

# Does prohibition deter cannabis use?

*Don Weatherburn and Craig Jones*

*Despite the prohibition against cannabis which exists in most Australian States and Territories, 44 per cent of males and 35 per cent of females have used the drug at least once in their lifetime. Use of the drug has increased in the last few years, prompting some to argue that the prohibition against cannabis is both costly and ineffective, and should be lifted. The present research was designed to assess the influence of prohibition on young people who have never used cannabis or who have not used it in the last 12 months. It was also designed to assess some of the potential effects of lifting the prohibition against cannabis use. The study results suggest that the illegal status of cannabis does act to limit its use. However, fear of arrest, fear of imprisonment, the cost of cannabis or its availability do not appear to exert much effect on the prevalence of cannabis use, although they may exert some restraining effect on cannabis consumption among frequent cannabis users.*

## INTRODUCTION

Cannabis is a recreational drug which appears to have few acute toxic effects. Novice users sometimes experience very unpleasant effects, such as anxiety and panic reactions. Very high doses of cannabis have sometimes been known to produce psychotic symptoms (Hall, Solowij & Lemon 1994, p. 7). The chronic effects of regular cannabis use are not entirely clear but may include increased risk of respiratory diseases, impaired foetal development and subtle deficits in cognitive functioning, including disruption to memory and attention (Hall, Solowij & Lemon 1994, pp. 8-13). On the other side of the ledger, there is some evidence that cannabis may be of use in treating glaucoma and in reducing the nausea associated with anti-cancer drugs (Hall, Solowij & Lemon 1994, pp. 14-15).

Perhaps the major potential acute health risk associated with cannabis use arises from the slowing effect it has on psychomotor performance. This slowing

effect may increase the risk of road accidents and other kinds of trauma, particularly among regular cannabis users. While there is no definitive evidence yet of the scale of this problem, one study in Melbourne (Drummer 1995) found that 11 per cent of drivers killed in road accidents tested positive for cannabis use. This may appear low by comparison with the percentage of drivers killed in road accidents who test positive for alcohol use (about 33%). The prevalence of alcohol use in the general community, however, is much higher than the prevalence of cannabis use. An increase in the prevalence of cannabis use may bring with it an increase in cannabis-related road trauma.

Although cannabis is a relatively benign drug, at least by comparison with some other illegal drugs (and some legal drugs, such as alcohol), most Australian States and Territories prohibit its use, possession or sale. They also invest resources in enforcing that prohibition. In 1999, for example, there were 7,820

appearances in New South Wales (NSW) Local Courts in which at least one of the charges was for cannabis use or possession. Seventy of these charges resulted in sentences of imprisonment (NSW Bureau of Crime Statistics and Research 1999). Nearly 60 per cent of those prosecuted in the NSW Local Courts for cannabis use and possession, however, were brought to court on other offences as well. Few of those brought to court charged solely with cannabis use or possession go to prison. In 1999 only 39 of the 3,249 people (i.e. 1.2%) convicted in the Local Court solely of cannabis use and/or possession were given a prison term.

Despite its illegal status, the prevalence of cannabis use remains high. Forty-four per cent of males and 35 per cent of females have used the drug at least once in their lifetime. Twenty-one per cent of males and 15 per cent of females report using cannabis in the last 12 months. The prevalence of 'lifetime' cannabis use rose from 31 per cent in 1995 to 39 per cent in 1998 while the

prevalence of 'last year' cannabis use rose from 13 per cent to 18 per cent over the same period (Australian Institute of Health and Welfare 2000). The high prevalence of cannabis use contrasts sharply with the rate at which people are prosecuted and imprisoned for cannabis use and possession. In 1999 only about 1 in 280 NSW cannabis users appeared in a NSW Local Court charged solely with cannabis use or possession. Only about 1 in 24,000 NSW cannabis users who were old enough to be incarcerated went to prison in that year solely for one of these two offences.<sup>1</sup>

The high prevalence of cannabis use has sometimes prompted calls for the abandonment of prohibition on the grounds that current laws do not discourage cannabis use but do impose substantial costs on cannabis users and the wider community (which ultimately bears the financial cost of enforcing existing prohibitions). The fact that cannabis use is widespread, however, does not provide any empirical warrant for the claim that prohibition does nothing to deter cannabis use. In the absence of prohibition the prevalence of cannabis use may be higher. Alternatively, existing users may consume more of the drug. Either of these outcomes may increase the level of cannabis-related harm. To assess the value of the prohibition against cannabis use we need information on why existing non-users choose not to use cannabis and on whether removal of prohibition would encourage greater use.

