



## Drug driving among police detainees in Australia

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*In recent years there has been increasing concern about the prevalence of drug driving in Australia. Over the past four years, the majority of Australian states have introduced legislation that makes it an offence to drive with the presence of a range of drugs in the blood or saliva. Using data from the Drug Use Monitoring in Australia (DUMA) program, this paper examines the prevalence of drug driving among a sample of police detainees in key sites in 2005 and 2006. The study found that two-thirds of detainees had driven after using drugs and/or alcohol in the previous 12 months, which is significantly higher than the incidence of drug driving in the general population. Approximately three-quarters of detainees who had been involved as a driver in a high-speed police pursuit reported being under the influence of drugs and/or alcohol at the time of the pursuit. Consistent with past research, detainees were most likely to perceive that cannabis and methylamphetamine did not have a negative effect on their driving ability. These findings suggest the need for continued monitoring of the prevalence of drug and/or alcohol driving and perceptions of the impact on driving ability of different drugs (including alcohol), as well as perceived risks of detection given recent legislative changes that enable random drug testing of drivers.*

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Drug driving is generally defined as 'driving under the influence of alcohol or any other drug to the extent that one is unable to demonstrate appropriate control over a motor vehicle' (Davey et al. 2005). There has been an increasing number of studies examining drug use and driving in Australia. Studies have tended to focus on five main areas: the prevalence and frequency of drug driving; characteristics of drug drivers; the effects of drugs on driving; risk perceptions of drug driving; and possible preventative/legislative measures to reduce the incidence of drug driving. Importantly, these studies have found that although the incidence of drink driving appears to have decreased over the past decade, the pattern is reversed when it comes to drug driving (Darke, Kelly & Ross 2004; Poyser et al. 2002).

There is limited information regarding the incidence of drug driving among the general population in Australia. Most studies have focused on drug driving among specific sub-populations perceived as high risk, such as illicit drug users. The evidence suggests that drug driving is more prevalent among these sub-populations of illicit drug users than the general population. The 2004 National Drug Strategy Household Survey found that of Australians aged 14 years and over who had used illicit drugs in the past 12 months, about one in four (23%) had driven a motor vehicle after they had used illicit drugs (0.6 million people). This was more common for males than females. In contrast, one in six people (16.1%) who had used alcohol in the past 12 months had driven a motor vehicle after

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they had consumed alcohol (2.2 million people, comprising 1.5 million males and 0.7 million females) (AIHW 2005).

Although drug driving is common among illicit drug users, there are differences in the prevalence of drug driving based on the type of drug used. A study of injecting drug users in Sydney found that the most commonly used drugs prior to driving were cannabis (57%) and heroin (56%), and to a lesser extent amphetamines (34%), cocaine (33%) and other opioids (32%) (Darke, Kelly & Ross 2004). Similar findings were noted by researchers in other states (Davey et al. 2005; Donald, Pointer & Weekley 2006), suggesting that the types of drugs self-reported by drug drivers typically reflects broader drug use patterns in the community.

In constructing a profile of drug drivers, results from varying studies displayed similar findings. One study of approximately 90 members of the public from the Adelaide region (Donald, Pointer & Weekley 2006) reported similar issues to a study using police detainees as the sample. This common profile showed that the majority were male, under 25 years of age, single and unemployed (Donald, Pointer & Weekley 2006; Poyser et al. 2002). They were also found to be driving without a licence (generally between 10 and 20%) (Aitken, Kerger & Crofts 2000; Donald, Pointer & Weekley 2006), in receipt of government benefit, began using drugs at an early age, reported higher rates of dependency and more likely to have been arrested or in prison in the past 12 months (Aitken, Kerger & Crofts 2000; Poyser et al. 2002).

In relation to the perceived effects of drugs on driving ability, research has found that individual perceptions of driving ability vary significantly depending on drug type. Studies have reported that participants believe driving under the influence of some drugs can actually improve their driving. This is particularly common among cannabis and methylamphetamine users, who believe

cannabis makes them a more cautious driver and methylamphetamine increases alertness and improves reflexes (Davey et al. 2005; Donald, Pointer & Weekley 2006). To date, studies exploring the effects of various drugs on driving ability have produced inconsistent results, which may have contributed to the belief that some drugs may actually improve driving ability.

