Evaluating Australian drug trafficking thresholds: Proportionate, equitable and just?

Caitlin Hughes[1]
Alison Ritter[1]
Nicholas Cowdery[2]
Benjamin Phillips[1]

[1] Drug Policy Modelling Program, National Drug and Alcohol Research Centre, The University of New South Wales
[2] Faculty of Law, The University of New South Wales

Report to the Criminology Research Advisory Council
Grant: CRG 35/11-12

March 2014

This is a project supported by a grant from the Criminology Research Grants.

Table of Contents

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

This study was funded by a grant from the Commonwealth of Australia: the Criminology Research Grants. The views expressed are the responsibility of the authors and not necessarily those of the Commonwealth.

This study was conducted at the Drug Policy Modelling Program (DPMP), which is located at the National Drug and Alcohol Research Centre (NDARC), the University of New South Wales. DPMP is funded by the Colonial Foundation Trust. NDARC is supported by funding from the Australian Government. Professor Alison Ritter is a recipient of a National Health and Medical Research Council Fellowship.

Sincere thanks are due to the providers of the principal data sources on which this study was based. In particular we would like to thank Drug Trends team at NDARC for providing access to the 2011 Illicit Drug Reporting System (IDRS) and 2011 Ecstasy and related Drug Reporting System (EDRS), and the Australian Institute of Health and Welfare for providing access to the 2010 National Drug Strategy Household Survey (NDSHS). Thanks are also due to the Victorian Forensic Police for collating data on the size of drug seizures in Victoria, and to the experts who provided advice on the validity of estimates.

Finally, sincere thanks to Dr Matthew Sunderland, DPMP, for statistical assistance.

EXECUTIVE SUMMARY

Drug trafficking in Australia is deemed a very serious offence, one for which legislators and courts have ruled general deterrence is paramount and 'little mercy' should be shown (Clune [1989] VR 567, O'Bryan and Marks JJ, 576). A principal challenge has been how to effectively differentiate and sanction participants in the drug trade: particularly how to differentiate 'traffickers' from those who solely purchase or consume illicit drugs (people whom legislators and courts have determined ought be sanctioned more leniently). To assist in this endeavour all states and territories have adopted drug trafficking thresholds which specify quantities of drugs, for possession of more than which it is presumed an offender has committed an offence of drug trafficking (or of mid or high level trafficking, depending on the quantity).

For numerous reasons the Australian system of drug trafficking thresholds is unique. First, Australia is one of the few countries that specifies quantities as threshold limits for distinguishing between drug offences with different penalty scales. These thresholds vary by drug type and by jurisdiction, and are largely set at 2 to 3 grams in most jurisdictions (see below). The quantity is not the sole factor considered in sentencing. The nature and circumstances of the alleged possession, such as the presence or absence of large sums of money or other indicia of supply often act as mitigating or aggravating circumstances. Yet particularly for thresholds that distinguish trafficking from use, the threshold is often the most important factor affecting prosecution and sentencing. Second, to assist in the successful prosecution of drug traffickers the Australian drug trafficking thresholds are attached to deemed supply laws which *reverse* the traditional burden of proof from prosecutors onto defendants. Such laws mean that possession of the trafficable threshold amount will constitute a *presumption* of trafficking placing the onus on the alleged offender to prove that the possessed amount was *not* for the purposes of trafficking ('deemed supply').

Trafficable threshold quantities (in grams) in Australia by drug type, system (purity or mixed based), for jurisdictions subject to current analysis

	Heroin	Meth/ amphetamine	Cocaine	MDMA/Ecstasy	Cannabis
Purity based system					
• Qld	2	2	2	2	500
Mixed based system					
• NSW	3	3	3	0.75	300
• SA	2	2	2	2	250
• Tas	25	25	25	10	1000
• Vic	3	3	3	3	250
• WA	2	2	2	2	100

International evidence, albeit scarce, has shown that drug trafficking thresholds may have unintended consequences: increasing for example the risk of disproportionate and unjust sanction. The most infamous example was the United States 100 to 1 discrepancy in threshold quantities between cocaine and crack cocaine as part of the Anti-Drug Abuse Act of 1986. This fuelled over-imprisonment of crack cocaine traffickers, significant racial disparities and the subsequent need to amend and retroactively reduce sentencing inequities. The risks in Australia and the capacity of Australian drug trafficking thresholds to deliver proportional sanctioning (or conversely the opposite effect) has been subject to only limited research.

In 2011 we developed and evaluated a new approach to assessing the threshold quantities in one Australian jurisdiction, the ACT. Application showed that the ACT thresholds created risks of unjustified or inequitable convictions for both drug users and drug traffickers. In this study we extended the previous analysis to evaluate the capacity of drug trafficking thresholds in other Australian jurisdictions to deliver proportional, fair and just sanctioning of drug offenders.

Objectives

The purpose of this study was to:

1. Evaluate whether the trafficable thresholds allow the prosecution and the judiciary to properly distinguish drug users from traffickers and to enable sanctions based on the relative seriousness of a drug trafficking offence (taking into account traders in different controlled drugs);
2. Compare and contrast threshold design across Australia taking into account inter-state differences in current legal thresholds and drug markets;
3. Determine whether the problems identified with the ACT drug trafficking thresholds are common *across* state systems.

Methods

This project evaluated the drug trafficable thresholds in six Australian states: NSW, Victoria, Queensland, South Australia, Tasmania and Western Australia against the behaviour of drug users and the Australian drug markets. The method replicated the approach of Hughes and Ritter (in press). Analysis was confined to examining the thresholds for heroin, methamphetamine, cocaine, MDMA (also known as ecstasy) and cannabis (leaf not whole plant form).

For each state the ability of the trafficable thresholds to successfully filter out drug users from drug traffickers (that is the reasonableness of the assumption that all who exceed the trafficable threshold will be traffickers) was examined using two metrics of the quantity of drug a user is likely to possess for personal use alone:

- Metric 1: User patterns of typical use i.e. quantity of drugs that a user is likely to possess for a single session of personal use.
- Metric 2: User patterns of typical purchasing i.e. quantity of drugs that a user is likely to purchase for personal use.

The ability of the trafficable thresholds to reflect the relative seriousness of offenders trafficking in different controlled drugs was examined using three metrics of the actual/potential seriousness of a drug trafficking offence to the Australian community:

- Metric 3: Retail value i.e. potential value of drugs at the retail market.
- Metric 4: Harm i.e. amount of harm that could result to drug users and the community from trafficking in a particular drug.
- Metric 5: Social cost i.e. annual cost of healthcare and criminality from each gram of drug that is trafficked.

This enabled a test of the underlying assumption that the more serious the drug, as measured by higher retail price, harm score and social cost per gram, the lower the trafficking threshold should be.

Data for each of the five metrics were derived from an array of sources, using the best available data. For example, data on patterns of drug use were sourced from three different national surveys: two of regular drug users (the 2011 Illicit Drug Reporting System: IDRS and the 2011 Ecstasy and related Drug Reporting System: EDRS) and one from the general population (the 2010 National Drug Strategy Household Survey: NDSHS). Raw data were obtained to enable the removal of outliers, and to make necessary adjustments to the datasets. Given known differences in drug market conditions, state specific data were used wherever possible.

Results

Part 1: Likelihood of users exceeding the trafficable threshold for personal use alone

Whether examining regular users or less frequent users most *median and mean quantities* that Australian drug users reported consuming or purchasing were lower than the trafficable thresholds. For example under typical conditions heroin users reported consuming a median quantity of 0.2 to 0.3 grams of heroin, well under the trafficable threshold of 2 to 25 grams. This suggests that the average Australian drug user is unlikely to exceed the trafficable threshold.

But the *maximum quantity* consumed or purchased for personal use alone exceeded the trafficable quantity for most drug types and states. This is particularly the case when examining practices of regular users, rather than irregular users, and for considering patterns of 'heavy' use, rather than patterns of 'typical' use. For example, in a heavy session regular methamphetamine users in four states – NSW, Victoria, South Australia and Western Australia – consumed quantities that were 2, 2.3, 2.5 or 3.2 times the current thresholds. This suggests that most threshold quantities *can* be exceeded for personal use alone, but that this is most likely to occur under *atypical* patterns of use.

The likelihood of exceeding the trafficable threshold varied greatly across the drug types. Across all metrics and data sources MDMA users were at most risk of exceeding the trafficable thresholds. For example, the mean quantity of MDMA purchased exceeded the thresholds in four states (NSW, Vic, SA and WA) and typical mean quantity of MDMA used exceeded the thresholds in one state (NSW). Moreover, examining the maximum quantity that an MDMA user might be reasonably expected to possess for their personal use alone (see table below), users exceeded the thresholds in two states for a typical session of use, in four states for a heavy session and in all six states for purchasing. In some states and some circumstances 80% of MDMA users possessed more than the current threshold for their personal use alone (NSW data).

State	Maximum quantity MDMA used (typical session)	Maximum quantity MDMA used (heavy session)	Maximum quantity MDMA purchased	Trafficable threshold quantity
NSW	3.5	6.7	14.5	0.75
Vic	1.6	5.8	58.0	3.0
Qld	2.0	8.7	29.0	9.6
SA	2.9	7.3	29.0	2.0
WA	1.5	3.5	29.0	2.0
Tas	2.2	7.3	29.0	10.0

In contrast, cannabis users had the least evidence of exceeding the thresholds, with no instance where a cannabis user consumed more than the trafficable quantity and only one instance where the maximum purchased exceeded the trafficable threshold quantity. Indeed, with one exception, the maximum quantities reported by cannabis users were 3.5-35 times *under* the threshold.

Looking across states, again the likelihood of exceeding the trafficable thresholds was not equal. Some states had almost no evidence that users exceed current thresholds for personal use alone (for example Tas, reflecting in large part the much higher trafficable thresholds). In contrast, other states showed that users were at risk of exceeding the thresholds across a number of drug types. Of particular note here were NSW and SA where users risked exceeding the thresholds for consumption or purchase of three different drugs: MDMA, methamphetamine and cocaine. Moreover, both regular and irregular users were at risk.

Part 2: Likelihood of traffickers being sanctioned according to the seriousness of their drug trafficking offence

The most serious drugs that can be trafficked in Australia are heroin and methamphetamine, when considered across the three chosen metrics: retail price, harm and social cost. Ecstasy in contrast is the least serious drug that can be trafficked, according to the metrics.

Despite these clear differences in drug type, these were poorly reflected in the design of the trafficable thresholds. Accordingly, there was disproportionality in drug charging and sanctioning relative to the seriousness of the offence. For example, across the six states and drug types the median retail value of a trafficable quantity of a drug varied from $71 to $11,607. Moreover, across all metrics the threshold quantities for cannabis were disproportionately high. Conversely for ecstasy, the trafficable quantities were disproportionately low. For example, across the six states the median retail values for cannabis were equivalent to $1893 or above. In contrast, in most states the median retail values for MDMA were $362 or less.

Comparing jurisdictions, the states varied in the extent of proportionality afforded to traffickers in different controlled drugs. Western Australia provided the most proportional responses. NSW in contrast afforded the least proportional responses. For example, using the metric of retail price, in NSW one could trade up to $3,750 worth of cannabis before being charged with trafficking, whereas one could trade only $71 in MDMA before being charged with trafficking (a 52 fold difference). In contrast, for the same crime types in Western Australia, one could trade up to $1,893 worth of cannabis or $217 worth of MDMA (an 8.7 fold difference).

Policy implications

The approach taken in this work is subject to the limits of currently available data. A number of desirable indices such as 'purchases under heavy conditions' were unavailable. Moreover, sample sizes for a number of estimates were small which likely reduces their reliability. Nevertheless, this was the best available data to date and provides considerable insight into the Australian drug trafficking threshold system: particularly the two fold issue of whether thresholds can enable appropriate filtering of drug users from traffickers and appropriate sanctioning of traffickers in different controlled drugs.

With regard to appropriate filtering of drug users from traffickers, the findings suggest that most users are at minimal risk of exceeding the trafficable thresholds when they follow typical use and purchase patterns. On the other hand there are a number of instances where the current trafficable thresholds appear too low. This is most notable in relation to MDMA and the threshold levels employed in NSW and SA. This suggest that thresholds in such instances should be elevated. More generally, instances of exceeding the threshold quantity identified in this work would be less problematic if the threshold quantity were not also linked to the 'deemed supply' laws, which by reversing the rights afforded under the standard criminal justice system, greatly increases the capacity for harm to Australian drug users. This provides grounds for questioning the current linking of Australian drug trafficking thresholds to deemed supply laws and suggests there are two possible solutions for reducing potential injustices:

First, to abolish deemed supply laws. This would bring crimes of drug trafficking into closer alignment with other serious crimes and would mean that instances where users exceed the levels would be much less troubling, as prosecutors would be required to find evidence of trafficking intent or involvement (e.g. scales, multiple bags, sums of money) or lay charges of a simple possession offence.

Second, retain the deemed supply laws but elevate the current threshold quantities. If deemed supply laws are to be retained, then all risks to users should be eliminated; the

consequence of which is that most states would have to lift thresholds, often to a quite substantial degree.

The analysis of parity between different controlled drugs in relation to the relative seriousness of the offence indicates that the historic emphasis upon using the same threshold for MDMA as heroin, methamphetamine and cocaine is problematic, as it ignores the higher harm and retail value of the latter drugs. In this sense, the threshold quantity for MDMA is too low relative to other (largely injectable) drugs. For cannabis, the analyses suggest that the current threshold quantity is too high. Hence, while cannabis is in general a less serious drug, the much higher thresholds have contributed towards a situation where offenders who do traffic in this drug are less likely to be charged and sanction and if they are sanctioned, they also receive more lenient sanction than for any other drug.

Perhaps unsurprisingly the findings here regarding the risk of inappropriate distinction between drug users and drug traffickers and the disproportionality between drugs was not dissimilar to our initial findings from the ACT. At the same time, there is clear variation between jurisdictions, in terms of the type and size of problems. This indicates that while all drug trafficking thresholds are likely to pose some level of risk, the level of risk can be mitigated by better design. It is thus hoped that the data herein will help build threshold systems that adopt and deliver more proportional, just and equitable responses to Australian drug offenders.

INTRODUCTION

> Persons detected in the business of trafficking in heroin can expect little mercy from the courts. Offenders play for high stakes. Such offences cause very considerable misery within the community. Persons detected in such offences who may be regarded as key figures in the drug industry deserve condign punishment (Clune [1989] VR 567, O'Bryan and Marks JJ, 576).

Drug trafficking in Australia is deemed a very serious offence, one for which legislators and courts have ruled general deterrence is paramount and 'little mercy' ought be shown. Yet the principal challenge has been how to effectively differentiate and sanction actors within the drug trade: how, for example, to differentiate traffickers from illicit drug users (and how to differentiate major players from the small time players) (MCCOC, 1998b). To assist in this endeavour all states and territories have adopted legislative thresholds for drug trafficking which specify quantities of drug. These define the quantity of drug which can turn a possession offence into a trafficking or otherwise sale or supply offence (or between different levels of drug trafficking offences). Yet, in spite of the recognition that thresholds may unwittingly increase risks or inequities, the capacity of Australian drug trafficking thresholds to deliver proportional sanctioning (or conversely the opposite effect) has been rarely examined.

Drug trafficking thresholds are important yet controversial tools in the sentencing of drug offenders (Hughes, 2003, 2010a). Accordingly, the specification of threshold quantities for drug trafficking is not universal. Some countries have no such specifications (for example France), others use descriptive terms such as 'small' or 'large' quantities (for example Poland), and a minority of countries specify actual quantities (for example Germany) (Hughes, 2003, 2010). Australia falls into this later, minority category. The designs of thresholds moreover vary immensely and as will be shown the design of the Australian system is particularly unique.

Proponents of the use of threshold quantities argue that they ensure fairness, reduce costs, deter current and future drug traffickers and increase public confidence in the criminal justice system. As summed up by the UK Sentencing Council (2011b, p. 4) the principal aim is to ensure sentencing of drug offenders is fair, consistent and "proportionate to the offence committed". Concern is that without drug thresholds, there will be more inconsistency in sentencing and opportunity for prosecutorial abuse (MCCOC, 1998b). Moreover, through ensuring that sentences of imprisonment are not imposed on those who do not warrant them they also have the potential to reduce the likelihood of unnecessary cost burdens on the criminal justice system (Harris, 2011b). Thresholds are also deemed to increase the potential deterrent effects of current and would-be drug traffickers (through in particular more certain sanction) and in turn to increase public confidence in the criminal justice response to drug offenders (Sentencing Council, 2011b).

On the other hand, opponents of threshold quantities argue that they can unwittingly lead to inappropriate or unjust sentencing or provide incentives to traffickers to avoid or reduce their chance of serious sanction. The specification of a threshold for drug trafficking carries particular risks for users (Harris, 2011b; Walsh, 2008). For example a US study by Sevigny & Caulkins (2006) showed that in 1997 11.9% of US federal and 15.6% of state inmates convicted of drug trafficking were self-reported to be a user/possessor at the time of the offence. Yet, opponents argue thresholds can also fuel unjust sanction of traffickers, with the most infamous example being the US response to crack and cocaine traffickers at the time of the 'crack cocaine epidemic'. The United States Anti-Drug Abuse Act of 1986 specified a differential limit for crack cocaine: a 100 to 1 discrepancy in threshold quantities between cocaine and crack cocaine. This fuelled over-imprisonment of crack cocaine traffickers (an estimated 12,000 federal offenders disproportionately sanctioned), significant racial disparities and the subsequent need to not only amend but also retroactively reduce sentencing inequities (United States

Sentencing Commission, 2011; Yeh & Doyle, 2009). Finally, opponents argue thresholds can inadvertently provide traffickers with incentives to avoid or reduce sanction by modifying (but not stopping) their trafficking behaviour. For example, they can provide "dealers with a defence" if they traffic in *under* the specified quantities (Home Office, 2006). Alternatively, as observed by Fleetwood (2011) the risk of carrying 'large' quantities of drugs can be displaced onto unwitting mules.

As can be seen in the above brief discussion, there are both advantages and disadvantages to the use of threshold quantities in drug laws. For both proponents and opponents concern is twofold. First, there remains limited understanding about the extent of risks from different threshold systems, and how it might be possible to mitigate the risks (and increase the benefits) in the design of threshold quantities. For example, while it is clear that adopters of threshold quantities have considerable options over *how* thresholds are designed (see for example Hughes, 2003; Hughes, 2010), systematic assessments of what works and for where has yet to be undertaken. Second, the methods by which existing quantitative thresholds have been devised have been largely ad hoc or based on historical artefact and in a non-transparent manner. As summed up at an international meeting on threshold quantities:

> "How these figures were set ... is not a calculation for which the workings are generally in the public domain, nor, did some jurisdictions retain their workings out even in the private domain" (Harris, 2011b, p. 9).

There has been surprisingly little research to inform decisions on *how* threshold quantities should be set, *what* threshold quantities should be used, and whether there might be a way to use research evidence to foresee and reduce unintended and unjust policy outcomes.

In 2011 we conducted research for the ACT (Justice and Community Safety Directorate) which explored the extent to which the ACT threshold quantities created risks of unjustified or inequitable convictions and punishments. In conducting this work, we developed and applied five new metrics for evaluating drug trafficking threshold design. These metrics, as fully detailed below, assessed: users' typical patterns of use; users' typical patterns of purchasing; the retail value of the drug; the harmfulness of the drug; and the social costs associated with the drug. Application to the ACT setting showed that the ACT legal thresholds blurred the boundaries of 'possession for personal use' and 'trafficking', with users able to consume or purchase more than twice the specified quantity for possession for personal use, dependent on the drug type (Hughes & Ritter, in press). They also blurred serious and minor drug trafficking offences.