Evaluations of the effect of removing or softening the prohibition against cannabis use provide one source of such information. Single (1989) examined trends in cannabis use in 11 States in the U.S. in which criminal penalties for the use and possession of small amounts of cannabis were removed in the early 1970s. Broadly speaking, he found no difference between trends in the prevalence of cannabis use among States which had and those which had not removed the blanket prohibition against cannabis use and possession. Johnson, O'Malley and Bachman (1981) found a similar pattern of results in surveys of high school seniors. MacCoun and Reuter (1997;

2001) also cite survey evidence indicating that the long-standing and deliberate 'non-enforcement' of prohibitions against cannabis use and possession in the Netherlands has exerted little or no effect on the prevalence of cannabis use in that country.

Australian evidence on the effects of cannabis decriminalisation is more sparse but tends in the same direction as that found in overseas research. In 1987, the South Australian Government introduced a 'cannabis expiation' scheme under which those caught using or possessing small amounts of cannabis were subject to an infringement notice and fine rather than being subject to arrest and prosecution. Donnelly, Hall and Christie (1995; 1998) examined trends in the lifetime and weekly prevalence of cannabis use before and after the scheme was introduced, comparing South Australia with other Australian States and Territories. They found no significant difference between South Australia and the rest of Australia in the growth rate for weekly cannabis use. The prevalence of lifetime cannabis use increased significantly faster in South Australia than in the rest of Australia but no faster than in some 'prohibition' States, such as Tasmania.

One difficulty with the Australian National Drug Strategy (NDS) surveys is that their relatively small sample size in the years immediately before and after the South Australian legislative reforms limits their capacity to detect changes at State level in the prevalence of cannabis consumption.<sup>2</sup> They are even less well equipped to detect changes in cannabis consumption levels or changes in cannabis consumption patterns (e.g. driving while intoxicated by cannabis) among existing cannabis users. This is a cause for significant concern. Although frequent cannabis users represent only a small proportion of all cannabis users, they probably account for a disproportionate amount of total cannabis consumption and the harm caused by chronic use of the drug (Hall, Solowij & Lemon 1994). Thus, whether the decriminalisation of cannabis use increases or reduces the aggregate

harm associated with cannabis use remains very much an open question.

One way to assess the potential impact of decriminalising cannabis use, without actually decriminalising the drug, is to see what part prohibition or the sanctions and risks associated with it play in shaping individual decisions not to use or to cease using cannabis. Another way is to ask people to indicate whether they would be more willing to use cannabis or use it more frequently if its use were legalised. Studies of this sort must be treated tentatively because people may not honestly disclose the reasons for their current behaviour and their future behaviour may not reflect their current intentions. At the same time, one might expect people to be reasonably cognisant of their reasons for engaging in behaviour which is of necessity both deliberate and conscious. Self-report surveys of this kind have also been shown to be a reliable means of eliciting information about illicit drug use (McElrath, Dunham & Cromwell 1995).

If prohibition influences cannabis consumption it may do so through several possible mechanisms. Most obviously, individuals may be deterred from cannabis use by the fear of apprehension or punishment. This fear might stem from concern about the possibility of being caught and prosecuted by police or it might arise out of contact with situations where drug testing takes place (e.g. some forms of sport or work). Since police efforts to enforce the prohibition against cannabis use commonly take the form of measures designed to increase its price and/or reduce its availability, the monetary cost of cannabis use or the difficulties involved in obtaining it are also possible reasons for never using or ceasing the use of cannabis. Yet another way in which prohibition may influence cannabis consumption is through moral inhibitions about committing illegal acts (MacCoun 1993).

Of course, individuals may never use or desist from using cannabis for reasons unrelated to prohibition. The effects of cannabis consumption are unpleasant for some individuals (Hall, Solowij & Lemon 1994) and these adverse effects

may discourage further use. Health concerns are also important. Schelling (1992) has shown that public information about the health effects of tobacco use has played a significant role in reducing consumption of that drug. It would be surprising if health concerns were not a major factor in decisions about any kind of drug use. Given the influence which peers exert on initiation into illicit drug use, fear of disapproval from friends or family may also be expected to play a role in limiting cannabis consumption.

