



**RECENT TRENDS IN ILLEGAL DRUG USE  
IN NEW ZEALAND, 2006**

**Findings from the combined modules of the  
2006 Illicit Drug Monitoring System  
(IDMS)**

**Final Report**

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## Executive Summary

The Illicit Drug Monitoring System (IDMS) was established in 2005 to provide ongoing and timely information on changes in drug use and drug related harm in New Zealand. The 2006 IDMS interviewed 318 frequent drug users, (up from 181 interviews in 2005) in Auckland, Wellington and Christchurch using purposive sampling and snowballing (Biernacki and Waldorf, 1981, Watters and Biernacki, 1989). The 2006 IDMS sample included 114 frequent methamphetamine users, 111 frequent ecstasy (MDMA) users and 93 frequent injecting drug users. The interviews with frequent drug users were contextualised with information provided by key experts working in the drugs field, and with secondary data sources of drug use, such as drug seizure statistics and national household drug survey data.

Methamphetamine remains widely available although there has been no overall change in its level of availability in the past six months. The price of a point (0.1 grams) of methamphetamine has been 'stable' at \$100 over the past six months. There were some differences in perceptions between the three groups of frequent drug users in regard to the recent change in levels of methamphetamine use. The frequent methamphetamine and frequent injecting drug users both thought that 'about the same' or 'more' people they know were using methamphetamine, while the frequent ecstasy users reported that 'less' of the people they know were using methamphetamine. This may reflect a worsening reputation of methamphetamine among the more middle class ecstasy users, and a wider shift in methamphetamine use toward lower socio-economic sections of the community (see Wilkins et al., 2005a). The population prevalence of amphetamine use, as measured in the national household drug survey, has remained stable since 2003 (Wilkins et al., 2006b). There had previously been an increase in the prevalence of amphetamine use in 2001, compared to 1998 (see Wilkins et al., 2002c). The number of methamphetamine laboratories dismantled by the New Zealand police has remained steady, at approximately 200 per year, over the past three years. This remains high compared to 2000 and 2001, when nine and 41 methamphetamine laboratories respectively were dismantled.

Crystal methamphetamine or 'ice' was reported to be 'easy' to obtain, but less available compared to six months ago. In New Zealand, the street term 'ice' is often used to refer to imported crystallised methamphetamine, whereas the more generic term 'P' refers to the locally made methamphetamine. In May 2006, the New Zealand Police and New Zealand Customs Service made the largest ever single seizure of crystal methamphetamine and related precursor chemicals (i.e. 95 kilograms of crystal methamphetamine and 150 kilograms of pseudoephedrine). The findings reported here suggest these drug enforcement operations impacted negatively on the availability of crystal methamphetamine over the subsequent months.

Ecstasy (MDMA) was considered fairly easy to obtain, but more difficult to obtain than the locally made methamphetamine. This is likely to be due to the fact that ecstasy must be smuggled into the country from production locations overseas. More people were reported to be using ecstasy and its price was said to be on the decline. Ecstasy was used fairly infrequently though; on an average of only eight days in the past six months. The population prevalence of ecstasy use increased in both 2003 and 2006 (Wilkins et al., 2006b). The New Zealand Customs Service has attributed the decline in ecstasy (MDMA) seizures to the use of more elaborate smuggling techniques rather than any decline in the use of the drug. The frequent ecstasy users interviewed were more likely to say that ‘more’ of the people they know were using LSD. LSD is a more traditional hallucinogenic drug and unlike methamphetamine is not readily associated with addiction and violence. The increased use of LSD by ecstasy users may indicate a conscious strategy to avoid the health and legal risks associated with methamphetamine use.

Opiates were considered to be easily available, although the availability and price of opiates was stable. Cannabis remains the staple illegal drug in New Zealand, with all three groups of frequent drug users considering it to be ‘easy’ or ‘very easy’ to obtain. Overall, LSD was considered fairly difficult to obtain and this was particularly the case in Auckland. Cocaine and ketamine were both considered difficult to obtain.

The frequent intravenous drug users (IDU) had the highest levels of drug dependency, experienced high numbers of physical and psychological problems from their drug use and reported the highest likelihood of accessing an ambulance in relation to their drug use. Eighty percent of the frequent IDU were assessed as drug dependent. Twelve percent had accessed an ambulance and 13% had accessed the Accident and Emergency Department of a hospital in the past six months in relation to their drug use. These problems relate to the risk of opiate overdose and subsequent need for emergency hospitalisation.

The frequent methamphetamine users also had high levels of drug dependency and experienced high numbers of physical problems from their drug use, while also experiencing a range of serious psychological problems. Many of the psychological problems experienced by the frequent methamphetamine users are consistent with the symptoms of drug psychosis, such as ‘strange thoughts’, sound and visual hallucinations, paranoia and short temper (see McKetin et al., 2006). One third of the frequent methamphetamine users and frequent IDU reporting having ‘suicidal thoughts’ in relation to their drug use.

## Summary

### Introduction

The aim of the IDMS is to provide timely information on illegal drug use and drug related harm to inform appropriate responses to drug problems in New Zealand. This is the second year that the IDMS has been conducted, with future waves planned annually from this point on. This first report from the 2006 IDMS presents findings concerning recent trends in drug use and drug related harm. A second report from the 2006 IDMS is forthcoming and will detail trends in the black market for illegal drugs in New Zealand. In addition to these two detailed reports, a series of research bulletins are planned to investigate specific issues of interest from this year's IDMS.

The IDMS consists of three sources of information: (1) face-to-face interviews with frequent drug users in the community; (2) interviews with key experts (KE) who have regular contact with drug users through their work; and (3) the collation of secondary data sources on drug related statistics. Frequent drug users are considered a sentinel group who can provide accurate information on trends in drug use and drug related harm. The validity of the IDMS comes from the knowledge and experience of the frequent drug users and KE interviewed, rather than from the representative nature of the sampling methodology. The survey of frequent drug users is not intended to be representative of drug use in the general New Zealand population, but to provide first hand reports of changes in drug use and drug related harm by those heavily involved in drug use and the surrounding drug culture.

### Method

A total of 318 frequent drug users were interviewed for the 2006 IDMS, including 114 frequent methamphetamine users, 111 frequent ecstasy (MDMA) users and 93 frequent injecting drug users. Frequent drug users were recruited for the study from the three main centres (i.e. Auckland, Wellington and Christchurch) using purposive sampling and 'snowballing' (Biernacki and Waldorf, 1981, Watters and Biernacki, 1989). Interviewing took place from July to October 2006. To be eligible to be interviewed a respondent had to be 16 years or older, to have used one of three drugs of central interest at least monthly in the previous six months, and to have resided in the site location for the past 12 months.

To place the information provided by the frequent drug users in greater context 27 KE, who had regular contact with frequent drug users through their work, were also interviewed. KE included those working in alcohol and drug treatment agencies, youth services, prisons, needle exchanges, women's refuges, hospital emergency departments, the Prostitutes Collective, New Zealand Drug Foundation, law enforcement, social

agencies and local pharmacies. Secondary data sources on drug use were collated from a range of government and non government sources including national household survey data, drug seizure data, drug related hospital admissions data, drug treatment admissions, and calls to the alcohol and drug help-line. The information provided by the KE and secondary data sources are used to put the reports of the frequent drug users in greater context. The findings from the interview of the frequent drug users are presented for the combined group of all frequent drug users, and by the specific drug type for which drug users were recruited (i.e. frequent methamphetamine users, frequent ecstasy (MDMA) users and frequent injecting drug users).

## **Demographic characteristics of the frequent drug users**

Two thirds of the frequent drug users were male. The median age of the sample was 26 years old (mean 28 years old, range 16-58 years old). The frequent ecstasy (MDMA) users were younger than either the frequent methamphetamine users (23 years old vs. 30 years old,  $p<0.0001$ ) or the frequent injecting drug users (23 years old vs. 32 years old,  $p<0.0001$ ). Eighty-two percent of the frequent drug users were European and 15% were Maori. More of the frequent ecstasy users were European than either the frequent methamphetamine users (96% vs. 71%,  $p=0.0003$ ) or the frequent injecting drug users (96% vs. 78%,  $p=0.0006$ ). Forty-one percent of the frequent drug users were unemployed, sick or invalid. Twenty percent were high school or tertiary students. Only 34% of the frequent drug users were employed. The frequent methamphetamine users (22% vs. 51%,  $p=0.0003$ ) and frequent injecting drug users (28% vs. 51%,  $p=0.002$ ) were less likely to be employed than the frequent ecstasy (MDMA) users. Twenty-five percent of the frequent drug users had no educational qualifications. The frequent methamphetamine users (38% vs. 3%,  $p=0.0003$ ) and frequent injecting drug users (37% vs. 3%,  $p=0.0003$ ) were more likely to have no educational qualifications than the frequent ecstasy (MDMA) users. Twelve percent of the frequent drug users identified as non-heterosexual. The frequent drug users had a median gross annual income of \$27,500. The frequent injecting users were more likely to earn less than \$20,000 gross annual income than either the frequent methamphetamine users (47% vs. 30%,  $p=0.048$ ) or the frequent ecstasy (MDMA) users (47% vs. 28%,  $p=0.0306$ ).

## **Patterns of drug use**

The frequent drug users had tried a mean of 13 drug types in their lifetimes (median 13, range 5-22) and used a mean of seven drug types in the previous six months (median 7, range 1-18). The drug types most commonly used by the frequent drug users in the previous six months were alcohol (85%), cannabis (85%), tobacco (75%), ecstasy (MDMA) (61%), methamphetamine (55%), legal piperazine party pills (42%), LSD (35%), other opiates (32%), crystal methamphetamine (32%) and benzodiazepines (30%) (Table 1).

## **Days of use**

The drug types which the frequent drug users had used on the greatest mean number of days in the previous six months were tobacco (153 days), cannabis (97 days), methadone (93 days), other opiates (68 days), heroin (60 days), alcohol (55 days), crystal methamphetamine (52 days) and methamphetamine (49 days) (Table 1). The frequent drug users had used ecstasy (MDMA) on a mean of 8 days in the past six months. Similarly LSD had only been used by the frequent drug users on a mean of 5 days in the previous six months. Legal piperazine party pills had been used by the frequent drug users on a mean of 8 days in the past six months.

## **Means of administration**

The main way that the frequent drug users had used methamphetamine in the past six months was to smoke or to inject it. Sixty-six percent of the frequent drug users who had used methamphetamine in the past six months had smoked the drug in the last six months. Twenty-five percent of the frequent drug users who had used methamphetamine in the previous six months had injected it in the previous six months (Table 1). Thirty-six percent of the frequent drug users who had used crystal methamphetamine in the previous six months had injected it in the past six months. Ninety-two percent of the frequent drug users who had used ecstasy (MDMA) in the last six months had swallowed it. The main way the frequent drug users had used to administer ecstasy (MDMA) was to swallow it. Eleven percent of the frequent drug users who had used ecstasy (MDMA) in the previous six months had injected it in the past six months. Injection was the most common way the frequent drug users who had used opiates in the previous six months had administered opiates (81%), but these users had also swallowed (20%) and smoked (17%) opiates in the past six months.

## **Binging on drugs**

Sixty-nine percent of the frequent drug users had binged on a drug in the previous six months. Binging on a drug was defined as using a drug continuously for 48 hours without sleep. The drug types which the frequent methamphetamine users most commonly binged on were methamphetamine (88%), cannabis (38%), alcohol (36%) and crystal methamphetamine (30%). The drug types which the frequent ecstasy (MDMA) users most commonly binged on were ecstasy (77%), alcohol (71%), cannabis (40%), amphetamine sulphate (29%), LSD (27%) and legal piperazine party pills (21%). The drug types which the frequent injecting drug users most commonly binged on were opiates (45%), cannabis (39%), alcohol (34%) and methamphetamine (28%).

Table 1: Drug use history and current patterns of drug use of the frequent drug users, 2006

COMBINED MODULES (n=318)	Meth-amphetamine	Crystal-Methamphetamine	Cannabis	LSD	Ecstasy (MDMA)	Cocaine	Opiates	Ketamine	GHB
Ever tried	75%	52%	99%	84%	85%	51%	55%	30%	32%
Age first used (median)	22 years	25 years	14 years	18 years	20 years	21 years	19 years	22 years	23 years
Last six months	55%	32%	85%	35%	61%	8%	32%	7%	8%
Mean days used last six months	49 days	52 days	97 days	5 days	8 days	4 days	68 days	6 days	7 days
Main way taken	Smoke/ Inject	Smoke/ Inject	Smoke/ swallowed	-	Swallowed	-	Inject/ swallowed	-	-
Injected last six months	25%	36%	-	-	11%	-	81%	-	-
Mean quantity taken typical occasion	2 points (0.2 grams)	2 points (0.2 grams)	2.5 joints	1.0 tabs	1.4 pills	1.5 grams	-	0.4 grams	5.6 millilitres
Most taken typical occasion (mean)	6 points (0.6 grams)	7 points (0.7 grams)	6.2 joints	1.5 tabs	2.3 pills	2.2 grams	-	0.8 grams	7.7 millilitres

## **Current availability of different drug types**

The drug types which the largest proportion of frequent drug users considered to be ‘very easy’ to obtain at present were cannabis (60%), opiates (41%) and methamphetamine (38%) (Table 2). Half of the frequent drug users said ecstasy (54%) and crystal methamphetamine (48%) were ‘easy’ to obtain. The drug type which the largest proportion of frequent drug users considered to be ‘very difficult’ to obtain at the moment was cocaine (24%). Over one-third of the frequent drug users (38%) reported that LSD was ‘difficult’ to obtain at the moment. The average score for the current availability of methamphetamine for all the frequent drug users was 1.8 which indicates that overall the current availability of methamphetamine is ‘easy/very easy’. The average score for the current availability of crystal methamphetamine for all the frequent drug users was 2.1 which indicates that overall the current level of availability of crystal methamphetamine is ‘easy’. The average score for the current availability of ecstasy (MDMA) for all the frequent drug users was 2.1 which indicates that overall the current level of availability of ecstasy (MDMA) is ‘easy’. The frequent ecstasy users considered ecstasy (MDMA) more easily available than the frequent injecting drug users (2.0 vs. 2.3,  $p=0.0217$ ). The average score for the current availability of cannabis for all the frequent drug users was 1.4 which indicates that overall the current level of availability of cannabis is ‘very easy/ easy’. The average score for the current availability of LSD for all the frequent drug users was 2.4 which indicates that overall the current level of availability of LSD is ‘easy/difficult’. The average score for the current availability of opiates for all the frequent drug users was 1.8 which indicates that overall the current availability of opiates is ‘easy/very easy’. The average score for the current availability of cocaine for all the frequent drug users was 2.9 which indicates that overall the current level of availability of cocaine is ‘difficult’.

Table 2: Current availability of different drug types, 2006

<b>CURRENT AVAILABILITY</b>	<b>Meth-amphetamine</b>	<b>Crystal Meth amphetamine</b>	<b>Cannabis</b>	<b>LSD</b>	<b>Ecstasy (MDMA)</b>	<b>Cocaine</b>	<b>Opiates</b>	<b>Ketamine</b>	<b>GHB</b>
<b>Number with knowledge</b>	n=176	n=107	n=276	n=124	n=200	n=29	n=114	n=14	n=24
<b>Very easy [1]</b>	38%	24%	60%	8%	20%	10%	41%	14%	29%
<b>Easy [2]</b>	44%	48%	36%	47%	54%	17%	45%	14%	40%
<b>Difficult [3]</b>	16%	23%	4%	38%	27%	48%	10%	57%	29%
<b>Very difficult (%) [4]</b>	1%	5%	0%	7%	0%	24%	4%	14%	4%
<b>Average availability score (1=very easy – 4=very difficult)</b>	1.8	2.1	1.4	2.4	2.1	2.9	1.8	2.7	2.1
<b>Overall current status</b>	<b>Easy/very easy</b>	<b>Easy</b>	<b>Very easy/easy</b>	<b>Easy/ difficult</b>	<b>Easy</b>	<b>Difficult</b>	<b>Easy/very easy</b>	<b>Difficult</b>	<b>Easy</b>

## **Change in the availability of different drug types**

The drug types which the greatest proportion of frequent drug users indicated had become 'easier' to obtain in the last six months were GHB (43%), methamphetamine (20%) and ecstasy (19%) (Table 3). The drug types for which the greatest proportion of frequent drug users indicated that availability had become 'more difficult' in the last six months were crystal methamphetamine (29%) and cocaine (23%). The availability of a number of drug types was said to have fluctuated in the previous six months including LSD (31%) and ecstasy (23%). The average score for the change in availability of methamphetamine for all the frequent drug users was 2.0 which indicates that overall the availability of methamphetamine was 'stable' over the last six months. The average score for the change in availability of crystal methamphetamine for all the frequent drug users was 2.2 which indicates that overall the availability of crystal methamphetamine was 'stable/more difficult' over the past six months. The average score for the change in the availability of ecstasy (MDMA) for all the frequent drug users was 1.9 which indicates that overall the availability of ecstasy (MDMA) was 'stable' over the last six months. The average score for the change in the availability of cannabis for all the frequent drug users was 2.0 which indicates that overall the availability of cannabis was 'stable' over the past six months. The average score for the change in availability of LSD for all the frequent drug users was 2.0 which indicates that overall the availability of LSD was 'stable/fluctuating' over the last six months. The average score for the change in availability of opiates for all the frequent drug users was 2.0 which indicates that overall the availability of opiates was 'stable' over the past six months. The average score for the change in the availability of cocaine for all the frequent drug users was 2.2 which indicates that overall the availability of cocaine was 'stable/more difficult' over the last six months.

Table 3: Change in availability of different drug types in the last six months, 2006

<b>CHANGE IN AVAILABILITY</b>	<b>Meth-amphetamine</b>	<b>Crystal Meth amphetamine</b>	<b>Cannabis</b>	<b>LSD</b>	<b>Ecstasy (MDMA)</b>	<b>Cocaine</b>	<b>Opiates</b>	<b>Ketamine</b>	<b>GHB</b>
<b>Number with knowledge</b>	n=175	n=106	n=274	n=119	n=194	n=29	n=114	n=12	n=23
<b>Easier [1]</b>	20%	10%	7%	16%	19%	7%	10%	17%	43%
<b>Stable [2]</b>	53%	50%	69%	34%	45%	57%	73%	50%	30%
<b>Fluctuates [2]</b>	9%	10%	15%	31%	23%	13%	8%	17%	4%
<b>More difficult [3]</b>	19%	29%	9%	18%	13%	23%	10%	17%	22%
<b>Average change in availability score (1=easier – 3=more difficult)</b>	2.0	2.2	2.0	2.0	1.9	2.2	2.0	2.0	1.8
<b>Overall current status</b>	<b>Stable</b>	<b>Stable/ more difficult</b>	<b>Stable</b>	<b>Stable/ fluctuating</b>	<b>Stable</b>	<b>Stable/ more difficult</b>	<b>Stable</b>	<b>Stable</b>	<b>Stable/ easier</b>

## **Perceptions of the change in the number of people using different drugs**

The drug types which the greatest proportion of frequent drug users thought 'more' of the people they know were using were GHB (45%), methamphetamine (43%), ecstasy (39%), crystal methamphetamine (38%) and opiates (34%) (Table 4). The drug types which the greatest proportion of frequent drug users perceived that 'less' of the people they know were using were cocaine (30%) and LSD (27%). The average score for all the frequent drug users in regard to the change in the number of methamphetamine users was 2.2 indicating that overall the 'same/more' people were using methamphetamine. The frequent ecstasy users were more likely to say 'less' people were using methamphetamine than either the frequent methamphetamine users (1.6 vs. 2.3,  $p=0.0002$ ) or the frequent injecting drug users (1.6 vs. 2.3,  $p=0.0010$ ). The average score for all the frequent drug users in regard to the change in the number of crystal methamphetamine users was 2.1 indicating that overall the 'same/more' people were using crystal methamphetamine. The average score for all the frequent drug users in regard to the change in the number of ecstasy (MDMA) users was 2.3 indicating that overall the 'same/more' people were using ecstasy (MDMA). The average score for all the frequent drug users in regard to the change in the number of cannabis users was 2.1 indicating that overall 'about the same' number of people were using cannabis. The average score for all the frequent drug users in regard to the change in the number of LSD users was 1.9 indicating that overall 'about the same' number of people were using LSD. The frequent ecstasy users were more likely to say that 'more' people they know were using LSD than either the frequent injecting drug users (2.2 vs. 1.7,  $p=0.0203$ ) or the frequent methamphetamine users (2.2 vs. 1.8,  $p=0.0067$ ). The average score for all the frequent drug users in regard to the change in the number of opiate users was 2.1 indicating that overall 'about the same' number of people were using opiates. The frequent injecting drug users were more likely to say that 'more' people they know were using opiates than the frequent methamphetamine users (2.3 vs. 1.7,  $p<0.0001$ ). The average score for all the frequent drug users in regard to the change in the number of cocaine users was 1.9 indicating that overall 'about the same' number of people were using cocaine.

Table 4: Users' perceptions of the change in the number of people using different drugs in the last six months, 2006

<b>CHANGE IN NUMBER PEOPLE USING</b>	<b>Meth-amphetamine</b>	<b>Crystal Methamphetamine</b>	<b>Cannabis</b>	<b>LSD</b>	<b>Ecstasy (MDMA)</b>	<b>Cocaine</b>	<b>Opiates</b>	<b>Ketamine</b>	<b>GHB</b>
<b>Number with knowledge</b>	n=175	n=108	n=279	n=125	n=196	n=27	n=116	n=15	n=22
<b>Less [1]</b>	23%	25%	10%	27%	11%	30%	19%	36%	18%
<b>Same [2]</b>	34%	37%	73%	51%	51%	48%	46%	36%	36%
<b>More [3]</b>	43%	38%	17%	22%	39%	22%	34%	29%	45%
<b>Average change in number of people using score (1=less – 3=more)</b>	2.2	2.1	2.1	1.9	2.3	1.9	2.1	1.9	2.3
<b>Overall current status</b>	<b>Same/ more</b>	<b>Same/ more</b>	<b>Same</b>	<b>Same</b>	<b>Same/ more</b>	<b>Same</b>	<b>Same/ more</b>	<b>Same</b>	<b>Same/ more</b>

## Current prices for drugs

Table 5 present the prices paid for common retail quantities of different illegal drugs. Methamphetamine and crystal methamphetamine were both reported to cost \$100 for a ‘point’ (i.e. 0.1 of a gram). A single tab of LSD was reported to cost \$35 and a single pill of ecstasy (MDMA) was reported to cost \$60. The frequent ecstasy (MDMA) users paid a higher mean price for a point of crystal methamphetamine than either the frequent methamphetamine users (\$130 vs. \$95,  $p < 0.0001$ ) or the frequent injecting drug users (\$130 vs. \$98,  $p = 0.0003$ ). The frequent methamphetamine users paid a lower mean price for a pill of ecstasy than both the frequent ecstasy users (\$54 vs. \$60,  $p = 0.0177$ ) and the frequent injecting drug users (\$54 vs. \$64,  $p = 0.0103$ ). The injecting drug users paid a higher mean price for an ounce of cannabis than the frequent methamphetamine users (\$309 vs. \$291,  $p = 0.0446$ ). Frequent methamphetamine users reported a lower mean price paid for a tab of LSD than either the frequent ecstasy (MDMA) users (\$30 vs. \$36,  $p = 0.0044$ ) or the frequent injecting drug users (\$30 vs. \$44,  $p < 0.0001$ ). The frequent ecstasy (MDMA) users reported a lower price paid for a tab of LSD than the frequent injecting drug users (\$36 vs. \$44,  $p = 0.0048$ ).

Table 5: Price paid for different drug types by frequent drug users, 2006

CURRENT PRICE	Methamphetamine	Crystal Methamphetamine	Cannabis	LSD	Ecstasy (MDMA)	Cocaine	Opiates	GHB
Number with knowledge	n=144	n=76	n=229	n=117	n=190	n=24	n=87	n=20
Median price (\$)	\$100 point	\$100 point	\$20 foil	\$35 tab	\$60 pill	\$300 gram	\$100 for 100 milligrams	\$5.50 for a millilitre

## Change in prices for drugs in last six months

The drug types for which the greatest proportion of frequent drug users indicated a ‘decrease’ in price were ecstasy (22%) and methamphetamine (23%) (Table 6). The most stable prices were those for cannabis (74%), LSD (70%) and opiates (65%). Forty-one percent of the frequent drug users said the price of GHB was ‘increasing’. The average score for the change in the price of methamphetamine for all the frequent drug users was 1.9 which indicates that overall the price was ‘stable/fluctuating’ over the previous six months. The average score for the change in the price of crystal methamphetamine for all the frequent drug users was 2.1 which indicates that overall the price was ‘stable’ over the last six months. The average score for the change in the price of ecstasy (MDMA) for all the frequent drug users was 1.8 which indicates that the price was ‘stable/decreasing’ over the previous six months. The average score for the change in the price of cannabis for all the frequent drug users was 2.1 which indicates that overall the price of cannabis was ‘stable’ over the previous six months. The frequent injecting drug users were more likely to describe the price of

cannabis as ‘increasing’ than the frequent methamphetamine users (2.2 vs. 2.0,  $p=0.0114$ ). The average score for the change in the price of LSD for all the frequent drug users was 2.0 which indicates that overall the price of LSD was ‘stable’ over the past six months. The average score for the change in the price of opiates for all the frequent drug users was 2.0 which indicates that overall the price of opiates was ‘stable’ over the previous six months. The average score for the change in the price of cocaine for all the frequent drug users was 2.0 which indicates that overall the price of cocaine was ‘stable’ over the past six months.

Table 6: Change in price paid for different drug types in the last six months, 2006

<b>CHANGE IN PRICE</b>	<b>Meth-amphetamine</b>	<b>Crystal Methamphetamine</b>	<b>Cannabis</b>	<b>LSD</b>	<b>Ecstasy (MDMA)</b>	<b>Cocaine</b>	<b>Opiates</b>	<b>Ketamine</b>	<b>GHB</b>
<b>Number with knowledge</b>	n=155	n=98	n=269	n=117	n=187	n=24	n=106	n=7	n=22
<b>Decreasing [1]</b>	23%	11%	4%	10%	22%	19%	19%	14%	9%
<b>Stable [2]</b>	48%	61%	74%	70%	58%	63%	65%	29%	36%
<b>Fluctuating [2]</b>	12%	10%	10%	9%	12%	21%	5%	29%	14%
<b>Increasing [3]</b>	17%	17%	11%	10%	7%	8%	11%	29%	41%
<b>Average change in price score (1=decreasing – 3=increasing)</b>	1.9	2.1	2.1	2.0	1.8	2.0	2.0	2.1	2.3
<b>Overall current status</b>	<b>Stable/ fluctuating</b>	<b>Stable</b>	<b>Stable</b>	<b>Stable</b>	<b>Stable/ decreasing</b>	<b>Stable/ fluctuating</b>	<b>Stable</b>	<b>Stable/ fluctuating</b>	<b>Stable/ increasing</b>

## Drug related harm

The frequent drug users were asked whether their drug use had impacted on four general areas of their lives in the past six months (Table 7). The frequent injecting drug users were more likely to report financial problems related to their drug use than either the frequent methamphetamine users (72% vs. 54%,  $p=0.0139$ ) or the frequent ecstasy (MDMA) users (72% vs. 23%,  $p=0.0003$ ). The frequent ecstasy users were less likely to report legal/police problems related to their drug use than either the frequent methamphetamine users (7% vs. 33%,  $p=0.0003$ ) or the frequent injecting drug users (7% vs. 28%,  $p=0.0003$ ). The frequent ecstasy users were also less likely to report relationship/social problems related to their drug use than either the frequent methamphetamine users (26% vs. 72%,  $p=0.0003$ ) or the frequent injecting drug users (26% vs. 68%,  $p=0.0003$ ). There was no difference between the three groups of frequent drug users with respect to the level of work/study problems ( $p=0.1185$ ).

Table 7: Drug related harms by frequent drug user group, 2006

Different areas of life	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)	Combined modules (n=317)
Financial problems	54%	23%	72%	49%
Legal/police problems	33%	7%	28%	23%
Relationship/social problems	72%	26%	68%	55%
Work/study problems	54%	41%	47%	47%

## Drug related physical problems

The frequent drug users were asked if they had experienced any of a list of 22 physical problems from their drug use in the previous six months. The frequent drug users who reported physical problems from their drug use reported an average of nine physical problems in the past six months (median 9, range 1-22). The frequent ecstasy users reported a lower mean number of physical problems from their drug use than the frequent methamphetamine users (7 vs. 11 problems,  $p<0.0001$ ) and the frequent IDU (7 vs. 11 problems,  $p<0.0001$ ). The physical problems most often reported in relation to methamphetamine use were insomnia (87%), poor appetite (85%), weight loss (68%), profuse sweating (61%), heart palpitations (60%), headaches (59%), hot and cold flushes (59%) and tremors and shakes (57%). The physical problems most often reported in relation to ecstasy (MDMA) use were headaches (74%), poor appetite (64%), insomnia (59%),

hot and cold flushes (40%), heart palpitations (38%) and weight loss (35%). The physical problems most often reported in relation to opiate use were insomnia (78%), poor appetite (78%), hot and cold flushes (69%), weight loss (66%), profuse sweating (65%), muscular aches (65%) and joint pains (60%).

### Drug related psychological problems

The frequent drug users were also asked if they had experienced any of 19 psychological problems from their drug use in the previous six months. The frequent drug users who reported psychological problems from their drug use reported an average of nine psychological problems in the past six months (median 9, range 1-19) (Table 8). The frequent ecstasy users reported a lower mean number of psychological problems from their drug use than the frequent methamphetamine users (6 vs. 11 problems,  $p < 0.0001$ ) and the frequent IDU (6 vs. 10 problems,  $p < 0.0001$ ). The psychological problems most often reported in relation to methamphetamine use were poor concentration (80%), mood swings (79%), irritability (78%), short temper (75%), strange thoughts (74%), confusion (73%) and anxiety (72%). Thirty-three percent of the frequent methamphetamine users reported experiencing suicidal thoughts in relation to their methamphetamine use. The psychological problems most often reported in relation to opiate use were mood swings (73%), memory lapses (72%), loss of energy (72%), depression (70%) and irritability (69%). Thirty-one percent of the injecting drug users reported experiencing suicidal thoughts in relation to their opiate use.

Table 8: Drug related psychological problems by drug type, 2006

Drug type	Methamphetamine	Ecstasy (MDMA)	Opiates
Psychological problem	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)
Memory lapse	69%	50%	72%
Poor concentration	80%	53%	63%
Strange thoughts	74%	55%	44%
Mood swings	79%	44%	73%
Short temper	75%	30%	61%
Visual hallucinations	42%	45%	22%
Sound hallucinations	47%	40%	29%
Loss of sex urge	25%	17%	57%
Loss of energy	61%	40%	72%
Violent behaviour	36%	2%	19%
Anxiety	72%	32%	61%
Panic attacks	39%	8%	39%
Paranoia	70%	32%	51%
Depression	65%	30%	70%
Suicide thoughts	33%	7%	31%
Suicide attempts	7%	2%	11%
Confusion	73%	43%	54%
Irritability	78%	41%	69%
Flashbacks	33%	22%	24%

## Drug dependency

Eighty percent of the frequent injecting drug users were classified as dependent on opiates using a short dependency scale previously validated for a range of drug types. Fifty-nine percent of the frequent methamphetamine users were classified as dependent on methamphetamine. Nine percent of the frequent ecstasy (MDMA) users were classified as dependent on ecstasy

## Drug use and driving

Twenty-six percent of the frequent drug users reported that they had driven under the influence of alcohol in the previous six months. Sixty-four percent of the frequent drug users had driven under the influence of a drug other than alcohol in the past six months. The extent of driving under the influence of a drug is presented in Table 9. The frequent ecstasy (MDMA) users were less likely to have completed ‘most’ or ‘all’ of their driving under the influence of a drug than either the frequent methamphetamine users (5% vs. 33%,  $p=0.0003$ ) or the frequent injecting drug users (5% vs. 28%,  $p=0.0003$ ).

Table 9: Extent of driving under the influence of a drug (other than alcohol) by frequent drug user group, 2006

Driving under influence of drug other than alcohol	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
None	28%	43%	35%	36%
Hardly any	15%	36%	11%	21%
Some	23%	15%	26%	21%
Most	20%	4%	14%	13%
All	13%	1%	14%	9%

The two drug types which the frequent methamphetamine users most commonly drove under the influence of were methamphetamine (80%) and cannabis (71%). The two drug types which the frequent ecstasy users most commonly drove under the influence of were cannabis (71%) and ecstasy (MDMA) (46%). Twenty-nine percent of the frequent ecstasy users had driven under the influence of legal piperazine party pills. For the frequent injecting drug users, the two drug types which they most commonly drove under the influence of were cannabis (68%) and methamphetamine (44%). Only 15% of the frequent injecting drug users reported driving under the influence of opiates.

## Accessing health services

The frequent drug users were asked what health services, if any, they had accessed in relation to their drug use in the past six months. The frequent injecting drug users were more likely than the frequent methamphetamine users to have accessed an ambulance in relation to their drug use in the previous six months (12% vs. 3%,  $p=0.033$ ) (Table 10). The frequent ecstasy (MDMA) users were less likely to have visited a General Practitioner (i.e. Doctor) than either the frequent methamphetamine users (5% vs. 27%,  $p=0.0003$ ) or the frequent injecting drug users (5% vs. 36%,  $p=0.0003$ ). The frequent methamphetamine users were more likely to have visited a counsellor in relation to their drug use than either the frequent ecstasy users (33% vs. 5%,  $p=0.0003$ ) or the frequent injecting drug users (33% vs. 11%,  $p=0.0003$ ). The frequent ecstasy users were less likely to have visited a drug and alcohol worker in relation to their drug use than either the frequent methamphetamine users (3% vs. 38%,  $p=0.0003$ ) or the frequent injecting drug users (3% vs. 39%,  $p=0.0003$ ).

Table 10: Health services accessed in relation to drug use in the past six months by frequent drug user group, 2006

Health service	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)	Combined modules (n=317)
First Aid	2%	2%	10%	4%
Ambulance	3%	4%	12%	6%
Accident and Emergency	6%	7%	13%	9%
Hospital (admitted)	4%	2%	10%	5%
General Practitioner	27%	5%	36%	22%
Counsellor	33%	5%	11%	17%
Drug and Alcohol worker	38%	3%	39%	26%
Social worker	7%	0%	4%	4%
Psychologist	10%	0%	5%	5%
Psychiatrist	10%	0%	8%	6%

## **1. Introduction**

The IDMS is intended to serve as a strategic drug monitoring system to inform policy and strategic response to illegal drug use and drug related harm. It is designed to be sensitive to new trends in illegal drug use and drug related harm, and to provide ongoing monitoring of existing drug use and related harm. The IDMS provides detailed data on the harms and problems experienced by frequent drug users, and the extent to which they access health, medical and emergency services in relation to their drug use. The IDMS also collates a range of leading statistical indicators of changes in illegal drug use and drug related harm, such as national household drug survey data, drug seizure data, calls to the alcohol and drug help-line and admissions to drug treatment programmes.

The information provided by the IDMS is intended to be used by a wide range of people and organisations concerned with drug related harm and drug issues. The value of the IDMS will grow with the completion of each successive annual wave as trends in illegal drug use and drug related harm are able to be viewed over a number of years.

The IDMS is a collaborative project drawing on the knowledge and goodwill of people from a range of sectors including central government agencies, drug treatment organisations, drug health services, drug user groups and drug researchers. The success of the IDMS is a testimony to the commitment and cooperation of these people and organisations.

### **1.1 Aims of IDMS**

The principal aims of the IDMS are to:

- Track trends in illegal drug use;
- Detect the emergence of new illegal drug types;
- Document the availability, price, and purity of illegal drugs of greatest concern;
- Document the harms and problems users experience from the use of illegal drugs;
- Document social disruption related to illegal drug use.

## **1.2 Methodology**

The IDMS employs research methodologies which are successfully used in a number of countries to monitor trends in illegal drug use and drug related harm (Wilkins and Rose, 2003). The research methods used in the IDMS were initially developed and piloted during early research into the socio-economic impact of methamphetamine in New Zealand (see Wilkins et al., 2004). The IDMS proper was conducted for the first time in 2005, and it is intended that it will be conducted annually on an ongoing basis. The methodology of the IDMS will continue to be refined in these early years of operation in order to identify the configuration that most effectively monitors New Zealand's emerging illegal drug problems and related harm.