The study reported herein extended this work to evaluate the capacity of drug trafficking thresholds in other Australian jurisdictions to deliver proportional sanctioning of drug offenders. Specifically, the purpose of this study was to:

1. evaluate whether the trafficable thresholds allow the prosecution and the judiciary to properly distinguish drug users from traffickers and to enable sanctions based on the relative seriousness of a drug trafficking offence (taking into account traders in different controlled drugs);
2. compare and contrast threshold design across Australia taking into account inter-state differences in current legal thresholds and drug markets;
3. determine whether the problems identified with the ACT drug trafficking thresholds are common *across* state systems.

For reasons outlined herein the analysis focussed on the six states of Australia only. [1] We commence the analysis with an overview of drug trafficking laws across Australia.

[1] ACT and NT have been excluded from the analysis: the former due to the analysis having been just completed and the latter due to a lack of sufficient data availability.

DRUG TRAFFICKING LAWS IN AUSTRALIA

Reflecting the seriousness with which drug trafficking is viewed, the statutory maximum penalty for drug trafficking in Australia is high. This is particularly true in NSW, SA and VIC where the maximum penalty is life imprisonment, placing it in the gravest category of offending after murder.[2] In most parts of Australia three drug trafficking thresholds have been described, based on the quantity of drug with which an offender is found: trafficable, commercial and large commercial. Each triggers increasingly severe penalty ranges that can be applied. Given illicit drugs are generally sold and used containing added ingredients such as sugars and binding agents (see for example Australian Crime Commission, 2012; Quinn, Dunn, & Degenhardt, 2007) most jurisdictions define the threshold quantities in terms of the 'total weight' or weight of a 'mixed' substance. However, in the ACT and Qld the quantity is defined in terms of active principle only or weight of a 'pure' substance.

The current trafficable thresholds for the most commonly used illicit drugs in Australia are outlined in Table 1. This illustrates that thresholds vary from 0.5g to 1000g. Thresholds are substantially higher in Tasmania than all other jurisdictions and for cannabis than all other illicit drugs. But, in most other cases the threshold quantities are set at 2 or 3 grams. It is important to emphasise the difference between the purity based and mixed based systems: under low purity conditions a trafficable threshold of 2 pure grams can translate into substantially higher 'total weight'. For example, 2 grams of pure cocaine in Qld is equivalent to 10.5 grams of mixed cocaine in current market conditions.

Table 1: **Trafficable threshold quantities (in grams) in Australia by drug type, system (purity or mixed based), and jurisdiction**

	Heroin	Meth/amph	Cocaine	MDMA[1]	Cannabis (leaf)
Purity based system					
• ACT	2	2	2	0.5	300[2]
• Qld	2	2	2	2	500
Mixed based system					
• NT	2	2	2	0.5	50
• NSW	3	3	3	0.75	300
• SA	2	2	2	2	250
• Tas	25	25	25	10	1000
• Vic	3	3	3	3	250
• WA[3]	2	2	2	2	100

[1]MDMA (3,4-methylenedioxy-N-methylamphetamine) is often referred to as 'ecstasy'.
[2]Purity not taken into consideration.
[3]Refers to threshold for = 'sell or supply.'

One peculiarity of the Australian drug trafficking laws is that threshold quantities are attached to 'deemed supply' laws which reverse the traditional burden of proof. As noted in the Victorian Charge Book it is of central importance to the Australian criminal justice system that prosecutors be required to prove guilt, rather than that defendants prove their innocence:

> Except for limited statutory exceptions, in criminal trials the onus of proving the accused's guilt always lies on the prosecution. Accused people do not need to prove their innocence (*Woolmington v DPP* [1935] AC 462; *He Kaw Teh v R* (1985) 157 CLR 523; *Chugg v Pacific Dunlop Ltd* (1990) 170 CLR 249) (Judicial College of Victoria, 2012a, Sect 1.7.1 (5)).

[2] Statutory maximum penalties for drug trafficking are 25 years imprisonment in WA and Qld and 21 years in Tasmania.

Accordingly, this is observed in almost all criminal cases including murder, robbery, dangerous driving and other such serious offences. However, under 'deemed supply' laws any drug offender who carries or possesses amounts equal to or exceeding the trafficable threshold (either on their person or at their place of residence) will be deemed to have drugs for the purposes of supply. For example as noted in Victoria:

> Where a person has in their possession not less than a "traffickable quantity" of a drug of dependence, the fact of possession provides *prima facie* evidence of trafficking (Drugs, Poisons and Controlled Substances Act 1981 (Vic), Section 73(2)).

This places the burden on the defendant to prove the absence of intent to supply. The relevant sections of the Acts pertaining to deemed supply for each jurisdiction are outlined in Appendix A.

The reversal of the traditional principles has been intentional. This is clear from discussions in the Model Criminal Code on Serious Drug Offences who note the perceived necessity of such powers for effective enforcement and prosecution of Australian drug traffickers:

> Compromises which weaken or abandon the principle that individuals are innocent until proved guilty require compelling justification when the consequences of conviction are severely punitive, as they are in the trafficking offences. In the discussion paper which preceded this report, a majority of the Committee recommended against inclusion of trafficable quantity presumptions in the serious drug offences.... On publication of the discussion paper, prosecutorial authorities and police were virtually unanimous in their protests that the presumptions *were essential to law enforcement*. Reconsideration of the issue, in the light of these representations, persuaded the Committee to the view that reliance on the trafficable quantity presumption was an unavoidable element in effective law enforcement (MCCOC, 1998b, p. 81 emphasis added).

Such rationales remain apparent today, in arguments for example by the Victorian Attorney General of the "widespread suffering caused by the social evil of drug trafficking", the "particular difficulties" for prosecutors in "investigating and proving knowledge" and the ensuing demands to provide "prosecutorial assistance" in responding to such offences (R v Momcilovic (2010) VSCA 50). The consequence is that such provisions are unique relative to most other serious crimes in Australia and also other drug trafficking threshold systems across the world, where deemed supply laws are explicitly avoided (Harris, 2011a; Hughes, 2003; Walsh, 2008).

The implications for anyone who possesses a trafficable threshold quantity or greater are made clear by comparing the potential penalty ranges for a simple possession and a trafficking offence (involving a trafficable quantity). As shown in Table 2 someone charged for possession is liable to a maximum penalty of 2 years imprisonment, compared to 10-14 years for a basic drug trafficking offence. Data on actual sentences is more limited, but for Victoria specifically, 93.4% of all offenders sentenced for possession of an illicit drug between 2004-05 and 2007-08 received a non-custodial sanction, most notably a fine (59.1%) or an adjourned undertaking (25.2%) (Woodhouse, 2009a). Less than one in twenty people received a custodial sentence (3.4%). Conversely, of those sentenced for trafficking in a non-commercial quantity 59.0% of those in higher courts (Byles, 2010) and 21.6% of those in the lower courts (Woodhouse, 2009b) received an immediate custodial sanction.

Table 2: Maximum penalties for drug offences in Australia, by offence type and jurisdiction

Jurisdiction	Act	Possession		Trafficking (trafficable quantity)	
		Cannabis	Other illicit drug	Cannabis	Other illicit drug
ACT	Drugs of Dependence Act 1989 Criminal Code 2002	Civil penalty notice of $100 or 1 PU	2 yrs prison and/or 50 PU	3 yrs prison and/or 300 PU	10 yrs prison and/or 1,000 PU
NSW	Drug Misuse and Trafficking Act 1985 No 226	2 yrs prison and/or 20 PU	2 yrs prison and/or 20 PU	2 yrs prison and/or 100 PU (S) 10 yrs prison and/or 2000 PU (I)	15 yrs prison
NT	Misuse of Drugs Act 2006	Civil penalty notice of 1.7 PU	2 yrs prison and/or 40 PU (E or M) 5 yrs prison and/or 85 PU (H or C)	5 yrs imprisonment and/or 85 PU	5 yrs imprisonment and/or 85 PU (E or M) 15 yrs prison (H or C)
Qld	Drugs Misuse Act 1986	3 yrs prison (S) 15 yrs prison (I)	3 yrs prison (S) 15 yrs prison (I)	20 yrs prison	25 yrs prison
SA	Controlled Substances Act 1984	$150-300 civil penalty notice or $500 fine	2 yrs prison and/or $2,000	10 yrs prison and/or $50,000 (basic) 15 yrs prison and/or $75,000 (aggravated)	10 yrs prison and/or $50,000 (basic) 15 yrs prison and/or $75,000 (aggravated)
Tas	Misuse of Drugs Act 2001	2 yrs prison and/or 50 PU	2 yrs prison and/or 50 PU	4 yrs prison and/or 100 PU (S) 21 yrs prison (I)	4 yrs prison and/or 100 PU (S) 21 yrs prison (I)
Vic	Drugs, Poisons and Controlled Substances Act 1981	5 PU	1 yr prison and/or 30 PU	15 yrs prison	15 yrs prison
WA	Misuse of Drugs Act 1981	2 yrs prison and/or $2,000	2 yrs prison and/or $2,000	4 yrs prison and/or $5,000 (S) 10 yrs prison and/or $20,000 (I)	25 yrs prison and/or $100,000

PU: Penalty units (PU) are used in many states to calculate the amount of a fine. In 2012 1 PU=$110 (NSW, Qld, ACT), $120 (Tas), $140.84 (Vic) & $141 (NT). S and I: Summary or Indictable Offence. Drug offences in some jurisdictions have the option to be dealt with summarily (in the lower courts and without a jury).

Table 3 outlines the aggravating and mitigating factors identified as specific for sentencing individuals for drug trafficking offences.[3] Of note is that there are few if any mitigating factors in most jurisdictions. In particular there is no reference to the absence of a criminal history and being a young offender, both of which are common mitigating factors for other criminal offences. As noted in the NSW Sentencing Bench Book (Judicial Commission of New South Wales, 2012) and Victorian Sentencing Manual (Judicial College of Victoria, 2012b) this is intentional to circumvent drug trafficking organisations deliberate use of young and criminally naive people in efforts to avoid punitive sanction.

[3] In each jurisdiction sentencing laws also prescribe aggravating and mitigating circumstances of general application, which apply to all offences, including drug offences. The circumstances outlined here are those of particular note for drug offences.

Table 3: Aggravating and mitigating circumstances that are specific to drug trafficking

Jurisdiction	Act and sentencing guidelines	Aggravating	Mitigating
ACT	Criminal Code 2002 (ACT)	If offence involved supply to a minor	
NSW	Drug Misuse and Trafficking Act 1985 No 226 (NSW) NSW Sentencing Bench Book (NSW)	Drug Misuse & Trafficking Act: • If involved trafficking to children (people aged under 16) Bench book: • Evidence of trafficking for profit/greed • Major/pivotal role in operation • Evidence of high degree of planning e.g. concealment • Trafficking on multiple occasions/ongoing supply • Exceptional disregard for public safety (only if goes above & beyond normal disregard implicit in all trafficking offences) e.g. trafficking in very high purity drugs	Bench book: • Duress • Vulnerability of offender
NT	Misuse of Drugs Act (NT)	If offence was committed in: • a drug premise • a licensed premises • a school, playground, youth centre, video facility or public swimming pool. If the offender was a: • police or prison officer. • repeat offender (against the Misuse of Drugs Act)	
Qld	Drugs Misuse Act 1986 (Qld) Supreme and District Court Bench Book (Qld)	If offence involved supply to: • a minor • an intellectually impaired person • someone within an educational institution • someone within a correctional facility • someone unaware they are being supplied with a drug.	
SA	Controlled Substances Act 1984 (SA)	Trafficking for or in association with a criminal organisation Trafficking in a licensed premise or area where many people congregate for purpose of public entertainment	
Tas	Misuse of Drugs Act 2001 (Tas)	None identifiable.	
Victoria	Drugs, Poisons and Controlled Substances Act 1981 (Vic) Victorian Sentencing Manual (Vic) Victorian Charge Book (Vic)	Drugs, Poisons and Controlled Substances Act 1981: • Trafficking to a child Vic Sentencing Manual: • Greed/ evidence of trafficking for profit • Sizeable operation • Major/pivotal role in operation • Evidence of high degree of planning e.g. concealing drug, having a legal business front, corrupt officials etc. • Extensive history of drug trafficking • Breach of trust e.g. trafficking by a police officer	Vic Sentencing Manual • Dependence (generally)
Western Australia	Misuse of Drugs Act 1981 (WA)	• Trafficking to a child under 16 years of age • An offence that caused bodily harm	

Conversely, looking at aggravating factors specifically, there are some instances where clear intent of trafficking – profit or greed – will be deemed as aggravating circumstances (Judicial College of Victoria, 2012a; Judicial Commission of New South Wales, 2012). It is otherwise presumed that the underlying motive for all drug trafficking offences will be 'commercial' benefit.

Also of note is that the identity of the specific drug is neither a mitigating nor aggravating factor for anyone possessing a trafficable quantity. While historically some magistrates and judges treated heroin more severely, the courts are clear that "since *R v Nai Poon* (2003) 56 NSWLR 284 there is no longer any judicially constructed

gradation of penalties based on the perceived harm caused by different types of drugs" (Judicial Commission of New South Wales, 2012). The only factor of relevance is the statutory penalty: which as noted above is the same for all illicit drugs excepting cannabis. Accordingly, anyone who exceeds the trafficable threshold for an offence involving heroin, methamphetamine, cocaine or MDMA is liable to an equivalent level of sanction.

All such factors reinforce the seriousness with which the legislators and courts view drug trafficking, and the implicit erosion of many of the standard criminal justice principles such that there is greater assurance that drug traffickers receive serious sanction and that general deterrence will be emphasised. This can have very serious implications particularly for those who exceed the trafficable threshold for personal use alone.

POLICY CONTEXT: THRESHOLDS

In Australia's federal system, where drug legislation is made by the federal, state and territory governments, each of the states and territories have devised their own sets of drug trafficking thresholds. The rationales for specific thresholds have been poorly known, but suggest limited attention to 'evidence' in their design (for history on Victorian thresholds specifically see Smolich, 2012). Perhaps unsurprisingly, there has been considerable variability in their design. Recognition in 1986 of the lack of uniformity led to specification of the Australian Model Criminal Code (MCC) of serious drug offences (MCCOC, 1998b, p. ii). It was argued that quantities *should* be the same in every jurisdiction to avoid gaps in the law which might encourage inter-state trade, and to avoid the appearance of injustice, and hence put out at a single set of thresholds for all states and territories in Australia to adopt (outlined in Table 4 for the five main illicit drugs consumed in Australia). There has been an increasing push for all states and territories to adopt the proposed threshold quantities (Attorneys-Generals Department, 2011; Ministerial Council on Drug Strategy, 2007, 16 May).

Table 4: Proposed Model Criminal Code threshold quantities (grams), by drug and category

Drug	Trafficable quantity	Commercial quantity	Large commercial quantity
Heroin	2	200	1,000
Meth/amphetamine	2	500	1,000
Cocaine	2	200	1,000
MDMA	2	500	1,000
Cannabis	250	2,500	12,500

The proposed threshold quantities were said at the time to reflect the commercial realities, including informed estimates from police and other officials with knowledge of current practice among illicit traffickers (MCCOC, 1998b, p. 111). Yet, no explicit details were provided, nor have the threshold quantities been revisited or reassessed. The irony is that the need for careful design, and potential re-evaluation and reform of Australian drug trafficking thresholds was recognised in 1998 at the time of a proposed Australian Model Criminal Code for serious drug offences:

> Unrealistic specifications, which fail to reflect the realities of the illicit market, confuse serious commercial offences with minor dealing. There are consequential risks of unnecessarily draconian punishment for minor figures, whilst major players escape with undeservedly light sentences (MCCOC, 1998, p. 19 and 20).

The Model Criminal Code Officers Committee (1998, p. 87) particularly noted the need for careful design of the *trafficable* threshold, the threshold that distinguishes those sanctioned for an offence of possession versus drug trafficking: "an unjustified conviction for dealing will often impose social and individual harms which far exceed the harm

associated with use of the drug in question". Yet, the necessity of and methods for ensuring careful design have been all but ignored.

In more recent times there has been renewed attention to the inconsistency of Australian drug trafficking schedules and threshold quantities. Concerns that this may reduce the capacity to respond effectively to drug trafficking have led to increased pressure for jurisdictions to maintain and harmonise their thresholds (Attorneys-Generals Department, 2011; Ministerial Council on Drug Strategy, 2007, 16 May) in line with quantities outlined in the 1998 Australian Model Criminal Code for serious drug offences (MCCOC, 1998). Yet, a rational basis for whether these ought to be adopted, that is whether they will serve jurisdictions to respond to drug trafficking has been ignored. Moreover, given the proposed threshold quantities are lower than currently used in many jurisdictions there is a real need to refocus policy and legislative reform debates on whether current or proposed drug trafficking thresholds are fit for purpose. It is only by doing so that potential harms in threshold systems beyond the ACT can be unmasked and evidence-informed law reform proposals devised.

To our knowledge, this is the first attempt to apply an evidence-based approach to assessing the set of Australian threshold quantities. The hope is that by using evidence related to drug user behaviour, drug markets and the social cost associated with drug use we can contribute towards prosecution and sentencing of Australian drug offenders that is proportionate, equitable and just.

METHODOLOGY

This project replicated the approach of Hughes and Ritter (in press) to evaluate the drug trafficable thresholds in the six Australian states: NSW, Victoria, Queensland, South Australia, Tasmania and Western Australia against drug user behaviour and knowledge of Australian drug markets. The Australian Capital Territory and the Northern Territory were excluded from this analysis for two reasons; the prior analysis of the ACT (Hughes & Ritter, in press) and lack of adequate data on illicit drug use and purchasing for NT. The lack of adequate data on the Northern Territory was in large part a reflection of drug use patterns; licit substances such as alcohol and petrol are the predominant drugs of choice and prevalence of illicit substance use is low (Taskforce on Illicit Drugs, 2001).

Consistent with the earlier study, analysis was confined to examining the thresholds for heroin, methamphetamine, cocaine, MDMA (also known as ecstasy) and cannabis leaf. The specific quantities of each are listed in Table 1. These constitute the most commonly used illicit drugs in Australia (Australian Institute of Health and Welfare, 2011), and are also the drugs for which there is most research evidence to draw upon.

For each state five metrics of the capacity of a quantitative drug trafficking threshold to facilitate proportional sanctioning of drug offenders were applied.

Metrics of the quantity of drug a user is likely to carry for personal use alone:

- Metric 1: User patterns of typical use i.e. quantity of drugs that a user is likely to possess for a single session of personal use.
- Metric 2: User patterns of typical purchasing i.e. quantity of drugs that a user is likely to purchase for personal use.

Metrics of the seriousness of a drug trafficking offence:

- Metric 3: Retail value i.e. potential value of drugs at the retail market.
- Metric 4: Harm i.e. amount of harm that could result to drug users and the community from trafficking in a particular drug.
- Metric 5: Social cost i.e. annual cost of healthcare and criminality from each gram of drug that is trafficked.

Data for each of the five metrics were derived from an array of sources, using the best available data on drug markets. Given known differences in drug market conditions, state specific data where used wherever possible. Moreover, to increase the validity of the derived estimates, a number of adjustments were made, for example in Metric 2 specifically excluding data from users who were known to be user-dealers. Thresholds were then evaluated by drug and state. Specific details are outlined below.

Evaluating the trafficable threshold quantity against metrics of the quantity of drug a user is likely to carry for personal use alone

The ability of the trafficable thresholds to successfully filter out drug users from drug traffickers (that is the reasonableness by which all who exceed the trafficable threshold will be traffickers) was examined using two metrics of the quantity of drug a user is likely to possess for personal use alone: typical user patterns of consumption (Metric 1) and typical user patterns of purchasing (Metric 2).

