



No. 201

# Age of Illicit Drug Initiation

Doug Johnson

*The earlier that people start to use illicit drugs, the more likely it is that there will be longer term adverse effects. Those who use drugs and commit crime are likely to have started using drugs earlier than drug users who do not have criminal careers.*

*This research has found that among sentenced property offenders, the average beginning age for regular use of cannabis was 14.7 years (compared to 18.4 years for use in the community as a whole) while for amphetamines, heroin and cocaine, the average age of regular use was under 20 for those who commit property offences. For these drugs, the average age of regular use is not significantly different for those who are sentenced for property offences and those users in the general community.*

*Working from diverse data sources, this paper focuses on age of drug initiation and provides an information base for policy development.*

**Adam Graycar**  
Director

Anecdotal evidence over the past several years, as shown in newspapers and on television news reports, suggests that young people in Australia are experimenting with drugs at younger ages. Recent research has supported this impression with the finding that among the general population, the age of initiation has been decreasing from older to younger age cohorts (Degenhardt, Lynskey & Hall 2000). This should be a matter of concern for policy-makers. Considerable research has shown that early initiation into drug use is associated with a number of later problems. Those initiating use at an early age:

- are "more likely to continue alcohol and drug use, to be associated with delinquent peers, and to participate in deviant activities" (Zhang, Wiecek & Welte 1997, p. 260);
- will use significantly more illicit drugs over the course of their lives than those who initiate use later (Caulkins et al. 1999, p. 60); and
- are at greater risk of unintentional overdose, and are more likely to get involved in poly-drug use and criminal activity (Lynskey & Hall 1998, p. 13).

Such behaviour not only has personal costs (for example, for families) but also consumes considerable public resources. For example, there is an impact on schools, community groups and government organisations. Some consequences for law enforcement policy-makers are in the following areas:

- dealing with the association between heroin use and increasing rates of acquisitive crime (Stevenson & Forsythe 1998; Makkai 2000);
- addressing road safety issues, with increasing rates of illicit drug use amongst drivers (Drummer 1995);

AUSTRALIAN INSTITUTE  
OF CRIMINOLOGY

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*issues*

in crime and criminal justice

March 2001

ISSN 0817-8542

ISBN 0 642 24222 4



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- having to respond quickly to changes in illicit drug use and associated criminal activity, as evidenced by the rapid increase in crack cocaine and associated increases in armed robbery in the United States during the 1980s (Baumer et al. 1998); and
- understanding the impact of street dealing on local communities and small business (Fitzgerald & Hope 2000).

These sorts of problems require considerable investment of public resources. Some of them, such as drug- and drink-driving, require that scarce police resources be devoted to traffic duties rather than to other criminal activity, such as property crime. Given that early initiation is associated with both increased drug use and increased criminal activity, which in turn are associated with each other, criminal justice policy-makers and practitioners need to see prevention of drug uptake, or at least the delaying of the onset of drug use, as a crime prevention tool. It is also vital that policy-makers have sufficient knowledge and research about entry into illicit drug use to underpin prevention strategies.

This paper will attempt to provide some further information on the question of age of drug use initiation and relevant policy implications by examining four recent drug use studies. Data for this comparison will be taken from the 1998 National Drug Strategy Household Survey (NDS Household Survey), the 1999 Illicit Drug Reporting System (IDRS), the 1999 Drug Use Monitoring in Australia (DUMA) project and the 1998 Illicit Drugs and Property Crime survey.

### Data

Data from the 1998 round of the NDS Household Survey (AIHW 1999) provide information on the general population. This is a nationwide survey of persons aged 14 or older. The sampling technique includes an oversample

**Table 1: Mean ages of first use and first injection, NDS Household Survey**

	Mean age—first use	Mean age—first injection
Cannabis	18.4	n/a
Amphetamines	20.0	21.1
Heroin	21.7	22.4
Cocaine	22.3	17.3

Note: Only nine people reported cocaine as first drug injected.

Source: 1998 National Drug Strategy Household Survey, weighted file [computer file]

of younger people (who are more likely to have experience with illicit drugs). The survey attempts to get a snapshot of the general population's experiences with drug use.

The IDRS, DUMA and Illicit Drugs and Property Crime surveys target groups which are of concern to policy-makers as sentinel populations for illicit drug use and crime.