Previous research (conducted prior to the introduction of new drug driving legislation such as the *Road Safety (Drug Driving) Act 2003* (Vic)) has found that many users have expressed little concern regarding the illegality of drug driving and the possibility of detection (Jones et al. 2005). For many, the illegality of their drug use overrides the illegality of drug driving.

In late 2004, Victoria became the first jurisdiction in the world to introduce legislation to enable random drug testing of drivers and make it an offence to drive with any concentration of cannabis or methylamphetamine in the blood or saliva (Johns 2004). In 2006, the Victorian legislation was amended to include the provision to test for MDMA (3,4-methylenedioxy-methamphetamine) (ecstasy). By the end of 2007, similar legislation had also been introduced in New South Wales, South Australia, Western Australia, Queensland and Tasmania. In Tasmania, the interpretation of 'prescribed illicit drug' is broad and includes the provision to test for other drugs such as heroin and cocaine, among others.

An issue often raised is the difficulty in detecting cannabis use through saliva testing, as very little of the psychoactive component delta-9-tetrahydrocannabinol (THC) is transferred from the blood stream into saliva (Jones, Shinar & Walsh 2003). This was reflected in Victoria, when two drivers originally returned a positive result for cannabis but later laboratory analysis revealed negative results (Milovanovic 2005).

## Current study

The current study aims to explore the characteristics of police detainees who drive after drug use and their perceptions of the risks in doing so. The Drug Use Monitoring in Australia (DUMA) program is one of the largest studies on drug driving in Australia, having collected national data on drug driving between 2003 and 2006. The data available in the DUMA program enable a number of key areas associated with drug driving to be explored across a number of locations in Australia. While previous research has tended to focus on drug driving in one state at a particular point in time, this paper provides valuable insights into possible differences in drug driving behaviour across a number of locations.

The paper also examines the possible link between high-speed police pursuits and drugs, as there has been, at best, limited research conducted on this highly dangerous form of driving and its relationship with drug intoxication (Nicholas 2003).

## Methodology

This paper examines drug driving behaviour among a sample of adult men and women who have been detained by police in a police station or watch-house and participated in the DUMA program.

The DUMA program operates across one regional and eight urban sites in Australia on a quarterly basis. It involves a voluntary interview with police detainees who are also asked to provide a urine sample. In addition to information about drug use and offending behaviour obtained through a core questionnaire, different addenda are administered each quarter, focusing on topics of specific concern.

The 'Drug driving' addendum has been administered regularly as part of the DUMA program. The addendum was trialled in 2001 and has since been administered to detainees in all sites in

2003, 2004, 2005 and 2006. The addendum consists of questions in relation to driving behaviour after drug use, as well as involvement in high-speed police pursuits. The aim is to obtain information about the proportion of detainees who have driven after using a drug (alcohol, cannabis, cocaine, heroin, amphetamine/methylamphetamine, benzodiazepines and alcohol in combination with any of these drugs), how often they drive after using drugs, and the perceived effects of drugs on driving.

If a detainee indicated they had not driven a motor vehicle in the past 12 months, they did not complete the remainder of the drug driving addendum. Results herein include data from sites that participated in both the 2005 and 2006 drug driving addenda. Hence, data for the Footscray and Darwin sites in 2006 have been excluded, as the DUMA program data collection in these sites began in 2006. Overall, 1,714 police detainees (1,464 males and 250 females) provided information about their experiences of drugs and driving. All results are for adult (18 years and over) detainees only.

Although the primary focus of this paper is on illicit drug driving, alcohol was included in the addendum together with the illicit drugs to provide comparisons between drink driving and drug driving behaviour. References to drug driving throughout this paper also include the category of alcohol.