Data for patterns of consumption (Metric 1) were derived from three different national drug monitoring systems: the Illicit Drug Reporting System (IDRS), the Ecstasy and Related Drugs Reporting System (EDRS) and the National Drug Strategy Household Survey (NDSHS) (see Appendix B for details on each). The IDRS and EDRS are national monitoring systems that survey *regular* (at least monthly) drug users on an annual basis. They have been designed to target different populations – regular *injecting* users, predominantly heroin (IDRS) and regular *ecstasy* users (EDRS). These surveys provide data on patterns of drug use, purchasing behaviour, typical street prices and a number of other user and market characteristics. In 2011 a total of 868 users participated in

IDRS (Stafford & Burns, 2012) and 693 in the EDRS (Sindicich & Burns, 2012). For Metric 1 data were sourced from the 2011 IDRS and EDRS on two key variables; 'average session' and 'heavy session' over the 6 months prior to interview. For the 'average' (or typical) session, participants were asked, by drug type, "What is the average amount you have used in a session in the last six months?" A session is defined as a continuous period of drug use without sleep, and is a more pertinent time period than a day as some drugs can be used for a number of days continuously. For the 'heavy' session, participants were asked "What is the amount you have used in a heavy session in the last six months?"

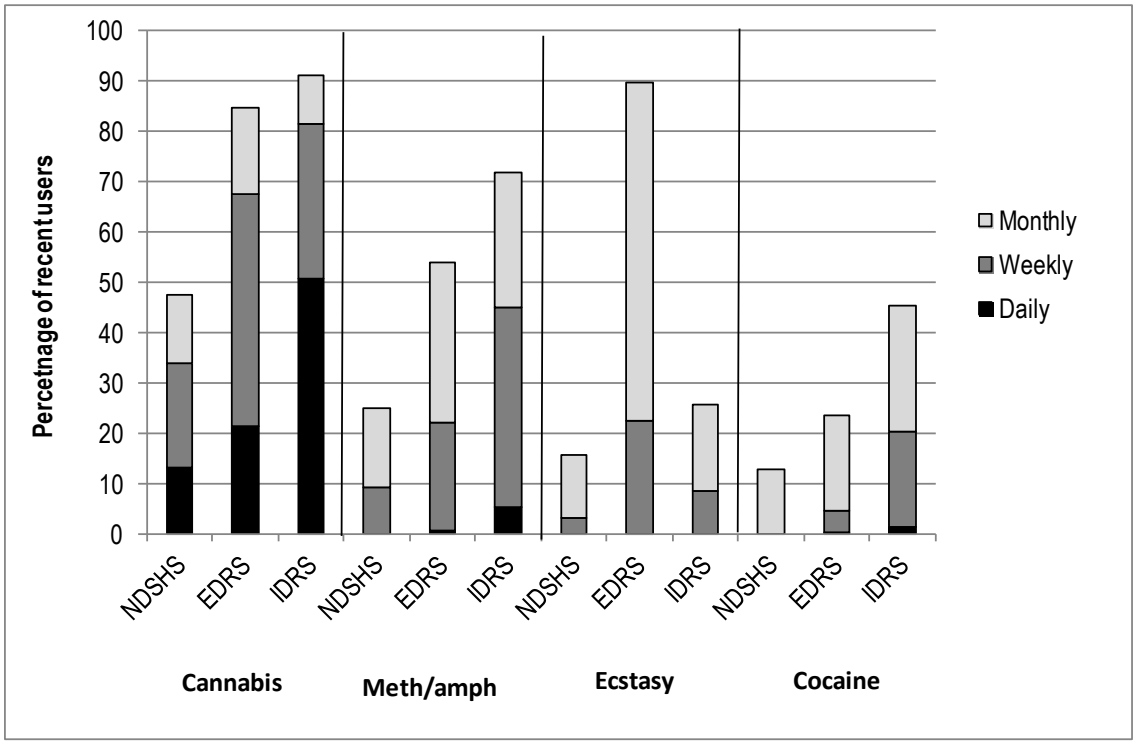
There are limitations to the IDRS and EDRS. Of relevance here, users of cocaine are less readily picked up (Degenhardt & Dietze, 2005). The surveys also omit users who consume substances less frequently. Accordingly, data on quantity of drug consumed was also derived from the National Drug Strategy Household Survey (NDSHS). The NDSHS is a representative sample of the general Australian population that is conducted every 4 years. In 2010 more than 26,000 people from all Australian jurisdictions aged 12 and over were sampled. For Metric 1 data from the 2010 NDSHS was sourced for recent users specifically (n=3523 people who had used at least one illicit drug in the last 12 months) on one variable, namely quantity consumed during a typical session. Quantity consumed during a heavy session is not assessed.

The differences between the samples are important for interpreting the results from Metric 1. Hence the key demographic and drug use features of each data source are shown in Table 5 and Figure 1. Notably, in terms of demographics, relative to the EDRS and NDSHS, the IDRS had much higher levels of unemployment and current drug treatment access (see Table 5). Rates of drug use also differed between the surveys, with more recent engagement in illicit drug use (albeit of different drug types) amongst the IDRS and EDRS than the NDSHS. Frequency of drug use is also substantially higher in the IDRS and EDRS than NDSHS (Figure 1). The rates and frequency of drug use is consistent with the sampling methods for these surveys – which perforce sample only regular drug users, rather than the general population.

Table 5: Demographics and drug use patterns of IDRS, EDRS and NDSHS samples (at national level)

	IDRS 2011 (n=868)	**EDRS 2011** (n=693)	**NDSHS 2010** (n=3523)
Demographics			
Age (mean)	38 years (17-65)	24 years (16-57)	38 years (12-98)
Gender	66% male	69% male	57% male
% unemployed	79%	22%	7.8%
% in drug treatment	49%	5%	-
Drug use			
Recent drug use			
Any illicit drug	100%	100%	14.7%
Cannabis	79%	85%	10.3%
Methamphetamine	66%	60%	2.1%
Cocaine	17%	46%	2.1%
Ecstasy	14%	100%	3.0%
Heroin	62%	7%	0.2%

Figure 1: Frequency of drug use amongst recent users, showing proportion that engage in daily, weekly or monthly use, by drug and survey



One difference between the surveys is that the IDRS and EDRS distinguish between different forms of methamphetamine. The NDSHS in contrast only asks about 'methamphetamine'. Given research that suggests that the different forms of methamphetamine are used in different ways (McKetin, McLaren, & Kelly, 2005b) we have opted to differentiate the two most common forms ('powder/speed' and 'crystal/ice') in our use of the IDRS and EDRS data. 'Speed' is the powder form of methamphetamine which is commonly used by swallowing, snorting or injecting. 'Ice' is crystalline methamphetamine, which lends itself more towards smoking.

For all surveys one challenge was that the quantity that users reported consuming was predominantly in terms of drug dosage units e.g. a cap or a pill, rather than in grams. For example 58% of the 2011 EDRS reported ecstasy/MDMA use in terms of number of pills. We were required to convert these dosage units into grams in order to assess the threshold quantities (which are all expressed in grams).

Reliable data on the typical weight in grams of dosage units is not readily available. We examined the common gram estimates for dosage units as reported by the Australian Illicit Drug Data Report (Australian Crime Commission, 2012), Shearer et al. (2005), Fowler et al. (2007), McKetin et al. (2005a), Moore et al. (2005), Maher and Dixon (1999), Norberg et al. (2012) and Mackenzie et al. (2010). These were then supplemented with more detailed analysis of Victorian police forensic data[4] on the weight of seizures for the most common units: a pill of ecstasy/MDMA, a point of methamphetamine crystal and powder and a cap of heroin (see Appendix C for full details). This resulted in a determination of the grams for each dosage unit, as listed in Table 6. One cap of heroin was set at 0.1 gram, a commonly used estimate. One ecstasy pill was set at 0.29 grams, also a commonly used estimate. One point of methamphetamine speed was set at 0.3 grams, and one point of methamphetamine ice was set at 0.2 grams. These conversions were used for Metrics 1 and 2. Clearly these

[4] Victoria is the only jurisdiction in Australia where all illicit drug seizures are subject to analysis and the Victorian Police Forensic Services Centre has been collating the data since 1998.

conversions matter and influence the final determination of the typical consumption and typical purchasing estimates. Future research determining the dosage conversion to grams would be valuable.

Table 6: Drug dosage units by drug type, converted to grams

Drug type	Drug dosage unit	Grams
Heroin	cap	0.10g [1]
	point	0.10g [1]
Methamphetamine ice	point	0.20g [2]
Methamphetamine speed	point	0.30g [2]
Cocaine	line	0.10g [3]
Ecstasy/MDMA	pill	0.29g [4]
Cannabis	cone	0.09g [5]
	joint	0.34g [5]

[1] IDDR (Australian Crime Commission, 2012) and Victoria Police Forensic data - see Appendix C.
[2] Victoria Police Forensic data - see Appendix C.
[3] IDDR (Australian Crime Commission, 2012); Bleeker et al. (2009).
[4] IDDR (Australian Crime Commission, 2012); Fowler et al. (2007); and Victoria Police Forensic data - see Appendix C.
[5] Norberg et al. (2012) and Mackenzie et al. (2010).

To calculate Metric 1 raw data on all three samples (IDRS, EDRS and NDSHS) was used. For each survey data on 'quantity consumed' was extracted, dosage conversions applied and the mean, median and range calculated by state and by drug type. The upper quantities were checked with a number of key experts (n=6) to verify if they were within the maximum range that could be consumed in a single continuous session of use without sleep. Those quantities deemed implausible were removed e.g. reported consumption of 20 grams of heroin which would be toxic. The final quantities were then compared against the actual trafficable thresholds to identify for each drug and state two things: first, whether most users consume less than the threshold quantity (using median and mean estimates); and two, whether there is risk to *any* users of an unjustified charge/conviction i.e. whether they possessed more than the trafficable threshold for personal use alone. To enable ease of comparison against the applicable threshold quantity the maximum in one session/purchase has been specifically highlighted. The final data are thus reported as Typical use: mean, median, range, maximum in one session; and Heavy use: mean, median, range, maximum in one session.

Metric 2, purchasing patterns, followed similarly: data from the IDRS and EDRS were used, dosage conversion applied and a mean, median, range and maximum quantity obtained. Data were extracted on the key variable of last purchase amount, by state and drug type. Data on purchasing was unavailable from the NDSHS. Participants were asked, by drug type, how much they had paid for their *last purchase* over the 6 months prior to interview. Given the data reported were limited to last purchase, there was no typical and heavy purchase. This leads to a potential under-estimation of the maximum amount that may be purchased by users for personal use alone, particularly when compared against Metric 1.

One challenge with Metric 2 was providing surety that purchases were actually intended for personal use, rather than for trafficking by 'user-dealers'. Leaving 'user dealers' in the sample could potentially lead to identification of maximum quantities that were derived from traffickers, rather than users alone. In order to address this potential bias the variable of 'any dealing for cash profit in the last month' was used to exclude those from Metric 2 samples who reported dealing. This led to the subsequent removal of 27% (n=237) of the national IDRS sample (n=868) and 28% (n=160) of the national EDRS sample (n=574), including some very large purchases. One limitation is that individuals who share drugs with friends would not be removed from this sample, even though this would be regarded by the law as 'trafficking'. Sharing is more common amongst some

sub-sets of users, particularly ecstasy users (Nicholas, 2008). Nevertheless, given drug trafficking thresholds are aimed principally at the commercial element, this provides increased certainty that those who would be most expected to purchase large quantities have been removed from the sample.

Evaluating the trafficable threshold quantities against metrics of the seriousness of a drug trafficking offence

Metrics 3, 4 and 5 endeavour to assess "seriousness" through three different means: retail value (Metric 3), harmfulness of the drug (Metric 4) and social cost (Metric 5). Each are different ways of considering the actual/potential seriousness of a drug trafficking offence to the Australian community. As per the Model Criminal Code the underlying assumption is that drugs that create more harm or generate greater illicit income, should be treated in a more serious manner by the law – ie have lower thresholds for trafficking, than drugs which create less harm or generate lower illicit income.

Data on retail value (Metric 3), by drug type, were derived from the 2010-11 Australian Illicit Drug Data Report (IDDR) (Australian Crime Commission, 2012). The IDDR is an annual report that collates estimates of price (sourced from police covert operations and police informants), purity, arrests and seizures from Commonwealth, state and territory police agencies and forensic laboratories. Data on price were reported for different drug types, forms, and quantities. Data reported herein used gram prices for heroin, methamphetamine, cocaine and MDMA, and ounce prices for cannabis (based on the more common means of sale: in quantities involving 28 grams). Estimates were calculated using street price. While it is acknowledged that potential revenue for traffickers will be reduced through sale in larger quantity and may differ between drug types, the lack of certainty surrounding the extent of quantity discounting and 'profit' from trafficking, means that retail value provides a more conservative and reliable estimate that can be computed across drug types.

To compute the analysis we undertook a number of analyses. First, we examined raw data on the median retail price per gram/ounce for each drug to see the relative price of different controlled drugs across different states. Then for each drug (and in each state) we multiplied the median retail price by the applicable threshold quantity to establish the median retail value of a 'trafficable threshold quantity of each drug.' Finally, we determined within each state the relative difference in the median retail value of a trafficable threshold quantity of heroin, cocaine, methamphetamine, MDMA and cannabis. To do this the drug with the lowest median value of a traffickable quantity was identified and median value of a trafficable quantity of all other drugs was divided by that. The relative difference in threshold quantities was then compared across states to identify the states with the most and least proportionate responses.

Data on harm (Metric 4), by drug type, were based on expert assessment of the harmfulness of different illicit drugs by the United Kingdom Independent Scientific Committee on Drugs (Nutt, King, & Phillips, 2010). The Nutt et al. (2010) harm metric encompasses 16 different types of harms, 9 to individuals and 7 to society. Harms to individuals included drug specific and drug-related mortality, drug specific and drug-related damage to physical health (such as blood borne virus and liver cirrhosis), dependence, drug specific and drug-related impairment of mental functioning, loss of tangibles (such as income or housing) and loss of relationships. Harms to society included injury (such as increased risk of domestic violence or traffic accident), crime, environmental damage, family adversities (such as family breakdown and child neglect), international damage (such as destabilisation of countries and new markets), economic cost (such as direct costs to health care, prisons and indirect costs through loss of productivity) and community (such as a decline in social cohesion). The assessments were conducted using multi criteria decision analysis. Nutt et al (2010) ranked the likelihood of harm against each of the 16 criteria on a purpose built scale from 0 to 100 for each drug. Harms were then weighted to take into account the relative importance of

each harm for society resulting in a final harm score for each drug, in rank order (see Nutt et al., 2010 for the details). We took the score (out of 100) for the five drugs under consideration here – heroin, methamphetamine, cocaine, ecstasy and cannabis – and used that to examine the potential harm from each drug, the 'harm from a trafficable quantity of each drug' in each state, and the relative difference in the harm (by state).

Data on social cost (Metric 5), by drug type, were derived from the estimates of Moore (2007) of the three major types of social costs from illicit drug use that have been quantified in Australia per gram of drug consumed. The three types of social costs included by Moore (2007) were: health costs = dependence, low birth weight, infectious diseases such as HIV/AIDS; crime costs = property and violent crime e.g. burglary, robbery, theft, fraud, assault, criminal damage and sexual assault attributable to drugs; and road accident costs. The estimates constitute annual costs and were calculated based on best available data in 2003 (Moore, 2007). Moore (2007) excluded other social costs, for example impairment of mental health, family breakdown, community decline and loss of productivity due to the absence of available data on economic impact. Moore (2007) reports a social cost per gram of four of the drugs covered in this report – heroin, methamphetamine, cocaine and cannabis. We used his unaltered social cost per gram as the metric to compare drugs. Because Moore (2007) reported the figures for Australia as a whole, there are no state-based adjustments to the social costs (unlike retail price). Similar analyses were repeated (as for metrics 3 and 4).

Estimating the 'mixed' quantity of a trafficable threshold in Queensland

Queensland is the only jurisdiction in this sample to adopt a purity-based system: where the threshold quantity is based on pure drug only, not the simple weight as is, but the weight excluding the impure, filler material. This required us to convert the Queensland threshold quantities into 'impure' or mixed weights, consistent with our data analysis approach (all the data we have for the metrics concerns mixed or impure quantities). Purity data were used to estimate the equivalent quantity of drug that is likely to appear on the street (mixed drug). Median, minimum and maximum purities were obtained from Illicit Drug Data Report 2010-11 data for all seizures in Queensland $\leq$2 grams (Australian Crime Commission, 2012) and derived threshold quantities are listed in Appendix D.

Methodological limitations

Sample sizes for a number of estimates were small. We have noted any less than 10. Caution should be taken in interpreting these, as they may over or under-estimate the actual values. One particular point to note is that while the NDSHS has a very sizable sample (n=3523), across all jurisdictions there were only small numbers able to report on quantities of heroin consumed (n=1-12 in each state). Accordingly, estimates of heroin consumption from the NDSHS were excluded. For the seriousness analyses we did not have state specific estimates for all metrics: namely for harm (Metric 4) or social costs (Metric 5). We also had no social cost data for ecstasy. Throughout the report we have assessed the threshold quantities for cannabis leaf only, not cannabis plants. This is because there was no data to inform on cannabis plants specifically. There are also ad hoc gaps in, for example, retail price for some drug types. Finally, a number of the Metrics of 'seriousness' are more controversial. The most controversial is Nutt et al. (2010). For example, Rolles and Measham (2011) have criticised the Nutt et al. (2010) harm rankings for failing to disaggregate harms related to drug use from those related to drug policy. Nevertheless, these are the best and most comprehensive data sources for assessing whether the proposed threshold quantities reflect the evidence-base on the relative seriousness of different drug trafficking offences.

RESULTS

The results are complex, given that we have five different metrics to consider across five different drug classes across six jurisdictions. We consider Metrics 1 and 2 together (in Part 1 of the Results) and report on these firstly by drug type (heroin, methamphetamine, cocaine, MDMA and cannabis), then by state (NSW, Victoria, Queensland, South Australia, Western Australia, Tasmania) across all drug classes. In Part 2, we consider the seriousness and impact metrics (3, 4 and 5).

Part 1: Likelihood of Australian illicit drug users exceeding the trafficable threshold for possession for personal use alone

In this section we draw on Metrics 1 and 2 and data from the IDRS, EDRS and NDSHS to examine how each of the five illicit drugs under examination is typically used and purchased by Australian illicit drug users; and the maximum quantity of each drug type that a user might reasonably be expected to possess for personal use alone. These then allow examination of the likelihood of users exceeding the current trafficable threshold quantities for personal use alone. We commence by examining use and purchases for each drug specifically, then across a state as a whole. For all subsequent data the following key is used:

Key	
Under trafficable threshold	
Even with the trafficable threshold	
Over the trafficable threshold	

By drug type

Heroin

Table 7 gives the results for heroin – the mean, median, range and maximum for a typical session of use; followed by the mean, median, range and maximum for a heavy session of use. The final column in Table 7 is the threshold quantity for that state. As can be seen, typical consumption patterns, whether assessed by mean or median or range all fall within the threshold quantities. Using the more stringent measure of a heavy session, it can also be seen that average (mean, median, range) heavy use patterns also fall below the threshold quantities. Heroin usage patterns can however be equal to or above the threshold quantities when the measure of consumption is the maximum heavy session (see Table 7). This occurs in three states – NSW, Victoria and WA (with heroin users in NSW consuming up to double the current threshold).

Table 7: Quantity of heroin (grams) used in a typical and heavy session, by state (IDRS data)

Jurisdiction	Typical Use			Max typical session	Heavy Use			Max heavy session	Trafficable Threshold
	Mean	*Median*	*Range*		*Mean*	*Median*	*Range*		
IDRS									
NSW (n=115)	0.33	0.20	0.05-3.0	**3.0**	0.89	0.50	0.05-6.0	**6.0**	3.0
Vic (n=80)	0.44	0.30	0.3-2.0	**2.0**	1.03	0.50	0.3-4.0	**4.0**	3.0
Qld (n=42)	1.45	0.25	0.05-1.2	**1.2**	0.85	0.50	0.1-6.0	**6.0**	10.8
SA (n=38)	0.28	0.23	0.03-1.5	**1.5**	0.54	0.50	0.05-1.5	**1.5**	2.0
WA (n=51)	0.25	0.20	0.05-1.0	**1.0**	0.43	0.25	0.05-2.0	**2.0**	2.0
Tas (n=13)	0.53	0.25	0.1-1.50	**1.5**	2.06	1.0	0.2-5.0	**5.0**	25.0

Due to a very small sample sizes (n≤14 for all states) NDSHS results have been omitted for heroin specifically.

