
The case for MDMA (ecstasy) regulation

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Drug-related harm is the most rational means of determining a substance's legal status. The available evidence suggests that compared to other drugs, 3,4-methylenedioxy-N-methamphetamine (MDMA or "ecstasy") poses a low level of harm to most individual users and causes negligible harm to society. There is no sound justification for criminalising the use of MDMA. The depenalisation model adopted in Australia does not have any benefits that cannot be achieved by removing minor MDMA offences from criminal law entirely. The current model also operates within a prohibition framework that is costly to society and increases harm to ecstasy users. These arguments support the proposal by David Penington in 2012 that MDMA should be regulated on a legal market. The supply of MDMA from pharmacies appears to be a practicable law reform option with the potential to reduce harm associated with ecstasy use and the costs of prohibition.

INTRODUCTION

Commonly referred to as "ecstasy", 3,4-methylenedioxy-N-methamphetamine (MDMA) is a recreational psychoactive drug that produces distinctive emotional and stimulant effects.¹ In all jurisdictions in Australia, it is an offence to manufacture, traffic, possess or use MDMA.² Tablets (pills) are the most common form of MDMA, and are usually taken orally.³ Ecstasy tablets available today may contain a variety of other drugs, harmful adulterants and no MDMA at all.⁴

In 2012, Emeritus Professor David Penington AC proposed that ecstasy use and possession be decriminalised, and the drug be made available for purchase on a regulated legal market, most likely from a pharmacy.⁵ Penington's reference to "ecstasy" is to the compound most traditionally known as ecstasy, which is MDMA.⁶ However, in this article, "ecstasy" refers to any product sold as the recreational drug ecstasy, regardless of MDMA content.

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¹ Green AR et al, "The Pharmacology and Clinical Pharmacology of 3,4-methylenedioxy-methamphetamine (MDMA, 'Ecstasy')" (2003) 55(3) *Pharmacol Rev* 463 at 465; Bernschneider-Reif S, Öxler F and Freudenmann W, "The Origin of MDMA ('Ecstasy') – Separating the Facts From the Myth" (2006) 61(11) *Pharmazie* 966.

² *Drugs Poisons and Controlled Substances Act 1981* (Vic), Sch 11, ss 4, 70, 71, 71AA, 71AB, 71AC, 71A, 71B, 73, 75; *Drug Misuse and Trafficking Act 1985* (NSW), Sch 1, ss 3, 5-7, 10, 12, 24, 25, 25A, 29; *Misuse of Drugs Act 2001* (Tas), Sch 1, ss 3, 6, 12, 14, 21, 24, 26, 27A; *Controlled Substances Act 1984* (SA), ss 4, 32, 33, 33I, 33G, 33L, 33J; *Misuse of Drugs Act 1981* (WA), ss 3, 4, 6, 12-17; *Poisons Act 1964* (WA), App A, s 5; *Poisons Standard 2013* (Cth), Sch 9; *Misuse of Drugs Act 1990* (NT), Sch 2, ss 3, 5, 8, 9, 13; *Drugs Misuse Act 1986* (Qld), ss 4-6, 8, 9; *Drugs Misuse Regulation 1987* (Qld), Sch 1; *Drugs of Dependence Act 1989* (ACT), Dictionary, ss 164, 171; *Medicines, Poisons and Therapeutic Goods Act 2008* (ACT), Dictionary, ss 33, 37(2); *Drugs of Dependence Regulation 2005* (ACT), s 5; *Criminal Code Regulation 2005* (ACT), Sch 1, Pt 1.2.

³ Australian Crime Commission, *2012-13 Illicit Drug Data Report* (2014) p 26.

⁴ Australian Crime Commission, n 3, p 26; Ross J (ed), *Illicit Drug Use in Australia: Epidemiology, Use Patterns and Associated Harm* (2nd ed, National Drug and Alcohol Research Centre, 2007) p 37; Kuhn C, Swartzwelder S and Wilson W, *Buzzed: The Straight Facts About the Most Used and Abused Drugs from Alcohol to Ecstasy* (3rd ed, WW Norton & Co Ltd, 2008) p 82.

⁵ Douglas B, Wodak A and McDonald D, *Alternatives to Prohibition – Illicit Drugs: How we can Stop Killing and Killing Young Australians* (Australia21, 2012) p 39; Penington D, "A New Approach To Drug Reform: Regulated Supply of Cannabis and Ecstasy", *The Conversation* (12 September 2012), <http://theconversation.com/a-new-approach-to-drug-reform-regulated-supply-of-cannabis-and-ecstasy-9502>.

⁶ Douglas, Wodak and McDonald, n 5, p 5.



The term “drug legalisation” can sometimes be interpreted to mean free-market availability of a drug, such as caffeine.⁷ Alcoholic drinks and cigarettes contain recreational drugs and are often referred to as legal, although can only be taken in certain circumstances.⁸ In this article, the word “regulation” is used to describe a strictly controlled legal market model, or “drug legalisation subject to restrictions”.⁹ While Penington uses the terminology “decriminalised” and “legal regulated market”, this model can be characterised as regulation.

The term “decriminalisation” is typically used to describe a model whereby the offences of use and possession of small quantities of drugs are eliminated from the sphere of criminal law, and are often punishable by fine instead.¹⁰ Different forms of decriminalisation include de jure decriminalisation, where specific laws are amended to remove minor drug offences from the area of criminal law, or de facto decriminalisation, which involves an administrative decision not to prosecute minor offenders despite the fact that a criminal offence does still exist. A “depenalisation” regime involves the “relaxation of the penal sanction provided by law”,¹¹ although the offence remains criminal and will be enforced in certain circumstances.¹² It is outside the scope of this article to examine each of the models in detail, although limitations of these models that can only be overcome by implementing regulation are mentioned.

Several scholars have made compelling arguments against drug prohibition with limited emphasis on the harms of specific drugs.¹³ There is also a significant amount of scientific literature about MDMA that has not been integrated with the law.¹⁴ The only critique of the prohibition of MDMA in Australia specifically is that offered by Timothy Webb in 2002.¹⁵ There is now more information available with respect to the harms of MDMA to the individual and society,¹⁶ as well as new proposals for law reform to consider.

This article argues that Penington’s proposal for a regulation model has considerable merit for two main reasons. First, there is no convincing reason why MDMA use should be illegal. The harm that MDMA use causes to the individual *and* the harm that MDMA use causes to others are negligible. This supports the proposition that the offences of use and possession of small amounts of MDMA be removed from the sphere of criminal law.

Secondly, the control regime for MDMA is ineffective and counterproductive. There is little evidence that Australia’s “prohibition with cautioning and diversion” or “depenalisation” model has any benefits in relation to MDMA use that could not be achieved by a regulation model. The

⁷ Rolles S, *After The War on Drugs: Tools for the Debate* (Transform Drug Policy Foundation, 2007) p 33; McDonald D, *A Background Paper for an Australia21 Roundtable, Sydney, Tuesday 31st January/Friday 3rd February 2012, Addressing the Question What are the Likely Costs and Benefits of a Change in Australia’s Current Policy on Illicit Drugs?* (Australia21, 2012) p 18.

⁸ McDonald, n 7, p 6; Rolles S, *After The War on Drugs: Blueprint for Regulation* (Transform Drug Policy Foundation, 2009) p 15.

⁹ Rolles, n 8, p 15.

¹⁰ Husak DN and De Marneffe P, *The Legalization of Drugs* (Cambridge University Press, 2005) pp 3-4.

¹¹ McDonald, n 7, p 18.

¹² Lenton S, “Drug Policy Reform: Moving Beyond Strict Criminal Penalties for Drugs”, *PolicyTalk* (September 2012), http://www.adf.org.au/attachments/437_PolicyTalkSeptember2012.pdf.

¹³ Husak DN, *Drugs and Rights* (Cambridge University Press, 1992); Whitlock FA, *Drugs, Morality, and the Law* (University of Queensland Press, 1975); Bandow D, “From Fighting the Drug War to Protecting the Right to Use Drugs – Recognising a Forgotten Liberty” in McMahon F (ed), *Towards a Worldwide Index of Human Freedom* (Fraser Institute, 2012) p 253; Smith P, “Drugs, Morality and the Law” (2002) 19(3) *Journal of Applied Philosophy* 233.

¹⁴ Advisory Council on the Misuse of Drugs, *MDMA (“Ecstasy”): A Review of its Harms and Classification Under the Misuse of Drugs Act 1971* (UK Home Office, 2008); Degenhardt L and Hall W (eds), *The Health and Psychological Effects of “Ecstasy” (MDMA) Use* (Monograph No 62, National Drug and Alcohol Research Centre, 2010).

¹⁵ Webb T, “Ecstasy and the Law: The Past, Present and Future of MDMA’s Legal Regulation in the Australian Capital Territory” (LLB Honours thesis, Australian National University, 2002).

¹⁶ Nutt DJ, King LA and Phillips LD, “Drug Harms in the UK: A Multicriteria Decision Analysis” (2010) 376(9752) *Lancet* 1558.

manufacture and distribution of MDMA are strictly prohibited under the current model, which causes damage to society and puts ecstasy users at greater risk of harm. Finally, expanding on the Penington proposal, this article explores how MDMA regulation may be implemented in practice.

BACKGROUND

MDMA is chemically related to both the amphetamine and phenylethylamine classes of compounds.¹⁷ The drug is known to create feelings of empathy and intimacy between individuals, emotional openness, increased energy, reduced anxiety and happiness.¹⁸ The emotional effects of MDMA are predominantly caused by the release of serotonin in the brain.¹⁹ The stimulant effects of MDMA (increased energy) are thought to reflect the release of dopamine.²⁰

The United Nations classes MDMA in the “ecstasy group”, which includes the analogues MDA (3,4-methylenedioxyamphetamine) and MDEA (3,4-methylenedioxyethyl-amphetamine).²¹ It is estimated that 0.4% of the population between the age of 15-64 use ecstasy, which amounts to approximately 19 million people worldwide.²² Australia’s reported rates of ecstasy use are among the highest in the world.²³ Ecstasy is the second most commonly used illegal recreational drug in Australia behind cannabis.²⁴

History and legal status

Merck Pharmaceuticals first synthesised MDMA in 1912 before patenting the compound as a precursor agent in 1914.²⁵ Alexander Shulgin re-synthesised the substance in 1965 and published the first human study on MDMA in 1978.²⁶ Although unregulated at the time, the drug gained popularity in the United States among psychiatrists in the 1970s and early 1980s for enhancing patient communication and allowing patients to achieve “insights about their problems”.²⁷ Recreational use in dance clubs also became notable around this time.²⁸

MDMA was first discovered in the United Kingdom in the late 1970s during a raid on a clandestine laboratory.²⁹ In 1977, the British government prohibited all phenylethylamine analogues under the *Misuse of Drugs Act 1971* (UK), including MDMA, despite no use of the drug being

¹⁷ Green et al, n 1 at 465; Bernschneider-Reif, Oxler and Freudenmann, n 1 at 966.

¹⁸ Green et al, n 1 at 465; Ramo DE, Grov C and Parsons JT, “Chapter 72: Ecstasy/MDMA” in Miller PM (ed), *Principles of Addiction: Comprehensive Addictive Behaviors and Disorders, Volume 1* (Elsevier, 2013) p 717; Degenhardt and Hall, n 14, p 82; Nutt DJ, *Drugs – Without the Hot Air: Minimizing the Harms of Legal and Illegal Drugs* (UIT Cambridge, 2012) p 13.

¹⁹ Advisory Council on the Misuse of Drugs, n 14 at [2.7]; Nutt, n 18, p 13; Hysek CM et al, “MDMA Enhances Emotional Empathy and Prosocial Behavior” (2013) 9(11) *Soc Cogn Affect Neurosci* 1645.

²⁰ Advisory Council on the Misuse of Drugs, n 14 at [2.7]; Nutt, n 18, p 13.

²¹ United Nations Office on Drugs and Crime, *Amphetamines and Ecstasy: 2011 Global ATS Assessment*, UN Doc E.11.XI.13 (2011) p 9.

