



**CANNABIS AND OTHER
ILLCIT DRUG TRENDS
IN NEW ZEALAND 2005**

**Findings from the Cannabis Module of the
2005 Illicit Drug Monitoring System
(IDMS)**

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Executive Summary

Introduction

This report presents findings on recent trends in cannabis and other illicit drug use in New Zealand from the 2005 Illicit Drug Monitoring System (IDMS). The principal aim of the IDMS is to provide timely information on trends in illicit drug use and drug related harm in New Zealand. This is the first year that the IDMS has been conducted, with future waves planned annually from this point on. The findings presented in this report are from the Cannabis Module of the IDMS, which interviews frequent cannabis users and addresses recent trends in cannabis and other illicit drugs in New Zealand. Two other modules are produced from the IDMS: the Methamphetamine Module, which interviews frequent methamphetamine users; and the Hallucinogens Module, which interviews frequent users of ecstasy and LSD. The findings from these two modules are presented in separate reports.

The IDMS consists of three components: (1) interviews with frequent drug users; (2) interviews with key experts (KE) who have regular contact with drug users through their work; and (3) the collation and examination of secondary data sources on drug trends. The combined information from these three sources is used to identify emerging trends in drug use and drug related harm. Frequent drug users are considered a sentinel group who can provide accurate information on patterns of drug use and trends in illicit drug markets. The validity of the IDMS comes from the 'expert' status of the people interviewed and hence the high quality of information they can provide, rather than from the statistical rigour of the sampling methodology. The survey of frequent drug users is not intended to be statistically representative of drug use in the general population.

Method

A total of 69 frequent cannabis users were interviewed in five sites nationwide for the study. Interviewing took place from April to August 2005. The five interview sites were Whangarei, Auckland, Hamilton, Wellington and Christchurch. Participants were recruited through purposive sampling and 'snowballing' (Biernacki and Waldorf, 1981, Watters and Biernacki, 1989). To be eligible to be interviewed, a participant had to have used cannabis weekly or more often in the last six months, be 16 years or older, and to have resided in the site location for the past 12 months. Six KE who had regular contact with frequent cannabis users through their work were interviewed to place the information provided by the frequent cannabis users in greater context. The KE interviewed for the Cannabis Module included alcohol and drug treatment workers, youth alcohol and drug treatment workers, a Maori alcohol and drug treatment worker, a City Mission worker and a youth health worker. Finally, secondary data sources on drug use were collated from a range of government and non government sources including national household drug survey data, arrest and seizure data, hospital admissions data, drug treatment statistics and calls to the alcohol and drug help-line. The information provided by the frequent drug users, KE and secondary data sources was triangulated to identify valid trends in drug use in New Zealand.

Demographic characteristics of the sample

Seven out of 10 (69%) of the sample of frequent cannabis users were male with a median age of 25 years old (range 17-56 years). Eight out of 10 (79%) of the sample were European and one in six (16%) Maori. Half (48%) of the sample were in paid employment, three out of 10 (27%) were students and one in six (17%) were social welfare beneficiaries. One in five (20%) of the participants had no school qualifications, while six out of 10 (56%) had some kind of post secondary school qualification. One in nine (11%) of the sample had a university degree. Half (51%) of the sample earned less than \$20,000 gross annual income. Four out of 10 (41%) earned \$20,000-\$70,000 gross income per year. One in 14 (7%) participants earned over \$70,000 gross income per year. Reported income included both legal and illegal sources. One in 14 (7%) of the frequent cannabis users interviewed were currently in some kind of drug treatment. One in six (16%) of the participants had been arrested in the last 12 months. Four out of 10 (39%) of the frequent cannabis users interviewed lived in Auckland, one in five (19%) lived in Wellington, one in six (17%) lived in Christchurch, one in six (17%) lived in Hamilton and one in 14 (7%) lived in Whangarei.

Patterns of drug use

Many of the frequent cannabis users had used drugs other than cannabis. The frequent cannabis users had used an average of five drug types in the previous six months (range 1-13). The drug types most often used in the last six months were alcohol (86%), tobacco (64%), legal dance party pills (62%), nitrous oxide (36%), ecstasy (33%), LSD (28%), amphetamine (20%) and methamphetamine (14%). A summary of the participants' drug use history is presented in Table 1. One in 10 (10%) of the frequent cannabis users interviewed had used opiates in the previous six months, and one in 25 (4%) had injected opiates in the previous six months. A quarter (25%) of the frequent cannabis users had binged on a drug in the last six months, defined as using a drug for more than 48 hours continuously without sleep. The drug types which participants most commonly binged on were cannabis (71%), alcohol (59%), methamphetamine (24%), legal dance party pills (24%), ecstasy (18%) and nitrous oxide (18%). The average length of participants' longest binge was 68 hours, or just over two and a half days.

Table 1: Drug use history and current drug use of the frequent cannabis users

n=69	Cannabis	Ecstasy (MDMA)	Methamphetamine	Crystal Methamphetamine	LSD	Cocaine	Ketamine	GHB	Opiates
Ever tried (%)	100	61	49	23	74	36	23	20	35
Ever injected (%)	0	5	9	13	6	12	6	0	33
Age first used (median)	14	20	21	22	17	21	20	21	20
Last 6 months (%)	100	33	14	7	28	3	1	6	10
Median days used last six months	176	2	2	5	2	4	2	4	3
Main way taken	Smoked/swallow	Swallow/snort	Smoked/snort	Smoked/snort	Swallow	Snort/smoked	Snort	Swallow	Smoked/injected/swallowed
Median qty taken typical occasion	1 joint	1 pill	1 point	1 point	1 tab	1 grams	0.5 gram	3.5 mls	0
Most taken typical occasion (median)	4 joints	2 pills	2 point	1 point	1 tab	1.8 gram	1 gram	8 mls	0

Prices of different drug types

Current prices

Table 2 presents the prices paid for all the drug types the frequent cannabis users had used in the last six months. There were several drug types which only a very few frequent cannabis users could comment on, but given the universal nature of prices their information was considered worth including. The low numbers available suggest caution in these instances. Only one participant had used ketamine in the last six months so this drug type was excluded. Methamphetamine and crystal methamphetamine were some of the most expensive drugs, costing approximately \$100 for 0.1 of a gram (known as a 'point'). A 'foil' (1.5 grams) of cannabis was reported to cost \$20. A 'foil' or 'tinny' of cannabis generally contains sufficient cannabis for about three joints and is often wrapped in tin foil. The median price reported for an ounce (28 grams) of cannabis was reported to be \$300 (range \$150-\$450).

Table 2: Price paid for different drug types by frequent cannabis users

	Cannabis	Ecstasy (MDMA)	Methamphetamine	Crystal Methamphetamine	LSD	Cocaine	GHB
Number who commented	n=56	n=21	n=16	n=8	n=21	n=6	n=4
Median price (\$)	\$20 foil	\$60 pill	\$100 point	\$100 point	\$40 tab	\$300 gram	\$6.5 millilitre

Change in prices in last six months

Table 3 presents the frequent cannabis users' perceptions of how the price of the four drug types they knew most about had changed in the preceding six months. Only fairly modest proportions of frequent cannabis users reported increases in prices for different drugs. The drug type for which the greatest proportion of frequent cannabis users indicated an 'increase' in the price in the previous six months was methamphetamine (17%), but this was closely followed by LSD (15%) and ecstasy (14%). The drug type for which the greatest proportion of participants indicated a 'decrease' in price was clearly ecstasy (41%). Many participants thought that prices had been 'stable' and this was most clearly the case for LSD (74%) and cannabis (70%). Approximately one in seven participants felt that the price of methamphetamine (17%), ecstasy (14%) and cannabis (11%) had fluctuated over the preceding six months.

Table 3: Change in prices paid for different drug types in the last six months

	Cannabis	Ecstasy (MDMA)	Methamphetamine	LSD
Number who commented	n=63	n=22	n=18	n=27
Increase (%)	6	14	17	15
Stable (%)	70	32	50	74
Decrease (%)	13	41	17	7
Fluctuates (%)	11	14	17	4

Availability of different drug types

Current availability

The drug types which the largest proportion of frequent cannabis users considered to be 'very easy' to obtain were cannabis (60%) and methamphetamine (56%) (Table 4). Just over half (52%) of the frequent cannabis users said ecstasy was 'easy' to get at present. The drug type which the largest proportion of participants considered to be 'difficult' to obtain at the moment was LSD (64%). Three out of 10 (30%) participants described ecstasy as 'difficult' to get at the moment.

Table 4: Current availability of different drug types

	Cannabis	Ecstasy (MDMA)	Meth amphet amine	LSD
Number who commented	n=67	n=23	n=18	n=28
Very easy (%)	60	17	56	4
Easy (%)	37	52	28	29
Difficult (%)	3	30	11	64
Very difficult (%)	0	0	6	4

Change in availability in the last six months

The drug types which the greatest proportion of frequent cannabis users indicated had become ‘easier’ to obtain in the last six months were methamphetamine (41%) and ecstasy (31%) (Table 5). The drug type for which the greatest proportion of participants indicated that availability had become ‘more difficult’ in the last six months was LSD (30%). Fairly sizable proportions of users said the availability of cannabis (22%) and LSD (26%) had ‘fluctuated’ in the preceding six months.

Table 5: Change in availability of different drug types in the last six months

	Cannabis	Ecstasy (MDMA)	Meth amphet amine	LSD
Number who commented	n=67	n=22	n=17	n=27
Easier (%)	24	31	41	15
Stable (%)	40	50	41	30
More difficult (%)	13	14	18	30
Fluctuates (%)	22	5	0	26

Perceptions of change in the number of people using different drugs

As a group, the frequent cannabis users often did not provide a very definitive picture of changes in the number of the people using different drugs. In many cases there was a polarisation of opinion concerning changes in the number of people using different drugs, with approximately one third saying ‘more’ people were using a drug and a similar proportion saying either ‘less’ or ‘the same’ number of people were using the drug (Table 6). The drug type which the greatest proportion of frequent cannabis users thought ‘more’ of the people they know were using was methamphetamine (42%). Approximately three out of 10 frequent cannabis users thought that ‘more’ people were using LSD (31%), ecstasy (29%) and cannabis (27%). Two thirds of participants (64%) reported that about the ‘same’ numbers of people they know were using cannabis. Approximately one third of participants said ‘less’ of the people they know were using methamphetamine (37%), ecstasy (33%) and LSD (27%).

Table 6: Users' perceptions of change in the number of people using different drugs in the last six months

	Cannabis	Ecstasy (MDMA)	Methamphetamine	LSD
Number who commented	n=67	n=24	n=19	n=26
More (%)	27	29	42	31
Same (%)	64	38	21	42
Less (%)	9	33	37	27

Trends in population level drug use in New Zealand

National household drug surveys conducted in 1998, 2001 and 2003 indicate that the population level use of cannabis remained stable in all three waves of national household drug surveying. Approximately one in five New Zealanders aged 15-45 had used cannabis in the preceding 12 months in all survey waves (i.e. 19.9% in 1998; 20.3% in 2001; 20.4% in 2003). There was a statistically significant fall in the last year use of LSD in the general population in 2003 compared to 2001. There was an increase in ecstasy use in 2001 compared to 1998, followed by a levelling out of use in 2003. As was the case with ecstasy, amphetamine use increased in 2001 compared to 1998 but stabilised in 2003. Levels of crystal methamphetamine use appeared to have increased in 2001 compared to 1998 and then did not change in 2003. There was no statistically significant change in the population level use of ketamine, cocaine, GHB or opiates.

Trends in drug seizures

Seizures of cannabis plants during the annual cannabis crop eradication operations have been substantial over the past five years. The number of cannabis plants eradicated each year over this period ranged from 73,772 plants to 193,740 plants. Peaks in cannabis plant eradications were achieved in 2003 (193,740 plants) and 2004 (162,263 plants). Seizures of ecstasy increased considerably each year from 2000 onwards, but appeared to level out in 2003, and this was followed by a sharp decline. Seizures of LSD fell quite dramatically around 1999, and were much reduced in subsequent years. Detections of clandestine amphetamine laboratories fell for the first time in 2004 after a number of years of large increases. Seizures of cocaine have increased over the last two years, but were low level and variable in the years previous to that. There was a fairly large quantity of GHB seized in 2004 following a number of police operations, but seizures were low level in preceding years. Heroin seizures continue to be spasmodic.

Characteristics of the black market

Types of sellers

Friends, partners and family members were often common sources for drug sales. Nine out of 10 (86%) of the frequent cannabis users purchased cannabis from 'friends' (Table 7). Nine out of 10 (93%) of the frequent cannabis users purchased

ecstasy from ‘drug dealers’ or ‘acquaintances’. In contrast only four out of 10 (36%) participants purchased LSD from ‘drug dealers’ or ‘acquaintances’.

Table 7: Percentage of respondents purchasing drugs from different sellers in the last six months

	Cannabis	Ecstasy (MDMA)	LSD
Number who commented	n=57	n=14	n=17
Friends (%)	86	50	65
Drug dealer /acquaintances (%)	60	93	36
Gang Member (%)	0	0	0

Venues where illicit drugs were purchased

Private houses were often the most popular venues where the frequent cannabis users had purchased drugs in the last six months (Table 8). Six out of 10 (60%) of the frequent cannabis users had purchased cannabis from a ‘friend’s house’ in the preceding six months. Three out of 10 (28%) of frequent cannabis users had purchased ecstasy from an entertainment venue, such as a ‘night club’, ‘rave/dance party’ or ‘pub’. One in five (19%) frequent cannabis users had purchased cannabis from a ‘tinny house’. Approximately a quarter of the frequent cannabis users had purchased ecstasy and LSD from ‘agreed public locations’ or the ‘street’.

Table 8: Percentage of respondents purchasing drugs from different venues in the last six months

	Cannabis	Ecstasy (MDMA)	LSD
Number who commented	n=57	n=14	n=17
Friends’ homes (%)	60	36	47
Nightclub/pub/rave (%)	5	28	0
Tinny house (%)	19	0	0
Agreed public location/street (%)	11	29	24

Time taken to purchase different illicit drugs

The drug type which the greatest proportion of frequent cannabis users could purchase in ‘less than 20 minutes’ was cannabis (34%) (Table 9). The drug type which the greatest proportion of participants could only purchase in ‘weeks’ was LSD (19%). The majority of frequent cannabis users said it would take them ‘days’ to purchase ecstasy (64%) or LSD (75%).

Table 9: Time taken to purchase different drug types

	Cannabis	Ecstasy (MDMA)	LSD
Number who commented	n=58	n=14	n=16
Weeks (%)	3	7	19
Days (%)	19	64	75
Hours (%)	43	28	0
Less than 20 mins (%)	34	0	6

New drug trends

New drug types

Several frequent cannabis users reported a new drug which they called ‘Tryptomine’. The respondents may have been referring to DMT or Dimethyltryptamine. DMT is a potent hallucinogen which often comes in the form of a pink crystalline powder. The frequent cannabis users described ‘Tryptomine’ as ‘pure MDMA’ available in ‘capsule form’ and as a ‘pill’. Another participant reported the availability of a new drug which they called ‘2CP’ and described it as a mix between ‘LSD and Ecstasy’. The frequent cannabis users also reported increased use of ‘P’ [methamphetamine], more ‘younger people’ using drugs and more young people using drugs intravenously.

New drug selling methods

A number of frequent cannabis users noted the selling of more potent strains of cannabis at higher prices than standard cannabis. One participant indicated that methamphetamine was now ‘being sold in more affordable amounts’. Several participants observed that there were now more selling places including selling on the streets. One participant described how drug dealers now deliver to home addresses.

User perceptions of different drug types

Health risk from regular use of different drug types

Crystal methamphetamine (66%), methamphetamine (56%) and opiates (55%) were the drug types which the greatest proportion of frequent cannabis users thought the regular use of posed an ‘extreme health risk’ (Table 10). In contrast, only one frequent cannabis user (1%) believed that the regular use of cannabis posed an ‘extreme health risk’. Fairly low proportions of participants believed that the regular use of legal dance party pills (8%) or ecstasy (18%) posed an ‘extreme health risk’. The drug types which the greatest proportion of participants thought the regular use of posed only a ‘slight risk’ to health were cannabis (46%) and legal dance party pills (32%).

Table 10: Perceptions of the health risk of regular use of different drug types

Drug type	Number who commented	Level of health risk from regular use				
		No risk (%)	Slight risk (%)	Moderate risk (%)	Great risk (%)	Extreme risk (%)
Cannabis	n=68	4	46	40	9	1
LSD	n=65	3	14	29	31	23
Ecstasy	n=62	2	11	29	40	18
Methamphetamine	n=66	2	0	18	24	56
Crystal meth	n=53	0	0	13	21	66
Amphetamine	n=62	2	0	26	39	34
Ketamine	n=36	6	0	19	25	50
GHB	n=35	6	9	6	34	46
Opiates	n=58	2	7	5	31	55
Legal dance party pills	n=63	10	32	25	25	8

Risk of buying different drug types

The drug types which the greatest proportion of frequent cannabis users thought were an ‘extreme risk’ to purchase were crystal methamphetamine (29%), opiates (28%), methamphetamine (23%) and ketamine (23%) (Table 11). The drug type which the greatest proportion of participants thought was ‘no risk’ to purchase was ‘cannabis’ (24%). Half (51%) of the participants felt that purchasing cannabis was only a slight risk. A third of the frequent cannabis users believed that purchasing LSD (33%) and ecstasy (30%) was only a ‘slight risk’. As might be expected, the majority of frequent cannabis users thought there was no risk involved in buying ‘legal dance party pills’. The risk some users perceived in regard to purchasing legal dance party pills may relate to the buyer’s need to circumvent age restrictions at legal selling premises, the time and venue of purchase (ie. purchasing late at night in ‘bad’ neighbourhoods), or in cases where they were buying these products from illicit drug dealers.

Table 11: Perceptions of the risk of purchasing different drug types

Drug type	Number who commented	Level of risk to buy				
		No risk (%)	Slight risk (%)	Moderate risk (%)	Great risk (%)	Extreme risk (%)
Cannabis	n=68	24	51	19	1	4
LSD	n=63	8	33	33	14	11
Ecstasy	n=64	5	30	39	16	11
Methamphetamine	n=60	0	15	30	32	23
Crystal meth	n=55	0	11	31	29	29
Amphetamine	n=59	2	22	29	31	17
Ketamine	n=43	5	23	21	28	23
GHB	n=43	5	21	30	26	19
Opiates	n=54	4	13	24	31	28
Legal dance pills	n=65	89	5	3	0	3

Harms from frequent cannabis use

Physical problems

The physical problems most commonly reported from frequent cannabis use were ‘loss of energy’ (48%), ‘skin problems’ (29%), ‘poor appetite’ (22%), ‘muscular aches’ (20%) and ‘weight loss’ (19%) (Table 12). Some of the participants had experienced the physical problems asked about ‘before they started using cannabis’, which suggests the presence of pre-existing physical problems.

Table 12: Physical problems from the frequent use of cannabis

Problem n=69	% experienced in last 6 months related to cannabis use	% experienced before started using cannabis
Loss of energy	48	16
Skin problems	29	19
Poor appetite	22	10
Muscular aches	20	16
Weight loss	19	9
Tremors/shakes	17	4
Stomach pains	17	13
Heart palpitations	12	4
Chest pains	12	6
Vomiting	12	10
Blurred vision	12	1
Fainting/pass out	9	0
Inability to urinate	6	1
Fits/seizures	0	0

Psychological problems

The psychological problems most commonly reported from frequent cannabis use were ‘strange thoughts’ (59%), ‘anxiety’ (46%), ‘short temper’ (43%), ‘trouble sleeping’ (41%), ‘paranoia’ (38%) and ‘depression’ (34%) (Table 13). One in 14 frequent cannabis users experienced ‘suicidal thoughts’ (7%) and one in 25 (4%) indicated ‘suicide attempts’ related to their cannabis use. One in 11 (9%) participants reported experiencing violent behaviour from their ecstasy use. In some cases participants had experienced these psychological problems ‘before they started using cannabis’, indicating the presence of pre-existing psychological problems.

Table 13: Psychological problems from the frequent use of cannabis

Problem n=69	% experienced in last 6 months related to cannabis use	% ever experienced before started using cannabis
Strange thoughts	59	38
Anxiety	46	29
Short temper	43	26
Trouble sleeping	41	19
Paranoia	38	7
Depression	34	19
Sound hallucinations	23	9
Visual hallucinations	17	4
Panic attacks	13	6
Violent behaviour	9	1
Suicidal thoughts	7	6
Suicide attempts	4	1

Drug use and driving

Three out of 10 (29%) of the frequent cannabis users had driven under the influence of alcohol in the last six months. Seven out of 10 (71%) had driven under the influence of drugs other than alcohol in the previous six months. The other drug types which participants were most commonly under the influence of when driving were cannabis (96%), legal dance party pills (16%), ecstasy (12%), methamphetamine (10%), LSD (8%) and nitrous oxide (8%).

Access to services

One in 34 (3%) of the frequent cannabis users had accessed Accident and Emergency services in relation to their drug use in the previous six months. One frequent cannabis user (1%) had been admitted into hospital in relation to their drug use in the last six months. One in 14 (7%) participants had accessed a drug and alcohol worker in the preceding six months.

Criminal history

One in 17 (6%) of the frequent cannabis users interviewed reported they had committed a property crime in the previous month. One in 33 (3%) participants reported they had committed a fraud in the preceding month. One third (32%) said they had sold illicit drugs in the previous month. One participant self reported they had committed a violent crime in the last month.

