



No. 185

# Patterns of Drug Use Amongst Police Detainees: 1999–2000

Toni Makkai, Doug Johnson and Wendy Loxley

*Drug Use Monitoring in Australia (DUMA) is the only project in Australia that is routinely monitoring the use of illicit drugs by people detained by police. Although there are many anecdotal stories about the use of drugs by detainees, this is the first authoritative research to both document and monitor use amongst this important group in the community. The collection began in January 1999 and the results presented here describe the extent of illicit drug use every three months in four sites across Australia. These data are comparable with international collections in a number of countries, including the United States and England. Until now, such cross-cultural comparisons have not been possible. The increase in amphetamines across all sites indicates the value of an ongoing monitoring system such as DUMA. However, the enormous differences in opiate use across the sites also suggests that a more complete monitoring system is required before we can produce a truly national figure on illicit drug use amongst detainees.*

**Adam Graycar**  
Director

The monitoring of illicit drug use amongst the criminally active population is an important part of setting in place an evidence-based policy agenda on drugs and crime. Without basic information on the extent of use over a long-term period, it is not possible to design appropriate interventions, and then monitor those interventions, within the criminal justice system. The Drug Use Monitoring in Australia (DUMA) project is a pilot study funded under the Commonwealth National Illicit Drug Strategy to develop a workable monitoring program focusing on those individuals who come into contact with the criminal justice system (see Makkai 1999 for a more detailed description of the program). As the first point of contact with the criminal justice system is usually the police, DUMA is designed to monitor those people who are detained and brought to a police station, usually for charging purposes. Data collection for the DUMA project began in January 1999. This paper provides interim findings up to the last collection in the middle of 2000. The pilot project will conclude at the end of 2001.

Data collection is undertaken every three months in four police sites: two in Sydney (at Bankstown and Parramatta); one in Southport, Queensland; and one in East Perth. For the latter two sites, data collection began in January 1999. It began in mid-1999 for the two Sydney sites. Trained interviewers approach detainees (who have been detained by police within the last 48 hours) within these sites, usually over a three-week period, and ask them if they

AUSTRALIAN INSTITUTE  
OF CRIMINOLOGY

*trends*

&

*issues*

in crime and criminal justice

December 2000

ISSN 0817-8542

ISBN 0 642 24206 2



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**Table 1:** Compliance rates in DUMA sites, adult detainees

	Bankstown		East Perth		Parramatta		Southport	
	1999	2000	1999	2000	1999	2000	1999	2000
Number approached	185	222	597	339	219	260	585	420
Number interviewed	159	188	479	277	184	228	544	369
(Percentage interviewed)	(85.9)	(84.7)	(80.2)	(81.7)	(84.0)	(87.7)	(92.3)	(87.8)
Number provided urine	89	149	304	192	109	168	457	291
(Percentage provided urine of those interviewed)	(56.0)	(79.3)	(63.5)	(69.3)	(59.2)	(73.7)	(84.0)	(78.9)

Source: Australian Institute of Criminology, DUMA fieldwork files

would participate in an independent and confidential research project. They are also asked to provide a urine specimen. Detainees can refuse to participate, can agree to answer the face-to-face interview but not provide a urine specimen, or can do both. Averaged across sites, around 85 per cent of detainees agree to an interview and, of those, around 72 per cent agree to provide a urine specimen. Table 1 shows the breakdowns by site. There is no significant difference between sites for the compliance rate for the interview. For the urine compliance there were significant differences between the sites in 1999; Southport had a higher compliance rate than the other three sites. In 2000 there were no longer any significant differences in the urine compliance rates between sites. The analyses in this paper are based on the 1,759 people who provided a urine sample.

The urine that is collected is screened for the presence of a range of substances—cannabis, methadone, opiates, amphetamines, cocaine and benzodiazepines. The DUMA project uses Australian Standard 403 to determine if a screen is positive or negative (see Makkai 2000a for further discussion of urine testing). Detection times can vary with urine testing. Cannabis can usually be detected up to 30 days after consumption for very heavy users. In the case of benzodiazepines, detection can be up to 14 days. For the other drugs, however, the window of detection is usually between 36 and 48 hours. As our primary focus is on those drugs that are used illegally, this paper

concentrates on amphetamines, opiates, cocaine and cannabis. It is possible, however, that some amphetamine and opiate use can be legal; urine testing simply identifies whether the drug has been recently consumed, not the reasons for its use (for further discussion of this matter see Makkai 2000a; Loxley, Makkai & Indermaur 2000).

