion per annum) to target other crimes for which society has increasing concerns, such as domestic violence, youth crime and cyber-security.

At a personal level, prohibition has a number of deleterious effects upon people who use cannabis and their communities. Research into the impact of cannabis-related offences (possession and use) and the impact of different policing strategies was examined in NSW by Marian Shanahan and colleagues in 2017[13]. They examined the impact of four different police responses (cautions, expiation, warnings, and traditional charges through the court system) in 998 people who recently had contact with police for cannabis use or possession. Their findings highlight that only a minority of individuals (16.9%) met criteria for a cannabis use disorder (suggesting the majority did not have

---

[11] Whetton, S., Tait, R.J., Chrzanowska, A., Donnelly, N., McEntee, A., Mukhtar, A., Zahra, E., Campbell, G., Degenhardt, L., Dey, T., Abdul Halim, S., Hall, W., Makate, M., Norman, R., Peacock, A., Roche, A., Allsop, S. 2020. Quantifying the Social Costs of Cannabis Use to Australia in 2015/16, Tait, R.J., Allsop, S. (Eds.). ISBN 978-0-6487367-4-5, Perth, WA, National Drug Research Institute, Curtin University

[12] https://www.theguardian.com/australia-news/2023/jun/07/nsw-police-less-likely-to-give-indigenous-offenders-warnings-for-minor-cannabis-offences

[13] Marian Shanahan, Caitlin Hughes and Tim McSweeney, Police diversion for cannabis offences: Assessing outcomes and cost-effectiveness. 2017, Australian Institute of Criminology. https://www.aic.gov.au/sites/default/files/2020-05/tandi532.pdf

significant impairment of health, occupational or social functioning arising from their cannabis use). None of the four policing options resulted in any clinically relevant reduction in cannabis use by offenders (across the four options, cannabis use reduced on an average of 1-2 days per month when comparing pre- to post-offence), and no difference in future criminal offending between the four groups. However, those individuals charged in court (compared to the diversion options) were:

- significantly more likely to report they had experienced relationship problems since their police encounter (50% percent compared with 10 -28% in the diversion groups). Two-thirds of those who reported relationship problems stated these were related to the cannabis-related police encounter, with problems occurring with family (22%), partners (13%) and friends (11%)
- significantly more likely to experience employment problems after the police encounter. Those in the charge group were 2.2 to 9.8 times more likely to report they had ever been denied a job and 2.1 to 3.7 times more likely to report they had lost a job, compared to those in the diversion options. Jobs requiring police record checks as a condition of employment were identified as a particular concern.

This study – whilst not a randomised trial, is the most comprehensive assessment of the impact of different policing options in NSW to date – and highlight that being charged in the court system did not have any benefits regarding future cannabis use or crime commission, but negatively impacted upon the individual's relationships and employment prospects.

The authors also estimated (page 9) the costs of each of the four policing options – identifying a mean cost per intervention (95%CI) as:

- Charge $1,918.10 ($941.30 - $2,894.90)
- Caution $318.00 ($289.40 - $346.70)
- Expiation $263.50 ($220.6 to $306.30)
- Warning $122.6 ($121.50 to $123.60)

This study highlights that criminal charges are by far the most expensive intervention option, and yet is associated with the greatest harms for individuals (regarding to relationships with family and friends, employment prospects), whilst producing no difference in future cannabis use or re-offending. It is difficult to not conclude that responding to cannabis use and possession with a criminal charge is essentially bad policy that benefits neither the individual, their families nor the taxpayer.

TOR (D) the impact of the current regulatory framework for cannabis on young people, the health system, personal health, employment, road safety, crime and the criminal justice system

I will focus my submission on my area of expertise – the impact of cannabis upon the health system.

Like most drugs, cannabis use has the potential to have both detrimental and beneficial effects. Whilst 80 years of prohibition has meant that the majority of scientific research has focussed on the harms associated with cannabis use, the past two decades has seen increasing evidence of its potential therapeutic effects, with evidence of its effectiveness in treating conditions such as paediatric epilepsy, chronic pain, multiple sclerosis, chemotherapy induced nausea, and emerging evidence of its benefits in treating conditions such as palliative care and cannabis use disorder. Whilst the evidence is still emerging, there is increasing epidemiological evidence from North America suggests that communities with regulated cannabis markets may have lower population rates of opioid-related overdose deaths (secondary to reduced use of opioid medications for pain management).