One in six (16%) of the frequent cannabis users had been arrested in the last 12 months. Two participants (3%) had spent time in prison in the last year. A third (33%) of the frequent cannabis users had been convicted of a criminal offence, and one in 10 (10%) had spent time in prison in their lifetimes.

Perceptions of police activity

Four out of 10 (38%) of the frequent cannabis users had noticed ‘more’ police activity against drug users in the last six months. One in seven (15%) participants had had ‘more’ of their friends arrested in the last six months. One in seven (14%) of the frequent cannabis users said that police operations had made it ‘more difficult’ to obtain drugs in the preceding six months.

Conclusion

The Cannabis Module interviewed a sizable group of very heavy cannabis users. Approximately one half of the sample had used cannabis daily or more frequently in the previous six months, and one half had purchased cannabis on a weekly or more frequent basis in the previous six months. This group of frequent cannabis users is therefore an appropriate sentinel group to survey in order to track trends in cannabis use and cannabis related harm, and also to monitor the extent that primary cannabis users are using other drug types and are exposed to other drug markets, such as those for methamphetamine and opiates. The validity of the findings concerning a particular drug obtained from the interview of frequent cannabis users in the Cannabis Module can be cross checked against the interviews of frequent drug users from the other two modules of the IDMS. Instances where there is corroboration among all three groups of frequent drug users concerning a trend in a drug are strongly indicative that a valid trend has been identified. This process of building validity concerning trends in drug use by looking for corroboration between the three groups of frequent drug users is a unique strength of the IDMS. The trends identified by the frequent drug users can then be further validated through the interviews with KE and via reference to secondary data sources.

An important difference between the frequent cannabis users in the Cannabis Module and the frequent methamphetamine and frequent hallucinogen users from the other two Modules of the 2005 IDMS was the extent and level of other drug use. The frequent cannabis users had used a median of five drug types in the last six months compared with medians of eight drug types used in the last six months by the frequent methamphetamine and hallucinogen users. The frequent cannabis users most commonly used other drugs were alcohol (86%), tobacco (64%), legal dance party pills (62%) and nitrous oxide (36%). The frequent methamphetamine users most commonly used other drugs were cannabis (95%), alcohol (90%), ecstasy (82%), tobacco (82%), amphetamines (82%), crystal methamphetamine (78%) and LSD (77%). The frequent hallucinogen users most commonly used other drug types were alcohol (94%), cannabis (91%), ecstasy (91%), tobacco (74%), legal dance party pills (74%), nitrous oxide (71%) and LSD (62%). Three quarters of the frequent methamphetamine (73%) and frequent hallucinogen users (78%), compared to a quarter (25%) of frequent cannabis users, had binged on a drug in the last six months (ie. used continuously for 48 hours or more). This comparison is not meant to understate the seriousness of the drug use of the frequent cannabis users’, but merely to highlight how the scale of the frequent cannabis users’ drug use differs from that of the frequent users of methamphetamine and hallucinogens.

One surprising aspect of the 'other drug use' of the frequent cannabis users was their level of opiate use. One in 10 (10%) of the frequent cannabis users had used opiates in the last six months. Half of these opiate using frequent cannabis users had mainly 'smoked' opiates and one in six (16%) had mainly 'swallowed' the opiates they used. These alternative methods of administration to injecting opiates are often used by casual or 'first time' opiate users. There is no Opiate Module of the IDMS so unless opiate users also happen to be frequent methamphetamine or frequent hallucinogen users they will tend to be interviewed as part of the Cannabis Module. Opiate users may use cannabis in conjunction with opiates or to help reduce the effects of opiate withdrawal. As opiate users are often daily or near daily users of opiates, their use of cannabis may be of the same high frequency of use.

In the other two modules of the 2005 IMDS it was suggested that ecstasy may be the drug type most 'on the move'. The frequent methamphetamine users reported decreasing prices and high availability of ecstasy. The frequent hallucinogen users appeared to concur with this assessment. Four out of 10 (42%) of the frequent methamphetamine users, and a similar proportion (40%) of frequent hallucinogen users, said the price of ecstasy had fallen in the last six months. The frequent cannabis users were of a similar view, with four out of 10 (41%) also reporting that the price of ecstasy had 'decreased' in the preceding six months. A similar proportion of frequent methamphetamine users (45%), frequent hallucinogen users (55%) and frequent cannabis users (52%) described the current availability of ecstasy as 'easy'.

Similar proportions of frequent methamphetamine users (23%), frequent hallucinogen users (26%) and frequent cannabis users (31%) described the availability of ecstasy as becoming 'easier' in the preceding six months. As noted in the other Modules of the IDMS, the possibility of the establishment of domestic manufacture of ecstasy would further enhance the availability of ecstasy in New Zealand. All three groups of frequent drug users considered ecstasy to be a relatively lower health risk than methamphetamine and crystal methamphetamine. All three samples of frequent drug users also considered ecstasy to be a relatively lower risk to purchase than methamphetamine and crystal methamphetamine. These factors suggest that the demand for ecstasy may well be more robust and sustained than the demand for methamphetamine and crystal methamphetamine.

There appeared to be agreement among all three groups of frequent drug users that LSD had recently declined in New Zealand. High proportions of frequent methamphetamine users (57%), frequent hallucinogen users (67%) and frequent cannabis users (68%) described the current availability of LSD to be either 'difficult' or 'very difficult'. Over half of all three samples of frequent drug users said that the availability of LSD had 'fluctuated' or become 'more difficult' in the last six months. Large proportions of the frequent methamphetamine users (77%), frequent hallucinogen users (72%) and frequent cannabis users (94%) reported it would take them 'days' or 'weeks' to purchase LSD. As noted in the other Modules of the 2005 IDMS, the popularity of LSD may have suffered from the recent emergence of ecstasy and methamphetamine. However, the market for LSD remains and it may be re-energised if there is a shift in preference away from the present popularity of synthetic amphetamines. As evidence of this risk of renewed demand, approximately a third of the frequent hallucinogen users (36%) and frequent cannabis users (31%) indicated that 'more' of the people they know were using LSD compared to six months ago.

The frequent cannabis users further confirmed that methamphetamine is well established in the New Zealand drug market place with high levels of availability. Six out of 10 (60%) of the frequent cannabis users described the current availability of methamphetamine as 'very easy'. Similarly, over half of the frequent methamphetamine users (52%) and four out of 10 (40%) frequent hallucinogen users also described the current availability of methamphetamine as 'very easy'. Four out of 10 (41%) of the frequent cannabis users reported that the availability of methamphetamine had become 'easier' in the preceding six months. Three out of 10 (28%) frequent methamphetamine users also thought the availability of methamphetamine had become 'easier' in the previous six months. The frequent cannabis users, like the frequent methamphetamine users and frequent hallucinogen users, alluded to marketing strategies designed to promote the wider use of methamphetamine such as selling in smaller quantities at lower prices.

On a more positive note, all three groups of frequent drug users demonstrated a high level of awareness concerning the health risks of regular methamphetamine and crystal methamphetamine use. Half of the frequent methamphetamine users (50%), frequent hallucinogen users (50%) and frequent cannabis users (56%) believed that the regular use of methamphetamine posed an 'extreme health' risk. There is therefore some cause to be optimistic that this level of awareness of the health risks of methamphetamine use will eventually erode the perception of methamphetamine use as a 'manageable risk' among drug users, and in turn lead to declining levels of overall use. However, as noted in the previous modules, declining numbers of methamphetamine users may, at least in the medium term, not necessarily translate into lower social costs as we may be left with a smaller, but more problematic, group of users.

As might be expected, the frequent cannabis users considered cannabis to be widely available with fairly stable prices. Nearly all the frequent cannabis users considered cannabis to be either 'very easy' (60%) or 'easy' (37%) to obtain. Overall, the cannabis market was considered to be fairly stable. One in five (19%) of the frequent cannabis users typically purchased their cannabis from public 'tinny' houses. A previous secondary analysis of New Zealand national household drug survey findings found that adolescents aged 15-17 years old were more likely to purchase their cannabis from 'tinny' houses (Wilkins et al., 2005a). Cannabis was perceived by many of the frequent cannabis users to have a low health risk. However, rather paradoxically in light of this view, quite high proportions of frequent cannabis users self-reported a range of psychological problems related to their cannabis use. These included 'strange thoughts', 'anxiety', 'short temper', 'paranoia', and 'depression'. The proportion of frequent cannabis users reporting these psychological problems from cannabis were often very similar to the proportion of frequent methamphetamine users and frequent hallucinogen users reporting the same psychological problems from methamphetamine and hallucinogen use, which suggests that cannabis users' perceptions concerning the low health risk of their regular cannabis use does not match their own self reported experience.

One of the important reasons to monitor primary cannabis populations is that cannabis is often the first drug young people try and some of these cannabis users then go on to use other 'heavier' drugs, such as methamphetamine and opiates. The role that so

called 'softer' drugs may play in the progression to the use of 'harder' drugs is an important issue in regard to the recently emerged new legal intoxicants, such as legal dance party pills (ie. Benzylpiperazine and Trifluoromethylphenylpiperazine) and nitrous oxide. The frequent cannabis users reported high levels of recent use of legal dance party pills (62%) and nitrous oxide (36%), as did the frequent drug users in the other modules of the 2005 IDMS. An important research question is the extent to which these substances facilitate the use of other 'harder' drug types. Alternatively, it has been suggested by some commentators that these substance may act as 'safe' legal alternatives to 'hard' drugs and criminality, both for adolescents with no history of drug use and for established illicit drug users seeking an exit from the illicit drug lifestyle. The level of use of these new legal intoxicants among the frequent drug users interviewed for the 2005 IDMS indicates that this issue requires investigation and clarification to inform the ongoing policy response.

1. Introduction

The IDMS is intended to serve as a strategic early warning system, identifying emerging trends in illicit drug use and drug related harm of national concern. The IDMS is designed to be sensitive to new trends in illicit drug use and sale by providing timely quantitative data on key market indicators such as prices, purity levels and availability. It also collects qualitative information on emerging drug trends such as new drug types and new types of drug selling. The IDMS also provides detailed data on the harms and problems experienced by drug users, and information on the health, medical and emergency services they have accessed in the last six months. Finally the IDMS collates a range of statistical data on drug issues to further contextualise information obtained from drug users and KE. These include national household drug survey data, drug seizure data, drug related hospital admissions, drug treatment admissions and calls to the alcohol and drug help line.

The value of the IDMS will increase over time as future waves are compared to previous waves and trends through time are identified. The resulting information can be used to inform the strategy and policy of a range of government and non-government agencies concerned with drug trends and drug related harm. The issues raised in the IDMS will also be fertile ground for researchers seeking to enhance the understanding of drug behaviour and consequences.

The IDMS is a collaborative project drawing on the knowledge and goodwill of people from the government sector, drug treatment sector and research sector. The success of the IDMS is a testimony to the commitment and cooperation of these people and organisations.

1.1 Study aims

The aims of the IDMS are to:

- Track trends in illicit drug use;
- Detect the emergence of new illicit drug types;
- Document the availability, price, and purity of illicit drugs of concern;
- Document levels of property crime, violence, fraud and drug driving, committed by frequent drug users;
- Document the harms and problems users experience from the use of illicit drugs.

1.2 Methods

The IDMS extends methodologies which have been used successfully overseas for a number of years to monitor illicit drug trends (Wilkins and Rose, 2003). The research methods used in the IDMS were adapted and piloted to meet New Zealand conditions during the recent Socio-Economic Impact of Amphetamine Type Stimulants study (see Wilkins et al., 2004b). Particular attention has been paid to achieving compatibility with the Australian Illicit Drug Reporting System (IDRS) and Party Drug Initiative (PDI), conducted by the National Drug and Alcohol Research Centre (NDARC) in Australia, in order to be able to monitor illicit drug trends at the wider Australasian sub-regional level.

Three sources of information are used in the IDMS to identify trends in illicit drug use:

- (1) Face-to-face interviews with frequent illicit drug users;
- (2) Telephone interviews with key experts (KE) who have had regular contact with illicit drug users through their employment;
- (3) Secondary data sources on illicit drug use such as seizures of drugs, admissions to drug treatment centres, and calls to drug support and information lines.

The three information sources collected in the IDMS are triangulated to identify emerging trends in illicit drug use in New Zealand.

The IDMS produces three modules based on the type of frequent illicit drug users interviewed: (i) the Methamphetamine Module, which interviews frequent methamphetamine users; (ii) the Hallucinogens Module, which interviews frequent ecstasy and LSD users; and (iii) the Cannabis Module, which interviews frequent cannabis users. The frequent drug users interviewed in the modules provide detailed information about their primary drug of use and also information on all the other illicit drugs they may use or know about. The three modules of the IDMS address the illicit drug markets of greatest concern in New Zealand. This report presents the findings from the Cannabis Module. Findings from the other modules are presented in separate reports.

1.3 Survey of frequent cannabis users

Cannabis is New Zealand's most widely used illicit drug with approximately one in five of the general population aged 15-45 years old having used it in the preceding 12 months (Wilkins et al., 2002c). The illicit market for cannabis in New Zealand has recently been estimated to be worth \$182.8-\$235.0 million per year at retail level (Wilkins and Sweetsur, 2005). Amphetamine and ecstasy users in New Zealand have been found to have high prevalence levels of cannabis use (see Wilkins et al., 2004b, Wilkins et al., 2005b, Wilkins et al., 2005c). Cannabis is often the first illicit drug

used by young people and drug dealers have been known to encourage cannabis buyers to try other drug types, such as methamphetamine (Wilkins et al., 2005a). Frequent cannabis users are therefore an important population to survey as a means to track wider trends in drug use and illicit drug markets in New Zealand. Frequent users of ecstasy and heroin have been shown to be sentinel groups for detecting illicit drug trends in other countries (see White et al., 2004).

1.3.1 Recruitment

A total of 69 frequent cannabis users were interviewed in five sites nationwide for the Cannabis Module of the IDMS. Recruitment and interviewing was conducted from April to August 2005. The five sites were Whangarei, Auckland, Hamilton, Wellington and Christchurch. Participants were recruited through purposive sampling and ‘snowballing’ (Biernacki and Waldorf, 1981, Watters and Biernacki, 1989). ‘Purposive sampling’ is where researchers use targeted recruitment strategies to obtain samples of study participants. Purposive sampling is a valid and cost effective way to study hard-to-reach populations such as illicit drug users. ‘Snowballing’ is where interviewers facilitate the recruitment of participants by asking those already interviewed to recommend the study to their peers.

In order to ensure that a broadly representative sample of frequent cannabis users was obtained, a range of ‘start points’ for recruitment were chosen, based on the demographic profile of cannabis users and the venues and locations where they were likely to congregate. ‘Start points’ for recruitment included cafes, bars, university campuses and music shops.

The invitation to participate in the study was communicated via large outdoor posters, small A4 size posters, and flyers which were posted and left at the targeted locations. The posters and flyers provided information on the study and advertised a free 0800 number, which those interested in participating could call to hear more about the study. Advertisements promoting the study were also placed in music and fashion magazines and weekly music entertainment guides to raise the profile of the study among the target group of drug users. The profile of the study was raised further by approaching national and local media organisations, such as national newspapers, community radio and community newspapers, to run stories on the study and encourage people to participate.

1.3.2 Procedure

Participants contacted the researchers via the advertised free 0800 number and were screened for eligibility. In order to be eligible to be interviewed for the Cannabis Module a respondent had to have used cannabis weekly or more often in the last six months, be 16 years or older, and to have resided in the site location for the past 12 months.

Participants were informed that all the information provided was strictly confidential and anonymous, and that the results would only be presented in aggregate. The project was designed so that no individual participant could be identified at a later date. The completed questionnaires and project database is held at the SHORE offices and is not shared with any external person or organisation. The protocols and

procedures used to collect and store the data for the project were approved by the Massey University Human Subjects Ethics Committee.

Participants were informed that the study would involve a face-to-face interview which would take approximately 60 minutes to complete. All respondents were offered a \$20 food or music voucher to compensate them for their time. Interviews took place in a public location negotiated with participants, such as a café or fast food restaurant. At the end of the interview, the interviewer provided the respondent with additional promotional flyers about the study and invited them to inform other people they know, who regularly use illicit drugs, to contact the interviewers.

1.3.3 Measures

Participants were administered a face-to-face structured interview. The questionnaire used was developed from the NDARC PDI and adapted to meet New Zealand's unique illicit drug environment. Additional questions and sections were added to the interview to address issues specific to illicit drug use in New Zealand, and to ensure compatibility with ongoing drug research conducted in New Zealand, such as the Health Behaviours Survey – Drug Use (HBS-Drug Use) and the New Zealand Arrestee Drug Abuse Monitoring System (NZ-ADAM) (see Wilkins et al., 2002c, Wilkins et al., 2004b, Wilkins et al., 2004a).

The IDMS focuses on participants' behaviour and experiences in the previous six months. The interview includes sections on: demographics of users; patterns of cannabis and other drug use, including frequency, quantity of use and routes of administration; price, purity and availability of a range of illicit drug types; side effects from cannabis use; life impacts of illicit drug use; help seeking for illicit drug use; general trends in illicit drug use, such as new drug types, new drug users and selling methods; perceptions of risk of use and purchase of illicit drugs; self reported criminal activity and perceptions of police activity; and self reported income, including income from illegal sources.

1.4 Survey of key experts (KE)

Key experts are people who have had regular contact with frequent cannabis users through their work in the preceding six months. Regular contact was defined as average weekly contact, and/or contact with 10 or more frequent cannabis users in the past six months. A total of six key experts (KE) were interviewed for the Cannabis Module. KE included an alcohol and drug treatment worker, youth alcohol and drug treatment workers, a Maori alcohol and drug treatment worker, a City Mission worker and a youth health worker. KE interviews were conducted over the telephone.

1.5 Secondary data sources

A range of secondary data sources on drug use were collated and examined to validate the data collected from the frequent drug user survey and KE interviews. These included national household drug survey findings (i.e. 2003 HBS-Drug Use), health and hospital statistics, drug treatment statistics, and law enforcement statistics.

The recommended guidelines for secondary data sources for the IDMS were that the data was to be available at least annually; included 50 or more cases; could be broken down by drug type; and had some accompanying demographic and regional information.

Secondary data sources that have been included in this report are:

- 2003 Health Behaviours Survey: Drug Use (HBS-Drug Use);
- 1998 & 2001 National Household Drug Surveys;
- Statistics on hospital admissions for drug related illness;
- New Zealand Police and Customs seizure and arrest data;
- Calls to the Drug and Alcohol Help-line;
- Drug treatment admission statistics from the Community Alcohol and Drug Services (CADS) and Odyssey House in Auckland;
- Surveys of drug treatment workers by the National Addiction Centre (NAC) in Christchurch.

2. Overview of frequent cannabis users

2.1 Demographic characteristics of the frequent cannabis user sample

2.1.1 Gender and age

Seven out of 10 (69%) of the sample of 69 frequent cannabis users interviewed were male. The median age of the sample was 25 years old (mean 28; SD 10 years; range 17-56 years).

2.1.2 Ethnicity

Eight out of 10 of the sample (79%) identified as European and one in six (16%) as Maori.

2.1.3 Accommodation

Six out of 10 of the sample (62%) lived in rented premises, one in five (19%) lived in a parent's or family's house, one in eight (13%) lived in their own house. One in 17 (6%) lived in a boarding house or hostel.

2.1.4 Drug treatment

One in 14 (7%) of the participants were currently in some kind of drug treatment.

2.1.5 Employment status

Half of the sample was currently in some kind of paid employment, with four out of 10 (39%) in full time employment and one in 11 (9%) in part time employment. One quarter (27%) of the participants were currently tertiary students and one in 25 (4%) were caregivers. One in 14 (7%) of the sample were unemployed and one in 10 (10%) were on a sickness benefit.

2.1.6 Occupation

Respondents reported doing a range of different types of work. One in six (17%) of the sample were professionals with a tertiary qualification, one in 17 (6%) were managers, and one in 50 (2%) were Directors. One in 9 (11%) worked in clerical/sales/service, one in 13 (8%) were manual workers/labourers and one in seven (15%) were tradesmen/craftsmen. A quarter of the participants (26%) were students.

2.1.7 Education

One in five (20%) of the sample had no secondary school qualifications at all. A further one in 10 (10%) had School Certificate or NCEA Level 1 as their highest qualification. Six out of 10 (56%) of the sample had a post secondary school qualification of some kind, including diploma (16%) or trade certificate (19%). One in 9 (11%) had a Bachelors degree.

2.1.8 Marital status and sexual orientation

Half of the sample (51%) were single. One in six (17%) were married or in a defacto relationship, and a further one in five (22%) describe themselves as 'with a regular partner'. Nine out of 10 (88%) of participants described themselves as heterosexual. One in 14 (7%) described themselves as bisexual. One participant was a gay man and another participant a lesbian.

2.1.9 Arrest and prison history

One in six (16%) of the sample had been arrested in the previous 12 months. One in 33 (3%) of the participants had spent time in prison in the last 12 months.

2.1.10 Legal and illegal income

Half (50%) of the frequent cannabis users had earned \$20,000 or less gross income (both legal and illegal) in the last 12 months. One in five (22%) had earned between \$20,001-\$40,000 gross income in the previous year. A further one in five (19%) had earned \$40,001-\$70,000 in the last year. One in 14 (7%) earned over \$70,000 in the last year. One in five (22%) of the frequent cannabis users had earned income from illegal sources. Those who had earned money from illegal sources estimated that they had earned a median of 10% of their income from illegal sources (mean 31%, range 1%-100%).