Three sources of information are used in the IDMS:

- (1) Face-to-face interviews with frequent illegal drug users in the community;
- (2) Telephone interviews with key experts (KE) who have regular contact with illegal drug users through their employment;
- (3) Secondary data sources on illegal drug use such as national household drug survey data, drug seizure statistics, admissions to hospital for drug related illness, admissions to drug treatment programmes, and calls to drug support and information lines.

The 2006 IDMS consisted of three modules based on the type of frequent illegal drug user recruited and interviewed: (i) the Methamphetamine Module, which interviewed at least monthly methamphetamine users; (ii) the Ecstasy (MDMA) Module, which interviewed at least monthly ecstasy users; and (iii) the Intravenous Drug Users (IDU) Module, which interviewed at least monthly injecting drug users. The frequent drug users interviewed for the study provide detailed information about their own recent drug use and related problems, and also information concerning the current prices, potency and availability of all other illegal drugs they may know about.

## **1.3 Survey of frequent drug users**

Frequent drug users are considered to be a sentinel group for detecting trends in illegal drug use as they generally use a number of drug types (rather than just one substance exclusively) and have knowledge of other drug types through interaction with drug using peers and drug dealers (see Wilkins et al., 2004). A total of 318 frequent drug users were interviewed for the 2006 IDMS, including 114 frequent methamphetamine

users, 111 frequent ecstasy (MDMA) users and 93 frequent injecting drug users. The frequent drug users interviewed for the study participated in an in-depth hour long interview. The questionnaire consisted of 14 sections with a total of over 250 possible questions. The interviews of the 318 frequent drug users thus generated an extensive data base of information of recent trends in drug use and related behaviour.

Recruitment and interviewing of the frequent drug users was carried out in the three main centres (i.e. Auckland, Wellington and Christchurch) from July to October 2006. In order to be eligible to be interviewed for the study a respondent had to be 16 years or older, have used one of the main drugs of interest approximately monthly or more often in the last six months, and have resided in the site location for the past 12 months. Participants were recruited through purposive sampling and ‘snowballing’ (Biernacki and Waldorf, 1981, Watters and Biernacki, 1989). Purposive sampling involves the use of targeted recruitment strategies and is used to reach hard-to-reach populations, such as illicit drug users, when general population sampling is not feasible. ‘Snowballing’ is a peer recruitment strategy where interviewers ask those who have recently been interviewed to recommend the study to their friends and social acquaintances.

In order to ensure that a broadly representative sample of frequent drug users is interviewed for the study, a range of ‘start points’ for recruitment are chosen, based on the demographic profile of users and an understanding of the venues and locations where they are likely to congregate in a given site (see Wilkins et al., 2004, Wilkins et al., 2005d, Wilkins et al., 2005e). The information collected in the IDMS is not intended to be representative of drug use in the general New Zealand population, but rather to be indicative of emerging trends in drug use and drug related harm in New Zealand.

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 protocols and procedures used to collect and store the data for the project were approved by the Massey University Human Subjects Ethics Committee. All participants were offered a \$20 food or music voucher to compensate them for their time.

#### **1.4 Survey of key experts (KE)**

Key experts (KE) are people who have had regular contact with frequent drug users through their work in the preceding six months. A total of 27 KE were interviewed for the 2006 IDMS including those working in alcohol and drug treatment agencies, youth services, prisons, needle exchanges, Womens Refuge, hospital emergency departments, the Prostitutes Collective, New Zealand Drug Foundation, law enforcement, social agencies and local pharmacies.

## 1.5 Secondary data sources

A range of secondary data sources were used in the study to place the reports of the frequent drug users and KE's in wider context. Secondary data sources included in this report are:

- 2003 Health Behaviours Survey: Drug Use (HBS-Drug Use)
- 2006 national household survey data on drug use,
- Statistics on hospital admissions for drug related illness
- Drug seizure data
- Call statistics from the Drug and Alcohol Help-line
- Drug treatment admission statistics

## 1.6 Analysis

Statistical testing was carried out to identify differences between the frequent methamphetamine users, frequent ecstasy (MDMA) users and frequent injecting drug users for a range of drug measures collected in the study. Testing for differences in proportions (e.g. yes/no questions) was done using Fisher's exact test. A p-value of greater than 0.05 was defined as indicating no evidence of any differences between the three groups. If a p-value of less than 0.05 was obtained, three Fisher's exact tests were used to test for differences between each pair-wise combination of modules. The three p-values were adjusted for using Holm's step-down procedure to maintain an overall alpha level of 0.05. One-way ANOVA's with Tukey-Kramer post-hoc adjustments were used to test for differences between means. Differences between medians were tested using non-parametric one-way ANOVAs. If a p-value of less than 0.05 was obtained, three -parametric one-way ANOVAs were used to test for differences between each pair-wise combination of modules. The three p-values were adjusted for using Holm's step-down procedure to maintain an overall alpha level of 0.05. Scale-type questions such as difficulty of obtaining a drug or perceived health risk of using a drug were allocated scores (e.g. very difficult=4, difficult=3, easy=2 and very easy=1). Differences between the mean scores were tested using one-way ANOVAs with Tukey-Kramer post-hoc adjustments. One-way ANOVAs assume the samples tested form a normal distribution. With scale-type questions such an assumption can never be met as the scores are based on discrete data however frequency tables show the distribution of data as being mound shaped, providing an approximation of a normal probability distribution. All analysis was run using SAS software.

The national drug prevalence data from the 2003 Health Behaviour Survey – Drug Use (2003 HBS-Drug Use) and from the 2006 national household survey of legal party pill use was used to compare levels of drug use in the general New Zealand population for those aged 13-45 years old for 2003 and 2006. A complete national household drug survey was conducted in New Zealand in 2003 as the 2003 HBS-Drug Use, using a

Computer Assisted Telephone Interview (CATI) methodology. The 2003 HBS-Drug Use surveyed those aged 13-65 years old with an over-sample of Maori. It was directly funded by the Ministry of Health. The 2006 data was collected as part of the 2006 national survey of legal party pill use which used the same CATI methodology as the 2003 HBS-Drug Use (see Wilkins et al., 2006a). The core drug prevalence questions only from the 2003 HBS-Drug Use were asked of all people contacted in the national party pill survey regardless of any use of party pills. The age range of the party pill survey was 13-45 year olds. The party pill survey was funded from the National Drug Policy Discretionary Fund which is a contestable research pool jointly managed by the Inter-Agency Committee of Drugs (IACD) and the Ministerial Committee on Drug Policy (MCDP). We are also able to comment on previous trends found in the population use of different drug types back to national household surveying in 2001 and 1998.

## 2. Demographics of sample

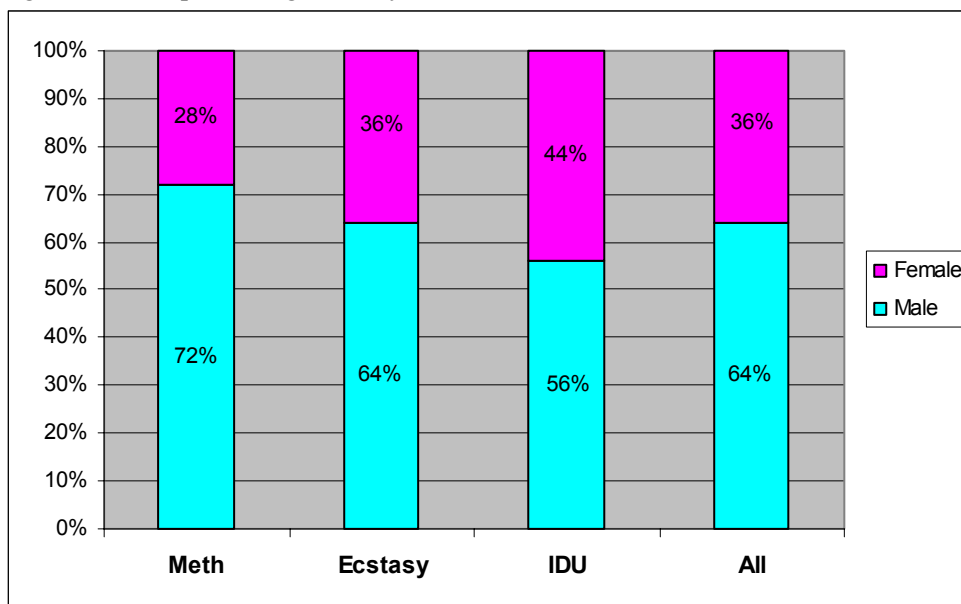
### 2.1 Introduction

This chapter presents the demographic characteristics of the frequent drug users interviewed for the 2006 IDMS. The demographic characteristics of the sample are presented by type of drug recruited for, and as a combined sample of all the frequent drug users interviewed.

### 2.2 Gender

Figure 2.1 presents the frequent drug users by gender. Overall, 64% of the frequent drug users were male and this is consistent with the demographic profile of drug users interviewed for the national household drug survey (see Wilkins et al., 2005d) (Figure 2.1).

Figure 2.1: Frequent drug users by sex, 2006



### 2.3 Age

The age of the frequent drug users ranged from 16-58 years old (Table 2.1). The median age of the whole sample was 26 years (mean 28 years). The frequent ecstasy users had a lower mean age than either the frequent methamphetamine users (23 years vs. 30 years,  $p < 0.0001$ ) or the frequent injecting drug users (23 years vs. 32 years,  $p < 0.0001$ ).

Table 2.1: Frequent drugs users by age, 2006

Age (years)	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=91)	Combined modules (n=316)
Median age (years)	29	23	32	26
Mean age (years)	30	23	32	28
Range age (years)	16-58	17-40	16-57	16-58

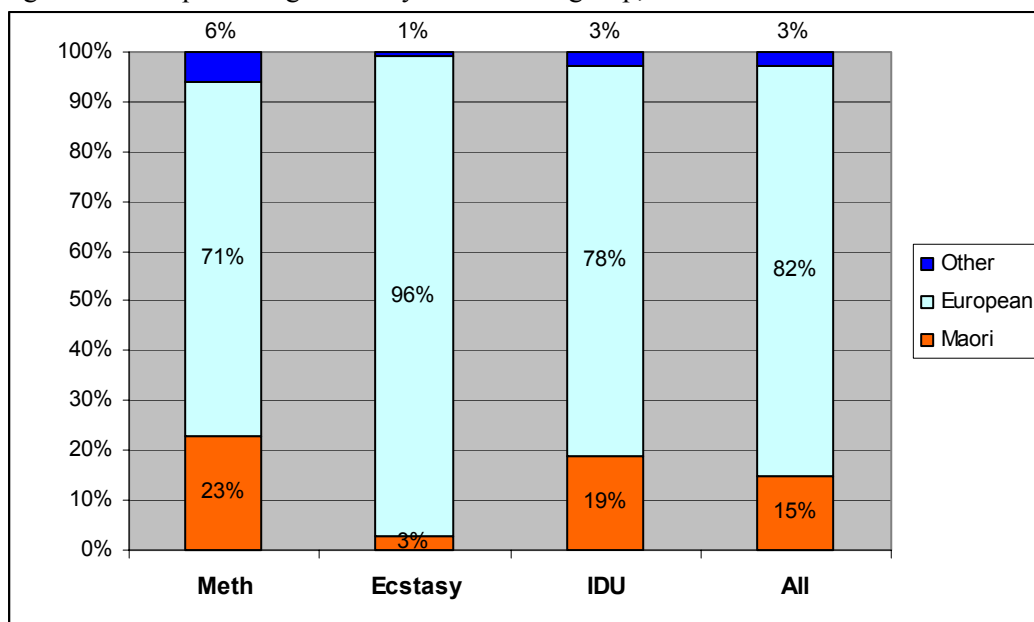
## 2.4 Ethnicity

The primary ethnicity of the frequent drug users is detailed in Table 2.2. Eight-two percent of the frequent drug users were European, 15% were Maori, 2% were Pacific Islanders and 1% Asian. More of the frequent ecstasy users were European than either the frequent methamphetamine users (96% vs. 71%,  $p=0.0003$ ) or the frequent injecting drug users (96% vs. 78%,  $p=0.0006$ ) (Figure 2.2).

Table 2.2: Frequent drugs users by ethnicity, 2006

Ethnicity	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
European	71%	96%	78%	82%
Maori	23%	3%	19%	15%
Pacific Island	3%	1%	1%	2%
Asian	1%	1%	0%	1%
Other	3%	0%	1%	1%

Figure 2.2: Frequent drugs users by main ethnic group, 2006



## 2.5 Employment status

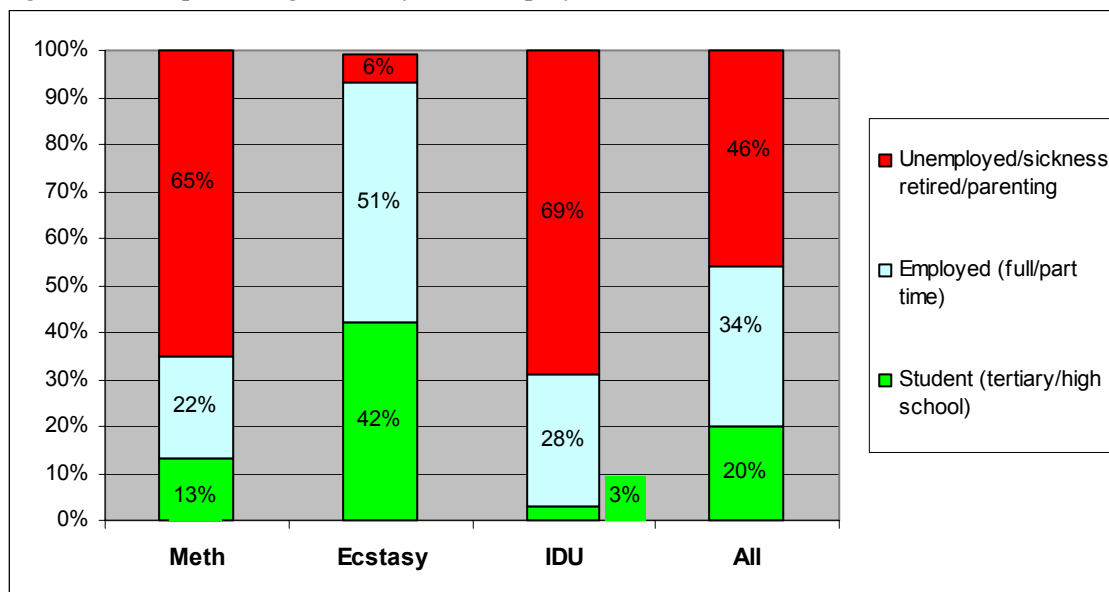
Table 2.3 details the employment status of the frequent drug users interviewed. Thirty-four percent of the frequent drug users were employed (i.e. either part-time or full time employment) and 21% were students (i.e. high school or tertiary students). Forty-one percent were either unemployed, sick or invalid (Table 2.3).

Table 2.3: Frequent drug users by employment status, 2006

Employment status	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
School student	0%	5%	1%	2%
Tertiary student	13%	38%	2%	19%
Working (full-time)	14%	44%	14%	25%
Working (part-time/casual)	8%	7%	14%	9%
Unemployed	11%	3%	14%	9%
Sick or invalid	50%	3%	45%	32%
Retired	1%	0%	0%	<1%
Parenting/care-giving or doing unpaid work at home	1%	1%	6%	3%
Doing illegal work	1%	0%	2%	1%
Other	1%	0%	1%	<1%

The frequent ecstasy users were more likely to be employed than either the frequent methamphetamine users (51% vs. 22%,  $p=0.0003$ ) or the frequent injecting drug users (51% vs. 28%,  $p=0.002$ ) (Figure 2.3). More frequent ecstasy users were students (i.e. school/ tertiary) than either the frequent methamphetamine users (42% vs. 13%,  $p=0.0003$ ) or the frequent injecting drug users (42% vs. 3%,  $p=0.0003$ ). The frequent methamphetamine users were more likely to be students than the frequent injecting drug users (13% vs. 3%,  $p=0.0128$ ).

Figure 2.3: Frequent drugs users by main employment status 2006,



## 2.6 Accommodation

The frequent drug users interviewed for the study were asked what type of accommodation they were currently living in. Sixty-seven percent lived in their own private houses with a further 10% living in their parents' or family's private house (Table 2.4). Overall, 12% of the frequent drug users were currently living at a drug treatment residence. There was some difference in type of accommodation between the different types of frequent drug users. Thirty-three percent of the frequent methamphetamine users were living at a drug treatment residence compared to only 1% of the injecting drug user sample. None of the frequent ecstasy users were currently living at a drug treatment residence.

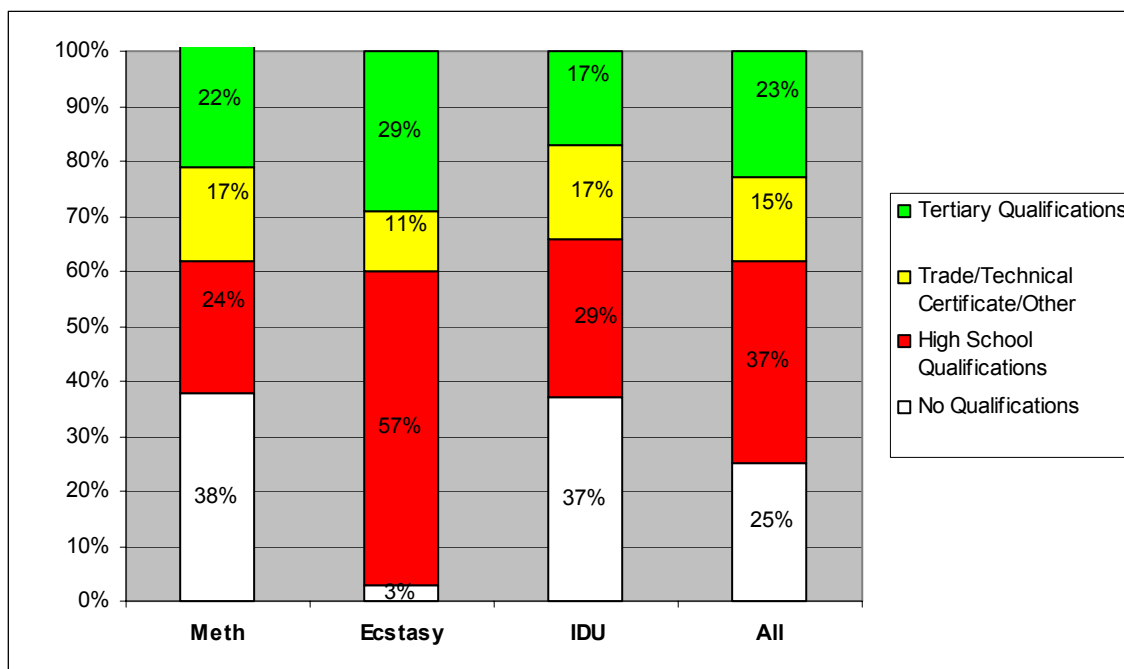
Table 2.4: Frequent drugs users by type of current accommodation type, 2006

Accommodation type	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
Own house	6%	8%	5%	7%
Rented house	42%	73%	68%	60%
Parents/family house	6%	16%	9%	10%
Boarding house/hostel	5%	2%	16%	7%
Shelter/refuge	4%	0%	1%	2%
Drug treatment residence	33%	0%	1%	12%
No fixed address/homeless	3%	1%	5%	2%

## 2.7 Education

The frequent drug users were asked what was their highest level of educational achievement. Twenty-five percent of the frequent drug users had no educational qualifications, 37% had a high school qualification, 15% a trade qualification and 23% a tertiary qualification (Figure 2.4). The frequent ecstasy users were less likely to have no educational qualifications than either the frequent methamphetamine users (3% vs. 38%,  $p=0.0003$ ) or the frequent injecting drug users (3% vs. 37%,  $p=0.0003$ ).

Figure 2.4: Frequent drugs users by highest educational achievement, 2006



## 2.8 Sexual orientation

The frequent drug users were read four categories of sexual orientation and were asked which best described their own sexual identity. Due to the small numbers of participants indicating non-heterosexual orientations, we do not present a comparison of specific sexual orientation by frequent drug user group. Figure 2.5 presents the specific sexual orientation of the entire sample of frequent drug users. Eighty-eight percent were heterosexual ( $n=280$ ), 9% were bisexual ( $n=28$ ), 2% were gay males ( $n=7$ ) and 1% lesbian females ( $n=3$ ).

Figure 2.5: Frequent drugs users by sexual orientation, 2006

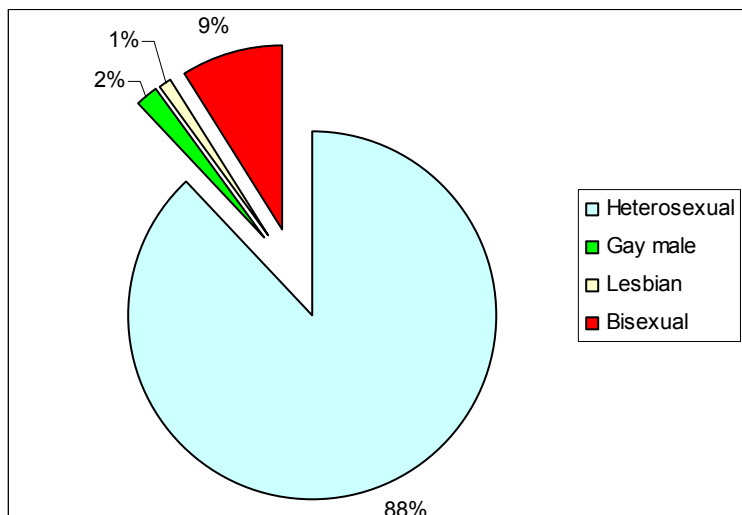


Table 2.5 presents the frequent drugs users by broad sexual orientation (i.e. heterosexual vs. non-heterosexual). More of the frequent injecting drug users were non-heterosexual than the frequent ecstasy users (19% vs. 6%,  $p=0.0162$ ).

Table 2.5: Frequent drug users by broad sexual orientation, 2006

Broad sexual orientation	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
Heterosexual	89%	94%	81%	88%
Non-heterosexual	11%	6%	19%	12%

## 2.9 Marital status

Table 2.6 presents the marital status of the frequent drug users. Fifty percent were single, 41% were in regular relationships (i.e. regular partner/ defacto/ married), and 9% were separated, divorced or widowed. The frequent methamphetamine users were less likely to be in a regular relationship (i.e. married/ defacto/ with a regular partner) than either the frequent ecstasy users (29% vs. 48%,  $p=0.0072$ ) or frequent injecting drug users (29% vs. 48%,  $p=0.0118$ ).

Table 2.6: Frequent drugs users by marital status, 2006

Marital status	Methamphetamine users (n=113)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=317)
Married/ defacto	12%	14%	26%	17%
With a regular partner	17%	34%	22%	24%
Single	58%	50%	39%	50%
Separated	6%	1%	10%	5%
Divorced	4%	1%	4%	3%
Widow	3%	0%	0%	1%

## 2.10 Income

Table 2.7 presents the total gross annual income (i.e. both legal and illegal) of the frequent drug users. Some frequent drug users reported very high annual incomes which skewed the mean annual income earned for the groups and made comparison of median income a more accurate point of comparison. Comparison of the median incomes of the different groups of frequent drug users showed that the frequent methamphetamine users had a higher median income than the frequent injecting drug users (\$35,000 vs. \$22,500,  $p=0.0042$ ).

Table 2.7: Frequent drugs users by income, 2006

Gross Annual income (legal + illegal)	Methamphetamine users (n=103)	Ecstasy users (MDMA) (n=103)	Intravenous drug users (IDU) (n=86)	Combined modules (n=292)
Median income	\$35,000	\$27,500	\$22,500	\$27,500
Mean income	\$57,597	\$32,500	\$34,593	\$41,969
Range income	\$0-\$600,000	\$2,500-\$325,000	\$0-\$600,000	\$0-\$600,000

The frequent injecting drug users were more likely to earn less than \$20,000 gross annual income than either the frequent methamphetamine users (47% vs. 28%,  $p=0.0306$ ) or the frequent ecstasy users (47% vs. 30%,  $p=0.048$ ).

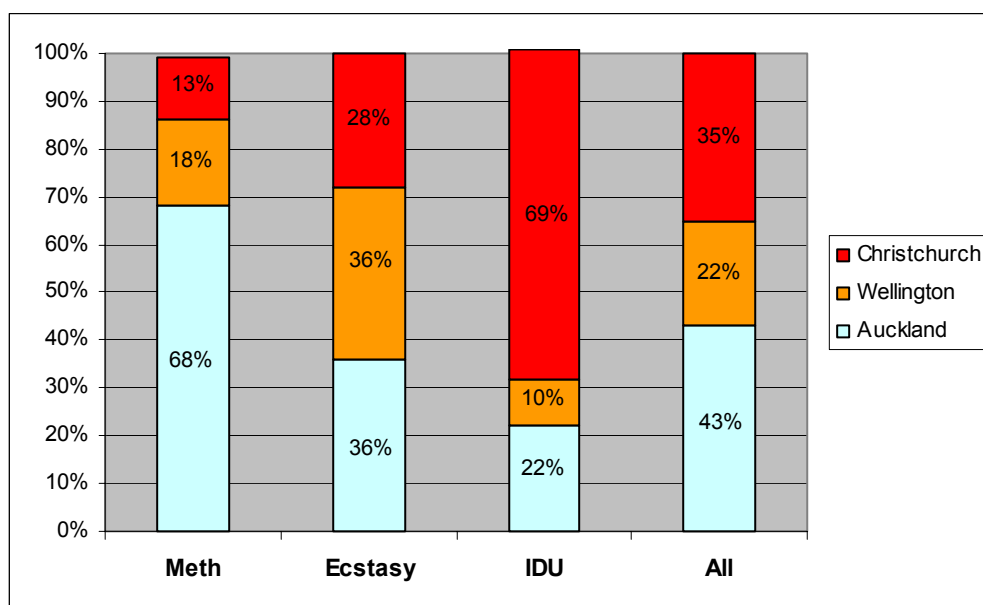
Table 2.8: Frequent drug users by income group, 2006

Income	Methamphetamine users (n=103)	Ecstasy users (MDMA) (n=103)	Intravenous drug users (IDU) (n=86)	Combined modules (n=292)
0-\$20,000	28%	30%	47%	34%
\$20,001-\$50,000	45%	62%	42%	50%
\$50,001-\$100,000	15%	6%	8%	10%
\$100,000+	13%	2%	3%	6%

## 2.11 Location

The IDMS sample of frequent drug users is not intended to be representative of drug use in the general population, or of drug use in the centres where recruitment takes place. However, when we employed the same promotion and recruitment methods in each of the three sites we obtained three quite different samples of frequent drug users which may indicate some local variation in drug use. Epidemiological research is required to establish whether the local differences found reflect real differences in drug use between localities or were merely some function of the way the drug using populations responded to the study in each location. Higher proportions of frequent injecting drug users were recruited in Christchurch while higher proportions of frequent methamphetamine users were recruited in Auckland (Figure 2.6). Frequent ecstasy users were fairly evenly recruited in the three sites. The higher proportions of frequent methamphetamine users recruited in Auckland is consistent with previous findings from the national household drug survey which found higher proportions of amphetamine use in Auckland and the upper half of the North Island (Wilkins et al., 2005d).

Figure 2.6: Frequent drugs users by location, 2006



## 2.12 Drug treatment

The frequent drug users interviewed were asked if they were currently in any form of drug treatment. Overall, 29% of the frequent drug users reported they were in some form of drug treatment. The frequent ecstasy users were less likely to currently be in drug treatment than either the frequent methamphetamine users (4% vs. 44%,  $p=0.0003$ ) or the frequent injecting drug users (4% vs. 41%,  $p=0.0003$ ).

The frequent drug users were also asked if they had ever been in a methadone programme. Thirteen percent indicated that they were currently in a methadone program and a further 7% said they had been in a methadone program in the past. More of those among the frequent injecting drug users than frequent methamphetamine users reported they had ever been in a methadone program (53% vs. 13%,  $p=0.0003$ ). No frequent ecstasy users reported ever been in a methadone program.

### **2.13 Previously interviewed for the IDMS**

The frequent drug users were asked if they had previously been interviewed for the IDMS. Two percent of the frequent drug users ( $n=7$ ) indicated they had participated in the previous 2005 wave of the IDMS.

### **2.14 Summary of the demographics of the frequent drug users**

- Two thirds of the frequent drug users were male, with 72% of the frequent methamphetamine users male
- The median age of the frequent drug users was 26 years old. The frequent ecstasy users were younger than either the frequent methamphetamine users or the frequent injecting drug users
- Eighty-two percent of the frequent drug users were European with 15% Maori. Maori were more likely to frequent methamphetamine users or frequent injecting drug users than frequent ecstasy users
- Forty-one percent of the frequent drug users were unemployed, sick or invalid. Only 34% of the frequent drug users were employed with 20% students (i.e. high school and tertiary). Frequent methamphetamine users and frequent injecting drug users were less likely to be employed than the frequent ecstasy users
- Twenty-five percent of the frequent drug users had no educational qualifications. Frequent methamphetamine users and frequent injecting drug users were more likely to have no educational qualifications than the frequent ecstasy users
- Twelve percent of the frequent drug users identified as non-heterosexual
- The frequent drug users had a median annual gross income of \$27,500. The injecting drug users were more likely to earn less than \$20,000 gross annual income than the frequent methamphetamine users or the frequent ecstasy (MDMA) users

### 3. Patterns of drug use

#### 3.1 Introduction

The frequent drug users were asked a series of questions about their lifetime and recent use of a range of different drug types including alcohol, tobacco, amphetamines, hallucinogens, opiates, pharmaceuticals and so called 'legal highs'. The frequent drug users were asked detailed questions about their patterns of use of these drug types, how they administered them and their age of first use. The findings are presented by the drug recruited for and for the combined sample of frequent drug users.

#### 3.2 Prevalence of use

High proportions of the frequent drug users reported lifetime use of cannabis (99%), alcohol (98%), tobacco (86%), ecstasy (MDMA) (85%), LSD (84%), amphetamine sulphate (80%), methamphetamine (75%) and legal piperazine party pills (73%). The frequent drug users had tried an average of 13 drug types in their lifetimes (median 13, range 5-22). The frequent injecting drug users had used a greater average number of drug types than the frequent methamphetamine users in their lifetimes (15 vs. 13 drug types,  $p=0.0251$ ). The frequent methamphetamine users had used a greater average number of drug types than the frequent ecstasy users in their lifetimes (13 vs. 11 drug types,  $p=0.0003$ ).

Alcohol (13 years old), tobacco (14 years old) and cannabis (14 years old) were the drug types which the frequent drug users had on average first tried. The relatively high mean age at which the frequent drug users had tried crystal methamphetamine (25 years old) and legal piperazine party pills (22 years old) is likely to reflect the fact that these drug types have only become available in recent years.

The frequent drug users had used an average of seven drug types in the previous six months (median 7, range 1-18). There was no statistically significant difference between the samples of frequent drug users with respect to the number of drugs used in the last six months ( $p=0.4214$ ). The drug types most commonly used by the frequent drug users in the previous six months were alcohol (85%), cannabis (85%), tobacco (75%), ecstasy (MDMA) (61%), methamphetamine (55%), legal piperazine party pills (42%), LSD (35%), other opiates (32%), crystal methamphetamine (32%) and benzodiazepines (30%). The frequent injecting drug users were more likely than the frequent ecstasy (MDMA) users to have used methamphetamine in the previous six months (40% vs. 23%,  $p=0.0094$ ) (Table 3.1). The frequent methamphetamine users were more likely than the frequent injecting drug users to have used ecstasy (MDMA) in the previous six months (49% vs. 29%,  $p=0.0043$ ). The frequent methamphetamine users were more likely to have used crystal methamphetamine in the last six months than either the frequent injecting drug users (80% vs. 55%,

p=0.0003) or the frequent ecstasy (MDMA) users (80% vs. 20%, p=0.0003). The frequent injecting drug users were more likely than the frequent ecstasy (MDMA) users to have used crystal methamphetamine in the previous six months (55% vs. 20%, p=0.0003). The frequent ecstasy (MDMA) users were more likely than the frequent methamphetamine users to have used MDA in the previous six months (16% vs. 5%, p=0.0276).

Table 3.1: Lifetime use and use in the last six months of stimulants, 2006

STIMULANTS	Prevalence of use/ age of first use	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
Methamphetamine (meth, P, pure)	Ever tried	100%	50%	73%	75%
	Last six months (%)	100%	23%	40%	55%
	Median age first used	23 years	19 years	25 years	22 years
Crystal methamphetamine (shabu, crystal)	Ever tried	80%	20%	55%	52%
	Last six months (%)	66%	5%	24%	32%
	Median age first used	25 years	21 years	25 years	25 years
Amphetamine sulphate (uppers, speed)	Ever tried	86%	74%	80%	80%
	Last six months (%)	25%	32%	18%	25%
	Median age first used	18 years	19 years	18 years	18 years
Ecstasy (MDMA)	Ever tried	84%	100%	70%	85%
	Last six months (%)	49%	100%	29%	61%
	Median age first used	22 years	18 years	21 years	20 years
MDA (Methylene-dioxyamphetamine)	Ever tried	22%	30%	22%	25%
	Last six months (%)	5%	16%	8%	10%
	Median age first used	22 years	20 years	22 years	21 years
Cocaine (coke, blow)	Ever tried	64%	41%	47%	51%
	Last six months (%)	16%	22%	9%	8%
	Median age first used	21 years	21 years	22 years	21 years

The frequent injecting drug users were more likely to have used heroin in the past six months than the frequent methamphetamine users (24% vs. 9%, p=0.0056) (Table 3.2). No frequent ecstasy (MDMA) users reported using heroin in the previous six months. The frequent injecting drug users were more likely to have

used other opiates in the previous six months than the frequent methamphetamine users (77% vs. 18%,  $p=0.0003$ ). There was no statistically significant difference between the frequent methamphetamine users and the frequent ecstasy (MDMA) users with respect to the level of other opiate use (18% vs. 10%,  $p=0.1219$ ).

Table 3.2: Lifetime use and use in the last six months of opiates, 2006

OPIATES	Prevalence of use/ age of first use	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
Heroin (smack, junk)	Ever tried	31%	9%	71%	35%
	Last six months (%)	9%	0%	24%	10%
	Median age first used	19 years	20 years	19 years	19 years
Other opiates (morphine, misties, homebake, M-Eslon, Kapanol)	Ever tried	55%	22%	95%	55%
	Last six months (%)	18%	10%	77%	32%
	Median age first used	22 years	19 years	18 years	19 years
Methadone	Ever tried	30%	8%	85%	38%
	Last six months (%)	15%	2%	74%	28%
	Median age first used	26 years	19 years	22 years	23 years

The frequent ecstasy (MDMA) users were more likely than the frequent injecting drug users to have used LSD in the previous six months (49% vs. 20%,  $p=0.0003$ ) (Table 3.3). The frequent ecstasy (MDMA) users were also more likely than the frequent injecting drug users to have used magic mushrooms in the previous six months (17% vs. 5%,  $p=0.0273$ ).

Table 3.3: Lifetime use and use in the last six months of hallucinogens, 2006

HALLUCINOGENS	Prevalence of use/ age of first use	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
LSD (acid, trips, tabs)	Ever tried	82%	80%	90%	84%
	Last six months (%)	34%	49%	20%	35%
	Median age first used	18 years	18 years	17 years	18 years
Mushrooms (psilocybin)	Ever tried	25%	25%	13%	22%
	Last six months (%)	11%	17%	5%	12%
	Median age first used	18 years	18 years	16 years	18 years

The frequent ecstasy (MDMA) users were more likely to have used alcohol in the last six months than either the frequent methamphetamine users (98% vs. 86%,  $p=0.0018$ ) or the frequent injecting drug users (98% vs. 68%,  $p=0.0003$ ) (Table 3.4). The frequent methamphetamine users were more likely than the frequent injecting drug users to have used alcohol in the previous six months (86% vs. 68%,  $p=0.0023$ ). The frequent ecstasy (MDMA) users were less likely to have smoked tobacco in the last six months than either the frequent methamphetamine users (61% vs. 81%,  $p=0.0024$ ) or the frequent injecting drug users users (61% vs. 86%,  $p=0.0003$ ).