²² United Nations Office on Drugs and Crime, *World Drug Report 2014*, UN Doc E.13.XI.7 (2014) p 2 (Table 1).

²³ United Nations Office on Drugs and Crime, n 22, p 50.

²⁴ Australian Institute of Health and Welfare, *2010 National Drug Strategy Household Survey Report* (Drug Statistics Series No 25, 2011) p 8.

²⁵ Ramo, Grov and Parsons, n 18, p 718; Freudenmann RW, Öxler F and Bernschneider-Reif S, “The Origin of MDMA (Ecstasy) Revisited: The True Story Reconstructed From the Original Documents” (2006) 101(9) *Addiction* 1241 at 1244; Holland J, “The History of MDMA” in Holland J (ed), *Ecstasy: The Complete Guide – A Comprehensive Look at the Risks and Benefits of MDMA* (Park Street Press, 2001) p 11; Leneghan S, “The Varieties of Ecstasy Experience: A Phenomenological Ethnography” (2013) 45(4) *J Psychoactive Drugs* 347 at 347.

²⁶ Bernschneider-Reif, Oxler and Freudenmann, n 1 at 971.

²⁷ Ramo, Grov and Parsons, n 18, p 712.

²⁸ Green et al, n 1 at 464; Ramo, Grov and Parsons, n 18, p 712.

²⁹ Webb, n 15, p 10; Shapiro H, “Ecstasy – The Drug and its Effects” in Ashton M (ed), *The Ecstasy Papers: A Collection of ISDD’s Publications on the Dance Drugs Phenomenon* (Institute for the Study of Drug Dependence, 1992) p 6.

recorded.³⁰ Nicholas Saunders suggests that this happened because the United Kingdom had a history of being “more prohibitive than other countries” and the government was attempting to “forestall” a drug problem.³¹

At this time, MDMA remained unregulated in the United States and by 1984 it was being legally marketed and sold as ecstasy over-the-counter at bars and clubs in Texas.³² The same year, Texas Senator Lloyd Bentsen wrote to the Drug Enforcement Agency (DEA),³³ requesting that MDMA be placed in Sch I of the *Controlled Substances Act*, which includes drugs of high-abuse potential with no recognised medical use.³⁴ In 1985, despite opposition from psychiatrists, psychologists and researchers, the DEA invoked its emergency powers and temporarily placed MDMA in Sch I for one year.³⁵ The decision was primarily based on evidence that MDA, a related compound to MDMA, induced serotonergic nerve terminal degeneration in rat brains at frequent high doses.³⁶

In early 1986, reportedly under pressure from the United States, the World Health Organization (WHO) recommended that MDMA be placed in Sch I of the United Nations *Convention on Psychotropic Substances* (COPS).³⁷ Substances in Sch I are prohibited, except for limited scientific and medical purposes.³⁸ The deciding WHO committee advised countries to conduct further research on MDMA.³⁹ The committee chairman disagreed with the ultimate decision, believing that MDMA demonstrated therapeutic usefulness and should not be subject to international control.⁴⁰

In the same year, the administrative law judge presiding over the DEA hearings in the United States made a non-binding recommendation for MDMA to be placed in Sch III of the *Controlled Substances Act*, which would allow for continued research and the prescribing of MDMA by physicians.⁴¹ The DEA acted against this recommendation and extended the emergency scheduling period before permanently placing MDMA in Sch I.⁴² The decision to prohibit MDMA in the United States can be criticised on the basis that too much weight was attributed to limited research on MDA, not MDMA, and little consideration was given to potential medical benefits of the drug.⁴³

³⁰ *Misuse of Drugs Act 1971 (Modification) Order 1977* (UK); Saunders N, *E is for Ecstasy* (self-published, London, 1993) Ch 7 (The Law), <http://www.ecstasy.org/books/e4x.html>; Advisory Council on the Misuse of Drugs, n 14 at [1.5]; Capela JP et al, “Molecular and Cellular Mechanisms of Ecstasy-Induced Neurotoxicity: An Overview” (2009) 39(3) *Mol Neurobiol* 210 at 212; Green et al, n 1 at 465.

³¹ Saunders, n 30, Ch 7.

³² Holland, n 25, p 13; *Ecstasy History*, <http://thedeia.org/drughistory.html>; Webb, n 15, pp 10-11; Rosenbaum M and Doblin R, “Why MDMA Should Not Have Been Made Illegal” in Inciardi JA (ed), *The Drug Legalization Debate* (SAGE Publications, 1991), <http://www.psychedelic-library.org/rosenbaum.htm>.

³³ Holland, n 25, p 13; Rosenbaum and Doblin, n 32.

³⁴ *Controlled Substances Act*, 21 USC §812(b)(1)(A)-(B) (1970).

³⁵ Beck JE, “The MDMA Controversy: Contexts of Use and Social Control” (PhD thesis, University of California, 1990) p 59; Holland, n 25, p 14; Webb, n 15, p 12.

³⁶ Ricaurte GA et al, “Hallucinogenic Amphetamine Selectively Destroys Brain Serotonin Nerve Terminals” (1985) 229 *Science* 986 at 987; Beck, n 35, p 61; Green et al, n 1 at 465; Rosenbaum and Doblin, n 32.

³⁷ *Convention on Psychotropic Substances*, opened for signature 21 February 1971, 1019 UNTS 175 (entered into force 16 August 1976); Saunders, n 30, Ch 3 (History of Ecstasy); Webb, n 15, p 13.

³⁸ *Convention on Psychotropic Substances*, Art 7.

³⁹ Saunders, n 30, Ch 3 (History of Ecstasy); Webb, n 15, p 13.

⁴⁰ Holland J, “Legal Status of MDMA Around the World” in Holland J (ed), *Ecstasy: The Complete Guide; A Comprehensive Look at the Risks and Benefits of MDMA* (Park Street Press, 2001) p 154.

⁴¹ Young FL, *In the Matter of MDMA Scheduling, Docket No 84-48: Opinion and Recommended Ruling, Findings of Fact, Conclusions of Law and Decision of Administrative Law Judge On Issues Two Through Seven* (22 May 1986), http://www.erowid.org/chemicals/mdma/mdma_law2.shtml; Saunders, n 30, Ch 3; Rosenbaum and Doblin, n 32 at [4]; Webb, n 15, p 12.

⁴² Saunders, n 30, Ch 3; Rosenbaum and Doblin, n 32 at [4].

⁴³ Beck, n 35; Saunders, n 30, Ch 7; Rosenbaum and Doblin, n 32; Webb, n 15.

In Australia, police in Sydney first seized MDMA in 1986.⁴⁴ Shortly after, the National Drugs and Poisons Schedule Committee, which classified substances for inclusion into State legislation, recommended that all States prohibit MDMA.⁴⁵ At this time, no drug problem with MDMA existed and no drug data was available.⁴⁶ Ultimately, the Committee based its recommendation solely on the prior “dubious decisions”⁴⁷ of the DEA and the WHO. The Committee was also under international pressure to conform to the COPS, which was ratified by Australia in 1982.⁴⁸

The States followed the Committee’s recommendation, although some acted faster than others.⁴⁹ The Victorian Government amended Sch 11 of the *Drugs, Poisons and Controlled Substances Act 1981* (Vic) in 1989, to include MDMA.⁵⁰ Schedule 11 drugs are classed as “drugs of dependence”.⁵¹ The addition of MDMA into Sch 11 created criminal offences for use, possession and trafficking of MDMA.⁵² The penalties for MDMA-related offences are similar across Australian States.⁵³ In Victoria, the maximum penalty for use or attempted use of MDMA is 30 penalty units and/or one-year imprisonment.⁵⁴

The amendment to include MDMA in Sch 11 of the Act occurred concurrently with the inclusion of other ecstasy analogues, and was made with the express objective to restrict and control the use of ecstasy and “related designer drugs”.⁵⁵ Considering that the rate of ecstasy use has increased since prohibition,⁵⁶ this amendment appears to have failed in achieving its objective. Furthermore, MDMA has the same legal status as other potentially more harmful drugs. An examination of the bases for criminalisation of MDMA use is therefore warranted.

CRIMINALISATION OF MDMA USE: HARM AND OTHER JUSTIFICATIONS

Criminal law theory

Criminal law is the most intrusive and coercive area of the law. It provides for penalties to punish those who commit crimes, and these penalties intrude on liberty.⁵⁷ The possibility of punishment also coerces people into abiding by certain rules, which infringes upon freedom.⁵⁸ Therefore, there must be very good reason to criminalise an act or behaviour.

Legal scholars agree that Australian drug laws were not made for any standalone reason or to address health risks.⁵⁹ Rather, a number of factors may have played a role, including social fears, culture, economics and politics.⁶⁰ While arguments focusing on drug harms might appear to neglect

⁴⁴ Webb, n 15, p 14.

⁴⁵ Webb, n 15, p 14; Therapeutic Goods Administration, “National Drugs and Poisons Schedule Committee (NDPSC)”, <http://www.tga.gov.au/archive/committees-ndpsc.htm>.

⁴⁶ Webb, n 15, p 14.

⁴⁷ Webb, n 15, p 16.

⁴⁸ United Nations Office on Drugs and Crime, *Drug Policy and Results in Australia* (2008) p 23; Webb, n 15, p 16.

⁴⁹ Webb, n 15, pp 14-16.

⁵⁰ *Drugs, Poisons and Controlled Substances Rules 1989* (Vic), r 3(b).

⁵¹ *Drugs Poisons and Controlled Substances Act 1981* (Vic), s 4.

⁵² *Drugs Poisons and Controlled Substances Act 1981* (Vic), Sch 11, ss 4, 70, 71, 71AA, 71AB, 71AC, 71A, 71B, 73, 75.

⁵³ See, for example, *Drug Misuse and Trafficking Act 1985* (NSW), s 21; *Misuse of Drugs Act 2001* (Tas), s 24.

⁵⁴ *Drugs Poisons and Controlled Substances Act 1981* (Vic), s 75(b).

⁵⁵ *Drugs, Poisons and Controlled Substances Rules 1989* (Vic), r (2).

⁵⁶ Australian Institute of Health and Welfare, n 24, p 9.

⁵⁷ Bandow, n 13, p 254.

⁵⁸ Bandow, n 13, p 254.

⁵⁹ Manderson D, *From Mr Sin to Mr Big: A History of Australian Drug Laws* (Oxford University Press, 1993) p 12; Webb, n 15, p 16; Bronitt S and McSherry B, *Principles of Criminal Law* (3rd ed, Thomson Reuters, 2010) pp 886-888.

⁶⁰ Manderson, n 59, p 12; Bronitt and McSherry, n 59, pp 886-888.

these factors, there are several reasons why the harm caused by a drug should be considered the most important issue when determining legal status. Social fears, culture, morality and political acceptability are almost always influenced by the perceived harm of a drug in some way.

If a substance was believed to be completely benign, it could not justifiably be made illegal. Therefore the harm of MDMA, although ill-perceived, must have been at least a factor in the prohibition of this substance. As previously discussed, the prohibition of MDMA in Australia occurred largely as a result of international subservience.⁶¹ The only scientific evidence that appears to have been considered was the effect of a related compound, MDA, when administered frequently in rats at high doses. No government has prohibited MDMA on the basis of a credible scientific or social welfare assessment.

The most recent phase of the Australian Government's National Drugs Campaign took place between December 2010 and June 2012,⁶² focusing heavily on sending a message to Australian youth about the harms and risks associated with ecstasy.⁶³ The government released advertisements indicating that ecstasy use causes "insomnia, memory loss and psychological problems", with an obvious focus on deterrence.⁶⁴ Despite this, most of the harm ascribed to MDMA is actually unproven.

Misleading information manipulates public opinion, provoking uneducated views and fears about MDMA, which unduly influences future government decision-making and prevents pragmatic law reform from happening.⁶⁵ Public opinion cannot be a reliable tool to determine whether any drug should be illegal, unless the public has a more truthful understanding about drugs.

