

Drug Use Monitoring in Australia

A project overview

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In these times of resource constraints and increasing accountability and transparency, all sectors of government are being required to clearly articulate their policies and practices. At no other time has there been greater emphasis on evidence-based policy making and practice within government. The Drug Use Monitoring in Australia (DUMA) project is part of this evidence-based movement and it is the first major initiative within the illicit drug area that focuses specifically on people detained by police – with a specific mandate to on-going monitoring of illicit drug use and criminal activity.

Drug Use Monitoring in Australia (DUMA) is an ongoing project run by the Australian Institute of Criminology and funded by the Commonwealth Attorney General's Department and the South Australian Attorney General's Department with in-kind assistance from the SA, NSW, Qld and WA police services. This article seeks to explain the methodology of DUMA, examine some of the results and consider how the project can help our law enforcement partners in the fight against illicit drugs.

The project began in January 1999 at Southport on the Gold Coast and East Perth sites, followed in July by two Sydney sites at Bankstown and Parramatta. Funding was provided by the National Illicit Drug Strategy (NIDS) for the initial three years. Further funding for 2002-03 has been provided by the Commonwealth Attorney-General's Department with

additional money from the South Australian Attorney-General's Department. This enabled the program to be extended by three more sites that came on stream in 2002 – Elizabeth in South Australia, Adelaide and Brisbane.

At a macro level, DUMA provides another source of information to assist law enforcement in:

- strategically identifying emerging drug/crime problems for future operations;
- targeting operational policing resources; and
- evaluating operational policing activities.

DUMA, at a macro level, collects data for strategic analysis, policy development and research. It involves interviewing people recently detained by police and also asking them to provide a urine specimen. The data is then collated and fed back to the participating police stations within two to six weeks of being collected. Collections occur every three months.



Photo by Brian Hartigan

The project is based on the highly successful Arrestee Drug Abuse Monitoring Program (ADAM see <http://www.adam-nij.net/> for more information) that has been running in the United States from 1986 and now covers approximately 36 major urban centres across the country. A number of other countries are also participating in the international program called I-ADAM (see <http://www.adam-nij.net/iadam.htm> for more information). The I-ADAM group has recently released a report that is available from <http://virlib.ncjrs.org/International.asp>

Patterns of recent drug use

DUMA collects a wide variety of data including socio-demographic characteristics, sources of financial income, prior criminal offending, drug use history, drug market activity in the past 30 days, and treatment utilisation. Some of the most powerful data comes from the urine samples that are tested for opiates, amphetamines, cocaine, methadone, cannabis and benzodiazepines. Figure 1 shows the proportion testing positive to heroin in four of the sites¹.

This one piece of information shows:

- that the decline in heroin use was detected at Bankstown in mid-late 2000 prior to the reporting of the heroin shortage in January 2001;
- furthermore heroin use has begun to increase in Bankstown in late 2001 while Parramatta has not yet shown signs that heroin is widely available in that local area;

- the heroin shortage impacted noticeably in the two Sydney sites by early 2001 but not in the other sites; and
- it took some three months before a decline in East Perth and Southport was detected.

Changes at street level do not necessarily occur simultaneously across the country. Although the data came from people arrested at the local level, global supply lines are linked to local markets, so it is important to monitor local markets. For example does the data suggest that the heroin supply lines for East Perth and Southport were not affected to the same degree as the Sydney supply lines? Is it the case that even within Sydney the supply lines into Parramatta and Bankstown may be different? Mapping DUMA data to other strategic intelligence data would further enhance our understanding of both local and global drug markets. Australian Customs are routinely undertaking such sensitive analyses incorporating DUMA data.

Unlike other monitoring systems, DUMA provides quarterly data that is both timely and sensitive to early changes at the local level as evidenced by the detection of early decline of heroin in Bankstown. Furthermore, the urinalysis provides a very reliable source of information. DUMA is the only drug monitoring program in Australia that confirms self-reported drug use with scientific testing.

The data on heroin can be placed side by side with the data on methylamphetamines (see fig. 2). DUMA detected rapid increases in methamphetamine at the East Perth site in late 1999. The on-going monitoring

has shown that this drug, not heroin, remains the drug of choice among detainees outside of the Sydney sites. The important addition of the South Australian sites has also found high rates of methylamphetamine use². When comparing figures 1 and 2, heroin declined in the Sydney sites while methylamphetamine increased. The data suggests that when heroin is in short supply some detainees will shift to other drugs.

This has implications for all levels of law enforcement. At the supply end it means that when a shortage of one drug occurs, detection has to rapidly shift to other 'likely' candidates that may be substituted. The nature of street level dealing may also change. For example, street level suppliers may change where they trade from (outdoors versus indoors) and users may respond differently. Methylamphetamine can make individuals more aggressive and violent. This has significant implications for local enforcement who may be faced with more violent offenders. This could also manifest itself in more uncontrollable detainees within the watchhouse environment.

