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Improving our understanding of Australian cannabis markets

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Key Points

- While much has been researched and written about cannabis and other drug use prevalence patterns and behaviour, surprisingly little research has described the profile and/or drug market behaviour of those involved in regularly distributing cannabis and other illicit drugs
- Traditionally, illicit drug markets have been represented as multi-layered pyramidal-type structures; however law enforcement intelligence and research now suggest that illicit drug markets are looser in structure and are becoming flatter, with supply moving closer to the level of consumer
- Australian cannabis markets include a diverse network of players whose involvement ranges from cultivators to casual consumers, some of whom may never actually purchase cannabis for their own use
- While there is large-scale domestic production of cannabis, sometimes involving organised criminal networks, informal social supply is a very important means for distributing the drug at a retail level
- Drug Use Monitoring in Australia (DUMA) data indicate that there are significant differences between offenders who are detained for drug supply offences (including supply of cannabis) and those who are detained for other offending behaviour, particularly in relation to ethnicity, educational and employment status. Importantly, drug suppliers appear to supplement 'legitimate' forms of income with the profits generated from their involvement in the drug trade
- Drug suppliers are more likely than other offenders to have had previous contact with the criminal justice system and to be using drugs. However, with the exception of drug offences, drug suppliers are less likely to have been charged with any other offence. This may suggest a degree of offence specialisation among this group of offenders
- The criminal justice system may require enhanced or alternative strategies to manage drug suppliers, particularly those who are early in their offending careers as existing interventions designed to address an offender's drug use and offending behaviour are not generally open to drug-using offenders on drug supply charges

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Introduction

The widespread use and perceived ease of access to cannabis throughout Australia has been extensively documented. Explorations into the cannabis market in Australia have focused largely on attributes of the cannabis product itself, such as its price, availability and potency, supplemented by data on the number of cannabis seizures and arrests for supply. Findings from both routine indicator data (such as the Illicit Drug Reporting System and the Ecstasy and Related Drugs Reporting System) and national surveys (such as the National Drug Strategy Household Survey) indicate that the majority of users are able to obtain cannabis relatively easily through friends and acquaintances (AIHW 2008; Sindicich & Burns 2010; Stafford & Burns 2010). In addition, recent findings also indicate that almost one-fifth of Australians aged 14 years and above were presented with an offer or had the opportunity to use cannabis in the past 12 months (AIHW 2008). However, surprisingly little research describes the detailed characteristics and experiences of those directly involved in cannabis supply networks and much of the research on drug markets more broadly tends to be hypothetical in nature (Shearer et al 2008). This bulletin attempts to provide some insights into Australian cannabis markets through use of new data available through the Australian Institute of Criminology's Drug Use Monitoring in Australia (DUMA) program, which was established to monitor the drug use and offending behaviours of people detained by police (see Gaffney et al 2010).


The structure of illicit drug markets

Traditionally, illicit drug markets have been represented as multi-layered pyramidal-type structures – at the top of which is a small number of people responsible for importation or production/cultivation, who then connect with a larger number of 'middle level' suppliers who trade to an extended network of retail level dealers, who in turn deal directly with the drug user (Wilkins & Sweetsur 2006; Nicholas 2008). Such systems are thought to exist as a way of minimising the risk of detection and betrayal by limiting the number of contacts associated with the one dealer (Wilkins & Sweetsur 2006). However, this view of illicit drug markets is overly simplistic, with law enforcement intelligence and research suggesting that illicit drug markets are looser in structure and becoming flatter, with supply moving closer to the level of consumer (Rödner Sznitman 2008; ACC 2010). As Ritter (2006) notes in a review of the different ethnographic approaches to studying illicit drug markets, the complex and dynamic nature of illicit drug markets has contributed to a lack of clear and concise definitions within the literature even on the components of a drug market. There is also a lack of consensus on how applicable such models are across drug types and between geographic locations, with the majority of research suggesting that drug markets are subject to change and dependent upon, and shaped by, a range of other factors (Caulkins & Pacula 2006; Coomber & Turnbull 2007).