In order to further our understanding of the influence of prohibition on cannabis use, particularly on frequent users of the drug, the present bulletin reports the results of a representative survey of 18-29 year olds designed to (a) identify the reasons people give for never using cannabis (b) identify the reasons people give for not using cannabis over the last 12 months (having used it at least once in their lifetime) and (c) assess whether those who currently use the drug would consider using it more frequently if cannabis use were legalised. The survey was targeted at 18-29 year olds because national surveys indicate that the prevalence of cannabis use is highest in this age group (Australian Institute of Health and Welfare 2000).

## METHOD

### SURVEY METHOD

The survey itself was administered on behalf of the Bureau by AC Neilsen as a part of their regular omnibus survey.<sup>3</sup> The survey was carried out over five weekends, the first commencing on the weekend of the 16<sup>th</sup>-18<sup>th</sup> of March 2001 and the last being completed on the weekend of the 4<sup>th</sup>-6<sup>th</sup> of May 2001. Phone calls were made on Friday night from 5.00pm-9.30pm, Saturday 10.00am-7.30pm and Sunday 10.00am-7.30pm. These times maximised the likelihood that someone would be at home. Age, sex and location (Sydney/rest of NSW) quotas were applied to ensure that the sample was representative of the NSW population. Only persons aged 18-29, who spoke

English, were considered eligible to participate in the survey.

Overall, 35,957 phone numbers were randomly selected from the electronic white pages and called at least once. If the number was engaged, or if there was no answer, up to three attempts were made to contact that household. When the sample quota for this study had been met, there were 4,024 numbers that had not been contacted because they were engaged or unanswered, but less than three attempts had been made. A further 4,949 numbers had been rung three times each and been engaged or unanswered on each occasion, and subsequently rejected. If it was an inappropriate time for the respondent, a more convenient time was arranged to call back, and three contact attempts were made. Of the appointments made, 1,027 had not been contacted when the sample quota for this study was met. The following list describes the rest of the outcomes, other than a completed interview:

- the person on the telephone refused to do the survey, or the survey was terminated part way through ( $n = 8,538$ );
- there were no English speaking people in the household ( $n = 705$ );
- the quota for that respondent's age or gender had been filled ( $n = 1,101$ );
- there was no-one in the correct age group in the household, or the appropriate person was unavailable for the duration of the survey ( $n = 3,618$ );
- the number was either not connected, a fax number, a paging service, or it belonged to a hostel or other non-household institution ( $n = 9,584$ ).

From a total of 17,400 instances where the interviewer came into contact with someone over the telephone, there were 2,411 completed interviews. From these 2,411 interviews,<sup>4</sup> 598 were in the age range required by this study and were thus eligible. A total of 579 completed interviews were obtained from this group.

## QUESTIONNAIRE

A copy of the questionnaire is included as Appendix 1. The questions were designed to separate respondents into 3 groups:

1. those who had never used cannabis;
2. those who had used cannabis but not in the preceding 12 months; and
3. those who were current cannabis users (i.e. had used it in the last 12 months).

Respondents in groups (1) and (2) were read out a set of possible reasons for never using cannabis (group 1), or not using cannabis in the last 12 months (group 2) and asked to endorse or reject each reason. Thus, respondents who said they had never used cannabis were asked:

'Is that because:

1. You don't think you would like it
2. Cannabis is illegal
3. You are afraid that you will be caught by the police if you use cannabis
4. You are afraid of going to gaol if the police catch you using cannabis
5. You are worried about your health
6. Your friends and family wouldn't like you using it
7. Cannabis is too expensive
8. Cannabis is too difficult to get hold of
9. You have drug testing in the workplace
10. You have drug testing in your sport'

After each reason was read out, respondents were invited to answer 'yes' or 'no'. Respondents in group 2 were asked the same questions except that, instead of question 1 above, they were asked 'Is that because you've tried it and don't like it'. The order in which possible reasons were read out was rotated across respondents. Since the focus of the study was on the effect of prohibition on cannabis consumption the questions put to respondents to establish their reasons for never using/quitting cannabis use were mainly designed to tap the various ways in which prohibition might influence consumption. In order to allow for the influence of factors other

than prohibition on consumption, however, other common reasons for never using/quitting cannabis use were also included in the questionnaire. If the respondent did not endorse any of the reasons provided, they were invited to specify their reason for never using, or not using cannabis in the last 12 months.

In the final question of the survey all respondents were asked whether they 'would use cannabis more frequently if it were legal?' While asked of all respondents the question was specifically designed to assess the extent to which current users of cannabis would increase their consumption if cannabis use were legalised.