The first of these studies, the IDRS, consists of an annual survey of injecting drug users. The current paper uses published results from the 1999 IDRS survey. IDRS researchers attempted to draw a sample distinct from the general population by including only those who reported having injected at least monthly over the past six months.

The remaining two surveys targeted people who had been caught up in the criminal justice system:

- respondents in the DUMA project were detainees in police stations and watch-houses; and
- the Australian Institute of Criminology's Illicit Drugs and Property Crime project included a survey which interviewed prison inmates, most of whom had been convicted of break and enter or stealing.

Analysis of the NDS Household Survey and DUMA was limited to those respondents aged between 17 and 51. Respondents in the NDS Household Survey sample are more likely to be older and female (that is, more closely resembling the Australian population) than the other

surveys. The surveys' mean ages were:

- 33.9 years for the NDS Household Survey;
- 29.1 years for the IDRS;
- 27.5 years for DUMA; and
- 26.7 years for the Illicit Drugs and Property Crime survey.

The NDS Household Survey sample is 51 per cent female, while the IDRS is 61 per cent male. DUMA is 85 per cent male and all of the inmates interviewed in the Illicit Drugs and Property Crime survey were male. While this last figure is the result of the prison surveys having been conducted at all-male prisons, the age and sex breakdown from DUMA is in keeping with the real world, as criminal behaviour is concentrated in young men. For example, less than six per cent of all prisoners in Australia in 1998 were women (Australian Institute of Criminology 1999, p. 48).

### National Drug Strategy Household Survey

Table 1 shows some results from the NDS Household Survey. For all drugs, initiation typically occurs during the late teens and early twenties. Of those who have used cannabis, the average age at which use begins is around 18.4 years. Amphetamine use typically occurs one and half years later at 20 years, then heroin use at 21.7 years and finally cocaine use at 22.3 years. This is a typical progression from "soft" drugs to "hard" drugs, as described in a number of studies (Yamaguchi & Kandel 1984; Makkai & McAllister 1998).

Why is cocaine the drug people typically use at a later age? A combination of factors probably account for this, including:

- its status as a “hard” drug;
- its relative lack of availability among the general population; and
- its higher price relative to the other main stimulant, amphetamine (Australian Bureau of Criminal Intelligence 2000).

The anomaly with the low age of first injection for cocaine is likely explained by the small number of people (nine) who injected cocaine before injecting other drugs. Presumably, this group consisted of much earlier users/injectors than the larger group who had ever used cocaine.

### The Illicit Drug Reporting System

Respondents to the IDRS survey were those who had already reported at least monthly injecting for the six months prior to the interview. The 1999 surveys in Sydney, Melbourne and Adelaide found 410 such respondents during the period from June to October 1999. The results from *Australian Drug Trends 1999* (McKetin et al. 2000) are shown in Table 2. The survey did not ask about a person’s first use of drugs, but did ask about their injecting experiences. Aggregating the data over all three sites shows a mean age of first injection of 18.7, which implies that the mean age of first drug use would be lower still among this group. In addition, about 46 per cent of the overall IDRS sample injected amphetamines first, while 47 per cent first injected heroin.

### Drug Use Monitoring in Australia (DUMA)

DUMA surveys people who have been brought to police stations on a wide variety of charges, ranging from traffic offences to violent

crimes (Makkai 1999). Some respondents have never used illicit drugs at all, while others have a long history of illicit drug use. Data used to arrive at the age of initiation were taken from the adults (aged 17 to 51 in Queensland; 18 to 51 in New South Wales and Western Australia) interviewed in 1999 in four sites located in Perth, Sydney and Southport, Queensland. Age of first use for a particular drug was asked of all those who reported ever using the drug.

Table 3 shows DUMA’s results for age of initiation. DUMA respondents began to use illicit drugs in their mid to late teens. As with the NDS Household Survey, cannabis is the first illicit drug typically used, followed by a gap of several years before other illicit drugs are tried.

Table 3 also includes the mean ages for when *regular* use of drugs began. This question was asked only for those who had reported using the drug in the past 12 months; “regular use” was defined as use on three or more days in a week. The transition from first use to regular use is relatively short, particularly for cannabis and heroin.