In the absence of any drug data, it is reasonable to suggest that economical considerations had little impact on the decision to prohibit MDMA in Australia. Projecting the economic impact of removing prohibition is beyond the scope of this article. However, it would be very difficult to justify the prohibition of MDMA for economical reasons today. In fact, alternatives to prohibition are likely to be much more economically viable.⁶⁶

The enforcement of common morality, as advocated by Lord Patrick Devlin,⁶⁷ will not be explored in detail in this article. Several authors have described why individuals morally object to drug use and argued that these objections are not a sound basis for criminalisation.⁶⁸ Most often, moral arguments opposing drug use are mere projections of one's own inner desires or inclinations and are rarely translated into rational arguments.⁶⁹ Comparisons between illegal drug use and other legal activities that may be perceived as wrong, dangerous, addictive or mind-altering are persuasively used to dismiss moral arguments.⁷⁰ For example, many people would consider adultery as immoral, yet it is not illegal.⁷¹

⁶¹ Webb, n 15, p 16.

⁶² Australian Government, Department of Health, "National Drugs Campaign", <http://www.drugs.health.gov.au/internet/drugs/publishing.nsf/content/campaign>.

⁶³ Australian Government, n 62.

⁶⁴ Australian Government, Department of Health, *Ecstasy "Girl" Advertisement*, [http://www.drugs.health.gov.au/internet/drugs/publishing.nsf/content/79142A3B967BB04FCA2577EC007DEADC/\\$File/precsgir2.pdf](http://www.drugs.health.gov.au/internet/drugs/publishing.nsf/content/79142A3B967BB04FCA2577EC007DEADC/$File/precsgir2.pdf).

⁶⁵ Australian Government, n 62; Hawdon JE, "The Role of Presidential Rhetoric in the Creation of a Moral Panic: Reagan, Bush, and the War on Drugs" (2001) 22 *Deviant Behav* 419.

⁶⁶ Miron JD and Zwiebel J, "The Economic Case Against Drug Prohibition" (1995) 9(4) *J Econ Perspect* 175.

⁶⁷ Devlin P, *The Enforcement of Morals* (Oxford University Press, 1965); Bronitt and McSherry, n 59, p 59; Whitlock, n 13, p 33.

⁶⁸ Husak, n 13; Whitlock, n 13; Smith, n 13; Bandow, n 13.

⁶⁹ Whitlock, n 13, p 115; Smith, n 13.

⁷⁰ Smith, n 13.

⁷¹ Smith, n 13 at 236.

Criminal law commentators have suggested that relying on harm to determine the legal status of a drug ignores other research, including the cultural and historical underpinnings of drug laws.⁷² However, the importance of research not concerning drug harms seems to be overestimated. The War on Drugs declared by President Richard Nixon in 1971 led to the prohibition of many psychoactive substances around the world, sparking international moral panic about almost all recreational drugs except alcohol and tobacco.⁷³ Laws against drugs are also believed to have been enforced for reasons relating to racism. In certain jurisdictions, specific prohibition laws have discriminated against and targeted people of specific ethnicity.⁷⁴ While these events are historically significant, they are hardly relevant to the question of whether MDMA should be illegal today.

It is difficult to form a rational justification for criminalising the use of any drug without considering the proven harm of that substance. John Stuart Mill argued that “the only purpose for which power can rightfully be exercised over a member of the civilised community against [their] will is to prevent harm to others”.⁷⁵ The principle described by Mill is commonly referred to as “the harm principle”.⁷⁶ Mill states that one’s “own good, either physical or moral, is *not* a sufficient warrant” for state intervention and believes that people have a right to “live as seems good to themselves”, so long as they do not violate the rights of others.⁷⁷ This view conceives liberty and individual autonomy as being of utmost importance.

In terms of “harm to others”, Mill was referring primarily to “physical harm to other individuals”.⁷⁸ Consistent with Mill’s idea of harm, the *Oxford Dictionary* defines harm as “physical injury, especially that which is deliberately inflicted”, including both “material damage” and “actual or potential ill effects or danger”.⁷⁹ Commentators have asserted that harm to others must be serious, non-trivial, substantive, direct and sufficiently proximate to warrant criminality.⁸⁰ Harm to others appears to be the fairest and most logical reason for prohibiting drug use, as long as it is proven. It could be argued that methamphetamine (ice) users might put others at risk of direct harm by acting unpredictably;⁸¹ therefore restricting individual freedom is justified. The same argument could also be made to prohibit alcohol use.⁸²

There may be moral, social, economic, environmental and political reasons for extending the harm principle to include indirect and non-physical harm.⁸³ This would require broadening Mill’s narrow definition of harm to include other negative effects on society or public disutility that is not proximate to drug use itself, such as family adversities.⁸⁴ As discussed below, the use of MDMA in fact causes negligible harm to others, both in terms of direct harm to non-users, or indirect non-physical harm to society.

⁷² Bronnitt and McSherry, n 59, pp 886-888.

⁷³ Drug Policy Alliance, “A Brief History of the Drug War”, <http://www.drugpolicy.org/new-solutions-drug-policy/brief-history-drug-war>.

⁷⁴ Manderson, n 59; Drug Policy Alliance, n 73.

⁷⁵ Mill JS, *On Liberty* (4th ed, Longman Roberts & Green, 1869) at [I.9].

⁷⁶ Epstein RA, “The Harm Principle – And How It Grew” (1995) 45(4) U Tor LJ 369 at 373.

⁷⁷ Mill, n 75 at [I.9], [I.13].

⁷⁸ Mill, n 75, p 104.

⁷⁹ Oxford University Press, “Definition of Harm in English”, *Oxford Dictionaries*, <http://oxforddictionaries.com/definition/english/harm?q=harm>.

⁸⁰ Bandow, n 13, p 255; Husak, n 13, p 190.

⁸¹ Lapworth et al, “Impulsivity and Positive Psychotic Symptoms Influence Hostility in Methamphetamine Users” (2009) 34(4) *Addict Behav* 380.

⁸² Husak and De Marneffe, n 10, p 71; Nutt, King and Phillips, n 16.

⁸³ Bronnitt and McSherry, n 59, p 58.

⁸⁴ Bronnitt and McSherry, n 59, p 58; Epstein, n 76 at 399; Holtug N, “The Harm Principle” (2002) 5(4) *Ethical Theory Moral Pract* 357.

HLA Hart denies that all liberals are strictly committed to Mill's harm principle.⁸⁵ In fact, Hart believes that harm to others is not the only rationale for criminal law and that "harm to self" may also justify criminalisation.⁸⁶ An example of protecting people against themselves is disallowing consent of the victim as a defence for murder, which can be justified on paternalistic grounds.⁸⁷

Paternalism refers to the behaviour of the state, which limits or restricts the liberty and autonomy of a minority or an individual, for their own good, either morally or physically.⁸⁸ The fact that recreational drugs are potentially harmful to the user is the most common explanation for drug prohibition laws.⁸⁹ The basis of the paternalism argument is that the government has power to make laws to protect "vulnerable, heedless, ignorant and otherwise at-risk individuals" from self-harm.⁹⁰ Since all drug use inevitably carries some degree of self-harm, it then follows that the government can make laws to prohibit drug use and reduce this harm.⁹¹ Hart explains that vulnerability can include being physically vulnerable, having limited resources or "limited understanding or strength of will".⁹²

There are several problems with justifying MDMA prohibition on the basis of paternalism. First, the argument requires accepting that drug users are not aware of the harm that drug use causes, and even if they are aware of the risks, they do not have the capacity to consider these risks in order to make a deliberate choice.⁹³ This reasoning may be applicable to many young children, although it is not the case with almost all adult MDMA users.⁹⁴

Secondly, there is no answer to the question of how harmful a drug must be to the user in order to justify making the use of that drug a crime. It can be said with reasonable certainty that some legal recreational drugs are more harmful to the user than some illegal drugs.⁹⁵ If the principle of paternalism were applied consistently, tobacco and alcohol would be criminalised.⁹⁶

Thirdly, liberty and the right to self-determination are internationally recognised rights,⁹⁷ encompassing the free pursuit of one's own social and cultural development,⁹⁸ and control or agency over one's actions.⁹⁹ The choice to use recreational drugs seems to fall squarely within these rights.¹⁰⁰ It can be argued that laws prohibiting drug use infringe upon freedom because the majority makes the determination that drug use is wrong or harmful to the individual.

⁸⁵ Hart HLA, *Law, Liberty and Morality* (Stanford University Press, 1963) p 30; Bassham G, "Legislating Morality: Scoring the Hart-Devlin Debate after Fifty Years" (2012) 25(2) *Ratio Juris* 128 at 128-129.

⁸⁶ Hart HLA, *The Concept of Law* (Oxford University Press, 1961) p 187.

⁸⁷ Hart, n 85, p 31; Bassham, n 85 at 129.

⁸⁸ Dworkin G, "Paternalism" in Ronald Munson (ed), *Intervention and Reflection: Basic Issues in Medical Ethics* (5th ed, Wadsworth, 1996) p 279; Oxford University Press, "Definition of Paternalism in English", *Oxford Dictionaries*, <http://www.oxforddictionaries.com/definition/english/paternalism?q=paternalism>; Husak DN, "Legal Paternalism" in LaFollette H (ed), *The Oxford Handbook of Practical Ethics* (Oxford University Press, 2003) pp 387-392.

⁸⁹ Smith, n 13 at 236.

⁹⁰ Whitlock, n 13, p 81.

⁹¹ Smith, n 13 at 236.

⁹² Hart, n 86, p 187; Hittinger R, "The Hart-Devlin Debate Revisited" (1990) 35 *Am J Juris* 47 at 48.

⁹³ Whitlock, n 13, p 76.

⁹⁴ Whitlock, n 13, p 76; Cristiano NM, "Living in Ecstasy: Applying the Normalization Thesis to Ecstasy Use in Canada" [October 2013] *J Subst Abuse* 1 at 4.

⁹⁵ Nutt, King and Phillips, n 16; Nutt D et al, "Development of a Rational Scale to Assess the Harm of Drugs of Potential Misuse" (2007) 369(9566) *Lancet* 1047; Nutt, n 18, p 88; Smith, n 13 at 236-237.

⁹⁶ Smith, n 13 at 237.

⁹⁷ *International Covenant on Civil and Political Rights*, opened for signature 16 December 1966, 999 UNTS 171 (entered into force 23 March 1976), Arts 1, 9.

⁹⁸ *International Covenant on Civil and Political Rights*, Art 1.

⁹⁹ Van Mill D, *Liberty, Rationality, and Agency in Hobbes's Leviathan* (State University of New York Press, 2001) pp 3-6.

¹⁰⁰ Bandow, n 13.

Despite significant flaws with criminalising drug use on the basis of paternalism, harm to the user is a relevant consideration if alternatives to prohibition are to be explored. If an individual is harmed as a result of their drug use, this can ultimately have other effects, such as costs to the public health-care system. In essence, “harm to the user” can contribute to “harm to others” if a broad interpretation of harm is applied. Therefore, this article discusses both the harm that MDMA use causes to the user *and* to others.

Harm of MDMA use to the individual

Like any drug, MDMA can cause several adverse acute effects, which are more commonly experienced with high doses.¹⁰¹ These include confusion, increased heart rate and blood pressure, nausea, sweating, tremor, blurred vision, jaw clenching and teeth grinding.¹⁰² In the comedown or subacute phase when the drug wears off, ecstasy users may report experiencing insomnia, lethargy, irritability and depressed mood.¹⁰³ These effects, if experienced, are generally short-lived.¹⁰⁴

Other alleged harms often attributed to MDMA are more serious and controversial. Due to its variable content and presence of adulterants, ecstasy purchased on the street is potentially far more harmful than consuming a standard recreational dose of pure MDMA.¹⁰⁵ Most research has been conducted on individuals taking illegal ecstasy pills.

Mortality

Information relating to MDMA fatalities in Australia is scarce. The Australian Bureau of Statistics does not distinguish MDMA from other amphetamine-related deaths. In 2005, the National Coronial Information System reported identifying 112 ecstasy-related deaths in 2001-2004, with MDMA deemed as a primary contributor in 51 cases.¹⁰⁶ However, a number of other drugs are listed as primary contributors in MDMA-related fatalities.¹⁰⁷ Just six deaths were recorded where MDMA was the only drug present. This equates to approximately 1.5 deaths per year recorded where MDMA was a primary contributor and the only drug identified. The available information suggests that deaths as a direct result of just MDMA consumption are very rare in Australia,¹⁰⁸ especially considering the prevalence of ecstasy use.