Drugs markets are comprised of a retail end, a distribution system and a production or manufacturing sector. These sectors meet in a dynamic and interactive relationship which brings supply and demand together. Patterns of drug use can be highly localised within regions, indicating that supply and demand depend on a whole range of factors. These factors can include sociodemographic and cultural factors, availability and quality of the product, and geographical location relative to major distribution networks. DUMA is designed to be a local monitoring system of local drug markets, but with consistent methodology and data collection instruments across sites to facilitate comparative analyses.

**Table 2:** Sociodemographic profile of the sample

	Males	Females	(Total)
Mean age (median)	28.94 (27.00)	27.15 (25.00)	28.68 (26.00)
Percentage male	–	–	84.9
Percentage married/de facto	25.1	32.3	26.2
Percentage not completed Year 10	29.2	37.7	30.5
Percentage report full-time employment in the past 30 days	28.7	7.2	25.5
Percentage report receiving government benefit in past 30 days	63.2	82.2	66.0
Percentage report living in public housing in past 30 days	8.4	14.3	9.3
Percentage report living “on the street” in past 30 days*	6.0	3.8	5.7

\* Differences between males and females are statistically significant at  $p < 0.01$  except for living on the street.

Source: Australian Institute of Criminology, DUMA Collection (computer file)

### Sociodemographic Profile of Detainees

Police detainees tend to be young and male, with no significant variations between collection periods or across sites. Averaged across the sites and the quarters, the average age is 29 years (median age 26 years) while 85 per cent are male. Around 30 per cent had not completed Year 10 of secondary schooling and only 26 per cent report that they are currently married or in a de facto relationship. Detainees are also less likely to hold full-time work; 25 per cent self-reported having a full-time job in the past 30 days while 66 per cent reported receiving money from a government benefit in the past 30 days. Around nine per cent of detainees report that they lived in public housing in the past 30 days while just under six per cent report they had lived “on the street” during the past 30 days. Comparative data on the local population indicate that the detainee population is different from the general population residing in the vicinity of the police site (see Makkai 2000c).

Table 2 shows the sociodemographic profile of the detainees separately for males and females. The data indicate that females are significantly more likely to be younger, to be currently married or in a de facto relationship, and to have not completed Year 10. Females are less likely to report having been

in full-time employment, to be receiving government benefits and to be located in public housing during the last 30 days.

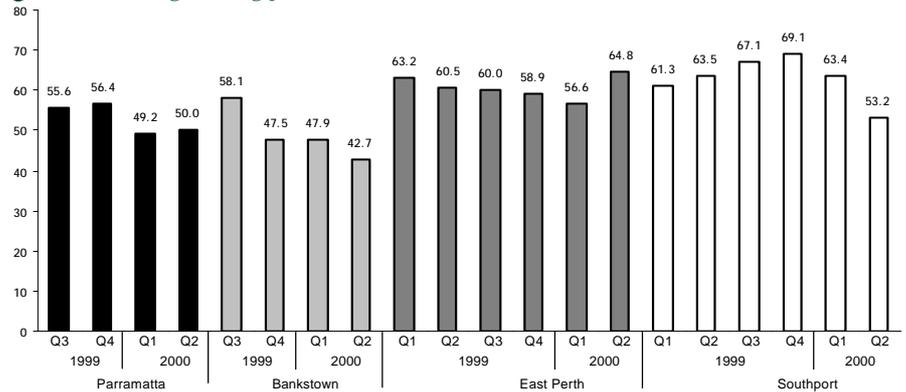
**Patterns of Recent Use**

Figures 1 to 4 show the percentage of adult male detainees who tested positive to the four drugs by quarter. Detainees are most likely to test positive to cannabis (see Figure 1). This is consistent with the National Drug Strategy Household Survey data which showed that cannabis was the most commonly used illicit drug in the general community in 1998. Across the general population, around 39 per cent self-reported they have tried cannabis and 18 per cent reported using it in the past 12 months. Amongst this sample of detainees, the average number testing positive to cannabis use in the past 30 days was 63 per cent in Southport, 61 per cent in East Perth, 52 per cent in Parramatta and 47 per cent in Bankstown. There is some variation between the sites, with those in Sydney being slightly less likely to test positive than in the two other sites. However, the differences are not statistically significant.