## RESULTS

Before discussing the reasons people give for never using or ceasing to use cannabis we present data on the prevalence and frequency of cannabis use among the sample of respondents interviewed and compare our estimates of population prevalence and frequency with those obtained from other sources.

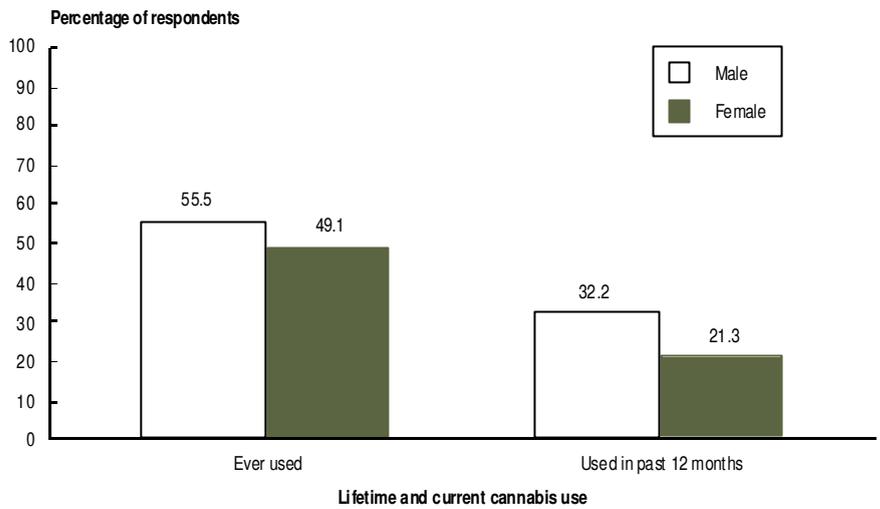
### THE PREVALENCE OF CANNABIS USE

Of the 579 respondents who completed the questionnaire, 303 (52%) had used cannabis in their lifetime, and 155 (27%) had used cannabis in the last 12 months. Weighted to the 2001 NSW population, this suggests that 580,000 18-29 year olds in NSW have used cannabis in their lifetime, and 295,000 have used cannabis in the past 12 months. These prevalence estimates are broken down by gender in Figure 1.

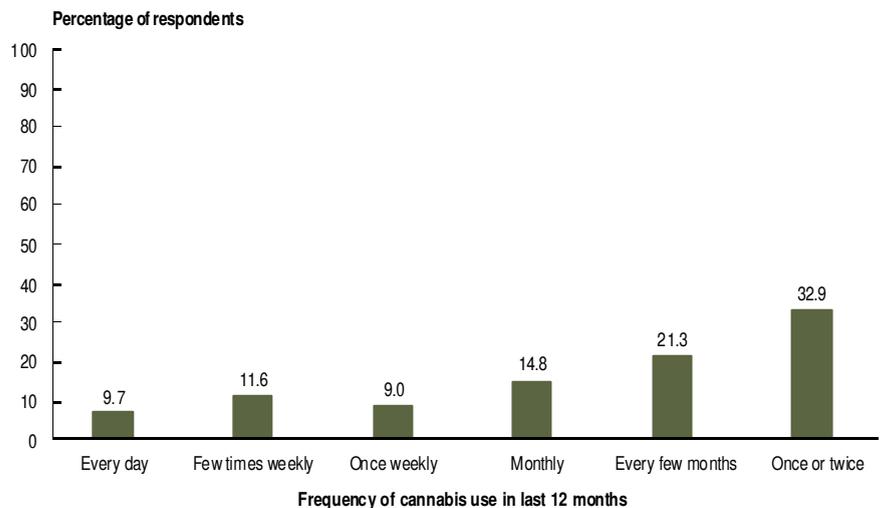
Males (56%) were more likely than females (49%) to have ever used cannabis, although this trend did not reach significance ( $\chi^2 = 2.34$ ,  $df = 1$ ,  $p = 0.07$ ). Males were significantly more likely than females to have used cannabis in the preceding 12 months (32% and 21% respectively;  $\chi^2 = 8.83$ ,  $df = 1$ ,  $p < 0.01$ ).