Turning to purchasing patterns, Table 8 provides the data on the heroin purchasing patterns of heroin, across states as compared to threshold quantities for those states. As shown in Table 8, neither the mean nor median exceed the thresholds, however for two states (NSW and Vic) the maximum purchased exceeds the threshold (up to 1.16 times

the current threshold when measured as the maximum reported purchased). Metrics 1 and 2 thus indicate that most heroin users will have no chance of exceeding the thresholds for personal use alone, but heroin users in two states could exceed the trafficable thresholds by virtue of their consumption or purchasing behaviour.

Table 8: Quantity of heroin (grams) purchased, by state (IDRS data)

Jurisdiction				Max purchase	Trafficable Threshold
	Mean	*Median*	*Range*		
IDRS					
NSW(n=85)	0.44	0.2	0.1-3.5	**3.5**	3.0
Vic (n=72)	1.1	0.5	0.1-3.5	**3.5**	3.0
Qld (n=41)	0.99	0.5	0.1-3.5	**3.5**	10.8
SA (n=28)	0.42	0.5	0.1-1.0	**1.0**	2.0
WA (n=35)	0.36	0.25	0.05-1.0	**1.0**	2.0
Tas (n=4)	0.65#	0.75#	0.1-1.0#	**1.0#**	25.0

Low numbers reporting (<10 responses).

Methamphetamine

Table 9 shows the results for methamphetamine by typical and heavy consumption patterns across the three datasets (IDRS, EDRS and NDSHS). As measured in terms of mean and median, there are no instances where typical consumption exceeds the thresholds.

Using the more stringent measure namely the maximum in a typical session then there are eight instances across different forms and surveys where typical consumption can be equal to or exceed the trafficable threshold (see Table 9). This occurs for crystal methamphetamine in NSW if the IDRS data are used; and for crystal methamphetamine in SA if the EDRS data are used. It also occurs for powder methamphetamine in NSW if IDRS data are used and again in SA if EDRS data are used. If the general population survey is used the maximum typical session consumption exceeds the thresholds for NSW and SA (both 2.3 times the current threshold) and is equal to the threshold in two others (Vic and WA). Of note, is that the maximum reported in the NDSHS exceeds that reported in the regular using surveys for typical use. This suggests irregular methamphetamine users *may* be more at risk of exceeding the current thresholds than the regular methamphetamine using population.

If we examine the data for heavy use, again none of the mean or median measures of heavy use exceed threshold quantities for methamphetamine, irrespective of dataset (IDRS or EDRS: NDSHS data not available for heavy use) or state. If we use the measure of maximum heavy session, where consumption ranged from 2.0 to 9.6 grams for a heavy session, amounts exceeded threshold quantities in four states. This means that in a heavy session users in four states – NSW, Victoria, South Australia and Western Australia – can consume quantities that are 2, 2.3, 2.5 or 3.2 times the current thresholds.

Table 9: Quantity of methamphetamine (grams) used in a typical and heavy session, by form (crystal, powder), sample (IDRS, EDRS, NDSHS) and state

Form/ sample/ jurisdiction	Typical Use			Max typical session	Heavy Use			Max heavy session	Trafficable Threshold
	Mean	*Median*	*Range*		*Mean*	*Median*	*Range*		
Meth crystal									
IDRS									
NSW (n=63)	0.57	0.20	0.05-4.0	**4.0**	1.01	0.40	0.05-9.6	**9.6**	3.0
Vic (n=48)	0.15	0.10	0.05-0.5	**0.5**	0.44	0.20	0.05-3.5	**3.5**	3.0
Qld (n=39)	0.41	0.20	0.10-1.40	**1.4**	0.83	0.40	0.10-3.5	**3.5**	14.6
SA (n=41)	0.49	0.45	0.15-1.7	**1.7**	0.90	0.60	0.3-3.0	**3.0**	2.0
WA (n=23)	0.33	0.20	0.05-1.0	**1.0**	0.54	0.50	0.10-2.0	**2.0**	2.0
Tas (n=20)	0.92	0.50	0.2-5.0	**5.0**	1.21	0.6	0.2-5.0	**5.0**	25.0
EDRS									
NSW (n=18)	0.54	0.40	0.1-2.0	**2.0**	1.09	0.70	0.1-6.5	**6.5**	3.0
Vic (n=36)	0.47	0.40	0.04-2.0	**2.0**	0.80	0.60	0.08-3.4	**3.4**	3.0
Qld (n=28)	0.44	0.40	0.20-1.0	**1.0**	0.72	0.50	0.2-3.0	**3.0**	14.6
SA (n=28)	0.49	0.20	0.10-4.0	**4.0**	1.12	0.40	0.10-7.0	**7.0**	2.0
WA (n=12)	0.51	0.30	0.15-2.0	**2.0**	0.65	0.60	0.1-2.0	**2.0**	2.0
Tas (n=4)	1.54#	0.75#	0.2-4.5#	**4.5#**	1.53#	0.75#	0.2-4.5#	**4.5#**	25.0
Meth powder									
IDRS									
NSW (n=34)	0.61	0.30	0.1-4.8	**4.8**	1.07	0.60	0.1-6.5	**6.5**	3.0
Vic (n=52)	0.46	0.45	0.05-2.0	**2.0**	1.12	0.50	0.02-7.0	**7.0**	3.0
Qld (n=29)	0.66	0.50	0.15-2.10	**2.1**	1.11	0.75	0.3-3.5	**3.5**	14.6
SA (n=33)	0.54	0.30	0.10-1.65	**1.65**	1.05	0.68	0.2-6.0	**6.0**	2.0
WA (n=19)	0.48	0.30	0.15-1.2	**1.2**	0.69	0.55	0.15-4.0	**4.0**	2.0
Tas (n=66)	0.80	0.60	0.15-3.0	**3.0**	1.47	1.00	0.25-7.0	**7.0**	25.0
EDRS									
NSW (n=23)	0.63	0.50	0.2-1.50	**1.5**	1.38	0.55	0.25-6.0	**6.0**	3.0
Vic (n=67)	0.68	0.50	0.05-2.0	**2.0**	1.24	1.00	0.10-4.0	**4.0**	3.0
Qld (n=41)	0.68	0.50	0.20-2.0	**2.0**	1.06	0.75	0.2-3.0	**3.0**	14.6
SA (n=30)	0.75	0.50	0.08-3.0	**3.0**	1.46	1.00	0.08-5.0	**5.0**	2.0
WA (n=11)	0.51	0.50	0.1-1.2	**1.2**	0.93	1.00	0.20-2.0	**2.0**	2.0
Tas (n=30)	0.60	0.60	0.1-1.5	**1.5**	0.92	0.60	0.1-3.0	**3.0**	25.0
NDSHS – Meth any form									
NSW (n=89)	0.70	0.45	0.05-7.0	**7.0**					3.0
Vic (n=101)	0.68	0.45	0.05-3.0	**3.0**					3.0
Qld (n=71)	1.00	0.50	0.1-3.0	**3.0**					14.6
SA (n=43)	0.99	0.56	0.05-4.6	**4.6**					2.0
WA(n=63)	0.79	0.41	0.1-2.0	**2.0**					2.0
Tas (n=10)	0.43	0.41	0.20-1.0	**1.0**					25.0

Low numbers reporting (<10 responses).

The methamphetamine purchasing data are reported in Table 10. As can be seen there are cases where the purchased amount is lower than the typical consumption amount: for example for the mean estimates from the IDRS for crystal methamphetamine in SA; the mean estimates form the EDRS for crystal methamphetamine in Vic, Qld, WA and Tas. Likewise typical consumption was higher than mean purchase for methamphetamine powder in WA, Tas and Qld. This suggests caution in using the purchasing data. Nevertheless, none of the mean, median purchase measures produced quantities that exceeded the threshold. In the case where the measure is maximum purchase, this occurred for NSW (IDRS, crystal) and for methamphetamine powder in NSW, Vic and SA. This again suggests most methamphetamine users are unlikely to exceed the thresholds but under atypical circumstances regular and irregular users can be at risk, particularly those residing in NSW, Vic and SA.

Table 10: Quantity of methamphetamine (grams) purchased by regular users, by form (crystal, powder), sample (IDRS, EDRS, NDSHS) and state

Form/ sample/ jurisdiction	*Mean*	*Median*	*Range*	Max purchase	Trafficable Threshold
Meth crystal					
IDRS					
NSW (n=47)	0.67	0.2	0.05-3.5	3.5	3.0
Vic (n=43)	0.4	0.2	0.2-1.0	1.0	3.0
Qld (n=21)	0.95	0.2	0.05-3.5	3.5	10.8
SA (n=19)	0.32	0.2	0.2-1.0	1.0	2.0
WA (n=17)	0.46	0.25	0.2-1.0	1.0	2.0
Tas (n=9#)	0.27#	0.2#	0.2-0.5#	0.5#	25.0
EDRS					
NSW (n=9)	0.2#	0.2#	0.2-0.2#	0.2#	3.0
Vic (n=15)	0.49	0.2	0.2-1.0	1.0	3.0
Qld (n=12)	0.32	0.2	0.2-1.0	1.0	10.8
SA (n=9)	0.56#	0.2#	0.2-1.0#	1.0#	2.0
WA (n=7)	0.2#	0.2#	0.2#	0.2#	2.0
Tas (n=3#)	0.73#	1.0#	0.2-1.0#	1.0#	25.0
Meth powder					
IDRS					
NSW (n=25)	0.68	0.3	0.1-3.5	3.5	3.0
Vic (n=33)	1.1	1.0	0.3-3.5	3.5	3.0
Qld (n=19)	0.74	0.3	0.05-3.5	3.5	10.8
SA (n=17)	0.54	0.3	0.3-3.5	3.5	2.0
WA (n=12)	0.41	0.3	0.05-1.0	1.0	2.0
Tas (n=22)	0.70	0.5	0.3-3.5	3.5	25.0
EDRS					
NSW (n=16)	0.87	1.0	0.29-1.0	1.0	3.0
Vic (n=32)	0.98	1.0	0.1-3.5	3.5	3.0
Qld (n=26)	0.54	0.3	0.3-1.0	1.0	10.8
SA (n=13)	0.46	0.3	0.3-1.0	1.0	2.0
WA (n=4)	0.48#	0.3#	0.3-1.0#	1.0#	2.0
Tas (n=15)	0.67	1.0	0.3-1.0	1.0	25.0

Low numbers reporting (<10 responses).

Cocaine

Table 11 shows the results for cocaine by typical and heavy consumption patterns across the three datasets (IDRS, EDRS and NDSHS). As measured in terms of mean and median, there are no instances where typical consumption exceeds the thresholds. However, when the measure is the maximum in a typical session, then consumption of cocaine exceeds the trafficable threshold in a number of jurisdictions. In the regular using surveys (IDRS and EDRS) this occurs in NSW and SA if the IDRS is used and Vic if EDRS is used (with both NSW and SA in the EDRS also reporting quantities that are equal to the trafficable quantity). Moreover, for the general population (NDSHS) the maximum quantity of cocaine consumed exceeds the trafficable threshold in two states (NSW and WA) and is equivalent in one state (Vic). Given known limitations in the IDRS and EDRS for surveying drug use patterns of cocaine users this finding has particular significance, and indicates that even for typical patterns of use Australian cocaine users can consume 2 and 2.3 times the current thresholds (NSW and WA data cited).

If we turn to examine the data on heavy use, again none of the means or medians exceed the thresholds for cocaine, irrespective of dataset or state. However, using the more stringent measure of the maximum consumed in a heavy session the quantity of cocaine consumed is equal to or exceeds the threshold for four different states (NSW, Vic, SA and WA). Moreover, the maximum exceeds the threshold in both the IDRS and

EDRS datasets. Of particular note is the maximum consumed in NSW (what has historically been the main cocaine state in Australia) is 7.0 grams for a heavy session (IDRS) or 6.5 grams (EDRS). This is 2.3 times the current threshold quantity. This suggests that while most users consume under the threshold, both regular and irregular cocaine users can exceed the trafficable thresholds for personal use alone, with users in four states at greatest risk: WA, NSW, SA, Vic.

Table 11: Quantity of cocaine (grams) used in a typical and heavy session, by sample (IDRS, EDRS, NDSHS) and state

Sample/ jurisdiction	Typical Use			Max typical session	Heavy Use			Max heavy session	Trafficable Threshold
	Mean	*Median*	*Range*		*Mean*	*Median*	*Range*		
IDRS									
NSW (n=57)	0.37	0.2	0.01-3.5	**3.5**	0.79	0.25	0.01-7.0	**7.0**	3.0
Vic (n=14)	0.48	0.35	0.05-1	**1.0**	0.98	0.50	0.1-5.0	**5.0**	3.0
Qld (n=6#)	0.52#	0.38#	0.1-1.0#	**1.0**#	1.62#	1.00	0.1-5.0#	**5.0**#	10.5
SA (n=7#)	1.13#	0.5#	0.1-5.0#	**5.0**#	0.83#	0.35#	0.10-3.0#	**3.0**#	2.0
WA (n=2#)	0.52#	0.52#	0.03-1.0#	**1.0**#	2.05#	2.05#	0.1-4.0#	**4.0**#	2.0
Tas (n=3#)	0.5#	0.5#	0.5#	**0.5**#	0.5#	0.5#	0.5#	**0.5**#	25.0
EDRS									
NSW (n=46)	0.7	0.5	0.1-3.0	**3.0**	1.09	1.00	0.1-6.5	**6.5**	3.0
Vic (n=34)	0.90	1.0	0.02-5.0	**5.0**	1.44	1.00	0.02-5.0	**5.0**	3.0
Qld (n=39)	0.88	0.5	0.10-6.0	**6.0**	1.27	1.00	0.1-6.0	**6.0**	10.5
SA (n=31)	0.66	0.5	0.10-2.0	**2.0**	1.01	1.00	0.10-3.0	**3.0**	2.0
WA (n=5#)	0.74#	1.0#	0.2-1.0#	**1.0**#	1.2#	1.0#	0.5-2.0#	**2.0**#	2.0
Tas (n=21)	0.79	0.5	0.10-5.0	**5.0**	0.85	0.50	0.1-5.0	**5.0**	25.0
NDSHS									
NSW (n=173)	0.48	0.24	0.03-6.0	**6.0**					3.0
Vic (n=105)	0.49	0.28	0.03-3.0	**3.0**					3.0
Qld (n=53)	0.33	0.15	0.05-3.0	**3.0**					10.5
SA (n=26)	0.38	0.23	0.05-1.0	**1.0**					2.0
WA (n=35)	0.56	0.24	0.03-5.0	**5.0**					2.0
Tas (n=5#)	1.96#	0.71#	0.2-4.0#	**4.0** #					25.0

Low numbers reporting (<10 responses).

Data on cocaine purchasing is limited. For example there was no data available on WA and sample sizes were ≤ 14 respondents for all but three estimates, and again for cocaine the maximum reported purchased is less than the maximum reported consumed. But, none of the mean, median purchase measures produced quantities that exceeded the threshold and users reported exceeding the threshold only when the maximum purchase was considered, and for NSW alone (see Table 12).

Table 12: Quantity of cocaine (grams) purchased, by sample (IDRS, EDRS) and state

Sample/ Jurisdiction	*Mean*	*Median*	*Range*	Max purchase	Trafficable Threshold
IDRS					
NSW (n=34)	0.81	0.2	0.1-3.5	**3.5**	3.0
Vic (n=5#)	0.9#	1.0#	0.5-1.0#	**1.0#**	3.0
Qld (n=3#)	0.75#	1.0#	0.25-1.0#	**1.0#**	10.5
SA (n=2#)	0.55#	0.55#	0.1-1.0#	**1.0#**	2.0
WA (n=0#)	-	-	-	**-**	2.0
Tas (n=1#)	1.0#	1.0#	1.0#	**1.0#**	25.0
EDRS					
NSW (n=25)	1.0	1.0	0.1-2.0	**2.0**	3.0
Vic (n=14)	0.96	1.0	0.4-1.0	**1.0**	3.0
Qld (n=20)	0.95	1.0	0.1-3.5	**3.5**	10.5
SA (n=9#)	0.84#	1.0#	0.1-1.0#	**1.0#**	2.0
WA (n=0#)	-	-	-	**-**	2.0
Tas (n=12)	1.0#	1.0	1.0	**1.0**	1.0

Low numbers reporting (<10 responses).

MDMA

Table 13 shows the results for MDMA by typical and heavy consumption patterns across two datasets (EDRS and NDSHS). Most of the means and medians for typical consumption were again below the threshold for MDMA (regardless of state or sample). The notable exception to this was regular MDMA users in NSW, amongst whom the mean exceeded the threshold. The maximum purchased in a typical session also exceeded the threshold in two states: NSW and SA. Moreover, this was evident in both the regular and general population survey. Turning to heavy use both the median and mean consumed by regular MDMA users in NSW exceeded the threshold, indeed it was approximately twice the threshold quantity. Moreover, examining specifically the maximum reported, regular MDMA users reported using a maximum quantity of 7.25 grams in a heavy session. Relative to the thresholds this means that under typical session the maximum quantity consumed exceeds the threshold quantities in two states, and four states in a heavy session: NSW, SA, Vic and WA. Most notable is NSW, where regular MDMA users report consuming up to 4.6 times the current threshold in a typical session and 8.9 times the current threshold in a heavy session.

Table 13: Quantity of MDMA (grams) used in a typical and heavy session, by sample (EDRS, NDSHS) and state

Sample/ jurisdiction	Typical Use			Max typical session	Heavy Use			Max heavy session	Trafficable Threshold
	Mean	*Median*	*Range*		*Mean*	*Median*	*Range*		
EDRS									
NSW (n=98)	0.77	0.58	0.29-3.5	**3.5**	1.53	1.45	0.29-6.7	**6.7**	0.75
Vic (n=91)	0.63	0.58	0.15-1.60	**1.6**	1.28	0.87	0.29-5.8	**5.8**	3.0
Qld (n=101)	0.66	0.58	0.15-2.03	**2.03**	1.47	1.16	0.29-8.7	**8.7**	9.6
SA (n=76)	0.86	0.73	0.29-2.9	**2.9**	1.67	1.45	0.29-7.3	**7.3**	2.0
WA (n=28)	0.68	0.58	0.29-1.5	**1.5**	1.20	0.87	0.29-3.5	**3.5**	2.0
Tas (n=71)	0.54	0.58	0.29-2.2	**2.2**	1.11	0.87	0.29-7.3	**7.3**	10.0
NDSHS									
NSW (n=174)	0.58	0.39	0.15-1.45	**1.45**					0.75
Vic (n=134)	0.61	0.39	0.15-1.45	**1.45**					3.0
Qld (n=101)	0.43	0.31	0.07-1.74	**1.7**					9.6
SA (n=55)	0.65	0.41	0.07-2.9	**2.9**					2.0
WA (n=69)	0.61	0.28	0.07-1.74	**0.84**					2.0
Tas (n=16)	0.48	0.25	0.15-1.2	**1.2**					25.0

Low numbers reporting (<10 responses).

The MDMA purchasing data are reported in Table 14. This shows that the mean quantity of MDMA purchased exceeds the thresholds in four states (NSW, Vic, SA and WA). Moreover, the maximum purchased is high: in four states the maximum quantity is 29.0 grams and in Victoria it is 58.0 grams. As a consequence, in all six states at least some regular MDMA users report purchasing more than the current trafficable threshold. Indeed, they can purchase up to 1.16 times the current threshold in Tas or up to 19 times the current trafficable threshold in NSW and Vic. It is important to reiterate that the highest quantities purchased may still be for purposes of social supply. Yet, even excluding these, they indicate that in all Australian states MDMA users risk exceeding the trafficable thresholds by virtue of their purchasing behaviour. Both the purchasing and consumption data thus suggest that MDMA users may be at greater risk by virtue of their purchasing than use behaviour, but that there are risks in all states, but particularly NSW of MDMA users exceeding the thresholds for personal use alone.