There are noticeable variations between sites in the percentage of detainees who test positive to opiates. The extent of recent opiate use amongst Sydney detainees is much higher than in either the Southport or East Perth sites, as shown in Figure 2. Within sites there has not been any significant variation from quarter to quarter in the percentage testing positive. As a result, the relative differences between the four pilot sites have remained constant. Averaging across the quarters, 40 per cent of detainees in Parramatta tested positive to opiates, 45 per cent in Bankstown, 22 per cent in East Perth and 13 per cent in Southport.

Cocaine is a significant problem in the United States. The comparable monitoring program

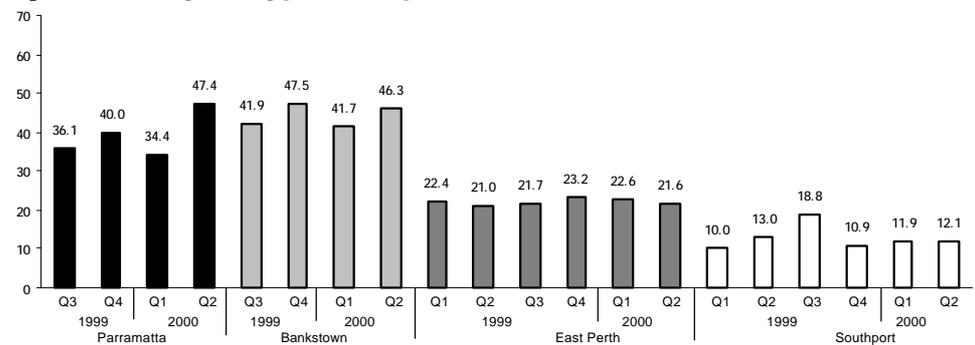
**Figure 1: Percentage testing positive to cannabis—adult males**



Source: Australian Institute of Criminology, DUMA Collection (computer file)

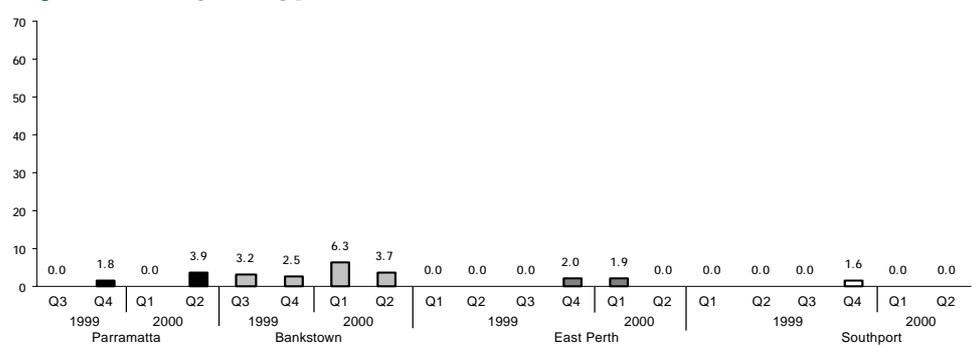
Note: Q1=January–March; Q2=April–June; Q3=July–September; Q4=October–December