2.1.11 Sources of income used to pay for drugs

Seven out of 10 (72%) participants had used 'paid employment' to pay for the drugs they used in the last six months. Six out of 10 (58%) had received drugs as 'gifts from friends' in the previous six months. One in four (23%) participants had paid for drugs with 'unemployment and other social welfare benefits' in the last six months. A further one in four (23%) had bartered other drugs or goods for the drugs they used. Participants also used sources of credit to pay for drugs including 'borrowing money from friends' (13%), receiving 'credit from drug dealers' (16%), and 'borrowing money from parents' (14%). Drug dealing was also a source of money for drugs including 'dealing drugs to provide own personal supply' (13%) and 'profit from drug dealing' (9%). A small proportion of participants had used 'property crime' (1%), 'pawning' property (4%), and 'sexual favours' (1%) to pay for the drugs they used in the last six months. No participants reported using money gained through 'fraud' or 'sex work' to pay for drugs.

2.1.12 Geographical location

Four out of 10 (39%) of the frequent cannabis users lived in Auckland, one in six (17%) lived in Christchurch, one in five (19%) lived in Wellington, one in six (17%) lived in Hamilton. The remainder lived in Whangarei (7%).

2.2 Key experts' description of frequent cannabis users

The KE interviewed were largely in drug treatment roles and often worked with youth populations and so the information they provided often focused on problematic youth cannabis users. This is appropriate given that cannabis is often the first illicit drug that drug users experiment with, and one of the roles of the Cannabis Module was to

monitor cannabis users' contact with hard drugs and hard drug markets, such as methamphetamine and opiates.

KE described frequent cannabis users as coming from a broad age range, with the peaks in the 20s and 30s, and an age range as wide as 14-60 years old. Some KE worked primarily with youth groups and described the typical age of the users they see as 13-17 years old. Several KE described a male bias among the users they see but others described a more even split. One KE only saw female cannabis users. KE described a high proportion of Maori cannabis users. Several KE described the proportion of Maori as high as 40-90%. KE described users as having few school educational qualifications and high levels of unemployment or other types of government income assistance (70%-90%). KE working with youth groups said that about half of the users they saw were disconnected from school, with some working low wage jobs. KE described the sexual identity of frequent cannabis users as mainly heterosexual (ie. 90%+), with approximately one in 10 (10%) homosexual. KE said that many of the users they saw had had some contact with the criminal justice system. Many were not old enough to be sent to prison. Many of the frequent cannabis users seen by the KE were in some form of counselling or drug treatment.

3. Drug use history and current drug use

The frequent cannabis users were asked about their lifetime and recent use (ie. in the last six months) of 20 drug types, including alcohol, tobacco and legal dance party pills. The prevalence of drug use within the sample is presented in Table 3.1. Poly drug use was common in the sample with respondents having ever tried an average of 10 drug types (range 1-19) and having used an average of five drug types in the preceding six months (range 1-13).

There were high levels of lifetime use of alcohol (93%), tobacco (78%), legal dance party pills (74%), LSD (74%), amphetamine (62%), ecstasy (61%), nitrous oxide (59%), and methamphetamine (49%). One third (35%) had tried opiates including 'homebake' heroin in their lifetimes.

The other drug types most commonly used in the last six months by the frequent cannabis users were alcohol (86%), tobacco (64%), legal dance party pills (62%), nitrous oxide (36%), ecstasy (33%), LSD (28%), amphetamine (20%) and methamphetamine (14%). One in 10 (10%) of the frequent cannabis users interviewed had used opiates in the previous six months, and one in 25 (4%) had injected opiates in the previous six months. In the 'other' category, one in six (17%) had used hallucinogenic mushrooms, one participant had used 'Tryptomine', and one had used '2CP', in the previous six months.

Table 3.1: Lifetime and recent drug use of frequent cannabis users

Drug type	Ever tried (%)	Last six months (%)
Cannabis	100	100
Alcohol	93	86
Tobacco	78	64
LSD	74	28
Legal dance party pills	74	62
Amphetamine	62	20
Ecstasy (MDMA)	61	33
Nitrous oxide	59	36
Other	58	20
Methamphetamine	49	14
Cocaine	36	3
Amyl/Butyl nitrate	35	9
Opiates (homebake heroin)	35	10
Benzodiazepines	29	9
Anti-depressants	28	13
Crystal methamphetamine (Ice)	23	7
Ketamine	23	1
GHB	20	7
Heroin	14	4
MDA	12	0
Methadone	12	3

Several KE reported that about one in five (20%) of the frequent cannabis users had 'tried' methamphetamine. KE observed that regular use of methamphetamine was limited by its price. One KE was of the opinion that methamphetamine use was more common a year ago but the negative consequences of use had resulted in many giving up and returning to cannabis. Several KE also observed that about one in 10 frequent cannabis users had experimented with crystal methamphetamine and also cocaine. Ki believed that approximately one in 10 of the frequent cannabis users had tried opiates but less than 5% were regular users. At least seven out of 10 (70%+) were regular alcohol drinkers and over nine out of 10 (90%+) regular tobacco smokers. Between 20%-50% of the frequent cannabis users were thought to use legal dance party pills. A quarter also used solvents and inhalants. Ecstasy and LSD use was considered rare and one KE observed that nitrous oxide ('nos') was fading away.

4. Cannabis

4.1 Introduction

Cannabis has remained New Zealand's most popular illicit drug, and the third most popular drug after alcohol and tobacco. New Zealand achieved self sufficiency in the supply of cannabis in the 1980s, with large scale domestic cultivation of the drug emerging in a number of rural regions including Northland and the Bay of Plenty (Yska, 1990, Wilkins et al., 2002a, Wilkins and Casswell, 2003). In more recent years, the outdoor cultivation of cannabis has been supplemented by sophisticated indoor hydroponics growing operations which produce high potency strains of cannabis (Newbold, 2000). Cannabis is sold in New Zealand within private social networks and from public drug houses, known as 'tinny' houses (Wilkins et al., 2005a). Recent analysis of cannabis purchasing from 'tinny' houses has found that adolescents aged 15-17 years old were significantly more likely to purchase cannabis from these places than older cannabis buyers (Wilkins et al., 2005a).

4.2 Patterns of cannabis use among the frequent cannabis users

4.2.1 Age of first use

The median age at which the frequent cannabis users had first used cannabis was 14 years (mean 15 years, range 9-26 years). The median age that the participants had started using cannabis regularly (ie. 'at least once a month') was 16 years (mean 17 years, range 12-35 years).

4.2.2 Mode of administration

Nearly all (97%) of the frequent cannabis users indicated that 'smoking it' was the *main* way they had taken the drug in the last six months. The remaining participants (3%) had mainly 'swallowed' their cannabis.

Four out of 10 (38%) mainly smoked cannabis using a pipe or 'bong'. A third (32%) mainly smoked cannabis as 'joints'. One in five (22%) mainly 'spotted' their cannabis. One in 17 (6%) mainly smoked their cannabis with tobacco and a small number of participants (2%) mainly ate their cannabis.

KE estimated that about 90% of the users smoked the cannabis they used in a pipe or 'bong'. Users also commonly smoked cannabis in joints. Some also 'spotted' the cannabis they used.

4.2.3 Form of cannabis

Nearly two thirds (65%) of the frequent cannabis users said they *mainly* used 'heads' of cannabis. Three out of 10 (30%) reported they mainly used a high potency strain of cannabis, known locally as 'skunk'. The remaining one in 20 (5%) mainly used cannabis 'leaf'. None of the participants reported mainly using cannabis oil or hashish.

KE reported that the users they saw were using a range of forms of cannabis, including cannabis oil and high potency hydroponic cannabis. The use of hashish was considered to be rare.

4.2.4 Frequency of use

The frequent cannabis users had used cannabis on a median of 176 days in the previous six months or approximately everyday (mean 127 days, range 15-181 days). Seven out of 10 (69%) of the frequent cannabis users had used cannabis three times a week or more often in the last six months. Nearly half (47%) of the participants were daily cannabis users.

KE reported that the majority of the users they saw were daily users (50%-90%) with others more casual 'weekend' users.

4.2.5 Quantity used

The median number of cannabis joints smoked on a typical occasion was one joint (mean 4 joints, range 0.25-102.0 joints). The high number of joints used in a single session may refer to situations where the respondent has consumed several ounces of cannabis over a number of days which they have defined as one session. We have converted these large amounts into joints (0.5 grams) to facilitate comparison. The greatest number of cannabis joints smoked on a single occasion in the last six months was four joints (mean 9.0 joints, range 1.0-102.0 joints).

4.2.6 Other drugs used with cannabis

Seven out of 10 (70%) of the frequent cannabis users had used other drugs with cannabis. The drug types most often used with cannabis were tobacco (67%), alcohol (60%), ecstasy (15%), nitrous oxide (15%), LSD (9%), and legal dance party pills (8%).

Three out of 10 (30%) of the participants had used other drugs to help them 'recover from their cannabis use'. The drugs most commonly used to recover from cannabis were tobacco (57%) and alcohol (29%).

4.2.7 Binge use

A quarter (25%) of the frequent cannabis users had binged on a drug in the last six months, defined as 'using a drug for more than 48 hours continuously without sleep'. The drug types which participants most commonly binged on were cannabis (71%), alcohol (59%), methamphetamine (24%), legal dance party pills (24%), ecstasy (18%) and nitrous oxide (18%). When participants were asked to nominate the *one* drug on which they had most often binged in the last six months, the drug types most often named were cannabis (60%), alcohol (20%), ecstasy (10%) and opiates (10%). The average length of participants' longest binge in the last six months was 68 hours or nearly three days (median 49 hours, range 48-168 hours).

4.2.8 Drug of choice

Two thirds (66%) of participants said cannabis was their ‘main drug of choice (ie. their favourite or preferred drug)’. The next most commonly cited ‘drug of choice’ was LSD (9%), followed by alcohol (8%).

4.3 Cannabis use in the general population

4.3.1 Introduction

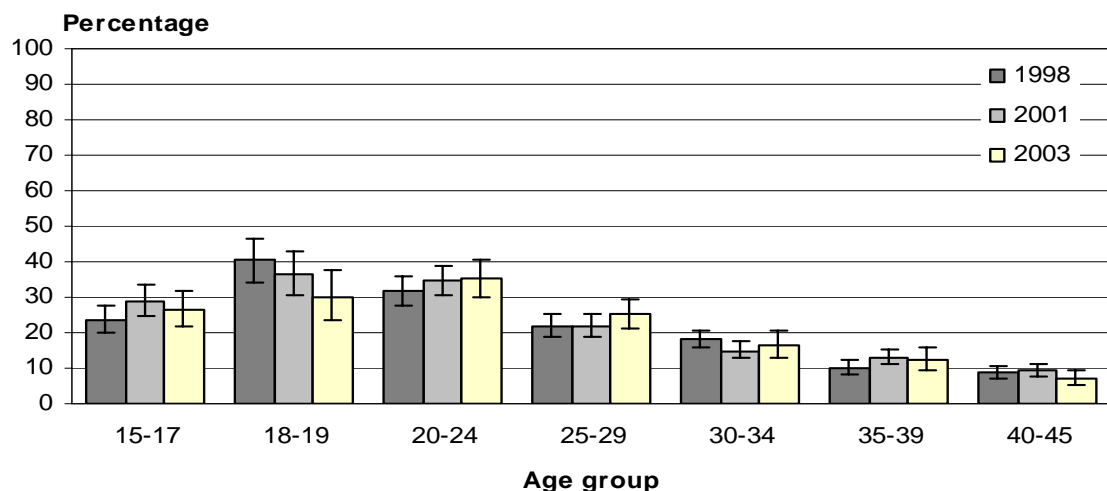
This section presents findings on the national prevalence of cannabis from three waves of New Zealand national household drug surveying conducted in 1998, 2001 and 2003. The most recent wave of surveying was conducted as the 2003 Health Behaviours Survey – Drug Use (2003 HBS-Drug Use) and was directly funded by the Ministry of Health. The data presented is from the general population aged 15-45 years old from each survey wave. Statistical comparisons are made at the 99% confidence interval. The error bars on the graph indicate the 95% confidence intervals.

4.3.2 Trends in population cannabis use

Cannabis was the most widely used drug in all three waves of national surveying, with about half of the New Zealand population having tried it in their lifetimes. A significantly higher proportion of the population had tried cannabis in 2003 compared to 1998 (53.8% and 50.4%, $p=0.0065$).

There was no statistically significant change in the overall last year use of cannabis over any of the waves of surveying, with approximately one in five New Zealanders aged 15-45 years old having used it in the last year (i.e. 19.9% in 1998; 20.3% in 2001; 20.4% in 2003). In 2003, one in three (35%) 20-24 year olds and one in four (25%) 25-29 year olds had used cannabis in the last year (Figure 4.1).

Figure 4.1. Proportion of the population reporting last year use of cannabis by age, 1998, 2001 and 2003



4.4 Users' perceptions

4.4.1 Three things most liked about cannabis

Eight out of 10 (79%) frequent cannabis users said that one of the three things they most liked about cannabis was that it 'relaxed' them. Nearly half (47%) said they liked the way cannabis facilitated socialising and in relation to this, one in 11 (9%) said they liked the way cannabis enhanced music. Three out of 10 (29%) said they liked the way cannabis enhanced 'creativity'. One in five (21%) mentioned the 'high' and the process of 'smoking' as one of the three things they most liked about cannabis. One in 14 (7%) said they smoked cannabis for 'medicinal purposes' or to help them 'sleep' (6%). One in six (16%) said they liked the 'taste'. One in 25 (4%) said they smoked cannabis to 'escape'. The same proportion (4%) said they liked cannabis because they felt they 'could still operate safely'. One in 17 (6%) said one of the things they liked about cannabis was it was 'not an aggressive drug'. A further one in 17 (6%) said they liked the fact that cannabis was 'easy to obtain'.

4.4.2 Three things most disliked about cannabis

Four out of 10 (37%) of frequent cannabis users indicated that one of the three things they most disliked about cannabis was its impact on their self motivation, including feeling 'slow/lazy', 'makes you tired' and 'anti-social'. The same proportion (37%) said they disliked the negative 'health effects' of cannabis use. A quarter (24%) said they didn't like the way cannabis impaired their cognitive function, including causing 'memory loss' and 'getting too stoned to function'. One in seven (15%) didn't like the way cannabis made them 'paranoid'. A further one in four (25%) said they didn't like the financial cost of cannabis. Four out of 10 (39%) said they didn't like the fact that cannabis was 'illegal' and 'peoples' perceptions' of cannabis users (16%).

4.5 Purchasing behaviour

4.5.1 Extent of purchasing

One in six (16%) frequent cannabis users had purchased 'all' of the cannabis they had used in the last six months. One third (37%) had purchased 'most' of the cannabis they had used in the last six months, and one in five (21%) had purchased 'some' of the cannabis they had used in the last six months. Approximately one in 11 (9%) purchased 'hardly any' and one in six (18%) purchased 'none' of their cannabis.

4.5.2 Purchase from a 'tinny' house

One in eight (13%) cannabis buyers had purchased 'all' of their cannabis from a 'tinny' house in the preceding six months. A further one in eight (13%) had purchased 'most', and one in nine (11%) had purchased 'some' of their cannabis from a 'tinny' house. Half (55%) of those who had purchased cannabis in the last six months had bought 'none' of their cannabis from a 'tinny' house.

4.6 Price

4.6.1 Current price

Nearly all (99%, n=68) of the frequent cannabis users felt confident enough to comment on the price, purity and availability of cannabis. Only one participant did not want to answer these questions.

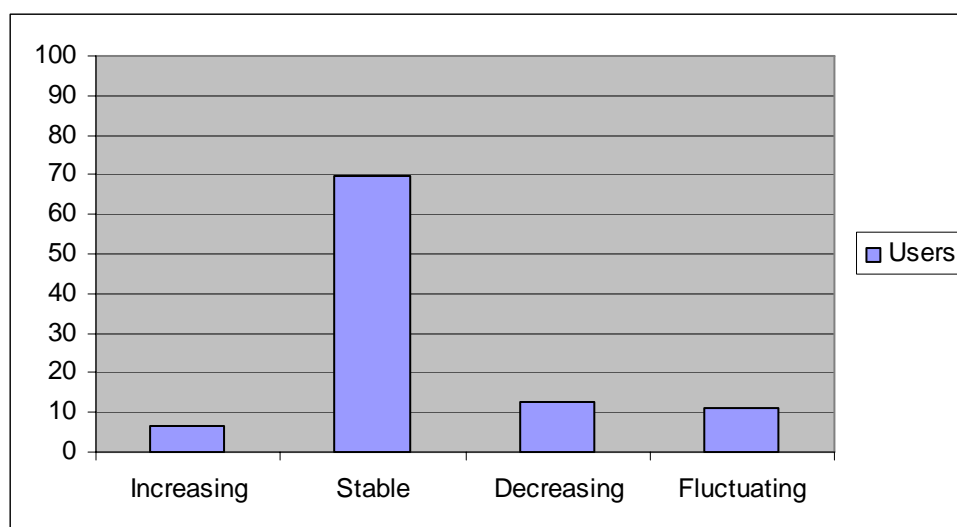
The median price paid for a 'tinny' of cannabis (1.5 grams) was \$20 (mean \$21, range \$20-\$25). The median price paid for an ounce of cannabis (28 grams) was \$300 (mean \$291, range \$150-\$450).

The two KE who knew the price of a 'tinny' reported a price of \$20.

4.6.2 Change in price

Seven out of 10 (70%) of the participants who commented on cannabis thought the price had remained 'stable' in the previous six months (Figure 4.2). One in nine (11%) said the price had 'fluctuated' over the last six months. One in eight (13%) thought the price of cannabis had 'decreased' in the last six months. One in 16 (6%) reported the price had increased in the preceding six months.

Figure 4.2: Change in the price of cannabis in the last six months



4.7 Purity

4.7.1 Current purity

Four out of 10 (40%) of the participants who commented on cannabis described the current strength of cannabis as 'high'. One third (36%) described the current strength of cannabis as 'fluctuating'. One in five (22%) said that the current strength is 'medium'. The remaining participants (1%) said the strength was 'low'.

4.7.2 Change in purity

Half (50%) of those who commented on cannabis felt that the strength of cannabis had remained ‘stable’ over the previous six months. Three out of 10 (30%) said the strength of cannabis had ‘fluctuated’ over the preceding six months. One in seven (14%) thought the strength of cannabis had ‘increased’ over the last six months. The remaining respondents (6%) said the strength of cannabis had ‘decreased’ over the preceding six months.

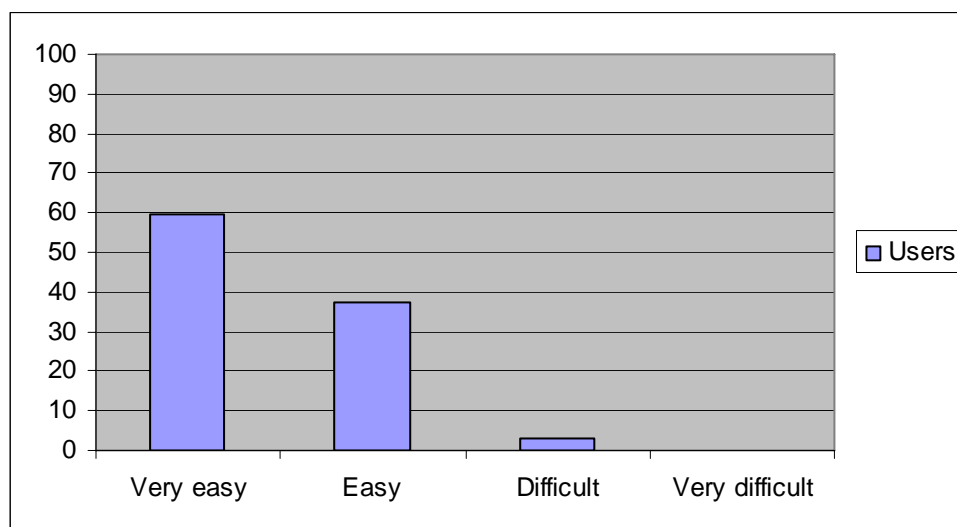
4.8 Availability

4.8.1 Current availability

Six out of 10 (60%) of the participants who commented on cannabis described the current availability of cannabis as ‘very easy’ (Figure 4.3). Four out of 10 (37%) reported the current availability of cannabis to be ‘easy’. A small number of participants (3%) described current availability as ‘difficult’.

All the KE described the current availability of cannabis as ‘very easy’.

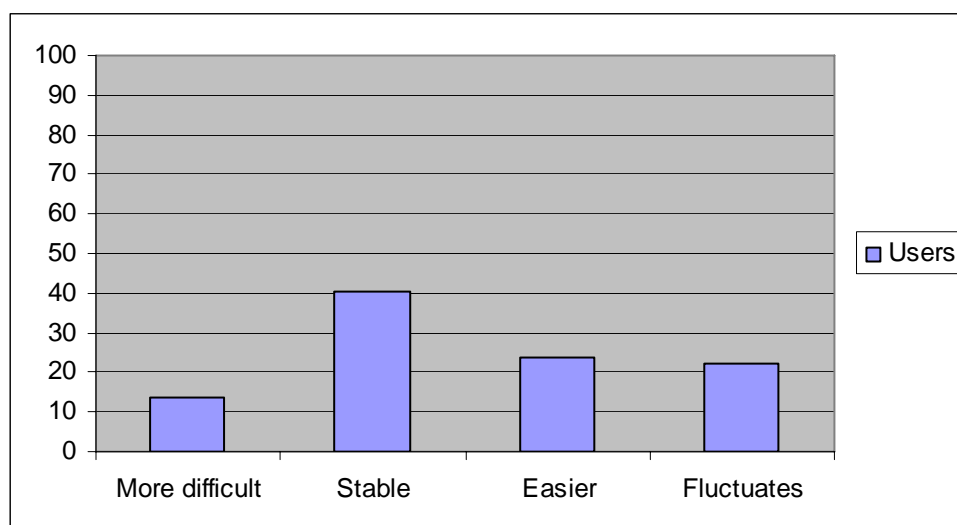
Figure 4.3: Current availability of cannabis



4.8.2 Change in availability

Four out of 10 (40%) of the participants who commented on cannabis thought the availability of cannabis had been ‘stable’ in the last six months (Figure 4.4). One in four (24%) said availability had become ‘easier’. A further one in four (22%) said the availability of cannabis had ‘fluctuated’ over the preceding six months. One in eight (13%) thought the availability of cannabis had become ‘more difficult’ over the last six months.