Table 14: Quantity of MDMA (grams) purchased, by state (EDRS data)

Jurisdiction				Max purchase	Trafficable Threshold
	Mean	*Median*	*Range*		
EDRS					
NSW (n=42)	1.6	1.02	0.29-14.5	**14.5**	0.75
Vic (n=61)	3.19	1.16	0.29-58.0	**58.0**	3.0
Qld (n=78)	4.27	1.16	0.29-29.0	**29.0**	9.6
SA (n=48)	2.65	1.16	0.29-29.0	**29.0**	2.0
WA (n=26)	3.5	1.0	0.29-29.0	**29.0**	2.0
Tas (n=63)	2.3	0.87	0.29-29.0	**29.0**	25.0

Low numbers reporting (<10 responses).

Cannabis

Table 13 shows the results for cannabis by typical and heavy consumption patterns across three datasets (IDRS, EDRS and NDSHS). As can be seen, for typical consumption, as measured in terms of mean and median, there are no instances where typical consumption exceeds the thresholds. This is also true when the maximum consumed in a typical session is examined, and when mean and median and even maximum consumed for a heavy session. This indicates there is no risk in any of the six states of cannabis users exceeding the trafficable thresholds for personal use alone.

Table 15: Quantity of cannabis (grams) used in a typical and heavy session, by sample (IDRS, EDRS, NDSHS) and state

Sample/ jurisdiction	Typical Use			Max typical session	Heavy Use			Max heavy session	Trafficable Threshold
	Mean	*Median*	*Range*		*Mean*	*Median*	*Range*		
IDRS									
NSW (n=110)	0.85	0.54	0.05-5.0	**5.0**	1.69	0.90	0.09-9.0	**9.0**	300.0
Vic (n=103)	1.13	0.90	0.09-7.2	**7.2**	2.13	1.35	0.09-9.0	**9.0**	250.0
Qld (n=78)	0.71	0.43	0.09-7.0	**7.0**	1.44	0.90	0.09-10.0	**10.0**	500.0
SA (n=58)	0.48	0.27	0.05-4.5	**4.5**	0.74	0.54	0.09-4.08	**4.08**	250.0
WA (n=41)	0.91	0.54	0.5-9.0	**9.0**	1.86	1.08	0.09-27.0	**27.0**	100.0
Tas (n=73)	0.90	0.54	0.09-7.2	**7.2**	2.29	1.35	0.09-7.2	**7.2**	1,000.0
EDRS									
NSW (n=72)	0.59	0.35	0.03-3.1	**3.1**					300.0
Vic (n=81)	0.6	0.36	0.09-4.5	**4.5**					250.0
Qld (n=81)	0.44	0.34	0.09-3.4	**3.4**					500.0
SA (n=46)	0.40	0.34	0.02-1.4	**1.4**					250.0
WA (n=22)	0.49	0.34	0.09-2.4	**2.4**					100.0
Tas (n=48)	0.63	0.41	0.09-2.2	**2.2**					1,000.0
NDSHS									
NSW (n=603)	0.48	0.31	0.02-4.5	**4.5**					300
Vic (n=415)	0.60	0.33	0.03-6.3	**6.3**					250.0
Qld (n=486)	0.49	0.29	0.03-5.1	**5.1**					500.0
SA (n=197)	0.46	0.27	0.03-4.1	**4.1**					250.0
WA (n=268)	0.41	0.27	0.03-4.5	**4.5**					100.0
Tas (n=90)	0.74	0.44	0.05-4.5	**4.5**					1,000.0

Questions in the EDRS did not differentiate typical and heavy use for cannabis.
Low numbers reporting (<10 responses).

The cannabis purchasing data are reported in Table 16. For most states and samples the mean and median purchase amount of cannabis is considerably less than the trafficable threshold. The only exception to this was for the EDRS sample in South Australia, with a maximum purchase of 453.6 grams (1.8 times the threshold). However for most states the maximum purchased was 28.4 grams – an ounce – 8.8 to 35 times under the threshold. Both metrics thus indicate minimal evidence that users of cannabis could exceed the trafficable threshold for their personal use alone.

Table 16: Quantity of cannabis (grams) purchased, by sample (IDRS, EDRS) and state

Sample/ jurisdiction				Max purchase	Trafficable Threshold
	Mean	*Median*	*Range*		
IDRS					
NSW (n=58)	10.6	2.5	0.1-28.4	28.4	300
Vic (n=63)	21.2	14.2	0.5-28.4	28.4	250.0
Qld (n=33)	20.3	14.2	1.0-113.4	113.4	500.0
SA (n=18)	23.1	28.4	0.1-28.4	28.4	250.0
WA (n=19)	21.3	28.4	1.0-28.4	28.4	100.0
Tas (n=35)	11.55	2.0	0.5-28.4	28.4	1,000.0
EDRS					
NSW (n=43)	12.6	7.0	1.0-28.4	28.4	300
Vic (n=32)	13.4	7.0	2.0-28.4	28.4	250.0
Qld (n=49)	34.1	14.0	1.0-56.7	56.7	500.0
SA (n=31)	46.1	7.0	1.0-453.6	453.6	250.0
WA (n=10)	22.9	28.4	1.0-28.4	28.4	100.0
Tas (n=8#)	9.3#	3.0#	3.0-28.4#	28.4#	1,000.0

Low numbers reporting (<10 responses).

Summary

Whether examining regular users or less frequent users most median and mean quantities that Australian drug users reporting consuming or purchasing were lower than the trafficable thresholds. This suggests that the average Australian drug user is unlikely to exceed the trafficable threshold. But, against the more stringent measure of the maximum quantity that could be consumed in a single session, patterns of consumption and to a lesser extent purchasing can exceed the trafficable thresholds for all illicit drugs excepting cannabis. This is particularly true when the focus is on maximum quantity in a 'heavy session' (rather than in a typical session).

However, the likelihood of exceeding the trafficable threshold is not equal across all drug types. Indeed, cannabis users have no evidence of exceeding the thresholds. In contrast, for MDMA, the risk is much more substantial as indicated by the mean quantity consumed or purchased exceeding the trafficable threshold in a number of instances, and by maximum quantities consumed and purchased exceeding the trafficable thresholds in four and six states respectively. The risk in NSW is particularly notable, as during typical and heavy sessions there are 36% and 80% of regular users respectively consuming more than the thresholds for personal use alone.

By jurisdiction

New South Wales

Tables 17 and 18 illustrate that within NSW users of four different drugs demonstrate episodes of exceeding the threshold quantity as measured by maximum session. This applies to heroin, methamphetamine, cocaine and ecstasy, and occurs across data sources of regular and irregular users and under heavy and typical patterns of use. Accordingly, users of heroin, methamphetamine and cocaine report consuming up to 2-3 times the current threshold quantities. More importantly, users of ecstasy report consuming up to 6.7 grams (8.9 times the current threshold quantity) and purchasing up to 14.5 grams (19 times the current threshold quantity). Moreover, in a heavy session, even the mean and median quantity consumed is double the current threshold quantity.

Table 17: NSW: quantity consumed (grams) – typical, heavy and maximum use – by drug and sample

Drug type/sample	Typical Use			Max typical session	Heavy Use			Max heavy session	NSW TQ
	Mean	*Median*	*Range*		*Mean*	*Median*	*Range*		
Heroin									
IDRS (N=115)	0.33	0.20	0.05-3.0	**3.0**	0.89	0.50	0.05-6.0	**6.0**	3.0
Methamphetamine									
Speed–IDRS (N=63)	0.61	0.30	0.1-4.8	**4.8**	1.07	0.60	0.1-6.5	**6.5**	3.0
Speed–EDRS (N=23)	0.63	0.5	0.2-1.50	**1.5**	1.38	0.55	0.25-6.0	**6.0**	3.0
Ice–IDRS (N=63)	0.57	0.20	0.05-4.0	**4.0**	1.01	0.40	0.05-9.6	**9.6**	3.0
Ice–EDRS (N=18)	0.54	0.4	0.1-2.0	**2.0**	1.09	0.70	0.1-6.5	**6.5**	3.0
All–NDSHS (N=89)	0.70	0.45	0.05-7.0	**7.0**					3.0
Cocaine									
IDRS (N=57)	0.37	0.20	0.01-3.5	**3.5**	0.79	0.25	0.01-7.0	**7.0**	3.0
EDRS (N=46)	0.7	0.5	0.1-3.0	**3.0**	1.09	1.00	0.1-6.5	**6.5**	3.0
NDSHS (N=173)	0.48	0.24	0.03-6.0	**6.0**					3.0
Ecstasy									
EDRS (N=98)	0.77	0.58	0.29-3.5	**3.5**	1.53	1.45	0.29-6.7	**6.7**	0.75
NDSHS (N-174)	0.58	0.39	0.15-1.5	**1.5**					0.75
Cannabis									
IDRS (N=110)	0.85	0.54	0.05-5.0	**5.0**	1.69	0.90	0.09-9.0	**9.0**	300.0
EDRS (N=72)	0.59	0.35	0.03-3.1	**3.1**					300.0
NDSHS (N=603)	0.48	0.31	0.02-4.5	**4.5**					300.0

Low numbers (<10) reporting interpret with caution. N.B. Heavy use not reported in NDSHS for EDRS for cannabis.

Table 18: NSW: last purchase quantity (grams), by drug and sample

Drug type/sample	Last purchase			Max	NSW TQ
	Mean	*Median*	*Range*		
Heroin					
IDRS (N=85)	0.44	0.2	0.1-3.5	3.5	3.0
Methamphetamine					
Speed–IDRS (N=25)	0.68	0.3	0.1-3.5	3.5	3.0
Speed–EDRS (N=16)	0.87	1.0	0.29-1.0	1.0	3.0
Ice–IDRS (N=47)	0.67	0.2	0.05-3.5	3.5	3.0
Ice–EDRS (N=9)	0.2#	0.2#	0.2-0.2#	0.2#	3.0
Cocaine					
IDRS (N=34)	0.81	0.2	0.1-3.5	3.5	3.0
EDRS (N=25)	1.0	1.0	0.1-2.0	2.0	3.0
Ecstasy					
EDRS (N=42)	1.6	1.02	0.29-14.5	14.5	0.75
Cannabis					
IDRS (N=58)	10.6	2.5	0.1-28.4	28.4	300.0
EDRS (N=43)	12.6	7.0	1.0-28.4	28.4	300.0

Low numbers (<10) reporting interpret with caution

Victoria

Within Victoria users of heroin, methamphetamine, cocaine and ecstasy report consuming more than the trafficable threshold quantity for personal use alone when the measure is maximum heavy session. This is also the case for purchase patterns for heroin, methamphetamine and ecstasy. However, compared to NSW the risks of exceeding the threshold quantity appear somewhat lower. For example, the maximum quantity only just exceeds the threshold quantities for heroin and methamphetamine ice, and under heavy conditions of use, not typical sessions (1.2-1.3 times). That said, under heavy conditions the risks for users of methamphetamine speed, cocaine and ecstasy are greater (see Table 19 and 20).

Table 19: Vic: quantity consumed (grams) – typical, heavy and maximum use – by drug and sample

Drug type/sample	Typical Use			Max typical session	Heavy Use			Max heavy session	Vic TQ
	Mean	*Median*	*Range*		*Mean*	*Median*	*Range*		
Heroin									
IDRS (N=80)	0.44	0.30	0.3-2.0	**2.0**	1.03	0.50	0.3-4.0	**4.0**	3.0
Methamphetamine									
Speed–IDRS (N=52)	0.46	0.45	0.05-2.0	**2.0**	1.12	0.50	0.02-7.0	**7.0**	3.0
Speed–EDRS (N=67)	0.68	0.50	0.05-2.0	**2.0**	1.24	1.00	0.10-4.0	**4.0**	3.0
Ice–IDRS (N=48)	0.15	0.10	0.05-0.5	**0.5**	0.44	0.20	0.05-3.5	**3.5**	3.0
Ice–EDRS (N=36)	0.47	0.40	0.04-2.0	**2.0**	0.80	0.60	0.08-3.4	**3.4**	3.0
All forms–NDSHS (N=101)	0.68	0.45	0.05-3.0	**3.0**					3.0
Cocaine									
IDRS (N=14)	0.48	0.35	0.05-1.0	**1.0**	0.98	0.50	0.1-5.0	**5.0**	3.0
EDRS (N=34)	0.90	1.00	0.02-5.0	**5.0**	1.44	1.00	0.02-5.0	**5.0**	3.0
NDSHS (N=105)	0.49	0.28	0.03-3.0	**3.0**					3.0
Ecstasy									
EDRS (N=98)	0.63	0.58	0.15-1.6	**1.6**	1.28	0.87	0.29-5.8	**5.8**	3.0
NDSHS (N-134)	0.61	0.39	0.15-1.5	**1.5**					3.0
Cannabis									
IDRS (N=103)	1.13	0.9	0.09-7.2	**7.2**	2.13	1.35	0.09-9.0	**9.0**	250.0
EDRS (N=81)	0.6	0.36	0.09-4.5	**4.5**					250.0
NDSHS (N=415)	0.60	0.33	0.03-6.3	**6.3**					250.0

Low numbers (<10) reporting interpret with caution. .B. Heavy use not reported in NDSHS for EDRS for cannabis.

Table 20: Victoria: last purchase (grams), by drug and sample

Drug type/sample	Last purchase			Max	Vic TQ
	Mean	*Median*	*Range*		
Heroin					
IDRS (N=72)	1.1	0.5	0.1-3.5	3.5	3.0
Methamphetamine					
Speed–IDRS (N=33)	1.1	1.0	0.3-3.5	3.5	3.0
Speed–EDRS (N=32)	0.98	1.0	0.1-3.5	3.5	3.0
Ice–IDRS (N=43)	0.4	0.2	0.2-1.0	1.0	3.0
Ice–EDRS (N=15)	0.49	0.2	0.2-1.0	1.0	3.0
Cocaine					
IDRS (N=5)	0.9#	1.0#	0.5-1.0#	1.0#	3.0
EDRS (N=14)	0.96	1.0	0.4-1.0	1.0	3.0
Ecstasy					
EDRS (N=61)	3.19	1.16	0.29-58.0	58.0	3.0
Cannabis					
IDRS (N=63)	21.2	14.2	0.5-28.4	28.4	250.0
EDRS (N=32)	13.4	7.0	2.0-28.4	28.4	250.0

Low numbers (<10) reporting interpret with caution

Queensland

Given Queensland is the only state with a purity-based system we illustrate here the quantity consumed and purchased by users compared to the median and minimum and maximum threshold quantity (under the 2010-11 purity conditions). Doing so illustrates that whether or not users are likely to exceed the threshold quantity depends in large part upon the potential purity of the drug which they use or purchase.

Under median purity conditions in 2010-2011 there is only one instance where maximum quantity consumed or purchased in Queensland exceeds the current threshold quantities, namely for purchases of ecstasy (see Tables 21-22). However, when purity is at its highest, the maximum consumed and purchased exceed the threshold quantities for four different drugs: ecstasy, heroin, methamphetamine and cocaine. For example under very high purity conditions regular cocaine users consume up to double the threshold quantity and irregular users also consume more than the threshold quantity (albeit to a much lower rate). At the same time it is clear that when purity is at its lowest detected, there is no chance of users exceeding the threshold quantities.

Table 21: Qld: quantity consumed (grams) – typical, heavy and maximum use – by drug and sample, versus threshold quantity under median and minimum and maximum purity conditions

Drug type/sample	Typical Use			Max	Heavy Use			Max	Qld TQ	
	Mean	*Med*	*Range*	typical	*Mean*	*Med*	*Range*	heavy	*Median*	*Range*
Heroin										
IDRS (N=42)	1.45	0.25	0.05-1.2	**1.2**	0.85	0.50	0.10-6.0	**6.0**	10.8	2.5-286
Methamphetamine										
Speed–IDRS (N=29)	0.66	0.50	0.15-2.10	**2.1**	1.11	0.75	0.3-3.5	**3.5**	14.6	2.4-2000
Speed–EDRS (N=41)	0.68	0.50	0.20-2.0	**2.0**	1.06	0.75	0.2-3.0	**3.0**	14.6	2.4-2000
Ice–IDRS (N=39)	0.41	0.20	0.10-1.40	**1.4**	0.83	0.40	0.10-3.5	**3.5**	14.6	2.4-2000
Ice–EDRS (N=28)	0.44	0.40	0.20-1.0	**1.0**	0.72	0.50	0.2-3.0	**3.0**	14.6	2.4-2000
All forms–NDSHS (N=71)	1.00	0.50	0.1-3.0	**3.0**					14.6	2.4-2000
Cocaine										
IDRS (N=6)	0.52#	0.38	0.1-1.0#	**1.0#**	1.62#	1.00	0.1-5.0#	**5.0#**	10.5	2.4-500
EDRS (N=39)	0.88	0.50	0.10-6.0	**6.0**	1.27	1.00	0.1-6.0	**6.0**	10.5	2.4-500
NDSHS (N=53)	0.33	0.15	0.05-3.0	**3.0**					10.5	2.4-500
Ecstasy										
EDRS (N=101)	0.66	0.58	0.15-2.0	**2.0**	1.47	1.16	0.29-8.7	**8.7**	9.6	2.5-500
NDSHS (N=101)	0.43	0.31	0.07-1.7	**1.7**					9.6	2.5-500
Cannabis										
IDRS (N=78)	0.71	0.43	0.09-7.0	**7.0**	1.44	0.90	0.09-10.0	**10.0**	500	500
EDRS (N=81)	0.44	0.34	0.09-3.4	**3.4**					500	500
NDSHS (N=486)	0.49	0.29	0.03-5.1	**5.1**					500	500

Low numbers (<10) reporting interpret with caution. .B. Heavy use not reported in NDSHS for EDRS for cannabis.

Table 22: Qld: quantity last purchased (grams), by drug and sample, versus threshold quantity under median, minimum and maximum purity conditions

Drug type/sample	Last purchase			Max purchase quantity	Qld TQ	
	Mean	*Median*	*Range*		Median	Range
Heroin						
IDRS (N=41)	0.99	0.5	0.1-3.5	3.5	10.8	2.5-286
Methamphetamine						
Speed–IDRS (N=19)	0.74	0.3	0.05-3.5	3.5	14.6	2.4-2000
Speed–EDRS (N=26)	0.54	0.3	0.3-1.0	1.0	14.6	2.4-2000
Ice–IDRS (N=21)	0.95	0.2	0.05-3.5	3.5	14.6	2.4-2000
Ice–EDRS (N=12)	0.32	0.2	0.2-1.0	1.0	14.6	2.4-2000
Cocaine						
IDRS (N=3)	0.75#	1.0#	0.25-1.0#	1.0#	10.5	2.4-500
EDRS (N=20)	0.95	1.0	0.1-3.5	3.5	10.5	2.4-500
Ecstasy						
EDRS (N=78)	4.27	1.16	0.29-29.0	29.0	9.6	2.5-500
Cannabis						
IDRS (N=33)	20.3	14.2	1.0-113.4	113.4	500.0	500
EDRS (N=49)	34.1	14.0	1.0-56.7	56.7	500.0	

Low numbers (<10) reporting interpret with caution

South Australia

In South Australia Table 23 and 24 show there are three drugs for which patterns of use can exceed the current threshold quantities, when consumption is measured as maximum session. This applies for ecstasy, methamphetamine, and cocaine (consuming up to 3.65, 3.5 and 2.5 times the thresholds for ecstasy, methamphetamine and cocaine respectively). This is also the case for purchasing patterns when measured as maximum heavy purchase for methamphetamine and ecstasy. Moreover, users of these drug types can exceed the threshold quantities under both the maximum typical and maximum heavy sessions. Equally, populations of regular and irregular users are both at risk.