Table 3.4: Lifetime use and use in the last six months of alcohol/tobacco/cannabis, 2006

<b>ALCOHOL/ TOBACCO/ CANNABIS</b>	<b>Prevalence of use/ age of first use</b>	<b>Methamphetamine users (n=114)</b>	<b>Ecstasy users (MDMA) (n=111)</b>	<b>Intravenous drug users (IDU) (n=93)</b>	<b>Combined modules (n=318)</b>
Alcohol	Ever tried	97%	99%	99%	98%
	Last six months (%)	86%	98%	68%	85%
	Median age first used	13 years	14 years	13 years	13 years
Tobacco	Ever tried	90%	77%	94%	86%
	Last six months (%)	81%	61%	86%	75%
	Median age first used	13 years	14 years	13 years	14 years
Cannabis (marijuana, dak, weed)	Ever tried	98%	99%	100%	99%
	Last six months (%)	86%	92%	80%	85%
	Median age first used	14 years	15 years	14 years	14 years

The frequent injecting drug users were more likely to have used Ritalin in the last six months than either the frequent methamphetamine users (43% vs. 21%,  $p=0.0018$ ) or the frequent ecstasy users (43% vs. 13%,  $p=0.0003$ ) (Table 3.5). The frequent injecting drug users were also more likely to have used benzodiazepines in the previous six months than either the frequent methamphetamine users (57% vs. 25%,  $p=0.0003$ ) or the frequent ecstasy users (57% vs. 13%,  $p=0.0003$ ). The frequent methamphetamine users were also more likely than the frequent ecstasy (MDMA) users to have used benzodiazepines in the previous six months (25% vs. 13%,  $p=0.026$ ).

Table 3.5: Lifetime use and use in the last six months of pharmaceuticals, 2006

PHARMACEUTICALS	Prevalence of use/ age of first use	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
Benzodiazepines (valium)	Ever tried	47%	26%	85%	51%
	Last six months (%)	25%	13%	57%	30%
	Median age first used	18 years	20 years	18 years	18 years
Anti-depressants	Ever tried	13%	8%	19%	13%
	Last six months (%)	5%	3%	9%	5%
	Median age first used	20 years	16 years	20 years	20 years
Ritalin (methylphenidate)	Ever tried	48%	39%	74%	53%
	Last six months (%)	21%	13%	43%	25%
	Median age first used	27 years	18 years	25 years	22 years
Ketamine (Special K)	Ever tried	32%	33%	24%	30%
	Last six months (%)	6%	11%	4%	7%
	Median age first used	23 years	21 years	25 years	22 years

The frequent ecstasy (MDMA) users were more likely to have used legal piperazine party pills in the previous six months than either the frequent methamphetamine users (65% vs. 30%,  $p=0.0003$ ) or the frequent injecting drug users (65% vs. 30%,  $p=0.0003$ ) (Table 3.6). The frequent ecstasy (MDMA) users were also more likely to have used nitrous oxide in the previous six months than either the frequent methamphetamine users (49% vs. 15%,  $p=0.0003$ ) or the frequent injecting drug users (49% vs. 22%,  $p=0.0003$ ) (Table 3.7). The frequent methamphetamine users were more likely to have used GHB in the previous six months than the frequent injecting drug users (13% vs. 3%,  $p=0.0384$ ).

Table 3.6: Lifetime use and use in the last six months of 'legal highs', 2006

LEGAL HIGHS	Prevalence of use/ age of first use	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
Legal piperazine party pills (Charge, Kandi, Red Hearts)	Ever tried	75%	91%	49%	73%
	Last six months (%)	30%	65%	30%	42%
	Median age first used	26 years	19 years	27 years	22 years
Amyl/Butyl nitrate (rush)	Ever tried	45%	51%	70%	54%
	Last six months (%)	11%	18%	16%	15%
	Median age first used	19 years	18 years	17 years	18 years

Table 3.7: Lifetime use and use in the last six months of other drugs, 2006

OTHER DRUGS	Prevalence of use/ age of first use	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
GHB (GBH, liquid ecstasy, Fantasy, One4B)	Ever tried	36%	35%	23%	32%
	Last six months (%)	13%	11%	3%	8%
	Median age first used	27 years	21 years	27 years	23 years
Solvents (glue, paint, petrol)	Ever tried	30%	12%	39%	26%
	Last six months (%)	1%	0%	2%	1%
	Median age first used	15 years	15 years	15 years	15 years
Nitrous oxide (Nos, laughing gas)	Ever tried	60%	92%	69%	74%
	Last six months (%)	15%	49%	22%	29%
	Median age first used	21 years	21 years	22 years	19 years

### 3.3 Patterns of use

The frequent drug users were asked about the number of days they had used a drug, the quantity of the drug they used on a typical occasion and the greatest quantity of the drug they had used on a single occasion, in the previous six months. The results are presented in Tables 3.8-3.14. The drug types which the frequent drug users had used on the greatest mean number of days in the previous six months were tobacco (153 days), cannabis (97 days), methadone (90 days), other opiates (68 days), heroin (60 days), alcohol (55 days), crystal methamphetamine (median 52 days), and methamphetamine (median 49 days). The frequent drug users had used ecstasy (MDMA) on a mean of only eight days in the previous six months. Similarly LSD had only been used by the frequent drug users on a mean of five days in the previous six months. Legal piperazine party pills had been used by the frequent drug users on a mean of eight days in the past six months.

Table 3.8: Patterns of use stimulant use in the last six months, 2006

STIMULANTS	Patterns of use	Methamphetamine users	n	Ecstasy users (MDMA)	n	Intravenous drug users (IDU)	n	Combined modules	n
Methamphetamine	Days used in last six months (mean)	59 days	114	13 days	25	43 days	37	49 days	176
	Quantity used single occasion (mean)	2 points (0.2 grams)	110	1 point (0.1 grams)	24	2 point (0.2 grams)	36	2 points (0.2 grams)	170
	Greatest quantity used single occasion (mean)	7 points (0.7 grams)	108	3 points (0.3 grams)	23	4 points (0.4 grams)	35	6 points (0.6 grams)	166
Crystal methamphetamine	Days used in last six months (mean)	56 days	74	31 days	6	42 days	22	52 days	102
	Quantity used single occasion (mean)	3 points (0.3 grams)	73	1 point (0.1 grams)	6	2 point (0.2 grams)	22	2 points (0.2 grams)	101
	Greatest quantity used single occasion (mean)	8 points (0.8 grams)	71	3 points (0.3 grams)	5	4 points (0.4 grams)	22	7 points (0.7 grams)	98
Amphetamine sulphate	Days used in last six months (mean)	19 days	29	5 days	35	19 days	17	13 days	81
	Quantity used single occasion (mean)	1.0 gram	25	1.0 gram	27	3.7 grams	22	1.5 grams	65
	Greatest quantity used single occasion (mean)	1.8 grams	25	1.2 grams	27	4.5 grams	12	2.1 grams	64
Ecstasy (MDMA)	Days used in last six months (mean)	7 days	56	9 days	111	6 days	27	8 days	194
	Quantity used single occasion (mean)	1.4 pills	56	1.3 pills	111	1.4 pills	26	1.4 pills	193
	Greatest quantity used single occasion (mean)	2.4 pills	56	2.4 pills	111	1.9 pills	26	2.3 pills	193
MDA	Days used in last six months (mean)	1 day	6	4 days	18	6 days	7	4 days	31
	Quantity used single occasion (mean)	1.4 capsules	4	1.2 capsules	18	2.6 capsules	6	1.5 capsules	28
	Greatest quantity used single occasion (mean)	1.5 capsules	4	1.8 capsules	16	2.6 capsules	6	2.0 capsules	26
Cocaine	Days used in last six months (mean)	5 days	12	2 days	10	9 days	4	4 days	26
	Quantity used single occasion (mean)	1.2 grams	10	0.7 grams	8	3.7 grams	4	1.5 grams	22
	Greatest quantity used single occasion (mean)	2.4 grams	10	0.9 grams	8	4.1 grams	4	2.2 grams	22

Table 3.9: Patterns of opiate use in the last six months, 2006

OPIATES	Patterns of use	Methamphetamine users	n	Ecstasy users (MDMA)	n	Intravenous drug users (IDU)	n	Combined modules	n
Heroin	Days used in last six months (mean)	35 days	9	0	0	71 days	21	60 days	30
Other opiates	Days used in last six months (mean)	41 days	20	6 days	11	85 days	72	68 days	103
Methadone	Days used in last six months (mean)	93 days	17	6 days	2	92 days	68	90 days	87

Table 3.10: Patterns of hallucinogen use in the last six months, 2006

HALLUCINOGENS	Patterns of use	Methamphetamine users	n	Ecstasy users (MDMA)	n	Intravenous drug users (IDU)	n	Combined modules	n
LSD	Days used in last six months (mean)	7 days	39	4 days	54	3 days	19	5 days	112
	Quantity used single occasion (mean)	1.1 tabs	38	1.0 tab	54	1.0 tab	19	1.0 tab	111
	Greatest quantity used single occasion (mean)	1.8 tabs	38	1.5 tabs	54	1.2	19	1.5 tabs	111
Hallucinogenic mushrooms	Days used in last six months (mean)	4 days	13	6 days	19	3 days	5	5 days	37

Table 3.11: Patterns of alcohol/tobacco and cannabis use in the last six months, 2006

<b>ALCOHOL/ TOBACCO/ CANNABIS</b>	<b>Patterns of use</b>	<b>Methamphetamine users</b>	<b>n</b>	<b>Ecstasy users (MDMA)</b>	<b>n</b>	<b>Intravenous drug users (IDU)</b>	<b>n</b>	<b>Combined modules</b>	<b>n</b>
Alcohol	Days used in last six months (mean)	66 days	98	50 days	109	48 days	62	55 days	269
Tobacco	Days used in last six months (mean)	162 days	91	107 days	67	181 days	80	153 days	238
	Quantity used single occasion (mean)	13 cigarettes	88	7 cigarettes	65	16 cigarettes	79	12 cigarettes	232
	Greatest quantity used single occasion (mean)	23 cigarettes	88	19 cigarettes	64	23 cigarettes	77	22 cigarettes	229
Cannabis	Days used in last six months (mean)	118 days	97	58 days	101	123 days	74	97 days	272
	Quantity used single occasion (mean)	3.4 joints	93	1.4 joints	98	2.6 joints	72	2.5 joints	263
	Greatest quantity used single occasion (mean)	8.9 joints	92	4.4 joints	93	5.4 joints	69	6.2 joints	254

Table 3.12: Patterns of illegal pharmaceutical use in the last six months, 2006

PHARMACEUTICALS	Patterns of use	Methamphetamine users	n	Ecstasy users (MDMA)	n	Intravenous drug users (IDU)	n	Combined modules	n
Benzodiazepines	Days used in last six months (mean)	45 days	28	13 days	14	43 days	53	39 days	95
Anti-depressants	Days used in last six months (mean)	19 days	5	5 days	3	8 days	8	11 days	16
Ritalin	Days used in last six months (mean)	12 days	24	13 days	14	41 days	40	27 days	78
Ketamine	Days used in last six months (mean)	4 days	7	8 days	12	2 days	4	6 days	23
	Quantity used single occasion (mean)	0.2 grams	4	0.4 grams	11	0.5 grams	2	0.4 grams	17
	Greatest quantity used single occasion (mean)	0.4 grams	4	1.0 grams	11	0.5 grams	2	0.8 grams	17

Table 3.13: Patterns of legal high use in the last six months, 2006

<b>LEGAL HIGHS</b>	<b>Patterns of use</b>	<b>Methamphetamine users</b>	<b>n</b>	<b>Ecstasy users (MDMA)</b>	<b>n</b>	<b>Intravenous drug users (IDU)</b>	<b>n</b>	<b>Combined modules</b>	<b>n</b>
Legal piperazine party pills	Days used in last six months (mean)	12 days	35	8 days	72	6 days	26	8 days	133
	Quantity used single occasion (mean)	2.9 pills	34	2.2 pills	71	2.5 pills	26	2.4 pills	131
	Greatest quantity used single occasion (mean)	5.5 pills	34	4.5 pills	71	3.1 pills	24	4.6 pills	129
Amyl/Butyl nitrate	Days used in last six months (mean)	6 days	12	5 days	20	15 days	15	8 days	47
	Quantity used single occasion (mean)	8 snorts	9	4 snorts	19	6 snorts	11	5 snorts	39
	Greatest quantity used single occasion (mean)	10 snorts	9	5 snorts	19	8 snorts	10	7 snorts	38

Table 3.14: Patterns of other drug use in the last six months, 2006

OTHER DRUGS	Patterns of use	Methamphetamine users	n	Ecstasy users (MDMA)	n	Intravenous drug users (IDU)	n	Combined modules	n
GHB	Days used in last six months (mean)	5 days	15	12 days	12	2 days	3	7 days	30
	Quantity used single occasion (mean)	4.6 millilitres	12	6.4 millilitres	11	6.3 millilitres	3	5.6 millilitres	26
	Greatest quantity used single occasion (mean)	6.4 millilitres	12	9.5 millilitres	11	6.7 millilitres	3	7.7 millilitres	26
Solvents	Days used in last six months (mean)	24 days	1	0	0	1 day	2	1 day	3
Nitrous oxide	Days used in last six months (mean)	10 days	17	10 days	52	7 days	20	9 days	89
	Quantity used single occasion (mean)	7.1 bulbs	17	8.1 bulbs	54	10.7 bulbs	20	8.5 bulbs	91
	Greatest quantity used single occasion (mean)	15.7 bulbs	17	26.6 bulbs	53	13.3 bulbs	20	21.6 bulbs	90

### **3.4 Means of administration**

The frequent drug users were asked about all the different means they had ever used to administer a drug and the means they had used to administer a drug in the past six months. They were also asked the ‘main way’ they had administered a drug in the previous six months. The findings are presented in the Tables 3.15-3.18. The main way that the frequent drug users had used methamphetamine in the past six months was to smoke or to inject it. Sixty-six percent of the frequent drug users who had used methamphetamine in the past six months had smoked the drug. Twenty-five percent of the frequent drug users who had used methamphetamine in the past six months had injected it in the previous six months. Smoking and injection were also the main ways which the frequent drug users had used crystal methamphetamine. Thirty-six percent of the frequent drug users who had used crystal methamphetamine in the past six months had injected it in the past six months. Amphetamine sulphate was snorted, swallowed and injected. The main way the frequent drug users had used to administer ecstasy (MDMA) was to swallow it. Ninety-two percent of those who had used ecstasy (MDMA) in the last six months had swallowed it. Eleven percent of the frequent drug users had injected ecstasy (MDMA) in the past six months. The main way the frequent drug users had used to administer opiates was to inject, swallow or smoke them. Eighty-one percent of the frequent drug users who had used opiates in the last six months had injected them, but users also swallowed (20%) and smoked (17%) opiates in the past six months.

Table 3.15: Means of administration of stimulants in the last six months, 2006

STIMULANTS	Means of administration	Methamphetamine users	n	Ecstasy users (MDMA)	n	Intravenous drug users (IDU)	n	Combined modules	n
Methamphetamine	Injected	28%	114	8%	23	70%	37	25%	174
	Smoked	90%	114	92%	23	81%	37	66%	174
	Snorted	44%	114	32%	23	8%	37	26%	174
	Swallowed	34%	114	25%	23	8%	37	20%	174
	Main way	Smoked/injected	114	Smoked	23	Injected/smoked	37	Smoked/injected	174
Crystal methamphetamine	Injected	28%	75	17%	6	68%	22	36%	103
	Smoked	85%	75	100%	6	59%	22	81%	103
	Snorted	39%	75	50%	6	18%	22	35%	103
	Swallowed	31%	75	50%	6	9%	22	27%	103
	Main way	Smoked /injected	75	Smoked/snorted	6	Injected/smoked	22	Smoked/injected	103
Amphetamine sulphate	Injected	28%	29	3%	35	71%	17	25%	81
	Smoked	38%	29	6%	35	12%	17	19%	81
	Snorted	86%	29	94%	35	35%	17	79%	81
	Swallowed	66%	29	29%	35	24%	17	41%	81
	Main way	Snorted /swallowed/injected	29	Snorted	35	Injected	17	Snorted/injected/ swallowed	81
Ecstasy (MDMA)	Injected	16%	56	0%	111	44%	27	11%	194
	Smoked	2%	56	3%	111	0%	27	2%	194
	Snorted	29%	56	60%	111	15%	27	45%	194
	Swallowed	89%	56	99%	111	70%	27	92%	194
	Main way	Swallowed/injected	56	Swallowed	111	Swallowed/injected	27	Swallowed	194

Table 3.16: Means of administration of opiates in the last six months, 2006

OPIATES	Means of administration	Methamphetamine users	n	Ecstasy users (MDMA)	n	Intravenous drug users (IDU)	n	Combined modules	n
Other opiates	Injected	60%	20	18%	11	96%	72	81%	103
	Smoked	40%	20	55%	11	6%	72	17%	103
	Snorted	0%	20	9%	11	1%	72	2%	103
	Swallowed	35%	20	27%	11	15%	72	20%	103
	Main way	Injected/swallowed/smoked	20	Smoked/swallowed/injected	11	Injected	72	Injected/swallowed/smoked	103

Table 3.17: Means of administration of cannabis in the last six months, 2006

CANNABIS	Means of administration	Methamphetamine users	n	Ecstasy users (MDMA)	n	Intravenous drug users (IDU)	n	Combined modules	n
Cannabis	Smoked	100%	98	97%	102	100%	74	99%	274
	Swallowed	28%	98	37%	102	11%	74	27%	274
	Main way	Smoked	98	Smoked	102	Smoked	74	Smoked/swallowed	274

Table 3.18: Means of administration of pharmaceuticals in the last six months, 2006

PHAMACEUTICALS	Means of administration	Methamphetamine users	n	Ecstasy users (MDMA)	n	Intravenous drug users (IDU)	n	Combined modules	n
Ritalin	Injected	58%	24	14%	14	90%	40	66%	78
	Smoked	0%	24	0%	14	0%	40	1%	78
	Snorted	46%	24	64%	14	13%	40	32%	78
	Swallowed	21%	24	43%	14	15%	40	22%	78
	Main way	Injected/snorted	24	Snorted/swallowed	14	Injected		Injected/snorted	78

### 3.5 Concurrent use of drugs

Eighty-nine percent of the frequent methamphetamine users usually used other drug types when they used methamphetamine. The drug types most commonly used in combination with methamphetamine were tobacco (83%), cannabis (74%) and alcohol (61%) (Table 3.19). Ninety-seven percent of the frequent ecstasy (MDMA) users usually used other drug types with their ecstasy (MDMA). The drug types most commonly used in combination with ecstasy (MDMA) were alcohol (76%), cannabis (59%), tobacco (48%), nitrous oxide (37%), LSD (23%) and legal piperazine party pills (23%). Ninety-five percent of the injecting drug users usually used other drug types with the drug they injected. The drug types most commonly used at the same time as the drug they injected were tobacco (88%), cannabis (66%), other opiates (52%), benzodiazepines (40%) and alcohol (28%).

Table 3.19: Other drug types used concurrently with methamphetamine, ecstasy (MDMA) and injecting drug use, 2006

Drug types used concurrently	Methamphetamine users (n=102)	Ecstasy users (MDMA) (n=108)	Intravenous drug users (IDU) (n=88)
Methamphetamine	100%	7%	11%
Tobacco	83%	48%	88%
Cannabis	74%	59%	66%
Alcohol	61%	76%	28%
Alcohol (more than 5 standard drinks per session)	48%	49%	20%
Benzodiazepines	9%	3%	40%
Ecstasy (MDMA)	9%	100%	5%
Legal piperazine party pills	7%	23%	5%
Crystal methamphetamine	5%	3%	6%
Amphetamine sulphate	4%	18%	13%
LSD	4%	23%	1%
Nitrous oxide	4%	37%	0%
Heroin	4%	0%	9%
Other opiates	4%	5%	52%
Cocaine	1%	8%	0%
GHB	1%	8%	0%
MDA	0%	6%	0%
Ketamine	0%	6%	0%
Amyl/Butyl nitrate	0%	8%	0%

### 3.6 Drug types used to recover from drug use

Eighty-two percent of the frequent methamphetamine users usually used other drug types to help them recover from with their methamphetamine use. The drug types most commonly used to recover from methamphetamine were cannabis (73%), tobacco (68%), alcohol (29%) and benzodiazepines (16%) (Table 3.20). Eighty-one percent of the frequent ecstasy (MDMA) users usually used other drug types to help them recover from their ecstasy (MDMA) use. The drug types most commonly used to recover from ecstasy (MDMA) were cannabis (79%), tobacco (31%), alcohol (30%) and nitrous oxide (30%). Seventy-six percent of the injecting drug users usually used other drug types to help them recover from the drug they inject. The drug types most commonly used to help recover from the drug they inject were cannabis (51%), benzodiazepines (45%), tobacco (32%) and other opiates (23%).

Table 3.20: Other drug types used to recover from methamphetamine, ecstasy (MDMA) and injecting drug use, 2006

Drug types used to recover	Methamphetamine users (n=93)	Ecstasy users (MDMA) (n=90)	Intravenous drug users (IDU) (n=71)
Methamphetamine	0%	3%	3%
Tobacco	68%	31%	32%
Cannabis	73%	79%	51%
Alcohol	29%	30%	8%
Benzodiazepines	16%	6%	45%
Ecstasy (MDMA)	1%	0%	0%
Legal piperazine party pills	3%	3%	1%
Crystal methamphetamine	2%	3%	1%
Amphetamine sulphate	1%	3%	4%
LSD	0%	7%	0%
Nitrous oxide	3%	30%	0%
Heroin	5%	0%	8%
Other opiates	6%	3%	23%
Cocaine	0%	0%	0%
GHB	1%	3%	0%
MDA	0%	1%	0%
Ketamine	0%	3%	0%
Amyl/Butyl nitrate	0%	0%	0%

### 3.7 Binging on drugs

The frequent drug users were asked what drug types they had binged on in the previous six months. Binging on a drug was defined as using a drug for 48 hours or more continuously without sleep. Overall, 69% of the frequent drug users had binged on a drug in the previous six months. This included 90% of the frequent methamphetamine users, 47% of the frequent ecstasy (MDMA) users, and 69% of the frequent injecting drug users. The drug types which the frequent methamphetamine users most commonly binged on were methamphetamine (88%), cannabis (38%), alcohol (36%) and crystal methamphetamine (30%) (Table 3.21). The drug types which the frequent ecstasy (MDMA) users most commonly binged on were ecstasy (77%), alcohol (71%), cannabis (40%), amphetamine sulphate (29%), LSD (27%) and legal piperazine party pills (21%). The drug types which the frequent injecting drug users most commonly binged on were opiates (45%), cannabis (39%), alcohol (34%) and methamphetamine (28%).

Table 3.21: Drug types binged on in the previous six months, 2006

Drug types binged on (used 48 hours +)	Methamphetamine users (n=103)	Ecstasy users (MDMA) (n=52)	Intravenous drug users (IDU) (n=64)	Combined modules (n=219)
Methamphetamine	88%	19%	28%	54%
Cannabis	38%	40%	39%	39%
Alcohol	36%	71%	34%	44%
Benzodiazepines	3%	0%	17%	6%
Ecstasy (MDMA)	15%	77%	6%	27%
Legal piperazine party pills	8%	21%	1%	11%
Crystal methamphetamine	30%	8%	13%	20%
Amphetamine sulphate	16%	29%	23%	21%
LSD	13%	27%	3%	13%
Nitrous oxide	0%	12%	2%	3%
Heroin	2%	0%	6%	3%
Other opiates	1%	0%	45%	14%
Cocaine	2%	8%	0%	3%
GHB	2%	10%	2%	4%
MDA	0%	2%	0%	<1%
Ketamine	0%	6%	0%	1%
Amyl/Butyl nitrate	0%	4%	0%	1%
Methadone	2%	0%	11%	4%
Anti-depressants	0%	0%	0%	0%

### 3.8 New drug types

The frequent drug users were asked if they had heard about any new drug types in the previous six months. Six frequent drug users reported the use of '2CI' drug types. Five of those reporting '2CI' drug types were frequent ecstasy (MDMA) users, with one frequent ecstasy user described '2CI' drugs as 'synthetic mescaline'. Two frequent methamphetamine users said there was now more 'ice' (i.e. crystal methamphetamine) around. Three frequent drug users said that 'P' (i.e. methamphetamine) was now more common and one frequent injecting drug user said more people were injecting methamphetamine. One frequent ecstasy (MDMA) user said there were now 'more hallucinogens around'. Two frequent ecstasy (MDMA) users reported the use of pure BZP, which they referred to as 'hummer'. One frequent ecstasy (MDMA) user said legal piperazine party pills were becoming stronger and more sophisticated, and another frequent ecstasy (MDMA) user said the ecstasy (MDMA) market had been flooded with legal piperazine party pills (i.e. BZP). One frequent methamphetamine user mentioned the new types of serotonin recovery pills now available. Seven frequent injecting drug users said there was now more 'poppy bake' around. One frequent injecting drug user said new recipes were being used to make 'poppy bake' and as a result sometimes it was stronger which increased the risk of overdose. Another frequent injecting drug user said the recent increase in the availability of 'poppy bake' had resulted in lower prices for morphine. Three injecting drug users said that 'poppy bake' had become less available in recent months. One frequent injecting drug user said that 'poppy bake' had become less available because the Ministry of Agriculture and Fisheries (MAF) had impounded the importation of 'poppy seeds'. Another said it was because seeds were being tested differently which means they are unable to be converted into homebake heroin.

### 3.9 New types of drug users

The frequent drug users were asked if they had seen any new types of drug users in the previous six months. Twenty-seven of the frequent drug users said they now saw more 'younger' people ('teens') using drugs such as smoking methamphetamine ('P'), using opiates, injecting drugs, smoking cannabis, drinking alcohol and using legal piperazine party pills (i.e. BZP). Six frequent injecting drug users said that they now saw more young people using opiates and injecting drugs, and that these young people saw it as a 'cool thing' to do. Fifteen frequent drug users said they now saw a wider cross section of people using drugs like methamphetamine and ecstasy (MDMA), including more 'middle class/mainstream' people and 'professional people'. One frequent ecstasy user said more people were using ecstasy (MDMA) as it was now more available and acceptable. One frequent injecting drug user said people were now smoking crystal methamphetamine (ice) rather than cannabis.

### **3.10 Increase in drug use by some users**

The frequent drug users were asked if there had been any increase in drug use by some drug users in the previous six months. Twenty frequent drug users said that more people were now using methamphetamine ('P'). Three frequent drug users said less people were using methamphetamine. One frequent methamphetamine user said less of their friends were using methamphetamine ('P') because of its effects, and one frequent ecstasy (MDMA) user who said it was because legal piperazine pills were more available. Six frequent drug users mentioned the increased use of legal piperazine party pills (BZP) over this time. Six frequent injecting drug users said that more people had been using 'ritalin', including younger people and that people were also injecting it. Seven frequent drug users mentioned an increase in the use and acceptability of ecstasy (MDMA). Ecstasy (MDMA) was described as more available and cheaper.

### **3.11 Different means of administering drugs**

The frequent drug users were asked if there had seen people taking drugs in new ways in the past six months. Eight frequent drug users, including five frequent methamphetamine users, said there was now more injecting drug use. Six frequent ecstasy (MDMA) users said more people were 'shelving' their drugs (i.e. inserting them into their anus).

### **3.12 Different ways of selling drugs**

The frequent drug users were asked if they noticed any new ways that drugs were being sold in the past six months. Two frequent drug users reported that more users were financing their drug use through drug selling. Two frequent drug users said more drugs were being sold in public places like pubs, clubs and tinny houses. One frequent drug user mentioned that drug dealers will now deliver drugs.

## **4. Methamphetamine**

### **4.1 Introduction**

Methamphetamine ('P', or 'pure') is a powerful psychostimulant with pharmacological characteristics and effects which closely resemble cocaine (Gawin and Ellinwood, 1988, Hall and Hando, 1994, Kuhn et al., 1998, Shearer et al., 2002). Chronic and high dose use of methamphetamine causes hostility, paranoia, hallucinations, and obsessive behaviour (Hall and Hando, 1994, Kuhn et al., 1998, Shearer et al., 2002). Heavy methamphetamine users often go on extended binges where they use the drug continuously over several days or even weeks without sleep. As a binge lengthens the user experiences states of panic and terror, 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 depression, fatigue, insomnia, headaches, and a strong psychological craving to use the drug again (Gawin and Ellinwood, 1988). Physiological harm from methamphetamine use 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).

### **4.2 Knowledge of methamphetamine trends**

Fifty-seven percent of the frequent drug users interviewed (n=180) indicated they felt confident enough to comment on the price, purity and availability of methamphetamine in the previous six months. This included 92% of the frequent methamphetamine users (n=105), 23% of the frequent ecstasy users (n=25) and 54% of the frequent injecting drug users (n=50).

### **4.3 Availability of methamphetamine**

#### *4.3.1 Current availability*

Forty-four percent of the frequent drug users described the current availability of methamphetamine as 'easy', with a further 38% describing the availability of the drug as 'very easy' (Table 4.1). The average score for the current availability of methamphetamine for all the frequent drug users was 1.8 which indicates that overall the current availability of methamphetamine is 'easy/very easy'. There was no statistically significant difference in the average score of availability between the three groups of frequent drug users, with all three groups indicating the current availability of methamphetamine is 'easy/very easy' (p=0.2758). The KE described the current availability of methamphetamine as very easy/easy.

Table 4.1: Current availability of methamphetamine by frequent drug user group, 2006

Current availability of methamphetamine (%)	Methamphetamine users (n=106)	Ecstasy users (MDMA) (n=21)	Intravenous drug users (IDU) (n=49)	Combined modules (n=176)
Very easy [1]	43%	38%	27%	38%
Easy [2]	42%	38%	53%	44%
Difficult [3]	13%	24%	20%	16%
Very difficult [4]	2%	0%	0%	1%
Average availability score (1=very easy – 4=very difficult)	1.7	1.9	1.9	1.8
Overall current status	Easy/ very easy	Easy/ very easy	Easy/ very easy	Easy/ very easy

#### 4.3.2 Change in availability

Fifty-three percent of the frequent drug users reported that the availability of methamphetamine was ‘stable’ in the previous six months (Table 4.2). Twenty percent indicated that the availability of methamphetamine was ‘easier’, while 19% said the availability of the drug had become ‘more difficult’ in the previous six months. The average score for the change in availability of methamphetamine for all the frequent drug users was 2.0 which indicates that overall the availability of methamphetamine was ‘stable’ over the past six months. There was no statistically significant difference in the average score for the change in availability between the three groups of frequent drug users, with all three groups indicating that availability of methamphetamine had been ‘stable’ over the previous six months ( $p=0.3892$ ). Overall, the KE reported that the availability of methamphetamine had been ‘stable’ in the past six months, although some KE said it had got more difficult while others said it had become easier in the last six months.

Table 4.2: Change in availability of methamphetamine by frequent drug user group, 2006

Change in availability of methamphetamine (%)	Methamphetamine users (n=105)	Ecstasy users (MDMA) (n=21)	Intravenous drug users (IDU) (n=49)	Combined modules (n=175)
Easier [1]	15%	33%	24%	20%
Stable [2]	57%	38%	49%	53%
Fluctuates [2]	9%	10%	8%	9%
More difficult [3]	19%	19%	18%	19%
Average change in availability score (1=easier – 3=more difficult)	2.0	1.9	1.9	2.0
Overall recent change	Stable	Stable	Stable	Stable

## 4.4 Price of methamphetamine

### 4.4.1 Current price

The frequent drug users reported the current median price of a point (0.1 grams) of methamphetamine to be \$100 (Table 4.3). The current median price of a gram of methamphetamine was reported to be \$600. There was no statistically significant difference between the three groups of frequent drug users with respect to the mean price paid for a point ( $p=0.1416$ ) or gram ( $p=0.1354$ ) of methamphetamine. The KE spoken to confirmed the current price of a point of methamphetamine was \$100. The KE reported the median price for a gram of methamphetamine was \$800.

Table 4.3: Current median (mean) price for methamphetamine (NZD) by frequent drug user group, 2006

Current price of methamphetamine	Methamphetamine users	Ecstasy users (MDMA)	Intravenous drug users (IDU)	Combined modules
Number with knowledge	n=78	n=21	n=45	n=144
Median (mean) price 'point' (0.1 grams)	\$100 (\$93)	\$100 (\$100)	\$100 (\$98)	\$100 (\$96)
Number with knowledge	n=53	n=6	n=16	n=75
Median (mean) price gram	\$600 (\$579)	\$700 (\$767)	\$600 (\$636)	\$600 (\$606)

### 4.4.2 Change in price

Forty-eight percent of the frequent drug users reported that the price of methamphetamine had been 'stable' in the previous six months, with a further 12% saying the price had 'fluctuated' over this time (Table 4.4). The average score for the change in the price of methamphetamine for all the frequent drug users was 1.9 which indicates that overall the price of methamphetamine was 'stable/fluctuating' over the previous six months. There was no statistically significant difference in the average score for the change in price of methamphetamine between the three groups of frequent drug users, with all three groups indicating that the price of methamphetamine had been 'stable/fluctuating' over the previous six months ( $p=0.0781$ ). Nearly all the KE described the price of methamphetamine as 'stable' over the past six months.

Table 4.4: Change in the price of methamphetamine in the last six months by frequent drug user group, 2006

Change in price of methamphetamine (%)	Methamphetamine users (n=96)	Ecstasy users (MDMA) (n=16)	Intravenous drug users (IDU) (n=43)	Combined modules (n=155)
Decreasing [1]	23%	44%	14%	23%
Stable [2]	46%	44%	53%	48%
Fluctuating [2]	16%	0%	9%	12%
Increasing [3]	16%	13%	23%	17%
Average change in price score (1=decreasing – 3=increasing)	1.9	1.7	2.1	1.9
Overall recent change	Stable/ fluctuating	Stable/ fluctuating	Stable/ fluctuating	Stable/ fluctuating

## 4.5 Purity of methamphetamine

### 4.5.1 Current purity

Thirty seven percent of the frequent drug users described the current purity of methamphetamine as ‘fluctuating’, with a further 23% describing the current purity of the drug as ‘medium’ (Table 4.5). Thirty-four percent of frequent drug users described the current purity of methamphetamine as ‘high’. The average score for the current purity of methamphetamine for all the frequent drug users was 2.3 which indicates that overall the level of purity of methamphetamine is ‘medium/high’. There was no statistically significant difference in the average score of purity between the three groups of frequent drug users with all three groups indicating the current purity of methamphetamine is ‘medium/high’ (p=0.9061). KE described the current purity of methamphetamine as high/fluctuates.

Table 4.5: Current purity of methamphetamine by frequent drug user group, 2006

Current purity methamphetamine (%)	Methamphetamine users (n=101)	Ecstasy users (MDMA) (n=18)	Intravenous drug users (IDU) (n=47)	Combined modules (n=166)
Low [1]	6%	0%	9%	6%
Medium [2]	20%	33%	28%	23%
Fluctuates [2]	40%	44%	28%	37%
High [3]	35%	22%	36%	34%
Average purity score (1=low – 3=high)	2.3	2.2	2.3	2.3
Overall current status	Medium/ high	Medium/ high	Medium/ high	Medium/ high

#### 4.5.2 Change in purity

Forty-one percent of the frequent drug users reported that the purity of methamphetamine had been ‘stable’ in the previous six months, with a further 28% saying that purity had ‘fluctuated’ over this time (Table 4.6). The average score for the change in the purity of methamphetamine for all the frequent drug users was 2.0 which indicates that overall the purity of methamphetamine was ‘stable/fluctuating’ over the last six months. There was no statistically significant difference in the average score for the change in purity of methamphetamine between the three groups of frequent drug users with all three groups indicating that the purity of methamphetamine had been ‘stable/fluctuating’ over the previous six months ( $p=0.2999$ ). KE also said the purity of methamphetamine had been stable/fluctuating in the past six months.