Figure 4.4: Change in availability of cannabis in the last six months



Five KE described the change in availability of cannabis as ‘stable’. One KE said the availability of cannabis was getting ‘easier’.

4.8.3 Change in the number of people using

Nearly two thirds (64%) of those who commented on cannabis reported that the ‘same’ number of the people they know were using cannabis compared to a year ago. Almost three out of 10 (27%) said that ‘more’ of the people they know were using cannabis. One in 11 (9%) thought that ‘less’ of their friends were using cannabis compared to a year ago.

4.9 The black market for cannabis

4.9.1 Procurement of cannabis

Eight out of 10 (84%, n=58) of those who commented on cannabis had purchased cannabis in the last six months. One in nine (11%) reported they had received it for ‘free’. One in 25 (4%) had grown all their cannabis themselves.

4.9.2 Frequency of purchase

Half of the cannabis buyers (50%) had purchased cannabis weekly or more often in the preceding six months, with one in six (16%) purchasing four or more times per week. One in five (19%) had purchased once or twice per month in the last six months. The remainder (31%) had purchased 1-4 times in the previous six months.

4.9.3 Different types of sellers

Nine out of 10 (86%) of the cannabis buyers had purchased cannabis from ‘friends’ in the last six months (Table 4.1). A third (35%) had purchased from ‘drug dealers’, and one in four (25%) had purchased from acquaintances in the previous six months. One in nine (11%) had grown cannabis for their own consumption in the last six months.

Table 4.1: Different types of people cannabis bought from in the last six months

People	Users (%) (n = 57)
Friends	86
Drug dealers	35
Acquaintances	25
Family member	11
Grow it myself	11
Workmates	9
Unknown	4
Other	2

4.9.4 Method used to contact seller

Four out of 10 (38%) cannabis buyers usually contacted their cannabis seller by ‘calling/texting them on a mobile telephone’. Three out of 10 (30%) usually ‘visited a house or flat’. One in seven (15%) buyers usually ‘call them on a landline telephone’. One in 11 (9%) were already with them. One in 50 (2%) usually approached the seller in public and one in 17 (6%) arranged to buy ‘through a third party’.

4.9.5 Venues of purchase

Houses were common venues where cannabis buyers purchased cannabis in the last six months (Table 4.2). Six out of 10 (60%) participants had purchased cannabis from a ‘friend’s house’, three out of 10 (28%) had purchased from their ‘own home’, one in five (21%) had purchased at their ‘dealer’s house’, and one in 20 (5%) had purchased from an ‘acquaintances house’. One in five (19%) had purchased cannabis from a ‘tinny’ house, and a further one in seven (14%) had purchased cannabis from the ‘street’ in the last six months.

Table 4.2: Venues cannabis purchased from in the last six months

Venues	Users (%) (n = 57)
Friend’s home	60
Home	28
Dealer’s home	21
Tinny house	19
Street	14
Agreed public location	7
Acquaintances house	5
Pubs/bars	4
Private parties	4
Work	4
Other	4
Raves/dance parties	2
Educational institute	2

4.9.6 Time taken to purchase

One-third (34%) of cannabis buyers said they could purchase cannabis in ‘less than 20 minutes’ (Table 4.3). Three out of 10 (29%) indicated it would take them ‘one hour’ to purchase some cannabis. One in seven (14%) thought it would take them ‘hours’ to purchase the drug.

Table 4.3: Time taken to purchase cannabis

Time	Users (%) (n = 58)
Less than 20 minutes	34
1 hour	29
Hours	14
About 1 day	10
Days	9
Weeks	3

4.9.7 Number of sellers

The cannabis buyers were asked how many different sellers they had purchased cannabis from in the last six months. The median number of sellers purchased from was three (mean 4, range 1-20).

4.9.8 Other drug types purchased from cannabis seller

Only one in 10 (10%) of the cannabis buyers had purchased other drug types from their cannabis seller in the previous six months. The other drug types most commonly purchased were ecstasy (43%) and methamphetamine (29%).

4.10 Health related harms

4.10.1 Introduction

Participants were first asked whether they had experienced a range of physical and psychological problems related to their cannabis use in the last six months. If they had experienced a problem they were asked whether they had experienced this problem before they started using cannabis. They were then asked to estimate the extent to which their cannabis use was responsible for the specified problem and to express this as a percentage.

4.10.2 Physical problems

The physical problems most commonly reported from cannabis use were memory lapse (71%), poor concentration (52%), loss of energy (48%), shortness of breath (41%) and headaches (32%) (Table 4.4). Some of the participants had experienced these physical problems before they started using cannabis, which suggests they may have been pre-existing problems. Participants generally felt that their cannabis use had contributed to the physical problems they were experiencing (range 8%-77%).

Table 4.4: Self-reported physical problems from cannabis use experienced in the previous six months

Problem	% experienced in last 6 months	% experienced before started using cannabis	% of problem attributed to cannabis use
Memory lapse	71	29	55
Poor concentration	52	29	51
Loss of energy	48	16	53
Shortness of breath	41	20	46
Headaches	32	19	42
Skin problems	29	19	22
Teeth problems	28	13	21
Hot/cold flushes	26	9	29
Dizziness	26	4	57
Joint pains/stiffness	23	16	11
Poor appetite	22	10	43
Muscular aches	20	16	8
Weight loss	19	9	27
Tremors/shakes	17	4	49
Stomach pains	17	13	15
Numbness/tingling	14	4	29
Heart palpitations	12	4	41
Chest pains	12	6	38
Vomiting	12	10	33
Blurred vision	12	1	48
Profuse sweating	10	4	11
Fainting/pass out	9	0	77
Inability to urinate	6	1	47
Fits/seizures	0	-	-

4.10.3 Psychological problems

The psychological problems most commonly reported from cannabis use were strange thoughts (59%), mood swings (57%), anxiety (46%), short temper (43%), confusion (43%), trouble sleeping (41%) irritability (39%), paranoia (38%) and depression (34%). One in 11 (9%) reported experiencing violent behaviour. In some cases, participants had experienced these psychological problems before they started using cannabis indicating that they may have been pre-existing issues. Participants sometimes felt that their cannabis use had contributed to the psychological problems they had experienced (range 17%-77%).

Table 4.5: Self-reported psychological problems from cannabis use experienced in the previous six months

Problem	% experienced in last 6 months	% ever experienced before started using cannabis	% of problem attributed to cannabis use
Strange thoughts	59	38	41
Mood swings	57	33	34
Anxiety	46	29	39
Short temper	43	26	32
Confusion	43	14	49
Trouble sleeping	41	19	30
Irritability	39	26	34
Paranoia	38	7	59
Depression	34	19	23
Sound hallucinations	23	9	48
Flashbacks	19	7	45
Other	19	4	77
Visual hallucinations	17	4	25
Panic attacks	13	6	30
Loss of sex urge	12	4	29
Violent behaviour	9	1	53
Suicidal thoughts	7	6	22
Suicide attempts	4	1	17

4.11 Law enforcement

Seizures of cannabis varied to some extent over the last five years. This is likely to reflect the time and resources allocated by police to cannabis offending in different areas, particularly in the case of cannabis crop eradication operations. Seizures of approximately 2000 kg of cannabis leaf were made in 2000 (2,467 kg) and 2001 (1,847 kg), and this increased to 12,452 kg in 2002, before declining to around 550 kg in 2003 (588 kg) and 2004 (553 kg). Seizures of 9.5 kg of cannabis oil were made in 2000, followed by 3.1 kg in 2001, 3.8 kg in 2002, 0.5 kg in 2003 and 2kg in 2004. Seizures of cannabis plants made during cannabis crop eradication operations were 105,131 plants in 2000, 90,857 plants in 2001, 73,772 plants in 2002, 193,740 plants in 2003 and 162,263 plants in 2004.

5. Ecstasy (MDMA)

5.1 Introduction

Ecstasy (3,4-methylenedioxyamphetamine, MDMA or 'E' or 'X') has both properties of amphetamine and hallucinogenic characteristics like LSD (Kuhn et al., 1998, Gowing et al., 2001, Gowing et al., 2002, Topp et al., 1998). Ecstasy increases heart rate, blood pressure, and body temperature, and produces a sense of energy and alertness (like standard amphetamines), but also a warm state of empathy and good feeling for others (due to increased release of serotonin) (Kuhn et al., 1998). High doses cause teeth clenching, paranoia, anxiety and confusion (Kuhn et al., 1998). Tolerance to MDMA develops rapidly and this has been associated with self-limiting patterns of use (periods of voluntary abstinence to regain initial effects), although some studies have found evidence of injecting and the use of larger doses in an attempt to overcome short-term tolerance (Topp et al., 1998). MDMA can cause hyperthermia (extreme heat stroke) resulting in death when combined with sustained physical exercise and elevated temperatures, which are common in dance clubs (these environments compound the natural pharmacological effect of ecstasy on the body's thermoregulatory mechanism) (Gowing et al., 2001, 2002). Ecstasy can also cause water intoxication and death when excessive amounts of water are consumed as the drug inhibits the body's ability to excrete fluid (Topp et al., 1998, Gowing et al., 2002). Although cases of serious adverse effects appear low relative to the extent of use, it is the unpredictability of adverse events (dose is not predictive of adverse effects) and risk of mortality that makes the risks significant (Gowing et al., 2002).

Long term effects reported by users include insomnia, energy loss, depression, irritability, muscle aches, and blurred vision (Topp et al., 1998). Ecstasy has also been controversially linked to damage to serotonin terminals in the brain with possible implications for short term memory, cognitive function and mood regulation (Gowing et al., 2002). Results are confounded by small numbers of participants, uncertain histories of MDMA use, use of other drugs such as cannabis, and pre-existing personality differences (Gowing et al., 2002). The confirmation of long term consequences await large scale epidemiological studies (Gowing et al., 2002).

Ecstasy gained popularity in many Western European countries during the late 1980s, but only slowly gained popularity in New Zealand over the next decade. At this time, ecstasy manufacture was largely restricted to a small number of countries in Western Europe (see United Nations Drug Control Programme, 2001), and this resulted in uncertain supply and high prices in New Zealand. Only three cases of the domestic manufacture of ecstasy have ever been discovered in New Zealand and this reflects the complexity of the synthesis process and the need for rare precursor chemicals, such as oil of Sassafras (Wilkins, 2002). In more recent years, increased manufacture and smuggling of ecstasy from South East Asia and parts of Europe has led to greater availability and lower prices in New Zealand which has sustained greater demand for the drug in New Zealand (see United Nations Drug Control Programme, 2001, New Zealand Customs Service, 2002, United Nations Office on Drugs and Crime, 2005). Three people have been known to have died as a result of taking ecstasy in New Zealand since 1998 (Stevens, 2002).

5.2 Ecstasy use among the frequent cannabis users

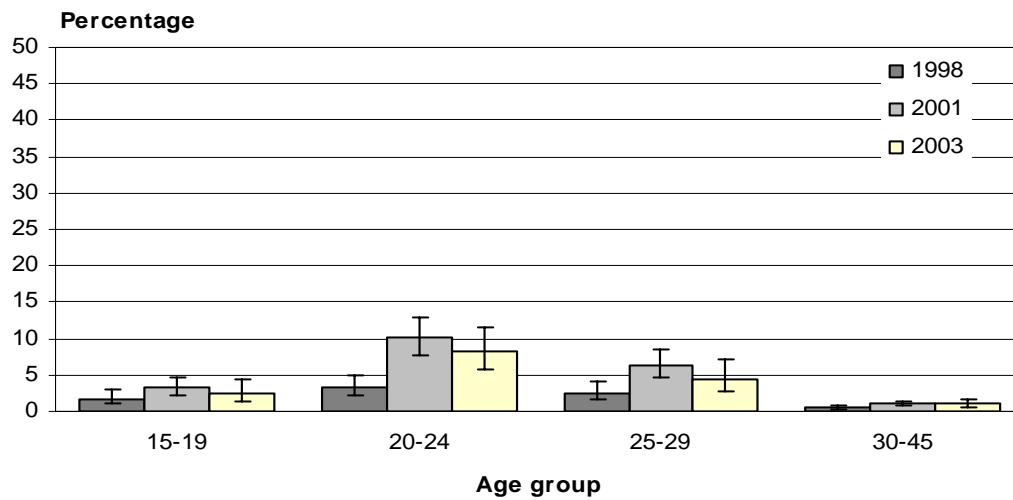
Six out of 10 (61%) of the frequent cannabis users had tried ecstasy in their lifetimes and one in three (33%) had used ecstasy in the last six months. The median age at which the frequent cannabis users had first used ecstasy was 20 years (mean 21, range 14-42 years). Most of those who had used ecstasy in the previous six months said the main way they took the drug was swallowing it (87%), with the remainder snorting it (13%). None of the participants had injected ecstasy in the last six months. Two participants had injected ecstasy in their lifetimes. Participants had used ecstasy on a median of two days in the previous six months (mean 5 days, range 1-30 days). Three quarters (74%) of users had used ecstasy on only 1-6 days in the last six months. One in six (17%) had used approximately twice per month in the previous six months. The remainder used about once per week (4%) or twice per week (4%). The median number of ecstasy pills taken on a typical occasion was one pill (mean 1.3 pills, range 0.25-3.0 pills). The 'most' median number of ecstasy pills taken on a typical occasion was two pills (mean 2.5 pills, range 0.25-5.0 pills).

5.3 Ecstasy use in the general population

The proportion of the population who had ever tried ecstasy significantly increased in 2001 compared to 1998 (3.0% versus 5.4%, $p < 0.0001$) and then did not significantly change in 2003 (5.5%) (Wilkins et al., 2005b). There were statistically significant increases in those who had ever tried ecstasy in 2001 compared to 1998 among those aged 20-24 years old (from 4.6% to 11.8%, $p < 0.0001$), 25-29 years old (from 6.0% to 10.9%, $p = 0.0011$) and 35-45 years old (1.0% to 2.1%, $p = 0.0048$).

The last year use of ecstasy also increased significantly in 2001 compared to 1998 (3.4% versus 1.5%, $p < 0.0001$) and did not significantly change in 2003 (2.9%). The last year use of ecstasy significantly increased between 1998 and 2001 for those aged 20-24 years old (3.2% versus 10.0%, $p < 0.0001$) and 25-29 years old (2.5% versus 6.3%, $p = 0.0013$) (Figure 5.1).

Figure 5.1: Proportion of the population reporting last year use of ecstasy by age, 1998, 2001 and 2003



5.4 Price

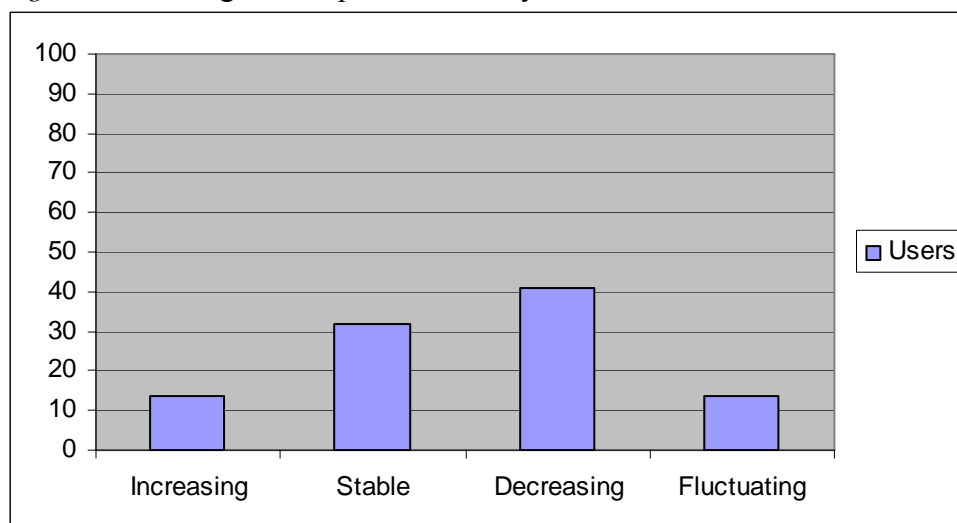
5.4.1 Price paid

Six out of 10 (64%, n=24) of the frequent cannabis users felt confident enough to comment on the price, purity and availability of ecstasy in the previous six months. Those participants who commented on ecstasy reported the current median price of a pill to be \$60 (mean \$59, range \$5-\$80).

5.4.2 Change in price

Four out of 10 (41%) participants who commented on ecstasy thought the price of ecstasy had 'decreased' in the previous six months (Figure 5.2). Three out of 10 (32%) said the price was 'stable' over the last six months. One in seven (14%) described the price as 'fluctuating'. The same proportion (14%) said the price had 'increased' over the preceding six months.

Figure 5.2: Change in the price of ecstasy in the last six months



5.5 Purity

5.5.1 Current purity

A third (33%) of the participants who commented on ecstasy described the current purity as 'fluctuating'. One in four (25%) described current purity as 'high' and three out of 10 (29%) described current purity as 'medium'. Only one in eight (13%) described the current strength as 'low'.

5.5.2 Change in purity

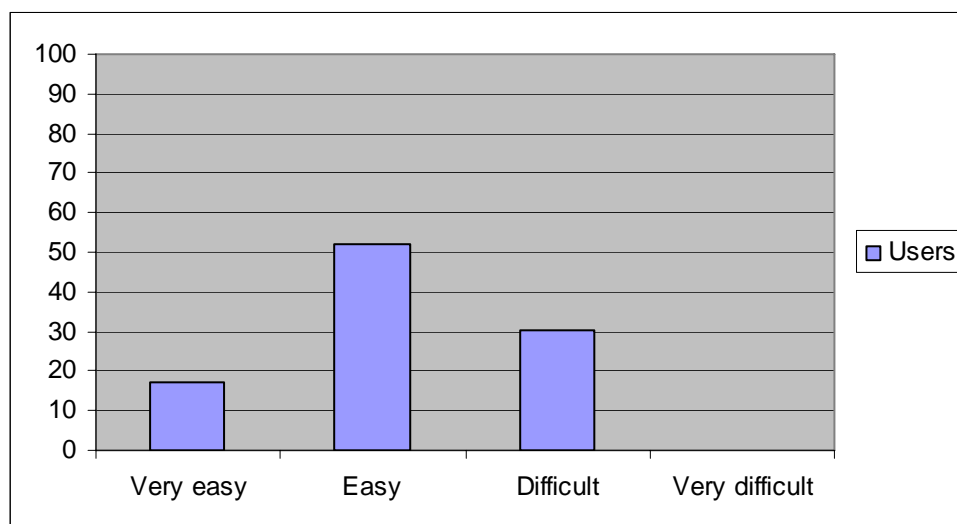
Four out of 10 (38%) of those who commented on ecstasy thought the strength of ecstasy had 'fluctuated' over the previous six months. A quarter (24%) thought the strength had been 'stable' in the preceding six months. One in seven (14%) said that the strength of ecstasy had 'increased' in the previous six months. One quarter (24%) thought the strength of ecstasy had 'decreased'.

5.6 Availability

5.6.1 Current availability

Just over half (52%) of the frequent cannabis users who commented on ecstasy described the current availability of ecstasy as 'easy' (Figure 5.3). One in six (17%) described the current availability of ecstasy as 'very easy'. Three out of 10 (30%) participants described the current availability as 'difficult'. No frequent cannabis users thought the current availability of ecstasy was 'very difficult'.

Figure 5.3: Current availability of ecstasy

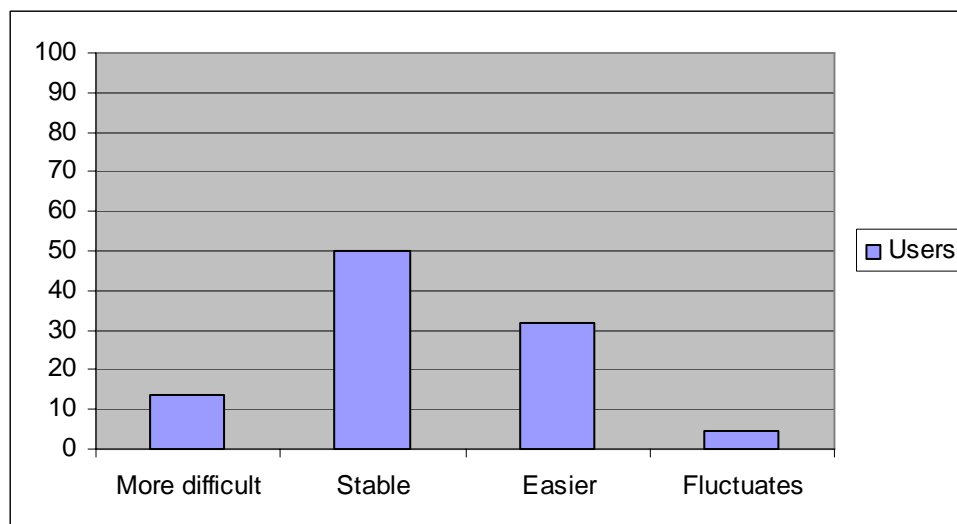


5.6.2 Change in availability

Half (50%) of those who commented on ecstasy thought the availability of ecstasy had been 'stable' in the preceding six months (Figure 5.4). Three out of 10 (31%) described the availability of ecstasy as getting 'easier' in the last six months. One in

seven (14%) said the availability had become ‘more difficult’ in the previous six months.