These estimates are somewhat lower than those obtained in the most recent NDS survey. According to that survey, 64

**Figure 1: Lifetime and last year cannabis use among male and female 18-29 year olds in NSW**



**Figure 2: Frequency of cannabis use in last 12 months among current users**



Note: The percentages do not sum to 100% because one respondent refused to say how often they had used cannabis in the preceding 12 months.

per cent of 20-29 year olds have used cannabis in their lifetime and 37 per cent have used in the past 12 months (Australian Institute of Health and Welfare 2000). It is possible that there is under-reporting in the present sample as a result of contacting respondents by telephone. This method requires the respondent to give an overt response to an interviewer. Those who use cannabis or have used it in the past may have

been less willing to participate in the survey or less willing to give truthful answers for fear of incrimination. If so, this would have produced a downward bias in our estimates of the prevalence of cannabis users among 18 to 29 year olds.

The NDS, by contrast, is a self-completion questionnaire which is delivered to the selected household and collected at a later time. Sensitive

**Table 1: Frequency of cannabis use among current users by gender**

Gender	Frequency of use (%)	
	Weekly or more	Less than weekly
Male	37.2	62.8
Female	20.0	80.0

**Table 2: Reasons for never using cannabis (A) or not using cannabis over the last 12 months (B).**

Reason for never/no longer using	Percentage endorsement	
	%A	%B
You don't think you would like it/You've tried it and don't like it	47	52
You are worried about your health	41	25
Cannabis is illegal	29	19
Your friends and family wouldn't like you using it	21	16
You are afraid you will be caught by the police if you use cannabis	10	5
You are afraid of going to gaol if the police catch you using cannabis	10	4
Cannabis is too expensive	7	5
Cannabis is too difficult to get hold of	5	1
You have drug testing in your sport	4	0
You have drug testing in your workplace	13	3
Other	12	16
	<b>N = 276</b>	<b>148</b>

questions, such as those about illicit drug use, are answered in a separate sealed section which guarantees that the respondent remains anonymous. This may increase the likelihood of respondents giving honest answers to the survey questions.

**PATTERNS OF CANNABIS USE**

Figure 2 shows the frequency of cannabis use among respondents who had used cannabis in the previous 12 months. Most cannabis users had only used once or twice (33%), or once every few months (21%) over the preceding year. About 15 per cent had used once a month over the previous year, 9 per cent had used once a week, 12 per cent had used a few times a week, and 10 per cent had used every day of the prior 12 months.

To assess whether there were any gender differences among current

cannabis users in the frequency of their use, we grouped those who used the drug once a week or more often and compared them with those who used less than once a week (see Table 1). Males who had used cannabis in the last 12 months (37%) were more likely than females (20%) to use cannabis weekly or more frequently ( $\chi^2 = 5.13$ ,  $df = 1$ ,  $p < 0.05$ ).

**PROHIBITION AND CANNABIS USE**

As noted earlier, respondents to the survey who indicated that they had never used or not used cannabis in the last 12 months were asked about their reasons for not using the drug. Table 2 shows the percentage of respondents who endorsed different reasons for never using cannabis or not using it in the last 12 months. As noted earlier, the reasons provided to each group were identical save for the fact that those who

had used the drug were asked 'Is that because you've tried it and don't like it' whereas those who had never tried cannabis were asked 'Is that because you don't think you would like it.'

There are several points worth noting about Table 2. First, the relative frequencies with which different reasons were endorsed vary little between those who have never used and those who have ceased using cannabis. The second is that, while anticipated or actual dislike of the drug and health concerns are the most frequently endorsed reasons for never using or no longer using cannabis, the fact that it is illegal is the third most frequently endorsed reason. The third point of note is that only a small minority of respondents were prompted not to use or to cease using cannabis because they feared being caught by police, feared going to prison if they were caught, found cannabis too expensive or too hard to get or were concerned about drug testing in their sport or workplace. Fourth, a significant proportion of the sample did not endorse any of the reasons offered, and provided alternative responses. Of these alternatives, none referred to the law as their primary reason. The most common alternative was that they had never been or were no longer interested in using cannabis.

**LEGALISATION AND CANNABIS USE**

At the conclusion of the survey, all respondents were asked whether they would use cannabis more frequently if it were legal. These responses are displayed in Figure 3.

Taken at face value, Figure 3 suggests that two-thirds of respondents definitely wouldn't use more cannabis if it were made legal. The remainder, however, would not rule out using cannabis more frequently if it were legal. Four per cent of the sample said they definitely would use more cannabis, about 10 per cent said that they would probably use more and about 19 per cent said that they probably wouldn't use more but, nonetheless, did not rule out the possibility.