MDMA fatalities have been reported to occur as a result of direct toxicity from high doses.¹⁰⁹ While acute toxicity is rare, it can result in serious medical complications.¹¹⁰ Hyperthermia (raised body temperature) is one of the main symptoms of MDMA toxicity and can lead to several other fatal

¹⁰¹ Kuhn, Swartzwelder and Wilson, n 4, p 85.

¹⁰² McCann UD, Slate SO and Ricaurte GA, “Adverse Reactions with 3,4-methylenedioxy-methamphetamine (MDMA; ‘Ecstasy’)” (1996) 15 *Drug Saf* 107 at 114; Ramo, Grov and Parsons, n 18, p 718.

¹⁰³ Davison D and Parrott AC, “Ecstasy (MDMA) In Recreational Users: Self-Reported Psychological and Physiological Effects” (1997) 12(3) *Hum Psychopharm Clin Exp* 221 at 223; Degenhardt and Hall, n 14, p 92.

¹⁰⁴ Degenhardt and Hall, n 14, p 86; Verheyden SL, Henry JA and Curran HV, “Acute, Sub-acute and Long-term Subjective Consequences of ‘Ecstasy’ (MDMA) Consumption in 430 Regular Users” (2003) 18(7) *Hum Psychopharm Clin Exp* 507; Parrott AC, “The Psychotherapeutic Potential of MDMA (3,4-methylenedioxymethamphetamine): An Evidence-based Review” (2007) 191(2) *Psychopharmacology* 181 at 186.

¹⁰⁵ Ross, n 4, p 37; Smith, n 13 at 241; Australian Crime Commission, n 3, p 26; Kuhn, Swartzwelder and Wilson, n 4, p 82; Ministerial Council on Drug Strategy, *National Amphetamine-Type Stimulant Strategy 2008-2011* (2008) at [2].

¹⁰⁶ Kinner S et al, *Monitoring the Ecstasy Market in Australia – Challenges and Successes* (Party Drug Trends Bulletin, National Drug and Alcohol Research Centre, 2005) p 1.

¹⁰⁷ Kinner, n 106.

¹⁰⁸ Kinner, n 106; Degenhardt and Hall, n 14, p 196.

¹⁰⁹ Advisory Council on the Misuse of Drugs, n 14 at [4.1].

¹¹⁰ Degenhardt and Hall, n 14, p 59; Hall AP and Henry JA, “Acute Toxic Effects of ‘Ecstasy’ (MDMA) and Related Compounds: Overview of Pathophysiology and Clinical Management” (2006) 96(6) *Brit J Anaesth* 678 at 683.

conditions.¹¹¹ MDMA is often taken in nightclubs where the temperature is high, in situations where users may dance for prolonged periods with little water, leading to dehydration and exertional hyperthermia.¹¹²

Death caused by hyponatraemia, or low blood sodium levels, has also been associated with MDMA or ecstasy use.¹¹³ Hyponatraemia occurs as a result of overconsumption of water.¹¹⁴ Providing cooler nightclub conditions and education with respect to MDMA dosing and appropriate fluid intake would reduce the risk of dehydration, hyperthermia and hyponatraemia.¹¹⁵

Evidence indicates that MDMA may be cardio-toxic and that individuals with pre-existing cardiac disease or genetic susceptibility are likely to be more vulnerable than others.¹¹⁶ There is insufficient data to determine the exact frequency of cardiovascular-related fatalities caused by MDMA. Experts have suggested that the occurrence of these fatalities as a result of MDMA use would be similar to the occurrence of fatal allergic reactions to medicinal products, which are rare and also attributable to pre-existing susceptibility.¹¹⁷

The fact that MDMA is prohibited must contribute to the number of fatalities that occur as a result of ecstasy use. Because the content of ecstasy is often unknown, users may unknowingly take an unsafe dose of MDMA or another drug. Although MDMA-related deaths are rare, they have been considered by some researchers to be clinically significant.¹¹⁸ This is one reason to implement harm reduction measures.

Neurotoxicity and cognitive impairment

In the brain, the chemical neurotransmitter serotonin is synthesised by serotonergic neurons (nerve cells).¹¹⁹ The results of MDMA studies in animals and neuro-imaging data in humans have been regarded as evidence that MDMA damages serotonergic neurons.¹²⁰ It is suggested that damage to serotonergic neurons could result in potentially long-lasting effects including mood changes and memory problems.¹²¹ Some research has claimed that MDMA impairs memory and/or cognition.¹²²

Despite this research, the Advisory Council on the Misuse of Drugs in the United Kingdom concluded, in what was considered the most comprehensive review of the harms of MDMA, that “there is presently little evidence of longer-term harms to the brain in terms of either its structure or function” caused by MDMA.¹²³ The Advisory Council recognised evidence of a small decline in

¹¹¹ Degenhardt and Hall, n 14, p 84.

¹¹² Nutt, n 18, p 13.

¹¹³ Nutt, n 18, p 13; Advisory Council on the Misuse of Drugs, n 14 at [4.8]; Degenhardt and Hall, n 14, pp 216-217.

¹¹⁴ Kuhn, Swartzwelder and Wilson, n 4, p 86.

¹¹⁵ London Drug Policy Forum, *Safer Nightlife: Best Practice for those Concerned about Drug Use and the Night-time Economy* (Home Office Publications Service, 2008) pp 17-28.

¹¹⁶ Degenhardt and Hall, n 14, p 84; Patel MM et al, “Methylenedioxymethamphetamine (Ecstasy)-Related Myocardial Hypertrophy: An Autopsy Study” (2005) 66(2) *Resuscitation* 197; Setola V et al, “3,4-Methylenedioxymethamphetamine (MDMA, ‘Ecstasy’) Induces Fenfluramine-like Proliferative Actions on Human Cardiac Valvular Interstitial Cells In Vitro” (2006) 63(6) *Mol Pharmacol* 1223.

¹¹⁷ Nutt, n 18, p 14.

¹¹⁸ Kaye S, Darke S and Duffou J, “Methylenedioxymethamphetamine (MDMA)-Related Fatalities in Australia: Demographics, Circumstances, Toxicology and Major Organ Pathology” (2009) 104(3) *Drug Alcohol Depend* 254 at 260.

¹¹⁹ Degenhardt and Hall, n 14, p 48.

¹²⁰ Degenhardt and Hall, n 14, pp 8, 57-58; Parrott AC, “Human Psychobiology of MDMA or ‘Ecstasy’: An Overview of 25 Years of Empirical Research” (2013) 28(4) *Hum Psychopharmacol Clin Exp* 289.

¹²¹ Degenhardt and Hall, n 14, p 58.

¹²² Morgan MJ, “Memory Deficits Associated With Recreational Use of ‘Ecstasy’ (MDMA)” (1999) 141(1) *Psychopharmacology* 30.

¹²³ Advisory Council on the Misuse of Drugs, n 14 at [10.6].

verbal memory, although this was not considered clinically significant.¹²⁴ In some measures of brain function, ecstasy users have performed better than the control group.¹²⁵

The Advisory Council's conclusion is logical given the significant methodological flaws in research suggesting that MDMA harms the brain. The majority of MDMA or ecstasy studies are based on unreliable self-reporting data and do not take into account several confounding factors, such as polydrug use, which could also cause cognitive decline or nerve cell damage, creating biased results.¹²⁶ Animal studies have been rightly criticised for administering doses much higher and more frequently than what would typically be taken recreationally.¹²⁷ When human equivalent doses are used, detrimental effects have not been observed.¹²⁸ Finally, concerns have been raised regarding the validity of the measuring procedures employed in neuro-imaging studies.¹²⁹

Defining an appropriate control group has been a recurring limitation of research.¹³⁰ If only the effects of MDMA are to be examined, the control group should have a similar drug use and lifestyle history to the MDMA-taking group. A small study by Halpern et al excluded all individuals who reported significant lifetime exposure to drugs, tested for concurrent use of drugs, including alcohol, and required that each participant attend all-night dance parties.¹³¹ This research is still limited in that self-reporting data was relied on in regards to previous drug history and lifestyle. Nonetheless, the study found that no marked residual cognitive deficits were observed in the ecstasy group.¹³²

Most research in relation to ecstasy or MDMA is retrospective and not experimental in design, including Halpern et al.¹³³ Retrospective research can never properly control how much exposure an individual has to MDMA. In retrospective studies, participants do not consume pure MDMA, but rather, illegal ecstasy pills. Investigators can test for MDMA use and other drugs by taking hair or urine samples,¹³⁴ although the doses taken by participants will vary. Retrospective research is also unable to determine that the differences identified between users and controls did not already exist prior to taking the drug.¹³⁵ Researchers have advised caution in attributing cognitive impairment to MDMA exposure.¹³⁶

¹²⁴ Advisory Council on the Misuse of Drugs, n 14 at [10.6].

¹²⁵ Advisory Council on the Misuse of Drugs, n 14 at [6.10]; Nutt DJ, "Curiouser and Curiouser: Could Ecstasy Actually Heal Brains As Well As Minds?", *David Nutt's Blog: Evidence not Exaggeration* (9 May 2011), <http://profdavidnutt.wordpress.com>; Schilt T et al, "Cognition in Novice Ecstasy Users With Minimal Exposure to Other Drugs: A Prospective Cohort Study" (2007) 64(6) *Arch Gen Psychiatry* 728.

¹²⁶ Halpern JH et al, "Residual Neurocognitive Features of Long-Term Ecstasy Users with Minimal Exposure to Other Drugs" (2011) 106(4) *Addiction* 777 at 777; Lyvers M, "Commentary on Halpern et al (2011): Strengthening the Case Against Functionally Significant Serotonergic Neurotoxicity in Human MDMA (Ecstasy) Users" (2011) 106(4) *Addiction* 787.

¹²⁷ Degenhardt and Hall, n 14, p 58.

¹²⁸ Fantegrossi WE et al, "Behavioral and Neurochemical Consequences of Long-term Intravenous Self-administration of MDMA and its Enantiomers by Rhesus Monkeys" (2004) 29(7) *Neuropsychopharmacology* 1270; Ludewig S et al, "No Lasting Effects of Moderate Doses of MDMA (Ecstasy) on Memory Performance and Mood States in Healthy Humans" (2003) 53 *Biol Psychiatry* 205S; Mithoefer MC et al, "The Safety and Efficacy of (+/-)3,4-methylenedioxy-methamphetamine-assisted Psychotherapy in Subjects with Chronic, Treatment-resistant Posttraumatic Stress Disorder: The First Randomized Controlled Pilot Study" (2010) 25(4) *J Psychopharmacol* 439; Advisory Council on the Misuse of Drugs, n 14 at [6.2].

¹²⁹ Degenhardt and Hall, n 14, pp 57-58; Bennett CM and Miller MB, "How Reliable are the Results from Functional Magnetic Resonance Imaging?" (2010) 1191 *Ann NY Acad Sci* 1749.

¹³⁰ Lyvers M, "Recreational Ecstasy Use and the Neurotoxic Potential of MDMA: Current Status of the Controversy and Methodological Issues" (2006) 25(3) *Drug Alcohol Rev* 269; Lyvers, n 126; Degenhardt and Hall, n 14, p 173.

¹³¹ Halpern et al, n 126 at 778.

¹³² Halpern et al, n 126 at 784; compare Wagner D et al, "A Prospective Study of Learning, Memory, and Executive Function in New MDMA Users" (2013) 108(1) *Addiction* 136.

¹³³ Lyvers, n 130 at 269; Lyvers, n 126 at 787; Degenhardt and Hall, n 14, pp 143, 173.

¹³⁴ Halpern et al, n 126 at 777.

¹³⁵ Lyvers, n 130; Degenhardt and Hall, n 14, p 173.

¹³⁶ Halpern et al, n 126 at 784.