What we know about cannabis markets

Cannabis markets are made up of an enormous and diverse network of players whose involvement ranges from cultivators to casual consumers, including some who may never actually purchase cannabis for their own use. Informal supply of cannabis through social networks (such as through family, friends and acquaintances) is identified in the international literature as an extremely important component in the supply and distribution of cannabis (Caulkins & Pacula 2006; Nicholas 2008; Rödner Sznitman 2008), as the following examples illustrate:

- Wilkins & Sweetsur (2006) analysed data from the New Zealand *Health Behaviour Survey – Drug Use* to understand the structure of the local cannabis market. To do this they classified participants who had used cannabis in the previous 12 months as either middle-level cannabis buyers/dealers, or retail-level market players (dealers, buyers or consumers only). Findings revealed that paying for cannabis was uncommon among

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- retail-level consumers, with 82 per cent reporting that they had received all of the cannabis they had used in the past 12 months at no cost. Overall, just over a third of participants (35 per cent) had actually paid for their cannabis. Perhaps surprisingly, a higher proportion of middle-level cannabis buyers were found to grow ‘some’ of their cannabis compared to retail-level cannabis buyers (23 per cent compared to 6 per cent, respectively).
- In an analysis of data from the North American National Household Survey on Drug Abuse to examine the informal nature of the cannabis market, Caulkins & Pacula (2006) found that the majority of cannabis users in the sample (58 per cent) did not pay for their most recent cannabis, although those who did pay for their cannabis used the drug more frequently. In addition, over half of the participants who had recently used cannabis also reported giving away or sharing their most recent cannabis acquisition.
 - A study examining cannabis supply routes in southwest England found that access to cannabis among young people occurred overwhelmingly through social contacts, with only six per cent of participants obtaining cannabis from someone they did not know personally (Coomber & Turnbull 2007). While only a small proportion of participants in the study reported selling cannabis to their friends and acquaintances, just under half of all participants acted as brokers for friends who either could not acquire any cannabis themselves or who were infrequent users. The intrinsic social nature of cannabis transactions among young people within this study was found to act as a buffer to the wider, adult drug market (Coomber & Turnbull 2007).

Cannabis markets in Australia

The Australian cannabis market is heterogeneous in nature with a large-scale domestic production (ACC 2010; Willis 2008). While the structure of cannabis supply networks in Australia has not been extensively researched or documented, law enforcement intelligence suggests that outlaw motorcycle gangs have a strong role in the large-scale cultivation and distribution of cannabis. There is also some evidence that the hydroponic market sector is expanding and that there may be a trend towards syndication of hydroponic crops by commercial cultivators in some jurisdictions, including organised criminal groups (CMC 2010).

Despite this, social supply is prominent and a very important means for distributing the drug at a retail level (Nicholas 2008; Willis 2008; Sindicich & Burns 2010). In spite of the lack of Australian research about the operation of local cannabis supply networks, some quantitative data on cannabis markets are available through a number of large-scale surveys, although in-depth qualitative data are thin on the ground. A summary of publicly available research has found the following:

- In a report examining illicit drug markets in Queensland (CMC 2010), cannabis market participants were categorised into three types of supply levels: personal, social and commercial cultivators. Social cultivators were seen to produce more than they required themselves, with the excess either gifted or supplied to friends at a nominal fee. However, a subgroup of social cultivators who predominately supplied their social network was motivated by profit, indicating a blurring between this subgroup and the commercial cultivation sector. Commercial cultivators were further classified into family-based syndicates and friendship-based syndicates (especially evident in remote Indigenous communities) and traditional organised criminal groups, including outlaw motorcycle gangs.
- A recent Western Australian study found a similar picture. Regular cannabis-using participants, who were able to comment on the shape of the cannabis market, believed that two levels existed: the lower-end user groups (such as backyard growers) and the high-end dealers associated with criminal groups (Lenton et al 2005). The study found that an individual’s perception of the structure of the cannabis market was dependent upon their level of personal experience and direct contact with a dealer or supplier. Among regular cannabis users, 38 per cent most recently obtained cannabis from a ‘backyard