The pattern of response to this question, however, depended strongly on whether the respondent had ever used cannabis

and on current levels of consumption. Table 3 shows the percentage who would consider using cannabis more

frequently if it were legal by their user status (i.e. never used/not used in the last 12 months/used in the last 12 months). For present purposes, those classed as willing to consider using cannabis more frequently comprise those who say they definitely would, those who say they probably would and those who say they probably would not use it more frequently.

It is evident from Table 3 that current users are about twice as likely to consider using cannabis more frequently if it were legal than past users. They, in turn, are about twice as likely to consider using cannabis more frequently than those who have never used the drug. The differences are significant ( $\chi^2 = 106.9$ ,  $df = 2$ ,  $p < 0.01$ ).

Table 4 shows the percentage of current cannabis users who would consider using cannabis 'more frequently' by the current frequency with which they use cannabis.

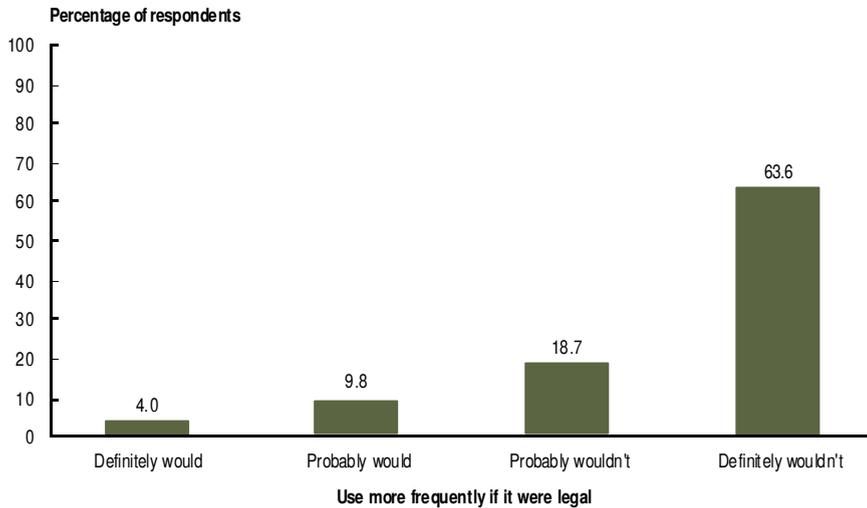
The pattern in Table 4 is similar to that in Table 3. As current consumption increases, an increasing proportion of respondents indicate a willingness to consider using cannabis 'more frequently' if its use were made legal ( $\chi^2 = 24.2$ ,  $df = 3$ ,  $p < 0.01$ ).

## DISCUSSION

Public debate in NSW (and elsewhere in Australia) about the wisdom of the prohibition on cannabis use is usually focussed on the single issue of whether decriminalisation would increase the number of people willing to use the drug. Those who favour prohibition often claim that decriminalisation would 'send the wrong message' on drug use, particularly to young people. Those who oppose prohibition often attempt to counter this 'wrong message' claim by arguing that prohibition has been an expensive failure. Decriminalising cannabis, they maintain, would reduce the enforcement and social costs associated with prohibition without leading to an increase in the prevalence of cannabis use.

The present results suggest that this debate greatly oversimplifies the issues.

**Figure 3: Percentage of all respondents who would or would not use cannabis more frequently if it were legal**



Note: The percentages do not sum to 100% because 7 respondents refused to answer the question and 16 responded that they didn't know whether they would or would not use cannabis more frequently if it were legal.

**Table 3: User status by expected response if cannabis use were legalised**

User status	Expected response (%)		N
	Would consider using more	Wouldn't consider using more	
Never used	16.0	84.0	263
Not in 12 months	32.9	67.1	143
Current user	66.0	34.0	150

Note: 7 respondents refused to answer the question and 16 responded that they didn't know whether they would or would not use cannabis more frequently if it were legal.

**Table 4: Current consumption by expected response if cannabis use were legalised**

Current consumption	Expected response (%)		N
	Would consider using more	Wouldn't consider using more	
Weekly or more	90.7	9.3	43
Monthly	78.3	21.7	23
Every few months	57.6	42.4	33
Once or twice	45.1	54.9	51

Note: 1 respondent refused to answer the question and 4 responded that they didn't know whether they would or would not use cannabis more frequently if it were legal.

Prohibition is not the dominant consideration in individual decisions to use or to desist from using the drug. Health considerations and anticipated or actual dislike of the drug are more important factors in preventing or stopping use. The fact that cannabis use is illegal, however, would appear to exert an influence on those who choose not to use the drug or who choose to give it up. Indeed, it was the third most frequently cited reason for non-use or desistance from use. These findings do not sit comfortably with claims that the legalisation of cannabis use would not result in any increase in the number of people using the drug. They reinforce concern that past surveys of changes in the prevalence of cannabis use, consequent upon decriminalisation, may have lacked the requisite sample size to detect such change.