Depression

It has also been claimed that MDMA use is associated with longer term depressive symptoms.¹³⁷ However, some studies have found no evidence of increased depressive symptoms among ecstasy users.¹³⁸ Most individual studies have failed to control for other drug use and known biological and psychosocial risk factors for depression.¹³⁹ These factors could explain the findings of one review article and one meta-analysis, which suggest a clinically insignificant association between ecstasy use and depressed mood.¹⁴⁰ Considering MDMA's pharmacological profile and ability to lift mood, it could actually be a potential treatment for depression.¹⁴¹

The only way to accurately determine the adverse effects of MDMA exposure is to conduct a controlled "before versus after" experiment in human volunteers.¹⁴² There is a lack of financial incentive for pharmaceutical companies to conduct this research because the patent for MDMA expired long ago.¹⁴³ Combined with ethical restrictions, this has meant that there are limited examples of experimental studies, although those that have been conducted have not demonstrated any deficits to the user.¹⁴⁴ Given that MDMA is now being administered to human patients to assess its efficacy as a treatment for post-traumatic stress disorder,¹⁴⁵ ethical issues that have prevented experimental research in the past might be overcome.¹⁴⁶

Dependence and tolerance

There is little evidence of MDMA dependence occurring among ecstasy users.¹⁴⁷ Tolerance to some of the psychological actions of MDMA has been reported in some heavy users, which may lead a person to take more doses to get the desired effect.¹⁴⁸ Ecstasy users can also report concerns about their use,¹⁴⁹ although there appears to be no real proof of physical dependence or drug craving in humans with MDMA.¹⁵⁰ The available evidence suggests that regular users take ecstasy less than once a fortnight and are highly unlikely to be addicted or unable to stop taking ecstasy.¹⁵¹

Harm to the user in perspective

Currently, there is little evidence that MDMA causes long-term ill effects to moderate or occasional users. Evidence of cognitive impairment or depression is weak at best. There is also insufficient

¹³⁷ Thomasius R et al, "Mental Disorders in Current and Former Heavy Ecstasy (MDMA) Users" (2005) 100(9) *Addiction* 1310.

¹³⁸ Degenhardt and Hall, n 14, p 142.

¹³⁹ Degenhardt and Hall, n 14, p 142.

¹⁴⁰ Rogers G et al, "The Harmful Health Effects of Recreational Ecstasy: A Systematic Review of Observational Evidence" (2009) 13(6) *Health Technol Assess* 1; Sumnall HR and Cole JC, "Self-reported Depressive Symptomatology in Community Samples of Polysubstance Misusers Who Report Ecstasy Use: A Meta-Analysis" (2005) 19(1) *J Psychopharmacol* 84; Advisory Council on the Misuse of Drugs, n 14 at [6.11]; Degenhardt and Hall, n 14, p 143; Nutt, n 18, p 15.

¹⁴¹ Advisory Council on the Misuse of Drugs, n 14 at [8.3]; Bouso JC et al, "MDMA-Assisted Psychotherapy Using Low Doses in a Small Sample of Women With Chronic Posttraumatic Stress Disorder" (2008) 40(3) *J Psychoactive Drugs* 225.

¹⁴² Lyvers, n 126 at 787.

¹⁴³ Webb, n 15, p 22.

¹⁴⁴ Ludewig et al, n 128; Mithoefer et al, n 128; Oehen P et al, "A Randomized, Controlled Pilot Study of MDMA (\pm 3,4-Methylenedioxymethamphetamine)-Assisted Psychotherapy for Treatment of Resistant, Chronic Post-Traumatic Stress Disorder (PTSD)" (2013) 27(1) *J Psychopharmacol* 40; Bouso et al, n 141.

¹⁴⁵ Mithoefer et al, n 128; Oehen et al, n 144; Bouso et al, n 141.

¹⁴⁶ Lyvers, n 126 at 787.

¹⁴⁷ Sindicich N and Burns L, *Australian Trends in Ecstasy and Related Drug Markets 2012: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)* (Australian Drug Trends Series No 100, National Drug and Alcohol Research Centre, 2013) p 166; Degenhardt and Hall, n 14, p 130.

¹⁴⁸ Advisory Council on the Misuse of Drugs, n 14 at [2.8]; Degenhardt L, Bruno R and Topp L, "Is Ecstasy a Drug of Dependence?" (2010) 107(1) *Drug Alcohol Depend* 1 at 1.

¹⁴⁹ Degenhardt, Bruno and Topp, n 148 at 1.

¹⁵⁰ Advisory Council on the Misuse of Drugs, n 14 at [7.2].

¹⁵¹ Sindicich and Burns, n 147, p 166.

evidence to conclude that MDMA causes neurotoxicity. If specific damage does occur, the consequence of this is also unproven. It is difficult to rationally assign more weight to these possible harms than the overwhelming evidence of harm ascribed to cigarette smoking, which is a major contributing factor in the development of many illnesses and life-threatening diseases.¹⁵²

There are also several other risks of drug use that can result in harm coming to users. For example, someone who is drunk would be more likely to sustain a serious injury as a result of falling over, compared to someone under the influence of a stimulant. In 2010, the Independent Scientific Committee on Drugs (ISCD) in the United Kingdom applied a multi-criteria decision analysis to a range of drugs. Sixteen different harm criteria were established; nine relating to harm the drug produces to the individual and seven relating to harm to others.¹⁵³ Of the 20 drugs analysed, MDMA ranked 15th for harm to the user, well behind both tobacco (eighth) and alcohol (fourth).¹⁵⁴ Professor Jake Najman of Queensland's Alcohol and Drug Research Centre stated in 2008 that young adults would be safer taking ecstasy than binge drinking.¹⁵⁵

Supporters of prohibition might argue that we cannot conclusively say that MDMA does not cause the harms previously discussed and therefore prohibition is warranted. This argument is hypocritical and conflicts with the position that authorities must prove the harm that is to be avoided before criminalising an act.¹⁵⁶ The fact that recreational tobacco smoking is proven to be harmful suggests that proof of safety is not a requirement for recreational drugs to avoid criminalisation, although safety may be relevant in determining whether a drug should be restricted in some way. There are also other activities that carry some degree of uncertainty regarding long-term harm, yet are not immediately prohibited. For example, there is uncertainty regarding the long-term effects of exposure to mobile phone radiation.¹⁵⁷

Furthermore, research relating to the benefits of recreational MDMA use is almost non-existent. Calculating both the positive and negative effects of drug use on the individual, ecstasy ranked as the highest scoring recreational drug for overall "net pleasure" in a rating scale produced from results of the 2013 Global Drug Survey.¹⁵⁸ Considering the positive emotions experienced by MDMA users during the "high" period, it is likely that the drug has social benefits for many people and a positive effect on their quality of life.

The available evidence suggests that MDMA is not harmful enough to the individual to warrant criminalising users. This does not mean that the drug is completely harmless, or that it should not be subject to restrictions.

Harm of MDMA use to others

Robert MacCoun and Peter Reuter state that "it is likely that many if not most drug users never do wrongful harm to others as a result of their using careers".¹⁵⁹ There is very little information available to suggest that MDMA use has significant negative effects on society. As such, the discussion of harm to others as a result of MDMA use in this article is limited.

In the analysis carried out by the ISCD in 2010, the seven sub-criteria for harm to others included physical and psychological injury, crime, environmental damage, family adversities, international

¹⁵² Collins DJ and Lapsley HM, *The Cost of Tobacco, Alcohol and Illicit Drug Abuse to Australian Society in 2004/05* (National Drug Strategy Monograph Series No 64, Commonwealth of Australia, 2008) p 34.

¹⁵³ Nutt, King and Phillips, n 16 at 1558 (fig 1).

¹⁵⁴ Nutt, King and Phillips, n 16 at 1561 (fig 2).

¹⁵⁵ Calligeros M, "Ecstasy 'Safer' than Binge-Drinking", *Brisbane Times* (2 September 2008), <http://www.brisbanetimes.com.au/news/queensland/ecstasy-safer-than-binge-drinking/2008/09/02/1220121176645.html>.

¹⁵⁶ Dworkin, n 88, pp 287-288.

¹⁵⁷ Karinen A et al, "Mobile Phone Radiation Might Alter Protein Expression in Human Skin" (2008) 9 *BMC Genomics* 77.

¹⁵⁸ Global Drug Survey, *The Net Pleasure Index Results*, <http://globaldrugsurvey.com/run-my-survey/global-drug-survey-2013/the-net-pleasure-index-results>.

¹⁵⁹ MacCoun RJ and Reuter P, *Drug War Heresies – Learning from Other Vices, Times, & Places* (Cambridge University Press, 2001) p 61.

damage, economic cost and community harm.¹⁶⁰ The ISCD scale ranked MDMA as one of the lowest drugs (18th) for harm caused to others, scoring higher than lysergic acid diethylamide (LSD) (19th) and magic mushrooms (20th).¹⁶¹ Alcohol scored the highest of all drugs for harm to others, while tobacco was ranked fourth.¹⁶²

A considerable limitation of the ISCD research is that the illegal status of MDMA may distort the calculations of its harm score.¹⁶³ This means that harms or detriment to society that result from the prohibition of MDMA, rather than from the direct result of its use, may in fact increase the harm score. Nonetheless, the ISCD scale clearly demonstrates that the consequences of MDMA use itself cause very little harm to society and non-users. The negative effects caused by MDMA prohibition laws are discussed later.

The ISCD calculations incorporate consequences of drug use that would not be considered harms according to Mill's harm principle, but may constitute public disutility or detriment.¹⁶⁴ An example of public disutility with respect to MDMA use could be reduction in job productivity on Monday due to residual effects of weekend consumption. Widening the concept of the harm principle might be expected to give the authorities more reasons to prohibit a drug. Despite this, MDMA use results in negligible harm to others even when adopting a broad view of what constitutes harm.

The overall harm score for MDMA, as calculated by the ISCD, represents the total of the subgroups of "harm to users" and "harm to others".¹⁶⁵ The ISCD results show that "physical and psychological injury" to others does not contribute to the "overall harm score" for MDMA. Therefore, when assessed according to Mill's harm principle, that is, only the direct harm caused to persons other than the user, MDMA scores very low.

A common reason why drug use is considered harmful to others is that drug use impairs judgment, reduces inhibition and makes people more likely to commit acts of crime and violence.¹⁶⁶ MDMA certainly does not predispose users to violence or aggression, and users do not present problems for police, even in large crowds.¹⁶⁷ The drug mostly linked to violence and aggression is alcohol.

The use of ecstasy is most common among older adolescents and young adults who are likely to be university students or employed.¹⁶⁸ Ecstasy users usually fund their drug purchases from their own income,¹⁶⁹ and few engage in crime other than low-level drug dealing.¹⁷⁰ Contrary to some older sources, MDMA is not actually a hallucinogen, nor is it known to cause "bad trips".¹⁷¹ Those under the influence of MDMA maintain contact with reality¹⁷² and are generally well-behaved.

The cumulative amount of harm to the individual *and* harm to others might also warrant consideration. Of 20 drugs analysed in the ISCD study, MDMA ranked 18th for total overall harm,

¹⁶⁰ Nutt, King and Phillips, n 16 at 1559 (fig 1).

¹⁶¹ Nutt, King and Phillips, n 16 at 1561 (fig 2).

¹⁶² Nutt, King and Phillips, n 16.

¹⁶³ Nutt, King and Phillips, n 16 at 1564.

¹⁶⁴ Husak, n 13, p 162.

¹⁶⁵ Nutt, King and Phillips, n 16 at 1563 (fig 4).

¹⁶⁶ Bandow, n 13, p 256.

¹⁶⁷ Nutt, n 18, p 10; Advisory Council on the Misuse of Drugs, n 14 at [5.1], [5.3].

¹⁶⁸ Bonomo Y, "Adolescent Substance Use" in Hamilton M, King T and Ritter A (eds), *Drug Use in Australia – Preventing Harm* (2nd ed, Oxford University Press, 2004) p 120; Cristiano, n 94 at 4; Topp L et al, "Ecstasy Use in Australia: Patterns of Use and Associated Harm" (1999) 55(1-2) *Drug Alcohol Depend* 105.