Table 23: SA: quantity consumed (grams) – typical, heavy and maximum use – by drug and sample

Drug type/sample	Typical Use			Max typical session	Heavy Use			Max heavy session	SA TQ
	Mean	*Median*	*Range*		*Mean*	*Median*	*Range*		
Heroin									
IDRS (N=38)	0.28	0.23	0.03-1.5	**1.5**	0.54	0.50	0.05-1.5	**1.5**	2.0
Methamphetamine									
Speed–IDRS (N=33)	0.54	0.30	0.10-1.7	**1.7**	1.05	0.68	0.2-6.0	**6.0**	2.0
Speed–EDRS (N=28)	0.75	0.50	0.08-3.0	**3.0**	1.46	1.00	0.08-5.0	**5.0**	2.0
Ice–IDRS (N=41)	0.49	0.45	0.15-1.7	**1.7**	0.90	0.60	0.3-3.0	**3.0**	2.0
Ice–EDRS (N=31)	0.49	0.20	0.10-4.0	**4.0**	1.12	0.40	0.10-7.0	**7.0**	2.0
All forms–NDSHS (N=43)	0.99	0.56	0.05-4.6	**4.6**					2.0
Cocaine									
IDRS (N=7)	1.13#	0.50	0.1-5.0#	**5.0#**	0.83#	0.35	0.1-3.0#	**3.0#**	2.0
EDRS (N=31)	0.66	0.50	0.10-2.0	**2.0**	1.01	1.00	0.10-3.0	**3.0**	2.0
NDSHS (N=26)	0.38	0.23	0.05-1.0	**3.0**					2.0
Ecstasy									
EDRS (N=76)	0.86	0.73	0.29-2.9	**2.9**	1.67	1.45	0.29-7.3	**7.3**	2.0
NDSHS (N=55)	0.65	0.41	0.07-2.9	**2.9**					2.0
Cannabis									
IDRS (N=58)	0.48	0.27	0.05-4.5	**4.5**	0.74	0.54	0.09-4.08	**4.1**	250.0
EDRS (N=46)	0.40	0.34	0.02-1.4	**1.4**					250.0
NDSHS (N=197)	0.46	0.27	0.03-4.1	**4.1**					250.0

Low numbers (<10) reporting interpret with caution. .B. Heavy use not reported in NDSHS for EDRS for cannabis.

Table 24: SA: quantity last purchased (grams), by drug and sample

Drug type/sample	Last purchase			Max	SA TQ
	Mean	*Median*	*Range*		
Heroin					
IDRS (N=28)	0.42	0.5	0.1-1.0	1.0	2.0
Methamphetamine					
Speed–IDRS (N=17)	0.54	0.3	0.3-3.5	3.5	2.0
Speed–EDRS (N=13)	0.46	0.3	0.3-1.0	1.0	2.0
Ice–IDRS (N=19)	0.32	0.2	0.2-1.0	1.0	2.0
Ice–EDRS (N=9)	0.56#	0.2#	0.2-1.0#	1.0#	2.0
Cocaine					
IDRS (N=2)	0.55#	0.55#	0.1-1.0#	1.0#	2.0
EDRS (N=9)	0.84#	1.0#	0.1-1.0#	1.0#	2.0
Ecstasy					
EDRS (N=48)	2.65	1.16	0.29-29.0	29.0	2.0
Cannabis					
IDRS (N=18)	23.1	28.4	0.1-28.4	28.4	250.0
EDRS (N=31)	46.1	7.0	1.0-453.6	453.6	250.0

Low numbers (<10) reporting interpret with caution

Western Australia

Table 25 shows that within Western Australia when measured against the maximum in a heavy session users of three drugs are at risk of exceeding the trafficable threshold for personal use alone: methamphetamine, cocaine and MDMA. Interestingly, while both South Australia and Western Australia employ the same thresholds for such drugs (2.0 grams) users in Western Australia appear at reduced risk of exceeding the threshold. For example, there are far fewer instances where the maximum consumed exceeds the threshold in a typical session (one versus seven). Table 26 shows the purchasing data across drugs for WA and indicates that ecstasy users appear to be the only users who can exceed the thresholds by virtue of their purchasing behaviour.

Table 25: WA: quantity consumed (grams) – typical, heavy and maximum use – by drug and sample

Drug type/sample	Typical Use			Max typical session	Heavy Use			Max heavy session	WA TQ
	Mean	*Median*	*Range*		*Mean*	*Median*	*Range*		
Heroin									
IDRS (N=51)	0.25	0.20	0.05-1.0	**1.0**	0.43	0.25	0.05-2.0	**2.0**	2.0
Methamphetamine									
Speed–IDRS (N=19)	0.48	0.30	0.15-1.2	**1.2**	0.69	0.55	0.15-4.0	**4.0**	2.0
Speed–EDRS (N=11)	0.51	0.50	0.1-1.2	**1.2**	0.93	1.0	0.2-2.0	**2.0**	2.0
Ice–IDRS (N=23)	0.33	0.20	0.05-1.0	**1.0**	0.54	0.50	0.1-2.0	**2.0**	2.0
Ice–EDRS (N=12)	0.51	0.30	0.15-2.0	**2.0**	0.65	0.6	0.1-2.0	**2.0**	2.0
All forms–NDSHS (N=63)	0.79	0.41	0.1-2.0	**2.0**					2.0
Cocaine									
IDRS (N=2)	0.52#	0.52#	0.03-1.0#	**1.0#**	2.05#	2.05#	0.1-4.0#	**4.0#**	2.0
EDRS (N=5)	0.74#	1.00#	0.2-1.0#	**1.0#**	1.20#	1.0#	0.5-2.0#	**2.0#**	2.0
NDSHS (N=35)	0.56	0.24	0.03-5.0	**5.0**					2.0
Ecstasy									
EDRS (N=76)	0.68	0.58	0.29-1.5	**1.5**	1.20	0.87	0.29-3.5	**3.5**	2.0
NDSHS (N=69)	0.61	0.29	0.07-1.7	**1.7**					2.0
Cannabis									
IDRS (N=41)	0.91	0.54	0.5-9.0	**9.0**	1.86	1.08	0.1-27.0	**27.0**	100.0
EDRS (N=22)	0.49	0.34	0.09-2.4	**2.4**					100.0
NDSHS (N=268)	0.41	0.27	0.03-4.5	**4.5**					100.0

Low numbers (<10) reporting interpret with caution. .B. Heavy use not reported in NDSHS for EDRS for cannabis.

Table 26: WA: quantity last purchased (grams), by drug and sample

Drug type/sample	Last purchase			Max	WA TQ
	Mean	*Median*	*Range*		
Heroin					
IDRS (N=35)	0.36	0.25	0.05-1.0	1.0	2.0
Methamphetamine					
Speed–IDRS (N=12)	0.41	0.3	0.05-1.0	1.0	2.0
Speed–EDRS (N=4)	0.48#	0.3#	0.3-1.0#	1.0#	2.0
Ice–IDRS (N=17)	0.46	0.25	0.2-1.0	1.0	2.0
Ice–EDRS (N=7)	0.2#	0.2#	0.2#	0.2#	2.0
Cocaine					
IDRS (N=0)					2.0
EDRS (N=0)					2.0
Ecstasy					
EDRS (N=26	2.65	1.16	0.29-29.0	29.0	2.0
Cannabis					
IDRS (N=19)	21.3	28.4	1.0-28.4	28.4	100.0
EDRS (N=10)	22.9	28.4	1.0-28.4	28.4	100.0

Low numbers (<10) reporting interpret with caution

Tasmania

In Tasmania there is only one instance where the maximum quantity consumed or purchased in Tasmania exceeds the current threshold quantities. This is for purchases of ecstasy. However the maximum purchased only just exceeded the threshold quantity (by 1.2 times) (see Tables 27-28).

Table 27: Tas: quantity consumed (grams) – typical, heavy and maximum use – by drug and sample

Drug type/sample	Typical Use			Max typical session	Heavy Use			Max heavy session	Tas TQ
	Mean	*Median*	*Range*		*Mean*	*Median*	*Range*		
Heroin									
IDRS (N=13)	0.53	0.25	0.1-1.5	**1.5**	2.06	1.0	0.2-5.0	**5.0**	25.0
Methamphetamine									
Speed–IDRS (N=66)	0.80	0.60	0.15-3.0	**3.0**	1.47	1.0	0.25-7.0	**7.0**	25.0
Speed–EDRS (N=30)	0.60	0.60	0.1-1.5	**1.5**	0.92	0.60	0.1-3.0	**3.0**	25.0
Ice–IDRS (N=20)	0.92	0.50	0.2-5.0	**5.0**	1.21	0.6	0.2-5.0	**5.0**	25.0
Ice–EDRS (N=4)	1.54#	0.75#	0.2-4.5#	**4.5#**	1.53#	0.75#	0.2-4.5#	**4.5#**	25.0
All forms–NDSHS (N=10)	0.43	0.41	0.20-1.0	**1.0**					25.0
Cocaine									
IDRS (N=3)	0.5#	0.5#	0.5#	**0.5#**	0.5#	0.5#	0.5#	**0.5#**	25.0
EDRS (N=21)	0.79	0.50	0.10-5.0	**5.0**	0.85	0.50	0.1-5.0	**5.0**	25.0
NDSHS (N=5)	1.96	0.71	0.2-4.0	**4.0**					25.0
Ecstasy									
EDRS (N=71)	0.54	0.58	0.29-2.2	**2.2**	1.11	0.87	0.29-7.3	**7.3**	10.0
NDSHS (N=16)	0.48	0.25	0.15-1.2	**1.2**					10.0
Cannabis									
IDRS (N=73)	0.90	0.54	0.09-7.2	**7.2**	2.29	1.35	0.09-7.2	**7.2**	1,000.0
EDRS (N=48)	0.63	0.41	0.09-2.2	**2.2**					1,000.0
NDSHS (N=90)	0.74	0.44	0.05-4.5	**4.5**					1,000.0

Low numbers (<10) reporting interpret with caution. .B. Heavy use not reported in NDSHS for EDRS for cannabis.

Table 28: Tas: quantity last purchased (grams), by drug and sample

Drug type/sample	Last purchase			Max	Tas TQ
	Mean	*Median*	*Range*		
Heroin					
IDRS (N=4)	0.65#	0.75#	0.1-1.0#	1.0#	25.0
Methamphetamine					
Speed–IDRS (N=33)	0.70	0.5	0.3-3.5	3.5	25.0
Speed–EDRS (N=15)	0.67	1.0	0.3-1.0	1.0	25.0
Ice–IDRS (N=9)	0.27#	0.2#	0.2-0.5#	0.5#	25.0
Ice–EDRS (N=3)	0.73#	1.0#	0.2-1.0#	1.0#	25.0
Cocaine					
IDRS (N=1)	1.0#	1.0#	1.0#	1.0#	25.0
EDRS (N=12)	1.0#	1.0#	1.0#	1.0#	25.0
Ecstasy					
EDRS (N=63)	2.3	0.87	0.29-29.0	29.0	25.0
Cannabis					
IDRS (N=35)	11.55	2.0	0.5-28.4	28.4	1000.0
EDRS (N=8)	9.3	3.0	3.0-28.4	28.4	1000.0

Low numbers (<10) reporting interpret with caution

Summary

These data show that there is differential risk to Australian illicit drug users from the trafficable thresholds across Australian states. Some states have almost no evidence that users can exceed current thresholds for personal use alone (e.g. Tas). In contrast, others show that users are at risk of exceeding the thresholds across a number of drug types. Of particular note here are NSW and SA, with risks for users of MDMA, methamphetamine and cocaine exceeding the current thresholds under both typical and heavy sessions and amongst regular and irregular using populations.

Part 2: Likelihood of Australian drug traffickers being sanctioned according to the seriousness of their drug trafficking offence

In this section we draw upon the three indices of offence seriousness – retail value (Metric 3), harm (Metric 4) and social cost (Metric 5) – to examine the seriousness of a trafficking offence for each drug type. We then apply the current thresholds for each drug by jurisdiction for each metric to shed light on the extent to which the current thresholds represent the relative seriousness of the drug type under consideration. The underlying assumption behind this analysis is that the higher the retail price, harm score and social cost per gram score, the more serious the drug, and hence the lower the trafficking threshold should be.

Seriousness and harmfulness of the five drugs

Table 29 and 30 provide a summary of the three different harm/seriousness metrics by each of the five drugs under consideration. National retail price is the only Metric for which there is state specific data.

Heroin is one of the more expensive drugs sold in Australia: retailing for $300-$325 per gram or considerably more outside of the traditional sites of importation (NSW and Vic) (see Table 29). Heroin also has the highest harm score and social cost per gram (see Table 30). This is attributable to health costs, especially due to dependence, incidence of infectious diseases, premature death and disability (Moore, 2007).

Table 29: Median retail price (Metric 3) per gram in 2010-11, by drug and state

Drug type	State					
	NSW	*VIC*	*Qld*	*SA*	*WA*	*Tas*
Heroin	325	300	700	325	550	-
Meth – Speed	175	275	625	-	-	350
Meth – Ice	600	750	650	500	750	400
Cocaine	325	450	475	350	-	
MDMA	94.8	120.7	129.3	77.6	108.6	137.9
Cannabis	12.5	12.2	12.1	8.4	18.9	11.6

Source: Illicit Drug Data Report, 2010-11 (2012).

Table 30: Harm (Metric 4) and social cost (Metric 5) per gram, by drug

Drug type	Metric 4 - Harm per unit (out of 100)	Metric 5 - Social cost per gram
Heroin	55	$4,100 to $14,891
Meth – Speed	33[1]	$1,710 to $6,983[1]
Meth – Ice	n.a.	n.a.
Cocaine	27	$147 to $540
MDMA	9	n.a.
Cannabis	20	$4.50 to $19

Source: Nutt et al. (2010) and Moore (2007).
The harm unit (from Nutt et al., 2010) does not distinguish between methamphetamine ice and methamphetamine speed. The same is the case for the Moore (2007) social cost per gram metric.

Methamphetamine in the form of ice is the *most* expensive drug for sale: retailing for $400-$750 per gram. It also has a high social cost, albeit lower than heroin (see Table 30). This is a consequence of lower heath care costs, although crime-related costs are higher (Moore, 2007). The harms of methamphetamine are rated as moderate: associated with for example less mortality but more mental health concerns than heroin.

Cocaine retails for approximately the same price as heroin (see Table 29). But it has a lower level of harm, one that is similar to methamphetamine, with a key harm being international destabilisation of countries, rather than harm to users. Equally importantly, cocaine has a much lower social cost than either drug (see Table 29). This is due in particular to the very low incidence of cocaine-related crime costs (Moore, 2007).

MDMA has very low harm per unit (see Table 30), with very low crime costs, mortality or morbidity (Nutt, et al., 2010). MDMA moreover has a low retail price: approximately $25 per pill in most parts of Australia, equivalent to $86 per gram. Data on social cost were unavailable; however it is also likely to be low.

Cannabis is the cheapest of the five illicit drugs: retailing for $8.40-$18.90 per gram (see Table 29). It also has the lowest social cost of the four rated drug types. However, it is rated approximately twice as harmful as ecstasy due to increased incidence of loss of relationships, family adversities and dependence (Nutt, et al., 2010).

In summary, the drugs differ in their potential street retail value, harm and social cost. This difference in the harmfulness and seriousness of the drugs should be taken into consideration when designing threshold quantities. Drugs that generate greater harm and social cost should be considered the more severe offences. These data, therefore, suggests that trafficable thresholds for drug such as ecstasy and cannabis should be higher than for drugs such as heroin and methamphetamine. We examine this next, by applying the metrics to the trafficable thresholds for each jurisdiction under consideration in this report.

The efficacy of thresholds for enabling sanction based on offence seriousness

In this section we use the retail value, harm and social cost from a 'trafficable quantity' of each drug type to assess whether or not an Australian drug trafficker is likely to be charged/sentenced on the basis of his/her crime seriousness. The rationale is that a trafficker should be sanctioned for a similar level of crime seriousness, regardless of the particular drug detected.

Table 31 shows that the median retail value of a trafficable quantity of drug is far from equivalent. Instead, it varies from $71 to $11,607. Of particular note is that the potential retail value of a trafficable quantity differs considerably by state, with much higher values in Queensland and Tasmania than for any other states.

If one assumes that thresholds for trafficking should be proportionally equivalent between the five drugs, and assumes that retail value is a reasonable proxy of seriousness of offence, because street price approximates the potential 'profit' gained from illegal sale and supply of drugs, then on this particular metric, retail price, it appears that the cannabis trafficable thresholds are too high, and the ecstasy trafficable thresholds are too low. To be more explicit, using retail price, one can trade up to $11,607 worth of cannabis before being charged with trafficking, whereas for ecstasy one can trade only $362 or less (for most states) before being charged with trafficking.

Table 31: Median retail value reported by regular illicit drug users of a trafficable quantity of each drug type, by state

Drug type	State					
	NSW	*VIC*	*Qld*	*SA*	*WA*	*Tas*
Heroin	975	900	7560	650	1100	
Meth – Speed	525	825	9125	1000		8750
Meth – Ice	1800	2250	9490		1500	10000
Cocaine	975	1350	4987	700		
MDMA	71	362	1241	155	217	3448
Cannabis	3750	3571	6071	2098	1893	11607

Calculated by multiplying the retail price for that drug in that jurisdiction by the applicable trafficable quantity.

Turning to the second metric of seriousness, the harmfulness score, it can be seen that when the harm score is applied to the trafficable thresholds for each state, there is considerable variability between drug types and states (see Table 32). A trafficable quantity of cannabis has the potential to cause 88 to 857 times as much harm as a

trafficable quantity of MDMA. On this metric therefore, the cannabis trafficking threshold is disproportionally high (ie one can deal in quantities that cause considerably higher amounts of harm before being charged with trafficking than for other drugs). For ecstasy, the trafficable threshold is disproportionally too low (ie only small quantities of ecstasy 'harm' result in a trafficking charge).

Table 32: Harm that can result from a trafficable quantity of each drug type, by state

Drug type	State					
	NSW	*VIC*	*Qld*	*SA*	*WA*	*Tas*
Heroin	165	165	615	110	110	1375
Methamphetamine	99	99	475	66	66	825
Cocaine	81	81	273	54	54	675
MDMA	7	27	113	18	18	90
Cannabis	6000	5000	10000	5000	2000	20000

Calculated by multiplying the harm score for each drug by the applicable trafficable quantity in each jurisdiction.

Finally, Metric 5 assesses the potential social costs of a trafficable quantity of drug (these data are not available for ecstasy). Table 33 provides the results for heroin, methamphetamine, cocaine and cannabis in relation to the trafficable thresholds as measured by social cost per gram. As can be seen, the current trafficable threshold for heroin, irrespective of state, produces the highest social cost per gram: $10,791-$2,122,211. This suggests that the heroin thresholds are too high – assuming one wishes to achieve parity between drugs given their differential social costs. Arguably, the trafficable threshold for cocaine is too low, given the low social costs attained at the threshold level: $589 or less in most states.

Table 33: Median social cost of a trafficable quantity of each drug type, by state

Drug type	State					
	NSW	*VIC*	*Qld*	*SA*	*WA*	*Tas*
Heroin	16186	16186	2122211	10791	10791	134888
Methamphetamine	7909	7909	6980917	5273	5273	65913
Cocaine	589	589	134826	393	393	4913
Cannabis	2308	1924	3847	1924	769	7695

Calculated by multiplying the median social cost for each drug by the applicable trafficable quantity in each jurisdiction.
Data on the social cost for MDMA was not available.