Although cocaine is available and used in the community it has not traditionally been the drug of choice amongst those people that police routinely arrest. Figure 3 shows that even at the Sydney sites cocaine was not detected until the heroin shortage began to bite. When this occurred, like methylamphetamine, use increased, but it has not at this time been sustained, particularly at Parramatta. Cocaine, because of its addictive properties, is a more expensive habit to maintain³. Most police detainees, despite their illegal earnings, do not have access to large sums of money nor the capacity to earn high incomes. For example, of 5101 detainees interviewed in DUMA, 66 per cent were receiving government benefit and 63 per cent had completed only 10 or less years of schooling.

Example of recent activity in a local heroin market

DUMA data also allows for changes in a drug market to be examined. Detainees who have used in the past 30 days are asked about where and from whom they purchase their drugs. Of interest to those in the law enforcement area is whether people have access to a regular supplier. In the Sydney sites, where the heroin market is largest, before the heroin shortage around 70-80 per cent of detainees reported getting heroin from a regular source. However, in the early stages of the heroin shortage access to a reliable source declined, most noticeably in Parramatta, where in quarter one 2001, the percent accessing their heroin from a regular source dropped to below 40 per cent. However, as the shortage progressed those users left in the market increasingly reported that they had access to a regular supplier.

Detainees were also asked if they purchased heroin on the street or in an abandoned building. In the early stages of the shortage sourcing on the street increased, particularly in Parramatta where in the third quarter of 2000 around 30 per cent reported getting heroin from an abandoned building or on the street, but by the first quarter of 2002 had increased to above 80 per cent.

These two pieces of information, along with the urinalysis results, suggests that as heroin dried up the market became unstable in the short term – detainees were less able to access a regular supplier and were even more likely to source from the street. This is good news for law enforcement as it suggests that disrupting the market does cause sufficient instability for

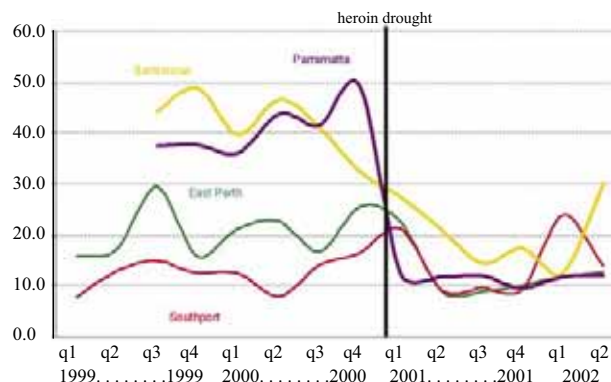


Fig 1. Per cent testing positive to heroin by site by quarter – adults

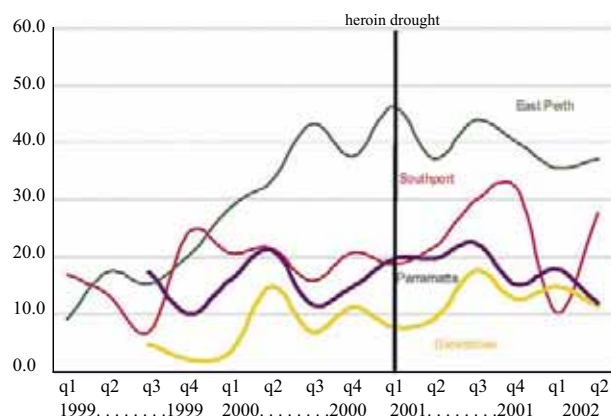


Fig 2. Per cent testing positive to methylamphetamine by site by quarter – adults

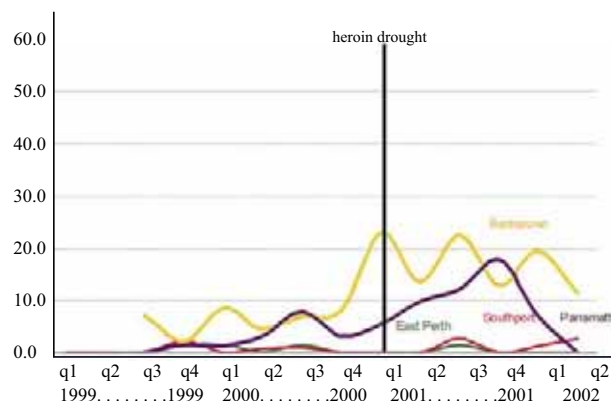


Fig 3. Per cent testing positive to cocaine by site by quarter – adults



Photo by Cpl Belinda Mepham, Army Newspaper

some users to drop out, and those users with a regular supply have to find new sources.