There is clear evidence that cannabis use can also be associated with harmful effects. The most commonly cited harms include the development of cannabis use disorder (estimated to occur in approximately 10% of cannabis users); increased rates of psychosis, particularly in people with co-existing functional psychotic conditions (e.g. schizophrenia) or genetic vulnerability to psychosis[14], rather than increased risk amongst all people who use cannabis; increased rates of anxiety and depression in heavy users – particularly in individuals with heavy cannabis use in adolescence; respiratory conditions – largely linked to concomitant tobacco use; and cardiac conditions (again often linked to concomitant tobacco use). In order to understand the relative frequency / impact of of cannabis upon health, The Australian Burden of Disease Study 2018[15], found that cannabis use contributed to 0.3% of the total burden of disease and injuries in 2018 and 10.2% of the total burden due to illicit drugs (AIHW 2021). Cannabis use contributed to approximately 11% of the BoD from illicit drugs, 10% of BoD arising from poisonings and only a small proportion (3% or less) of the burden of schizophrenia, anxiety disorders, road traffic injuries and depressive disorders (AIHW 2021). Whilst not downplaying these issues, given the high prevalence of cannabis use in Australia, the data suggests that cannabis use is much less deleterious and has less impact upon health in Australia than alcohol or other drugs.

Of course, it is difficult to assess the extent to which these health related harms are associated with the current regulatory framework for cannabis (ie prohibition). Some insights as the impact of prohibition upon health outcomes can be gleaned by examining the experience of American jurisdictions (Canada, USA, Uruguay) that have legalised cannabis use. German scientists (Mathey et al 2023[16]) undertook a systematic review of the impact of cannabis legalisation laws upon a range of health related outcomes, as part of their consideration of cannabis legalisation, providing a robust assessment of the evidence so far. This can be accessed at https://www.drugsandalcohol.ie/38753/

---

[14] Cheng W, Parker N, Karadag N, et al. The relationship between cannabis use, schizophrenia, and bipolar disorder: a genetically informed study. Lancet Psychiatry. 2023 Jun;10(6):441-451. doi: 10.1016/S2215-0366(23)00143-8. PMID: 37208114; PMCID: PMC10311008.

[15] https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/drug-types/cannabis#harms

[16] Manthey J, Hayer T, Jacobsen B, et al. Effects of legalizing cannabis. Hamburg, Germany: Institut für interdisziplinäre Sucht- und Drogenforschung, 2023 https://www.drugsandalcohol.ie/38753/ (accessed May 15, 2024).

I strongly refer the Inquiry to consider this review as it summarises the available research literature on a range of health and societal outcomes that have occurred in jurisdictions that have legalised cannabis. In some cases the original studies compared states with legalisation v prohibition, and in other cases examined before and after legalisation outcomes. I have attempted to summarise their findings in Table 1. In summary, whilst the authors identify a number of methodological issues in these evaluations, there appear to be consistent trends emerging that legalisation of cannabis is not associated with marked increases in crime or health related harms, although it must be stated that more extended periods of evaluation are required.

It must be emphasised the concerns of medical authorities that cannabis legalisation will result in marked increases in mental health presentations (e.g. psychosis and self-harm) and explosions in rates of cannabis use. The evidence to date is clear that cannabis legalisation does not appear to be associated with any major increases in mental health presentations, and that whilst it appears that more people use cannabis following legalisation, there does not appear to be increases in the amount or frequency of cannabis use amongst cannabis users, and inconsistent findings regarding rates of CUD. The authors do emphasise that differences between studies may reflect the models of legalisation that are implemented.

Table 1. Summary of compact of cannabis legalisation on health and societal outcomes

Outcome	**Conclusion of systematic review**
Crime related outcomes	
Illicit cannabis market	Consistent finding of reduction in the size of illicit cannabis market, although the extent varies across studies.
Violent crime	Inconsistent findings, with 9 studies suggesting no increase in violent crime, 3 studies showing an increase in violent crimes, no studies showing decrease. Weight of evidence towards no change in violent crime.
Property crime	Mixed results between studies. No conclusion at this time.
Health related outcomes	
Number of people using cannabis	71% of studies indicate an increase in numbers of cannabis users, 29% indicate no change.
Frequency of cannabis use amongst people who use cannabis	Studies consistently indicate no increase in frequency of quantity of cannabis use
Cannabis use disorder rates	No increase in CUD rates in Canada or Uruguay, and inconsistent findings across US states – with either no change or minor increases.
Psychosis / schizophrenia presentations	Data consistently shows no increase in rates of psychosis in the short term (most studies reporting 1-2 years of data) (7 studies)
Self-harm hospital presentations	No evidence of increases (3 studies)
Motor vehicle accidents	Inconsistent findings although weight of evidence suggests increase in the proportion of people detected driving with THC in their system, and an increase in fatal car crashes with THC involved – although authors express caution due to heterogeneity of study findings.

Pregnancy and birth outcomes	10 studies reported. Cannabis use during pregnancy has increased in some but not all jurisdictions that have legalized cannabis. Increases in adverse birth outcomes have not been reported in any study.