user-grower', a further 30 per cent acquired cannabis from a 'large scale supplier', while the remainder of regular cannabis users did not know the original source of their cannabis. Furthermore, 88 per cent of users had given cannabis away at some stage in the past and 75 per cent had done so during the previous six months, overwhelmingly (93 per cent) to friends. As the authors note, supply to friends on a not-for-profit basis and distributing to peers is often seen as an unremarkable part of users' involvement in the cannabis market, and is not generally perceived as 'dealing'.

This perception is clearly contrary to the legal status of cannabis.

- The Australian Institute of Criminology's Drug Use Careers of Offenders (DUCO) project, a project designed to examine the relationship between drug use and offending among incarcerated offenders (see Makkai & Payne 2003; Johnson 2004; Prichard & Payne 2005), found that regular adult male drug sellers (of all illicit drug types) were: older than most other regular offenders; more formally educated than other regular offenders; and they were also less likely to be Indigenous and to have spent time in a juvenile facility. Regular adult male drug sellers also reported the highest drug use prevalence rates in the study. However, there was a longer time delay between moving from cannabis to the other drugs, and the interval between the onset of use and persistent use across all drug types was generally longer than for other regular offenders. The criminal and drug-using career of regular drug sellers differed from that of other regular offenders, where the onset of cannabis *preceded* the onset of offending among regular drug sellers. Among juvenile offenders in the study, the mean age that juvenile offenders began selling drugs (including cannabis) was 14 and this became a regular activity in less than three months.

Drug Use Monitoring in Australia (DUMA)

DUMA was established in 1999 and is a quarterly collection of drug-related information from police detainees in several sites (police stations or watch-houses) across Australia. DUMA includes both a survey of police detainees as well as a urine sample that is tested for a range of different drugs (Gaffney et al 2010). The survey component of DUMA includes a variety of information that is useful for developing a profile of different offender types. This includes self-reported information about an offender's:

- socio-demographics;
- drug use history;
- drug market behaviour;
- drug treatment history; and
- prior contact with the criminal justice system.

It is possible to separate DUMA offenders who have been detained by police for drug supply offences from those who have not, although it is not currently possible to determine the specific drug(s) involved. However, given that cannabis is the most widely used illicit drug it is reasonable to assume that a proportion of DUMA drug supply offenders were detained for supplying cannabis either solely or in combination with other illicit drug types. The following section outlines findings from an analysis of the differences between DUMA offenders who are detained for any drug supply offence (henceforth referred to as drug suppliers) and those who are detained for other offending behaviour (other detainees).

What do DUMA data tell us about drug suppliers?

DUMA data suggest that there are both similarities and important differences between drug suppliers and other detainees. These are described below for those offenders detained by police in New South Wales and Victoria for the period July 2009 to September 2010.

Sociodemographics of DUMA detainees

The analysis indicates that drug suppliers and other detainees are overwhelmingly male, with a median age of 30 and 31, respectively (Table 1 in Appendix A). However, the ethnicity, educational background, employment status, accommodation arrangements and income sources of drug suppliers differ considerably to other detainees. For example, there is a highly statistically significant relationship between ethnicity and those charged with drug supply offences ($p < 0.01$). Drug suppliers are much *more* likely than other detainees to identify as being Australian only (37 per cent compared to 29 per cent) or Asian (30 per cent compared to 13 per cent), and they are much *less* likely to identify as being North African or Middle Eastern (6 per cent compared to 18 per cent). These findings lend support to law enforcement intelligence that indicates that outlaw motorcycle gangs and (especially) South-East Asian crime groups are often involved in distributing cannabis within Australia (Willis 2008). Other findings can be summarised as follows:

- Contrary to findings from the DUCO study, the analysis indicates that DUMA drug suppliers are significantly less likely ($p < 0.01$) to be well educated than other detainees, with nearly two-thirds (61 per cent) of drug suppliers having been in an educational facility only up to Year 10 (or less). This compares to 42 per cent of other detainees. Similarly, a lower proportion of drug suppliers had attended either TAFE or university (20 per cent compared to 38 per cent of other detainees);
- Drug suppliers are more likely than other detainees to be living in someone else's place (53 per cent compared to 46 per cent) and less likely to be living in a private dwelling (36 per cent compared to 44 per cent);
- Drug suppliers are significantly more likely ($p < 0.01$) than other detainees to be unemployed (51 per cent compared to 35 per cent) and significantly less likely ($p < 0.05$) to be engaged in full-time work (17 per cent compared to 30 per cent); and
- Drug suppliers were less likely than other detainees to receive income from welfare or Government benefits (49 per cent compared to 57 per cent). They were also less likely than other detainees to receive income from work, family or friends and other means; however (and importantly) they were significantly more likely ($p < 0.01$) than other detainees to generate income through drug dealing (34 per cent compared to 4 per cent), which strongly suggests that drug suppliers supplement 'legitimate' forms of income with the profits generated from their involvement in the drug trade.

Offending and drug use histories of DUMA detainees

Overall, the DUMA data suggest that drug suppliers are more likely than other detainees to have had contact with the criminal justice system (including spending time in prison at some stage in their lives), to have been charged with a drugs offence and to be using drugs. However, analysis of the data also indicates that drug suppliers are less likely than other detainees to have spent time in prison in the past year and, with the exception of drug and property offences, to have been charged with any other offence. In particular, the data analysis indicates that:

- One hundred per cent of drug suppliers and 15 per cent of other detainees are currently on a drugs charge, while 31 per cent of drug suppliers are in police detainment on a property offence, compared to 29 per cent of other detainees. Five per cent of drug suppliers and 28 per cent of other detainees are in police detainment for a violent offence. This latter finding is statistically significant ($p < 0.01$) and somewhat surprising as it appears to contradict a key criminological theory that suggests that drug markets are inherently violent (Goldstein 1985) and that systematic violence is committed within the functioning of illicit drug markets as part of the business of drug supply, distribution and use (EMCDDA 2007). However, the elements that generate the types and levels of violence observed overseas (such as the crack cocaine market, which is associated with high levels of gun crime and



youth drug gangs) are absent in Australia, which may explain the result. It is also possible that the small sample size (n=64) could have impacted on the analysis results;

- Fifty-two per cent of drug suppliers had been arrested in the past year, while 43 per cent of other detainees had been arrested, although the difference is not statistically significant;
- Drug suppliers are more likely to have ever been in prison than other detainees (36 per cent compared to 32 per cent), while they are less likely than other detainees to have been in prison in the past year (11 per cent compared to 15 per cent). However the differences are not statistically significant;
- Drug suppliers are significantly more likely than other detainees to have used most types of drugs in the 12 months prior to their detention. For example, they are more likely to have used cannabis (58 per cent compared to 45 per cent – $p < 0.05$), heroin (48 per cent compared to 25 per cent – $p < 0.01$), amphetamines (34 per cent compared to 19 per cent – $p < 0.01$) and ecstasy (25 per cent compared to 11 per cent – $p < 0.01$). There is no statistically significant difference between the two groups in terms of cocaine or benzodiazepine use; and
- Drug suppliers are nearly twice as likely as other detainees to have used two or more drugs, excluding alcohol, in the past 12 months (67 per cent versus 37 per cent – $p < 0.01$).

Summary

Australian cannabis markets include a diverse network of players whose involvement ranges from cultivators to casual consumers. While large-scale distribution of cannabis can involve sophisticated organised criminal groups, social supply is a very important means for distributing the drug at a retail level.