Figure 5.4: Change in availability of ecstasy in the last six months



5.6.3 Change in number of people using

Four out of 10 (38%) of the frequent cannabis users thought that the ‘same’ number of people they know were using ecstasy compared to six months ago. One third (33%) reported that ‘less’ of the people they know were using ecstasy compared to the previous six months. Three out of 10 (29%) participants said ‘more’ people they know were using ecstasy compared to six months ago.

5.7 The black market for ecstasy

5.7.1 Procurement of ecstasy

Half (56%, n=14) of those who commented on ecstasy had purchased it in the last six months. One in six (16%) had received all the ecstasy they used for ‘free’, and a further three out of 10 (28%) had not used it in the last six months.

5.7.2 Frequency of purchase

Six out of 10 (57%) of those who had bought ecstasy had purchased only ‘once or twice’ in the last six months. One in seven (14%) had purchased approximately monthly in the preceding six months. A further one in seven (14%) had purchased ‘twice per month’ and the same proportion (14%) had purchased ‘once a week’.

5.7.3 Different types of sellers

Half (50%) of the ecstasy buyers had purchased ecstasy from ‘friends’ in the last six months (Table 5.1). Half (50%) of the participants had also purchased from a ‘drug dealer’ and a further four out of 10 (43%) had purchased from an ‘acquaintance’.

Table 5.1: Sellers ecstasy bought from in the last six months

People	Users (%) (n = 14)
Friends	50
Drug dealers	50
Acquaintances	43
Partner	7
Workmates	7

5.7.4 Method used to contact seller

Six out of 10 (57%) of the ecstasy buyers usually contacted their seller by ‘calling or texting them on a mobile phone’. Only one in seven (14%) usually called their dealer using a ‘landline telephone’. One in five (21%) buyers used a ‘third party’ and one in 14 (7%) were ‘already with the seller’.

5.7.5 Venues of purchase

Private homes were common venues where the ecstasy buyers had purchased ecstasy in the last six months. One third (36%) had purchased ecstasy from a ‘friend’s home’, one in seven (14%) had purchased from their own ‘home’, one in five (21%) had purchased from a ‘dealer’s home’ and a further one in five (21%) had purchased from an ‘acquaintance’s home’ (Table 5.2). Some ecstasy buyers had purchased from a range of entertainment venues including ‘nightclubs’ (14%), ‘raves/dance parties’ (7%), pubs and bars (7%) and private parties (14%). Three out of 10 buyers (29%) had purchased from an ‘agreed public location’. No ecstasy buyers reported typically purchasing ecstasy from a ‘tinny’ house.

Table 5.2: Venues ecstasy bought from in the last six months

Venues	Users (%) (n = 14)
Friend's home	36
Agreed public location	29
Dealer's home	21
Home	14
Nightclubs	14
Private parties	14
Acquaintances house	14
Raves/dance parties	7
Pubs/bars	7
Work	7

5.7.6 Time taken to purchase

Six out of 10 (57%) ecstasy buyers said it would take them ‘days’ to purchase ecstasy (Table 5.3). One in 14 (7%) said it would take them ‘weeks’ to purchase the drug. One in five (21%) ecstasy buyers indicated it would take them ‘hours’ to purchase ecstasy. A small number of ecstasy buyers indicated they could purchase ecstasy in ‘one hour’ (7%). None of the frequent cannabis users indicated they could purchase ecstasy in ‘less than 20 minutes’.

Table 5.3: Time taken to purchase ecstasy

Time	Users (%) (n = 14)
Weeks	7
Days	57
About 1 day	7
Hours	21
1 hour	7

5.7.7 Number of sellers

The ecstasy buyers had purchased ecstasy from a median of two sellers in the previous six months (mean 2 sellers, range 1-5 sellers).

5.7.8 Other drug types purchased

Four out of 10 (43%) of the ecstasy buyers had purchased other drug types from their ecstasy seller in the last six months. The other drug types most frequently purchased were cannabis (40%), amphetamines (20%) and GHB (20%).

5.8 Law enforcement

Seizures of ecstasy in New Zealand increased dramatically in the early years of the twenty first century, from 9,352 tablets in 2000, to 83,448 tablets in 2001, to 256,973 tablets in 2002. There was then a levelling off in seizures in 2003, to 266,175 tablets, followed by a fairly large decline in seizures to 45,387 tablets in 2004. Drug enforcement agencies attribute the recent decline in seizures of ecstasy in New Zealand to more elaborate smuggling methods used by international drug trafficking groups.

6. Crystal methamphetamine

6.1 Introduction

Crystal methamphetamine ('ice', 'crystal' or 'shabu') is the crystallised form of methamphetamine (McKetin and McLaren, 2004, Matsumoto et al., 2002). Crystal methamphetamine is made of large translucent crystals and is clandestinely manufactured in Asia (McKetin and McLaren, 2004). Crystal methamphetamine has only very recently gained popularity in New Zealand as international drug syndicates respond to the greater demand for high potency amphetamines created by the local market for methamphetamine (New Zealand Customs Service, 2002, National Drug Intelligence Bureau, 2005). Crystal methamphetamine is sometimes perceived by New Zealand drug users to be more professionally made, and hence more potent and chemically purer than the locally manufactured methamphetamine (Wilkins et al., 2004b).

6.2 Crystal methamphetamine use among the frequent cannabis users

A quarter (23%) of the frequent cannabis users had tried crystal methamphetamine in their lifetimes and one in 14 (7%) had used crystal methamphetamine in the last six months. The median age at which the frequent cannabis users had first used crystal methamphetamine was 22 years (mean 22, range 15-28 years). Most of those who had used crystal methamphetamine in the previous six months said the main way they took the drug was 'smoking it' (80%), with the remainder 'snorting it' (20%). None of the participants had injected crystal methamphetamine in the last six months. Two participants had injected crystal methamphetamine in their lifetimes. Participants had used crystal methamphetamine on a median of five days in the previous six months (mean 7.6 days, range 2-15 days). Six out of 10 (60%) users had used crystal methamphetamine on 1-6 days in the last six months. One in five (20%) had used on 7-13 days and the remaining one in five (20%) had used on 14-25 days in the last six months. The median number of points of crystal methamphetamine taken on a typical occasion was one point (mean 1.7 point, range 0.1-1.0 points). The median largest number of points of crystal methamphetamine taken on a single occasion was one point (mean 1.7 point, range 0.5-5.0 points).

6.3 Crystal methamphetamine use in the general population

The proportion of the New Zealand population aged 15-45 years old who had ever tried crystal methamphetamine increased significantly in 2001 compared to 1998 (1.3% versus 0.2%, $p < 0.0001$) and then did not significantly change in 2003 compared to 2001 (1.8% versus 1.3%, $p = 0.164$).

The last year use of crystal methamphetamine appeared to increase in 2001 compared to 1998 (0.9% compared to 0.1%), although there were insufficient numbers in 1998 to make a statistically reliable comparison. There were sufficient numbers to reliably test changes between 2001 and 2003 when there was no statistically significant change in level of last year crystal methamphetamine use (0.9% versus 0.9%, $p = 0.745$).

6.4 Price

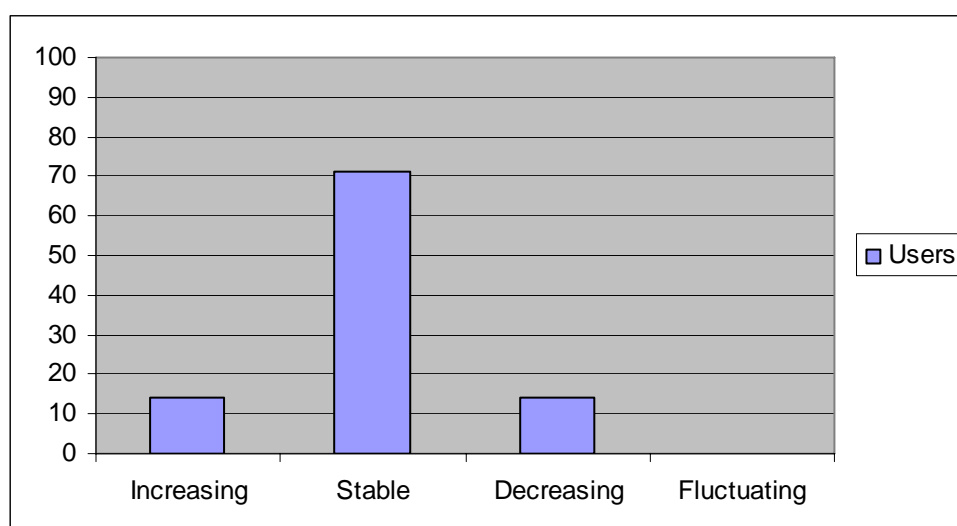
6.4.1 Current price

Only one in eight (13%, n=9) of the frequent cannabis users felt confident enough to comment on the price, purity and availability of crystal methamphetamine. The low numbers of participants answering this section indicates the results should be treated with caution. The median price reported for a point of crystal methamphetamine was \$100 (mean \$103, range \$100-\$120).

6.4.2 Change in price

Seven out of 10 (71%) of the participants who commented on crystal methamphetamine thought the price of crystal methamphetamine had been 'stable' over the preceding six months (Figure 6.1). One in seven (14%) said the price had 'decreased' in the last six months. The same proportion (14%) said the price had 'increased'.

Figure 6.1: Change in the price of crystal methamphetamine in last six months



6.5 Purity

6.5.1 Current purity

Four out of 10 (44%) of the participants who commented on crystal methamphetamine described the current strength as 'high'. A third (33%) thought the current purity of crystal methamphetamine was 'medium'. One in five (22%) described the current purity as 'fluctuating'.

6.5.2 Change in purity

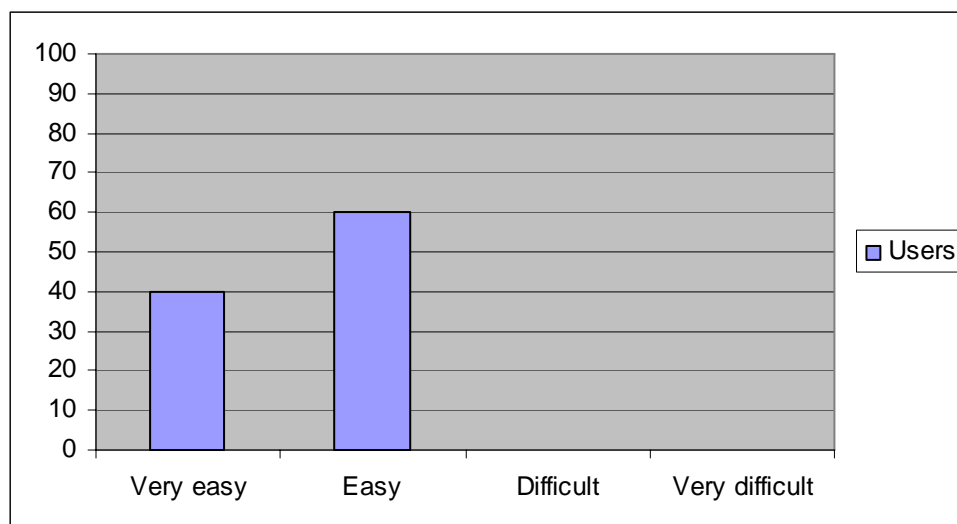
Half (50%) of the participants who commented on crystal methamphetamine thought the purity of crystal methamphetamine had remained 'stable' over the preceding six months. One in six (17%) described the strength of ice as having 'increased' in the previous six months. A further one in six (17%) thought the strength of crystal methamphetamine had 'fluctuated' over the last six months and one in six (17%) said the purity had 'decreased'.

6.6 Availability

6.6.1 Current availability

Six out of 10 (60%) of the participants who commented on crystal methamphetamine described the current availability as 'easy' (Figure 6.2). Four out of 10 (40%) reported the current availability as 'very easy'.

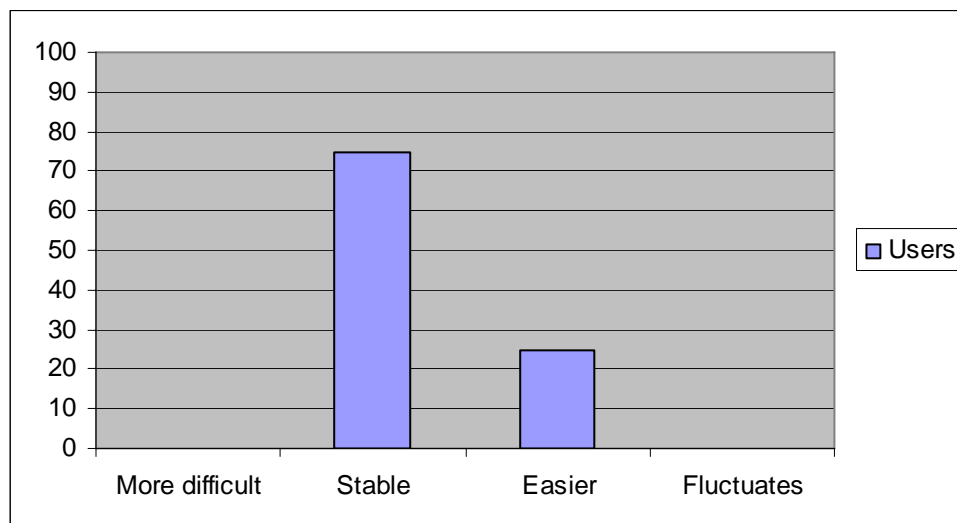
Figure 6.2: Current availability of crystal methamphetamine



6.6.2 Change in availability

Three quarters (75%) of the participants who commented on crystal methamphetamine said the availability of crystal methamphetamine had remained 'stable' over the preceding six months (Figure 6.3). A quarter (25%) thought the availability had become 'easier' in the previous six months.

Figure 6.3: Change in the availability of crystal methamphetamine in the last six months



6.6.3 Change in the number people using

Six out of 10 (56%) of those who commented on crystal methamphetamine reported that 'more' of the people they know were using crystal methamphetamine compared to six months ago. One in five (22%) thought that the 'same' number of people they know were using crystal methamphetamine than in the previous six months. One in nine (11%) reported that 'less' of the people they know were using crystal methamphetamine than in the last six months. The remaining one in nine (11%) said none of their friends used crystal methamphetamine.

6.7 Law enforcement

Seizures of crystal methamphetamine in New Zealand have increased quite dramatically in the last year or so from only 909 grams seized in 2002 and 862 grams seized in 2003, to 26,268 grams in 2004. Approximately two thirds of the seizures of crystal methamphetamine in 2004 were made at the border by the New Zealand Customs Service.

7. LSD

7.1 Introduction

Lysergic acid diethylamide or LSD ('trips' or 'acid') is a hallucinogen which gained widespread popularity in many Western countries during the 1960s. While its popularity waned in many other countries in subsequent decades, LSD remained relatively popular in New Zealand with increases in use identified in the 1990s (Field and Casswell, 1999a). In the 1998 New Zealand national household drug survey, LSD was the second most popular illicit drug in New Zealand after cannabis (Field and Casswell, 1999b). New Zealand had the seventh highest number of LSD seizures from 1990 to 1994 of twenty-four consumer countries (New Zealand Customs Service, 2002). The popularity of LSD in New Zealand has been eclipsed to some extent in recent years by the rise of methamphetamine and ecstasy (see Wilkins et al., 2002c, Wilkins et al., 2002b).

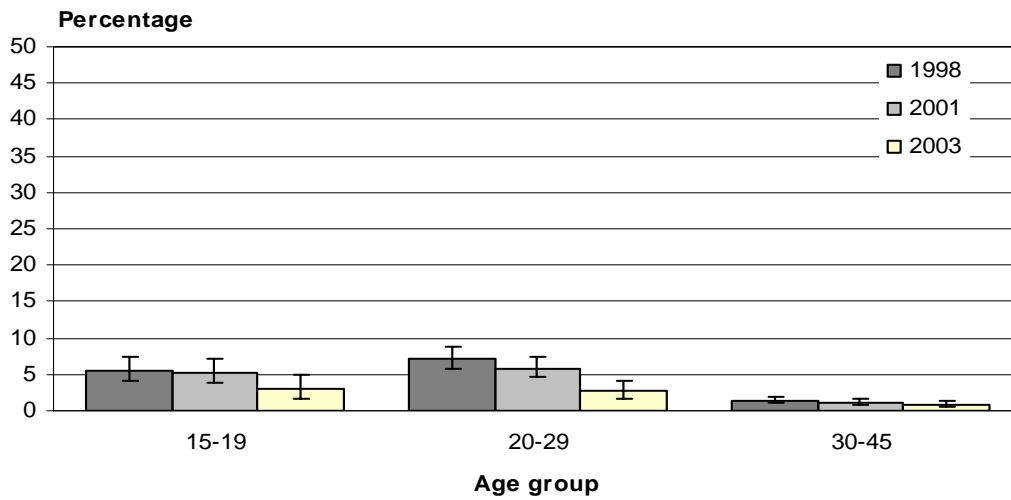
7.2 LSD use among frequent cannabis users

Three quarters (74%) of the frequent cannabis users had tried LSD in their lifetimes and three out of 10 (28%) had used LSD in the last six months. The median age at which the frequent cannabis users had first used LSD was 17 years (mean 18, range 14-29 years). All of those who had used LSD in the previous six months said the main way they took the drug was 'swallowing it' (100%). Participants had used LSD on a median of two days in the previous six months (mean 4 days, range 1-12 days). Eight out of 10 (83%) users had used LSD on 1-6 days in the last six months. The remaining one in six (17%) had used LSD on 7-13 days. The median number of tabs of LSD taken on a typical occasion was one (mean 1 tab, range 0.5-2.0 tabs). The median greatest number of tabs of LSD taken on a single occasion was one tab (mean 1.3 tabs, range 0.5-3.0 tabs).

7.3 LSD use in the general population

There was a statistically significant decrease in the last year use of LSD between 2001 and 2003 (from 3.2% to 1.9%, $p=0.0007$). Last year use of LSD by females fell significantly in 2003 compared to 2001 (0.9% versus 2.1%, $p=0.0077$). The last year use of LSD decreased significantly between 2001 and 2003 among those aged 20-29 years old (from 5.8% to 2.7%, $p=0.0008$) (Figure 7.1).

Figure 7.1: Proportion of the population reporting last year use of LSD by age, 1998, 2001 and 2003



7.4 Price

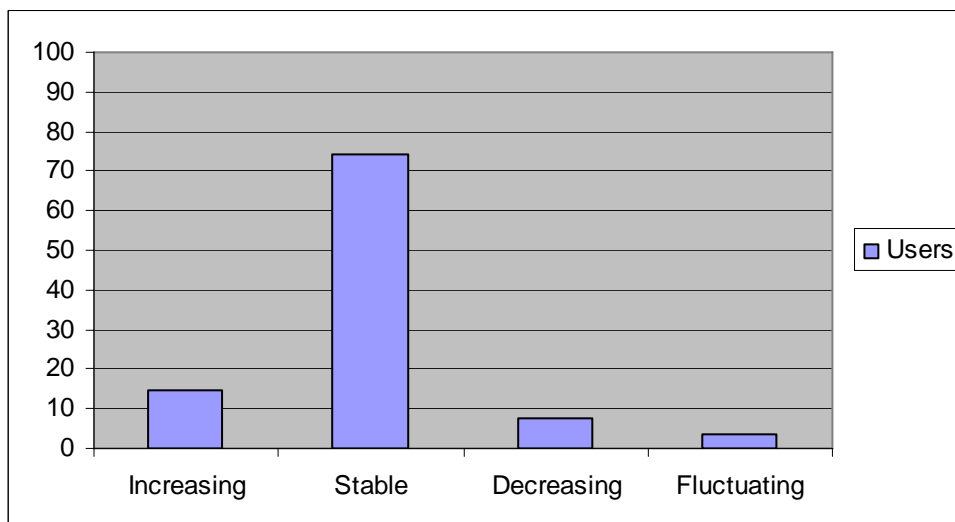
7.4.1 Current price

Four out of 10 (41%, n=28) frequent cannabis users felt confident enough to comment on the price, purity and availability of LSD. The median price paid for a ‘tab’ of LSD was \$40 (mean \$38, range \$25-\$80).

7.4.2 Change in price

Three quarters (74%) of the participants who commented on LSD thought the price had remained ‘stable’ in the preceding six months (Figure 7.2). One in seven (15%) reported the price of LSD had ‘increased’ in the previous six months. One in 14 (7%) indicated the price of LSD had fallen in the previous six months.

Figure 7.2: Change in the price of LSD in the last six months



7.5 Purity

7.5.1 Current purity

One in five (19%) of participants who commented on LSD described the current purity of LSD as 'high'. A further one in five (19%) described the current strength of LSD as 'medium'. One in five (23%) reported the current strength of LSD as 'fluctuating'. Four out of 10 (38%) described the strength of LSD as 'low'.