More importantly, debates about the effect of decriminalisation on the prevalence of cannabis use may have missed a key issue. The present results suggest that, even if decriminalisation did not influence the prevalence of cannabis use, it could increase the frequency of cannabis use among existing cannabis users. They raise the possibility, moreover, that the effect of decriminalisation on consumption would be larger for those who presently use cannabis a lot than for those who use it only infrequently. Such effects cannot be viewed with equanimity. As we noted in the introduction, the risk of acute harm associated with cannabis is probably higher among regular users. For this reason there may be more grounds for concern about the prospect of an increase in consumption among regular users than there are about the prospect of an increase in the number of non-users experimenting with the drug.

It could be argued that the benefits of prohibition are not worth the cost of prosecuting and imprisoning cannabis users. The financial cost of prosecuting cannabis users, however, is less than it might appear. While nearly 8,000 people a year are charged with cannabis use and/or possession in NSW, the majority of these people are brought to court for other reasons as well. Less than half this number are

brought to court solely on charges of cannabis use or possession. Very few of those convicted solely of cannabis use and/or possession are imprisoned. The potential criminal justice savings which would accrue from decriminalising cannabis use and possession are therefore not large in absolute terms.

The present results nevertheless raise some difficult questions in relation to the current prohibition against cannabis use. Fear of apprehension, fear of being imprisoned, the cost of cannabis or the difficulty in obtaining cannabis do not appear to exert a strong influence on decisions about cannabis consumption, at least amongst the vast majority of 18-29 year olds. Those factors may limit cannabis use among frequent cannabis users but there is no evidence, as yet, to support this conjecture. Prohibition also imposes indirect costs upon the State and affected individuals when, as a result of their conviction, cannabis users suffer unemployment or reduced earnings prospects (Lenton, Christie, Humeniuk, Brooks, Bennett & Heale 1998). The few who are imprisoned solely for cannabis use or possession may feel a legitimate sense of grievance at the misfortune which has befallen them in comparison with other cannabis users, the vast majority of whom will never be reported to police or prosecuted for cannabis use, let alone imprisoned.

Ideally, policy in relation to cannabis should be assessed in terms of whether it provides the most cost-effective means of limiting the harm caused by the drug. In the absence of experiment, however, it is difficult to gauge the most cost-effective policy. In fact, the limited information we have on how to reduce cannabis consumption makes it difficult to identify *effective* harm reduction policies, let alone the one which is most cost-effective. Policy development in this area would clearly be facilitated if we had a better understanding of the circumstances which would prompt cannabis users to moderate their consumption of the drug. The Bureau is presently conducting a study of young cannabis users designed to provide information bearing on this issue.

## ACKNOWLEDGEMENT

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## REFERENCES

- Australian Institute of Health and Welfare 2000, *Statistics on Drug Use in Australia 1998*, Australian Institute of Health and Welfare, Canberra.
- Donnelly, N., & Hall, W. 1994, *Patterns of Cannabis Use*, National Drug Strategy, Commonwealth Department of Human Services and Health, Canberra.
- Donnelly, N., Hall, W. & Christie, P. 1995, 'The effects of partial decriminalisation on cannabis use in South Australia, 1985 to 1993', *Australian Journal of Public Health*, vol. 19, no. 3, pp. 281-287.
- Donnelly, N., Hall, W. & Christie, P. 1998, *Effects of the Cannabis Expiation Notice Scheme on Levels and Patterns of Cannabis Use in South Australia: Evidence from the National Drug Strategy Household Surveys 1985-1995*, Commonwealth Department of Health and Aged Care, Canberra.
- Drummer, O. 1995, *A Review of the Contribution of Drugs in Drivers to Road Accidents, Inquiry into the Effects of Drugs (Other than Alcohol) on Road Safety in Victoria*, Parliamentary Road Safety Committee, First Report, Government Printer, Melbourne.
- Hall, W., Solowij, N. & Lemon, J. 1994, *The Health and Psychological Consequences of Cannabis Use*, Commonwealth Department of Human Services and Health, Canberra.
- Johnson, L.D., O'Malley, P.M. & Bachman, J.G. 1981, *Drug Use, Drinking and Smoking: National Survey Results from High School, College and Young Adult Populations, 1975-1988*, U.S. Department of Health and Human Services, Rockville.
- Lenton, S., Christie, P., Humeniuk, R., Brooks, A., Bennett, M. & Heale, P. 1998, *Infringement Versus Conviction: The Social Impact of a Minor Cannabis Offence Under a Civil Penalties System and Strict Prohibition in Two Australian States*, Commonwealth Department of Health and Aged Care, Canberra.