While it is not possible to specifically comment on suppliers of cannabis, analysis of recent DUMA drug market data indicate that important differences exist between drug suppliers as a whole and other types of offenders, particularly in relation to their socio-demographics, offending and drug use histories. Key findings include:

- Drug suppliers more frequently identify as being (non-Indigenous) Australian only or Asian; they are less educated and are more likely to be unemployed. Significantly, drug suppliers are far more likely than other offenders to supplement legitimate income with the profits generated from their involvement in the drug trade. Encouragingly, these characteristics align with police anecdotal evidence that suggests the same;
- Not surprisingly, drug suppliers are much more likely than other offenders to be detained by police for drug-related offences. However, they are significantly less likely than other DUMA offenders to be detained for most other types of offence, including violent offences. These findings point to a degree of offence specialisation among drug suppliers within the DUMA sample; and
- Drug suppliers are significantly more likely than other offenders to have engaged in polydrug use and, compared to other offenders, a greater proportion of drug suppliers have used a range of different drugs (especially heroin, cannabis, amphetamines and ecstasy). These findings support those in the DUCO study.

These key findings provide a useful, general profile of DUMA drug suppliers. In particular, they indicate that drug suppliers are 'experienced' offenders who also have extensive drug (usually polydrug) use problems.

This combination of factors poses specific challenges for law enforcement and the criminal justice system more broadly. For example, existing interventions or programs designed to manage and treat offenders' drug use and offending behaviour (such as police drug diversion initiatives, court-based diversion interventions and drug court programs) are not generally open to offenders on drug supply charges, especially those charged with more

serious trafficking offences. As such, the criminal justice system may require enhanced or alternative strategies to manage these offenders, particularly those who are 'new' or early in their offending careers. It is more likely that targeting offenders who are early in their criminal careers will result in reductions in individual levels of drug offending and drug dependency because these offenders are more likely to be motivated to change at this early stage.

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Appendix A

Table 1
Socio-demographics of DUMA detainees, July 2009–September 2010

	Charged with drug supply (%) n=64	Not charged with drug supply (%) n=1006
Gender		
Male	83	79
Median age (years)	30	31
Ethnicity		
Australian only	37	29
Indigenous	6	7
Asia	30	13
Southern & Eastern Europe	10	11
NZ/Pacific Islands	6	9
North Africa/Middle East	6	18
Sub Saharan Africa	3	3
North West Europe	2	3
British Isles	0	4
Americas	0	2
Education		
Year 10 or less	61	42
Year 11/12	19	19
TAFE/university	20	38
Housing (past month)		
Someone else's place	53	46
Private house/apartment	36	44
Other	12	10
Employment status		
Unemployed	51	35
Full-time	17	30
Part-time	11	14
Disabled for work	14	11
Other	7	10
Income (past month)		
Welfare/Government benefit	49	57
Drug dealing/cultivation	34	4
Family/friends	21	30
Other	18	21

Source: AIC DUMA 2010 [computer file]

Note: If offender did not identify as 'Australian only' or Indigenous then one foreign ethnicity was selected. Education at TAFE/University includes those who completed and those who did not complete course. Income does not sum to 100 per cent as offenders could receive income from multiple sources.

Table 2
Offending and drug use histories of DUMA detainees, July 2009 – September 2010

	Charged with drug supply (%) n=64	Not charged with drug supply (%) n=1006
All current charges(a)		
Drugs	100	15
Property	31	29
Violent	5	28
Traffic	3	9
Breaches	2	17
Disorder	0	13
Other	8	22
Median age first charged (years)	17	18
Arrested in past year	52	43
Prison ever		
Yes	36	32
Prison in past year		
Yes	11	15
Drugs used in past year		
Cannabis	58	45
Heroin	48	25
Amphetamines	34	19
Cocaine	25	18
Ecstasy	25	11
Benzos	19	13
Other	19	11
Polydrug use in past year		
No drugs	11	40
1 drug	22	23
More than one drug	67	37

Source: AIC DUMA 2010 [computer file]

Note: Some percentages do not tally to 100 per cent because of rounding. Drugs used in past year does not sum to 100 per cent as offenders could select multiple drug types. (a) The sample size for those not charged with a drug supply charge is reduced to n=921 due to not having a current charge (i.e. detained only) or missing data.