Table 4.6: Change in purity of methamphetamine by frequent drug user group, 2006

Change in purity of methamphetamine (%)	Methamphetamine users (n=96)	Ecstasy users (MDMA) (n=15)	Intravenous drug users (IDU) (n=45)	Combined modules (n=156)
Decreasing [1]	16	20	11	15
Stable [2]	41	40	42	41
Fluctuating [2]	28	33	24	28
Increasing [3]	16	7	22	17
Average change in purity score (1=decreasing – 3=increasing)	2.0	1.9	2.1	2.0
Overall recent change	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates

#### 4.6 Perceptions of the number of people using methamphetamine

Forty-three percent of the frequent drug users thought ‘more’ people they know were using methamphetamine, 34% said ‘about the same’ number were using methamphetamine and 23% said that ‘less’ people they know were using the drug (Table 4.7). The average score for all the frequent drug users for the question was 2.2 indicating that overall the ‘same/more’ people were using methamphetamine compared to six months ago. However there was a statistically significant difference between the frequent drug users concerning perceptions of the number of people using methamphetamine. The frequent ecstasy users were more likely to say ‘less’ people were using methamphetamine than either the frequent methamphetamine users (1.6 vs. 2.3,  $p=0.0002$ ) or the frequent injecting drug users (1.6 vs. 2.3,  $p=0.0010$ ).

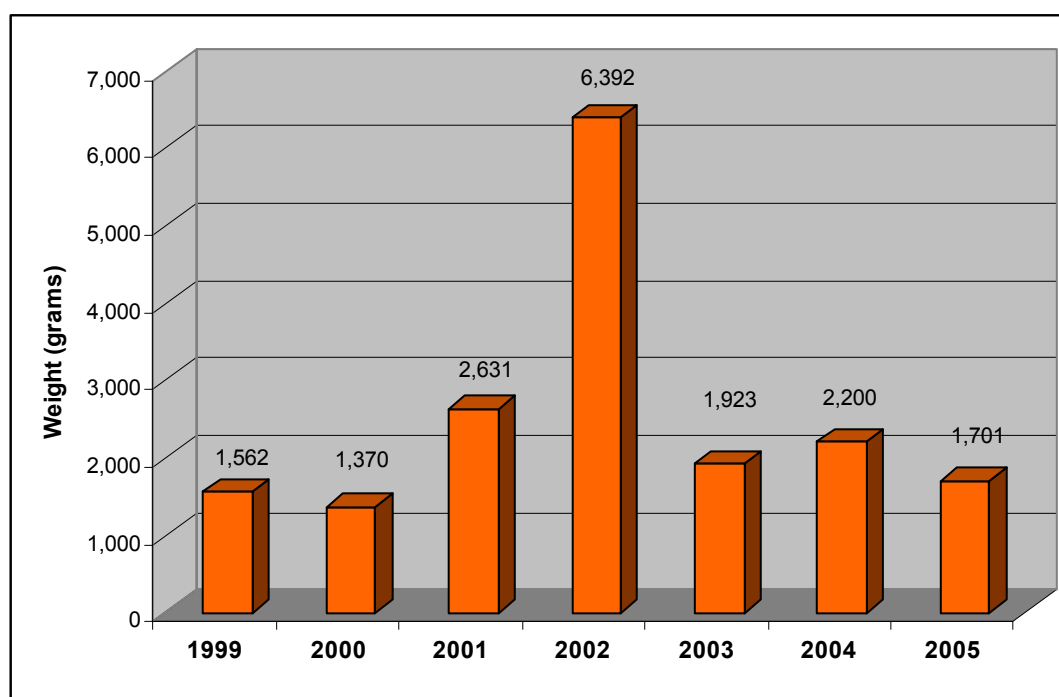
Table 4.7: Perceptions of the number of people using methamphetamine by frequent drug user group, 2006

Number of people using methamphetamine (%)	Methamphetamine users (n=102)	Ecstasy users (MDMA) (n=23)	Intravenous drug users (IDU) (n=50)	Combined modules (n=175)
Less [1]	19	52	18	23
Same [2]	33	35	34	34
More [3]	48	13	48	43
Average number of people using score (1=less – 3=more)	2.3	1.6	2.3	2.2
Overall recent change	Same/ more	Same/ less	Same/ more	Same/ more

#### 4.7 Seizures of methamphetamine

Annual seizures of methamphetamine made by the New Zealand Police and New Zealand Customs Service largely ranged between 1.5 and 2.5 kilograms per year for most years since 1999 (Figure 4.1). The exception was in 2002 when 6.4 kilograms of methamphetamine was seized. Assessing the present situation with methamphetamine is complicated by the dramatic increases in seizures of imported crystal methamphetamine (see Chapter 5) in recent years. In terms of health harm, it seems there is little to distinguish methamphetamine from crystal methamphetamine.

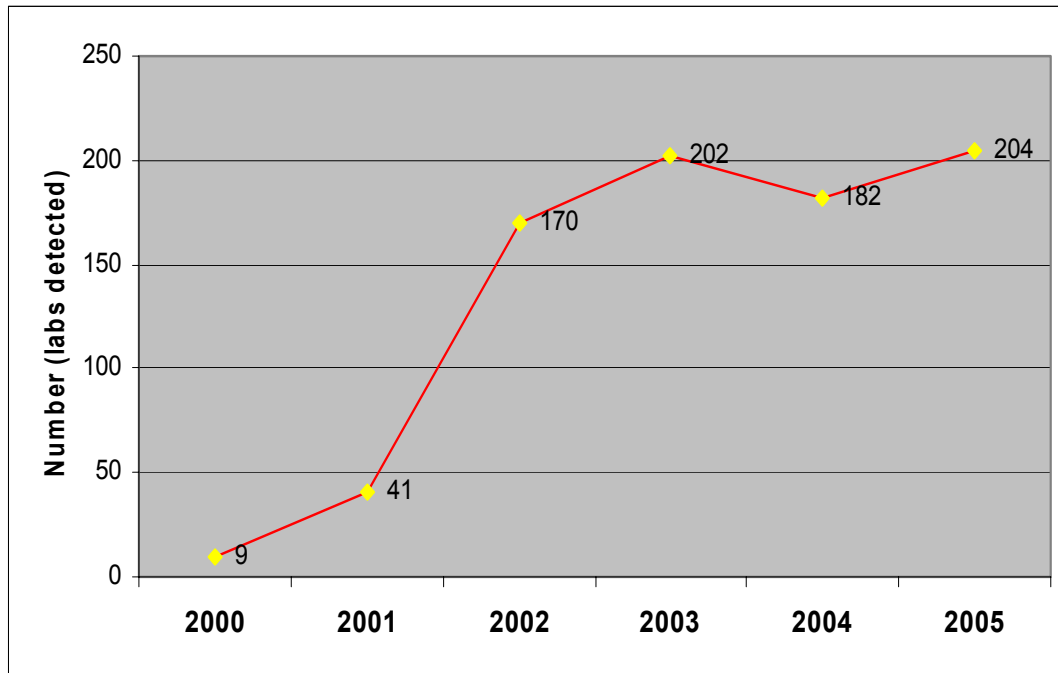
Figure 4.1: Grams of methamphetamine seized in New Zealand, 1999-2005



#### 4.8 Clandestine methamphetamine laboratories dismantled

The number of clandestine methamphetamine laboratories dismantled each year by the New Zealand Police increased fairly dramatically from the year 2000 until 2003 (Figure 4.2). Since then the number of methamphetamine laboratories dismantled appears to have reached a plateau of approximately 200 laboratories dismantled each year.

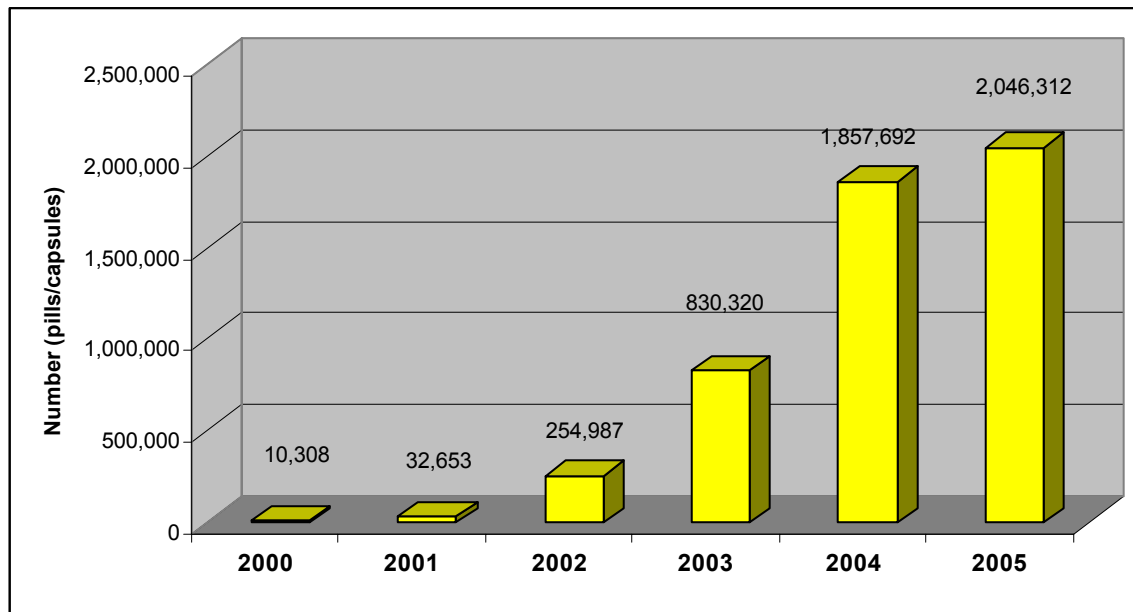
Figure 4.2: Number of methamphetamine laboratories dismantled in New Zealand, 2000-2005



#### 4.9 Pseudoephedrine and ephedrine seizures

Pseudoephedrine and ephedrine are precursor chemicals used to synthesise methamphetamine in New Zealand. Seizures of these precursor chemicals by the New Zealand Customs Service increased dramatically each year from 2001 until 2004 (Figure 4.3). In 2002, ephedrine products were classified as Class C controlled drugs under the *Misuse of Drugs Act 1975*, and there was a subsequent greater focus on these substances by enforcement agencies. The annual growth in the number of pills of pseudoephedrine and ephedrine precursors seized slowed in 2005 compared to 2004.

Figure 4.3: Number of tablets/capsules of ephedrine precursors seized in New Zealand, 2000-2005



#### 4.10 Amphetamine use in the general population

The New Zealand national household drug survey asks about amphetamine use in general and this category includes amphetamine sulphate and methamphetamine. There was no change in the proportion of the New Zealand population aged 13-45 years old who had ever tried amphetamines between 2006 and 2003 (8.7% vs. 8.5%,  $p=0.7826$ ). There was also no statistically significant change in the proportion of the population who had used amphetamine in the previous 12 months in 2006 compared to 2003 (3.1% vs. 3.7%;  $p=0.3184$ ). There had previously been a statistically significant increase in the last year use of amphetamine among the New Zealand population in 2001 compared to 1998 followed by a levelling out in amphetamine use in 2003 compared to 2001 (Wilkins et al., 2006).

#### 4.11 Summary of methamphetamine trends

- The current availability of methamphetamine is reported to be ‘easy/very easy’
- The availability of methamphetamine is considered to have remained ‘stable’ over the previous six months
- A point (0.1 grams) of methamphetamine currently costs a median price of \$100 and a gram of methamphetamine currently costs a median price of \$600
- The price of methamphetamine is reported to have been ‘stable/fluctuating’ over the previous six months
- The current purity of methamphetamine is said to be ‘medium/high’
- The purity of methamphetamine has been ‘stable/fluctuating’ over the previous six months
- The number of people using methamphetamine was described as the ‘same/more’ compared to six months ago
- Annual seizures of finished methamphetamine product and methamphetamine precursor chemicals, as well as the number of methamphetamine laboratories dismantled each year, appear to have plateaued in recent years following previous years of exponential growth
- National household survey data indicates that the population prevalence of use of amphetamine has remained the same in 2006 compared to 2003

## **5. Crystal methamphetamine**

### **5.1 Introduction**

Crystal methamphetamine ('ice', 'crystal' or 'shabu') is the crystallised form of methamphetamine (Matsumoto et al., 2002, McKetin and McLaren, 2004). It is currently thought to be largely manufactured in Asia and smuggled into New Zealand across the border. Imported crystal methamphetamine is sometimes perceived by users to be more professionally made and more potent than the locally manufactured methamphetamine, known as 'P' or pure (Wilkins et al., 2004). However, recent ESR analysis suggests that there is typically little difference in purity between locally made methamphetamine and imported crystal methamphetamine. Among drug users there is sometimes no clear distinction between methamphetamine and crystal methamphetamine, with some users describing all methamphetamine as crystal methamphetamine, including the locally made 'P'. With respect to pharmacological effects there may be little difference between the two substances, yet based on the understanding that users often distinguish between a local methamphetamine and imported crystal methamphetamine there is some justification for monitoring them separately. Having chosen to make a distinction between methamphetamine and crystal methamphetamine, we found that approximately 40% of the frequent drug users answering the crystal methamphetamine section did not make a ready distinction between the two drugs. Nevertheless, when we analysed all the findings for crystal methamphetamine there appeared to be some differences in trends between methamphetamine and crystal methamphetamine.

### **5.2 Knowledge of crystal methamphetamine trends**

Thirty-four percent of the frequent drug users interviewed (n=109) indicated they felt confident enough to comment on the price, purity and availability of crystal methamphetamine in the previous six months. This included 57% of the frequent methamphetamine users (n=65), 11% of the frequent ecstasy users (n=12) and 34% of the frequent injecting drug users (n=32).

### **5.3 Availability of crystal methamphetamine**

#### *5.3.1 Current availability*

Forty-eight percent of the frequent drug users described the current availability of crystal methamphetamine as 'easy', with a further 24% describing the availability of the drug as 'very easy' (Table 5.1). In contrast, 23% of frequent drug users described the current availability of crystal methamphetamine as 'difficult'. The average score for the current availability of crystal

methamphetamine for all the frequent drug users was 2.1 which indicates that overall the current level of availability of crystal methamphetamine is ‘easy’. There was no statistically significant difference in the average score for the current availability of crystal methamphetamine between the three groups of frequent drug users, with all three groups indicating the current availability of crystal methamphetamine is ‘easy’ (p=0.6289).

Table 5.1: Current availability of crystal methamphetamine by frequent drug user group, 2006

Current availability of crystal methamphetamine (%)	Methamphetamine users (n=64)	Ecstasy users (MDMA) (n=11)	Intravenous drug users (IDU) (n=32)	Combined modules (n=107)
Very easy [1]	25%	18%	25%	24%
Easy [2]	52%	36%	44%	48%
Difficult [3]	19%	45%	25%	23%
Very difficult [4]	5%	0%	6%	5%
Average availability score (1=very easy – 4=very difficult)	2.0	2.3	2.1	2.1
Overall current status	Easy	Easy	Easy	Easy

### 5.3.2 Change in availability

Fifty percent of the frequent drug users reported that the availability of crystal methamphetamine had been ‘stable’ in the previous six months, with a further 10% saying it had ‘fluctuated’ (Table 5.2). Twenty-nine percent indicated that the availability of crystal methamphetamine had become ‘more difficult’ in the previous six months. The average score for the change in availability of crystal methamphetamine for all the frequent drug users was 2.2 which indicates that overall the availability of crystal methamphetamine was ‘stable/more difficult’ over the past six months. There was no statistically significant difference in the average score for the change in availability of crystal methamphetamine between the three groups of frequent drug users, with all three groups indicating that the availability of crystal methamphetamine was ‘stable/more difficult’ over the previous six months (p=0.2429). The KE reported the change in the availability of crystal methamphetamine as ‘stable/fluctuating’. The recent decline in the availability of crystal methamphetamine as reported by the frequent drug users may reflect the significant seizures of imported crystal methamphetamine made earlier in the year in Auckland.

Table 5.2: Change in availability of crystal methamphetamine by frequent drug user group, 2006

Change in availability of crystal methamphetamine (%)	Methamphetamine users (n=64)	Ecstasy users (MDMA) (n=11)	Intravenous drug users (IDU) (n=31)	Combined modules (n=106)
Easier [1]	13%	9%	6%	10%
Stable [2]	50%	55%	48%	50%
Fluctuates [2]	14%	0%	6%	10%
More difficult [3]	23%	36%	39%	29%
Average change in availability score (1=easier – 3=more difficult)	2.1	2.3	2.3	2.2
Overall recent change	Stable/ more difficult	Stable/ more difficult	Stable/ more difficult	Stable/more difficult

## 5.4 Price of crystal methamphetamine

### 5.4.1 Current price

The frequent drug users reported the current median price of a point (0.1 grams) of crystal methamphetamine to be \$100 (Table 5.3). There was a statistically significant difference between the three groups of frequent drug users with respect to the price paid for a point of crystal methamphetamine. The frequent ecstasy (MDMA) users paid a higher mean price for a point of crystal methamphetamine than either the frequent methamphetamine users (\$130 vs. \$95,  $p<0.0001$ ) or the frequent injecting drug users (\$130 vs. \$98,  $p=0.0003$ ).

Table 5.3: Current median (mean) price for crystal methamphetamine (NZD) by frequent drug user group, 2006

Current price of crystal methamphetamine	Methamphetamine users	Ecstasy users (MDMA)	Intravenous drug users (IDU)	Combined modules
Number with knowledge	n=38	n=9	n=29	n=76
Median (mean) price 'point' (0.1 grams)	\$100 (\$95)	\$120 (\$130)	\$100 (\$98)	\$100 (\$100)

### 5.4.2 Change in price

Sixty-one percent of the frequent drug users reported that the price of crystal methamphetamine had been 'stable' in the previous six months (Table 5.4). Seventeen percent reported that the price of crystal methamphetamine had increased while 11% said the price had decreased in the previous six

months. The average score for the change in the price of crystal methamphetamine for all the frequent drug users was 2.1 which indicates that overall the price was ‘stable’ over the last six months. There was no statistically significant difference in the average score for the change in price of crystal methamphetamine between the three groups of frequent drug users, with all three groups indicating that the price of crystal methamphetamine had been ‘stable’ over the previous six months ( $p=0.7492$ ). The KE described the price of crystal methamphetamine as stable/increasing over the past six months.

Table 5.4: Change in the price of crystal methamphetamine in the last six months by frequent drug user group, 2006

Change in price of crystal methamphetamine (%)	Methamphetamine users (n=61)	Ecstasy users (MDMA) (n=8)	Intravenous drug users (IDU) (n=29)	Combined modules (n=98)
Decreasing [1]	11%	25%	7%	11%
Stable [2]	56%	38%	79%	61%
Fluctuating [2]	13%	0%	9%	10%
Increasing [3]	20%	38%	7%	17%
Average change in price score (1=decreasing – 3=increasing)	2.1	2.1	2.0	2.1
Overall recent change	Stable	Stable	Stable	Stable

## 5.5 Purity of crystal methamphetamine

### 5.5.1 Current purity

Forty-eight percent of the frequent drug users described the current purity of crystal methamphetamine as ‘high’ (Table 5.5). Twenty-five percent of frequent drug users described the current purity of crystal methamphetamine as ‘medium’ and 18% described the current purity as fluctuating. The average score for the current purity of crystal methamphetamine for all the frequent drug users was 2.4 which indicates the overall current purity of crystal methamphetamine is ‘medium/ high’. There was no statistically significant difference in the average score for the current purity of crystal methamphetamine between the three groups of frequent drug users, with all three groups indicating the current purity of crystal methamphetamine is ‘medium/high’ ( $p=0.3541$ ).

Table 5.5: Current purity of crystal methamphetamine by frequent drug user group, 2006

Current purity crystal methamphetamine (%)	Methamphetamine users (n=63)	Ecstasy users (MDMA) (n=9)	Intravenous drug users (IDU) (n=31)	Combined modules (n=103)
Low [1]	10%	11%	6%	9%
Medium [2]	19%	33%	35%	25%
Fluctuates [2]	16%	22%	23%	18%
High [3]	56%	33%	35%	48%
Average purity score (1=low – 3=high)	2.5	2.2	2.3	2.4
Overall current status	Medium/high	Medium/high	Medium/high	Medium/high

### 5.5.2 Change in purity

Fifty-four percent of the frequent drug users reported that the purity of crystal methamphetamine had been ‘stable’ in the previous six months, with a further 18% saying that purity had ‘fluctuated’ over this time (Table 5.6). The average score for the change in the purity of crystal methamphetamine for all the frequent drug users was 2.0 which indicates that overall the purity of crystal methamphetamine was ‘stable/fluctuating’ over the last six months. There was no statistically significant difference in the average score for the change in purity of crystal methamphetamine between the three groups of frequent drug users, with all three groups indicating that the purity of crystal methamphetamine had been ‘stable/fluctuating’ over the previous six months ( $p=0.5672$ ). The KE also described the change in the purity of crystal methamphetamine as ‘stable/fluctuating’.

Table 5.6: Change in purity of crystal methamphetamine by frequent drug user group, 2006

Change in purity of crystal methamphetamine (%)	Methamphetamine users (n=62)	Ecstasy users (MDMA) (n=9)	Intravenous drug users (IDU) (n=31)	Combined modules (n=102)
Decreasing [1]	16%	11%	6%	13%
Stable [2]	48%	67%	61%	54%
Fluctuating [2]	18%	22%	16%	18%
Increasing [3]	18%	0%	16%	16%
Average change in purity score (1=decreasing – 3=increasing)	2.0	1.9	2.1	2.0
Overall recent change	Stable/fluctuates	Stable/fluctuates	Stable/fluctuates	Stable/fluctuates

## 5.6 Perceptions of the number of people using crystal methamphetamine

Thirty-eight percent of the frequent drug users thought ‘more’ people they know were using crystal methamphetamine, 37% said ‘about the same’ number were using crystal methamphetamine and 25% said that ‘less’ people they know were using the drug (Table 5.7). The average score for all the frequent drug users for the question was 2.1 indicating that overall the ‘same/more’ people were using crystal methamphetamine compared to six months ago. There was no statistically significant difference in perceptions of the number of people using crystal methamphetamine between the three groups of frequent drug users, with all three saying that the ‘same/ more’ people they know were using the drug compared to six months ago ( $p=0.3484$ ). The KE said that ‘more/same’ number of people were using crystal methamphetamine compared to six months ago.

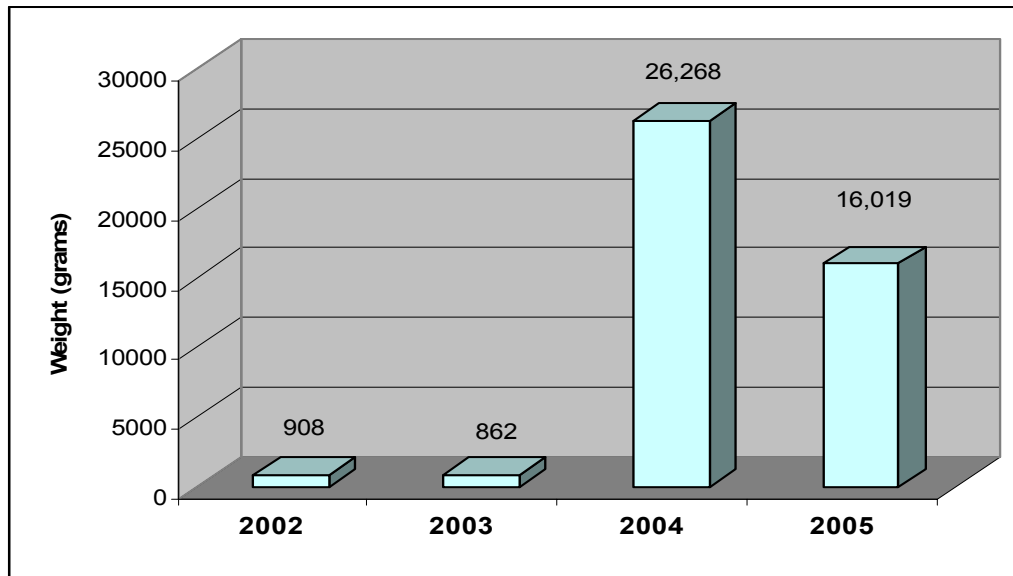
Table 5.7: Perceptions of the number of people using crystal methamphetamine by frequent drug user group, 2006

Number of people using crystal methamphetamine (%)	Methamphetamine users (n=65)	Ecstasy users (MDMA) (n=12)	Intravenous drug users (IDU) (n=31)	Combined modules (n=108)
Less [1]	23%	33%	26%	25%
Same [2]	32%	42%	45%	37%
More [3]	45%	25%	29%	38%
Average number of people using score (1=less – 3=more)	2.2	1.9	2.0	2.1
Overall recent change	Same/ more	Same	Same	Same/ more

## 5.7 Seizures of crystal methamphetamine

Annual seizures of crystal methamphetamine made by the New Zealand Police and New Zealand Customs Service increased dramatically in 2004 compared to previous years (Figure 5.1). High levels of seizures of crystal methamphetamine continued in 2005 with 16 kilograms of crystal methamphetamine seized in 188 seizure incidents.

Figure 5.1: Grams of crystal methamphetamine seized in New Zealand, 2002-2005



## 5.8 Crystal methamphetamine use in the general population

The New Zealand national household drug survey asks specifically about ice (crystal methamphetamine). There was no change in the proportion of the New Zealand population aged 13-45 years old who had ever tried crystal methamphetamine between 2003 and 2006 (1.7% both years). There was also no statistically significant change in the proportion of the population who had used crystal methamphetamine in the previous 12 months in 2006 compared to 2003 (0.8% vs. 0.9%;  $p=0.6916$ ). There had previously been a statistically significant increase in the last year use of crystal methamphetamine among the New Zealand population in 2001 compared to 1998 followed by a levelling out in use in 2003 compared to 2001 (see Wilkins et al., 2005d).

## 5.9 Summary of crystal methamphetamine trends

- The current availability of crystal methamphetamine is reported to be ‘easy’
- The availability of crystal methamphetamine is thought to have been ‘stable/more difficult’ over the previous six months
- A point (0.1 grams) of crystal methamphetamine currently costs a median price of \$100
- The price of crystal methamphetamine is reported to have been ‘stable’ over the previous six months

- The current purity of crystal methamphetamine is said to be ‘medium/high’
- The purity of crystal methamphetamine has been ‘stable/fluctuating’ over the previous six months
- The number of people using crystal methamphetamine was described as the ‘same/more’ compared to six months ago
- Annual seizures of crystal methamphetamine have increased dramatically since 2004
- National household survey data indicates that the population prevalence of use of crystal methamphetamines has remained the same in 2006 compared to 2003

## **6. Ecstasy (MDMA)**

### **6.1 Introduction**

Ecstasy (3,4-methylenedioxyamphetamine, MDMA or 'E' or 'X') has both amphetamine and hallucinogenic effects (Kuhn et al., 1998, Gowing et al., 2001, Gowing et al., 2002, Topp et al., 1998). Ecstasy (MDMA) increases heart rate, blood pressure, and body temperature, and produces a sense of energy and alertness (like standard amphetamines), but also a state of empathy for others (due to increased release of serotonin) (Kuhn et al., 1998). High doses of ecstasy (MDMA) cause teeth clenching, paranoia, anxiety and confusion (Kuhn et al., 1998). Ecstasy (MDMA) can cause hyperthermia (extreme heat stroke) resulting in death when combined with sustained physical exercise and elevated temperatures, which are commonly found in dance clubs (these environments compound the natural pharmacological effect of ecstasy on the body's thermoregulatory mechanism) (Gowing et al., 2001, Gowing et al., 2002). Ecstasy (MDMA) 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 from ecstasy (MDMA) use appear low relative to the extent of use, it is the unpredictability of adverse events (dose is not predicative of adverse effects) and risk of mortality that makes the risks significant (Gowing et al., 2002). Long term effects from ecstasy (MDMA) include insomnia, energy loss, depression, irritability, muscle aches, and blurred vision (Topp et al., 1998). Ecstasy (MDMA) 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).

### **6.2 Knowledge of ecstasy (MDMA) trends**

Sixty-three percent of the frequent drug users interviewed (n=201) indicated they felt confident enough to comment on the price, purity and availability of ecstasy (MDMA) in the previous six months. This included 54% of the frequent methamphetamine users (n=61), 99% of the frequent ecstasy users (n=110) and 32% of the frequent injecting drug users (n=30).

### **6.3 Availability of ecstasy (MDMA)**

#### *6.3.1 Current availability of ecstasy (MDMA)*

Fifty-four percent of the frequent drug users described the current availability of ecstasy (MDMA) as 'easy', with a further 20% describing the availability of the drug as 'very easy' (Table 6.1). In contrast, 27% of frequent drug users described the current availability of ecstasy (MDMA) as 'difficult'. The

average score for the current availability of ecstasy (MDMA) for all the frequent drug users was 2.1 which indicates that overall the current level of availability of ecstasy (MDMA) is ‘easy’. There was a statistically significant difference in the average score for the current availability of ecstasy (MDMA) between the three groups of frequent drug users. The frequent ecstasy users considered ecstasy (MDMA) more easily available than the frequent injecting drug users (2.0 vs. 2.3,  $p=0.0217$ ). The KE described the current availability of ecstasy (MDMA) as ‘easy’.

Table 6.1: Current availability of ecstasy (MDMA) by frequent drug user group, 2006

Current availability of ecstasy (MDMA) (%)	Methamphetamine users (n=61)	Ecstasy users (MDMA) (n=109)	Intravenous drug users (IDU) (n=30)	Combined modules (n=200)
Very easy [1]	18%	26%	3%	20%
Easy [2]	52%	52%	60%	54%
Difficult [3]	30%	22%	37%	27%
Very difficult [4]	0%	0%	0%	0%
Average availability score (1=very easy – 4=very difficult)	2.1	2.0	2.3	2.1
Overall current status	Easy	Easy/ very easy	Easy	Easy

### 6.3.2 Change in availability of ecstasy (MDMA)

Forty-five percent of the frequent drug users reported that the availability of ecstasy (MDMA) had been ‘stable’ in the previous six months, with a further 23% saying availability had ‘fluctuated’ (Table 6.2). Nineteen percent indicated that the availability of ecstasy (MDMA) had become ‘easier’ in the previous six months. The average score for the change in the availability of ecstasy (MDMA) for all the frequent drug users was 1.9 which indicates that overall the availability of ecstasy (MDMA) was ‘stable’ over the last six months. There was no statistically significant difference in the average score for the change in availability of ecstasy (MDMA) between the three groups of frequent drug users, with all three groups indicating that the availability of ecstasy (MDMA) had been ‘stable’ over the previous six months ( $p=0.3391$ ). The KE also said the availability of ecstasy (MDMA) had been stable in the past six months.

Table 6.2: Change in availability of ecstasy (MDMA) by frequent drug user group, 2006

Change in availability of ecstasy (MDMA) (%)	Methamphetamine users (n=59)	Ecstasy users (MDMA) (n=106)	Intravenous drug users (IDU) (n=29)	Combined modules (n=194)
Easier [1]	12%	25%	14%	19%
Stable [2]	61%	35%	48%	45%
Fluctuates [2]	20%	26%	17%	23%
More difficult [3]	7%	14%	21%	13%
Average change in availability score (1=easier – 3=more difficult)	1.9	1.9	2.1	1.9
Overall recent change	Stable	Stable	Stable	Stable

## 6.4 Price of ecstasy (MDMA)

### 6.4.1 Current price of ecstasy (MDMA)

The median price paid for a pill of ecstasy (MDMA) was \$60 (Table 6.3). There was a statistically significant difference between the three groups of frequent drug user with respect to the price paid for a pill of ecstasy (MDMA). The frequent methamphetamine users paid a lower mean price for a pill of ecstasy than both the frequent ecstasy users (\$54 vs. \$60,  $p=0.0177$ ) and the frequent injecting drug users (\$54 vs. \$64,  $p=0.0103$ ). The KE reported the current median price of a pill of ecstasy (MDMA) to be \$50.

Table 6.3: Current median (mean) price for ecstasy (MDMA) (NZD) by frequent drug user group, 2006

Current price of ecstasy (MDMA)	Methamphetamine users (n=53)	Ecstasy users (MDMA) (n=108)	Intravenous drug users (IDU) (n=29)	Combined modules (n=190)
Median (mean) price 'pill'	\$60 (\$54)	\$60 (\$60)	\$65 (\$64)	\$60 (\$59)

### 6.4.2 Change in price of ecstasy (MDMA)

Fifty-eight percent of the frequent drug users reported that the price of ecstasy (MDMA) had been 'stable' in the previous six months, with a further 12% saying the price had 'fluctuated' over this time (Table 6.4). Twenty-two percent reported that the price of ecstasy (MDMA) had decreased in the previous six months. The average score for the change in the price of ecstasy (MDMA) for all the

frequent drug users was 1.8 which indicates that overall the price of ecstasy was ‘stable/decreasing’ over the previous six months. There was no statistically significant difference in the average score for the change in price of ecstasy (MDMA) between the three groups of frequent drug users, with all three groups indicating that the price of ecstasy (MDMA) had been ‘stable/decreasing’ over the previous six months (p=0.5262). The KE said the price of ecstasy (MDMA) had been ‘fluctuating/decreasing’ over the past six months.

Table 6.4: Change in the price of ecstasy (MDMA) in the last six months by frequent drug user group, 2006

Change in price of ecstasy (MDMA) (%)	Methamphetamine users (n=55)	Ecstasy users (MDMA) (n=105)	Intravenous drug users (IDU) (n=27)	Combined modules (n=187)
Decreasing [1]	22%	25%	15%	22%
Stable [2]	60%	53%	74%	58%
Fluctuating [2]	9%	16%	4%	12%
Increasing [3]	9%	6%	7%	7%
Average change in price score (1=decreasing – 3=increasing)	1.9	1.8	1.9	1.8
Overall recent change	Stable/ decreasing	Stable/ decreasing	Stable/ decreasing	Stable/ decreasing

## 6.5 Purity of ecstasy (MDMA)

### 6.5.1 Current purity of ecstasy (MDMA)

Thirty-two percent of the frequent drug users described the current purity of ecstasy (MDMA) as ‘fluctuating’ and a further 31% described it as ‘medium’ (Table 6.5). Twenty-nine percent of the frequent drug users described the current purity of ecstasy (MDMA) as ‘high’. The average score for the current purity of ecstasy (MDMA) for all the frequent drug users was 2.2 which indicates that overall the purity of ecstasy (MDMA) is ‘medium/ high’. There was no statistically significant difference in the average score for the purity of ecstasy (MDMA) between the three groups of frequent drug users with all three groups indicating the current purity of ecstasy (MDMA) is ‘medium/high’ (p=0.5820). The KE described the current purity of ecstasy (MDMA) as ‘fluctuating’.

Table 6.5: Current purity of ecstasy (MDMA) by frequent drug user group, 2006

Current purity of ecstasy (MDMA) (%)	Methamphetamine users (n=56)	Ecstasy users (MDMA) (n=108)	Intravenous drug users (IDU) (n=27)	Combined modules (n=191)
Low [1]	7%	8%	7%	8%
Medium [2]	32%	31%	30%	31%
Fluctuates [2]	30%	34%	26%	32%
High [3]	30%	26%	37%	29%
Average purity score (1=low – 3=high)	2.2	2.2	2.3	2.2
Overall current status	Medium/high	Medium/high	Medium/high	Medium/high

### 6.5.2 Change in purity of ecstasy (MDMA)

Forty percent of the frequent drug users reported that the purity of ecstasy (MDMA) had ‘fluctuated’ in the previous six months, with a further 36% saying that purity had been ‘stable’ over this time (Table 6.6). The average score for the change in the purity of ecstasy (MDMA) for all the frequent drug users was 2.0 which indicates that overall the purity of ecstasy (MDMA) was ‘stable/fluctuating’ over the last six months. There was no statistically significant difference in the average score for the change in purity of ecstasy (MDMA) between the three groups of frequent drug users with all three groups indicating that the purity of ecstasy (MDMA) had been ‘stable/fluctuating’ over the previous six months ( $p=0.4855$ ). The KE reported the purity of ecstasy (MDMA) had been ‘stable/fluctuating’ over the last six months.