However caution is warranted. As the heroin shortage progressed the proportion of detainees who were recent heroin users declined affecting sample size. In addition, the drug market questions only focus on those who have been active in the past 30 days. It is important to triangulate the trends and to place these within a wider body of strategic intelligence held by local police.

Current and previous offending and recent illicit drug use

DUMA asks about subjects' offending history in the past 12 months. For those who test positive to heroin, cocaine, or methylamphetamine 67 per cent have been arrested and 29 per cent have been in prison in the past 12 months. Of those who don't test positive to any of these drugs 44 per cent report that they had been arrested in the past 12 months and 15 per cent report that they had been in prison in the past month. The data indicates that users of hard drugs are significantly more likely to be cycling through the criminal justice system.

Various studies have shown that users of hard drugs account for disproportionately more of the criminal activity. The 3768 detainees who gave urine, self-reported being charged 10,538 times (including the current charges) over the past 12 months. Those who tested positive to heroin, cocaine or methylamphetamine (39 per cent of the sample) accounted for 6044 of the charges (that is 57 per cent of all charges laid in the past 12 months). Given this association, it is possible that interventions to reduce illicit drug use could reduce offending. However, caution is warranted. In 2001 DUMA asked detainees how many of their offences were drug related. Of those who tested positive to heroin, cocaine or methylamphetamine 42 per cent said all of their offences, 7 per cent said most of them, 3 per cent said about half of them, 10 per cent some of them and 38 per cent said none of them.

An example of an addendum: Drug Driving

DUMA allows specific law enforcement topics to be added each quarter to the core questionnaire. These addendums have covered matters including use of weapons, stolen property market, amphetam-

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mine market, and drug driving. In a recent collaborative project with the Queensland Police Service (and funded by the National Drug Law Enforcement Research Fund) a specific study of drug driving was undertaken. Analyses found that 71 per cent of persons arrested for a traffic offence tested positive to one or more drugs (the drugs were cannabis, opiates, amphetamines, benzodiazepines, methadone and cocaine). When cannabis is excluded 47 per cent still tested positive and 37 per cent tested positive to two or more of these drugs.

Using the addendum questionnaire, 20 per cent of all detainees interviewed said they drove once a week or more after having taken amphetamines (29 per cent reporting doing this in the past 12 months) and 42 per cent of these people thought their driving was improved and 5 per cent said it had no impact on their driving ability. Nine per cent said they used alcohol and another drug before driving at least once a week or more (21 per cent reported doing this in the past 12 months), 9 per cent said it improved their driving and 28 per cent said it had no effect on their driving ability.

Such data provides law enforcement agencies with empirical evidence that can help inform the development of legislative changes and policy that will assist police in their day-to-day activities. It also provides information that can help with the development of a range of prevention and education strategies to deal with an emerging and significant problem in the Australian community. A detailed report on this project is being published.

Using DUMA data

DUMA data has been and is being used by a range of agencies. At the national level DUMA data is one of the key performance indicators for the Commonwealth's National Action Plan on Illicit Drugs 2000-01 and 2002-03 and has provided unique data for the *Intergovernmental Committee on Drugs National Drug Strategic Framework: Annual Report 2001* to the Ministerial Council on Drug Strategy.

Agencies such as Customs and OSCA are using DUMA data along with other intelligence sources to enhance Australia's strategic ability to detect and deter illicit drugs. At a local level, DUMA data is being used in strategic intelligence systems such as Queensland Police's Illicit Market Scans to enhance understanding of the local drug market situation and to facilitate targeted law enforcement interventions into those markets. In particular it provides a valuable source of information for confirming anecdotal data gathered through the strategic monitoring of drug markets, such as information from health workers.

At a very practical level DUMA data has been used to inform local police practices in the custody and watchhouse environments. There are clearly occupational health and safety issues that individual officers face when dealing with intoxicated people. There is the potential for a death in custody to occur from overdose. Being better informed will help to prevent unfortunate mishaps from occurring in the first place.

On the national level, being better informed on drug use and drug use trends can only help law enforcement agencies in the ongoing war on drugs.

References:

- ¹ With urine testing, a positive confirmation of MAM (monoacetyl morphine) indicates definite heroin use. However, MAM rapidly breaks down within four hours of ingestion into morphine and codeine. It is accepted that when the amount of morphine detected exceeds the amount of codeine it is highly probable that the person has been using heroin. See www.aic.gov.au/publications/rpp/25/ for more detailed discussions on this matter.
- ² Trend data is not provided for the three new sites as they only came on stream in 2002.
- ³ The rapid onset and metabolism of cocaine, means that it needs to be used repeatedly in a short space of time unlike other drugs whose effects last longer. This contributes to cocaine being more expensive to use.

Find more detailed information about DUMA on the Australian Institute of Criminology website
www.aic.gov.au/research/duma