¹⁶⁹ Advisory Council on the Misuse of Drugs, n 14 at [4.16], [9.2].

¹⁷⁰ Bonomo, n 168, p 120.

¹⁷¹ Advisory Council on the Misuse of Drugs, n 14 at [5.1]; Holland J, "Let X = MDMA – Introduction" in Holland J (ed), *Ecstasy: The Complete Guide – A Comprehensive Look at the Risks and Benefits of MDMA* (Park Street Press, 2001) p 8.

¹⁷² Advisory Council on the Misuse of Drugs, n 14 at [5.1].

with a score of nine out of a possible 100.¹⁷³ Only the drugs buprenorphine, LSD and magic mushrooms scored lower than MDMA.¹⁷⁴ Alcohol was by far the highest scoring drug for overall harm with a score of 72, followed by heroin (55).¹⁷⁵ On the ISCD harm scale, if a drug has a score of 50, it should be half as harmful as a drug that scores 100.¹⁷⁶ A simple division of figures suggests that alcohol is eight times more harmful than MDMA in terms of overall harm. Based on this result, it is difficult to justify prohibiting MDMA and adopting a regulation model for alcohol. Psychiatrist and ISCD chair David Nutt has also compared MDMA use with horse riding, finding that the activities are similarly harmful in terms of overall harm.¹⁷⁷

The 2010 ISCD research is supported by similar findings from the ISCD published in 2007.¹⁷⁸ The Global Commission on Drug Policy, consisting of seven former presidents and other world leaders,¹⁷⁹ endorsed these results in their 2011 report, highlighting a lack of consistency between the drug harm scores and the United Nations classifications of drugs.¹⁸⁰ MDMA has been classed in the most dangerous category of these classifications since it was entered into the COPS in 1986. By contrast, alcohol, which scores much higher than MDMA on the ISCD harm scale, is not subject to international control.

The consumption of MDMA carries some potential harm to the user, although the degree of harm appears to be lower than many drugs, including legal drugs. Literature suggests that the harm caused to others by MDMA is negligible and the overall harm of MDMA is also quite low. This supports the proposition that the offence of using MDMA, and consequently the offence of possessing personal use quantities of MDMA, should at the very least be removed from criminal law.

THE CURRENT MODEL

Prohibition with cautioning and diversion

Australia adopts a model referred to as “prohibition with cautioning and diversion” in relation to the use and possession of small quantities of illegal drugs, including MDMA.¹⁸¹ Under this model, minor drug offenders are able to have their prosecution suspended if they complete an intervention specified by a caution.¹⁸² An intervention generally involves an education session, assessment or treatment.¹⁸³ This approach is also referred to as “depenalisation”, since the offences remain criminal, but the penalties are not automatically enforced, at least for first-time offenders.¹⁸⁴

¹⁷³ Nutt, King and Phillips, n 16 at 1561 (fig 2).

¹⁷⁴ Nutt, King and Phillips, n 16 at 1561 (fig 2).

¹⁷⁵ Nutt, King and Phillips, n 16 at 1561 (fig 2).

¹⁷⁶ Nutt, King and Phillips, n 16 at 1559 (fig 2).

¹⁷⁷ Nutt SJ, “Equasy – An Overlooked Addiction with Implications for the Current Debate on Drug Harms” (2009) 23(1) *J Psychopharmacol* 3.

¹⁷⁸ Nutt et al, n 95 at 1050.

¹⁷⁹ Global Commission on Drug Policy, “Commissioners” (as at 2013), <http://www.globalcommissionondrugs.org/bios>.

¹⁸⁰ Global Commission on Drug Policy, *War on Drugs: Report of the Global Commission on Drug Policy* (2011) p 11.

¹⁸¹ Lenton, n 12; Hughes C and Ritter A, *A Summary of Diversion Programs for Drug and Drug-Related Offenders in Australia* (Monograph No 16, National Drug and Alcohol Research Centre, 2008); Hughes C, “Diversion: Australia’s Alternative to Drug Law Reform”, *Matters of Substance* (18 February 2010), <http://www.drugfoundation.org.nz/moda/diversion-australias-alternative-to-drug-law-reform>; Wundersitz J, *Criminal Justice Responses to Drug and Drug-related Offending: Are They Working?* (Technical and Background Paper No 25, Australian Institute of Criminology, 2007).

¹⁸² Lenton, n 12 at [5]-[6].

¹⁸³ Australian Institute of Health and Welfare, *The Effectiveness of the Illicit Drug Diversion Initiative in Rural and Remote Australia* (Drug Statistics Series No 19, 2008) p x.

¹⁸⁴ Lenton, n 12 at [5]-[6]; McDonald, n 7, p 5.

Diversion strategies come in various forms and their implementation can differ between States.¹⁸⁵ The two main forms of diversion are police diversion and court diversion.¹⁸⁶ Police diversion generally involves police issuing a caution in conjunction with a referral to an intervention.¹⁸⁷ Most States restrict access to diversion programs to users and offenders who are found in possession of drugs for personal use.¹⁸⁸ Eligible offenders can possess a maximum of 0.5 to two grams of MDMA, depending on the jurisdiction.¹⁸⁹ Court diversion schemes are generally designed to provide “assessment and short-term treatment for less serious offenders whose criminal behaviour is related to their illicit drug use”.¹⁹⁰

While drug use and the possession of small amounts of drugs may be depenalised, they are still criminalised within a prohibition framework. To be eligible for the Victoria Drug Diversion Program, drug offence history is limited to one prior diversion.¹⁹¹ If individuals fail to complete an intervention they are subject to prosecution,¹⁹² although a criminal conviction will not always be recorded.¹⁹³ The extent to which MDMA use is criminalised in reality is difficult to determine. Eligibility criteria for entry into diversion programs may not be strictly enforced in practice, and it is possible that some offenders receive an informal caution from police without being diverted.

The benefits of Australia’s depenalisation model include reducing costs in the criminal justice system, including court costs and police prosecuting, as well as negating the adverse consequences that criminal charges and convictions have on individuals and society.¹⁹⁴ However, the health benefits of diversion are less clear.¹⁹⁵ In relation to MDMA offences, the diversion model can be criticised on a number of grounds.

Prohibition with cautioning and diversion inherently accepts that an offence should remain criminal, yet the criminal sanctions are imposed only in certain circumstances. Merely implementing such a model casts serious doubt as to whether the act should be criminal in the first place. It could be argued that authorities have already accepted that it is better for society if use and possession of MDMA are not criminalised. Two primary aims of diversion, to reduce overall costs and avoid the adverse impact of criminal charges on individuals,¹⁹⁶ would be more readily achieved if the offences of MDMA use and possession were removed from the sphere of criminal law entirely. It should also be noted that diversion programs themselves are still costly.¹⁹⁷

For ecstasy users specifically, there is no evidence that diversion programs have any health benefit. As previously discussed, ecstasy users are not dependent and most only take the drug occasionally. Furthermore, diversion schemes are forced upon the individual, focusing on deterring use due to the prospect of prosecution, as opposed to harm minimisation. Of relevance, therefore, is whether the model is an effective deterrent.

¹⁸⁵ Hughes and Ritter, n 181.

¹⁸⁶ Australian Institute of Health and Welfare, n 183, p x; Hughes and Ritter, n 181, pp 15-23.

¹⁸⁷ Australian Institute of Health and Welfare, n 183, p x.

¹⁸⁸ Hughes and Ritter, n 181, p 17.

¹⁸⁹ Hughes and Ritter, n 181, p 17.

¹⁹⁰ Wundersitz, n 181, p 2.

¹⁹¹ Hughes and Ritter, n 181, p 63.

¹⁹² Wundersitz, n 181, p 112.

¹⁹³ Sentencing Advisory Council, *Sentencing Trends in the Magistrates’ Court of Victoria 2004-05 to 2007-08* (Sentencing Snapshot No 66, 2009) at [1].

¹⁹⁴ Vaughan S, “Australian Diversionary Programmes – An Alternative to Imprisonment for Drug and Alcohol Offenders” in United Nations Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders, *Annual Report for 2002 and Work Product of the 121st International Training Course* (Resource Material Series No 1, 2003) p 150; Hughes, n 181.

¹⁹⁵ Macintosh A, *Drug Law Reform: Beyond Prohibition* (Discussion Paper No 83, The Australia Institute, 2006) p 11.

¹⁹⁶ Hughes, n 181; Vaughan, n 194.

¹⁹⁷ Macintosh, n 195, pp 11, 102.

In a report published by the Australian Institute of Criminology, it was claimed that the Drug Diversion Program in Victoria reduced the likelihood of ecstasy users re-offending.¹⁹⁸ However, the report relied on police arrest records, only showing that individuals were less likely to be *found* to have re-offended within 18 months.¹⁹⁹ It is equally likely that the subjects of the report did re-offend without being apprehended.

Counterproductive effects of prohibition

Strictly criminalising and prohibiting the manufacture and supply of a drug is also intended to reduce drug use.²⁰⁰ The basic concept is that a prohibition regime reduces the availability and increases the price of drugs.²⁰¹ Restricting availability is intended to prevent people from being able to obtain drugs, while an increased price is aimed at deterring people from purchasing drugs.²⁰² Combined with the purported “deterrent” effect of criminalisation on the individual user, a prohibition framework should, in theory, reduce the overall consumption of drugs. While prohibition may have a deterring influence on certain individuals, overall it has been unsuccessful. The very fact that “prohibition with cautioning and diversion” is fundamentally premised on “prohibiting” MDMA, rather than allowing it to be manufactured for legal use, is an inherent shortfall of this model. Both depenalisation and decriminalisation models still operate within a prohibition framework, which serves as a foundation for an illegal ecstasy market.

There is no guarantee as to the content of illegally manufactured ecstasy pills. This increases harm to all users by making pills more dangerous due to variable strengths of MDMA and the presence of other more dangerous drugs and harmful adulterants.²⁰³ The presence of toxic chemicals in ecstasy pills, such as battery acid, has been a focus of the government’s “Ecstasy. Face Facts” campaign,²⁰⁴ despite the fact that this harm is largely created by prohibition.

The compound para-methoxyamphetamine (PMA) is an ecstasy substitute that is much more toxic at recreational doses than MDMA.²⁰⁵ PMA is more likely to cause life-threatening elevation of body temperature and cardiovascular function.²⁰⁶ While the number of deaths caused by PMA is small, it is alarming considering that it is not commonly used.²⁰⁷ Although chemically and pharmacologically unrelated to MDMA, gamma-hydroxybutyric acid (GHB) is a cheaper and more dangerous alternative to ecstasy that has gained popularity in recent years.²⁰⁸ It has been suggested that a decline in the purity of ecstasy pills has resulted in an increased in GHB use.²⁰⁹

¹⁹⁸ Payne J, Kwiatkowski M and Wundersitz J, *Police Drug Diversion: A Study of Criminal Offending Outcomes* (Research and Public Policy Series Report No 97, Australian Institute of Criminology, 2008) p 51.

¹⁹⁹ Payne, Kwiatkowski and Wundersitz, n 198, p 17.

²⁰⁰ Macintosh, n 195, pp 23-28.

²⁰¹ Macintosh, n 195, p 24.

²⁰² Macintosh, n 195, pp 23-28.

²⁰³ Ross, n 4, p 37; Smith, n 13 at 241; Australian Crime Commission, n 3, p 26; Kuhn, Swartzwelder and Wilkie, n 4, p 82; Ministerial Council on Drug Strategy, n 105 at [2].

²⁰⁴ See, for example, Australian Government, Department of Health, *Ecstasy “Lab” Postcard*, [http://www.drugs.health.gov.au/internet/drugs/publishing.nsf/content/79142A3B967BB04FCA2577EC007DEADC/\\$File/pceclab2.pdf](http://www.drugs.health.gov.au/internet/drugs/publishing.nsf/content/79142A3B967BB04FCA2577EC007DEADC/$File/pceclab2.pdf).

²⁰⁵ Kuhn, Swartzwelder and Wilkie, n 4, p 85.