7.5.2 Change in purity

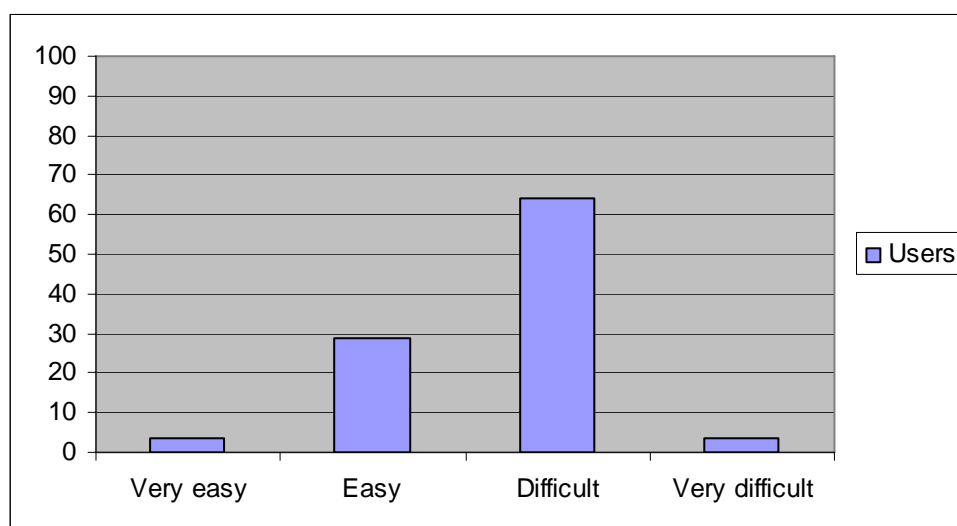
Four out of 10 (38%) of the participants who commented on LSD indicated that the strength of LSD had 'fluctuated' over the last six months. A third (35%) said the strength of LSD had remained 'stable' over the last six months. A quarter (23%) thought the strength of LSD had 'decreased' over the previous six months. One in 25 (4%) thought the strength of LSD had 'increased' over the previous six months.

7.6 Availability

7.6.1 Current availability

Six out of 10 (64%) of the participants who commented on LSD described the current availability as 'difficult' (Figure 7.3). One in 25 (4%) described the current availability of LSD to be 'very difficult'. Three out of 10 participants (29%) described the current availability as 'easy', and one in 25 (4%) thought the current availability was 'very easy'.

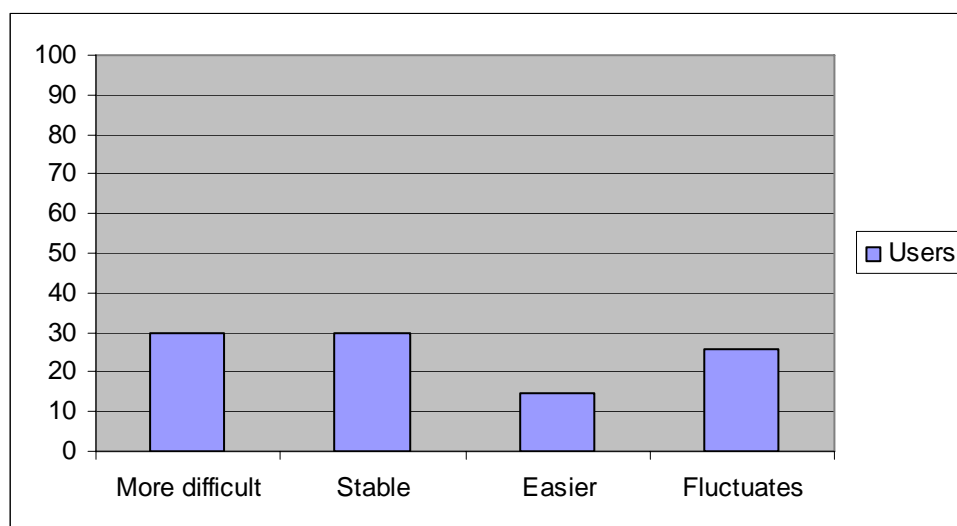
Figure 7.3: Current availability of LSD



7.6.2 Change in availability

A quarter (26%) of the participants who commented on LSD said the availability of LSD had ‘fluctuated’ over the last six months (Figure 7.4). Three out of 10 (30%) reported that the availability of LSD had remained ‘stable’ over the preceding six months. A further three out of 10 (30%) said the availability of LSD had become ‘more difficult’. One in seven (15%) said the availability of LSD had become ‘easier’.

Figure 7.4: Change in the availability of LSD in the last six months



7.6.3 Change in the number of people using

Four out of 10 (42%) of the participants who commented on LSD reported that the ‘same’ number of people they know were using LSD compared to six months ago. Three out of 10 (31%) said ‘more’ people they know were using LSD compared to six months ago. A quarter (27%) said ‘less’ people they know were using LSD.

7.7 The black market for LSD

7.7.1 The procurement of LSD

Six out of 10 (61%, n=17) of those who commented on LSD had purchased it in the last six months. One in 14 (7%) had received all the LSD they used for ‘free’ in the last six months. A third (32%) had not used LSD in the last six months.

7.7.2 Frequency of purchase

Half (53%) of LSD buyers had purchased LSD only ‘once or twice’ in the last six months. Four out of 10 (41%) had purchased LSD ‘three or four’ times in the previous six months. One in 17 (6%) had bought LSD approximately ‘once a month’.

7.7.3 Different types of sellers

Two thirds (65%) of the LSD buyers had purchased LSD from ‘friends’ in the last six months. One in four (24%) had purchased LSD from ‘acquaintances’ (Table 7.1). One

in eight (12%) had purchased LSD from ‘drug dealers’ and same proportion had purchased from ‘workmates’ (12%).

Table 7.1: Sellers LSD bought from in the last six months

People	Users (%) (n = 17)
Friends	65
Acquaintances	24
Drug dealers	12
Workmates	12
Partner	6
Other	6

7.7.4 Method used to contact seller

A third (35%) of the LSD buyers usually contacted their LSD seller by ‘calling/texting them on a mobile telephone’. One in six (18%) purchased their LSD ‘through a third party’. One in eight (12%) usually ‘visited a house or flat’. A further one in eight (12%) participants usually called their LSD seller ‘using a ‘landline telephone’ and one in eight (12%) were ‘already with them’. One in 17 (6%) approached their LSD seller in public.

7.7.5 Venues of purchase

Half of the LSD buyers (47%) purchased LSD from a ‘friend’s home’, three out of 10 (29%) from their own home, and one in eight (12%) from an ‘acquaintance’s house’ (Table 7.2). One in six (18%) said they purchased from an ‘agreed public location’.

Table 7.2: Venues bought LSD from in the last six months

Venues	Users (%) (n = 17)
Friend's home	47
Home	29
Agreed public location	18
Acquaintances house	12
Street	6

7.7.6 Time taken to purchase

One in five (19%) LSD buyers reported it would take them ‘weeks’ to purchase LSD (Table 7.3). Seven out of 10 (69%) LSD buyers said it would take them ‘days’ to purchase LSD. Only one in 17 (6%) LSD buyers reported they could purchase LSD in ‘about one day’ or ‘less than 20 minutes’.

Table 7.3: Time taken to purchase LSD

Time	Users (%) (n = 16)
Days	69
Weeks	19
About 1 day	6
Less than 20 minutes	6

7.8 Law enforcement

Seizures of LSD by the New Zealand Customs Service and New Zealand Police increased from 13,687 tabs in 1999 to 19,331 tabs in 2000. There was then a dramatic collapse in the number of LSD tabs seized with only 1,057 seized in 2001 and 434 tabs seized in 2002. There was then a slight rise in the level of seizures to 7,033 tabs in 2003, followed by another fall to 479 tabs in 2004. Drug enforcement agencies point out that LSD is very difficult to detect as it is a concentrated liquid which can be smuggled across the border in many different forms.

8. Methamphetamine

8.1 Introduction

Methamphetamine ('P', 'pure' or 'burn') is a powerful psychostimulant whose pharmacological characteristics and effects closely resemble cocaine (onset is slower and duration is longer) (Gawin and Ellinwood, 1988, Kuhn et al., 1998, Hall and Hando, 1994, Shearer et al., 2002). Immediate effects include euphoria, increased energy and confidence and decreased appetite, and these effects can last for 4-12 hours depending on dosage (Gawin and Ellinwood, 1988, Kuhn et al., 1998). High doses cause irritability, hostility, paranoia, hallucinations, obsessive behaviour and thoughts, psychosis, and violent behaviour (Kuhn et al., 1998, Hall and Hando, 1994, Shearer et al., 2002). Users sometimes go on binges (known as 'speed runs') where they use the drug continuously over several days without sleep. As a binge lengthens the user experiences states of panic and terror, and fear of impending death, which can lead to paranoid psychoses resembling schizophrenia in people with no pre-existing psychological conditions (Gawin and Ellinwood, 1988). Binges end in a 'crash' characterised by deep depression, fatigue, insomnia, headaches, and a strong psychological craving to use the drug again (Gawin and Ellinwood, 1988). Dependence potential is high and relapse common (Kuhn et al., 1998, Shearer et al., 2002). Physiological harm includes damage to cardiac and vascular systems, and damage to dopamine terminals in the brain, with possible implications for mood and movement disorder in later life (Kuhn et al., 1998, Shearer et al., 2002).

Methamphetamine gained popularity in New Zealand in the late 1990s, and went on to largely replace the traditional low potency amphetamine sulphate, known as 'speed'. The rise in methamphetamine use in New Zealand was driven from the supply side by its easy availability, brought about by the domestic manufacture of the drug by local Outlaw Motorcycle Gangs (OMG) and other members of the criminal fraternity. OMG are believed to have played a central role in the introduction of methamphetamine manufacture to New Zealand, learning how to synthesise the drug from affiliate gangs in Australia and the United States. On the demand side, methamphetamine was more attractive than previously available powerful psychostimulants such as cocaine, due to the much longer duration of its effects (ie. 4-12 hours vs. around 20 minutes). A recent study of the socio-economic impact of Amphetamine Type Stimulants (ATS) in New Zealand confirmed the dominance of methamphetamine in the local New Zealand amphetamine scene (Wilkins et al., 2004b). Methamphetamine was found to be associated with a range of health and social problems including serious psychological problems, drug addiction, violence, partner and family violence and breakdown, and crime (Wilkins et al., 2004b, Sheridan et al., 2005).

8.2 Methamphetamine use by the frequent cannabis users

Half (49%) of the frequent cannabis users had tried methamphetamine in their lifetimes and one in seven (14%) had used methamphetamine in the last six months. The median age at which the frequent cannabis users had first used methamphetamine was 21 years (mean 22, range 14-47 years). Most of those who had used

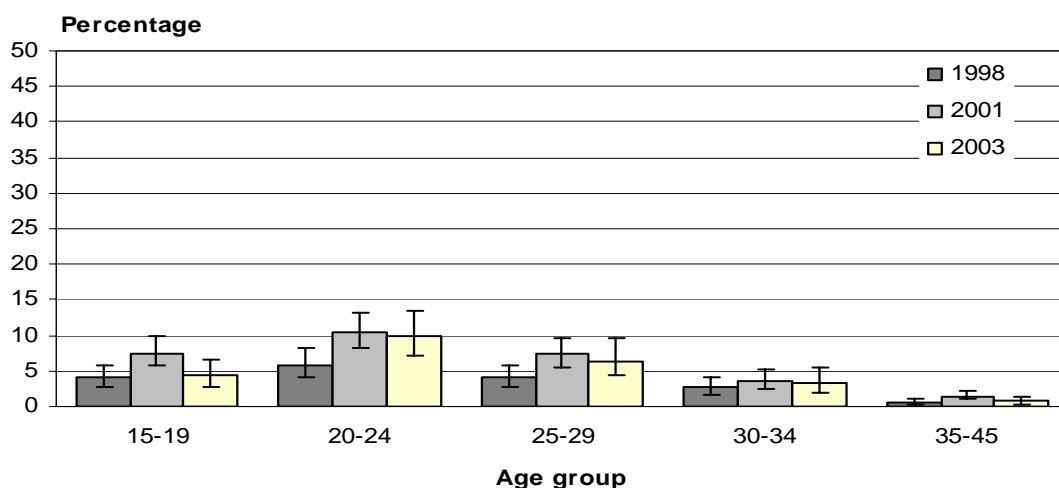
methamphetamine in the previous six months said the main way they took the drug was ‘smoking it’ (80%) with the remainder ‘snorting it’ (20%). None of the participants had injected methamphetamine in the last six months. Three participants had injected methamphetamine in their lifetimes. Participants had used methamphetamine on a median of two days in the previous six months (mean 4.7 days, range 1-15 days). Eight out of 10 users (80%) had used methamphetamine on 1-6 days in the previous six months. One in 10 (10%) had used on 7-13 days and a further one in 10 (10%) had used on 14-25 days. The median number of points of methamphetamine taken on a typical occasion was one point (mean 1.3 point, range 1.0-2.5 points). The median ‘most’ number of points of methamphetamine taken on a single occasion was two points (mean 1.7 points, range 1.0-2.5 points).

8.3 Amphetamine use in the general population

The National Household Drug Surveys ask about general amphetamine use which includes methamphetamine, but also includes the more traditional amphetamine sulphate or ‘speed’. The proportion of the population who had ever tried amphetamine increased significantly in 2001 compared to 1998 (11.0% versus 7.6%, $p < 0.0001$) and then decreased significantly in 2003 compared to 2001 (9.0% versus 11.0%, $p = 0.0066$). The last year use of amphetamine increased significantly in 2001 compared to 1998 (5.0% versus 2.9%, $p < 0.0001$) and then did not significantly change in 2003 compared to 2001 (4.0% versus 5.0%, $p = 0.0466$).

The last year use of amphetamine increased significantly between 1998 and 2001 for those aged 15-19 years old (4.0% versus 7.5%, $p = 0.0078$), 20-24 years old (5.8% versus 10.5%, $p = 0.004$) and 35-45 years old (0.6% versus 1.5%, $p = 0.0084$) (Figure 8.1).

Figure 8.1: Last year use of amphetamine by age, 1998, 2001 and 2003



Males were significantly more likely than females to have used amphetamine in the last year in all of the survey waves. In 2003, 5.5% of males compared to 2.5% of females had used amphetamine in the last year ($p = 0.0002$). The last year use of

amphetamine was highest among those aged 20-29 years old in all survey waves. In 2003, 9.8% of those aged 20-24 years and 6.4% of those aged 25-29 years had used amphetamine in the last year.

8.4 Price

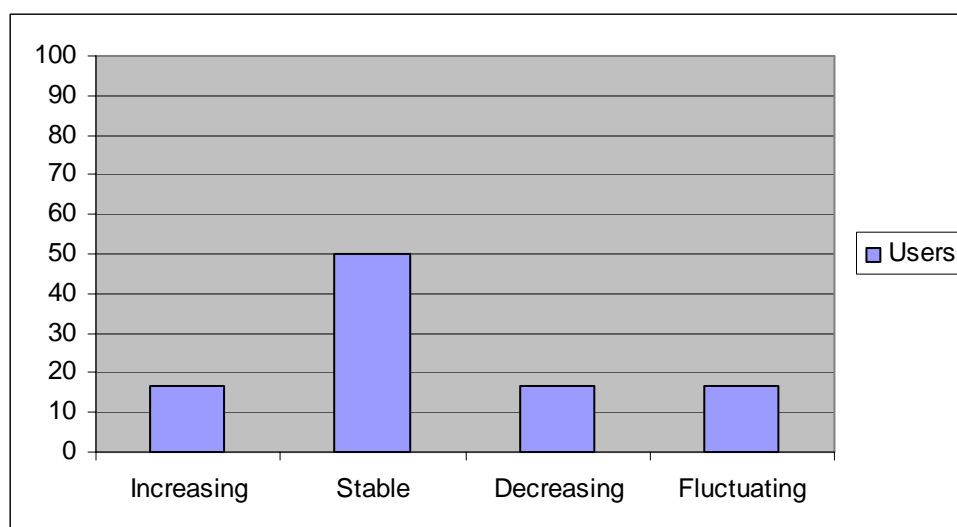
8.4.1 Current price

Three out of 10 (30%, n=21) frequent cannabis users were confident enough to comment on the price, purity and availability of methamphetamine. The median price paid for a point of methamphetamine was \$100 (mean \$95, range \$60-\$100). The median price paid for a gram of methamphetamine was \$1000 (mean \$860, range \$600-\$1000).

8.4.2 Change in price

Half (50%) of the participants who commented on methamphetamine thought the price had been 'stable' in the previous six months (Figure 8.2). One in six (17%) described the price of methamphetamine as 'decreasing' in the preceding six months. A further one in six (17%) said the price had 'increased' and one in six (17%) described the price as 'fluctuating'.

Figure 8.2: Change in the price of methamphetamine in the last six months



8.5 Purity

8.5.1 Current purity

A third (36%) of the participants who commented on methamphetamine thought the current purity was 'medium'. Three out of 10 (29%) said the current purity of methamphetamine was 'high'. One in five (21%) said the current purity was 'fluctuating'. Only one in seven (14%) thought the current purity of methamphetamine was 'low'.

8.5.2 Change in purity

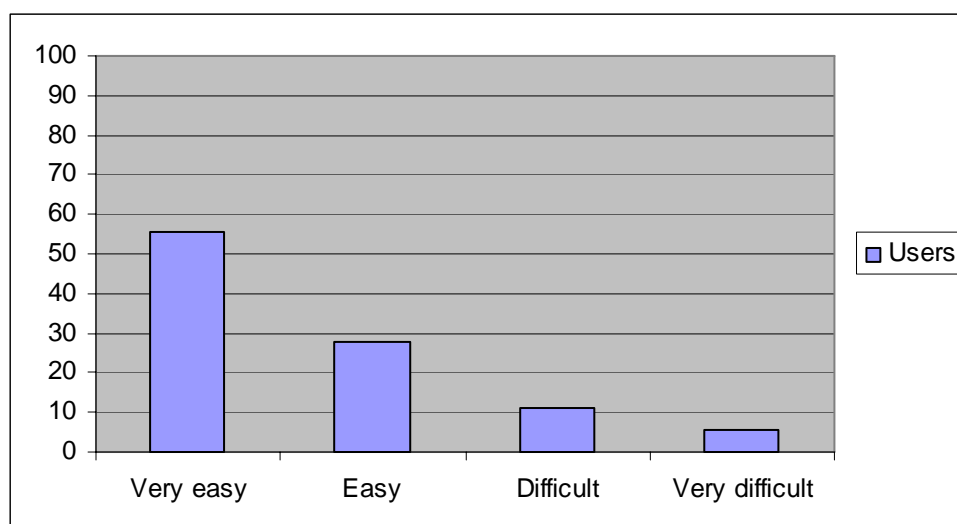
Four out of 10 (44%) of the participants who commented on methamphetamine indicated that the strength of methamphetamine had remained ‘stable’ over the previous six months. Three out of 10 (31%) described the strength as ‘increasing’. One in eight (13%) said the strength was ‘decreasing’ and a further one in eight (13%) said the strength was ‘increasing’.

8.6 Availability

8.6.1 Current availability

Over half (56%) of the participants who commented on methamphetamine described the current availability of methamphetamine as ‘very easy’ (Figure 8.3). Three out of 10 (28%) reported that the availability of methamphetamine was ‘easy’. One in nine (11%) described the current availability of methamphetamine as ‘difficult’.

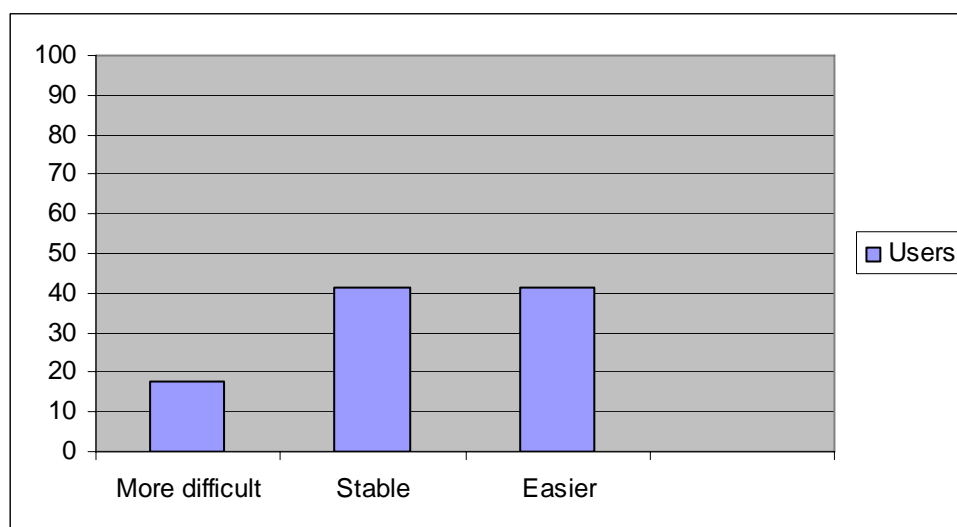
Figure 8.3: Current availability of methamphetamine



8.6.2 Change in availability

Four out of 10 (41%) of the participants who commented on methamphetamine reported that the availability of methamphetamine had remained ‘stable’ in the last six months (Figure 8.4). The same proportion (41%) thought the availability of methamphetamine had become ‘easier’. One in six (18%) reported that availability of methamphetamine had become ‘more difficult’.

Figure 8.4: Change in availability of methamphetamine in the last six months



8.6.3 Change in number of people using

Four out of 10 (42%) of the participants who commented on methamphetamine said 'more' people they know were using methamphetamine than in the previous six months. A further four out of 10 (37%) reported that 'less' people they know were using methamphetamine compared to six months ago. One in five (21%) said the 'same' number of the people they know were using methamphetamine compared to six months ago.

8.7 Law enforcement

8.7.1 Seizures

Seizures of methamphetamine by the New Zealand Police and New Zealand Customs Service increased from 1,370 grams in 2000, to 2,631 grams in 2001, to 6,392 grams in 2002. Methamphetamine seizures then decreased and levelled out at 1,923 grams in 2003 and 2,200 grams in 2004. In 2004, over 90% of methamphetamine seizures were made domestically by police.