### Illicit Drugs and Property Crime Survey

This sample contains people who have been convicted and sentenced to prison. The respondents are primarily property offenders, a group of particular interest given previous studies which have shown the link between acquisitive crime and heroin use (Stevenson & Forsythe 1998). The survey focused on links between illicit drugs and crime. Thus, respondents who reported ever using particular drugs were asked at what age they first “regularly used” various drugs. The definition of “regular use” was left to the respondent.

Figure 1 shows the mean ages when respondents began regularly using drugs. Relative to the other surveys, the typical onset of regular drug use occurred at a much younger age amongst this group. For example, in the NDS Household Survey the mean age of initiation into *first* use of cannabis was 18.4 years; amongst this group of property offenders the mean age of *regular* use was almost four years younger at 14.7 years. Similarly for heroin, the mean age of *first* use amongst the general

**Table 2:** Characteristics of injecting drug use among injecting drug users by city

	Mean age of first injection (years)	Amphetamines first drug injected (%)	Heroin first drug injected (%)
Sydney	18.2	37	59
Melbourne	18.7	49	46
Adelaide	19.5	57	30
Total	18.7	46	47

Source: McKetin et al. 2000, p. 9.

**Table 3:** Age of initiation and regular use among detainees, DUMA 1999

	Mean age—first use	Mean age—regular use
Cannabis	15.0	15.9
Amphetamines	18.1	19.4
Heroin	19.4	19.6
Cocaine	19.9	22.1

Source: Australian Institute of Criminology, DUMA Collection 1999 [computer file]

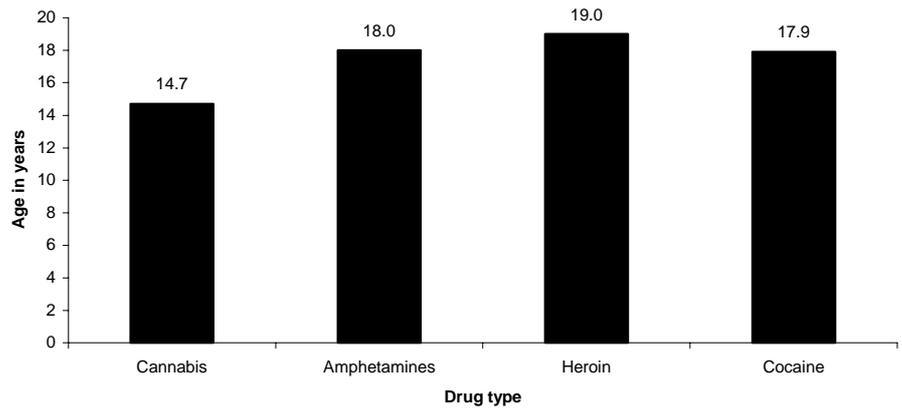
population is 21.7 years while the typical age of *regular* use of heroin is 19 years for property offenders. It is also striking to note that regular use of amphetamines, heroin and cocaine was at almost the same age (even if the low age shown for cocaine is partly the result of the small number of respondents who had actually tried the drug).

### Conclusions

Several interesting findings follow from this brief look at age of initiation into illicit drug use amongst four different populations.

- The three sentinel populations—injecting drug users, detainees and prisoners—reported lower ages of initiation, first injection and regular use than those in the general population. Respondents in the NDS Household Survey reported drug use beginning in the late teens, whereas injecting drug users in the IDRS were already beginning to inject drugs at that age and respondents in the other studies had already started regular use by that time.
- Amongst NDS Household Survey respondents there appears to be an ordered progression of when people began using drugs, starting with cannabis. In the case of detainees and incarcerated property offenders, cannabis use also typically occurred first, but the typical ages at first use of the other drugs were much closer together.
- The two groups selected because of their contacts with the criminal justice system (not necessarily drug-related), DUMA and the Illicit Drugs and Property Crime Survey, typically reported younger initiation ages. They reported regular illicit drug use at about the same time as the injecting drug users were beginning to inject drugs. Presumably, many of those “regularly using” amphetamines, heroin and cocaine would also have been injecting.