### Prevalence of drug driving

Across the seven DUMA sites, 1,215 detainees (71%) reported having driven a car or other vehicle in the past 12 months. Of these detainees, 65 percent indicated they had driven following the use of drugs and/or alcohol in the previous 12 months (66% males and 59% females). The percentage of detainees who reported having driven after using any drugs and/or alcohol in the past 12 months differed

considerably by site. Detainees in East Perth (76%), Adelaide (73%) and Elizabeth (72%) were considerably more likely than detainees in Southport (66%), Brisbane (59%), Bankstown (47%) and Parramatta (34%) to report having driven after using any drugs and/or alcohol in the past 12 months.

Aggregated across sites, 40 percent of detainees reported driving following the use of cannabis in the past 12 months. The next most commonly used substances prior to driving were alcohol (31%) and amphetamine/methylamphetamine (30%). In comparison, a relatively small percentage of detainees reported driving following the use of heroin (6%), benzodiazepines (5%) and cocaine (4%). Eighteen percent of detainees indicated having driven after consuming alcohol in combination with any of the abovementioned drugs.

Figure 1 shows the percentage of detainees who self-reported driving following the use of each class of drug in the past 12 months by site. Differences among the sites generally reflect the differences for overall drug use between each DUMA site, for these particular drugs (Mouzos et al. 2007). In all sites except Southport, driving following the use of cannabis in the past 12 months was most common. In most sites, driving after drinking alcohol was the second most common; however, in

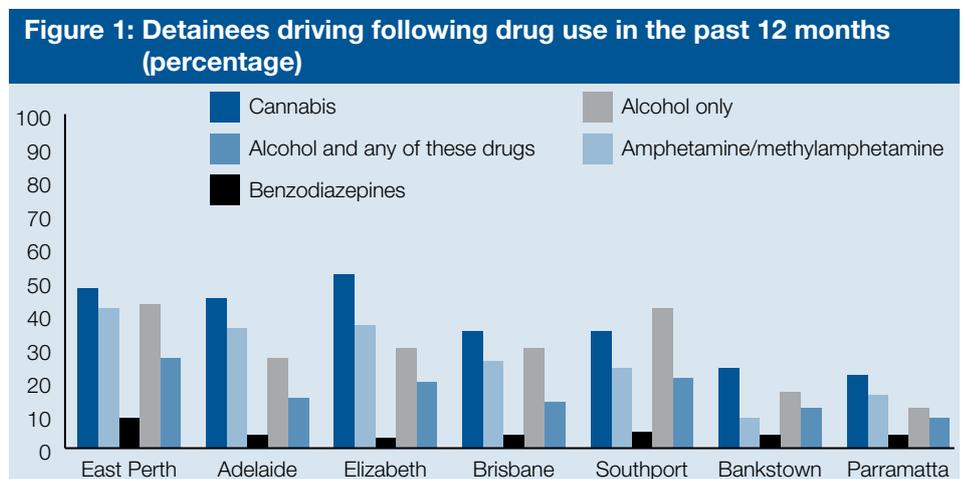
Adelaide, Elizabeth and Parramatta, driving following the use of amphetamine/methylamphetamine was the second most common. This is consistent with self-reported illicit drug use in the past 12 months. It also reflects past research findings that cannabis is the most widely used illicit drug in Australia both among the general population (AIHW 2005) and the police detainee population (Mouzos et al. 2007).

### Frequency of drug driving

In terms of the frequency of drug driving, those who reported driving after using heroin were most likely to report doing so at least once a week (62%). In comparison, the following proportions of detainees reported driving after using each drug type at least once a week:

- cannabis – 58 percent
- amphetamine/methylamphetamine – 50 percent
- benzodiazepines – 32 percent
- alcohol – 25 percent
- cocaine – 15 percent
- alcohol and any of these drugs – 29 percent.

These findings support the notion that drug use is often inextricably linked to the driving behaviour of many drug users. For example, detainees who self-reported dependence on heroin in the past 12 months were more likely to drive



Source: AIC, DUMA collection 2005–06 [computer file]

multiple times a week after using heroin than non-dependent detainees (70% vs 44%). The frequency with which detainees indicated they drove following use of drugs also supports past research, suggesting that many drug users appear unconcerned about driving following use of drugs and the possibility of detection by police.