Table 6.6: Change in purity of ecstasy (MDMA) by frequent drug user group, 2006

Change in purity of ecstasy (MDMA) (%)	Methamphetamine users (n=55)	Ecstasy users (MDMA) (n=102)	Intravenous drug users (IDU) (n=26)	Combined modules (n=183)
Decreasing [1]	9%	16%	15%	14%
Stable [2]	44%	30%	42%	36%
Fluctuating [2]	36%	43%	38%	40%
Increasing [3]	11%	11%	4%	10%
Average change in purity score (1=decreasing – 3=increasing)	2.0	2.0	1.9	2.0
Overall recent change	Stable/Fluctuates	Stable/Fluctuates	Stable/fluctuates	Stable/fluctuates

## 6.6 Perceptions of the number of people using ecstasy (MDMA)

Fifty-one percent of the frequent drug users thought ‘about the same’ number of people they know were using ecstasy (MDMA), 39% said ‘more’ people were using ecstasy (MDMA) and 11% said that ‘less’ people they know were using the drug (Table 6.7). The average score for all the frequent drug users for the question was 2.3 indicating that overall the ‘same/more’ people were using ecstasy (MDMA) compared to six months ago. There was no statistically significant difference in perceptions of the number of people using ecstasy (MDMA) between the three groups of frequent drug users with all three saying the ‘same/more’ people they know were using ecstasy (MDMA) compared to six months ago (p=0.3497)

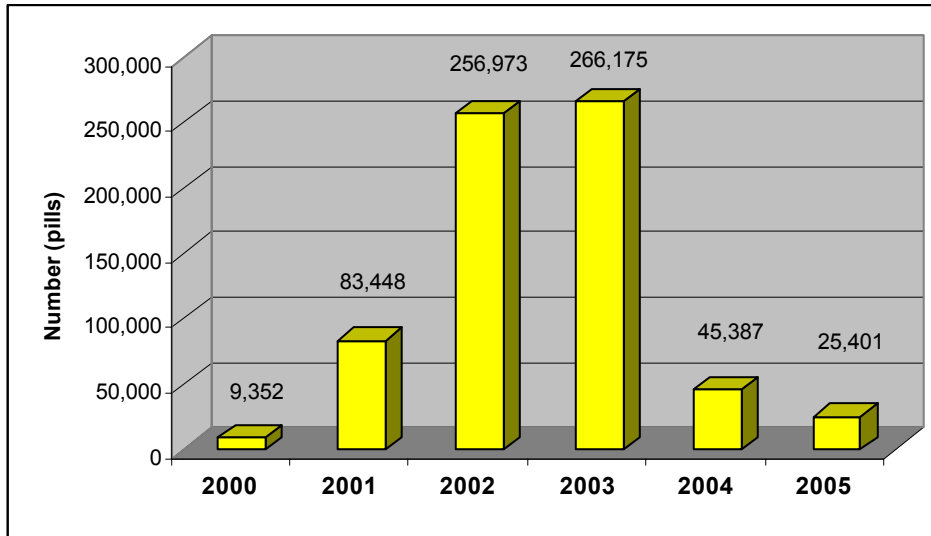
Table 6.7: Perceptions of the number of people using ecstasy (MDMA) by frequent drug user group, 2006

Number of people using ecstasy (MDMA) (%)	Methamphetamine users (n=59)	Ecstasy users (MDMA) (n=109)	Intravenous drug users (IDU) (n=28)	Combined modules (n=196)
Less [1]	10%	8%	21%	11%
Same [2]	58%	50%	39%	51%
More [3]	32%	42%	39%	39%
Average number of people using score (1=less – 3=more)	2.2	2.3	2.2	2.3
Overall recent change	Same/More	Same/more	Same/more	Same/more

## 6.7 Seizures of ecstasy (MDMA)

Annual seizures of ecstasy (MDMA) pills made by the New Zealand Police and New Zealand Customs Service increased dramatically in 2001 and continued to increase and remain high in 2002 and 2003 (Figure 6.1). Seizures of ecstasy (MDMA) then declined in both 2004 and 2005. New Zealand drug enforcement agencies attribute the recent decline in seizures of ecstasy (MDMA) in New Zealand to more elaborate smuggling methods being used by international drug trafficking groups rather than a decline in the use of the drug.

Figure 6.1: Pills of ecstasy (MDMA) seized in New Zealand, 2000-2005



## 6.8 Ecstasy (MDMA) use in the general population

The proportion of the New Zealand population aged 13-45 years old who had ever tried ecstasy (MDMA) increased in 2006 compared to 2003 (7.5% versus 5.2%,  $p=0.0018$ ). There was no statistically significant change in the proportion of people who had used ecstasy (MDMA) in the previous year in 2006 compared to 2003, although this was close to being statistically significant (3.7% versus 2.7%,  $p=0.0696$ ). There had previously been a statistically significant increase in the last year use of ecstasy (MDMA) among the New Zealand population in 2001 compared to 1998 followed by a levelling out in use in 2003 compared to 2001 (see Wilkins et al., 2005a).

## 6.9 Summary of ecstasy (MDMA) trends

- The current availability of ecstasy (MDMA) is reported to be 'easy'
- The availability of ecstasy (MDMA) is thought to have been 'stable' over the previous six months
- A pill of ecstasy (MDMA) currently costs a median price of \$60
- The price of ecstasy (MDMA) is reported to have been 'stable/decreasing' over the previous six months
- The current purity of ecstasy (MDMA) is said to be 'medium/high'

- The purity of ecstasy (MDMA) has been ‘stable/fluctuating’ over the previous six months
- The number of people using ecstasy (MDMA) was described as the ‘same/more’ compared to six months ago
- Annual seizures of ecstasy (MDMA) have decreased in recent years and this is thought to reflect the fact that drug smugglers are using more sophisticated smuggling techniques
- National household survey data suggests that the population prevalence of use of ecstasy (MDMA) increased in 2006 compared to 2003

## **7. Cannabis**

### **7.1 Introduction**

Cannabis is New Zealand's most widely used illegal drug and the third most popular drug after alcohol and tobacco. The supply of cannabis in New Zealand is met almost entirely through domestic cannabis cultivation, either via clandestine outdoor cultivation or indoor hydroponics growing techniques (Yska, 1990, Wilkins et al., 2002b, Wilkins and Casswell, 2003). The black market for cannabis in New Zealand has recently been estimated to have an annual dollar turnover of \$131-\$190 million dollars (NZD) (Wilkins et al., 2002a, Wilkins et al., 2005c). Cannabis is sold in New Zealand within private social networks and from public drug houses, known as 'tinny' houses (Wilkins et al., 2005b). Recent analysis of cannabis purchasing in New Zealand has found that adolescents aged 15-17 years old were more likely to purchase their cannabis from 'tinny' houses than older cannabis buyers (Wilkins et al., 2005b). Exploration of the structure of the illegal market for cannabis in New Zealand suggests that many cannabis users receive their cannabis for 'free' during group consumption sessions, and that many heavy cannabis users finance their spending on cannabis through selling cannabis (Wilkins and Sweetsur, 2006a). High spending on cannabis has greatest financial impact among low income groups where approximately 8% of low income cannabis buyers are spending 20% or more of their gross annual personal income on cannabis (Wilkins and Sweetsur, 2007).

### **7.2 Knowledge of cannabis trends**

Eighty-eight percent of the frequent drug users interviewed (n=280) indicated they felt confident enough to comment on the price, purity and availability of cannabis in the previous six months. This included 87% of the frequent methamphetamine users (n=99), 86% of the frequent ecstasy users (n=96) and 91% of the frequent injecting drug users (n=85).

### **7.3 Availability of cannabis**

#### *7.3.1 Current availability of cannabis*

Sixty percent of the frequent drug users described the current availability of cannabis as 'very easy', with a further 36% describing the availability of the drug as 'easy' (Table 7.1). The average score for the current availability of cannabis for all the frequent drug users was 1.5 which indicates that overall the current level of availability of cannabis is 'very easy/ easy'. There was no statistically significant difference in the average score for the current availability of cannabis between the three groups of

frequent drug users, with all three groups reporting the current availability of cannabis as ‘very easy/easy’ (p=0.6643).

Table 7.1: Current availability of cannabis by frequent drug user group, 2006

Current availability of cannabis (%)	Methamphetamine users (n=99)	Ecstasy users (MDMA) (n=92)	Intravenous drug users (IDU) (n=85)	Combined modules (n=276)
Very easy [1]	64%	61%	54%	60%
Easy [2]	31%	34%	42%	36%
Difficult [3]	5%	4%	4%	4%
Very difficult [4]	0%	1%	0%	0%
Average availability score (1=very easy – 4=very difficult)	1.4	1.5	1.5	1.5
Overall current status	Very easy/easy	Very easy/easy	Very easy/easy	Very easy/easy

### 7.3.2 Change in availability of cannabis

Sixty-nine percent of the frequent drug users reported that the availability of cannabis had been ‘stable’ in the previous six months, with a further 15% saying availability had ‘fluctuated’ (Table 7.2). The average score for the change in the availability of cannabis for all the frequent drug users was 2.0 which indicates that overall the availability of cannabis was ‘stable/ fluctuating’ over the past six months. There was no statistically significant difference in the average score for the change in availability of cannabis between the three groups of frequent drug users, with all three groups indicating that availability of cannabis had been ‘stable/ fluctuating’ over the previous six months (p=0.1917).

Table 7.2: Change in availability of cannabis by frequent drug user group, 2006

Change in availability of cannabis (%)	Methamphetamine users (n=97)	Ecstasy users (MDMA) (n=93)	Intravenous drug users (IDU) (n=84)	Combined modules (n=274)
Easier [1]	4%	10%	8%	7%
Stable [2]	74%	58%	74%	69%
Fluctuates [2]	11%	27%	7%	15%
More difficult [3]	10%	5%	11%	9%
Average change in availability score (1=easier – 3=more difficult)	2.1	2.0	2.0	2.0
Overall recent change	Stable	Stable	Stable	Stable

## 7.4 Price of cannabis

### 7.4.1 Current price of cannabis

The median price paid for a ‘tinny/foil’ (1.5 grams) of cannabis was \$20 (Table 7.3). The median price paid for an ounce (28 grams) of cannabis was \$300. There was no statistically significant difference in the mean price paid for a ‘tinny/ foil’ of cannabis between the three groups of frequent drug users ( $p=0.774$ ). The injecting drug users paid a higher mean price for an ounce of cannabis than the frequent methamphetamine users (\$309 vs. \$291,  $p=0.0446$ ).

Table 7.3: Current median (mean) price for cannabis (NZD) by frequent drug user group, 2006

Current price of cannabis	Methamphetamine users	Ecstasy users (MDMA)	Intravenous drug users (IDU)	Combined modules
Number with knowledge	n=71	n=80	n=78	n=229
Median (mean) price for a ‘tinny/foil’ (1.5 grams)	\$20 (\$20)	\$20 (\$20)	\$20 (\$21)	\$20 (\$20)
Number with knowledge	n=63	n=50	n=62	n=175
Median (mean) price for an ounce (28 grams)	\$300 (\$291)	\$300 (\$298)	\$300 (\$309)	\$300 (\$300)

### 7.4.2 Change in price of cannabis

Seventy-four percent of the frequent drug users reported that the price of cannabis had been ‘stable’ in the previous six months, with a further 10% saying the price had ‘fluctuated’ over this time (Table 7.4). Eleven percent reported that the price of cannabis had ‘decreased’ in the previous six months. The average score for the change in the price of cannabis for all the frequent drug users was 2.1 which indicates that overall the price of cannabis was ‘stable’ over the previous six months. There was a statistically significant difference in the average score for the change in price of cannabis between the three groups of frequent drug users. The frequent injecting drug users were more likely to describe the price of cannabis as ‘increasing’ than the frequent methamphetamine users (2.2 vs. 2.0,  $p=0.0114$ ). Note this is consistent with the frequent injecting drug users reporting paying higher prices for an ounce of cannabis in the previous section.

Table 7.4: Change in the price of cannabis in the last six months by frequent drug user group, 2006

Change in price of cannabis (%)	Methamphetamine users (n=95)	Ecstasy users (MDMA) (n=90)	Intravenous drug users (IDU) (n=84)	Combined modules (n=269)
Decreasing [1]	6%	4%	2%	4%
Stable [2]	76%	70%	77%	74%
Fluctuating [2]	13%	16%	2%	10%
Increasing [3]	5%	10%	18%	11%
Average change in price score (1=decreasing – 3=increasing)	2.0	2.1	2.2	2.1
Overall recent change	Stable	Stable	Stable/ increasing	Stable

## 7.5 Purity of cannabis

### 7.5.1 Current purity of cannabis

Forty-seven percent of the frequent drug users described the current strength of cannabis as ‘high’ (Table 7.5). Thirty-three percent of frequent drug users described the current strength of cannabis as ‘fluctuating’ and 16% described the current strength as ‘medium’. The average score for the current strength of cannabis for all the frequent drug users was 2.4 which indicates that overall the current strength of cannabis is ‘high/medium’. There was no statistically significant difference in the average score for the strength of cannabis between the three groups of frequent drug users, with all three groups indicating the current strength of cannabis is ‘high/medium’ ( $p=0.1634$ ).

Table 7.5: Current purity of cannabis by frequent drug user group, 2006

Current purity of cannabis (%)	Methamphetamine users (n=96)	Ecstasy users (MDMA) (n=88)	Intravenous drug users (IDU) (n=83)	Combined modules (n=267)
Low [1]	4%	3%	5%	4%
Medium [2]	25%	11%	12%	16%
Fluctuates [2]	25%	47%	27%	33%
High [3]	46%	39%	57%	47%
Average purity score (1=low – 3=high)	2.4	2.4	2.5	2.4
Overall current status	High/ medium	High/ medium	High/ medium	High/ medium

### 7.5.2 Change in purity of cannabis

Forty-six percent of the frequent drug users reported that the strength of cannabis had been ‘stable’ in the previous six months, with a further 31% saying that the strength of cannabis had ‘fluctuated’ over this time (Table 7.6). The average score for the change in the strength of cannabis for all the frequent drug users was 2.1 which indicates that overall the strength of cannabis was ‘stable/fluctuating’ over the last six months. There was no statistically significant difference in the average score for the change in strength of cannabis between the three groups of frequent drug users, with all three groups indicating that the strength of cannabis had been ‘stable/fluctuating’ over the previous six months ( $p=0.1500$ ).

Table 7.6: Change in purity of cannabis by frequent drug user group, 2006

Change in purity of cannabis (%)	Methamphetamine users (n=95)	Ecstasy users (MDMA) (n=82)	Intravenous drug users (IDU) (n=85)	Combined modules (n=262)
Decreasing [1]	4%	6%	5%	5%
Stable [2]	53%	45%	39%	46%
Fluctuating [2]	26%	37%	32%	31%
Increasing [3]	17%	12%	25%	18%
Average change in purity score (1=decreasing – 3=increasing)	2.1	2.1	2.2	2.1
Overall recent change	Stable/Fluctuates	Stable/Fluctuates	Stable/fluctuates	Stable/fluctuates

### 7.6 Perceptions of the number of people using cannabis

Seventy-three percent of the frequent drugs thought ‘about the same’ number of people they know were using cannabis, 17% said ‘more’ people were using cannabis and 10% said that ‘less’ people they know were using the drug (Table 7.7). The average score for all the frequent drug users for the question was 2.1 indicating that overall ‘about the same’ number of people were using cannabis compared to six months ago. There was no statistically significant difference in perceptions of the number of people using cannabis between the three groups of frequent drug users, with all three saying ‘about the same’ number of people they know were using cannabis compared to six months ago ( $p=0.1197$ ).

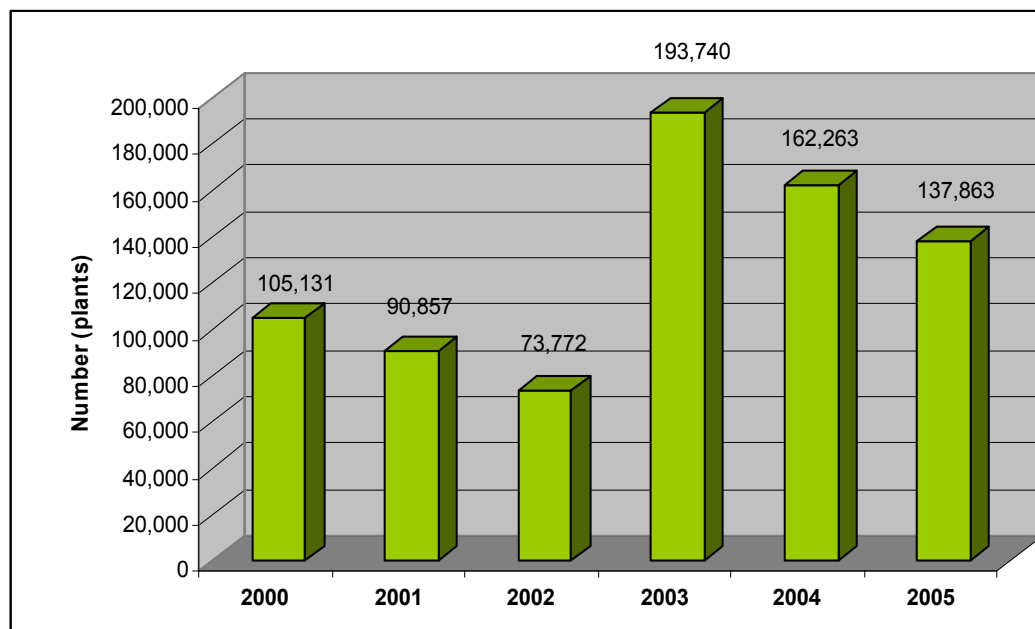
Table 7.7: Perceptions of the number of people using cannabis by frequent drug user group, 2006

Number of people using cannabis (%)	Methamphetamine users (n=99)	Ecstasy users (MDMA) (n=96)	Intravenous drug users (IDU) (n=84)	Combined modules (n=279)
Less [1]	5%	11%	13%	10%
Same [2]	75%	77%	66%	73%
More [3]	20%	11%	20%	17%
Average number of people using score (1=less – 3=more)	2.2	2.0	2.1	2.1
Overall recent change	Same/ More	Same/ more	Same/ more	Same/ more

### 7.7 Seizures of cannabis plants

Annual seizures of cannabis plants by the New Zealand Police have been on average higher in the last three years than the preceding three years. Between 2003-2005 an average of 164,600 cannabis plants were seized and destroyed each year by police (Figure 7.1). This compares to an average of 89,920 plants seized each year from 2000-2002.

Figure 7.1 Annual seizures of cannabis plants, 2000-2005



## 7.8 Cannabis use in the general population

The proportion of the New Zealand population aged 13-45 years old who had ever tried cannabis decreased in 2006 compared to 2003 (41.5% versus 51.3%,  $p < 0.0001$ ). The proportion of people who had used cannabis in the previous 12 months also decreased in 2006 compared to 2003 (17.0% versus 19.7%,  $p = 0.0354$ ). There has previously been no statistically significant change in the last year use of cannabis among the New Zealand population going back to 2001 (see Wilkins et al., 2005a).

## 7.9 Summary of cannabis trends

- The current availability of cannabis is reported to be ‘very easy/easy’
- The availability of cannabis is thought to have been ‘stable’ over the previous six months
- A tinny (1.5 grams) of cannabis currently costs a median price of \$20, while an ounce of cannabis currently costs a median price of \$300
- The price of cannabis is reported to have been ‘stable’ over the previous six months
- The current strength of cannabis is said to be ‘high/medium’
- The strength of cannabis has been ‘stable/ fluctuating’ over the previous six months
- The number of people using cannabis was described as the ‘same/more’ compared to six months ago
- The total number of cannabis plants seized each year was higher in the years 2003-2005 than in 2000-2002
- National household survey data suggests that the population prevalence of use of cannabis decreased in 2006 compared to 2003

## **8. LSD**

### **8.1 Introduction**

Lysergic acid diethylamide or LSD ('trips' or 'acid') is a hallucinogen which gained notoriety in many Western countries during the 1960s. While the use of LSD waned in many other countries in subsequent decades, LSD remained relatively popular among drug users in New Zealand. Comparison of national household drug surveys conducted in 1990 and 1998 found increased use of LSD in the population (Field and Casswell, 1999). Between 1990-1994, New Zealand had the seventh highest number of LSD seizures of twenty-four countries surveyed (New Zealand Customs Service, 2002). In more recent years, the use of LSD in New Zealand has been eclipsed to some extent by the emergence of ecstasy and methamphetamine (Wilkins et al., 2002c, Wilkins et al., 2002d).

### **8.2 Knowledge of LSD trends**

Forty percent of the frequent drug users interviewed (n=126) indicated they felt confident enough to comment on the price, purity and availability of LSD in the previous six months. This included 41% of the frequent methamphetamine users (n=47), 53% of the frequent ecstasy users (n=59) and 22% of the frequent injecting drug users (n=20).

### **8.3 Availability of LSD**

#### *8.3.1 Current availability of LSD*

Forty-seven percent of the frequent drug users described the current availability of LSD as 'easy' (Table 8.1). Thirty-eight percent of the frequent drug users described the availability of LSD as 'difficult'. The average score for the current availability of LSD for all the frequent drug users was 2.4 which indicates that overall the current level of availability of LSD is 'easy/difficult'. There was no statistically significant difference in the average score for the current availability for LSD between the three groups of frequent drug users, with all three groups reporting the current availability of LSD as 'easy/difficult' (p=0.4264).

Table 8.1: Current availability of LSD by frequent drug user group, 2006

Current availability of LSD (%)	Methamphetamine users (n=47)	Ecstasy users (MDMA) (n=58)	Intravenous drug users (IDU) (n=19)	Combined modules (n=124)
Very easy [1]	11%	7%	5%	8%
Easy [2]	34%	55%	53%	47%
Difficult [3]	45%	33%	37%	38%
Very difficult [4]	11%	5%	5%	7%
Average availability score (1=very easy – 4=very difficult)	2.6	2.4	2.4	2.4
Overall current status	Easy/difficult	Easy/difficult	Easy/difficult	Easy/difficult

### 8.3.2 Change in availability of LSD

Thirty-four percent of the frequent drug users reported that the availability of LSD had been ‘stable’ in the previous six months, with a further 31% saying availability had ‘fluctuated’ (Table 8.2). The average score for the change in availability of LSD for all the frequent drug users was 2.0 which indicates that overall the availability of LSD was ‘stable/fluctuating’ over the last six months. There was no statistically significant difference in the average score for the change in availability of LSD between the three groups of frequent drug users, with all three groups indicating that the availability of LSD had been ‘stable/fluctuating’ over the previous six months ( $p=0.1528$ ).

Table 8.2: Change in availability of LSD by frequent drug user group, 2006

Change in availability of LSD (%)	Methamphetamine users (n=45)	Ecstasy users (MDMA) (n=55)	Intravenous drug users (IDU) (n=19)	Combined modules (n=119)
Easier [1]	9%	20%	21%	16%
Stable [2]	33%	29%	53%	34%
Fluctuates [2]	33%	38%	5%	31%
More difficult [3]	24%	13%	21%	18%
Average change in availability score (1=easier – 3=more difficult)	2.2	1.9	2.0	2.0
Overall recent change	Stable	Stable	Stable	Stable

## 8.4 Price of LSD

### 8.4.1 Current price of LSD

The median price paid for a 'tab' of LSD was \$35 (Table 8.3). There was a statistically significant difference in the mean price paid for a 'tab' of LSD between the three groups of frequent drug users. Frequent methamphetamine users reported a lower mean price paid for a tab of LSD than either the frequent ecstasy (MDMA) users (\$30 vs. \$36,  $p=0.0044$ ) or the frequent injecting drug users (\$30 vs. \$44,  $p<0.0001$ ). The frequent ecstasy (MDMA) users reported a lower price paid for a tab of LSD than the frequent injecting drug users (\$36 vs. \$44,  $p=0.0048$ ).

Table 8.3: Current median (mean) price for LSD (NZD) by frequent drug user group, 2006

Current price of LSD	Methamphetamine users (n=41)	Ecstasy users (MDMA) (n=57)	Intravenous drug users (IDU) (n=19)	Combined modules (n=117)
Median (mean) price for a 'tab'	\$30 (\$30)	\$40 (\$36)	\$40 (\$44)	\$35 (\$35)

### 8.4.2 Change in price of LSD

Seventy percent of the frequent drug users reported that the price of LSD had been 'stable' in the previous six months, with a further 9% saying the price had 'fluctuated' over this time (Table 8.4). The average score for the change in the price of LSD for all the frequent drug users was 2.0 which indicates that overall the price of LSD was 'stable' over the past six months. There was no statistically significant difference in the average score for the change in price of LSD between the three groups of frequent drug users, with all three describing the price as 'stable' ( $p=0.1064$ ).

Table 8.4: Change in the price of LSD in the last six months by frequent drug user group, 2006

Change in price of LSD (%)	Methamphetamine users (n=43)	Ecstasy users (MDMA) (n=55)	Intravenous drug users (IDU) (n=19)	Combined modules (n=117)
Decreasing [1]	5%	13%	16%	10%
Stable [2]	70%	69%	74%	70%
Fluctuating [2]	9%	13%	2%	9%
Increasing [3]	16%	5%	11%	10%
Average change in price score (1=decreasing – 3=increasing)	2.1	1.9	1.9	2.0
Overall recent change	Stable	Stable	Stable	Stable

## 8.5 Purity of LSD

### 8.5.1 Current purity of LSD

Forty-one percent of the frequent drug users described the current strength of LSD as ‘medium’, with a further 26% described it as fluctuating (Table 8.5). Twenty-six percent of frequent drug users described the current strength of LSD as ‘high’. The average score for the current strength of LSD for all the frequent drug users was 2.2 which indicates that overall the strength of LSD is ‘medium/high’. There was a statistically significant difference between the three groups of frequent drug users with respect to the current strength of LSD ( $p=0.0495$ ). The frequent ecstasy users were more likely to describe the current strength of LSD as ‘high’ than the frequent injecting drug users (2.3 vs. 1.9,  $p=0.0407$ ).

Table 8.5: Current purity of LSD by frequent drug user group, 2006

Current purity of LSD (%)	Methamphetamine users (n=45)	Ecstasy users (MDMA) (n=56)	Intravenous drug users (IDU) (n=20)	Combined modules (n=121)
Low [1]	4%	5%	25%	8%
Medium [2]	47%	39%	30%	41%
Fluctuates [2]	24%	25%	30%	26%
High [3]	24%	30%	15%	26%
Average purity score (1=low – 3=high)	2.2	2.3	1.9	2.2
Overall current status	Medium/high	Medium/high	Medium	Medium/high

### 8.5.2 Change in purity of LSD

Forty-four percent of the frequent drug users reported that the strength of LSD had been ‘stable’ in the previous six months, with a further 28% saying that the strength of the drug had fluctuated over this time (Table 8.6). The average score for the change in the strength of LSD for all the frequent drug users was 2.0 which indicates that overall the strength of LSD had been ‘stable/fluctuating’ over the past six months. There was no statistically significant difference in the average score for the change in strength of LSD between the three groups of frequent drug users, with all three groups indicating that the strength of LSD had been ‘stable/fluctuating’ over the previous six months ( $p=0.2806$ ).

Table 8.6: Change in purity of LSD by frequent drug user group, 2006

Change in purity of cannabis (%)	Methamphetamine users (n=41)	Ecstasy users (MDMA) (n=50)	Intravenous drug users (IDU) (n=18)	Combined modules (n=109)
Decreasing [1]	17%	4%	28%	13%
Stable [2]	51%	44%	28%	44%
Fluctuating [2]	17%	38%	28%	28%
Increasing [3]	15%	14%	17%	15%
Average change in purity score (1=decreasing – 3=increasing)	2.0	2.1	1.9	2.0
Overall recent change	Stable/ fluctuating	Stable/ fluctuating	Stable/ fluctuating	Stable/ fluctuating

## 8.6 Perceptions of the number of people using LSD

Fifty-one percent of frequent drugs thought ‘about the same’ number of people they know were using LSD, 27% said ‘less’ people were using LSD and 22% said that ‘more’ people they know were using the drug (Table 8.7). The average score for all the frequent drug users for the question was 2.1 indicating that overall ‘about the same’ number of people were using LSD compared to six months ago. There was a statistically significant difference in perceptions of the number of people using LSD between the three groups of frequent drug users ( $p=0.0023$ ). The frequent ecstasy users were more likely to say that ‘more’ people they know were using LSD than either the frequent injecting drug users (2.2 vs. 1.7,  $p=0.0203$ ) or the frequent methamphetamine users (2.2 vs. 1.8,  $p=0.0067$ ).

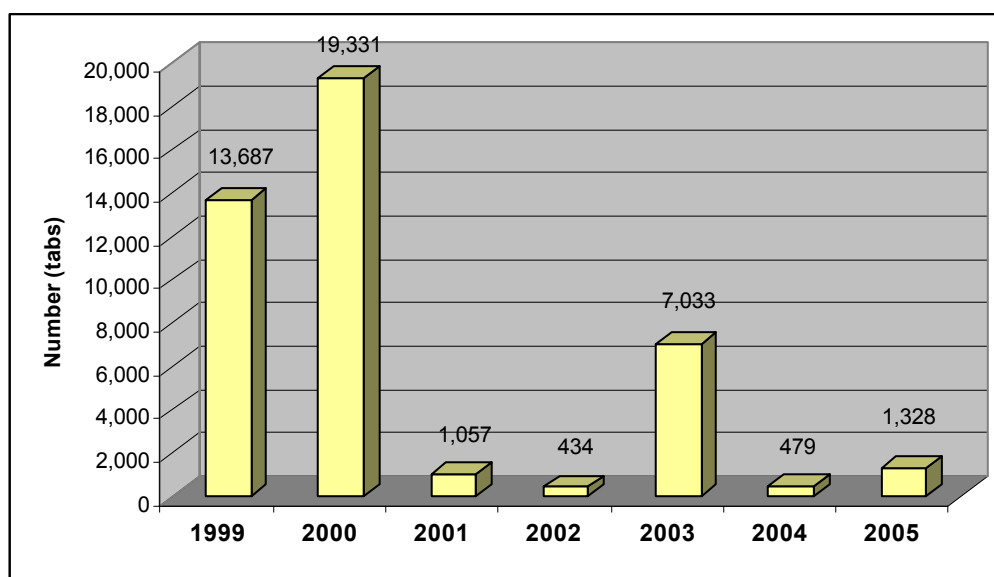
Table 8.7: Perceptions of the number of people using LSD by frequent drug user group, 2006

Number of people using LSD (%)	Methamphetamine users (n=46)	Ecstasy users (MDMA) (n=59)	Intravenous drug users (IDU) (n=20)	Combined modules (n=125)
Less [1]	39%	14%	40%	27%
Same [2]	46%	56%	50%	51%
More [3]	15%	31%	10%	22%
Average number of people using score (1=less – 3=more)	1.8	2.2	1.7	1.9
Overall recent change	Same/ Less	Same/ more	Same/ less	Same

## 8.7 Seizures of LSD

Annual seizures of LSD by New Zealand Police and the New Zealand Customs Service fell dramatically after 2000 and returned only briefly to previous levels in 2003 (Figure 8.1). LSD is an odourless, colourless, concentrated liquid and is consequently extremely difficult to detect. New Zealand drug enforcement agencies attribute the decline in seizures of LSD over the past five years to more elaborate smuggling methods being used rather than any obvious decline in the use of the drug.

Figure 8.1: Tabs of LSD seized in New Zealand, 1999-2005



## 8.8 LSD use in the general population

The proportion of the New Zealand population aged 13-45 years old who had ever tried LSD remained the same in 2006 compared to 2003 (7.9% versus 7.6%,  $p=0.7285$ ). The proportion of respondents aged 13-45 who had used LSD in the previous 12 months also remained the same in 2006 compared to 2003 (1.7% versus 1.8%,  $p=0.9158$ ). There had previously been a statistically significant decrease in the use of LSD among the New Zealand population in 2003 compared to 2001 (see Wilkins et al., 2005a).

## 8.9 Summary of LSD trends

- The current availability of LSD is reported to be 'easy/difficult'
- The availability of LSD is thought to have been 'stable' over the previous six months

- A tab of LSD currently costs a median price of \$35
- The price of LSD is reported to have been ‘stable’ over the previous six months
- The current strength of LSD is said to be ‘medium/high’
- The strength of LSD has been ‘stable/fluctuating’ over the previous six months
- The number of people using LSD was described as the ‘same’ compared to six months ago
- The number of tabs of LSD seized each year declined dramatically after 2000
- National household survey data suggests that the population prevalence of LSD remained the same in 2006 compared to 2003. The population use of LSD had previously decreased in 2003 compared to 2001

## 9. Opiates

### 9.1 Introduction

The international supply of heroin into New Zealand was substantially disrupted in the late 1970s by successful drug enforcement operations (Newbold, 2000, New Zealand Customs Service, 2002). Three domestic sources of opiates subsequently emerged in New Zealand to replace the regular supply of imported heroin: (1) morphine sulphate tablets (MST or misties), (2) ‘homebake heroin’ (made from codeine-based tablets) and (3) opium (extracted from opium poppies) (New Zealand Customs Service, 2002). Interceptions of heroin intended for the New Zealand domestic market remain spasmodic despite the presence of a fairly large market for heroin in nearby Sydney (New Zealand Customs Service, 2002).

### 9.2 Knowledge of opiate trends

Thirty-six percent of the frequent drug users interviewed (n=116) indicated they felt confident enough to comment on the price, purity and availability of opiates in the previous six months. This included 25% of the frequent methamphetamine users (n=28), 4% of the frequent ecstasy users (n=4) and 90% of the frequent injecting drug users (n=84). As there were only very small numbers of frequent ecstasy users with knowledge of opiates, we only included these users in the combined group of frequent drug users and not as a separate frequent drug user group.

#### 9.2.1 Types of opiates

The frequent drug users were first asked to specify the types of opiates for which they had knowledge. Morphine derivatives (MST, M-Eslon, Kapanol) (82%) were the opiates for which the frequent drug users most commonly had knowledge of their price, purity and availability, followed by homebake heroin (53%) and poppies (52%), and finally heroin (28%) (Table 9.1).

Table 9.1: Type of opiate which the frequent drug users had knowledge of, 2006

Type of opiate	Methamphetamine users (n=29)	Intravenous drug users (IDU) (n=83)	Combined modules (n=116) (includes frequent ecstasy users)
Heroin	31%	27%	28%
Homebake heroin	34%	61%	53%
Morphine (MST, misties, M-Eslon, Kapanol)	62%	90%	82%
Poppies (opium)	41%	55%	52%

## 9.3 Availability of opiates

### 9.3.1 Current availability of opiates

Forty-five percent of the frequent drug users described the current availability of opiates as ‘easy’, with a further 41% of frequent drug users describing availability as ‘very easy’ (Table 9.2). The average score for the current availability of opiates for all the frequent drug users was 1.8 which indicates that overall the current availability of opiates is ‘easy/very easy’. There was no statistically significant difference in the average score for the current availability of opiates between the frequent methamphetamine users and the frequent injecting drug users, with both groups reporting the current availability of opiates as ‘easy/very easy’ ( $p=0.6261$ ). The KE reported the current availability of opiates as ‘easy/very easy’.

Table 9.2: Current availability of opiates by frequent drug user group, 2006

Current availability of opiates (%)	Methamphetamine users (n=28)	Intravenous drug users (IDU) (n=83)	Combined modules (n=114) (includes frequent ecstasy users)
Very easy [1]	50%	39%	41%
Easy [2]	25%	53%	45%
Difficult [3]	18%	6%	10%
Very difficult [4]	7%	2%	4%
Average availability score (1=very easy – 4=very difficult)	1.8	1.7	1.8
Overall current status	Easy/ Very easy	Easy/ Very easy	Easy/ Very easy

### 9.3.2 Change in availability of opiates

Seventy-three percent of the frequent drug users reported that the availability of opiates had been ‘stable’ in the previous six months (Table 9.3). The average score for the change in availability of opiates for all the frequent drug users was 2.0 which indicates that overall the availability of opiates had been ‘stable’ over the past six months. There was no statistically significant difference in the average score for the change in the availability of opiates between the frequent methamphetamine users and frequent injecting drug users, with both groups reporting that the availability of opiates had been ‘stable’ over the previous six months ( $p=0.1032$ ). Most of the KE said the availability of opiates had been ‘stable/fluctuating’ in the past six months, although one KE reported that availability had become more difficult over this time.

Table 9.3: Change in availability of opiates by frequent drug user group, 2006

Change in availability of opiates (%)	Methamphetamine users (n=28)	Intravenous drug users (IDU) (n=84)	Combined modules (n=114) (includes frequent ecstasy users)
Easier [1]	4%	12%	10%
Stable [2]	75%	73%	73%
Fluctuates [2]	7%	8%	8%
More difficult [3]	14%	7%	10%
Average change in availability score (1=easier – 3=more difficult)	2.1	2.0	2.0
Overall recent change	Stable	Stable	Stable

## 9.4 Price of opiates

### 9.4.1 Current price of opiates

It is difficult to obtain a general price for opiates as prices paid can refer to a range of different opiate types of different purity and saleable quantities. Table 9.4 presents the prices reported paid for a 100 milligrams of opiates. The variation in the mean price paid between the groups is likely to reflect the range of opiate products available on the black market. Most of the KE reported that the price of 100 milligrams of opiates was \$100, although some KE gave a higher price of \$150 per 100 milligrams.