Figure 1: Mean age of regular use amongst property offenders



Source: Australian Institute of Criminology, Illicit Drugs and Property Crime Survey [computer file]

### Policy Implications

The picture that emerges from this comparison is that the sentinel groups of injecting drug users, detainees and prisoners typically have lower ages of initiation into illicit drug use. When choosing a sample drawn randomly from the population, one sees initiation occurring in the late teens and early twenties. On the other hand, initiation by those who are problematic drug users, or who have entered the criminal justice system, occurs in the mid-teens. While the dynamics of illicit drug use and crime are complex, it seems evident that there is a real association between the two phenomena. It is clear that delaying age of initiation should be a prominent policy goal.

However, a challenge for policy-makers emerges from this study. Generally, education and prevention programs are designed to be applied to the whole population of young people, yet this examination has shown that people do not initiate drug use at the same time in their lives. Thus, timing of education programs is a concern. If drug education occurs too early it may stimulate experimentation, but if it is introduced after people have begun using drugs then it will not be as effective (Makkai &

McAllister 1998, p. 37). The disparities seen between the general population and these other groups suggest that trying to inoculate those at risk of very early initiation while not stimulating initiation among others will test those planning prevention programs.

In addition, targeting high-risk youth is a difficult task. They are still in the formative stages of psychological and emotional development, which makes them quite different to adults engaged in unhealthy drug use and antisocial behaviour. Some researchers have begun looking at drug experimentation within the context of other development during childhood and adolescence. That context is centred around the search for identity, which is found through peers and involvement in activities. One conclusion drawn from this approach is that prevention programs need to help young people move through this process in positive ways, by finding “prosocial peers and activities” (Zhang, Wiczorek & Welte 1997, p. 265–6). Those characteristics peculiar to youth need to be taken into account in designing when, where and how to incorporate drug prevention efforts into the institutions and processes which deal with problem youth.

The difficulties in getting these and other factors right are highlighted in a recent New South Wales study of drug prevention programs which found that such programs have met with limited success in delaying drug initiation or curbing use (Weatherburn et al. 2000). A Rand study also found prevention programs to have mixed results, and concluded that expectations for prevention programs must be quite modest.

On a more positive note, that same Rand study found that the best prevention programs deliver some benefit overall, and they do so at a reasonable cost (Caulkins et al. 1999). Weatherburn et al. (2000) also found some positive signs stemming from the accumulation of knowledge in this area resulting from evaluations of the programs (including evaluations of those programs which were found to be ineffective). As researchers are beginning to identify characteristics of programs which are effective, so continued attention to the problems of different ages of initiation are bound to lead to greater understanding of how to cope with this issue.

A final outcome of the comparison of different studies is the benefit of having diverse sources of data. One need only reflect on the relatively high ages of drug initiation in the NDS Household Survey to appreciate that having only one perspective on this social problem might leave a policy-maker with an incomplete picture. Having several studies demonstrates that those who have moved on to serious drug use or criminal activity have quite different experiences than members of the general population.

Each of these collections will provide a tiny piece of the jigsaw that analysts can use for targeting and evaluation of the effectiveness of drug policy. (Makkai 1999)

An important part of the solution, then, is having data sources on

which to base future policies and to monitor the impact of those policies. These can help policy-makers to deal more flexibly and effectively with the different types of people in a diverse society.

### Acknowledgments

*Drug Use Monitoring in Australia (DUMA) is funded under a three-year grant from the Commonwealth's National Illicit Drug Strategy. The data used here were collected for the Australian Institute of Criminology's DUMA project by the National Drug Research Institute at Curtin University of Technology, Marg Hauritz Pty Ltd and Forsythe Consultants Pty Ltd, with the assistance of the Queensland, New South Wales and Western Australian police services.*

*The Illicit Drug Reporting System (IDRS) was funded by the Commonwealth Department of Health and Aged Care.*

*The National Drug Strategy Household Survey 1998 was funded primarily by the Commonwealth Department of Health and Aged Care, and was carried out by the Roy Morgan Research Centre.*

*The Illicit Drugs and Property Crime Queensland Prison Survey was funded by the Australian Institute of Criminology. The work was carried out by the Social and Economic Research Centre, University of Queensland, and Frances Killion and Associates, Rockhampton.*

*Neither the collectors, police services nor funding agencies for any of these studies bear any responsibility for the analyses or interpretations presented herein.*

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