### Characteristics of drug drivers

Table 1 provides a comparison of the socio-demographic characteristics of detainees who reported driving after using drugs in the past 12 months with detainees who had not driven a vehicle following drug use in the same time period. Whilst gender was not a significant differentiating factor, other characteristics were found to differ based on whether the detainee engaged in drug driving (Table 1). Consistent with past research, detainees who reported driving after using drugs were significantly more likely to:

- have an education of Year 10 or less
- be unemployed
- receive government benefits
- self-report dependency on drugs
- have been arrested or imprisoned in the past 12 months.

### Perceptions about drug driving

#### Effects of drugs on driving

Forty-four percent of detainees who had driven after using a drug in the past 12 months reported that the drugs had an effect on their driving ability at least 'some of the time'. Detainees who more commonly reported that the drugs 'never' had an effect on their driving were:

- 68 percent of detainees who had driven after using cannabis
- 74 percent of detainees who had driven after using cocaine
- 59 percent of detainees who had driven after using amphetamine/methylamphetamine
- 49 percent who had driven after drinking alcohol
- 40 percent who had driven after using heroin.

Detainees who reported the drug as having an effect were asked to rate the degree to which their driving ability was specifically affected on the last occasion they drove after using the various types of drugs (Figure 2). Across all drug types, detainees more commonly reported that the drug had a negative effect on their driving ability. However, there were differences in the perceived degree

of the effect on driving ability according to the type of drug used. Of all drugs, benzodiazepine users rated the drug as most likely to have had a negative impact on their driving ability (85%). Consistent with past findings, detainees reported that drugs such as heroin, cocaine and alcohol also severely affected driving ability.

Cannabis was the most commonly reported drug that detainees perceived to have a positive effect (15%) or no effect (36%) on driving, as was amphetamine/methylamphetamine. Nine percent of detainees who had driven after they drank alcohol and 22 percent after they had used amphetamine/methylamphetamine reported that the drugs had a positive effect on their driving. The percentage of detainees who reported that heroin had a positive effect on their driving ability (7%) also supported previous research, where it was found that only 10 percent of illicit drug users in Adelaide believed heroin could improve driving to a small degree (Donald, Pointer & Weekley 2006).

#### Illegality of drug driving

Consistent with previous research, of those detainees who had driven in the 12 months prior to arrest, more than half (52%) reported driving without a licence (their licence had expired, was suspended or they never had a licence). This figure is more than double that found among the general population (Donald, Pointer & Weekley 2006). The proportion of detainees driving without a licence varied by site, with detainees in East Perth and Elizabeth (63% respectively) more likely than detainees in Adelaide (47%), Bankstown (48%), Parramatta (45%), Brisbane (46%) and Southport (46%) to report driving without a licence in the past 12 months.

A small number of detainees either did not believe it was an offence to drive under the influence of drugs (8%) or were unsure whether it was illegal (8%). The percentage of detainees who perceived

**Table 1: Characteristics of detainees who drive after using drugs<sup>a</sup> compared with non-drug drivers (percentage)<sup>b</sup> (n=1,215)**

	Drug driver	Non-drug driver
Male	88	84
Mean age	29**	32
Currently in a relationship	30	33
Completed Year 10 or less	47**	35
Unemployed	54**	45
Income from benefits	57**	49
Drug dependent	67**	18
Current custody for a drink driving offence	7**	2
Arrested for a drink driving offence in past 12 months	9**	1
Arrested in past 12 months	65**	39
Prison in past 12 months	15**	10