8.7.2 Clandestine laboratories

The number of clandestine methamphetamine laboratories detected by New Zealand Police increased dramatically from nine in 2000, to 41 in 2001, to 170 in 2002. Detections of methamphetamine laboratories continued to increase in 2003, but at a lesser rate, reaching 202. There was then a small decline in the number of methamphetamine laboratories detected in 2004, down to 182.

8.7.3 Pseudoephedrine and ephedrine seizures

Pseudoephedrine and ephedrine are popular precursor chemicals used to synthesise methamphetamine in New Zealand. Seizures of these precursors by the New Zealand Customs Service have continued to increase in the last few years from 10,308 tablets in 2000, to 32,653 tablets in 2001, to 254,987 tablets in 2002, to 830,320 tablets in 2003, to 1,857,692 tablets in 2004.

9. Cocaine

9.1 Introduction

Cocaine is derived from the coca plant which is commercially cultivated in only three South American countries: Columbia, Peru and Bolivia (National Drug Intelligence Bureau, 2005). New Zealand largely avoided the cocaine epidemics that swept Europe and the United States during the 1970s and 1980s (New Zealand Customs Service, 2002). Geographical isolation, a small population of users and strong border controls may have played a part in avoiding increased cocaine supply in New Zealand. On the demand side, high prices, uncertain supply and the short duration of effect (ie. around 20 minutes) may have contributed to weak consumer demand for cocaine in New Zealand.

9.2 Cocaine use among frequent cannabis users

A third (36%) of the frequent cannabis users had tried cocaine in their lifetimes but only one in 33 (3%) had used cocaine in the last six months. The median age at which the frequent cannabis users had first used cocaine was 21 years (mean 22, range 16-43 years). All those who had used cocaine in the previous six months said the main way they took the drug was ‘snorting it’ (100%). None of the participants had injected cocaine in the last six months. Participants had used cocaine on a median of four days in the previous six months (mean 4 days, range 3-5 days). All users had used cocaine on only 1-6 days in the previous six months. The median number of grams of cocaine taken on a typical occasion was one gram (mean 1 gram, range 1 gram). The median greatest amount of cocaine taken on a single occasion was 1.8 grams (mean 1.8 grams, range 1.5-2.0 grams).

9.3 Cocaine use in the general population

There was no statistically significant change in the population prevalence of cocaine in any of the three recent waves of national household drug surveys. In all waves of surveying approximately one in 33 had ever tried cocaine (ie. 3.6% in 1998; 3.2% in 2001; 3.1% in 2003). The last year use of cocaine also remained stable at below 1% for all survey waves (0.8% in 1998; 0.6% in 2001; 0.5% in 2003).

9.4 Law enforcement

Seizures of cocaine in New Zealand have shown considerable variation in recent years. Up until 2002, seizures were fairly low level with 415 grams seized in 1999, 895 grams in 2000, 8 grams in 2001 and 267 grams in 2002. Seizures of cocaine then increased quite dramatically to 7,859 grams in 2003 and 18,020 grams in 2004. New Zealand is considered to be a transit point for cocaine entering Australia rather than the country of final consumption. This view is supported by the fact that 98% of cocaine seizures were made at the border by the New Zealand Customs Service with little seized within the country by New Zealand Police.

10. Ketamine

10.1 Introduction

Ketamine (‘special K’ or ‘vitamin K’) is a rapidly acting anaesthetic that is used in veterinary surgery and less commonly in human surgery (Kuhn et al., 1998, White et al., 2004, Copeland and Dillon, 2005). Ketamine produces dissociative and hallucinogenic effects including ‘out-of-body’ like experiences, analgesia and amnesia (Copeland and Dillon, 2005, Community Alcohol and Drug Services (CADS), 2005). The main effects last for 1-2 hours, although the lingering effects can last up to two days (Copeland and Dillon, 2005). Too much ketamine can result in the user having bizarre experiences including ‘near death experiences’ known as ‘falling into a k-hole’. The use of ketamine has been linked with a range of unpleasant psychological effects including anxiety, panic attacks, flashbacks, persistent perceptual changes, depression, suicide, paranoid delusions, fragmentation of personality and aggression (Copeland and Dillon, 2005). Ketamine is also thought to have a strong potential to give rise to physical and non-physical dependence after repeated use (Copeland and Dillon, 2005).

Ketamine is generally associated with the dance party scene in New Zealand where it is used for its hallucinogenic effects. A selling point of ketamine is said to be the short duration of its hallucinogenic effects (ie. 1-2 hours) compared to LSD and ecstasy (National Drug Intelligence Bureau, 2005). Ketamine is complicated to synthesise, and the required precursor chemicals are difficult to obtain, which generally restricts its manufacture to the legitimate pharmaceutical industry (Copeland and Dillon, 2005). Supplies of ketamine for recreational use are generally illegally diverted from veterinary sources (Copeland and Dillon, 2005, National Drug Intelligence Bureau, 2005). Ketamine in tablet form is sometimes fraudulently sold as ecstasy (Community Alcohol and Drug Services (CADS), 2005).

10.2 Ketamine use among frequent cannabis users

One in four (23%) of the frequent cannabis users had tried ketamine in their lifetimes but only one participant had used ketamine in the last six months.

10.3 Ketamine use in the general population

Only very small numbers of respondents to the national household drug surveys reported using ketamine, and this restricted the ability to reliably statistically test changes in last year prevalence. There was a statistically significant increase in the proportion of the population who had ever tried ketamine in 2001 compared to 1998 (0.7% versus 0.2%, $p=0.0004$). The proportion of the population who had tried ketamine remained stable in 2003 compared to 2001 (0.8% versus 0.7%, $p=0.5827$). Last year use of ketamine in the population remained low level (0.2% in 2003; 0.5% in 2001).

10.4 Law enforcement

Ketamine is currently listed as a prescription medicine only and is not classified under the Misuse of Drug Act 1975. An advice paper was recently prepared for the Expert Advisory Committee on Drugs proposing that ketamine be classified as a controlled drug under the Misuse of Drugs Act 1975.

11. GHB

11.1 Introduction

Gamma-hydroxybutyric acid (GHB, GBL or Fantasy, liquid ecstasy, One4B) is an anaesthetic which was withdrawn from the market in the United States in the late 1980s due to serious adverse side-effects (Kuhn et al., 1998). It is most often available as an odourless, colourless liquid with a slightly salty taste (Kuhn et al., 1998). GHB is used as a recreational drug for its euphoric and relaxant effects (Expert Advisory Committee on Drugs, 2001). GHB is a major sedative and has a very steep dose response curve, which means there is only a very small difference in dose between the 'desired recreational effect' and overdose, coma and death (Expert Advisory Committee on Drugs, 2001). The risk of adverse effects is highly variable among individuals. GHB is a depressant and when mixed with other depressants, such as alcohol, the depressant effects are increased which further increases the risk of overdose (White et al., 2004, Community Alcohol and Drug Services (CADS), 2005). GHB substances are also believed to be used by bodybuilders to assist muscle growth (Expert Advisory Committee on Drugs, 2001).

GHB is said to be an emerging drug of choice in the dance party scene in New Zealand (National Drug Intelligence Bureau, 2005). There have been a number of cases in New Zealand of GHB users being hospitalised suffering severe respiratory depression and coma (Expert Advisory Committee on Drugs, 2001). One death has been attributed to the drug (Expert Advisory Committee on Drugs, 2001).

11.2 GHB use among frequent cannabis users

One in five (20%) of the frequent cannabis users had tried GHB in their lifetimes but only one in 17 (6%, n=4) had used GHB in the last six months. The median age at which the party drug users had first used GHB was 21 years (mean 22, range 17-30 years). All of those who had used GHB in the previous six months said the main way they took the drug was 'swallowing it' (100%). Participants had used GHB on a median of four days in the previous six months (mean 5 days, range 1-13 days). Three quarters (75%) of users had used GHB on 1-6 days in the last six months. The remaining quarter had used on 7-13 days in the last six months. The median number of millilitres of GHB taken on a typical occasion was 3.5 (mean 3.2 mls, range 1-5 mls). The median greatest quantity of GHB taken on a single occasion was eight millilitres (mean 6 mls, range 1-10 mls).

11.3 GHB use in the general population

GHB was only added to the list of drugs asked about in national household drug surveying in 2001. There was no significant change in the population prevalence of GHB use between 2001 and 2003. Approximately 1% of the population had ever tried GHB (1.1% in 2001 and 1.3% in 2003) and slightly less had used it in the last year (0.8% in 2001 and 0.6% in 2003).

11.4 Law enforcement

Drug enforcement agencies indicate that in previous years GHB was not seized in large quantities and consequently was often not recorded. In 2004, there were three notable joint New Zealand Police and New Zealand Customs Service operations which led to the seizure of 45,739 millilitres of GHB. One law enforcement KE believed that the price of GHB had gone up in recent times as a result of the arrest of a principal supplier.

12. Opiates

12.1 Introduction

Successful law enforcement operations against international heroin trafficking into New Zealand in the late 1970s greatly disrupted the domestic supply of heroin in New Zealand leading to high prices and uncertain supply (Newbold, 2000, New Zealand Customs Service, 2002). Existing heroin addicts responded by illegally obtaining opiates, such as morphine sulphate tablets (MST or misties) and codeine from the medical system, and then converting them into injectable opiates by various means including 'homebake heroin' (New Zealand Customs Service, 2002). In contrast, heroin is reported to be easily available in Australia and there is a considerable population of active heroin users. The close geographic proximity of such a large heroin market remains a risk for New Zealand (New Zealand Customs Service, 2002). At present interceptions of heroin remain spasmodic (New Zealand Customs Service, 2002). Heroin is generally injected although it can also be eaten, snorted or smoked, and these alternative routes are often popular means of administration for new users and are said to be gaining in general popularity.

12.2 Opiate use among frequent cannabis users

A third (35%) of the frequent cannabis users had tried opiates in their lifetimes. One in 10 (10%, n=7) had used opiates in the last six months. The median age at which the frequent cannabis users had first used opiates was 20 years (mean 20, range 14-28 years). Half (50%) of those who had used opiates in the previous six months said the main way they took the drug was 'smoking it', one third (33%) said the main way they took opiates was 'injecting it', and the remainder (16%) said they were mainly 'swallowing it'. Participants had used opiates on a median of three days in the previous six months (mean 5 days, range 1-13 days). Seven out of 10 (71%) users had used opiates on 1-6 days in the previous six months. The remainder had used opiates on 7-13 days in the last six months.

12.3 Opiate use in the general population

The national household drug surveys asked about a range of opiates including heroin, 'homebake' heroin, poppies and morphine. All these drugs were combined into an 'any opiate' category to enhance the number of respondents available for the statistical analysis of trends. Subsequent analysis shows there was no statistically significant change in the prevalence of 'any opiate'. The proportion of the population who had ever tried 'any opiate' remained stable at just over 3% in all survey waves (ie. 3.7% in 1998; 4.3% in 2001; 3.2% in 2003). The level of last year use of 'any opiate' also remained level at approximately 1% of the population (1.2% in 1998; 1.0% in 2001; 0.7% in 2003).

12.4 Law enforcement

There has been considerable variation in the quantity of heroin seized by New Zealand authorities over the last five years. Seizures varied from only one gram in 2000, to 5,536 grams in 2001, and then only 10 grams in 2002. In 2003, 1,466 grams were seized, followed by 211 grams in 2004. Law enforcement agencies have commented that the opiate scene in New Zealand is only spasmodically supplied by international importations of heroin. There remains a great reliance on locally manufactured 'homebake' heroin made from morphine illegally diverted from the medical system.

13. Drug related harm

13.1 Life impacts

13.1.1 Relationship/social problems

One in six (17%, n=11) frequent cannabis users indicated that their drug use had caused them some 'relationship or social problems' in the last six months (ie. with a partner, friends, family). A third (36%) of those who experienced relationship problems from their drug use said the most serious problem was 'arguments'. One in 11 (9%) said the most serious relationship problem was 'mistrust/anxiety'. Three out of 10 (27%) said the most serious relationship problem was 'ending a relationship'. One in 11 (9%) had been 'kicked out of home'. The drug types most commonly cited as responsible for these relationship problems were cannabis (75%), alcohol (17%) and opiates (8%).

13.1.2 Financial problems

One in five (20%, n=14) frequent cannabis users indicated that their drug use had caused them some 'financial problems' in the preceding six months. A third (36%) of those who experienced financial problems from their drug use said the most serious problem was 'no money for recreation or luxuries'. One in five (21%) said the most serious financial problem was being 'in debt or owing money'. Four out of 10 (43%) said the most serious financial problem was 'no money for food or rent'. The drug types most commonly cited as responsible for these financial problems were cannabis (67%), ecstasy (17%) and alcohol (8%).

13.1.3 Legal/police problems

One in 11 (9%, n=6) frequent cannabis users indicated that their drug use had caused them some 'legal or police problems' in the preceding six months. One participant said the most serious legal or police problem was being 'cautioned by police'. Another said the most serious problem was being 'arrested'. Three said the most serious legal/police problem was being 'convicted of a crime'. Another said the most serious legal/police problem was being 'imprisoned'. The drug types most commonly cited as responsible for these legal/police problems were methamphetamine (83%) and cannabis (17%).

13.1.4 Work/study problems

Three out of 10 (28%, n=18) frequent cannabis users indicated that their drug use had caused them some 'work or study problems' in the preceding six months. A third (33%) of those who experienced work/study problems from their drug use said the most serious problem was 'trouble concentrating'. One in nine (11%) said the most serious work/study problem was 'reduced work performance'. Four out of 10 (39%) said the most serious work/study problem was being or feeling 'unmotivated'. One in 17 (6%) said the most serious work/study problem was 'taking sick leave or not attending classes'. The drug types most commonly reported as responsible for these work/study problems were cannabis (74%), ecstasy (16%), methamphetamine (5%) and alcohol (5%).

13.2 Drug use and driving

13.2.1 Alcohol and driving

Three out of 10 (29%) of the frequent cannabis users had driven under the influence of alcohol in the last six months. When asked about the extent of their driving under the influence of alcohol, nine out of 10 (90%) indicated they had done ‘hardly any’ and the remaining one in 10 (10%) said they had done ‘some’ of their driving under the influence of alcohol in the preceding six months.

13.2.2 Other drug use and driving

Seven out of 10 (71%) of the frequent cannabis users had driven under the influence of drugs other than alcohol in the previous six months. Four out of 10 (41%) participants said they had completed ‘hardly any’ driving under the influence of drugs in the previous six months, and the same proportion (41%) said they had completed ‘some’ of their driving under the influence of drugs in the previous six months. One out of seven (14%) had completed ‘most’, and one in 25 (4%) had completed ‘all’, of their driving under the influence of drugs other than alcohol in the preceding six months. The drug types which participants were most commonly under the influence of when driving were cannabis (96%), legal dance party pills (16%), ecstasy (12%), methamphetamine (10%), LSD (8%) and nitrous oxide (8%).

13.3 Accessing health services

13.3.1 Medical services

Fairly low numbers of frequent cannabis users had accessed medical services in relation to their drug use in the last six months. One in 25 (4%) of participants had accessed ‘First Aid’, one in eight (12%) had accessed a ‘general practitioner’ (GP) and one in 34 (3%) had accessed ‘accident and emergency’. One participant had been ‘admitted into hospital’ in relation to their drug use in the preceding six months. None of the participants had accessed an ‘ambulance’ in the last six months. The drug type involving accident and emergency service visits was cannabis. The drug type involved in hospital admissions was amphetamine. The drug type involved in GP visits was cannabis (43%).

13.3.2 General health and drug treatment services

Some participants had accessed health and drug treatment services in relation to their drug use in the previous six months. One in 14 (7%) participants had accessed a ‘drug and alcohol worker’ and one in 23 (4%) had accessed a ‘psychologist’.

14. Criminal behaviour and perceptions of drug policing

14.1 Property crime

One in 17 (6%, n=4) of the frequent cannabis users interviewed reported that they had committed a property crime in the previous month. One KE commented that most property crime was alcohol related. Several KE indicated that shoplifting, burglaries and breaking into cars were used to obtain property to barter for cannabis.

14.2 Drug dealing

14.2.1 Frequency of drug dealing

One third (32%, n=22) of the frequent cannabis users said they had sold drugs in the previous month. A quarter (24%) of those who had sold drugs had done so 'less than once a week'. One in 33 (3%) had sold drugs 'once a week'. One in 17 (6%) had sold drugs 'more than once a week'.

14.2.2 Number of buyers

Those frequent cannabis users who had sold drugs in the preceding month had sold to a median of two people (mean 5, range 1-30).

14.2.3 Types of drugs sold

Nine out of 10 (86%) of those who sold drugs in the last month had sold cannabis. Three out of 11 (9%) had sold ecstasy in the previous month. One participant had sold opiates and another had sold crystal methamphetamine in the preceding month.

14.2.4 Relationship to buyers

Two thirds (68%) of the participants who sold drugs in the previous month had sold 'none' to casual acquaintances (ie. only met them once or twice) in the preceding six months. In a separate question, two thirds (64%) of those who sold drugs in the previous month had sold 'all' their drugs to 'close friends or family members'.

14.3 Fraud

One in 33 (3%, n=2) of the frequent cannabis users interviewed reported that they had committed fraud in the previous month.

14.4 Violent crime

One participant (1%) said they had committed a violent crime in the previous month. Three KE reported that many violent assaults were related to cannabis. Several other KE felt alcohol rather than cannabis was more responsible for violence.

14.5 Arrest experience

One in six (16%, n=11) frequent cannabis users reported that they had been arrested in the last 12 months. The median number of times the participants had been arrested in the previous year was once (mean 1, range 1-4 times). Four out of 10 (45%) of those who were arrested in the last 12 months were arrested for a 'property crime'. A quarter (27%) of those who were arrested were arrested for 'possession of a drug' and one in 11 were arrested for 'dealing drugs' (9%) and a 'violent crime' (9%) respectively.

14.6 Conviction and prison experience

A third (33%, n=22) of the frequent cannabis users had been convicted of a criminal offence. One in 10 (10%) had served time in prison. Two participants had spent time in prison in the last 12 months.

14.7 Perceptions of changes in police activity

Four out of ten (38%) frequent cannabis users had noticed 'more' police activity towards drug users in the last six months. Three out 10 (31%) had noticed the 'same' level of activity in the last six months. One in 13 (8%) thought there had been 'less' police activity against drug users in the last six months. A quarter (23%) of participants had not noticed 'any police activity' against drug users in the previous six months.

14.8 Perceptions of the impact of police

One in seven (14%) participants reported that police activity had made it 'more difficult' to get drugs in the last six months.

14.9 Number of friends arrested

Six out of 10 (61%) frequent cannabis users had 'no friends arrested' in the previous six months. One in seven (15%) participants had 'more' friends arrested in the last six months. One in five (21%) had about the 'same' number of friends arrested. Only one in 33 (3%) had 'less' friends arrested in the preceding six months.

15. Risk of drug use and drug purchase

15.1 Perceptions of the health risk of different drugs

Eight out of 10 (80%) of the frequent cannabis users considered the ‘regular’ use of methamphetamine to be a ‘great’ (24%) or ‘extreme’ (56%) health risk. The ‘regular’ use of crystal methamphetamine was judged to have an even greater health risk with nine out of 10 (87%) frequent cannabis users saying the regular use of crystal methamphetamine posed a ‘great’ (21%) or ‘extreme’ (66%) health risk. A similar proportion of frequent cannabis users considered the ‘regular’ use of opiates to be a ‘great’ (31%) or ‘extreme’ (55%) health risk. Eight out of 10 participants also considered the ‘regular’ use of GHB (80%) and ketamine (75%) to be a ‘great’ or ‘extreme’ health risk. In contrast, only one in 11 (9%) participants considered the ‘regular use’ of cannabis to be a ‘great’ health risk. A fairly low proportion of participants thought the regular use of legal dance party pills to be a ‘great’ (25%) or ‘extreme’ (8%) health risk.

Table 15.1: Perceptions of the health risk of different drug types

Drug type	Level of health risk from use				
	No risk (%)	Slight risk (%)	Moderate risk (%)	Great risk (%)	Extreme risk (%)
Cannabis					
Once or twice	66	29	3	0	1
Regularly	4	46	40	9	1
LSD					
Once or twice	25	31	28	15	2
Regularly	3	14	29	31	23
Ecstasy					
Once or twice	27	39	23	10	2
Regularly	2	11	29	40	18
Methamphetamine					
Once or twice	18	26	23	14	18
Regularly	2	0	18	24	56
Ice or crystal meth					
Once or twice	15	23	26	15	21
Regularly	0	0	13	21	66
Amphetamine					
Once or twice	20	43	20	13	5
Regularly	2	0	26	39	34
Ketamine					
Once or twice	22	28	28	6	17

Regularly	6	0	19	25	50
GHB					
Once or twice	19	28	22	11	19
Regularly	6	9	6	34	46
Opiates					
Once or twice	16	23	28	16	18
Regularly	2	7	5	31	55
Legal dance party pills					
Once or twice	44	43	10	0	3
Regularly	10	32	25	25	8

15.2 Perceptions of the risk of buying different drugs

Six out of 10 frequent cannabis users considered buying crystal methamphetamine to be a ‘great’ (29%) or ‘extreme’ (29%) risk. A similar appraisal was made of the risk of purchasing methamphetamine. Buying opiates was also considered to be a high risk by many participants. Cannabis was considered to be the least risky illicit drug to purchase with only one in 20 (5%) believing that purchasing it was a ‘great’ or ‘extreme’ risk. Three quarters of participants considered buying cannabis to be either ‘no risk’ (24%) or only a ‘slight risk’ (51%). As might be expected, nearly all participants considered the purchasing of legal dance party pills to be ‘no’ or only a ‘slight’ risk.