MacCoun, R. 1993, 'Drugs and law: A psychological analysis of drug prohibition', *Psychological Bulletin*, vol. 113, no. 3, pp. 497-512.

MacCoun, R. & Reuter, P. 1997, 'Interpreting Dutch cannabis policy: Reasoning by analogy in the legalization debate', *Science*, vol. 278, pp. 47-52.

MacCoun, R. & Reuter, P. 2001, 'Evaluating alternative cannabis regimes', *British Journal of Psychiatry*, vol. 178, pp. 123-128.

McElrath, K., Dunham, R. & Cromwell, P. 1995, 'Validity of self-reported cocaine and opiate use among arrestees in five cities', *Journal of Criminal Justice*, vol. 23, no. 6, pp. 531-540.

NSW Bureau of Crime Statistics and Research 1999, *New South Wales Criminal Courts Statistics 1999*, NSW Bureau of Crime Statistics and Research, Sydney.

Schelling, T. 1992, 'Addictive drugs: The cigarette experience', *Science*, vol. 255, pp. 430-433.

Single, E. 1989, 'The impact of marijuana decriminalisation: An update', *Journal of Public Health Policy*, vol. 10, pp. 456-466.

## NOTES

- 1 The first figure is based on the 3,249 people who appeared in a Local Court in 1999 charged solely with cannabis use or possession. The second is based on the 39 of these who went to prison. The denominator for the calculation is based on the assumption that 20 per cent of the Australian population aged 18 and over (minimum age for incarceration) used cannabis in 1999. A third of these people reside in New South Wales (see Donnelly & Hall 1994).
- 2 The 1985 sample was 2,796. The 1998 sample was 1,827 (Donnelly & Hall 1994).
- 3 An omnibus survey is where a range of different organisations pool their research topics to form one survey.
- 4 Recall that the current survey was part of a general omnibus survey dealing with a large range of matters irrelevant to the present study.

## APPENDIX 1

### CANNABIS QUESTIONNAIRE

'We have a few more questions just to finish off regarding a study we are conducting about the use of cannabis. Please be assured your responses are strictly confidential and results are being used for research purposes only.

Q1: Have you ever used cannabis?

**Response options:**

- Yes
- No
- Refused.

Q2: Have you used cannabis in the last 12 months?

**Response options:**

- Yes
- No
- Refused.

Q3: How often have you used cannabis in the last 12 months?

**Response options:**

- Every day
- Few times weekly
- Once monthly
- Every few months
- Once or twice
- Refused.

Q4: (asked only of respondents answering 'no' to Q1, response options rotated).

Is that because?

**Response options:**

- you don't think you would like it (yes or no)
- cannabis is illegal (yes or no)
- you are afraid that you will be caught by police if you use cannabis (yes or no)
- you are afraid of going to gaol if the police catch you using cannabis (yes or no)
- you are worried about your health (yes or no)
- your friends or family wouldn't like you using it (yes or no)

- cannabis is too expensive (yes or no)
- cannabis is too difficult to get hold of (yes or no)
- you have drug testing in your workplace (yes or no)
- you have drug testing in your sport (yes or no)
- none of the above (specify)
- refused.

Q5: (asked only of respondents answering 'no' to Q2, response options rotated).

Is that because?

**Response options:**

- you've tried it and you don't like it (yes or no)
- cannabis is illegal (yes or no)
- you are afraid that you will be caught by police if you use cannabis (yes or no)
- you are afraid of going to gaol if the police catch you using cannabis (yes or no)
- you are worried about your health (yes or no)
- your friends or family wouldn't like you using it (yes or no)
- cannabis is too expensive (yes or no)
- cannabis is too difficult to get hold of (yes or no)
- you have drug testing in your workplace (yes or no)
- you have drug testing in your sport (yes or no)
- none of the above (specify)
- refused.

Q6: (asked of everyone).

Do you think you would use cannabis more frequently if it were legal?

**Response options:**

- Definitely would
- Probably would
- Probably wouldn't
- Definitely wouldn't
- Refused
- Don't know.'