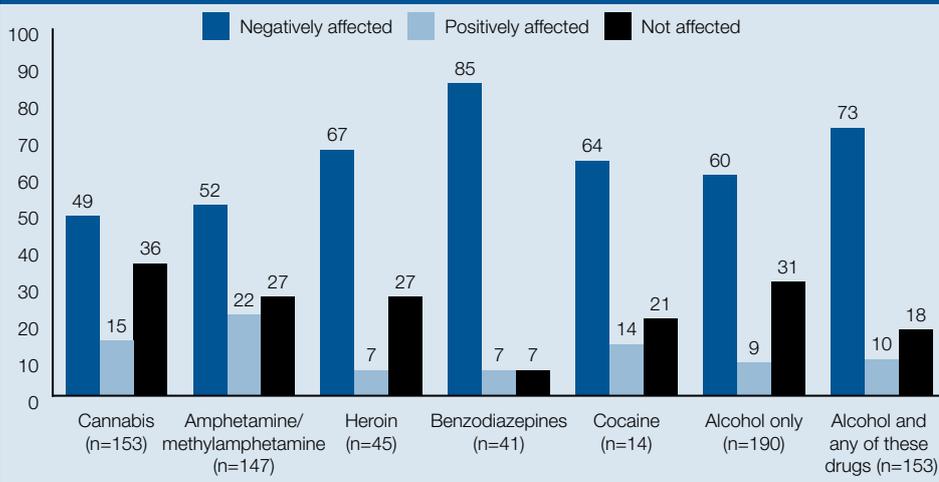
\*\* Statistically significant at p<0.01

a: Includes alcohol, amphetamine/methylamphetamine, benzodiazepines, cannabis, cocaine and heroin

b: Except 'mean age', which is in years

Source: AIC, DUMA collection 2005-06 [computer file]

**Figure 2: Perceptions of the effect of drugs on driving ability<sup>a</sup> (percentage)**



a: The last occasion they drove after using the drug  
 Source: AIC, DUMA collection 2005–06 [computer file]

it to be an offence to drive under the influence of drugs increased slightly from 82 percent in 2005 to 86 percent in 2006; however, there were notable differences across the seven sites. Overall, 95 percent of detainees in Parramatta and 89 percent of detainees in Bankstown, Brisbane and Southport perceived drug driving to be an offence compared with 81 percent in Adelaide, 79 percent in East Perth and 77 percent in Elizabeth.

**High-speed police pursuits**

The drug driving addendum asks detainees questions regarding involvement in high-speed police pursuits. Of those detainees who had driven a vehicle in the past 12 months, 249 (21%) reported they had failed to stop when requested by the police. Male detainees were more likely to report failing to stop for police when requested compared with female detainees (22% vs 12%). Detainees in the 18 to 25-year-old age group were also less likely to stop when requested by police compared with detainees aged 36 and over (25% vs 12%).

Just over one in ten detainees (11%) indicated that they would drive off (if possible) if requested to stop by police.

Males were more likely than females to report they would drive off if requested to stop by police (11% vs 8%), as were younger detainees aged 18 to 25 years compared with detainees aged 36 years and over (16% vs 5%).

Overall, 95 detainees (8%) reported that they had been involved in a high-speed pursuit with a police vehicle in the past 12 months. Five percent of detainees had been involved in the police pursuit as the driver compared with two percent who had been involved as a passenger, and one percent reported involvement as both a driver and a passenger. Males

were twice as likely as females to report involvement in a police pursuit in the past 12 months (8% vs 4%).