Table 9.4: Current median (mean) price for opiates (NZD) by frequent drug user group, 2006

Current price of opiates	Methamphetamine users (n=13)	Intravenous drug users (IDU) (n=73)	Combined modules (n=87) (includes frequent ecstasy users)
Median (mean) price for a 100 milligrams	\$100 (\$80)	\$100 (\$320)	\$100 (\$280)

### 9.4.2 Change in price of opiates

Sixty-five percent of the frequent drug users reported that the price of opiates had been ‘stable’ in the previous six months (Table 9.5). The average score for the change in the price of opiates for all the frequent drug users was 2.0 which indicates that overall the price of opiates was ‘stable’ over the previous six months. There was no statistically significant difference in the average score for the change in price of opiates between the frequent methamphetamine users and the frequent injecting drug users, with both groups reporting the price had been ‘stable’ over the previous six months

( $p=0.4419$ ). Most KE said the price of opiates had been stable over the past six months, although one KE reported the price had ‘decreased’.

Table 9.5: Change in the price of opiates in the last six months by frequent drug user group, 2006

Change in price of opiates (%)	Methamphetamine users (n=24)	Intravenous drug users (IDU) (n=81)	Combined modules (n=106)
Decreasing [1]	13%	21%	19%
Stable [2]	67%	64%	65%
Fluctuating [2]	8%	4%	5%
Increasing [3]	13%	11%	11%
Average change in price score (1=decreasing – 3=increasing)	2.0	1.9	2.0
Overall recent change	Stable	Stable	Stable

## 9.5 Purity of opiates

### 9.5.1 Current purity of opiates

Forty percent of the frequent drug users described the current purity of opiates as ‘high’ (Table 9.6). Thirty-two percent of frequent drug users described the current purity of opiates as ‘medium’, with a further 18% describing the purity as ‘fluctuating’. The average score for the current purity of opiates for all the frequent drug users was 2.3 which indicates that overall the purity of opiates is ‘medium/high’. There was no statistically significant difference in the average score for the purity of opiates between the frequent methamphetamine users and the frequent injecting drug users, with both groups reporting the current purity of opiates as ‘medium/ high’ ( $p=0.1463$ ). The KE described the current purity of opiates as ‘medium’.

Table 9.6: Current purity of opiates by frequent drug user group, 2006

Current purity of opiates (%)	Methamphetamine users (n=24)	Intravenous drug users (IDU) (n=72)	Combined modules (n=98) (includes frequent ecstasy users)
Low [1]	8%	11%	10%
Medium [2]	29%	32%	32%
Fluctuates [2]	8%	22%	18%
High [3]	54%	35%	40%
Average purity score (1=low – 3=high)	2.5	2.2	2.3
Overall current status	Medium/ high	Medium/ high	Medium/ high

### 9.5.2 Change in purity of opiates

Sixty-nine percent of the frequent drug users reported that the purity of opiates had been ‘stable’ in the previous six months, with a further 14% saying that the purity of the drug had fluctuated over this time (Table 9.7). The average score for the change in the purity of opiates for all the frequent drug users was 2.0 which indicates that overall the purity of opiates had been ‘stable/fluctuating’ over the last six months. There was no statistically significant difference in the average score for the change in the purity of opiates between the frequent methamphetamine users and frequent injecting drug users, with both groups reporting that the purity of opiates had been ‘stable/fluctuating’ over the previous six months ( $p=0.6540$ ). The KE said the purity of opiates had been ‘stable/decreasing’ over the past six months.

Table 9.7: Change in purity of opiates by frequent drug user group, 2006

Change in purity of opiates (%)	Methamphetamine users (n=24)	Intravenous drug users (IDU) (n=82)	Combined modules (n=108) (includes frequent ecstasy users)
Decreasing [1]	4%	11%	9%
Stable [2]	96%	61%	69%
Fluctuating [2]	0%	18%	14%
Increasing [3]	0%	10%	8%
Average change in purity score (1=decreasing – 3=increasing)	2.0	2.0	2.0
Overall recent change	Stable	Stable/ fluctuating	Stable/ fluctuating

### 9.6 Perceptions of the number of people using opiates

Forty-six percent of the frequent drugs thought ‘about the same’ number of people they know were using opiates, 34% said ‘more’ people were using opiates and 19% said that ‘less’ people they know were using opiates (Table 9.8). The average score for all the frequent drug users for the question was 2.1 indicating that overall ‘about the same’ number of people were using opiates compared to six months ago. There was a statistically significant difference in perceptions of the number of people using opiates between the frequent methamphetamine users and the frequent injecting drug users. The frequent injecting drug users were more likely to say that ‘more’ people they know were using opiates than the frequent methamphetamine users (2.3 vs. 1.7,  $p<0.0001$ ).

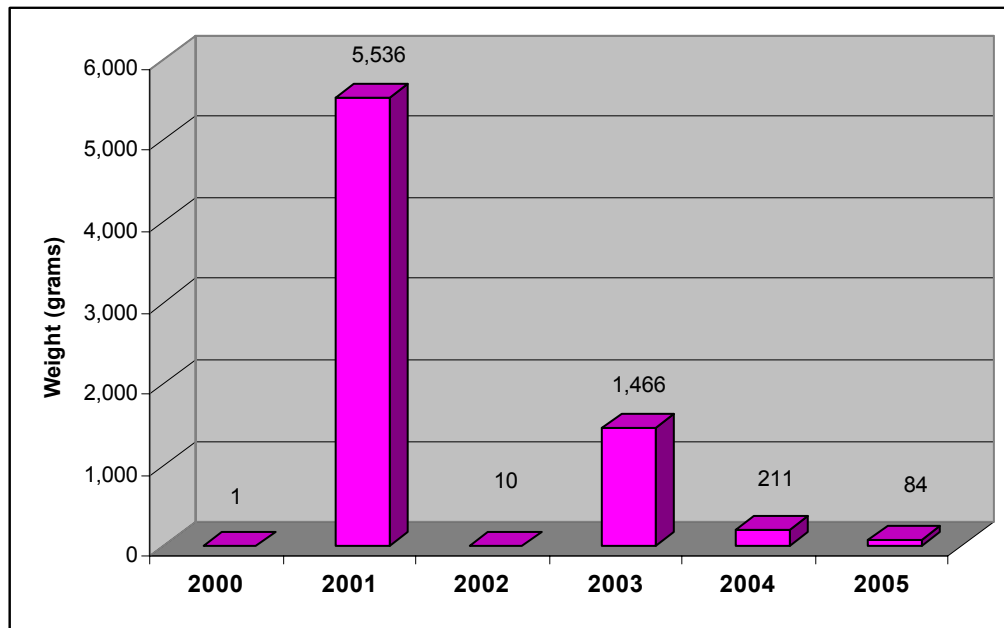
Table 9.8: Perceptions of the number of people using opiates by frequent drug user group, 2006

Number of people using opiates (%)	Methamphetamine users (n=27)	Intravenous drug users (IDU) (n=84)	Combined modules (n=114) (includes frequent ecstasy users)
Less [1]	46%	10%	19%
Same [2]	37%	49%	46%
More [3]	15%	42%	34%
Average number of people using score (1=less – 3=more)	1.7	2.3	2.1
Overall recent change	Same/ Less	Same/ more	Same/ more

## 9.7 Seizures of Heroin

There has been considerable variation in the quantity of heroin seized by the New Zealand Police and the New Zealand Customs Service over the previous five years, and this reflects some of the issues discussed in the introduction to this chapter (Figure 9.1).

Figure 9.1: Grams of heroin seized in New Zealand, 2000-2005



## 9.8 Opiate use in the general population

The proportion of the New Zealand population aged 13-45 years old who had ever tried opiates remained the same in 2006 compared to 2003 (0.6% versus 0.5%,  $p=0.7885$ ). The proportion of respondents aged 13-45 who had used opiates in the previous 12 months also remained the same in

2006 compared to 2003 (0.13% versus 0.15%,  $p=0.8188$ ). Low numbers involved in these survey results indicate they should be viewed with caution. In 2003 only 19 respondents surveyed had ever tried opiates and in the 2006 survey this was only 10 respondents. With respect to more recent use, only four respondents had used opiates in the previous 12 months in 2003 and in 2006 it was only three respondents. These results illustrate the difficulties of measuring the less common forms of drug use using a population based sampling approach.

## 9.9 Summary of opiate trends

- The current availability of opiates is reported to be ‘easy/very easy’
- The availability of opiates is thought to have been ‘stable’ over the previous six months
- One hundred milligrams of opiates currently costs a median price of \$100
- The price of opiates is reported to have been ‘stable’ over the previous six months
- The current purity of opiates is said to be ‘medium/high’
- The purity of opiates has been ‘stable/fluctuating’ over the previous six months
- The number of people using opiates was described as the ‘same/more’ compared to six months ago
- Seizures of heroin have been spasmodic over the past five years
- National household survey data suggests that the population prevalence of opiate use has remained the same in 2006 compared to 2003

## **10. Cocaine**

### **10.1 Introduction**

Cocaine is derived from the coca plant which is clandestinely cultivated in only three South American countries: Columbia, Peru and Bolivia (National Drug Intelligence Bureau, 2005). The high price of cocaine and its short duration of action (i.e. around 20 minutes) have traditionally contributed to a weak demand for cocaine in New Zealand. On the supply side, geographical isolation, a small population and tight border controls have played a part in restricting the supply of cocaine to the domestic New Zealand market (New Zealand Customs Service, 2002). Although, New Zealand is sometimes used as a transit point to smuggle cocaine into the much larger Australian market (New Zealand Customs Service, 2002).

### **10.2 Knowledge of cocaine trends**

Ten percent of the frequent drug users interviewed (n=32) indicated they felt confident enough to comment on the price, purity and availability of cocaine in the previous six months. This included 11% of the frequent methamphetamine users (n=13), 11% of the frequent ecstasy users (n=12) and 8% of the frequent injecting drug users (n=7). As there were only small numbers of frequent drug users with knowledge of cocaine, we have not compared the results by frequent drug user group.

### **10.3 Availability of cocaine**

#### *10.3.1 Current availability of cocaine*

Forty-eight percent of the frequent drug users described the current availability of cocaine as 'difficult', with a further 24% of frequent drug users describing the availability of cocaine as 'very difficult' (Table 10.1). The average score for the current availability of cocaine for all the frequent drug users was 2.9 which indicates that overall the current level of availability of cocaine is 'difficult'.

Table 10.1: Current availability of cocaine, 2006

Current availability of cocaine (%)	Combined modules (n=29)
Very easy [1]	10%
Easy [2]	17%
Difficult [3]	48%
Very difficult [4]	24%
Average availability score (1=very easy – 4=very difficult)	2.9
Overall current status	Difficult

### 10.3.2 Change in availability of cocaine

Fifty-seven percent of the frequent drug users reported that the availability of cocaine had been ‘stable’ in the previous six months, with a further 13% saying availability had ‘fluctuated’ (Table 10.2). Twenty-three percent of the frequent drug users reported that the availability of cocaine had become ‘more difficult’. The average score for the change in the availability of cocaine for all the frequent drug users was 2.2 which indicates that overall the availability of cocaine was ‘stable/more difficult’ over the last six months.

Table 10.2: Change in availability of cocaine, 2006

Change in availability of cocaine (%)	Combined modules (n=30)
Easier [1]	7%
Stable [2]	57%
Fluctuates [2]	13%
More difficult [3]	23%
Average change in availability score (1=easier – 3=more difficult)	2.2
Overall recent change	Stable/ more difficult

## 10.4 Price of cocaine

### 10.4.1 Current price of cocaine

The median price paid for a 'gram' of cocaine was \$300 (Table 10.3).

Table 10.3: Current median (mean) price for cocaine (NZD), 2006

Current price of cocaine	Combined modules (n=25)
Median (mean) price for a gram	\$300 (\$353)

### 10.4.2 Change in price of cocaine

Sixty-three percent of the frequent drug users reported that the price of cocaine had been 'stable' in the previous six months (Table 10.4). The average score for the change in the price of cocaine for all the frequent drug users was 2.0 which indicates that overall the price of cocaine was 'stable' over the past six months.

Table 10.4: Change in the price of cocaine in the last six months, 2006

Change in price of cocaine (%)	Combined modules (n=24)
Decreasing [1]	19%
Stable [2]	63%
Fluctuating [2]	21%
Increasing [3]	8%
Average change in price score (1=decreasing – 3=increasing)	2.0
Overall recent change	Stable

## 10.5 Purity of cocaine

### 10.5.1 Current purity of cocaine

Fifty percent of the frequent drug users described the current purity of cocaine as 'low' (Table 10.5). Twenty-one percent of frequent drug users described the current purity of cocaine as 'medium', with a further 17% describing the purity of cocaine as 'fluctuating'. The average score for the current purity

of cocaine for all the frequent drug users was 1.6 which indicates that overall the strength of cocaine is 'low/medium'.

Table 10.5: Current purity of cocaine, 2006

Current purity of cocaine (%)	Combined modules (n=24)
Low [1]	50%
Medium [2]	21%
Fluctuates [2]	17%
High [3]	13%
Average purity score (1=low – 3=high)	1.6
Overall current status	Low/medium

### 10.5.2 Change in purity of cocaine

Thirty-five percent of the frequent drug users reported that the purity of cocaine had been 'decreasing' in the previous six months (Table 10.6). Thirty-five percent of frequent drug users thought the purity of cocaine had been 'stable' in the last six months, and a further 25% said the purity of cocaine had fluctuated over this time. The average score for the change in the purity of cocaine for all the frequent drug users was 1.7 which indicates that overall the purity of cocaine was 'stable/decreasing' over the past six months.

Table 10.6: Change in purity of cocaine, 2006

Change in purity of cocaine (%)	Combined modules (n=20)
Decreasing [1]	35%
Stable [2]	35%
Fluctuating [2]	25%
Increasing [3]	5%
Average change in purity score (1=decreasing – 3=increasing)	1.7
Overall recent change	Stable decreasing

## 10.6 Perceptions of the number of people using cocaine

Forty-eight percent of the frequent drugs thought ‘about the same’ number of people they know were using cocaine, 30% said ‘less’ people were using cocaine and 22% said that ‘more’ people they know were using cocaine (Table 10.7). The average score for all the frequent drug users for the question was 1.9 indicating that overall ‘about the same’ number of people were using cocaine compared to six months ago.

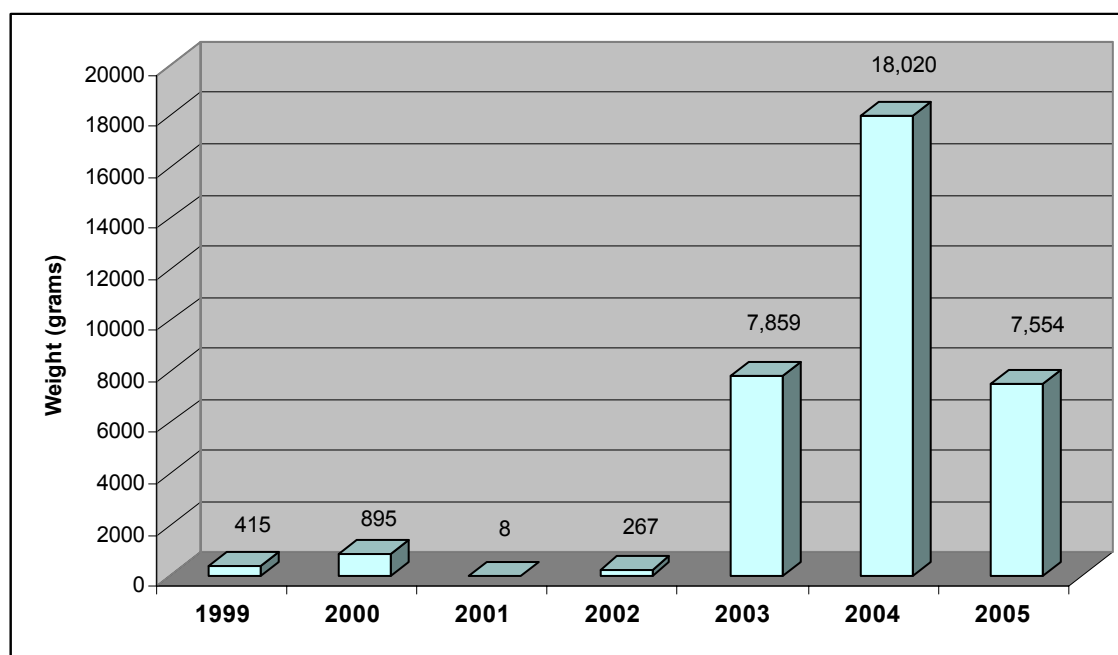
Table 10.7: Perceptions of the number of people using cocaine, 2006

Number of people using cocaine (%)	Combined modules (n=27)
Less [1]	30%
Same [2]	48%
More [3]	22%
Average number of people using score (1=less – 3=more)	1.9
Overall recent change	Same

## 10.7 Seizures of cocaine

Annual seizures of cocaine made by the New Zealand Police and New Zealand Customs Service increased sharply in 2003 and have remained at relatively high levels since then (Figure 10.1).

Figure 10.1: Grams of cocaine seized in New Zealand, 1999-2005



## 10.8 Cocaine use in the general population

The proportion of the New Zealand population aged 13-45 years old who had ever tried cocaine increased in 2006 compared to 2003 (4.2% versus 2.9%,  $p=0.0254$ ). There was also a statistically significant increase in the proportion of people who had used cocaine in the previous year in 2006 compared to 2003 (1.1% versus 0.5%,  $p=0.0156$ ). There had previously been no statistically significant change in the population prevalence of cocaine use among the New Zealand population since 2001 (see Wilkins et al., 2005a). Low numbers involved in these survey results indicate they should be treated with some caution. Sixteen survey respondents reported using cocaine in the previous 12 months in 2003 and 22 respondents reported using cocaine in the previous 12 months in 2006.

## 10.9 Summary of cocaine trends

- The current availability of cocaine is reported to be ‘difficult’
- The availability of cocaine is thought to have been ‘stable/more difficult’ over the previous six months
- A gram of cocaine currently costs a median price of \$300
- The price of cocaine is reported to have been ‘stable’ over the previous six months
- The current purity of cocaine is said to be ‘low/medium’
- The purity of cocaine has been ‘stable/decreasing’ over the previous six months
- The number of people using cocaine was described as the ‘same’ compared to six months ago
- Annual seizures of cocaine increased sharply in 2003 and have remained high since
- National household survey data indicates that the population prevalence of use of cocaine increased in 2006 compared to 2003

## **11. Ketamine**

### **11.1 Introduction**

Ketamine (‘special K’ or ‘vitamin K’) is a rapidly acting anaesthetic that is used in veterinary surgery and less commonly in human surgery (Copeland and Dillon, 2005, White et al., 2004). Ketamine produces dissociate and hallucinogenic effects, including an ‘out-of-body’ like experience, analgesia and amnesia (Copeland and Dillon, 2005, Community Alcohol and Drug Services (CADS), 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 dependence after repeated use (Copeland and Dillon, 2005). 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). Supplies of ketamine for recreational use are generally illegally diverted from veterinary sources (Copeland and Dillon, 2005, National Drug Intelligence Bureau, 2005). Ketamine is supplied in tablet form and is sometimes fraudulently sold as ecstasy (Community Alcohol and Drug Services (CADS), 2005). Ketamine is currently listed as a prescription medicine and is consequently not classified under the Misuse of Drug Act 1975.

### **11.2 Knowledge of ketamine trends**

Five percent of the frequent drug users interviewed (n=15) indicated they felt confident enough to comment on the price, purity and availability of ketamine in the previous six months. This included 6% of the frequent methamphetamine users (n=7), 6% of the frequent ecstasy users (n=7) and 1% of the frequent injecting drug users (n=1). As there were only very small numbers of frequent drug users with knowledge of ketamine, we have not compared the results by frequent drug user group.

### 11.3 Availability of ketamine

#### 11.3.1 Current availability of ketamine

Fifty-seven percent of the frequent drug users described the current availability of ketamine as ‘difficult’ (Table 11.1). The average score for the current availability of ketamine for all the frequent drug users was 2.7 which indicates that overall the current level of availability of ketamine is ‘difficult’.

Table 11.1: Current availability of ketamine, 2006

Current availability of ketamine (%)	Combined modules (n=14)
Very easy [1]	14%
Easy [2]	14%
Difficult [3]	57%
Very difficult [4]	14%
Average availability score (1=very easy – 4=very difficult)	2.7
Overall current status	Difficult

#### 11.3.2 Change in availability of ketamine

Fifty percent of the frequent drug users reported that the availability of ketamine had been ‘stable’ in the previous six months, with a further 17% saying availability had ‘fluctuated’ (Table 11.2). The average score for the change in the availability of ketamine for all the frequent drug users was 2.0 which indicates that overall the availability of ketamine was ‘stable’ over the past six months.

Table 11.2: Change in availability of ketamine, 2006

Change in availability of ketamine (%)	Combined modules (n=12)
Easier [1]	17%
Stable [2]	50%
Fluctuates [2]	17%
More difficult [3]	17%
Average change in availability score (1=easier – 3=more difficult)	2.0
Overall recent change	Stable

## 11.4 Price of ketamine

### 11.4.1 Current price of ketamine

The median price paid for a 'gram' of ketamine was \$200 (Table 11.3).

Table 11.3: Current median (mean) price for ketamine (NZD), 2006

Current price of ketamine	Combined modules (n=6)
Median (mean) price for a gram	\$200 (\$193)

### 11.4.2 Change in price of ketamine

Twenty-nine percent of the frequent drug users reported that the price of ketamine had been 'stable' in the previous six months, with a further 29% saying the price had fluctuated (Table 11.4). The average score for the change in the price of ketamine for all the frequent drug users was 2.1 which indicates that overall the price of ketamine had been 'stable/fluctuating' over the previous six months.

Table 11.4: Change in the price of ketamine in the last six months, 2006

Change in price of ketamine (%)	Combined modules (n=7)
Decreasing [1]	14%
Stable [2]	29%
Fluctuating [2]	29%
Increasing [3]	29%
Average change in price score (1=decreasing – 3=increasing)	2.1
Overall recent change	Stable/ fluctuating

## 11.5 Purity of ketamine

### 11.5.1 Current purity of ketamine

Sixty-two percent of the frequent drug users described the current purity of ketamine as 'high' (Table 11.5). The average score for the current purity of ketamine for all the frequent drug users was 2.5 which indicates that overall the strength of ketamine is 'high/medium'.

Table 11.5: Current purity of ketamine, 2006

Current purity of ketamine (%)	Combined modules (n=13)
Low [1]	8%
Medium [2]	15%
Fluctuates [2]	15%
High [3]	62%
Average purity score (1=low – 3=high)	2.5
Overall current status	High/medium

### 11.5.2 Change in purity of ketamine

Sixty-seven percent of the frequent drug users reported that the purity of ketamine had been ‘stable’ in the previous six months (Table 11.6). The average score for the change in the purity of ketamine for all the frequent drug users was 2.1 which indicates that overall the purity of ketamine was ‘stable’ over the past six months.

Table 11.6: Change in purity of ketamine, 2006

Change in purity of ketamine (%)	Combined modules (n=12)
Decreasing [1]	8%
Stable [2]	67%
Fluctuating [2]	8%
Increasing [3]	17%
Average change in purity score (1=decreasing – 3=increasing)	2.1
Overall recent change	Stable

## 11.6 Perceptions of the number of people using ketamine

Thirty-six percent of the frequent drugs thought ‘about the same’ number of people they know were using ketamine, 36% said ‘less’ people were using ketamine and 29% said that ‘more’ people they know were using the ketamine (Table 11.7). The average score for all the frequent drug users for the question was 1.9 indicating that overall ‘about the same’ number of people were using ketamine compared to six months ago.

Table 11.7: Perceptions of the number of people using ketamine, 2006

Number of people using ketamine (%)	Combined modules (n=15)
Less [1]	36%
Same [2]	36%
More [3]	29%
Average number of people using score (1=less – 3=more)	1.9
Overall recent change	Same

### 11.7 Ketamine use in the general population

The proportion of the New Zealand population aged 13-45 years old who had ever tried ketamine did not change in 2006 compared to 2003 (0.8% versus 0.8%,  $p=0.9479$ ). There was also no statistically significant change in the proportion of people who had used ketamine in the past year in 2006 compared to 2003 (0.15% versus 0.19%,  $p=0.7474$ ). Low numbers involved in these survey results indicate they should be treated with caution. Only 6 survey respondents reported using ketamine in the previous 12 months in 2003 and only three respondents reported using ketamine in the previous 12 months in 2006.

### 11.8 Summary of ketamine trends

- The current availability of ketamine is reported to be ‘difficult’
- The availability of ketamine is thought to have been ‘stable’ over the previous six months
- A gram of ketamine currently costs a median price of \$200
- The price of ketamine is reported to have been ‘stable/fluctuating’ over the previous six months
- The current purity of ketamine is said to be ‘high/medium’
- The purity of ketamine has been ‘stable’ over the previous six months

- The number of people using ketamine was described as the ‘same’ compared to six months ago
- National household survey data indicates that the population prevalence of use of ketamine remained the same in 2006 compared to 2003

## **12. GHB**

### **12.1 Introduction**

Gamma-hydroxybutyric acid (GHB, GBL, Fantasy, liquid ecstasy, or One4B) was originally used as a medical anaesthetic (Kuhn et al., 1998). It 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 an odourless, colourless liquid with a slightly salty taste (Kuhn et al., 1998). GHB has a very steep dose response curve, which means there is only a very small difference in dose between the ‘the desired recreational effect’ and overdose, coma and death (Expert Advisory Committee on Drugs, 2001). When GHB is mixed with other depressants, such as alcohol, the depressant effects are increased which further increases the risk of a life threatening result (Community Alcohol and Drug Services (CADS), 2005, White et al., 2004). There have been a number of hospitalisations related to GHB use in New Zealand including several deaths (Expert Advisory Committee on Drugs, 2001).

### **12.2 Knowledge of GHB trends**

Eight percent of the frequent drug users interviewed (n=24) indicated they felt confident enough to comment on the price, purity and availability of GHB in the previous six months. This included 11% of the frequent methamphetamine users (n=12), 9% of the frequent ecstasy users (n=10) and 2% of the frequent injecting drug users (n=2). As there were only small numbers of frequent drug users with knowledge of GHB, we have not compared the results by frequent drug user group.

### **12.3 Availability of GHB**

#### *12.3.1 Current availability of GHB*

Forty percent of the frequent drug users described the current availability of GHB as ‘easy’ (Table 12.1). Twenty-nine percent described the availability of GHB as ‘very easy’ and the same proportion described it as ‘difficult’. The average score for the current availability of GHB for all the frequent drug users was 2.1 which indicates that overall the current level of availability of GHB is ‘easy’.

Table 12.1: Current availability of GHB, 2006

Current availability of GHB (%)	Combined modules (n=24)
Very easy [1]	29%
Easy [2]	40%
Difficult [3]	29%
Very difficult [4]	4%
Average availability score (1=very easy – 4=very difficult)	2.1
Overall current status	Easy

### 12.3.2 Change in availability of GHB

Forty-three percent of the frequent drug users reported that the availability of GHB had become ‘easier’ in the previous six months (Table 12.2). The average score for the change in the availability of GHB for all the frequent drug users was 1.8 which indicates that overall the availability of GHB was ‘easier/stable’ over the past six months.

Table 12.2: Change in availability of GHB, 2006

Change in availability of GHB (%)	Combined modules (n=23)
Easier [1]	43%
Stable [2]	30%
Fluctuates [2]	4%
More difficult [3]	22%
Average change in availability score (1=easier – 3=more difficult)	1.8
Overall recent change	Easier/ stable

## 12.4 Price of GHB

### 12.4.1 Current price of GHB

The median price paid for a millilitre of GHB was \$5.50 (Table 12.3).

Table 12.3: Current median (mean) price for GHB (NZD), 2006

Current price of GHB	Combined modules (n=20)
Median (mean) price for a millilitre	\$5.50 (\$6.10)

### 12.4.2 Change in price of GHB

Forty-one percent of the frequent drug users reported that the price of GHB had 'increased' in the previous six months (Table 12.4). The average score for the change in the price of GHB for all the frequent drug users was 2.3 which indicates that the price was 'stable/increasing' over the previous six months.

Table 12.4: Change in the price of GHB in the last six months, 2006

Change in price of GHB (%)	Combined modules (n=22)
Decreasing [1]	9%
Stable [2]	36%
Fluctuating [2]	14%
Increasing [3]	41%
Average change in price score (1=decreasing – 3=increasing)	2.3
Overall recent change	Stable/ increasing

## 12.5 Purity of GHB

### 12.5.1 Current purity of GHB

Thirty percent of the frequent drug users described the current purity of GHB as ‘medium’, with a further 15% saying it had ‘fluctuated’ (Table 12.5). The average score for the current purity of GHB for all the frequent drug users was 2.1 which indicates that overall the purity of GHB is ‘medium/fluctuates’.

Table 12.5: Current purity of GHB, 2006

Current purity of GHB (%)	Combined modules (n=20)
Low [1]	25%
Medium [2]	30%
Fluctuates [2]	15%
High [3]	30%
Average purity score (1=low – 3=high)	2.1
Overall current status	Medium/fluctuates

### 12.5.2 Change in purity of GHB

Fifty-two percent of the frequent drug users reported that the purity of GHB had been ‘stable’ in the previous six months (Table 12.6). The average score for the change in the purity of GHB for all the frequent drug users was 2.0 which indicates that overall the purity of GHB had been ‘stable’ over the last six months.

Table 12.6: Change in purity of GHB, 2006

Change in purity of GHB (%)	Combined modules (n=21)
Decreasing [1]	19%
Stable [2]	52%
Fluctuating [2]	10%
Increasing [3]	19%
Average change in purity score (1=decreasing – 3=increasing)	2.0
Overall recent change	Stable

## 12.6 Perceptions of the number of people using GHB

Forty-five percent of the frequent drugs thought ‘more’ people they know were using GHB, 36% said ‘about the same’ number of people were using GHB and 18% said that ‘less’ people they know were using the GHB (Table 12.7). The average score for all the frequent drug users for the question was 2.3 indicating that overall the ‘same/more’ people were using GHB compared to six months ago.

Table 12.7: Perceptions of the number of people using GHB, 2006

Number of people using GHB (%)	Combined modules (n=22)
Less [1]	18%
Same [2]	36%
More [3]	45%
Average number of people using score (1=less – 3=more)	2.3
Overall recent change	Same/more

## 12.7 Seizures of GHB

Drug enforcement agencies advise that GHB was not seized in large quantities before 2004 and consequently seizures were not routinely recorded. Joint New Zealand Police and New Zealand Customs Service operations in 2004 led to the seizure of 45,739 millilitres of GHB. In 2005, 22,739 millilitres of GHB was seized.

## 12.8 GHB use in the general population

The proportion of the New Zealand population aged 13-45 years old who had ever tried GHB did not change in 2006 compared to 2003 (1.6% versus 1.3%,  $p=0.34$ ). There was also no statistically significant change in the proportion of people who had used GHB in the previous year in 2006 compared to 2003 (0.3% versus 0.5%,  $p=0.1547$ ). Low numbers involved in these survey results indicate they should be treated with some caution. Fourteen survey respondents reported using GHB in the previous 12 months in 2003 and only six respondents reported using GHB in the previous 12 months in 2006.

## 12.9 Summary of GHB trends

- The current availability of GHB is reported to be ‘easy’
- The availability of GHB is thought to have been ‘easier/stable’ over the previous six months
- A millilitre of GHB currently costs a median price of \$5.50
- The price of GHB is reported to have been ‘stable/increasing’ over the previous six months
- The current purity of GHB is said to be ‘medium/fluctuates’
- The purity of GHB has been ‘stable’ over the previous six months
- The number of people using GHB was described as the ‘same/more’ compared to six months ago
- Twenty-two litres of GHB was seized in 2005
- National household survey data indicates that the population prevalence of use of GHB remained the same in 2006 compared to 2003

## **13. Drug related harm**

### **13.1 Introduction**

The frequent drug users were asked about a number of different aspects of harm related to their drug use including specific physical and psychological problems they may have suffered from their drug use, harms they may have experienced in different areas of their lives, the health services they may have accessed in relation to their drug use, and the extent to which they had driven under the influence of drugs.

### **13.2 Drug related physical problems**

The frequent drug users were asked if they had experienced any of a list of 22 physical problems from their drug use in the previous six months. The frequent methamphetamine users were asked about physical problems related to methamphetamine, the frequent ecstasy (MDMA) users were asked about physical problems related to ecstasy use and the frequent injecting drug users were asked about physical problems related to opiates.

The physical problems most often reported in relation to methamphetamine use were insomnia (87%), poor appetite (85%), weight loss (68%), profuse sweating (61%), heart palpitations (60%), headaches (59%), hot and cold flushes (59%) and tremors and shakes (57%) (Table 13.1). The physical problems most often reported in relation to ecstasy (MDMA) use were headaches (74%), poor appetite (64%), insomnia (59%), hot and cold flushes (40%), heart palpitations (38%) and weight loss (35%). The physical problems most often reported in relation to opiate use were insomnia (78%), poor appetite (78%), hot and cold flushes (69%), weight loss (66%), profuse sweating (65%), muscular aches (65%) and joint pains (60%).

Table 13.1: Drug related physical problems by drug type, 2006

Drug type	Methamphetamine	Ecstasy (MDMA)	Opiates
Physical problem	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)
Teeth	57%	29%	52%
Profuse sweating	61%	33%	65%
Hot/cold flushes	59%	40%	69%
Heart palpitations	60%	38%	52%
Shortness of breath	51%	20%	47%
Chest pains	33%	10%	29%
Headaches	59%	74%	55%
Dizziness	39%	23%	44%
Tremors/ shakes	57%	36%	55%
Fainting/ passing out	14%	7%	26%
Fits/ seizures	8%	1%	15%
Numbness/ tingling	34%	17%	43%
Vomiting	19%	19%	51%
Stomach pains	36%	15%	51%
Muscular aches	49%	31%	65%
Joint pains	51%	27%	60%
Inability to urinate	27%	39%	35%
Poor appetite	85%	64%	78%
Skin problems	56%	16%	32%
Blurred vision	44%	33%	45%
Insomnia	87%	59%	78%
Weight loss	68%	35%	66%

The frequent methamphetamine users who reported physical problems from their methamphetamine use reported a mean of 11 physical problems in the past six months (median 10, range 1-21). The frequent ecstasy (MDMA) users who reported physical problems from their ecstasy use reported a mean of 7 physical problems in the past six months (median 7, range 1-19). The frequent injecting drug users who reported physical problems from their injecting drug use reported a mean of 11 physical problems in the past six months (median 12, range 1-22). The frequent ecstasy users reported a lower mean number of physical problems from their drug use than the frequent methamphetamine users (7 vs. 11 problems,  $p < 0.0001$ ) and the frequent IDU (7 vs. 11 problems,  $p < 0.0001$ ).

## 13.2 Drug related psychological problems

The frequent drug users were also asked if they had experienced any of 19 psychological problems from their drug use in the previous six months. The frequent methamphetamine users were asked about psychological problems related to methamphetamine, the frequent ecstasy (MDMA) users were asked about psychological problems related to ecstasy (MDMA) use and the frequent injecting drug users were asked about psychological problems related to opiates. The psychological problems most often reported in relation to methamphetamine use were poor concentration (80%), mood swings (79%), irritability (78%), short temper (75%), strange thoughts (74%), confusion (73%) and anxiety (72%) (Table 13.2). Thirty-three percent of the frequent methamphetamine users reported experiencing suicidal thoughts in relation to their methamphetamine use. The psychological problems most often reported in relation to ecstasy (MDMA) use were strange thoughts (55%), poor concentration (53%), memory lapses (50%) and visual hallucinations (45%). Seven percent of the frequent ecstasy (MDMA) users reported experiencing suicidal thoughts in relation to their ecstasy (MDMA) use. The psychological problems most often reported in relation to opiate use were mood swings (73%), memory lapses (72%), loss of energy (72%), depression (70%) and irritability (69%). Thirty-one percent of the injecting drug users reported experiencing suicidal thoughts in relation to their opiate use.