(from Manthey J, Hayer T, Jacobsen B, et al. Effects of legalizing cannabis. Hamburg, Germany: Institut für interdisziplinäre Sucht- und Drogenforschung, 2023 https://www.drugsandalcohol.ie/38753/)

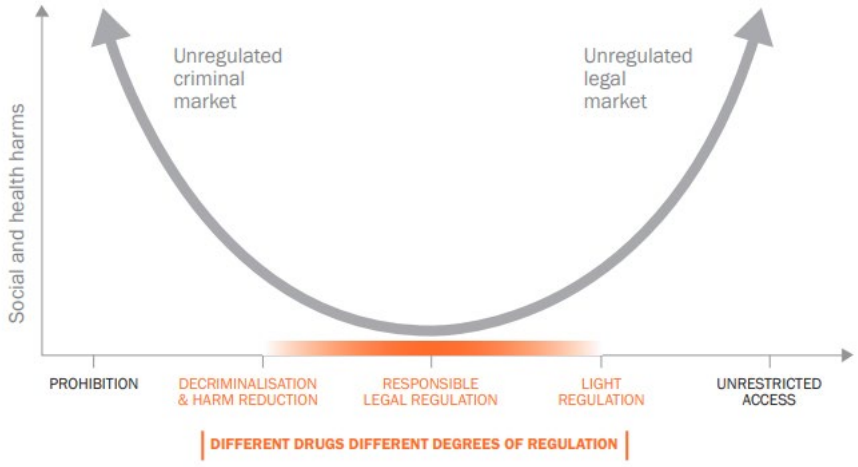
TOR F) Alternative approaches to the regulatory framework for cannabis in other jurisdictions

Increasing numbers of countries are re-considering their approach to the regulation of cannabis, and number of countries have introduced cannabis legalisation frameworks.

Three broad options are available:

- Prohibition - current framework in NSW,
- Decriminalisation: which involves removing criminal sanctions for possession and use, without providing a legal framework for accessing cannabis (essentially still having an illicit cannabis production and distribution model). This may include variations of court diversion programs (e.g. warnings, expiation notices), although these remain discretionary upon the police and therefore technically not a form of decriminalisation per se.
- Regulated models of cannabis use and distribution – including medicinal cannabis models (as per Australia), to non-medical models. Non-medical models vary according to their level of regulation. For example, some US jurisdictions closely regulate the number of outlets, restricted to government agencies and with limited range of products, whereas other jurisdictions (e.g. Thailand) introduced a what could be described as a deregulated model.

The role of different regulatory models and their impact upon social and health outcomes is shown in Figure 1.[17] The challenge is identifying and implementing the 'sweet spot' – responsible regulation that optimises social and health outcomes.



[17] New Zealand Drug Foundation, Whakawātea te Huarahi – A model drug law to 2020 and beyond. July 2017. Online, available: https://www.drugfoundation.org.nz/assets/uploads/2017-uploads/Model-drug-law/Whakawatea-te-Huarahi-July2017.pdf [last accessed 05/20/2023]

What would responsible legal regulation of cannabis in NSW look like.

I would like to submit to the Inquiry the following key elements of a legalised regulatory model for non-medical cannabis use:

1. Licensed producers of high quality cannabis products, ensuring high standards of production and distribution. This should prioritise Australian manufacturers, providing employment opportunities for Australians, particularly in regional and rural Australia.
2. Whilst individuals should be allowed to 'grow their own' cannabis for personal use, individuals should not be allowed to sell products to others without appropriate licensing and quality standards of production. This is akin to allowing individuals to "brew their own beer", but not allowing them to sell their "home brew" on the commercial market.
3. All commercial cannabis products must be of high quality, of known cannabinoid composition (THC, CBD), and production must avoid the use of potentially harmful fertilisers chemicals or fungicides. Limits to the concentration of THC content in products should be considered to avoid some of the potential harms seen in the USA of poorly regulated high potency (e.g. 80, 90%) THC products (e.g. "shatter") that have been associated with cannabis toxicity.
4. The sale of cannabis products should be through licensed venues, with regulations that control the sale of cannabis products to minors, as per alcohol regulation. This could either be comparable to a licensed vendors (as per alcohol industry). Alternatively, Australia could consider rescheduling cannabis products to be allowed to be sold as Schedule 3 'over the counter' products at community pharmacies. This would avoid the establishment of cannabis dispensaries in communities, and pharmacists are already skilled in handling drugs. Over the counter models retain confidentiality for the consumer, as consumers are not required to provide proof of identify (beyond age). Pharmacists are also skilled in providing health advice to consumers with queries or concerns.
5. Cannabis products should be subject to taxation, with a proportion of taxation revenue hypothecated to fund prevention and education programs, and treatment programs for people experiencing cannabis related harms.
6. There should be restrictions upon marketing of cannabis products, possibly even a ban on marketing of individual products.
7. Strategies to minimise motor vehicle accidents (e.g. RDT) could be retained, making it illegal to drive following non-medical use.
8. Resources currently used by the criminal justice system for cannabis prohibition could be redirected to address other crime issues in society (e.g. domestic violence).

This approach is substantially different to a decriminalisation model as introduced in the ACT – which enables individuals to grow small amounts of cannabis, but otherwise maintains an illicit cannabis economy – with all the attendant problems of criminal gangs controlling production and distribution, poor quality control of products, and lost potential taxation revenue. Decriminalisation may be the best option we have for addressing drugs such as methamphetamine and heroin – but not for cannabis where we have the ability to establish a mature legal cannabis industry in Australia.