**Figure 2: Percentage testing positive to opiates—adult males**



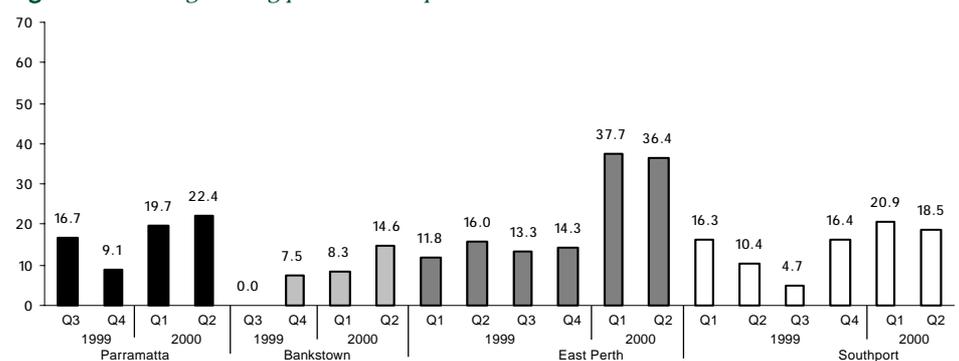
Source: Australian Institute of Criminology, DUMA Collection (computer file)

**Figure 3: Percentage testing positive to cocaine—adult males**



Source: Australian Institute of Criminology, DUMA Collection (computer file)

**Figure 4: Percentage testing positive to amphetamines—adult males**



Source: Australian Institute of Criminology, DUMA Collection (computer file)

in that country shows that in the south and west of the country there are very high rates of police detainees testing positive to cocaine (National Institute of Justice 2000). Similarly, in England and Scotland some local sites have also shown high rates of recent cocaine use (McKeganey et al. 2000; Bennett 2000). In the four Australian sites, very little cocaine has been detected in the urine samples provided by the detainees (see Figure 3). The only site to show some signs of recent cocaine use is Bankstown. However, relative to opiates or amphetamines, the numbers of people testing positive for cocaine are much lower.

The greatest variability across time is seen for amphetamines, as shown in Figure 4. During 1999 the percentage testing positive from quarter to quarter in each site was stable except for Southport where, in the third quarter, there was a significant drop, followed in the fourth quarter by a return to the previous level. In 2000, across all sites, there has been an upward trend that is most observable in the East Perth site. The upward trend in East Perth was clearly evident in the first quarter collection January–February 2000, and was maintained in the second quarter. At the end of 1999, 14 per cent of adult male detainees at the East Perth site tested positive to amphetamines. By the time of the first quarter collection in 2000, 38 per cent of detainees tested positive to amphetamines.

The upward trend is consistent with other law enforcement indicators—increased detection of methylamphetamine labs by State police services.

As the number of females interviewed in each site during a quarter is relatively small, the data have been collapsed into two groups—those testing positive in 1999 and those testing positive in 2000. Figure 5 shows a similar trend to the males with opiate and cannabis rates being relatively stable, but an increase in amphetamines between 1999 and 2000. If we take Bankstown as an example, 65 per cent of female detainees in 1999 and 68 per cent in the first two quarters of 2000 tested positive to opiates. If we take Southport as another example, 11 per cent of female detainees tested positive to amphetamines in 1999 whereas the number testing positive in the first two quarters in 2000 has increased to 39 per cent. There are also indications of an increase in cocaine in Bankstown, however the numbers testing positive are small. Interestingly, female detainees are less likely to test positive for cannabis than their male counterparts, but are more likely to test positive to the other three drugs—amphetamines, cocaine and opiates. This finding is consistent with the international monitoring program, which also finds that female detainees are overall more likely to test positive to illicit substances than male detainees.