²⁰⁶ Kuhn, Swartzwelder and Wilkie, n 4, p 85; Sindicich and Burns, n 147, p 79.

²⁰⁷ Hayner GN, “MDMA Misrepresentation: An Unresolved Problem for Ecstasy Users” (2002) 34(2) *Journal of Psychoactive Drugs* 195 at 196; Independent Scientific Committee on Drugs, “PMA Warning for Ecstasy Users” (2013), <http://www.drugscience.org.uk/drugs-info/pma-warning-ecstasy-users>.

²⁰⁸ Australian Crime Commission, n 3, pp 7, 26; Nutt, King and Phillips, n 16 at 1561; Potts AM, “Dirty Pills Beg for Legalisation”, *StarObserver* (18 March 2009), <http://www.starobserver.com.au/opinion/soapbox-opinion/dirty-pills-beg-for-legalisation/4967>.

²⁰⁹ Potts, n 208; Dillon P, “10 Years of Ecstasy and Other Party Drug Use in Australia: What Have We Done and What is There Left to Do?”, *DrugText*, <http://www.drugtext.org/Dance/party-drugs-clubbing/10-years-of-ecstasy-and-other-party-drug-use-in-australia.html>.

Furthermore, new chemically engineered substances (synthetics) designed to mimic the effects of MDMA have been sold legally online, in adult stores and tobacconists at an increasing rate in recent years.²¹⁰ One of the most notable compounds that emerged in late 2008 was methylenedioxypropylvalerone (MDPV), which carries a high risk of dependency and psychosis.²¹¹ Many new psychoactive substances, including MDPV, have now been banned, although lawmakers are constantly playing catch up.²¹² It is likely that MDMA prohibition has contributed to the introduction of new and potentially more dangerous substances.²¹³

There is no doubt that large profits entice people to traffic ecstasy. The prohibition of MDMA must contribute to the prevalence of illegal organised crime.²¹⁴ Policing ecstasy users is also costly and difficult.²¹⁵ Ecstasy pills are easily concealed and discarded and users can discreetly take the drug without being apprehended by police.²¹⁶ Controlling the manufacture, importation, distribution and use of ecstasy is a continuous struggle for law enforcement,²¹⁷ yet pills are reportedly easy to obtain.²¹⁸ A new control system for MDMA, as proposed by Penington, should therefore be considered.

HARM REDUCTION, THE PENINGTON PROPOSAL AND REGULATION OF MDMA

“The primary and overarching goal of illicit drug policy must be to reduce drug-related harm.”²¹⁹ The National Drug Strategy 2010-2015 primarily aims to achieve three goals, including demand reduction, supply reduction and harm reduction of both legal and illegal drugs.²²⁰ Reports show that the government focuses primarily on law enforcement in attempting to reduce supply and demand, with little funds spent on harm reduction.²²¹

“Harm reduction attempts to reduce the adverse consequences of drug use among persons who continue to use drugs.”²²² The concept is premised on the idea that while drug use cannot be

²¹⁰ Bright S, *Not for Human Consumption: New and Emerging Drugs in Australia* (Prevention Research Series Report, Australian Drug Foundation, 2013) p 3; United Nations Office on Drugs and Crime, n 22, p 50; Bruno R, Poesiate R and Matthews AJ, “Monitoring the Internet For Emerging Psychoactive Substances Available to Australia” (2013) 32(5) *Drug Alcohol Rev* 541 at 541-542; Coppola M and Mondola R, “3,4-Methylenedioxypropylvalerone (MDPV): Chemistry, Pharmacology and Toxicology of a New Designer Drug of Abuse Marketed Online” (2008) 208(1) *Toxicol Lett* 12 at 12.

²¹¹ Coppola and Mondola, n 210 at 14; Jerry J, Collins G and Stream D, “Synthetic Legal Intoxicating Drugs: The Emerging ‘Incense’ and ‘Bath Salt’ Phenomenon” (2012) 79(4) *Clev Clin J Med* 259.

²¹² Bright, n 210, p 12; van Amsterdam J, Nutt DJ and van den Brink W, “Generic Legislation of New Psychoactive Drugs” 27(3) *J Psychopharmacol* 317 at 321.

²¹³ Bright, n 210, p 7; Brunt TM et al, “Instability of the Ecstasy Market and a New Kid on the Block: Mephedrone” (2011) 25(11) *J Psychopharmacol* 1543 at 1543.

²¹⁴ Australian Crime Commission, n 3; Global Commission on Drug Policy, n 180, p 15; Smith, n 13 at 241; Rolles, n 7, p 33; McDonald, n 7, p 64.

²¹⁵ Webb, n 15, pp 34-39.

²¹⁶ Webb, n 15, p 36; Nutt, n 18, p 10.

²¹⁷ United Nations Office on Drugs and Crime, *Global Synthetic Drugs Assessment: Amphetamine-type Stimulants and New Psychoactive Substances* (2014) p 21.

²¹⁸ Sindich and Burns, n 147, p 81; Ritter A, McLeod R and Shanahan M, *Government Drug Policy Expenditure in Australia 2009/10* (Drug Policy Modelling Program Monograph No 24, National Drug and Alcohol Research Centre, 2013); Ministerial Council on Drug Strategy, n 105; Wodak A, “Prohibition As a Policy to Control Illicit Drugs Has Failed”, *The CourierMail* (31 July 2013), <http://www.couriermail.com.au/news/opinion/prohibition-as-a-policy-to-control-illicit-drugs-has-failed/story-fnihsr9v-1226688087235>.

²¹⁹ Douglas, Wodak and McDonald, n 5, p 29.

²²⁰ Ministerial Council on Drug Strategy, *National Drug Strategy 2010-2015: A Framework for Action on Alcohol, Tobacco and Other Drugs* (2011) p ii.

²²¹ Ritter, McLeod and Shanahan, n 218, p 1.

²²² Single E, “Defining Harm Reduction” (1995) 14(3) *Drug Alcohol Rev* 287 at 287.

eliminated, the harm *associated* with drug use can be reduced.²²³ One of the associated harms of ecstasy use is that people who purchase ecstasy with the intention of taking MDMA can actually receive a variety of different drugs. Therefore, the *associated* harms of intended MDMA consumption can include the *actual* harms of more dangerous compounds, such as PMA. Dehydration, hyperthermia and hyponatraemia that may occur as a result of prolonged dancing with inappropriate hydration, are also associated harms. A regulation model that allows for the controlled production of a relatively safe formulation of MDMA focuses more on reducing associated harm than any other model.

The Global Commission on Drug Policy has encouraged governments to experiment with models of regulation.²²⁴ In 2012, Penington proposed a regulated legal market for cannabis and MDMA to the Australia21 Roundtable on Illicit Drugs.²²⁵ Medical and drug policy experts of the Roundtable concurred that this proposal deserves serious consideration.²²⁶ This model would allow Australians aged 16 and over to access MDMA from a pharmacy that would record the supply on a confidential electronic register.²²⁷

Penington proposed that the manufacture of MDMA be licensed and contracted to a generic pharmaceutical company that would produce a dose form of MDMA identifiable by shape and colour, with guaranteed strength and purity.²²⁸ Issuing a licence to the cheapest manufacturer could prevent overly high costs to the end user and the emergence of a cheaper black market. The use of unique packaging would also make a legal product more easily distinguishable from other drugs, with a recommendation not to remove the dose from its original packaging until the time of use. Penington's proposal provides a useful blueprint for a legal MDMA market but any fears and concerns about such a market would need to be addressed first.

One possible fear is that the use of MDMA would dramatically increase. This concern could only stem from the belief that prohibition is an effective deterrent and relaxing drug laws encourages drug use.²²⁹ History shows that despite being prohibited, the popularity of ecstasy has generally increased since its introduction, apart from a small decline in recent years.²³⁰ Furthermore, while it may not always contain MDMA, ecstasy is readily available despite being illegal.²³¹

The development of a legal regulated market controlled by the government would be expected to cause a decline in the trafficking of ecstasy due to a reduction in demand for illegal pills. With fewer active drug dealers, ecstasy could become less accessible for minors. This view is based on the assumption that adult users would access legal MDMA instead of purchasing illegal ecstasy pills. Considering the demographic of ecstasy users and the uncertainty regarding the content of illegal pills, it is reasonable to believe that most individuals would desire a product of higher quality and lower risk, which regulation would provide.

There is also evidence that adopting more liberal drug laws and policies does not cause a significant increase in drug use or drug-related harms.²³² The de facto legalisation of cannabis in the Netherlands is one example of a drug policy that is considered by many to be reasonably

²²³ Single, n 222 at 289.

²²⁴ Global Commission on Drug Policy, n 180, p 2.

²²⁵ Douglas, Wodak and McDonald, n 5, pp 5, 39.

²²⁶ Douglas, Wodak and McDonald, n 5, p 43.

²²⁷ Douglas, Wodak and McDonald, n 5, p 39; Penington, n 5.

²²⁸ Penington, n 5.

²²⁹ Rolles, n 7, pp 25-26.

²³⁰ Australian Institute of Health and Welfare, n 24, pp 8-9.

²³¹ Sindich and Burns, n 147, p 81.

²³² Hughes C and Stevens A, *The Effects of Decriminalization of Drug Use in Portugal* (Briefing Paper No 14, The Beckley Foundation Drug Policy Programme, 2007); Rolles, n 7, p 53.

successful.²³³ The use and possession, *and* the sale and purchase of small amounts of cannabis (five grams) are tolerated in many coffee shops around the country.²³⁴ Some have referred to the Dutch model as *de facto* decriminalisation, not legalisation, because although selling small amounts of cannabis from the coffee shops is tolerated, cultivation is not.²³⁵ In order to supply cannabis, the coffee shops often deal with traffickers.²³⁶ Despite this unusual arrangement, the Netherlands boasts lower cannabis use rates than in Australia and the United Kingdom,²³⁷ and its model is widely supported by the Dutch public and government officials.²³⁸

In the United States, regulated legal cannabis has been available for purchase in Colorado and Washington since January and July 2014 respectively.²³⁹ Robin Room suggests that the new cannabis schemes in the United States resemble present-day alcohol regulation, focusing more on private enterprise as opposed to public health.²⁴⁰ Uruguay has implemented cannabis regulation, creating government control and monopoly over the industry with a pharmacy-supply model.²⁴¹ It is too early to determine the effects of these models in their respective jurisdictions. Furthermore, the success or failure of a policy model in one country may not predict outcomes in other countries, especially with different substances.

If the use of MDMA significantly increased under a regulation model, this does not necessarily equate to an increase in overall harm to society. In the United Kingdom, alcohol use was steadily increasing until there was a significant levelling out in consumption from the late 1980s until the mid-1990s, as many people switched to taking ecstasy.²⁴² Because MDMA users are not known to be violent, an increase in MDMA use among persons who would otherwise drink alcohol would in theory have a dampening effect on alcohol-fuelled street violence. Users of other amphetamines and GHB might also switch to taking legal MDMA. The number of MDMA users provides little value unless considered in conjunction with harm to society and the use of recreational drugs overall.

Another criticism could be that while MDMA regulation might seem to be a sensible policy, the benefit to society would still be minimal. Excluding alcohol and tobacco, if MDMA was the only other recreational drug legally regulated, criminals involved in the ecstasy trade may simply convert to selling other substances. Police would still attempt to control illegal activity with respect to other

²³³ MacCoun RJ and Reuter P, "Interpreting Dutch Cannabis Policy: Reasoning by Analogy in the Legalization Debate" (1997) 278 (5335) *Science* 47 at 47.

²³⁴ Hughes C and Wodak A, *A Background Paper For An Australia21 Roundtable, Melbourne, Friday 6th July 2012, Addressing the Question "What Can Australia Learn From Different Approaches to Drugs in Europe Including Especially Portugal, Switzerland, the Netherlands and Sweden?"* (Australia21, 2012) p 12; Hall W and Fischer B "Harm Reduction Policies for Cannabis" in Rhodes T and Hedrich D, *Harm Reduction: Evidence, Impacts, Challenges* (Monograph No 10, European Monitoring Centre for Drugs and Addiction, 2010) p 243.