Table 13.2: Drug related psychological problems by drug type, 2006

Drug type	Methamphetamine	Ecstasy (MDMA)	Opiates
Psychological problem	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)
Memory lapse	69%	50%	72%
Poor concentration	80%	53%	63%
Strange thoughts	74%	55%	44%
Mood swings	79%	44%	73%
Short temper	75%	30%	61%
Visual hallucinations	42%	45%	22%
Sound hallucinations	47%	40%	29%
Loss of sex urge	25%	17%	57%
Loss of energy	61%	40%	72%
Violent behaviour	36%	2%	19%
Anxiety	72%	32%	61%
Panic attacks	39%	8%	39%
Paranoia	70%	32%	51%
Depression	65%	30%	70%
Suicide thoughts	33%	7%	31%
Suicide attempts	7%	2%	11%
Confusion	73%	43%	54%
Irritability	78%	41%	69%
Flashbacks	33%	22%	24%

The frequent methamphetamine users who reported psychological problems from their methamphetamine use reported a mean of 11 psychological problems in the past six months (median 12, range 1-18). The frequent ecstasy (MDMA) users who reported psychological problems from their ecstasy use reported a mean of 6 psychological problems in the past six months (median 6, range 1-16). The frequent injecting drug users who reported psychological problems from their injecting drug use reported a mean of 10 psychological problems in the past six months (median 10, range 1-19). The frequent ecstasy users reported a lower mean number of psychological problems from their drug use than the frequent methamphetamine users (6 vs. 11 problems,  $p < 0.0001$ ) and the frequent IDU (6 vs. 10 problems,  $p < 0.0001$ ).

### 13.3 Life impacts

The frequent drug users were asked whether their drug use had impacted on four general areas of their lives (Table 13.3). The frequent injecting drug users were more likely to report financial problems related to their drug use than either the frequent methamphetamine users (72% vs. 54%,  $p = 0.0139$ ) or the frequent ecstasy (MDMA) users (72% vs. 23%,  $p = 0.0003$ ). The frequent methamphetamine users were more likely than the frequent ecstasy (MDMA) users to report financial problems related to their drug use (54% vs. 23%,  $p = 0.0003$ ). The frequent ecstasy users were less likely to report legal/police problems related to their drug use than either the frequent methamphetamine users (7% vs. 33%,  $p = 0.0003$ ) or the frequent injecting drug users (7% vs. 28%,  $p = 0.0003$ ). The frequent ecstasy users were also less likely to report relationship/social problems related to their drug use than either the frequent methamphetamine users (26% vs. 72%,  $p = 0.0003$ ) or the frequent injecting drug users (26% vs. 68%,  $p = 0.0003$ ). There was no difference between the three groups of frequent drug users with respect to the level of work/study problems ( $p = 0.1185$ ).

Table 13.3: Drug related harms by frequent drug user group, 2006

Different areas of life	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)	Combined modules (n=317)
Financial problems	54%	23%	72%	49%
Legal/police problems	33%	7%	28%	23%
Relationship/social problems	72%	26%	68%	55%
Work/study problems	54%	41%	47%	47%

### 13.3.2 Financial impacts

Those frequent drug users who had experienced financial problems from their drug use in the previous six months were asked what was the most serious financial problem they had experienced in the past six months. Half of both the frequent methamphetamine users and frequent injecting drug users reported experiencing the most serious financial problem asked about (i.e. 'no money for food or rent') (Table 13.4).

Table 13.4: Seriousness of financial problems by frequent drug user group, 2006

Seriousness of financial problem	Methamphetamine users (n=62)	Ecstasy users (MDMA) (n=26)	Intravenous drug users (IDU) (n=66)	Combined modules (n=154)
No money for recreation/ luxuries	15%	62%	17%	23%
In debt/ owing money	32%	15%	33%	30%
No money for food/ rent	52%	19%	50%	45%
Other	2%	4%	0%	1%

Those experiencing financial problems from their drug use were then asked to name the drug type most responsible for their drug related financial problems. Seventy-one percent of the frequent methamphetamine users named methamphetamine as the drug most responsible for their drug related financial problems (Table 13.5). Forty-four percent of the frequent ecstasy (MDMA) users named ecstasy as the drug most responsible for their drug related financial problems, with a further 32% of the frequent ecstasy (MDMA) users naming alcohol as the drug most responsible for their drug related financial problems. Sixty-three percent of the frequent injecting drug users named opiates or heroin as the drugs most responsible for their drug related financial problems, with a further 14% naming methamphetamine as the drug most responsible for their drug related financial problems.

Table 13.5: Drug type responsible for financial problems by frequent drug user group, 2006

Drug type most responsible for financial problem	Methamphetamine users (n=62)	Ecstasy users (MDMA) (n=25)	Intravenous drug users (IDU) (n=65)	Combined modules (n=152)
Ecstasy (MDMA)	0%	44%	0%	7%
Methamphetamine	71%	8%	14%	36%
Amphetamine	0%	0%	6%	3%
Crystal methamphetamine	6%	0%	3%	4%
Cannabis	8%	16%	8%	9%
Opiates	3%	0%	54%	24%
Alcohol	6%	32%	3%	9%
Heroin	5%	0%	9%	6%
Benzodiazepines	0%	0%	2%	1%
Methadone	0%	0%	2%	1%

### 13.3.3 Legal/police impacts

Those frequent drug users who had experienced legal/police problems from their drug use in the previous six months were asked what was the most serious legal/police problem they had experienced in the past six months. Eighteen percent of the frequent methamphetamine users and 12% of the frequent injecting drug users had been ‘imprisoned’ in the past six months in relation to their drug use (Table 13.6).

Table 13.6: Seriousness of legal/police problems by frequent drug user group, 2006

Seriousness of legal/police problem	Methamphetamine users (n=38)	Ecstasy users (MDMA) (n=8)	Intravenous drug users (IDU) (n=26)	Combined modules (n=72)
Cautioned by police	5%	25%	12%	10%
Arrested	29%	50%	31%	32%
Feel like being followed/ under surveillance	8%	0%	4%	6%
Convicted of a crime	32%	25%	42%	35%
Imprisoned	18%	0%	12%	14%
Other	8%	0%	0%	4%

Those experiencing legal/police problems from their drug use were then asked to name the drug type most responsible for their drug related legal/police problems. Sixty-eight percent of the frequent methamphetamine users named methamphetamine as the drug most responsible for their drug related legal/police problems (Table 13.7). Sixty-three percent of the frequent ecstasy (MDMA) users named alcohol as the drug most responsible for their drug related legal/police problems, with a further 25% naming methamphetamine as the drug most responsible for their drug related legal/police problems. No frequent ecstasy (MDMA) users named ecstasy (MDMA) as the drug responsible for their drug related legal/police problems. Forty-four percent of the frequent injecting drug users named methamphetamine as the drug most responsible for their drug related legal/police problems, with 15% naming alcohol and 14% naming opiates as the drugs most responsible for their drug related legal/police problems.

Table 13.7: Drug type responsible for legal/police problems by frequent drug user group, 2006

Drug type most responsible for legal/police problem	Methamphetamine users (n=38)	Ecstasy users (MDMA) (n=8)	Intravenous drug users (IDU) (n=26)	Combined modules (n=72)
Ecstasy (MDMA)	0%	0%	0%	0%
Methamphetamine	68%	25%	15%	44%
Amphetamine	0%	0%	12%	4%
Cannabis	13%	13%	8%	11%
Opiates	3%	0%	35%	14%
Alcohol	13%	63%	4%	15%
Heroin	3%	0%	12%	5%
Benzodiazepines	0%	0%	12%	4%
Methadone	0%	0%	4%	1%

### 13.3.4 Relationship/social impacts

Those frequent drug users who had experienced relationship/social problems from their drug use in the previous six months were asked what was the most serious relationship/social problem they had experienced in the last six months. Ten percent of the frequent methamphetamine users had experienced 'violence' and 13% had been 'kicked out of home' (Table 13.8).

Table 13.8: Seriousness of relationship/social problems by frequent drug user group, 2006

Seriousness of relationship/social problem	Methamphetamine users (n=82)	Ecstasy users (MDMA) (n=29)	Intravenous drug users (IDU) (n=63)	Combined modules (n=174)
Arguments	20%	48%	37%	30%
Mistrust/ anxiety	27%	24%	22%	25%
Ending a relationship	27%	21%	29%	26%
Violence	10%	0%	3%	6%
Kicked out of home	13%	3%	5%	9%
Other	4%	3%	5%	4%

Those experiencing relationship/social problems from their drug use were then asked to name the drug type most responsible for their drug related relationship/social problems. Sixty-eight percent of the frequent methamphetamine users named methamphetamine as the drug most responsible for their drug related relationship/social problems (Table 13.9). Forty-three percent of the frequent ecstasy (MDMA) users named ecstasy (MDMA) as the drug most responsible for their drug related relationship/social problems, with 21% naming cannabis and 14% alcohol as the drugs most responsible for their drug related relationship/social problems. Fifty-six percent of the frequent injecting drug users named opiates or heroin as the drugs most responsible for their drug related relationship/social problems, with

13% naming methamphetamine as the drug most responsible for their drug related relationship/social problems.

Table 13.9: Drug type responsible for relationship/social problems by frequent drug user group, 2006

Drug type most responsible for relationship/social problem	Methamphetamine users (n=80)	Ecstasy users (MDMA) (n=28)	Intravenous drug users (IDU) (n=61)	Combined modules (n=169)
Ecstasy (MDMA)	1%	43%	0%	8%
Methamphetamine	68%	7%	13%	38%
Crystal methamphetamine	3%	0%	3%	2%
Amphetamine	0%	0%	8%	3%
Cocaine	3%	0%	0%	1%
Cannabis	9%	21%	7%	10%
Opiates	4%	0%	46%	18%
Alcohol	11%	14%	5%	9%
Heroin	3%	0%	10%	5%
Benzodiazepines	0%	0%	2%	1%
Methadone	0%	0%	5%	2%
Steroids	0%	0%	2%	1%
Legal party pills	0%	7%	0%	1%
LSD	0%	7%	0%	1%

### 13.3.5 Work/study impacts

Those frequent drug users who had experienced work/study problems from their drug use in the previous six months were asked what was the most serious work/study problem they had experienced in the last six months. Twenty-six percent of the frequent methamphetamine users and 19% of the frequent injecting drug users had been 'sacked/quit their job/could not find work/lost their business/quit their educational course/ or been kicked off an educational course' in the past six months in relation to their drug use (Table 13.10).

Table 13.10: Seriousness of work/study problems by frequent drug user group, 2006

Seriousness of work/ study problem	Methamphetamine users (n=62)	Ecstasy users (MDMA) (n=45)	Intravenous drug users (IDU) (n=43)	Combined modules (n=150)
Trouble concentrating	18%	33%	14%	21%
Reduced work performance	16%	16%	23%	18%
Unmotivated	26%	22%	30%	26%
Sick leave/ not attending class	15%	20%	14%	16%
Sacked/ quit job/ can't find work/ loose business/ quit course/ kicked off course	26%	9%	19%	19%
Other	0%	0%	0%	0%

Those experiencing work/study problems from their drug use were then asked to name the drug type most responsible for their drug related work/study problems. Seventy-three percent of the frequent methamphetamine users named methamphetamine as the drug most responsible for their drug related work/study problems (Table 13.11). Forty-eight percent of the frequent ecstasy (MDMA) users named ecstasy (MDMA) as the drug most responsible for their drug related work/study problems, with 23% naming cannabis and 14% alcohol as the drugs most responsible for their drug related work/study problems. Sixty-two percent of the frequent injecting drug users named opiates or heroin as the drugs most responsible for their drug related work/study problems, with 21% naming cannabis and 10% methamphetamine as the drugs most responsible for their drug related work/study problems.

Table 13.11: Drug type responsible for work/study problems by frequent drug user group, 2006

Drug type most responsible for work/ study problem	Methamphetamine users (n=62)	Ecstasy users (MDMA) (n=44)	Intravenous drug users (IDU) (n=42)	Combined modules (n=148)
Ecstasy (MDMA)	0%	48%	0%	14%
Methamphetamine	73%	5%	10%	34%
Crystal methamphetamine	5%	0%	0%	2%
Amphetamine	0%	5%	2%	2%
Cocaine	2%	0%	0%	1%
Cannabis	10%	23%	21%	17%
Opiates	2%	0%	50%	15%
Alcohol	5%	14%	2%	7%
Heroin	2%	0%	12%	4%
Benzodiazepines	0%	0%	0%	1%
Methadone	2%	0%	2%	1%
Steroids	0%	0%	0%	1%
Legal party pills	0%	5%	0%	1%
LSD	2%	0%	0%	1%
GHB	0%	2%	0%	1%

### 13.4 Perceptions of the health risk of different drugs

The frequent drug users were asked to evaluate the health risk of ‘regularly’ using different drug types on a scale of 1=no risk to 5=extreme risk. The drug types which the frequent drug users most often rated as an extreme health risk to use regularly were crystal methamphetamine (58%), methamphetamine (57%), GHB (45%) and opiates (41%) (Table 13.12). Fifteen percent of frequent drug users thought legal piperazine party pills were an extreme health risk to use regularly. Cannabis received the lowest average score for perceived health risk (2.4), while methamphetamine (4.4) and crystal methamphetamine (4.4) received the highest average scores for perceived health risk.

Table 13.12: Perceptions of the health risk of regularly using different drug types, 2006

Drug type	No risk =1	Slight risk = 2	Moderate risk = 3	Great risk = 4	Extreme risk = 5	Average score of perceived health risk
Cannabis (n=315)	17%	42%	31%	6%	3%	2.4
LSD (n=311)	5%	17%	28%	34%	17%	3.4
Ecstasy (MDMA) (n=308)	7%	20%	39%	24%	11%	3.1
Methamphetamine (n=316)	0%	4%	12%	27%	57%	4.4
Crystal meth-Amphetamine (n=309)	0%	4%	10%	28%	58%	4.4
Amphetamine (n=310)	0%	11%	26%	33%	30%	3.8
Ketamine (n=237)	3%	7%	21%	31%	38%	3.9
GHB (n=250)	2%	5%	20%	28%	45%	4.1
Opiates (n=292)	3%	10%	19%	27%	41%	3.9
Legal piperazine party pills (n=296)	10%	25%	35%	15%	15%	3.0

### 13.5 Accessing health services

The frequent drug users were asked what health services, if any, they had accessed in relation to their drug use in the past six months. The frequent injecting drug users were more likely than the frequent methamphetamine users to have accessed an ambulance in relation to their drug use in the previous six months (12% vs. 3%,  $p=0.033$ ) (Table 13.13). The frequent ecstasy (MDMA) users were less likely to have visited a General Practitioner (i.e. Doctor) than either the frequent methamphetamine users (5% vs. 27%,  $p=0.0003$ ) or the frequent injecting drug users (5% vs. 36%,  $p=0.0003$ ) in relation to their drug use in the past six months. The frequent methamphetamine users were more likely to have visited a counsellor in relation to their drug use than either the frequent ecstasy users (33% vs. 5%,  $p=0.0003$ )

or the frequent injecting drug users (33% vs. 11%,  $p=0.0003$ ). The frequent ecstasy users were less likely to have visited a drug and alcohol worker in relation to their drug use than either the frequent methamphetamine users (3% vs. 38%,  $p=0.0003$ ) or the frequent injecting drug users (3% vs. 39%,  $p=0.0003$ ).

Table 13.13: Health services accessed in relation to drug use in the past six months by frequent drug user group, 2006

Health service	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)	Combined modules (n=317)
First Aid	2%	2%	10%	4%
Ambulance	3%	4%	12%	6%
Accident and Emergency	6%	7%	13%	9%
Hospital (admitted)	4%	2%	10%	5%
General Practitioner	27%	5%	36%	22%
Counsellor	33%	5%	11%	17%
Drug and Alcohol worker	38%	3%	39%	26%
Social worker	7%	0%	4%	4%
Psychologist	10%	0%	5%	5%
Psychiatrist	10%	0%	8%	6%

### 13.6 Alcohol and driving

Twenty-six percent of the frequent drug users reported that they had driven under the influence of alcohol in the previous six months. This included 32% of the frequent methamphetamine users, 24% of the frequent ecstasy users and 22% of the frequent injecting drug users. The extent of driving under the influence of alcohol is presented in Table 13.14. The frequent methamphetamine users were more likely than the frequent ecstasy (MDMA) users to have completed ‘most’ or ‘all’ of their driving under the influence of alcohol (6% vs. 0%,  $p=0.0426$ ).

Table 13.14: Extent of driving under the influence of alcohol by frequent drug user group, 2006

Driving under influence of alcohol	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
None	68%	76%	78%	74%
Hardly any	17%	22%	14%	18%
Some	10%	3%	5%	6%
Most	4%	0%	0%	2%
All	2%	0%	2%	1%

### 13.7 Drug use and driving

Sixty-four percent of the frequent drug users had driven under the influence of a drug other than alcohol in the past six months. This included 72% of the frequent methamphetamine users, 57% of the frequent ecstasy (MDMA) users and 65% of the frequent injecting drug users. The extent of driving under the influence of a drug is presented in Table 13.15. The frequent ecstasy (MDMA) users were less likely to have completed ‘most’ or ‘all’ of their driving under the influence of a drug than either the frequent methamphetamine users (5% vs. 33%,  $p=0.0003$ ) or the frequent injecting drug users (5% vs. 28%,  $p=0.0003$ ).

Table 13.15: Extent of driving under the influence of a drug (other than alcohol) by frequent drug user group, 2006

Driving under influence of drug other than alcohol	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=93)	Combined modules (n=318)
None	28%	43%	35%	36%
Hardly any	15%	36%	11%	21%
Some	23%	15%	26%	21%
Most	20%	4%	14%	13%
All	13%	1%	14%	9%

Those frequent drug users who had driven under the influence of a drug were asked what drug type or drug types they driven under the influence of. The two drug types which the frequent methamphetamine users most commonly drove under the influence of were methamphetamine (80%) and cannabis (71%) (Table 13.16). The two drug types which the frequent ecstasy users most commonly drove under the influence of were cannabis (71%) and ecstasy (MDMA) (46%). Twenty-nine percent of the frequent ecstasy users had driven under the influence of legal piperazine party pills. For the frequent injecting drug users, the two drug types which they most commonly drove under the influence of were cannabis (68%) and methamphetamine (44%). Only 15% of the frequent injecting drug users reported driving under the influence of opiates.

Table 13.16: Drug types driven under the influence of by frequent drug user group, 2006

Drug type under influence of when driving	Methamphetamine users (n=82)	Ecstasy users (MDMA) (n=63)	Intravenous drug users (IDU) (n=60)	Combined modules (n=205)
Amphetamine	18%	11%	27%	19%
Methamphetamine	80%	10%	30%	44%
Crystal methamphetamine	33%	5%	15%	19%
Cocaine	4%	3%	2%	3%
Ecstasy (MDMA)	12%	46%	5%	20%
LSD	12%	16%	5%	11%
GHB	4%	5%	0%	3%
MDA	1%	0%	0%	1%
Ketamine	2%	3%	2%	2%
Nitrous oxide	2%	0%	2%	1%
Legal piperazine party pills	10%	29%	5%	14%
Cannabis	71%	71%	60%	68%
Heroin	2%	0%	13%	5%
Methadone	6%	0%	37%	13%
Opiates	5%	0%	43%	15%
Anti-depressants	1%	1%	0%	1%
Benzodiazepines	6%	2%	25%	10%

### 13.8 Summary of drug related harm

- The frequent drug users who reported physical problems from their drug use reported a mean number of 9 physical problems in the past six months (median 9, range 1-22)
- The frequent drug users who reported psychological problems from their drug use reported a mean number of 9 psychological problems in the past six months (median 9, range 1-19)
- Fifty-five percent of the frequent drug users reported relationship/social problems related to their drug use
- Forty-nine percent of the frequent drug users reported financial problems related to their drug use
- Forty-seven percent of the frequent drug users reported work/study problems related to their drug use
- Twenty-three percent of the frequent drug users reported legal/police problems related to their drug use
- The drug types which the frequent drug users most often assessed as an extreme health risk to use regularly were crystal methamphetamine (58%), methamphetamine (57%), GHB (45%) and opiates (41%)

- Twenty-six percent of the frequent drug users reported that they had driven under the influence of alcohol in the previous six months
- Sixty-four percent of the frequent drug users reported they had driven under the influence of a drug other than alcohol in the past six months
- The two drug types which the frequent drug users most commonly drove under the influence of were cannabis (68%) and methamphetamine (44%).
- Twenty-two percent of the frequent drug users had accessed a GP (i.e. doctor), 9% had accessed an Accident and Emergency Department of a hospital, 6% had accessed an ambulance and 5% had been admitted to a hospital in relation to their drug use in the past six months
- Twenty-six percent of the frequent drug users had accessed a drug and alcohol worker and 17% a counsellor in relations to their drug use in the previous six months

## 14. Drug dependency

### 14.1 Introduction

The frequent drug users were administered a short dependency scale (SDS) to provide a measure of their level of dependency on a drug (see Gossop et al., 1995). The SDS has previously been validated as an instrument to detect dependency among various types of drug users including amphetamine users, alcohol drinkers, cocaine users and cannabis users (Gossop et al., 1995, Martin et al., 2006, Topp and Mattick, 1997). Those scoring four or more on the combined five questions of the SDS are categorised as drug dependent. The final assessment of the SDS is presented at the end of this chapter after the findings for each question of the scale are reviewed. The frequent methamphetamine users answered the SDS in relation to their methamphetamine use, the frequent ecstasy (MDMA) users answered the SDS in relation to their ecstasy (MDMA) use, and the frequent injecting drug users answered the SDS in relation to their opiate use.

### 14.2 Extent drug use out of control

Fifteen percent of the frequent injecting drug users reported that their opiate use was ‘always’ out of control (Table 14.1). Eleven percent of the frequent methamphetamine users reported that their methamphetamine use was ‘always’ out of control. The frequent injecting drug users were more likely to say their opiate use was out of control than the frequent ecstasy (MDMA) users were to say their ecstasy (MDMA) use was out of control (1.2 vs. 0.3,  $p < 0.0001$ ). The frequent methamphetamine users were also more likely to say their methamphetamine use was out of control than the frequent ecstasy (MDMA) users were to say their ecstasy (MDMA) use was out of control (0.9 vs. 0.3,  $p < 0.0001$ ).

Table 14.1: Extent that frequent drug users considered their drug use to be out of control by frequent drug user group, 2006

Drug Type	Methamphetamine	Ecstasy (MDMA)	Opiates
Extent drug use out of control	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)
Never [0]	40%	75%	28%
Sometimes [1]	38%	24%	40%
Often [2]	11%	0%	16%
Always [3]	11%	1%	15%
Average score (0=never – 3=always)	0.9	0.3	1.2

### 14.3 Anxious about missing a dose

Twenty-seven percent of the frequent injecting drug users said they were ‘always’ anxious about missing a dose of opiates (Table 14.2). Fourteen percent of the frequent methamphetamine users said they were ‘always’ anxious about missing a dose of methamphetamine. The frequent injecting drug users were more likely to say they were anxious about missing a dose of opiates than the frequent ecstasy (MDMA) users were to say they were anxious about missing a dose of ecstasy (MDMA) (1.5 vs. 0.2,  $p<0.0001$ ). The frequent methamphetamine users were also more likely to say they were anxious about missing a dose of methamphetamine than the frequent ecstasy (MDMA) users were to say they were anxious about missing a dose of ecstasy (MDMA) (1.0 vs. 0.2,  $p<0.0001$ ). Finally, the frequent injecting drug users were more likely to say they were anxious about missing a dose of opiates than the frequent methamphetamine users were to say they were anxious about missing a dose of methamphetamine (1.5 vs. 1.0,  $p=0.0006$ ).

Table 14.2: Extent that frequent drug users were anxious about missing a dose by frequent drug user group, 2006

Drug Type	Methamphetamine	Ecstasy (MDMA)	Opiates
Anxious about missing a dose of drugs	Methamphetamine users (n=112)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)
Never [0]	41%	81%	18%
Sometimes [1]	30%	17%	40%
Often [2]	14%	2%	14%
Always [3]	14%	0%	27%
Average score (0=never – 3=always)	1.0	0.2	1.5

### 14.4 Worry about your drug use

Twenty-two percent of the frequent injecting drug users said they ‘always’ worried about their opiate use (Table 14.3). Twenty percent of the frequent methamphetamine users said they ‘always’ worried about their methamphetamine use. The frequent injecting drug users were more likely to say they worry about their opiate use than the frequent ecstasy (MDMA) users were to say they worry about their ecstasy (MDMA) use (1.5 vs. 0.4,  $p<0.0001$ ). The frequent methamphetamine users were also more likely to say they worry about their methamphetamine use than the frequent ecstasy (MDMA) users were to say they worry about their ecstasy (MDMA) use (1.2 vs. 0.4,  $p<0.0001$ ). Finally, the frequent injecting drug users were more likely to say they worry about their opiate use than the frequent methamphetamine users were to say they worry about their methamphetamine use (1.5 vs. 1.2,  $p=0.0397$ ).

Table 14.3: Extent that frequent drug users worried about their drug use by frequent drug user group, 2006

Drug Type	Methamphetamine	Ecstasy (MDMA)	Opiates
Worry about your drug use	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)
Never [0]	35%	62%	17%
Sometimes [1]	32%	33%	37%
Often [2]	12%	3%	24%
Always [3]	20%	2%	22%
Average score (0=never – 3=always)	1.2	0.4	1.5

### 14.5 Wish you could stop

Thirty-nine percent of the frequent injecting drug users reported that they ‘always’ wished they could stop their opiate use (Table 14.4). Twenty-four percent of the frequent methamphetamine users reported that they ‘always’ wished they could stop their methamphetamine use. The frequent injecting drug users were more likely to say they wish they could stop their opiate use than the frequent ecstasy (MDMA) users were to say they wish they could stop their ecstasy (MDMA) use (1.7 vs. 0.2,  $p<0.0001$ ). The frequent methamphetamine users were also more likely to say they wish they could stop their methamphetamine use than the frequent ecstasy (MDMA) users were to say they wish they could stop their ecstasy (MDMA) use (1.2 vs. 0.2,  $p<0.0001$ ). Finally, the frequent injecting drug users were more likely to say they wish they could stop their opiate use than the frequent methamphetamine users were to say they wish they could stop their methamphetamine use (1.7 vs. 1.2,  $p=0.0009$ ).

Table 14.4: Extent that frequent drug users wished they could stop using drugs by frequent drug user group, 2006

Drug Type	Methamphetamine	Ecstasy (MDMA)	Opiates
Wish you could stop	Methamphetamine users (n=111)	Ecstasy users (MDMA) (n=110)	Intravenous drug users (IDU) (n=92)
Never [0]	44%	86%	20%
Sometimes [1]	15%	12%	27%
Often [2]	16%	1%	14%
Always [3]	24%	1%	39%
Average score (0=never – 3=always)	1.2	0.2	1.7

## 14.6 How difficult find it to stop

Ten percent of the frequent injecting drug users believed it would be ‘impossible’ for them to stop using opiates (Table 14.5). Three percent of the frequent methamphetamine users believed it would be ‘impossible’ for them to stop using methamphetamine. The frequent injecting drug users were more likely to say it would be difficult for them to stop using opiates than the frequent ecstasy (MDMA) users were to say it would be difficult for them to stop using ecstasy (MDMA) (1.3 vs. 0.1,  $p<0.0001$ ). The frequent methamphetamine users were also more likely to say it would be difficult for them to stop using methamphetamine than the frequent ecstasy (MDMA) users were to say it would be difficult for them to stop using ecstasy (MDMA) (0.9 vs. 0.1,  $p<0.0001$ ). Finally, the frequent injecting drug users were more likely to say it would be difficult for them to stop using opiates than the frequent methamphetamine users were to say it would be difficult for them to stop using methamphetamine (1.3 vs. 0.9,  $p=0.0004$ ).

Table 14.5: Extent that frequent drug users considered it would be difficult to stop their drug use by frequent drug user group, 2006

Drug Type	Methamphetamine	Ecstasy (MDMA)	Opiates
How difficult to stop	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=110)	Intravenous drug users (IDU) (n=92)
Not difficult [0]	46%	87%	21%
Quite difficult [1]	21%	12%	38%
Very difficult [2]	30%	1%	32%
Impossible [3]	3%	0%	10%
Average score (0=never – 3=always)	0.9	0.1	1.3

## 14.7 Short Dependency Scale scores

Eighty percent of the frequent injecting drug users were classified as dependent on opiates according to the SDS (Table 14.6). Fifty-nine percent of the frequent methamphetamine users were classified as dependent on methamphetamine according to the SDS. Nine percent of the frequent ecstasy (MDMA) users were classified as dependent on ecstasy (MDMA) according to the SDS. A lower proportion of frequent ecstasy users were classified as drug dependent than either the frequent methamphetamine users (9% vs. 59%,  $p=0.0003$ ) or the frequent injecting drug users (9% vs. 80%,  $p=0.0003$ ). The frequent injecting drug users were more likely to be classified as drug dependent than the frequent methamphetamine users (80% vs. 59%,  $p=0.0013$ ).

Table 14.6: SDS classification of dependency by frequent drug user group, 2006

Drug Type	Methamphetamine	Ecstasy (MDMA)	Opiates
Total dependency score (score 4 or more = dependent)	Methamphetamine users (n=109)	Ecstasy users (MDMA) (n=109)	Intravenous drug users (IDU) (n=92)
0 Non-dependent	17%	50%	4%
1	31%	66%	7%
2	37%	82%	12%
3	41%	91%	20%
4 Dependent	47%	95%	26%
5	52%	99%	36%
6	59%	99%	43%
7	66%	99%	51%
8	72%	99%	65%
9	81%	99%	72%
10	85%	100%	77%
11	90%	100%	84%
12	94%	100%	88%
13	97%	100%	92%
14	100%	100%	100%

## 14.8 Summary of drug dependency

- Eighty percent of the frequent injecting drug users were classified as dependent on opiates
- Fifty-nine percent of the frequent methamphetamine users were classified as dependent on methamphetamine
- Nine percent of the frequent ecstasy (MDMA) users were classified as dependent on ecstasy

## 15. Injecting behaviour

### 15.1 Introduction

Those frequent drug users who had injected any drug in the previous six months were asked additional questions about their injecting behaviour, including where they obtained their needles, the places where they injected, whether they had used a needle or injection equipment after another user and how often they had used a new sterile needle on each injecting occasion. All the frequent injecting drug users had injected a drug in the previous six months. Thirty-three percent of the frequent methamphetamine users had used a needle to inject a drug in the previous six months. Only five frequent ecstasy users (5%) had injected a drug in the previous six months so they are included in the combined sample only.

### 15.2 Location where needles were obtained

The frequent drug users were asked to name all the different places where they had obtained needles in the past six months and were read a list of possible locations. Needle exchanges (90%) proper, and after-hours electronic needle dispensers (39%) located at needle exchanges, were some of the most common places where the frequent drug users obtained needles, followed by designated pharmacies (41%) and a 'friend' (33%) (Table 15.1). Twelve percent of the frequent drug users obtained their needles from their drug dealer.

Table 15.1: Location used to obtain a sterile needle by frequent drug user group, 2006

Location where needle obtained	Methamphetamine users (n=38)	Intravenous drug users (IDU) (n=92)	Combined modules (n=135) (includes frequent ecstasy users)
Needle exchange	87%	93%	90%
Needle exchange electronic dispenser	39%	37%	39%
Pharmacy	32%	47%	41%
Partner	5%	16%	13%
Friend	32%	34%	33%
Drug dealer	5%	15%	12%

### 15.3 Places where drugs were injected

The frequent drug users were asked about all the different locations where they had injected drugs in the past six months and were read a list of possible locations. Private homes (i.e. own home [90%] or a friends' home [70%]) were some of the most common places where frequent drug users injected drugs. However, injection also sometimes took place in public or semi public locations such as a 'car' (41%), 'public toilets' (23%), 'venue toilets' (19%) and the 'street, park or bench' (15%) (Table 15.2)

Table 15.2: Places where drug injected by frequent drug user group, 2006

Places where injected	Methamphetamine users (n=38)	Intravenous drug users (IDU) (n=92)	Combined modules (n=135) (includes frequent ecstasy users)
Own home	87%	91%	90%
Friends' home	63%	73%	70%
Dealers' home	24%	34%	30%
Street, park or bench	24%	12%	15%
Venue toilet (e.g. pubs/ clubs)	24%	17%	19%
Public toilet	24%	24%	23%
Sex venue	8%	3%	4%
Car	47%	39%	41%
Communal 'shooting' room	5%	8%	7%
Squat	13%	3%	6%
Other	5%	1%	2%

### 15.4 Times used a needle after someone else

The frequent drug users were asked how many times they had used a needle to inject themselves after someone else had already used it in the past six months. While 90% of the frequent drug users said they had never used a needle after someone else in the previous six months, 10% of the frequent drug users said they had done so to varying degrees over this time (Table 15.3). There was no statistically significant difference between the frequent methamphetamine users and the frequent injecting drug users with respect to whether they had used a needle after someone else (8% vs. 12%,  $p=0.8606$ ).

Table 15.3: Number of times needle was used after someone else by frequent drug user group, 2006

Times used needle after someone else	Methamphetamine users (n=37)	Intravenous drug users (IDU) (n=92)	Combined modules (n=134) (includes frequent ecstasy users)
None	92%	88%	90%
1 time	3%	8%	6%
2 times	0%	2%	1%
3-5 times	3%	1%	1%
6-10 times	0%	0%	0%
>10 times	3%	1%	1%

### 15.5 Injecting equipment used after someone else

The frequent drug users were also asked what injecting equipment, if any, they had used after someone in the previous six months. Forty-six percent of the frequent drug users had used injection equipment after someone else in the past six months (Table 15.4). The frequent injecting drug users were more likely to have used injecting equipment after someone else than the frequent methamphetamine users (54% vs. 24%,  $p=0.0057$ ).

Table 15.4: Number of times needle was used after someone else by frequent drug user group, 2006

Injecting equipment used after someone	Methamphetamine users (n=38)	Intravenous drug users (IDU) (n=91)	Combined modules (n=134) (includes frequent ecstasy users)
None	76%	46%	54%
Spoons/ mixing container	16%	43%	37%
Wheel filter	5%	14%	13%
Tourniquet	8%	34%	28%
Water	8%	13%	13%
Dregs	3%	21%	15%
Drug (taste)	3%	7%	6%

### 15.6 Frequency used a new sterile needle

The frequent drug users were asked how often over the past six months did they use a 'new' sterile needle and syringe when injecting a drug. Sixty-five percent of the frequent drug users had always used a new sterile needle and syringe when injecting over the previous six months (Table 15.5). Twenty-nine percent of the frequent methamphetamine users and 37% of the frequent injecting drug users did not always use a new sterile needle and syringe when they injected.

Table 15.5: Number of times needle was used after someone else by frequent drug user group, 2006

Frequency used a new sterile needle and syringe	Methamphetamine users (n=38)	Intravenous drug users (IDU) (n=90)	Combined modules (n=133) (includes frequent ecstasy users)
All injections	71%	63%	65%
Most of the time	18%	36%	31%
Half of the time	11%	0%	3%
Some of the time	0%	1%	1%
Hardly ever	0%	0%	0%
Never	0%	0%	0%

### 15.7 Summary of injecting behaviour

- ‘Private homes’ (90%) and a ‘friends home’ (70%) were the most common places where drugs were injected, although injection also took place in semi public locations such as ‘cars’ (41%), ‘public toilets’ (23%), ‘venue toilets’ (19%) and the ‘street, park or bench’ (15%)
- While 90% of frequent drug users had never used a needle after someone else, 10% had done so to varying degrees in the past six months
- Forty-six percent of the frequent drug users had used injection equipment after someone else in the past six months
- Thirty-five percent of the frequent drug users had not always used a new sterile needle and syringe when injecting drugs in the previous six months

## 16. Sexual health

### 16.1 Introduction

All the frequent drug users interviewed were asked a number of questions about their sexual health including their number of sexual partners and the extent to which they used safe sex practices in the past six months.

### 16.2 Number of sexual partners

The frequent drug users were asked how many different people have they had penetrative sex with in the previous six months. Only 16% of the frequent drug users had had no sexual partners in the last six months (Table 16.1). Thirty-one percent of the frequent drug users had had three or more sexual partners in the past six months, and 9% had had more than 10 sexual partners in the preceding six months. There was no statistically significant difference between the three groups of frequent drugs users with respect to the proportion who had had six or more sexual partners in the last six months ( $p=0.8097$ ).