Table 15.2: Perceptions of the risk of purchasing different drug types

Drug type	Level of risk to buy				
	No risk (%)	Slight risk (%)	Moderate risk (%)	Great risk (%)	Extreme risk (%)
Cannabis	24	51	19	1	4
LSD	8	33	33	14	11
Ecstasy	5	30	39	16	11
Methamphetamine	0	15	30	32	23
Ice or crystal meth	0	11	31	29	29
Amphetamine	2	22	29	31	17
Ketamine	5	23	21	28	23
GHB	5	21	30	26	19
Opiates	4	13	24	31	28
Legal dance party pills	89	5	3	0	3

16 Emerging trends

16.1 New trends in drug use

16.1.1 New drug types

One participant mentioned the selling of more potent strains of cannabis. Two participants reported a new drug which they called 'Tryptomine'. The respondents may have been referring to DMT or Dimethyltryptamine. DMT is a potent hallucinogen which often comes in the form of a pink crystalline powder. The participants described the 'Tryptomine' as 'pure MDMA' available in 'capsule form' and as a 'pill'. Another participant reported the availability of a new drug which they called '2CP' and described it as a mix between 'LSD and Ecstasy'.

16.1.2 Different types of users

Three participants commented that there were now more 'younger people' using drugs and mixing with an older group of people. One participant said more young people were 'getting hooked on intravenous drug types'. Another participant said more people were using 'morphine'. Two participants noted that more middle class people were now using drugs, describing them as 'different occupations, now it's all types' and 'more older people than I thought'.

16.1.3 Increase in drug use

Six participants said more people were using 'P' (methamphetamine). Two participants commented further saying that more 'young people' were using methamphetamine. One participant said there was less use of 'hallucinogens'. One participant said there was increased use of cocaine. Another said there was more use of cannabis as it had become 'more acceptable'. One participant said that there was more 'experimenting, and trying of new things'.

16.2 New trends in drug selling

16.2.1 New drugs sold

Two participants reported a new drug which they called 'Tryptomine' (as above). Another said more MDMA was being sold. Another participant reported the selling of 'mixed amphetamine and E (MDMA) pills'. One participant reported the selling of 'opium poppy seed tea'. Another participant spoke of the 'swapping of pot [cannabis] for Class A [drugs]'. One participant noted there was now more cannabis oil being sold. Finally, one participant mentioned 'homebrew being sold out of tinny houses'.

16.2.2 New selling places

One participant said 'P [methamphetamine] was now being sold in more affordable amounts'. One participant appeared to describe street markets for methamphetamine, that is 'P being sold via winding down window of car and offering for sale'. Several participants mentioned an increase in the number of selling places and changes in the places where drugs are sold. Another participant said the 'dealer now delivers to their

house'. Several KE noted the greater utilisation of indoor cannabis cultivation techniques.

16.2.3 New types of people selling

Several participants observed that more people were selling drugs to cover the cost of their own drug use, that is 'white collar people selling drugs in order to fund their [drug] habit'. Alternatively, two participants spoke of more professional drug dealers who were not drug users. Another participant said that 'gangs were becoming really professional'.

16.2.4 Changes in prices/quantities sold

There were some conflicting statements on this topic. One participant said cannabis foils [1.5 grams of cannabis wrapped in tin foil] were 'getting bigger and better'. Another said 'tinnies were getting smaller'. One participant mentioned price discounts while two others said prices were either 'increasing' or 'slightly increasing'.

16.3 New types of amphetamine

The new types of amphetamines observed in the last six months were '2CP', 'Trypotmine' and Ritalin. One participant referred to 'something more pure than ice' but could not provide any further details.

17. Secondary data sources on drug use

17.1 Drug Helpline

17.1.1 Broad category of drug

Six out of 10 (59.5%) of all valid calls to the Drug Helpline in 2004/05 were concerned with alcohol. Nearly half of all valid calls (47.1%) over the same period involved drugs, with one fifth concerned with both alcohol and drugs. The proportion of calls concerned with drugs increased steadily in the last four years from one in nine (11.4%) in 2001/02, to one in four (22.5%) in 2002/03, to one in three (35.0%) in 2003/04, to nearly half (47.1%) in 2004/05 (see Table 17.1).

Table 17.1: Telephone calls to the Drug Helpline by substance category, 2001/02-2004/05

	2001/02			2002/03			2003/04			2004/05		
	Drug	Alcoh	Unkn	Drug	Alcoh	Unkn	Drug	Alcoh	Unkn	Drug	Alcoh	Unkn
1st quarter	9.9	78.2	15.6	16.0	79.3	11.7	33.6	48.5	12.5	45.9	45.6	13.0
2nd quarter	9.3	78.3	18.0	20.2	76.4	9.3	29.0	45.6	10.6	50.0	66.5	14.9
3rd quarter	12.5	79.2	17.3	20.5	75.5	13.1	32.3	51.0	11.7	45.2	67.6	14.1
4th quarter	13.7	80.1	14.8	33.2	59.9	13.1	45.2	40.5	12.2	47.1	63.1	13.0
Total	11.4	79.0	16.4	22.5	72.9	11.8	35.0	48.9	11.8	47.1	59.5	13.8

Source: Alcohol and Drug Association of New Zealand (2005)

17.1.2 Specific drug type

Cannabis remained the most common drug callers rang about in the last four years, increasing steadily from one in 19 (5.4%) in 2001/02 to one in seven (14.1%) in 2004/05 (Table 17.2). Methamphetamine calls fell slightly in 2004/05, although the percentage increased due to an overall reduction in call numbers. Amphetamine calls persistently increased throughout the four years including 2004/05. There were also large increases in calls for cocaine and benzodiazepines recorded in recent years. The service received a number of calls for 'nitrous oxide' and 'legal dance party pills (BZP)' but this was considered to be a response to recent media attention and these have since tapered off. There is no category for ecstasy. Enquiries to the Alcohol Drug Association of New Zealand, who operate the help-line, indicated that calls related to ecstasy are coded as 'other' because calls related to this drug were rare, with the service perhaps only receiving '2-3 ecstasy calls per year'.

Table 17.2: Telephone calls to the Drug Help-line by drug type, 2001/02-2004/05

	2001/02		2002/03		2003/04		2004/05	
	Total	%	Total	%	Total	%	Total	%
Methamphetamine	-	-	548	4.4	1523	9.0	1489	10.9
Cannabis	597	5.4	1010	8.1	1861	10.9	1930	14.1
Opiates	225	2.1	272	2.2	576	3.4	662	4.8
Amphetamines	85	0.8	188	1.5	251	1.5	349	2.5
Benzodiazepines	65	0.6	187	1.5	312	1.8	457	3.3
Solvents/Inhalants	55	0.5	119	0.9	273	1.6	358	2.6
Cocaine	46	0.4	81	0.6	188	1.1	289	2.1
Nitrous Oxide	-	-	-	-	-	-	69	0.5
Legal dance party pills	-	-	-	-	-	-	81	0.6

Source: Alcohol and Drug Association of New Zealand (2005)

17.2 Hospital admissions

17.2.1 Introduction

The New Zealand Health Information Service (NZHIS) collates data from publicly funded hospitals on drug related poisonings and mental/behavioural disorders. The data collected does not include privately funded hospitals or emergency department presentations. Data is generally only available in broad drug categories rather than for specific drug types. Patients are only recorded for the primary drug type involved in their hospitalisation.

17.2.2 Drug related poisonings

There were 198 publicly funded hospital admissions for drug related poisonings recorded in 2004. Just over half (53%) of the hospital admissions involved 'psychostimulants'. The 'psychostimulants' category includes, but is not limited to, amphetamine, methamphetamine and synthetic amphetamines such as 2CB and 2CI. One in seven admissions involved either an anaesthetic (including GHB) (15%), methadone (14%), or cannabis (14%). One in 33 (3%) admissions involved 'other psychotropics' (including ecstasy and other similar substances). There were two events involving cocaine and one involving opium.

17.2.3 Drug related mental and behavioural disorders

There were 464 publicly funded hospital admissions for drug related mental and behavioural disorders in 2004. Four out of 10 (40%) of the admissions for drug related mental and behavioural disorders involved cannabis. A third (36%) of admissions involved opioids and one in five (22%) involved stimulants (including amphetamine/methamphetamine). The remaining eight admissions (2%) involved hallucinogens (including ecstasy, GHB, LSD and magic mushrooms).

17.3 Drug Treatment Services

17.3.1 National survey of drug treatment workers

Introduction

In 1998 and 2004 the National Addiction Centre (NAC) conducted national telephone surveys of the dedicated alcohol and drug treatment workers in New Zealand (Adamson et al., 2000, Adamson et al., 2004). All alcohol and drug treatment workers taking part in the survey were asked a number of questions relating to the most recent client they had assessed in the two weeks preceding their interview, and then for the most recent client they had seen for a therapy session during the same period. In 1998 this yielded 291 clients (ensuring that where the last assessment and last therapy session was for the same client this client was counted once only), and in 2004 yielded 383 clients.

Main substance use problem of clients

Alcohol, alone or in combination, accounts for over half of the main substance of use problem of the treatment population in both 1998 and 2004 (Table 17.3). There was a dramatic rise in amphetamine type substances as the main substance problem, from almost none in 1998 to approximately 10% of the treatment sample in 2004. A significant reduction in benzodiazepines as the main substance was also evident between the survey waves. No drug treatment workers reported seeing a client with ecstasy as their main substance abuse problem.

Table 17.3: Main substance problem of clients presenting to alcohol and drug treatment workers in New Zealand, 1998 & 2004.

Main Substance Problem	1998 (n=291) %	2004 (n=383) %
Alcohol Only	27.1	27.1
Mainly Alcohol	18.7	20.2
Alcohol & Cannabis	10.9	9.5
Mainly Cannabis	15.7	14.3
Mainly Opioids	17.1	14.8
Mainly Amphetamines	0.3	9.7**
Mainly Benzodiazepines	6.0	2.0*
Other	4.3	2.3

* $p > .01$, ** $p > .001$

Source: (Adamson et al., 2004)

17.3.2 Odyssey House

Cannabis is often the primary drug problem for clients attending drug treatment programmes at Odyssey House. Alcohol is generally the next biggest drug problem. For example, in July 2004, four out of ten (40%) clients named cannabis as their primary drug problem and one in five (20%) named alcohol as their primary drug problem. Cannabis was the secondary drug problem for one quarter (24%) of the Odyssey clients and the tertiary drug problems for one in 10 (10%) of clients.

17.3.3 Community Alcohol and Drug Services (CADS)

Introduction

CADS provides alcohol and other drug services to people the Auckland region. The service operates one central access telephone line within the service area and daily 'no appointment walk in' clinics at five locations.

Positive drug screens of new clients

The CADS screen package is comprised of six individual screening instruments that explore six different drug types. A 'positive' screen indicates probable problematic and/or dependent alcohol or drug use according to screen specific criteria.

In the first six months of 2005, CADS treatment workers screened 1,290 new clients. A single client can return a positive screen for more than one drug type. The extent of problematic poly drug use is illustrated in Table 17.4. This table shows that three out of 10 (28%) CADS clients score positive for a likely substance use problem for two or more substances.

Table 17.4: Number of positive screens for CADS clients, 2005

	No. of Positive Screens				Total
	0	1	2	3+	
No. of clients	181	743	274	92	1290
%	14	58	21	7	100

Source: Community Alcohol and Drug Services (2005)

Six out of ten (64%) of the clients screened positive for alcohol, three out of ten (30%) screened positive for cannabis, one in six (17%) screened positive for amphetamines, and one in 17 (6%) were positive for opiates (Table 17.5). Ecstasy is included in the 'other' category (4%).

Table 17.5: Positive screens by drug type for CADS clients, Jan-Jun 2005

	Screen Type					
	Alcohol	Cannabis	Amphet.	Opiates	Benzo.	'Other'
No of clients	832	390	213	83	25	51
% of overall screen sample	64	30	17	6	2	4

Source: Community Alcohol and Drug Services (2005)

Table 17.6. presents the ‘other category’ by specific drug type. The table reveals that ecstasy (39%) and other ‘party drugs’, such as GBH (24%) and LSD (10%), feature prominently in this category.

Table 17.6: Breakdown of ‘other category’ by drug type, 2005

‘Other’ Drugs					Total
Ecstasy	GBH	LSD	Solvents	Other	
20	12	5	4	10	51

Source: Community Alcohol and Drug Services (2005)

18.0 Summary

The Cannabis Module interviewed a sizable group of very heavy cannabis users. Approximately one half of the sample had used cannabis daily or more frequently in the previous six months, and one half had purchased cannabis on a weekly or more frequent basis in the previous six months. This group of frequent cannabis users is therefore an appropriate sentinel group to survey in order to track trends in cannabis use and cannabis related harm, and also to monitor the extent that primary cannabis users are using other drug types and are exposed to other drug markets, such as those for methamphetamine and opiates. The validity of the findings concerning a particular drug obtained from the interview of frequent cannabis users in the Cannabis Module can be cross checked against the interviews of frequent drug users from the other two modules of the IDMS. Instances where there is corroboration among all three groups of frequent drug users concerning a trend in a drug are strongly indicative that a valid trend has been identified. This process of building validity concerning trends in drug use by looking for corroboration between the three groups of frequent drug users is a unique strength of the IDMS. The trends identified by the frequent drug users can then be further validated through the interviews with KE and via reference to secondary data sources.

An important difference between the frequent cannabis users in the Cannabis Module and the frequent methamphetamine and frequent hallucinogen users from the other two Modules of the 2005 IDMS was the extent and level of other drug use. The frequent cannabis users had used a median of five drug types in the last six months compared with medians of eight drug types used in the last six months by the frequent methamphetamine and hallucinogen users. The frequent cannabis users' most commonly used other drugs were alcohol (86%), tobacco (64%), legal dance party pills (62%) and nitrous oxide (36%). The frequent methamphetamine users' most commonly used other drugs were cannabis (95%), alcohol (90%), ecstasy (82%), tobacco (82%), amphetamines (82%), crystal methamphetamine (78%) and LSD (77%). The frequent hallucinogen users' most commonly used other drug types were alcohol (94%), cannabis (91%), ecstasy (91%), tobacco (74%), legal dance party pills (74%), nitrous oxide (71%) and LSD (62%). Three quarters of the frequent methamphetamine (73%) and frequent hallucinogen users (78%), compared to a quarter (25%) of frequent cannabis users, had binged on a drug in the last six months (ie. used continuously for 48 hours or more). This comparison is not meant to understate the seriousness of the drug use of the frequent cannabis users, but merely to highlight how the scale of the frequent cannabis users' drug use differs from that of the frequent users of methamphetamine and hallucinogens.

One surprising aspect of the 'other drug use' of the frequent cannabis users was their level of opiate use. One in 10 (10%) of the frequent cannabis users had used opiates in the last six months. Half of these opiate using frequent cannabis users had mainly 'smoked' opiates and one in six (16%) had mainly 'swallowed' the opiates they used. These alternative methods of administration to injecting opiates are often used by casual or 'first time' opiate users. There is no Opiate Module of the IDMS so unless opiate users also happen to be frequent methamphetamine or frequent hallucinogen users they will tend to be interviewed as part of the Cannabis Module. Opiate users may use cannabis in conjunction with opiates or to help reduce the effects of opiate

withdrawal. As opiate users are often daily or near daily users of opiates, their use of cannabis maybe also be of the same high frequency.

In the other two modules of the 2005 IMDS it was suggested that ecstasy may be the drug type most 'on the move'. The frequent methamphetamine users reported decreasing prices and high availability of ecstasy. The frequent hallucinogen users appeared to concur with this assessment. Four out of 10 (42%) of the frequent methamphetamine users, and a similar proportion (40%) of frequent hallucinogen users, said the price of ecstasy had fallen in the last six months. The frequent cannabis users were of a similar view, with four out of 10 (41%) also reporting that the price of ecstasy had 'decreased' in the preceding six months. A similar proportion of frequent methamphetamine users (45%), frequent hallucinogen users (55%) and frequent cannabis users (52%) described the current availability of ecstasy as 'easy'.

Similar proportions of frequent methamphetamine users (23%), frequent hallucinogen users (26%) and frequent cannabis users (31%) described the availability of ecstasy as becoming 'easier' in the preceding six months. As noted in the other Modules of the IDMS, the possibility of the establishment of domestic manufacture of ecstasy would further enhance the availability of ecstasy in New Zealand. All three groups of frequent drug users considered ecstasy to be a relatively lower health risk than methamphetamine and crystal metamphetamine. All three samples of frequent drug users also considered ecstasy to be a relatively lower risk to purchase than methamphetamine and crystal methamphetamine. These factors suggest that demand for ecstasy may well be more robust and sustained in the medium to long term than the demand for methamphetamine and crystal methamphetamine.

There appeared to be agreement among all three groups of frequent drug users that LSD had recently declined in New Zealand. High proportions of frequent methamphetamine users (57%), frequent hallucinogen users (67%) and frequent cannabis users (68%) described the current availability of LSD to be either 'difficult' or 'very difficult'. Over half of all three samples of frequent drug users said that the availability of LSD had 'fluctuated' or become 'more difficult' in the last six months. Large proportions of the frequent methamphetamine users (77%), frequent hallucinogen users (72%) and frequent cannabis users (94%) reported it would take them 'days' or 'weeks' to purchase LSD. As noted in the other Modules of the 2005 IDMS, the popularity of LSD may have suffered from the recent emergence of ecstasy and methamphetamine. However, the market for LSD remains and it may be re-energised if there is a shift in preference away from the present popularity of synthetic amphetamines. As evidence of this risk of renewed demand, approximately a third of the frequent hallucinogen users (36%) and frequent cannabis users (31%) indicated that 'more' of the people they know were using LSD compared to six months ago.

The frequent cannabis users further confirmed that methamphetamine is well established in the New Zealand drug market place with high levels of availability. Six out of 10 (60%) of the frequent cannabis users described the current availability of methamphetamine as 'very easy'. Similarly, over half of the frequent methamphetamine users (52%) and four out of 10 (40%) frequent hallucinogen users also described the current availability of methamphetamine as 'very easy'. Four out of 10 (41%) of the frequent cannabis users reported that the availability of methamphetamine had become 'easier' in the preceding six months. Three out of 10

(28%) frequent methamphetamine users also thought the availability of methamphetamine had become 'easier' in the previous six months. The frequent cannabis users, like the frequent methamphetamine users and frequent hallucinogen users, alluded to marketing strategies designed to promote the wider use of methamphetamine such as selling in smaller quantities at lower prices.

On a more positive note, all three groups of frequent drug users demonstrated a high level of awareness concerning the health risks of regular methamphetamine and crystal methamphetamine use. Half of the frequent methamphetamine users (50%), frequent hallucinogen users (50%) and frequent cannabis users (56%) believed that the regular use of methamphetamine posed an 'extreme health' risk. There is therefore some cause to be optimistic that this level of awareness of the health risks of methamphetamine use will eventually erode the perception of methamphetamine use as a 'manageable risk' among drug users, and in turn lead to declining levels of overall use. However, as noted in the previous modules, declining numbers of methamphetamine users may, at least in the medium term, not necessarily translate into lower social costs as we may be left with a smaller, but more problematic, group of users.

As might be expected, the frequent cannabis users considered cannabis to be widely available with fairly stable prices. Nearly all the frequent cannabis users considered cannabis to be either 'very easy' (60%) or 'easy' (37%) to obtain. Overall, the cannabis market was considered to be fairly stable. One in five (19%) of the frequent cannabis users typically purchased their cannabis from public 'tinny' houses. A previous secondary analysis of New Zealand national household drug survey findings found that adolescents aged 15-17 years old were more likely to purchase their cannabis from 'tinny' houses (Wilkins et al., 2005a). Cannabis was perceived by many of the frequent cannabis users to have a low health risk. However, rather paradoxically in light of this view, quite high proportions of frequent cannabis users self-reported a range of psychological problems related to their cannabis use. These included 'strange thoughts', 'anxiety', 'short temper', 'paranoia', and 'depression'. The proportion of frequent cannabis users reporting these psychological problems from cannabis were often very similar to the proportion of frequent methamphetamine users and frequent hallucinogen users reporting the same psychological problems from methamphetamine and hallucinogen use. This suggests that cannabis users' perceptions concerning the low health risk of their regular cannabis use does not match their own self reported experience.

One of the important reasons to monitor primary cannabis populations is that cannabis is often the first drug young people try and some of these cannabis users then go on to use other 'heavier' drugs, such as methamphetamine and opiates. The role that so called 'softer' drugs may play in the progression to the use of 'harder' drugs is an important issue in regard to the recently emerged intoxicants, such as legal dance party pills (ie. Benzylpiperazine and Trifluoromethylphenylpiperazine) and nitrous oxide. The frequent cannabis users reported high levels of recent use of legal dance party pills (62%) and nitrous oxide (36%), as did the frequent drug users in the other modules of the 2005 IDMS. An important research question is the extent to which these substances facilitate the use of other 'harder' drug types. Alternatively, it has been suggested by some commentators that these substance may act as 'safe' legal alternatives to 'hard' drugs and criminality, both for adolescents with no history of

drug use and for established illicit drug users seeking an exit from the illicit drug lifestyle. The level of use of these new legal intoxicants among the frequent drug users interviewed for the 2005 IDMS indicates that this issue requires investigation and clarification to inform the ongoing policy response.

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