In the final analysis we compare the *extent* of disproportional sanction across states. We do this by holding one drug, MDMA, constant. We chose to hold MDMA constant because it is lowest on the harm score (Metric 4) and second lowest on the retail price score (Metric 3). By holding MDMA constant at 1.0, we can examine the extent of disproportionate responses across both drugs and states for both retail price and harm. As a reminder, these analyses are based on the assumption that the trafficable quantity of each drug should approximate some parity across retail price, harm and social cost.

Table 34 shows the median retail value (Metric 3) of a trafficable quantity of cannabis, heroin, methamphetamine and cocaine, relative to the value of a trafficable quantity of MDMA. The states with the most proportional sanctioning were Tasmania, Queensland and Western Australia (the smallest differences between the retail values of trafficable amounts between drugs). There is greater disparity in Victoria and SA, with a trafficable quantity of cannabis equivalent to 11 and 13.5 times as much as a trafficable quantity of MDMA. The jurisdiction with the most evident divergence is NSW where a trafficable quantity of cannabis is 105 times as much the equivalent retail value of a trafficable quantity of MDMA.

Table 34: Relative median retail value of a trafficable quantity of drugs (relative to the median retail value of a trafficable quantity of MDMA in each jurisdiction)

Drug type	State					
	NSW	*VIC*	*Qld*	*SA*	*WA*	*Tas*
MDMA	1.00	1.00	1.00	1.00	1.00	1.00
Cocaine	7.38	2.28	7.35	6.44	-	2.54
Heroin	13.71	2.49	6.09	4.19	5.06	-
Methamphetamine	25.32	6.22	7.64	-	6.91	2.90
Cannabis	105.49	11.10	4.89	13.52	8.72	3.37

Calculated by dividing the median retail value for a TQ of each drug (see Table 29) by the median retail value for a TQ of MDMA in that state.

Turning to the metric of harmfulness, Table 35 shows the amount of harm that could result from a trafficable quantity of cannabis, heroin, methamphetamine and cocaine, relative to a trafficable quantity of MDMA. It indicates that the threshold quantities are most equivalent in Queensland (under current purity conditions). They are least equivalent in NSW, where the harm associated with a trafficable quantity of cannabis is 857 times the harm associated with a trafficable quantity of MDMA. If cannabis is left to one side, there is still evidence of disproportionality between the other drugs, with 24 times greater harm associated with a trafficable quantity of heroin compared with a trafficable quantity of MDMA.

Table 35: Relative amount of harm that could result from a trafficable quantity of drugs (relative to a trafficable quantity of MDMA in each jurisdiction)

Drug type	State					
	NSW	*VIC*	*Qld*	*SA*	*WA*	*Tas*
MDMA	1	1	1	1	1	1
Cocaine	12	3	2	3	3	8
Methamphetamine	14	4	4	4	4	9
Heroin	24	6	5	6	6	15
Cannabis	857	185	81	278	111	222

Calculated by dividing the harm for a TQ of each drug (see Table 30) by the harm for a TQ of MDMA in that state.

Turning to the last metric (Metric 5, social cost), there was no social cost calculation for MDMA. Hence Table 36 shows the relative amount of social cost that could result from a trafficable quantity of each drug, relative to a trafficable quantity of cocaine in each jurisdiction. This shows that the potential social cost of a trafficable quantity of heroin is much greater than that from a trafficable quantity of cocaine: 27 times as much in most jurisdictions. However, the jurisdiction of particular note is Queensland, where a trafficable quantity of methamphetamine can cause up to 1814 times as much social cost as a trafficable quantity of cannabis.

Table 36: Relative amount of social cost that could result from a trafficable quantity of drugs (relative to the social cost of a trafficable quantity of cocaine in each jurisdiction), using median social cost

Drug type	State					
	NSW	*VIC*	*Qld*	*SA*	*WA*	*Tas*
Cocaine	1.00	1.00	35.04	1.00	1.00	1.00
Cannabis	3.92	3.26	1.00	4.90	1.96	1.57
Methamphetamine	13.42	13.42	1814.40	13.41	13.42	13.42
Heroin	27.46	27.46	551.58	27.46	27.46	27.46

Calculated by dividing the median social cost for a TQ of each drug (see Table 30) by the median social cost for a TQ of cocaine in that state.
Data on the social cost for MDMA was not available.

Summary

This approach to assessing trafficking thresholds takes as its underlying principle that the threshold quantities should represent some degree of parity with each other – that is a trafficking offence for heroin should represent an equivalent level of harm or seriousness as a trafficking offence for ecstasy, for example. Given that drugs differ in their harmfulness and seriousness of the offence, the threshold quantities should also vary consistent with that.

Three different ways of measuring seriousness and harmfulness were used – retail price (as a proxy for potential financial gain from sale/supply); harmfulness of the drug; and economic social cost borne by the community. Each metric provides a different way of interpreting the parity of threshold quantities for drug trafficking, although there are some common findings across the metrics.

It would appear that the trafficking threshold quantities for cannabis are out of step with the other drugs. On the metric of both retail price and harmfulness, the cannabis thresholds appear disproportionately high – given the drug's potential for retail profit and harm. Thus, one can trade far greater value of cannabis (given street level prices) before being charged with a trafficking offence, than for all other drugs.

It is a different story for ecstasy – on the metric of retail price (proxy for sale/supply profit) the trafficable quantities are set such that even small retail values result in a trafficking charge (to the value of $71 in NSW, and $3448 in Tasmania). While Queensland and Tasmania differ in absolute amounts, in both cases the relativities show that MDMA is out of step with the other drugs. The metric of retail price is also supported by the harm metric – where in each state, the harm scores for trafficable quantities of MDMA are much lower relative to other drugs. This suggests again that the trafficable threshold for MDMA is set too low – and a higher trafficable threshold is warranted if parity/proportionality between seriousness and harmfulness of drugs is desired.

In relation to heroin, the social cost metric suggests that the heroin trafficable thresholds are too high – there is a disproportionately high amount of social cost associated with the trafficable threshold for heroin. Lowering the trafficable threshold would then bring heroin more in line with other drugs relative to their respective social costs. The harm score also suggests that the heroin trafficking threshold may be relatively too high, especially when compared with other injected drugs such as methamphetamine and cocaine.

Across all three metrics the jurisdiction that provides trafficable threshold quantities that are most proportional to each other is Western Australia. Conversely, threshold quantities appear least proportionate in NSW, due principally to the very large difference in how ecstasy is treated.

There is not an ideal solution to achieving parity between the drugs, and as can be seen above, it varies depending on which metric the community believes is the most important – whether it is potential income from sale/supply; the harmfulness of the drug or the economic burden to society. It is unlikely that complete 'parity' or proportionality would be achieved with every threshold. But it is also clear that better parity is attainable (as evident by the WA experience).

DISCUSSION AND POLICY IMPLICATIONS

Threshold quantities are legislative tools that are frequently proposed, adopted or modified under the guise of increasing the effectiveness of responses to problems of drug trafficking and use (see for example the recent sentencing enquiries in the United Kingdom and Australia Attorneys-Generals Department, 2011; Sentencing Council, 2011a). Yet, for numerous reasons, including perhaps the absence of data on drug markets their application has been rarely examined. The research reported herein has built on our analysis of the ACT drug trafficking thresholds to draw together a large number of datasets in order to examine drug trafficking threshold quantities in six Australian states from two different perspectives: first, the potential risks to users of an unjustified charge or conviction for an offence of trafficking and second, the risk of disproportionate response to traffickers in different controlled drugs.

The approach taken is subject to a number of limitations. The most obvious is the limits of currently available data. We know that there are data gaps in this analysis and that some may be more problematic than others. Of note is that data for Metric 2 was derived on last purchase, not typical purchase. It also excluded estimates of heavy purchase. This means Metric 2 is likely to under-estimate the actual quantity purchased by regular users, and that Metric 1 is likely to be the more reliable indicator of the maximum quantity possessed by a user for personal use alone.

The level of rigor that could be afforded also differed across the metrics. The most rigorous analysis has been available for Metric 1, due to the use of three data sources with different target populations; estimates of consumption under two different conditions of use ('typical' and 'heavy'); estimates that differentiated the two most common forms of methamphetamine (powder and crystal); and estimates from state specific data (taking into account potential differences in drug trends). We were also able to exclude known outliers for this metric. The same level of rigor was not able to be applied for the other metrics: for example Metric 2 which lacked different target populations and conditions of purchase.

Finally the sample sizes are small for many of the variables which lowers the reliability of some of the estimates. That said, these constitute the best available data. Their application revealed a number of key insights into current Australian drug trafficking thresholds.

The risk of unjustified charge/conviction of Australian drug users

Whether examining regular users or less frequent users most typical *median* and *mean* quantities that Australian drug users reported consuming or purchasing were lower than the trafficable thresholds. For example under typical conditions heroin users reported consuming a median quantity of 0.2-0.3 grams of heroin, well under the trafficable threshold of 2-25 grams. This suggests that the average Australian drug user is unlikely to exceed the trafficable threshold.

But, there is evidence that the *maximum quantity* consumed or purchased for personal use alone exceeded the trafficable quantity for most drug types and most states. This is particularly the case when examining practices of regular users, rather than irregular users, and for considering patterns of 'heavy' use, rather than patterns of 'typical' use, where users consume up to 19 times the current trafficable thresholds for personal use alone. This suggests that, consistent with the ACT findings, there is a risk to users of unjustified charge and sanction. Exceeding the threshold quantity by a drug user is most likely to occur under *atypical* patterns of use: circumstances involving more frequent

users, circumstances involving heavy use and users consuming particular forms of drugs (methamphetamine powder not crystal). [5]

The likelihood of exceeding the trafficable threshold varies greatly across the drug types. Across all indices MDMA users are at most risk of exceeding the trafficable thresholds. Specifically, in four different states the median and mean quantities consumed or purchased by MDMA users exceeded the trafficable threshold quantities. Indeed, 19% of MDMA users in WA, 31% in SA and 57% in NSW reported purchasing more than the current trafficable threshold quantity on their last MDMA purchase (risks in other states were much smaller: 3 to 6.5%). Risks from consuming under heavy sessions are similar in many states, for example 18% of MDMA users in WA and 30% of MDMA users in SA reported using more than the trafficable threshold quantity. However, the risks for MDMA users in NSW specifically appear greater again: in a heavy session 80% of MDMA users reported using more than the trafficable threshold quantity. One reason for concern about MDMA thresholds is the fact that this drug in particular is most commonly consumed in a heavy or binge pattern (Sindicich & Burns, 2102), and it is under these conditions that the threshold quantity is most likely to be exceeded.

In contrast to users of MDMA, users of cannabis have negligible risk: there were no instances where a cannabis user consumed more than the trafficable quantity (either in a typical or heavy session) and only one instance where the maximum purchase amount exceeded the trafficable threshold quantity. Users of heroin also have a much lower level of risk of an unjustified charge or conviction compared to a user of MDMA. This suggests that current trafficable thresholds for MDMA are placing users of MDMA at risk of erroneous charge and conviction, and the MDMA threshold quanitities are out of step with other drugs.

For drugs other than MDMA, the data suggest that there is less a problem with the trafficable threshold quantities per se, than with the combination of the threshold quantities and the deemed supply provisions. This is because the average user appears unlikely to exceed the threshold quantity for personal use alone, but the user who does will be subject to a reversal of the traditional burden of proof (and a much higher penalty range). The question arises: to what extent is it reasonable to expect a drug user in such circumstances to prove the absence of trafficking or intent to traffic, particularly when it is known that an "unjustified conviction for dealing will often impose social and individual harms which far exceed the harm associated with the drug in question" (MCCOC, 1998b, p. 87)?

Such a question has particular importance for two reasons: First, the drug users who find themselves at the margins of the drug trafficking thresholds are most likely to be the more marginalised users, and to be unemployed (see Table 5). It is also the case that people who buy in bulk often do so because they do not have the funds to buy on a frequent basis. This places these regular users at greater risk of unjustified charge and/or sanction as a trafficker. They are the users who are least likely to have the means to prove such grounds.

Second, the drug laws are highly exceptional, both compared to other countries drug trafficking thresholds and the standard Australian law and criminal justice responses to serious crimes. While the reversal of the burden of proof deemed supply has been justified in terms of the importance of effective responses to drug traffickers, the evidence herein that users can be at risk of unjustified convictions provides grounds for questioning whether the judicial constraints associated with reversal of burden of proof can continue to be justified.

[5] The exception to this is irregular users of cocaine and methamphetamine who are sometimes at increased risk of exceeding the thresholds more than their regular drug using counterparts.

The exceptionalism of drug trafficking laws

As outlined earlier, the laws and criminal justice responses to suspected drug traffickers are unique. This is due not only to the adoption of the drug trafficking thresholds, but to their intentional linking to deemed supply provisions and reversal of the traditional criminal justice principles of the burden of proof resting upon the prosecution. The potential risks were noted at the time of the Model Criminal Code officers committees' discussions, and was the reason for opposition towards enacting such provisions. The MCCOC particularly noted that the risks from the deemed supply provisions were likely to be greatest at the margins of the law:

> Like many deeming rules, reversal of the legal burden of proof results in the *highest likelihood of error in the most dubiously marginal area of useful application for the rule*. When major figures in the illicit trade are caught, quantities are large and the intentions of the offender are obvious from the circumstances of the case, reversals of the burden of proof are an unnecessary support for the prosecution case (MCCOC, 1998b, p. 87, emphasis added).

This is very different from the way most other serious offences are dealt with, for example murder and manslaughter, where the onus remains on the prosecutors to prove guilt. The supremacy of the principle of prosecutorial burden of proof has been for good reason: to avoid the potential for the types of injustice indicated in this report.

Crimes of drug trafficking further differ from other serious crimes in terms of the evidential factors that are permitted to guide prosecutorial and sentencing decisions. This is most obvious by considering how crimes of drug trafficking, murder and manslaughter deal with notions of intent. While all such offences can vary vastly in the actual/potential offence seriousness, crimes of drug trafficking have much less room to consider offender intent. Instead, for offences involving suspected drug trafficking a particular quantity of drug is taken as evidence of an *assumed* profit/commercial motive. In contrast, in offences of suspected murder and manslaughter, evidence of offender intent is *paramount* to the offence charge under the recognition that intent is central to the seriousness of the actual/intended crime (MCCOC, 1998a). This has major ramifications for the capacity of prosecutors and judiciary to take into account potentially legitimate rationales for suspected drug trafficking (such as possession for personal use alone).

Another pertinent difference between drug crimes and other serious crimes is the court where the charges are heard. The majority of drug trafficking cases are heard before the local/magistrates courts (not the higher courts), in the absence of a jury. For example in Victoria between 2004/05 and 2007/08 there were 3,714 people sentenced for drug trafficking in a non-commercial quantity in the Magistrates Courts (Woodhouse, 2009b). This compared (from 2004/05 and 2008/09) to only 577 in the higher courts (Byles, 2010).

In contrast, for other serious crimes such as murder and manslaughter, cases are held before the higher courts, thereby ensuring the full extent of the judicial provisions are guaranteed: jury, open justice, transcripts, etc. All such rights are rarely afforded for drug trafficking cases, particularly the drug user who exceeds the trafficable threshold. The irony is of course that the offences of murder and manslaughter are deemed the most serious in the country. Presumed drug traffickers, particularly presumed minor drug traffickers, are much less serious. Yet, their rights are amongst the most curtailed in the Australian criminal justice system.

All of this reinforces the seriousness with which drug offences have been viewed by Australian legislators and courts and the lengths that have been taken to ensure swift and certain sanction for Australian drug traffickers. The consequence has been the heightened risk for drug users. In this context it is hard to not argue that even atypical

cases where drug users exceed the thresholds warrant consideration of legislative change in order to avoid potential injustices.

We suggest two possible routes by which legislation would reduce the risk of unjust charging and/or sanctioning of drug users as drug traffickers. The first solution is to abolish the deemed supply provisions. This would bring crimes of drug trafficking into closer alignment with other serious crimes and would mean that the police and prosecution would have to attain proof of actual trafficking (or preparation for trafficking). Under such a situation, circumstances where users exceed the thresholds would be much less troubling, as police and prosecutors would be required to find evidence of trafficking intent, such as scales or multiple bags. In the absence of such evidence, the user would be appropriately charged with a simple possession offence.

The second solution, if deemed supply laws were retained, is that threshold quantities be elevated to exceed the maximum quantities identified for personal use. This would eliminate instances where users would exceed the thresholds. The challenge however, is one of feasibility: particularly given known gaps in data, and changing patterns of use. This would demand that threshold quantities be updated on a regular basis to reflect current drug using behaviours. Indeed, in many ways this illustrates the absurdity of devising a 'fixed threshold' over which trafficking can be assumed. It is also clear that the results reported here do not support a lowering of the threshold quantities – with the exception of cannabis. This is in contrast to the Model Criminal Code discussions which seemed to be heading towards a lowering of the threshold amounts. Our results suggest that this would merely increase the likelihood of a drug user being unjustly charged and/or sanctioned for trafficking (MCCOC, 1998b).

A final solution is to mimic the approaches used in many parts of the world of doing away with specified thresholds and giving police, prosecutors and judiciary the powers to decide upon the offence of 'possession' or 'trafficking' based upon the full remit of offender and offence circumstances.

Each of these solutions have various challenges, and it is likely that the easiest and fairest solution, in a context of the established reliance on thresholds is the first proposed: removing the deeming provisions and relying on proof of actual trafficking (or preparation for trafficking) for such charges.

The risk of disproportionate sanction of Australian drug traffickers

The most serious drugs that can be trafficked in Australia are heroin and methamphetamine when one examines the three metrics of seriousness detailed herein (price, harm and social cost). Ecstasy in contrast is by far the least serious drug that can be trafficked.

Analysis of the retail value, harm and social cost from a 'trafficable quantity' of each drug type shows that some thresholds are much too low (MDMA) and some too high (cannabis). This suggests that the historic emphasis upon using the same threshold for MDMA as heroin, methamphetamine and cocaine is problematic, as it ignores the higher harm potential of the latter drugs. But it also suggests that while cannabis is in general a less serious drug, the much larger thresholds for cannabis have contributed towards a situation where offenders who do traffic in this drug are less likely to be charged and sanctioned. This is of particular note as traffickers in cannabis also receive more lenient sanction than for any other drug (see Table 2).

The cause of the disparities can be attributed in part to historical assumptions about the harms from drugs. The thresholds were set at the time in which cannabis was seen as a soft or harmless drug and where legislators were much more loath to impinge upon traffickers of such a commodity (MCCOC, 1998b). Yet it is increasingly hard to justify this today given much more certain evidence of the harms from cannabis (including

mental health problems, family adversities etc). This provides strong grounds for arguing for basing threshold on the actual seriousness of the different drugs: and this includes a reduction in the current thresholds for cannabis.

Australian drug trafficking thresholds compared

While Australian drug trafficking thresholds carry risk of unjustified or inequitable sanction the likelihood of this occurring is far from equal across the states. Instead, some states have almost no evidence that users can exceed current thresholds for personal use alone (e.g. Tas). In contrast, other states show that users are at risk of exceeding the thresholds across a number of drug types. Of particular note here are NSW and SA where users risk exceeding the thresholds for consumption or purchase of MDMA, cocaine and methamphetamine.

Some states have evidence of disparity across traffickers in different controlled drugs. Of particular note is NSW. On the other hand, Western Australia has the most evidence of parity. For example, the median retail value for a trafficable quantity of cannabis in NSW is 105.49 times as much as for a trafficable quantity of MDMA. In contrast, in WA the median retail value for a trafficable quantity of cannabis is only 8.7 times that for MDMA. This much higher disparity in how drug traffickers are sanctioned within NSW reflect differences in the threshold design: Western Australia has the narrowest range of threshold quantities, with 100 grams for cannabis and 2 grams for all other thresholds. NSW in contrast has one of the highest thresholds for cannabis (300 grams) and one of the lowest for MDMA (0.75 grams).