Table 16.1: Number of sexual partners in the last six months by frequent drug user group, 2006

Number different sexual partners	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)	Combined modules (n=317)
None	16%	9%	25%	16%
1 person	37%	45%	49%	43%
2 people	17%	8%	3%	10%
3-5 people	17%	25%	12%	18%
6-10 people	2%	8%	2%	4%
>10 people	12%	5%	9%	9%

### 16.3 Safe sexual practices with regular partners

Eighty-three percent of the frequent drug users who had sex in the previous six months had done so with a 'regular partner'. This included 77% of the frequent methamphetamine users, 88% of the frequent ecstasy users and 84% of the frequent injecting drug users. There was no statistically significant difference between the groups of frequent drug users with respect to the proportion who had had sex with a regular partner ( $p=0.1165$ ). Those frequent drug users who had a regular sexual partner in the previous six months were asked how often they used 'condoms/dams or gloves' when having sex with their 'regular partner'. Forty-five percent of the frequent drug users had 'never' used 'condoms/dams or gloves' when having sex with their regular partner over this time (Table 16.2). There was no statistically significant difference in the proportion of frequent drug users who 'rarely' or 'never' used 'condoms/dams or gloves' when having sex with their 'regular partner' between the three groups of frequent drug users ( $p=0.2706$ ).

Table 16.2: Number of times used 'condoms/dams or gloves' when having sex with a 'regular partner' by frequent drug user group, 2006

Times used protection with regular partner	Methamphetamine users (n=73)	Ecstasy users (MDMA) (n=88)	Intravenous drug users (IDU) (n=58)	Combined modules (n=219)
Every time	26%	19%	14%	20%
Often	11%	22%	12%	16%
Sometimes	14%	9%	12%	11%
Rarely	1%	16%	3%	8%
Never	48%	34%	59%	45%

## 16.4 Safe sexual practices with casual partners

Fifty-seven percent of the frequent drug users who had sex in the previous six months had done so with a ‘casual partner’. This included 66% of the frequent methamphetamine users, 57% of the frequent ecstasy users and 47% of the frequent injecting drug users. There was no difference between the groups of frequent drug users with respect to the proportion who had sex with a casual partner, although the difference was very close to being statistically significant ( $p=0.0605$ ). Those frequent drug users who had a casual sexual partner in the previous six months were asked how often over the previous six months they used ‘condoms/dams or gloves’ when having sex with their ‘casual partner(s)’. Fifteen percent of the frequent drug users had ‘never’ used ‘condoms/dams or gloves’ when having sex with casual partners over this time (Table 16.3). There was no statistically significant difference in the proportion of frequent drug users who ‘rarely’ or ‘never’ used ‘condoms/dams or gloves’ when having sex with a ‘casual partner’ between the groups of frequent drug users ( $p=0.2376$ ).

Table 16.3: Number of times used ‘condoms/dams or gloves’ when having sex with a ‘casual partner’ by frequent drug user group, 2006

Times used protection with casual partner	Methamphetamine users (n=61)	Ecstasy users (MDMA) (n=56)	Intravenous drug users (IDU) (n=32)	Combined modules (n=149)
Every time	48%	59%	63%	55%
Often	20%	14%	9%	15%
Sometimes	7%	11%	16%	10%
Rarely	5%	7%	0%	5%
Never	21%	9%	13%	15%

## 16.5 Summary of sexual health

- Nine percent of the frequent drug users had more than 10 sexual partners in the previous six months
- Forty-five percent of the frequent drug users had ‘never’ used ‘condoms/dams or gloves’ when having sex with a regular partner in the past six months
- Fifteen percent of the frequent drug users had ‘never’ used ‘condoms/dams or gloves’ when having sex with a casual partner in the past six months

## 17. Blood borne virus vaccination and testing

### 17.1 Introduction

All the frequent drug users were asked a number of questions about vaccination and testing for the blood borne viruses hepatitis B and C, and HIV.

### 17.2 Vaccination for hepatitis B

The frequent drug users were first asked if they had ever been vaccinated against hepatitis B. Fifty-four percent of the frequent drug users had not, and a further 11% did not know if they had been vaccinated against the virus (Table 17.1).

Table 17.1: Vaccination against hepatitis B by frequent drug user group, 2006

Vaccinated against hepatitis B	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)	Combined modules (n=317)
No	51%	49%	63%	54%
Yes, didn't finish schedule	4%	5%	7%	5%
Yes, completed schedule	31%	35%	25%	31%
Don't know	14%	12%	5%	11%

### 17.3 Tested for hepatitis B

The frequent drug users were also asked whether they had ever, or recently, been tested for hepatitis B. The frequent ecstasy (MDMA) users were less likely to have been ever tested for hepatitis B than either the frequent methamphetamine users (39% vs. 74%,  $p=0.0003$ ) or the frequent injecting drug users (39% vs. 72%,  $p=0.0003$ ) (nb. the 'Don't know' responses were removed for the purposes of the statistical test) (Table 17.2). The frequent ecstasy (MDMA) users were also less likely to have been tested for hepatitis B in the past year than either the frequent methamphetamine users (18% vs. 52%,  $p=0.0003$ ) or the frequent injecting drug users (18% vs. 44%,  $p=0.0003$ ).

Table 17.2: Ever tested for hepatitis B by frequent drug user group, 2006

Tested for hepatitis B	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)	Combined modules (n=317)
No	25%	59%	27%	38%
Yes, in the last year	50%	17%	42%	36%
Yes, more than 1 year ago	21%	20%	27%	22%
Don't know	4%	5%	3%	4%

Those who had been tested for hepatitis B were asked what the outcome of their test was. The results are presented in Table 17.3. Eighty-four percent of those frequent drug users who had been tested said they received a negative result (i.e. they did not have hepatitis B).

Table 17.3: Outcome of test for hepatitis B by frequent drug user group, 2006

Result of hepatitis B test	Methamphetamine users (n=81)	Ecstasy users (MDMA) (n=41)	Intravenous drug users (IDU) (n=64)	Combined modules (n=186)
Negative (I don't have hep B)	85%	93%	78%	84%
I have had hep B in the past	1%	0%	2%	1%
I am a hep B carrier	1%	2%	3%	2%
I am immune to hep B	10%	0%	14%	9%
Don't know/ didn't get result/ not sure	2%	5%	3%	3%

## 17.4 Tested for hepatitis C

The frequent drug users were asked whether they had ever been tested for hepatitis C. The frequent ecstasy (MDMA) users were less likely to have been ever been tested for hepatitis C than either the frequent methamphetamine users (34% vs. 70%,  $p=0.0003$ ) or the frequent injecting drug users (34% vs. 85%,  $p=0.0003$ ) (nb. the 'Don't know' responses were removed for the purposes of the statistical test) (Table 17.4). The frequent ecstasy users were also less likely to have been tested for hepatitis C in the previous year than either the frequent methamphetamine users (15% vs. 50%,  $p=0.0003$ ) or the frequent injecting drug users (15% vs. 57%,  $p=0.0003$ ).

Table 17.4: Ever tested for hepatitis C by frequent drug user group, 2006

Tested for hepatitis C	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)	Combined modules (n=317)
No	29%	62%	15%	37%
Yes, in the last year	48%	14%	57%	39%
Yes, more than 1 year ago	18%	18%	27%	21%
Don't know	4%	5%	1%	4%

Those frequent drug users who had been tested for hepatitis C were asked what the outcome of their test was. The results are presented in Table 17.5. Fifty-two percent of the frequent injecting drug users and 16% of the frequent methamphetamine users who had taken the test for hepatitis C reported that they had tested positive for the virus.

Table 17.5: Outcome of test for hepatitis C by frequent drug user group, 2006

Result of hepatitis C test	Methamphetamine users (n=76)	Ecstasy users (MDMA) (n=36)	Intravenous drug users (IDU) (n=77)	Combined modules (n=189)
Negative (I don't have hep C)	83%	94%	44%	69%
Positive (I have hep C)	16%	0%	52%	28%
Don't know/ didn't get result/ not sure	1%	6%	4%	3%

## 17.5 HIV

The frequent drug users were then asked whether they had ever been tested for HIV. The frequent ecstasy users were less likely to have been ever tested for HIV than either the frequent methamphetamine users (40% vs. 67%,  $p=0.0003$ ) or the frequent injecting drug users (40% vs. 83%,  $p=0.0003$ ) (nb. the 'Don't know' responses were removed for the purposes of the statistical test) (Table 17.6). The frequent injecting drug users were more likely to have ever been tested for HIV than the frequent methamphetamine users (83% vs. 67%,  $p=0.0157$ ). The frequent ecstasy users were also less likely to have been tested for HIV in the previous 12 months than either the frequent methamphetamine users (23% vs. 49%,  $p=0.0003$ ) or the frequent injecting drug users (23% vs. 47%,  $p=0.0003$ ).

Table 17.6: Ever tested for HIV by frequent drug user group, 2006

Tested for HIV	Methamphetamine users (n=114)	Ecstasy users (MDMA) (n=111)	Intravenous drug users (IDU) (n=92)	Combined modules (n=317)
No	32%	59%	17%	37%
Yes, in the last year	48%	23%	47%	39%
Yes, more than 1 year ago	18%	16%	36%	22%
Don't know	2%	3%	0%	2%

Those who had been tested for HIV were asked what the outcome of their test was. The results are presented in Table 17.7. One percent of the frequent drug users reported they had tested positive for HIV and 2% said they did not know or were unsure of the results of their test.

Table 17.7: Outcome of test for HIV by frequent drug user group, 2006

Result of HIV test	Methamphetamine users (n=75)	Ecstasy users (MDMA) (n=36)	Intravenous drug users (IDU) (n=77)	Combined modules (n=194)
Negative (I don't have HIV)	95%	95%	100%	97%
Positive (I have HIV)	3%	0%	0%	1%
Don't know/ didn't get result/ not sure	3%	5%	0%	2%

## 17.6 Summary of blood borne virus vaccination and testing

- Thirty-eight percent of the frequent drug users had never been tested for hepatitis B.
- Thirty-seven percent of frequent drug users had never been tested for hepatitis C.
- Fifty-two percent of the frequent injecting drug users who had been tested for hepatitis C had tested positive for the virus
- Thirty-seven percent of frequent drug users had never been tested for HIV
- Of those frequent drug users who had been tested for HIV, 1% had tested positive for the virus and 2% did not know the results of their test

## **18. Secondary data sources on drug use**

### **18.1 Introduction**

This chapter reviews a number of secondary data sources on drug use in New Zealand to further place the findings of the interviews of the frequent drug users and KE in greater context. In previous chapters we reviewed trends in drug seizure statistics and findings from recent national household drug surveys. The secondary data sources presented here include calls to the Alcohol and Drug Help-line, hospital admissions for drug related illness and admissions to drug treatment services.

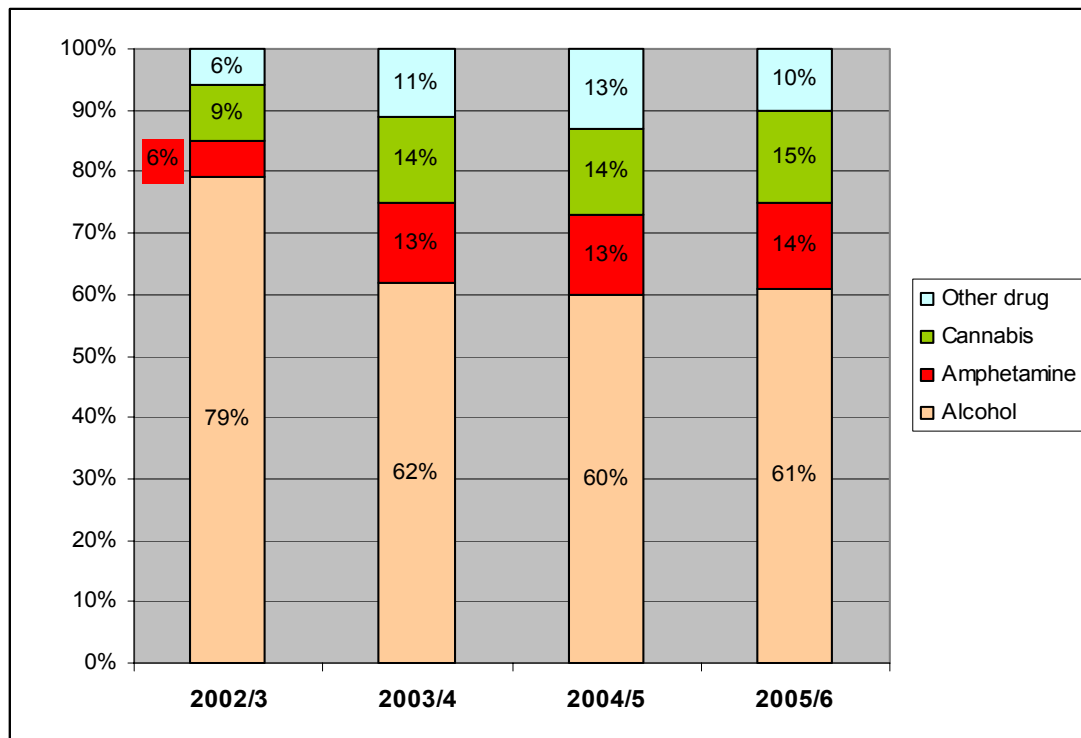
### **18.2 Alcohol and Drug Help-line**

The Alcohol and Drug Help-line is a free 0800 telephone information service run by the Alcohol Drug Association of New Zealand (ADANZ). It operates daily from 10am to 10pm and provides confidential information, service referral and support concerning drug related problems, both for drug users and concerned third parties, such as family members and friends of drug users. The call statistics from the help-line provide led indicators of changes in drug use and drug related problems.

In 2005/6, there was an 8% increase in the total number of telephone calls received by the service, from 13,712 calls in 2004/05 to 14,763 calls in 2005/06. The number of telephone calls received in 2005/06 was up 18% from the number of calls received in 2002/03 (12,529 calls).

In 2005/06, 61% of the telephone calls to the service concerned alcohol related problems. The proportion of total calls related to alcohol problems fell from 79% in 2002/03 to 62% in 2003/04, and has remained fairly consistent at this level over recent years (Figure 18.1). Over this time, the number of telephone calls related to cannabis problems increased from 1,010 calls in 2002/03 to 2,244 calls in 2005/06 (+122%). Similarly, the number of telephone calls for amphetamine related problems increased from 736 calls in 2002/03 to 2,124 calls in 2005/06 (+188%). The number of alcohol calls remained fairly steady over this time (9,127 calls in 2002/03 and 8,966 calls in 2005/6) (-2%).

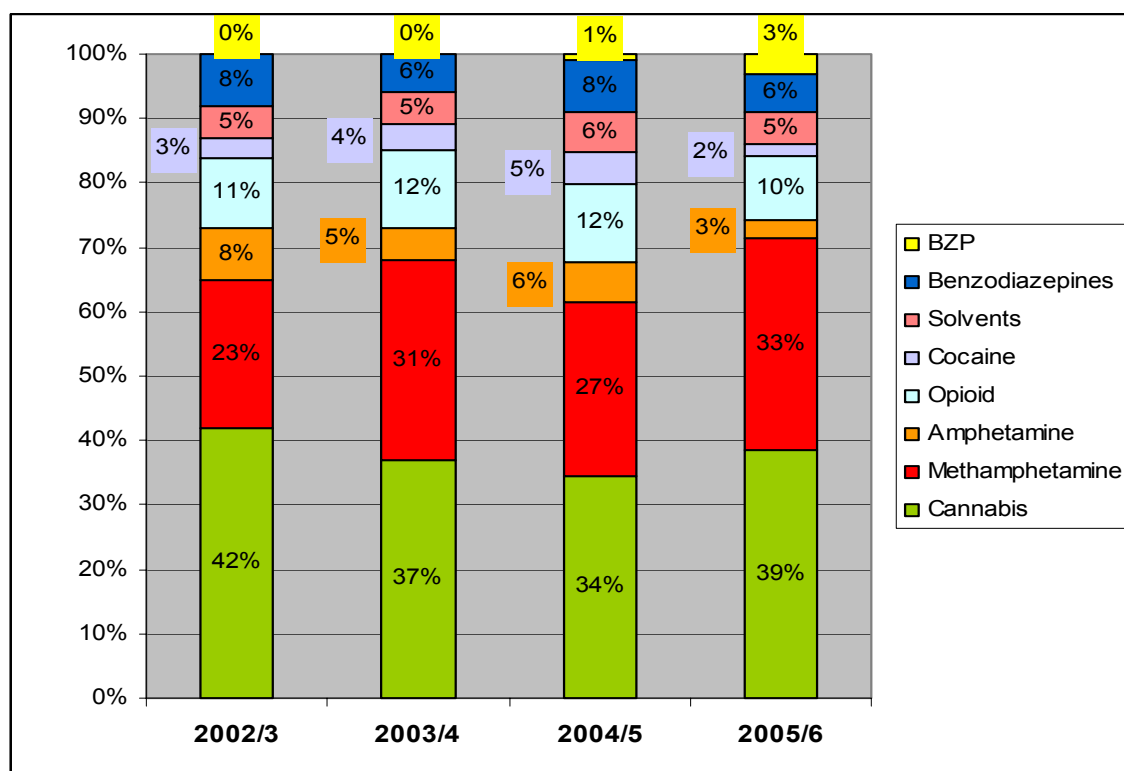
Figure 18.1: Percentage of calls received for alcohol versus other drugs, 2002-2006



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

More detailed investigation of the composition of the increase in drug related telephone calls to the service, shows that there was an increase in the number of calls related to methamphetamine problems, from 548 calls in 2002/3 to 1,941 calls in 2005/6 (+254%) (Figure 18.2). There also an increase in the number of calls for problems related to the use of benzodiazepines (from 187 calls in 2002/3 to 356 calls in 2005/6) (+90%), for problems related to the use of opiates (from 272 calls in 2002/3 to 585 calls in 2005/6) (+115%) and for problems related to the use of solvents (from 119 calls in 2002/3 to 263 calls in 2005/6) (+121%). In more recent years there have been a growing number of calls to the service in relations to problems related to legal piperazine party pills (from none in 2003/4 to 162 in 2005/6).

Figure 18.2: Percentage of calls received for illegal drugs only, 2002-2006



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

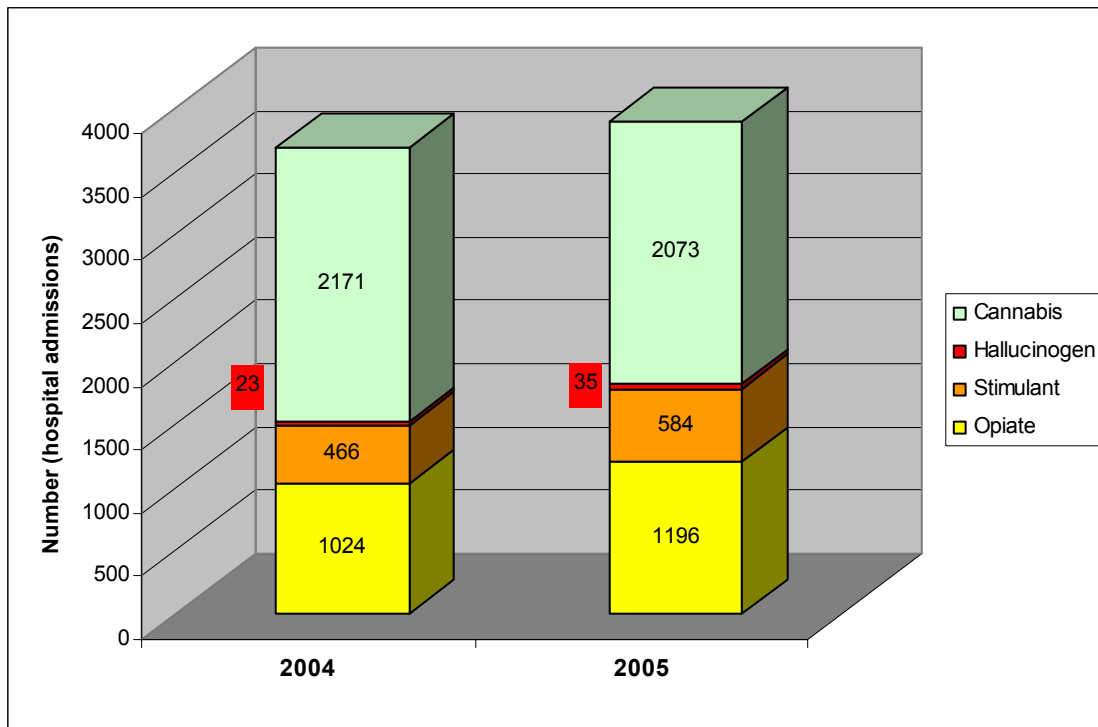
### 18.3 Hospital admissions for drug related illness

The New Zealand Health Information Service (NZHIS) records data on admissions to publicly funded hospitals for drug related poisonings and drug related mental/behavioural disorders. The data collected does not include privately funded hospitals or emergency department presentations. The drug related statistics are only available in broad drug categories (i.e. stimulants, hallucinogens, opiates and cannabis) rather than by specific drug type. The ‘stimulants’ category includes, but is not limited to, amphetamine, methamphetamine, caffeine, and in the case of poisoning only, ecstasy (MDMA). The ‘hallucinogen’ category includes, but is not limited to, LSD, psilocybin (i.e. magic mushrooms), and in the case of mental and behaviour disorders, ecstasy (MDMA). The opiates category includes, but is not limited to, opium, heroin, morphine and methadone. Patients are only recorded for the primary drug type involved in their hospitalisation. The hospital data is provided by calendar year (i.e. January-December).

There were 3,888 hospital admissions for drug related illness in 2005, up from 3,684 admissions in 2004 (+6%) (Figure 18.3). The proportion of drug related hospital admissions related to cannabis fell from 59% in 2004 to 53% in 2005. The proportion of drug related hospital admissions related to

stimulants increased from 13% in 2004 to 15% in 2005. The proportion of drug related hospital admissions related to opiates increased from 28% in 2004 to 31% in 2005. Drug related hospital admissions for hallucinogens were relatively low in both years (i.e. less than 1%).

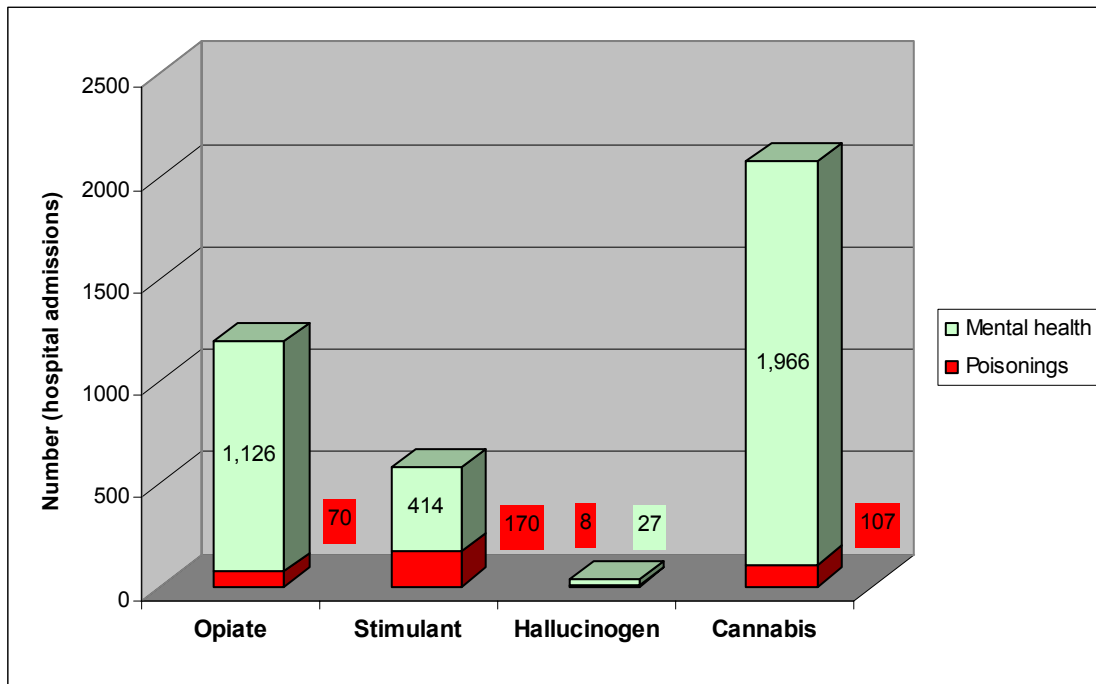
Figure 18.3: Hospital admissions for drug related illness by broad drug type, 2004-2005



New Zealand Health Information Service (2006)

Figure 18.4 shows that for all the drug categories the majority of hospital admissions for drug related illness were for mental health and behavioural disorders rather than for poisonings.

Figure 18.4: Drug related hospital admissions by category of illness, 2005

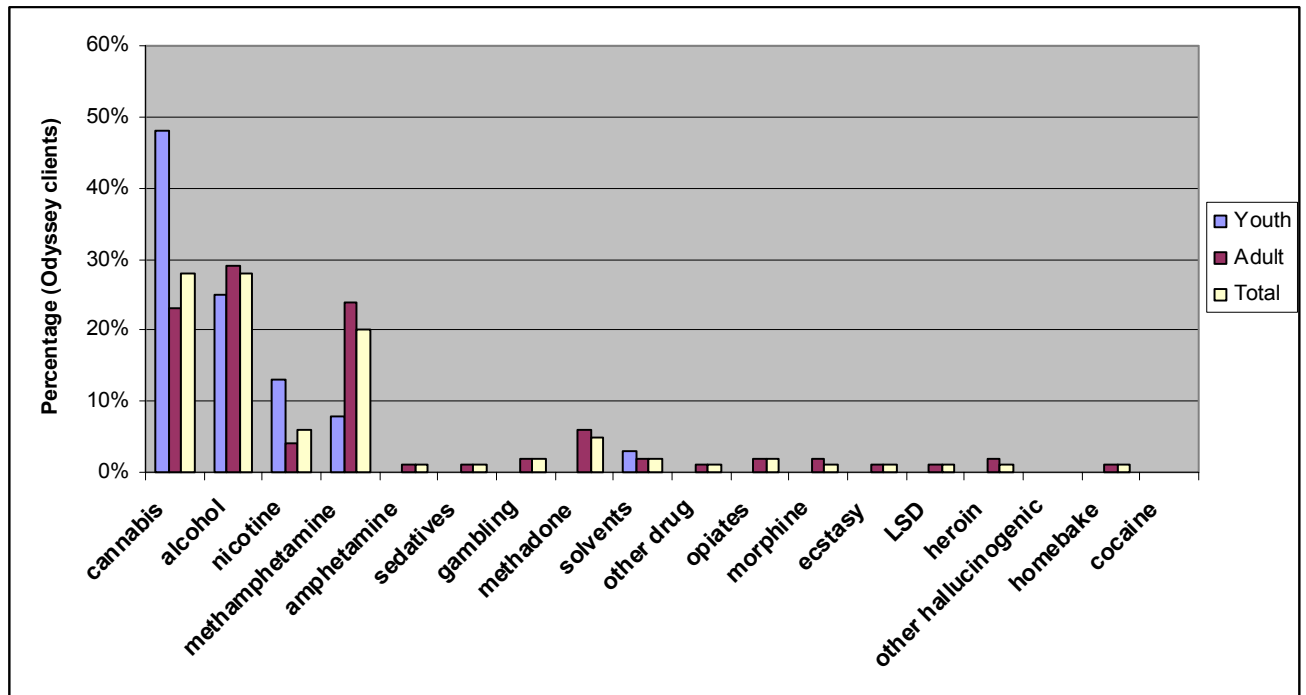


New Zealand Health Information Service (2006)

#### 18.4 Odyssey house drug treatment services

Odyssey House operates a range of programmes for people experiencing serious difficulties with substance abuse. New clients to Odyssey drug treatment programmes are asked to nominate the drug type which is their main substance use problem, and the top three substances they have problems with. For adult clients in 2005/6, the drug types most commonly nominated as the main substance problem were alcohol (29%), methamphetamine (24%) and cannabis (23%) (Figure 18.5). For youth clients in 2005/6, the drug types most commonly mentioned as the main substance problem were cannabis (48%), alcohol (25%) and tobacco (13%).

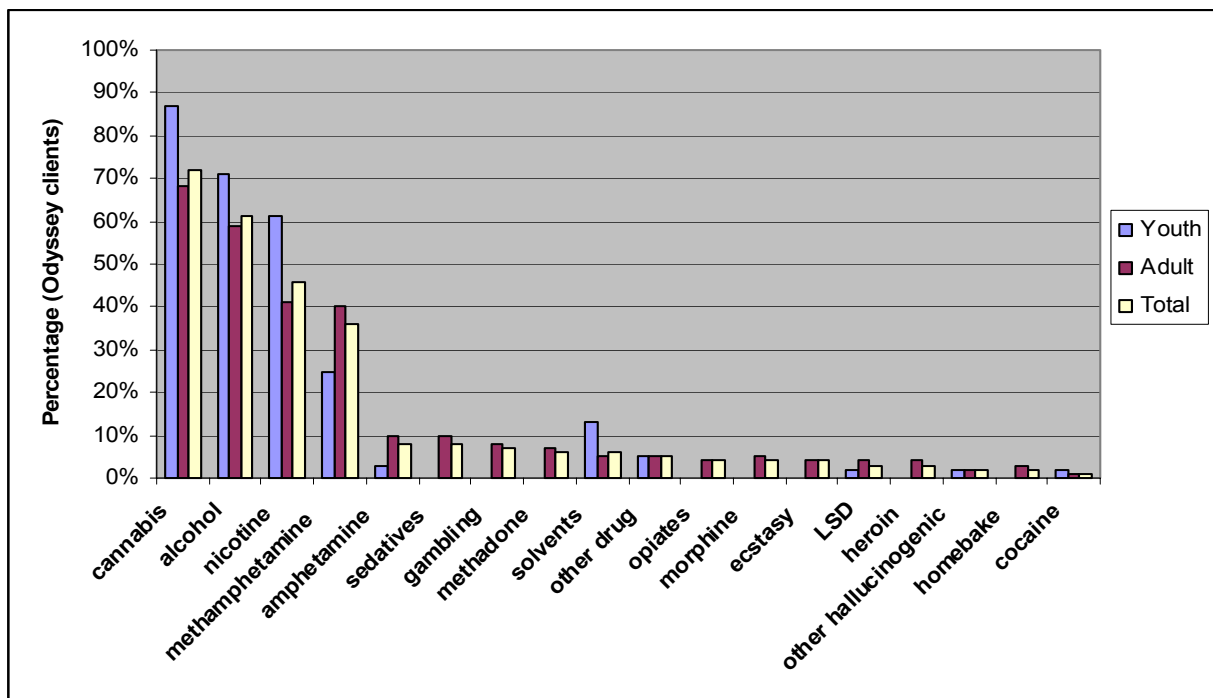
Figure 18.5: Drug types nominated by Odyssey clients as their main substance problem, 2005-6



Source: Odyssey House (2005)

Figure 18.6 presents the drug types nominated by new clients in 2005/6 as one of their top three substance use problems Cannabis (72%) was the drug type most commonly mentioned, followed by alcohol (61%), tobacco (46%), methamphetamine (36%) and amphetamine (8%). Adult clients were more likely than youth clients to include methamphetamine as one of their three greatest substance use problems (25% vs. 40%). Youth clients were more likely than adult clients to nominated solvents as one of their three greatest substance use problems (13% vs. 5%).

Figure 18.6: Drug types nominated by Odyssey clients as one of their three main problems, 2005-6



Source: Odyssey House (2005)

### 18.5 Community Alcohol and Drug Services (CADS)

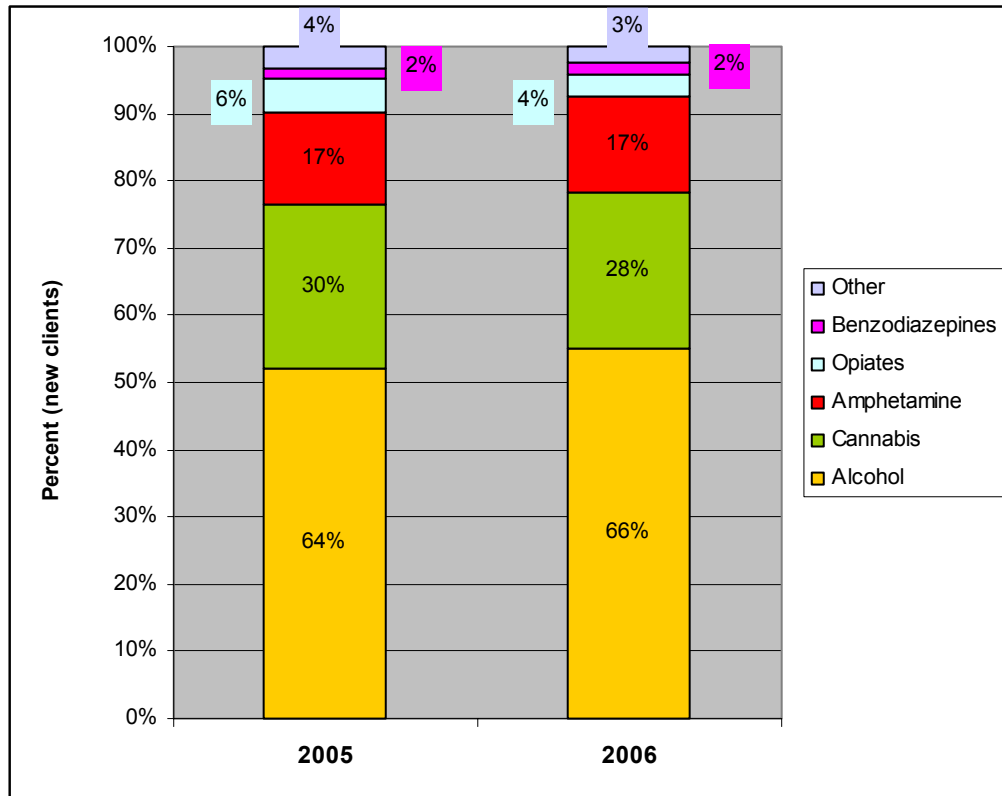
The Community Alcohol and Drug Service (CADS) provides free alcohol and other drug services to the people of the Auckland region. The statistics presented in this section are from CADS six monthly reports for the first six months of the year (i.e. January-June) for 2005 and 2006.

New clients to CADS programmes are routinely administered an alcohol and other drug screening package to elicit a range of information related to the clients alcohol and drug use. The CADS screen package is comprised of six individual screening instruments that explore six different drug types (i.e. alcohol; cannabis; amphetamine; opiates; benzodiazepines; and other drugs). A positive screen indicates probable problematic and/or dependent alcohol or drug use according to screen specific criteria. A single new client can return a positive screen for more than one drug type. In the past two years approximately 25% of new CADS clients screened positive for two or more drug types.

There was a small increase in the number of drug screens completed for new clients from 1,290 in the first six months of 2005, to 1,311 in the first six months of 2006. There was little change in the composition of positive screens by drug type between 2006 and 2005 (Figure 18.7). In 2005, there were 832 positive screens for alcohol compared to 870 positive alcohol screens in 2006. Positive

screens for cannabis decreased slightly from 390 in 2005 to 371 in 2006. Positive screens for amphetamine increased from 213 in 2005 to 226 in 2006.

Figure 18.7: Percentage of new clients testing positive for a drug screen by drug screen type, 2005-2006



Source: Community Alcohol and Drug Services (2005)

## 18.6 Summary of secondary data sources on drug use

- The number of calls concerning drug related problems to the Alcohol and Drug Help-line has increased substantially in 2005/6 compared to 2002/3 (+142%)
- There have been increased calls to the Alcohol and Drug Help-line in 2005/6 compared to 2002/3 for problems related to methamphetamine (+254%), cannabis (+122%), solvents (+121%) and opiate (+115%) use
- There has been a recent emergence of calls to the Alcohol and Drug Help-line in regard to legal piperazine party pills (162 calls in 2005/6)
- There has been a small increase in total drug related hospital admissions (+6%) in 2005 compared to 2004 with increases in admissions for stimulants (+25%) and opiates (+17%)

- The drug types most commonly nominated as the main substance use problem by new adult clients to Odyssey drug treatment services in 2005/6 were alcohol (29%), methamphetamine (24%) and cannabis (23%)
- The greatest number of positive screens (indicating problematic use) for new clients for CADS drug treatment programmes in 2006 were for alcohol (870 positive screens), cannabis (371 positive screens) and amphetamines (226 positive screens)

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