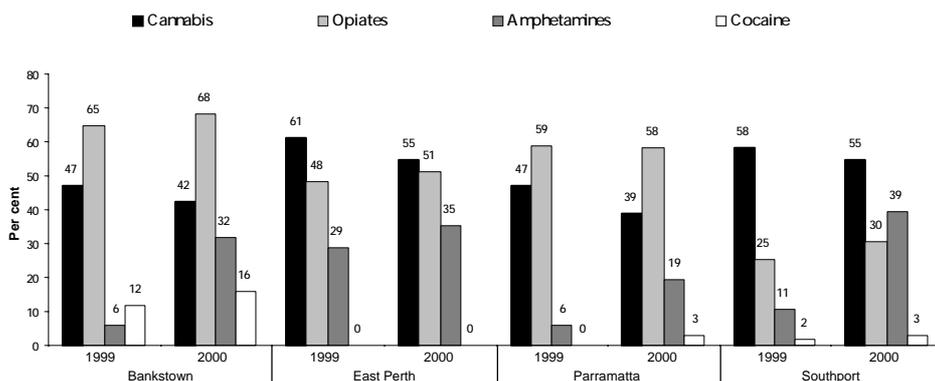
## Age Variations

Studies of drug users show that patterns of use vary by age, with younger people more likely to be current users. Figures 6 and 7 indicate the pattern of recent use by five age categories—those aged 20 years or younger, 21–25 years, 26–30 years, 31–35 years and 36 or more years—for males and females. Figure 6 shows that the pattern of recent cannabis and amphetamine use varies across age groups, with use declining with age for males. If we take cannabis use, 69 per cent of adult males aged 20 years or younger tested positive as compared to 34 per cent of those aged 36 years or more. Recent amphetamine use drops between these two categories by eight percentage points from 19 per cent of those in the youngest age group to 11 per cent of those in the oldest age group. Analysis of variance confirmed that the differences between age groups were statistically significant for both drugs.

There are, however, no significant differences in the opiate or cocaine use by age groups. Thus, 23 per cent of those in the youngest age group tested positive to opiates, as did 23 per cent of those in the oldest age groups. Analysis of variance confirmed that the differences were not statistically significant for either opiates or cocaine.

Figure 7 examines patterns of recent use by age for female detainees. Although the data suggest some variation across the age groups, analysis of variance confirmed that there are no statistically significant differences in the proportions testing positive by age group. Thus, for the four drugs examined here, patterns of recent use do not vary by the age of the female detainee.

Figure 5: Patterns of recent drug use amongst female detainees

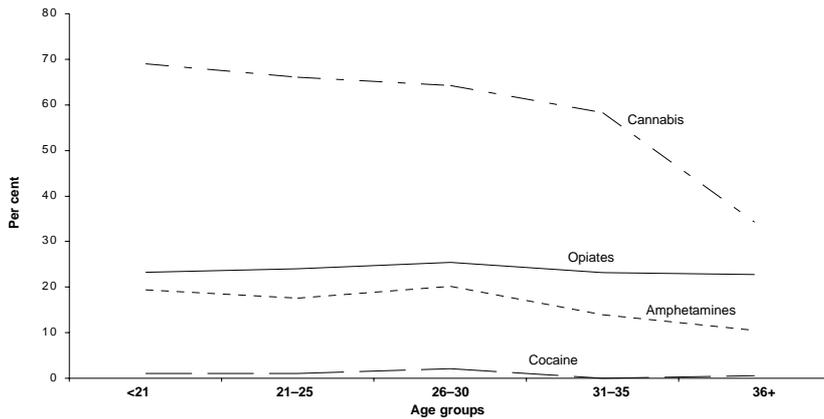


Source: Australian Institute of Criminology, DUMA Collection (computer file)

## Conclusions

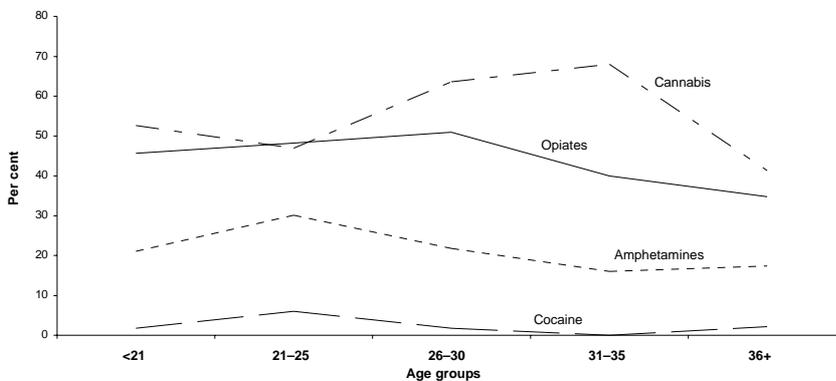
The trend data show relatively stable patterns in recent use of cannabis and opiates over a 12–18-month period in all four sites