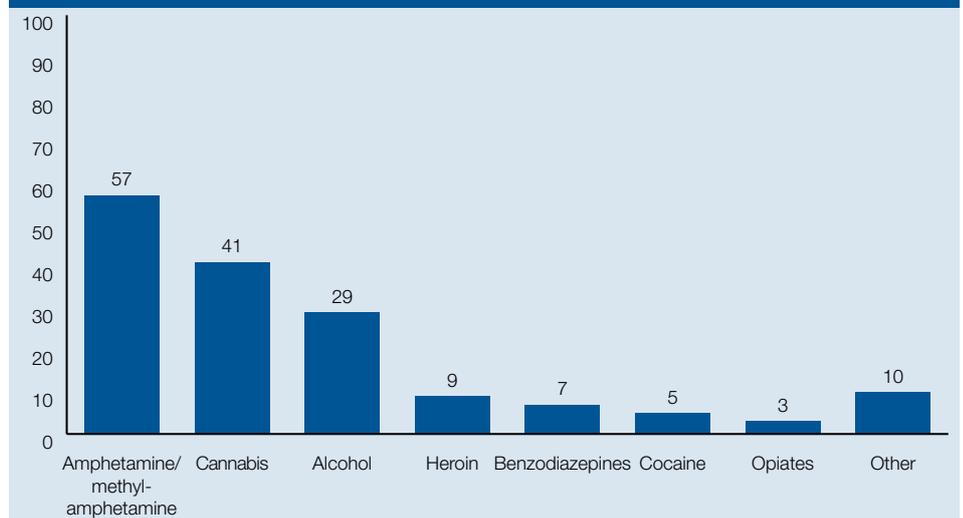
Results also indicated that self-reported involvement in police pursuits decreased with age, with 12 percent of detainees aged 18 to 25 years reporting involvement in police pursuits compared with only three percent of detainees aged 36 years and over. There were few differences in reported involvement in police pursuits by detainees across the seven sites.

Of those detainees who had been involved in a high-speed police pursuit in the past 12 months, most (72%) reported involvement in only one or two pursuits (range of 1–15 pursuits).

Almost three-quarters (74%) of the detainees who had been involved in a high-speed police pursuit as a driver in the past 12 months indicated they had been under the influence of drugs and/or alcohol during the police pursuit. Fifty-four percent of detainees reported they were under the influence of drugs during all of the police pursuits they were involved in as a driver compared with 21 percent who indicated they were under the influence for some of the police pursuits.

Amphetamine/methylamphetamine was the most common drug that detainees

**Figure 3: Drugs used by detainees when driving a vehicle involved in a high-speed police pursuit in the past 12 months (percentage)**



Source: AIC, DUMA collection 2005–06 [computer file]

reported driving under the influence of during a high-speed police pursuit (57%), followed by cannabis (41%) and alcohol (29%) (Figure 3). These findings are consistent with past research, which links the effects of amphetamine/methylamphetamine and the propensity for some individuals to become involved in aggressive driving behaviour such as police pursuits. It has been suggested that amphetamine/methylamphetamine users may be attracted to police pursuits for the same reasons they use the drugs – a desire for excitement and risk-taking behaviour. Individuals driving following amphetamine/methylamphetamine use may be more likely than individuals driving following the use of other drugs to display aggressive driving behaviour (Nicholas 2003).

## Conclusion

This study highlights the significant issue of driving following the use of drugs and/or alcohol in Australia. Over half of detainees who had driven a car or other vehicle in the past 12 months reported driving after they had used drugs other than alcohol and over one-third reported driving after they had used alcohol. Specifically, driving following use of cannabis, alcohol and amphetamine/methylamphetamine was commonly reported by detainees, a finding that accords with past research. It will be important to monitor the impact of recently introduced drug driving legislation in various Australian jurisdictions that make it an offence to drive with any concentration of cannabis, methylamphetamine or MDMA (ecstasy) in the blood or saliva.

Although the majority of detainees recognised it was an offence to drive under the influence of drugs and/or alcohol, some believed that driving following the use of drugs and/or alcohol (particularly cannabis and amphetamine/methylamphetamine) could have a positive effect on their driving ability. With the introduction of new legislation and subsequent increased media publicity surrounding the ability of police to test for the presence of drugs, it would be worthwhile to monitor whether this has any deterrent effect on those who drive under the influence.

Furthermore, findings from this study provide some useful information on those detainees who have been involved in high-speed police pursuits. An important finding for law enforcement agencies was that almost three-quarters of detainees who had been involved as a driver in a high-speed police pursuit reported being under the influence of drugs at the time. Specifically, the use of amphetamine/methylamphetamine and the relationship between aggressive, dangerous driving and high-speed police pursuits is an area for further consideration for law enforcement agencies engaging in motor vehicle pursuits.

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