This raises the question concerning uniformity of laws between states. The Model Criminal Code Officer's Committee (MCCOC, 1998b) and more recent policy debates (Attorneys-Generals Department, 2011) note the issue of uniformity of drug laws across states. Uniformity has remained the central push in Australia due to fears that differences encourage opportunities for crime. However the data provided herein indicate patterns of drug use, purchasing and retail price clearly vary by state. This suggests that uniform drug thresholds for drug trafficking may be unwise, although if the deemed supply laws were abolished the risks from a uniform threshold system would be lessened.

Equally importantly, despite the differences in thresholds between states, we see little if any evidence of association between threshold levels and drug markets.[6] States with higher quantities being purchased or used do not have higher thresholds. Moreover, as shown in Table 37 there is no evidence of threshold quantities affecting the number of drug trafficking offences. Indeed, the state with the highest threshold quantities (Tas) has the second highest percentage of providers detected. Conversely, in spite of similar threshold quantities in NSW and Vic, NSW has far fewer traffickers detected. Uniformity of thresholds does not appear to afford any greater assurance of a proportionate, equitable or just system.

Table 37: Number of 'provider' drug offences, by state and percentage of all drug offences

State	No. all drug offences	No. provider offences	Percentage of drug offences in state
NSW	20612	3268	15.9
Vic	13633	3419	25.1
Qld	23562	3187	13.5
SA	13078	2119	16.2
WA	9997	1547	15.5
Tas	2439	469	19.2

[6] We are not implying causality here – that is we would not assume that a higher threshold produces greater drug use or trafficking. We are simply examining the extent to which there is a relationship between differing threshold levels and differing drug markets.

Conclusion

Drug trafficking thresholds have long been central to the Australian response to drug offenders, justified under goals of delivering proportionality and effective responses to those who inflict widespread suffering: drug traffickers (MCCOC, 1998b). What is clear from this analysis is that Australian systems of drug trafficking thresholds are by their very nature imbued with the potential for unjustified or inequitable sanction. Changes to the threshold quantities suggested by these data indicate a number of options:

- abolish deemed supply provisions;
- increase trafficable thresholds for MDMA;
- reduce trafficable thresholds for cannabis; and
- wholesale adjustment of trafficable thresholds in NSW and SA.

Some objectives of the current threshold system are being met: most users are not at risk of erroneous charges or convictions as traffickers. But particular groups of offenders may be at higher risk of an erroneous charge as a trafficker (most notably users of MDMA and users in NSW and SA) or at risk of disproportionate sanction. These risks are exacerbated by the idiosyncratic Australian criminal justice response to drug traffickers which removes the normal criminal justice safeguard concerned with burden of proof. But the evidence provided herein has the potential to inform changes to the system, and thereby enhance the likelihood of a proportional, equitable and just response to Australian drug offenders.

REFERENCES

Attorneys-Generals Department (2011). Discussion paper - The implementation of model schedules for Commonwealth serious drug offences. Barton: Attorneys-Generals Department.

Australian Crime Commission (2012). Illicit Drug Data Report 2010-11. Canberra: Australian Crime Commission.

Australian Institute of Health and Welfare (2011). 2010 National Drug Strategy Household Survey. Drug statistics series number 20 Cat. No. PHE 98. Canberra: AIHW.

Bleeker, A., Silins, E., Dillon, P., Simpson, M., Copeland, J., & Hickey, K. (2009) NDARC Technical Report No. 299: The feasibility of peer-led interventions to deliver health information to ecstasy and related drug (ERDs) users. Sydney: National Drug and Alcohol Research Centre.

Byles, D. (2010). Trafficking in a non-commercial quantity of drugs. Sentencing trends in the higher courts of Victoria 2004-05 to 2008-09 No. 100. Melbourne: Sentencing Advisory Council.

Clune [1989] VR 567, O'Bryan and Marks JJ.

Degenhardt, L., & Dietze, P. (2005). Monograph No. 10: Data sources on illicit drug use and harm in Australia. DPMP Monograph Series. Fitzroy: Turning Point Alcohol and Drug Centre.

Drugs, Poisons and Controlled Substances Act 1981 (Vic).

Fleetwood, J. (2011). Five kilos, penalties and practice in the international cocaine trade. *British Journal of Criminology, 51*(2), 375–393.

Fowler, G., Kinner, S., & Krenske, L. (2007). Containing ecstasy: analytical tools for profiling an illegal drug market. Monograph Series No. 27. Hobart: National Drug Law Enforcement Research Fund.

Harris, G. (2011a). Conviction by numbers: threshold quantities for drug policy. Amsterdam: Transnational Institute & International Drug Policy Consortium.

Harris, G. (2011b). TNI-EMCDDA expert seminar on threshold quantities. Lisbon: Transnational Institute.

Home Office (2006). Summary of responses to Home Office Consultation Letter on Section 2 of the Drugs Act 2005. London: Home Office.

Hughes, B. (2003). The role of the quantity in the prosecution of drug offences. ELDD Comparative Study. Lisbon: European Monitoring Centre for Drugs and Drug Addiction.

Hughes, B. (2010). Topic overview: Threshold quantities for drug offences. Lisbon: European Monitoring Centre for Drugs and Drug Addiction.

Hughes, C., & Ritter, A. (in press). Monograph No. 22: Legal thresholds for serious drug offences: Expert Advice to the ACT on determining amounts for trafficable, commercial and large commercial drug offences. DPMP Monograph Series. Sydney: National Drug and Alcohol Research Centre, The University of New South Wales.

Judicial College of Victoria (2012a). Victorian Charge Book. Retrieved 3 October 2012, from Judicial College of Victoria: http://www.justice.vic.gov.au/emanuals/CrimChargeBook/default.htm

Judicial College of Victoria (2012b). Victorian Sentencing Manual. Retrieved 3 October 2012, from Judicial College of Victoria: http://www.judicialcollege.vic.edu.au/publications/victorian-sentencing-manual

Judicial Commission of New South Wales (2012). Sentencing Bench Book: Update 38. Retrieved 3 October 2012: http://www.judcom.nsw.gov.au/publications/benchbks/sentencing/drug_misuse_and_trafficking_act.html

Mackenzie, J., Norberg, M., & Copeland, J. (2010, 21 October). Quantifying cannabis use: Initial findings using a modified timeline followback metho*d.* Paper presented at the NDARC Internal Seminar, Sydney.

Maher, L., & Dixon, D. (1999). Policing and public health: Law enforcement and harm minimization in a street-level drug market. *British Journal of Criminology, 39*(4), 488-512.
MCCOC (1998a). Chapter 5 - Fatal offences (Model Criminal Code). Barton, ACT: Model Criminal Code Officers Committee.
MCCOC (1998b). Chapter 6 - Serious drug offences (Model Criminal Code). Barton, ACT: Model Criminal Code Officers Committee.
McKetin, R., McLaren, J., & Kelly, E. (2005a). The retail market for methamphetamine. In R. McKetin, J. McLaren & E. Kelly (Eds.), Monograph Series No. 13: The Sydney methamphetamine market: Patterns of supply, use, personal harms & social consequences (pp. 64-74). Sydney: National Drug Law Enforcement Research Fund.
McKetin, R., McLaren, J., & Kelly, E. (2005b). The Sydney methamphetamine market: Patterns of supply, use, personal harms and social consequences. Monograph Series No. 13. Sydney: National Drug and Alcohol Research Centre, University of New South Wales.
Ministerial Council on Drug Strategy (2007, 16 May). Resolution 16: Ministerial Council on Drug Strategy.
Moore, T. (2007). Monograph No. 14: Working estimates of the social costs per gram and per user for cannabis, cocaine, opiates and amphetamines. DPMP Monograph Series. Sydney: National Drug and Alcohol Research Centre.
Moore, T. J., Caulkins, J. P., Ritter, A., Dietze, P., Monagle, S., & Pruden, J. (2005). Monograph No. 09: Heroin markets in Australia: Current understandings and future possibilities. DPMP Monograph Series. Fitzroy: Turning Point Alcohol and Drug Centre.
Nicholas, R. (2008). The impact of social networks and not-for-profit illicit drug dealing on illicit drug markets in Australia. Hobart: National Drug Law Enforcement Research Fund.
Norberg, M. M., Mackenzie, J., & Copeland, J. (2012). Quantifying cannabis use with the Timeline Followback approach: A psychometric evaluation. *Drug and Alcohol Dependence, 121*(3), 247- 252.
Nutt, D. J., King, L. A., & Phillips, L. D. (2010). Drug harms in the UK: a multicriteria decision analysis. *The Lancet, 376*(9752), 1558-1565.
Quinn, C., Dunn, M., & Degenhardt, L. (2007). *The illicit tablet market in Victoria, 2004-2007.* Ecstasy and Related Drugs Trends Bulletin, December. Sydney: National Drug and Alcohol Research Centre, The University of New South Wales.
R v Momcilovic (2010) VSCA 50.
Rolles, S., & Measham, F. (2011). Questioning the method and utility of ranking drug harms in drug policy. *International Journal of Drug Policy*.
Sentencing Council (2011a). Analysis and research bulletin: Drug offences. London: Office of the Sentencing Council.
Sentencing Council (2011b). Drug offences guideline: Professional consultation. London: Sentencing Council.
Sevigny, E. L., & Caulkins, J. P. (2006). Kingpins or mules: An analysis of drug offenders incarcerated in federal and state prisons. *Criminology and Public Policy, 3*(3), 401-434.
Shearer, J., Johnston, J., Kaye, S., Dillon, P., & Collins, L. (2005). Characteristics and dynamics of cocaine supply and demand in Sydney and Melbourne. Monograph series No. 14. Sydney: National Drug Law Enforcement Research Fund.
Sindicich, N., & Burns, L. (2012). *Australian Trends in Ecstasy and related Drug Markets 2011. Findings from the Ecstasy and Related Drugs Reporting System (EDRS)* (Australian Drug Trend Series No. 82). Sydney: National Drug and Alcohol Research Centre, University of New South Wales.
Smolich, N. (2012). Below par: Drug trafficking threshold quantities in Victoria. The University of Melbourne, Melbourne.

Stafford, J., & Burns, L. (2012). Australian Drug Trends 2011. Findings from the Illicit Drug Reporting System (IDRS). Australian Drug Trend Series No. 73. Sydney: National Drug and Alcohol Research Centre, University of New South Wales.
Taskforce on Illicit Drugs (2001). Illicit drugs taskforce report. Darwin: Northern Territory Government.
United States Sentencing Commission (2011). Analysis of the impact of amendment to the statutory penalties for crack cocaine offenses made by the Fair Sentencing Act of 2010 and corresponding proposed permanent guideline amendment if the guideline amendment were applied retroactively. Washington DC: United States Sentencing Commission.
Walsh, C. (2008). On the threshold: How relevant should quantity be in determining intent to supply. *International Journal of Drug Policy, 19*(6), 479-485.
Woodhouse, B. (2009a). Sentencing outcomes for possession of drugs in the Magistrates' Court of Victoria. Melbourne: Sentencing Advisory Council.
Woodhouse, B. (2009b). Sentencing outcomes for trafficking drugs in the Magistrates' Court of Victoria. Melbourne: Sentencing Advisory Council.
Yeh, B. T., & Doyle, C. (2009). Sentencing levels for crack and powder cocaine: Kimbrough v. United States and the Impact of United States v. Booker. Washington DC: Congressional Research Service.

APPENDIX A: DEEMED SUPPLY LAWS

Table 38: Deemed supply laws on possession of more than a trafficable quantity, by jurisdiction

Jurisdiction	Act	Rules
ACT	Criminal Code 2002	**Section 604:** (1) If, in a prosecution for an offence against section 603, it is proved that the defendant— (d) possessed a trafficable quantity of a controlled drug; it is presumed, unless the contrary is proved, that the defendant had the intention or belief about the sale of the drug required for the offence.
NSW	Drug Misuse and Trafficking Act 1985 No 226	**Section 29**: A person who has in his or her possession an amount of a prohibited drug which is not less than the traffickable quantity of the prohibited drug shall, for the purposes of this Division, be deemed to have the prohibited drug in his or her possession for supply, unless the person proves: (a) that he or she had the prohibited drug in his or her possession otherwise than for supply, or (b) that the prohibited drug was obtained by medical prescription.
NT	Misuse of Drugs Act	**Section 37.6(a):** If the amount of the dangerous drugs to which the offence relates is a traffickable quantity – the person intended to supply the dangerous drugs
Qld	Drugs Misuse Act 1986	None found.
SA	Controlled Substances Act 1984	**Section 32(5):** It is presumed, in the absence of proof to the contrary— (a) in a case where it is alleged that the defendant was taking part in the process of sale of the drug, that the defendant (i) was acting for the purpose of sale of the drug; and (ii) had the relevant belief concerning the sale of the drug necessary to constitute the offence; or (b) in any other case—that the defendant had the relevant intention concerning the sale of the drug necessary to constitute the offence.
Tas	Misuse of Drugs Act 2001	**Section 12(2):** It is presumed unless the accused on the balance of probabilities proves otherwise, that the accused had the relevant intention or belief concerning the sale of the controlled substance required to constitute the offence
Victoria	Drugs, Poisons and Controlled Substances Act 1981	**Section 73(2):** Where a person has in their possession not less than a "traffickable quantity" of a drug of dependence, the fact of possession provides *prima facie* evidence of trafficking
Western Australia	Misuse of Drugs Act 1981	**Section 11a**: A person shall, unless the contrary is proved, be deemed to have in his possession a prohibited drug with intent to sell or supply it to another if he has in his possession a quantity of the prohibited drug which is not less than the quantity specified in Schedule V

APPENDIX B: SAMPLES USED

The **Illicit Drug Reporting System (IDRS)** is a national drug monitoring system run by the National Drug and Alcohol Research Centre (NDARC) and funded by the Commonwealth Department of Health and Ageing. The IDRS has been run nationally since 2000 and its primary aims are to monitor the price, purity, availability and patterns of use and purchasing of drugs such as heroin, methamphetamines, cocaine and other opioids among people who inject drugs on a regular basis: defined as at least six times in the preceding six months. IDRS participants are recruited via a range of means including advertisements in street press, newspapers, treatment agencies, needle and syringe programs (NSP) and peer referral (Stafford & Burns, 2012).

The **Ecstasy and Related Drugs Reporting System (EDRS)** was established in 2003 to complement the IDRS. It follows the same approach, but focuses on drugs such as methamphetamine, cocaine, ketamine, GHB and LSD among people who regularly use ecstasy: defined as at least six times in the preceding six months. Recruitment occurred using entertainment street press, music stores, and via internet websites (including drug information sites and forums) (Sindicich & Burns, 2012).

The **National Drug Strategy Household Survey (NDSHS)** is a national drug monitoring system run by the Australian Institute of Health and Welfare (AIHW) and forms part of the Australian Government's National Drug Strategy (NDS). The household survey is conducted every 3 years and in 2010 more than 26,000 people from all Australian jurisdictions aged 12 years or older were surveyed about their drug consumption histories, attitudes and related behaviours. Australian households were randomly selected with one person in each aged 12 and over asked to complete the 'drop and collect' survey (Australian Institute of Health and Welfare, 2011).

APPENDIX C: WEIGHTS OF AN ECSTASY PILL, METHAMPHETAMINE POINT AND A HEROIN CAP

Given the typical weight of dosage units is not readily available and there is conflict within some estimates (see for example Table 39) we obtained data from Victorian Police Forensic Services Centre on seizures of ecstasy, methamphetamine and heroin. Specifically, we replicated the method adopted by Moore et al. (2005) to estimate the size of heroin caps in 2005, and obtained all seizures from between 1st January 2005 and 30th June 2012 of a tablet sold as 'ecstasy', of heroin where the seizure weighed less than 0.2 grams and of methamphetamine where the seizure weighed less than 2.0 grams. Table 39 outlines the most common estimates and their range(s). Table 40 indicates the proportion of Victorian Police seizures that were covered by such estimates. It showed high concordance with the current estimate for an ecstasy pill and a heroin cap, but that many of the methamphetamine seizures, particularly for seizures involving methamphetamine speed, were higher e.g. 0.4 grams. This led to the adoption of estimates of 0.2 grams for methamphetamine ice and 0.3 grams for methamphetamine speed (see Table 41).[7]

Table 39: Common drug dosage units and existing estimates and range, for a pill, point and cap

Drug dosage unit	Most common estimates (g)	Range (g)
1 ecstasy pill	0.29 [1]	-
1 methamphetamine point	0.1	0.03-0.12 [2]
1 heroin cap	0.1	0.02-0.3 [3]

[1] IDDR (Australian Crime Commission, 2012); Fowler et al. (2007).
[2] IDDR (Australian Crime Commission, 2012); McKetin at al. (2005a).
[3] IDDR (Australian Crime Commission, 2012); Moore et al. (2005); Maher and Dixon (1999).

Table 40: Existing estimates for a pill, point and cap, and Victoria Police Forensics data on percentage of seizures that are encapsulated

Drug dosage unit	Existing estimate	Proportion of Vic Pol seizures that are covered by this estimate
1 ecstasy pill	0.29	94.8%
1 methamphetamine point – speed	0.1	26.2%
1 methamphetamine point – ice	0.1	39.1%
1 heroin cap	0.1	60.2%

Table 41: Final estimates for a pill, point and cap, and Victoria Police Forensics data on percentage of seizures that are encapsulated by these

Drug dosage unit	New estimate	Proportion of Vic Pol seizures that are covered by this estimate
1 ecstasy pill	0.29	94.8%
1 methamphetamine point – speed	0.3	50.4%
I methamphetamine point – ice	0.2	54.1%
1 heroin cap	0.1	60.2%

[7] Experts suggest that street weight may have increased due to recent reductions in the purity of methamphetamine.

APPENDIX D: QUEENSLAND CONVERSION OF 'PURE' TQ TO 'MIXED' TQ

Table 42 outlines the purity estimates for all seizures ≤2 grams in Queensland in 2010/11, with for example a median purity of 18.6% for heroin and 13.7% for methamphetamine. The pure threshold quantity and equivalent mixed threshold quantity based on these estimates is outlined in Table 43. For example at a median purity of 18.5%, 2.0 grams of heroin is equivalent to 10.8 grams of 'mixed' heroin.

Table 42: Queensland purity estimates for all seizures ≤2 grams in 2010/11 by drug type (showing median purity, range and number of seizures analysed)

Drug type	Purity estimates (%)		Seizures analysed (no.)
	Median	Range	
Heroin	18.6	0.7-80.6	423
Methamphetamine	13.7	0.1-82.1	1412
Cocaine	19.0	0.4-84.4	85
MDMA[1]	20.9	0.4-81.6	157
Cannabis	n.a.		

[1]Includes MDMA, MDEA, MDA, PMA
Source: Illicit Drug Data Report 2010-11

Table 43: Queensland 'pure' trafficable quantities, by drug type, versus equivalent 'mixed' trafficable quantities under median, minimum and maximum retail purity in 2010-11

Drug type	Pure threshold quantity (grams)	Mixed threshold quantity (grams) under 2010/11 purity conditions		
		Median [1]	Minimum [2]	Maximum [2]
Heroin	2.0	10.8	2.5	285.7
Methamphetamine	2.0	14.6	2.4	2000.0
Cocaine	2.0	10.5	2.4	500.0
MDMA	2.0	9.6	2.4	500.0
Cannabis	500	500.0	500.0	500.0

[1] Based on median purity in Table 40.
[2] Based on purity range in Table 40.

However, as shown in Table 43 the large range in purity detected by Queensland Police means that the potential 'mixed' threshold quantity in Queensland could be much smaller or much, much larger. Indeed, the current threshold quantities ranged from only 2.4-2.5 grams for all illicit drugs (for those with very high purity drugs) to 285 grams (heroin), 500 grams (MDMA or cocaine) or 5000 grams (methamphetamine) (for very low purity drugs). This indicates someone could be deemed as a trafficker for possession of as little as 2.4 grams of methamphetamine. Conversely, someone may possess 4998 grams of methamphetamine and *not* be deemed a trafficker.

N.B. Purity data only represents purity figures for seizures of that drug type that have been analysed at a forensic laboratory.