**Figure 6:** Percentage testing positive to drug by age groups, adult male detainees (n=1,491)



Source: Australian Institute of Criminology, DUMA Collection (computer file)

**Figure 7:** Percentage testing positive to drug by age groups, adult female detainees (n=266)



Source: Australian Institute of Criminology, DUMA Collection (computer file)

for adult detainees. However the data suggest that the DUMA methodology can pick up changes in recent drug use patterns in a relatively short period of time and that these changes are not based on anecdotal evidence. Within a three-month period, significant changes in recent amphetamine use were detected in one of the sites with smaller changes observed in the other three sites. The capacity to detect change in a relatively short period of time highlights the potential use of DUMA for strategic and policy interventions.

- In terms of criminal justice agencies, it highlights strategic priority areas for those responsible for policing the national border and local illicit drugs markets.
- For treatment agencies, it indicates the potential for a significant increase in problematic use that will affect

resources and the development of appropriate programs.

- For corrections agencies, it highlights specific drug problems that may present in current prisoner intakes impacting on prison staff and the resources required to deal with the associated problems of drug treatment, detoxification and illegal use within the prison system.

As the changes observed are variable between the four sites, specific local strategic and policy interventions are also vital. This variation in detected drug use between sites also highlights the fact that for DUMA to be an effective ongoing monitoring tool, it does need to have more sites than the current four-site pilot program. This is probably nowhere more obvious than in regard to cocaine. Customs and police have recorded seizures of cocaine. In addition, self-report

data from the Illicit Drug Reporting System (IDRS) and DUMA indicate that users believe that they have used cocaine (Makkai 2000b). Why, then, does it not turn up in the urinalysis? There are a number of possible reasons. The first is that cocaine markets are highly localised and the drug is not as widely available in Bankstown or Parramatta as in some other areas of the city—more sites would enable this to be tested. The second is that its price puts cocaine out of reach of most police detainees. Third, local and national policing strategies have effectively reduced availability (either through supply or price) amongst the detainee population. Fourth, there is no historical use of the drug amongst this group. The final reason is that urinalysis may fail to detect the drug. However, the reality is that a dependent cocaine user would be using many times a day and would be detected by urinalysis.

The different levels of use between female and male detainees require more detailed research to inform policy development and intervention strategies. Why do female detainees have higher rates of recent drug use? Can different forms of criminal offending account for these differences, or is it the case that women who come into contact with the criminal justice system have more severe drug problems? The AIC intends to undertake a detailed analysis of female and male differences but there are immediate consequences that arise from these findings. It may be the case that women with drug problems find it harder to locate appropriate treatment and, hence, are more likely to end up in the criminal justice system. Given that a number of the women report engaging in prostitution, the links between drug and prostitution markets requires closer examination. Research from the United Kingdom suggests that the two are closely tied, and that

regulatory strategies to deal with prostitution may have positive spin-offs in terms of illicit drug use (Edmunds, Hough & Urquia 1996).

In terms of diversionary schemes that focus solely on cannabis, women may be disproportionately less likely to be diverted as the main drug of choice is less likely to be cannabis and more likely to be either heroin, cocaine or amphetamines. If disproportionately more women are using drugs that are traditionally injected, then the associated problems of blood-borne viruses may be more acute amongst this group. This will impact on those agencies that have a duty of care if these women are detained either in police watchhouses or in correctional facilities.

The fact that younger adult males have a higher risk of recent cannabis and amphetamine use, and the invariant relationship between age and opiate use, suggests that police diversion training will need to be cognisant of these differences. Similarly, the lack of a relationship between age and illicit drug use amongst females also has implications for police diversion schemes. These findings are also important for treatment and education programs. Such programs need to take account of lifestyle factors and attitudinal differences that often vary by age.

### Acknowledgment

The DUMA project is funded under a three-year grant from the Commonwealth's National Illicit Drug Strategy. The National Drug Research Institute at the Curtin University of Technology, Marg Hauritz Pty Ltd, and Forsythe Consultants Pty Ltd collected the data used here for the AIC's DUMA project, with the assistance of the Queensland, New South Wales and Western Australian Police Services.

Neither the collectors nor the police services bear any responsibility for the analyses or interpretations presented herein.

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