²³⁵ Hughes and Wodak, n 234, p 12; Hall and Fischer, n 234, p 243;

²³⁶ Moore MS, "Where does Amsterdam's Marijuana Come From?", *Pacific Standard* (20 April 2011), <http://www.psmag.com/politics/where-does-amsterdams-dope-come-from-30408>; The Daily Smoker, *How do Coffee Shops Get Their Supply?*, <http://www.dailysmoker.com/various/amsterdam/drug-policy/how-coffeeshops-supply>; Rolles S, "Cannabis Policy in the Netherlands: Moving Forward Not Backwards", *Transform* (12 March 2014), <http://www.tdpf.org.uk/blog/cannabis-policy-netherlands-moving-forwards-not-backwards>.

²³⁷ Hall and Fischer, n 234, p 236; Australian Institute of Health and Welfare, n 24, p 86.

²³⁸ Hall and Fischer, n 234, p 243; Hughes and Wodak, n 234, p 12.

²³⁹ Ingold J, "World's First Legal Recreational Marijuana Sales Begin in Colorado", *The Denver Post* (1 January 2014), http://www.denverpost.com/news/ci_24828236/worlds-first-legal-recreational-marijuana-sales-begin-colorado; Johnson EM and Cohen B, "Buyers Line Up at First Legal Pot Shops in Washington State", *Reuters* (8 July 2014), <http://www.reuters.com/article/2014/07/09/us-usa-marijuana-washington-idUSKBN0FD2R220140709>; *Constitution of the State of Colorado*, Art XVIII § 16 (2014); *Revised Code of Washington*, Ch 69.50 Wash Rev Code (2012); Walsh J, *Q&A: Legal Marijuana in Colorado and Washington* (Governance Studies, Brookings and Washington Office on Latin America, May 2013).

²⁴⁰ Room R, "Legalizing a Market for Cannabis for Pleasure: Colorado, Washington, Uruguay and Beyond" (2014) 109(3) *Addiction* 345.

²⁴¹ Murkin G, "Uruguay Announces Final Regulations for New, Legally Regulated Cannabis Trade", *Transform* (7 May 2014), <http://www.tdpf.org.uk/blog/uruguay-announces-final-regulations-new-legally-regulated-cannabis-trade>.

²⁴² Nutt, n 18, pp 16-17.

drugs, expending almost the same resources and time. In fact, a more successful policy might involve the legalisation of a range of drugs, although a comprehensive analysis of such a model is beyond the scope of this article. Nevertheless, even under a regulation model for MDMA alone, the unnecessary criminal offences of use and possession of this substance would no longer exist. The cost of policing an illegal ecstasy market would be reduced and taking ecstasy would be safer. While not explored in this article, the potential tax benefits of MDMA regulation is also worth mentioning. Overall, society is more likely to significantly gain by regulating MDMA, rather than lose anything. A minority, that is ecstasy users, would certainly benefit.

Penington has suggested that pharmacists are probably in the best position to supply MDMA,²⁴³ although doctors and nurse practitioners could also be considered for this role. The fundamental principle in the treatment of patients in any medical profession is *primum non nocere*, or “first, do no harm”,²⁴⁴ yet recreational drug use always carries some potential for harm and is not aimed at treating any condition. Because the supply of MDMA is intended for recreational and not medicinal use, pharmacists providing the drug would have to accept the aim to “reduce harm to the user and society”, rather than “first, do no harm”. Pharmacists could potentially screen persons requesting MDMA before supply is given in order to avoid serious harm coming to specific individuals who are at “high risk”.

The potential harm of using any drug is greater for some individuals compared to others. For example, penicillin is more dangerous to a person who is allergic to it, as opposed to someone who is not. Specially developed guidelines, similar to those used for the supply of “Pharmacist Only Medicines” that are not available in supermarkets,²⁴⁵ can be developed to assist pharmacists in determining whether a person could be at high risk of sustaining serious harm by taking MDMA. While medical experts should be consulted to develop these guidelines, it is likely that persons with known cardiovascular defects would be regarded as higher risk and refused supply. The guidelines should also take into consideration that MDMA is potentially harmful for persons taking medications that affect the release of serotonin and may interfere with treatment aims in psychological conditions. Providing advice with respect to potential adverse consequences may be more appropriate than refusing supply in some circumstances. The pharmacist would also need to be satisfied that the person requesting MDMA has the capacity to make an informed choice, which is generally required when selling any over-the-counter pharmaceutical product. All persons supplied MDMA should be offered harm minimisation advice about safe night clubbing.²⁴⁶

Nearly all drugs need to be restricted in some way, including medicinal products. If antibiotics were freely available, this would likely cause an increase in the prevalence of antibiotic resistant bacteria, having a negative impact on public health. Furthermore, health professionals cannot guarantee how each individual person will respond to a drug. It may be difficult for pharmacists to assess risk without a complete medical picture, if only information provided by the consumer is available. Despite this, if MDMA was regulated, there is no convincing reason not to at least attempt to reduce harm at the point of supply.

The question of whether supply should be limited to permanent residents of the State in which the regulatory scheme operates is open to debate. The term “drug tourism” refers to travellers visiting a particular destination primarily to take advantage of more liberal drug laws.²⁴⁷ Should visitors be able to access legal MDMA, this would likely impact the tourism industry.

One criticism of a restricted legal market is that persons who are refused legal supply of MDMA might obtain it from someone who is a registered user or attempt to obtain illegally manufactured

²⁴³ Penington, n 5; Douglas, Wodak and McDonald, n 5, p 39.

²⁴⁴ Harrison C, “Primum Non Nocere is Only the Beginning” (2007) 12(5) J Paediatr Child Health 379.

²⁴⁵ See, for example, the guidance documents for pharmacists prepared by the Pharmaceutical Society of Australia at <http://www.psa.org.au/supporting-practice/professional-practice-standards/pharmacist-only-medicines-s3-protocols>. See also *Poisons Standard 2014* (Cth), Sch 3.

²⁴⁶ London Drug Policy Forum, n 115, pp 17-28.

²⁴⁷ Grobe A and Lürer J, “Drug Tourism” in Papathanassis A (ed), *The Long Tail of Tourism: Holiday Niches and their Impact on Mainstream Tourism* (Gabler, 2011) p 137.

ecstasy. This argument does not form a strong basis to discount regulation. First, the number of persons refused supply is likely to be a small percentage because most users of ecstasy are young adults between the ages 20 to 29,²⁴⁸ who are less likely to be at risk of serious harm in the first place compared to older persons. Of those who would be in a “high risk” category, a significant proportion would already be aware of the risks and may choose not to take MDMA. Secondly, MDMA does not create physical cravings and users are not overly bothered if they cannot find it.²⁴⁹ Therefore it is unlikely that individuals who are refused supply would go to great lengths to obtain the drug in a diminished illegal market, against professional advice, and at serious risk of harming themselves.

It may be argued that implementing any restrictions is paternalistic and curtails individual freedoms because the government determines who can be legally supplied MDMA. This view lends support to free-market legalisation for any substance, including those used for medicinal purposes, ignoring the harm principle entirely. Infringements of the proposed model can be dealt with using civil penalties (fines), not criminal, which may ameliorate some concerns about restricting rights and freedoms.

There are a number of issues to consider when developing a legal product, including the strength and dose form of MDMA, as well as the number and frequency of doses allowed. The normal recreational dose of MDMA contained in ecstasy pills is approximately 80-120 milligrams,²⁵⁰ although strengths can vary markedly.²⁵¹ Small-scale experimental studies have administered doses of up to 125 milligrams with no drug-related serious adverse events.²⁵² However, more research is required to find the right balance between recreational enjoyment and safety.

Research indicates that a large proportion of regular ecstasy users purchase the drug less than once a fortnight.²⁵³ Penington suggests that supply should be “limited to a monthly total representing a safe weekly amount”.²⁵⁴ However, considering that most users do not use the drug weekly, it would be more appropriate that supply be limited to a monthly total of MDMA allowing for fortnightly use. The actual number of dose units provided would depend on their strength.

There may be concern that users will stockpile their MDMA and take it all at once. Considering the alternatives, this is not a convincing argument against regulation. Current users could do the same thing with illegal pills, with potentially far worse consequences, especially if one pill contained PMA. It is also well known that MDMA depletes serotonin levels.²⁵⁵ This means that after experiencing a peak high, taking more MDMA will produce little positive effects because it takes time (several days) for serotonin levels to be restored.²⁵⁶ Taking excessive amounts of MDMA in one session is also more likely to lead to unpleasant side effects.²⁵⁷ Each of these factors deters the user from taking their MDMA all at once.

For regulation to operate effectively, the offences of use and possession of small amounts of MDMA should be removed from criminal law. Registered users could be supplied a uniquely identifiable users’ card that non-registered users would not have. Civil penalties could be issued to individuals found in possession of personal use quantities of unregulated MDMA and to non-registered users found in possession of pharmacy-supplied MDMA. Since most users would be able to obtain the regulated product, it would be expected that infringements would be uncommon.

²⁴⁸ Australian Institute of Health and Welfare, n 24, p 119.

²⁴⁹ Advisory Council on the Misuse of Drugs, n 14 at [7.2]; Dillon, n 209.

²⁵⁰ Kuhn, Swartzwelder and Wilson, n 4, p 85.

²⁵¹ Advisory Council on the Misuse of Drugs, n 14 at [2.12].

²⁵² Oehen et al, n 144; Ludewig et al, n 128; Mithoefer et al, n 128.

²⁵³ Sindicich and Burns, n 147, pp 37, 166.

²⁵⁴ Penington, n 5.

²⁵⁵ Green et al, n 1 at 467, 477.

²⁵⁶ Parrott, n 104 at 186.

²⁵⁷ Kuhn, Swartzwelder and Wilson, n 4, p 85.

The sale of MDMA to consumers at retail level would presently constitute trafficking. In any State, law reform is necessary to implement a regulation model.

CONCLUSION

If any currently illegal drugs were to be trialled for regulation in Australia, MDMA must certainly be one of them. First, there does not appear to be any rational justification for criminalising MDMA use. Compared to other drugs, both legal and illegal, MDMA is much less harmful to users. There is also little evidence that the use of MDMA causes harm to others, including direct harm to persons other than the user or public disutility. For these reasons, the use of MDMA and the possession of small quantities of MDMA should no longer be criminal offences.

Secondly, the prohibition framework intended to control MDMA manufacture appears to create more harm to the user and to society than it prevents. Illegal ecstasy pills are not subject to quality control and may contain variable strengths of MDMA and/or other drugs. There is a possible link between MDMA prohibition and the prevalence of potentially more dangerous drugs, including those contained in pills sold as ecstasy, new synthetic legal drugs and cheaper alternatives.

Small-scale experimental trials have not demonstrated serious adverse effects of MDMA,²⁵⁸ and it is likely that allowing the use of controlled amounts of MDMA would reduce potential harms associated with ecstasy use. Despite the health risks of drinking alcohol and cigarette smoking and the burden these drugs have on society,²⁵⁹ there is no risk-benefit analysis conducted or advice provided when these drugs are sold to adults. Australia can learn from the problems of legal alcohol and tobacco sales and carefully implement a regulation model for MDMA where most adults could access the drug legally if desired.

If it is accepted that regulation is the best model and there is no strong justification for criminalising MDMA use, one can ask why this finding is important. Australia is a heavy consumer nation of ecstasy, and recreational drug use overall will never cease. The government should consider a more pragmatic approach than prohibition in order to make ecstasy safer, as well as reduce the negative impact of prohibition on society. Concern for the health and wellbeing of Australians makes this finding important. The fact that MDMA in pure form carries a low level of harm compared to other drugs demonstrates that criminal law in Australia with respect to drug prohibition is applied inconsistently. If criminal law is exercised without justification, this is a significant issue with regards to restricting liberty, and there are few things more important to people than their health and their liberty.

²⁵⁸ Oehen et al, n 144; Ludewig et al, n 128; Mithoefer et al, n 128.

²⁵⁹ Collins and Lapsley, n 152.