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Table of Contents

Executive Summary

Overview of the IDMS study

The Illicit Drug Monitoring System (IDMS) provides an annual 'snapshot' of drug use, drug markets and emerging drug use in New Zealand. It has been conducted since 2006. This report presents trend data on drug use and drug markets over the past ten years. Findings from the IDMS are utilised by a wide audience including politicians and policy makers, government agencies, non-government organisations, hospital emergency staff, health providers, drug treatment organisations and community groups. The 2015 IDMS surveyed 301 frequent drug users (i.e. 118 frequent ecstasy users, 112 frequent injecting drug users [IDU] and 71 frequent methamphetamine users) from the three main centres (Auckland, Wellington and Christchurch) from August 2015 to February 2016.

The growing importance of online drug markets

The frequent drug users reported important changes in the way drugs are being bought and sold. Fifty-eight percent of those who commented on new ways of selling drugs reported greater use of the internet to buy and sell drugs, including purchasing from social media sites (e.g. 'Facebook™', 'Tinder™', 'Snapchat™') (40%) and from encrypted websites (18%). The proportion of frequent drug users who purchased ecstasy from the internet increased from <1% in 2011 to 10% in 2014 and 2015. These findings indicate the growing utilisation of online environments to facilitate the purchase and sale of drugs.

Declining wholesale prices for methamphetamine indicative of growing international supply

The gram price of methamphetamine had previously declined from $815 in 2011 to $678 in 2012, and has remained at this lower level for the past four years including 2015 (i.e. $668). This decline in methamphetamine prices is consistent with growing international supply of methamphetamine. The UNODCP reported the quantity of methamphetamine seized in East and South-East Asia 'almost quadrupled' from 2009 to 2014. There have been record seizures of crystal methamphetamine made at the Australian and New Zealand borders in recent years. The amount of methamphetamine seized in New Zealand in 2015 (i.e. 334 kilograms) exceeded annual amounts seized in the past 17 years, and this record has already been surpassed in 2016.

Important regional variations in methamphetamine availability

Overall the availability of methamphetamine has been described as 'stable/easier over the past three years. However there were some important regional differences. There have been reports of growing methamphetamine availability in Auckland since 2013. Conversely, the availability of methamphetamine was reported to have declined in Christchurch from 2014 to 2015, following a number of years of rising availability following the earthquakes in 2011.

Growing gang involvement in methamphetamine supply

The proportion of frequent drug users who purchased methamphetamine from a 'gang member or gang associate' has increased steadily from 30% in 2009 to 54% in 2015. There were also recent increases in the proportion who bought methamphetamine from a 'drug dealer', up from 63% in 2014 to 80% in 2015, and a 'social acquaintance', up from 49% in 2014 to 63% in 2015. These findings suggest growing involvement of organised criminal groups and professional drug dealers in methamphetamine supply.

The rise of semi-public methamphetamine markets

There has been a steady increase in the purchase of methamphetamine from semi-public locations such as 'street drug markets', up from 5% in 2009 to 23% in 2015, 'public areas like a park', up from 9% in 2009 to 40% in 2015, 'tinny houses', up from 11% in 2009 to 24% in 2015, 'pub/bar/clubs', up from 2% in 2009 to 22% in 2015, and an 'agreed public locations', up from 39% in 2014 to 56% in 2015. These developments are reflected in the reduced time taken to purchase methamphetamine. The proportion of frequent drug users in Auckland who could purchase methamphetamine in one hour or less increased from 49% in 2011 to 76% in 2015.

The ban on synthetic cannabinoids continues to reduce availability and use

Synthetic cannabinoid products were effectively banned in May 2014, following the withdrawal of all product licenses under the *Psychoactive Substances Act* (PSA). The 2014 IDMS found sharp declines in availability and use of synthetic cannabinoids, and an increase in price, following the bans. The 2015 results show these impacts have largely persisted. For example, the proportion of ecstasy users who had used synthetic cannabinoids declined from 22% in 2013 to 6% in 2014 and 5% in 2015.

The emergence of a black market for synthetic cannabinoids

There is evidence of an emerging black market for synthetic cannabinoids. The strength of synthetic cannabinoids increased from 2014 to 2015, and this may reflect the introduction of more potent black market products. The proportion of frequent drug users who purchased synthetic cannabinoids from a 'legal shop' decreased from 91% in 2013 to 47% in 2015, reflecting the impact of the 2014 legal bans. However, the 2015 result suggests some illicit purchasing from legal shops continues. There were corresponding increases in the purchase of synthetic cannabinoids from a range of black market locations such as 'tinny houses', up from 2% in 2013 to 17% in 2015, 'street drug markets', up from 0% in 2013 to 32% in 2015, 'drug dealers', up from 6% in 2013 to 41% in 2015, and 'gang members', up from 0% in 2013 to 32% in 2015.

Some evidence of a "cannabis drought" in southern parts of New Zealand

There was some evidence of a decline in the availability and rise in the price of cannabis, consistent with claims of a "cannabis drought", particularly in southern parts of the country. The proportion of frequent drug users who could purchase cannabis in one hour or less declined sharply in Christchurch , down from 76% in 2014 to 54% in 2015, and in Wellington, down from 63% in 2014 to 43% in 2015. The price of an ounce of cannabis increased in Wellington, from $279 in 2014 to $331 in 2015, and in Christchurch, from $327 in 2014 to $353 in 2015. There are a number of possible explanations for this disruption, including recent law enforcement success against cannabis crops and organised criminal groups switching to the manufacture of synthetic cannabinoids.

A recovery in the street morphine market in Christchurch

The availability of street morphine in Christchurch previously declined quite sharply in 2013, but availability subsequently recovered in 2014 and 2015. Consistent with this shock, the mean price of 100 milligrams of street morphine in Christchurch increased from $98 in 2012 to $114 in 2013, before declining from $112 in 2014 to $107 in 2015. The strength of street morphine in Christchurch increased from 2014 to 2015 – consistent with the understanding of a market recovery.

Organised criminals playing a growing role in the opioid market in Christchurch

There were increases in the proportion of frequent drug users from Christchurch who purchased street morphine from a 'gang member or gang associate', up from 7% in 2012 to 44% in 2015, and from a drug

dealer, up from 46% in 2011 to 87% in 2015. These results suggest organised criminal groups may be supplanting the traditional personal markets for opioids in Christchurch.

Fluctuations in the ecstasy market

The ecstasy market in New Zealand has been subject to significant fluctuations in recent years, reflecting both international and domestic developments. The disruption of the international supply of MDMA from around 2008/9 resulted in declining strength and price over subsequent years. These prevailing market conditions were interrupted by the emergence of domestic syndicates selling 'ecstasy' containing MDMA substitutes, which resulted in increased availability around 2010/11, particularly in Auckland. This revival in the domestic ecstasy market ended once these domestic syndicates were dismantled by police in 2011. The mean price of a tablet of ecstasy has declined steadily from $59 in 2006 to $41 in 2015, reflecting declining MDMA content and the advent of cheaper MDMA substitutes. More recently there have been international reports of a recovery in the purity of MDMA, particularly in Europe. Consistent with these reports, the frequent drug users interviewed for the IDMS reported the strength of ecstasy has increased in recent years.

The changing face of synthetic hallucinogens

Monitoring the LSD market has become complicated in recent years, with the emergence of new synthetic hallucinogens such as the NBOMe compounds which are often sold as 'LSD'. We had previously reported increasing use and availability of LSD since 2010 and suggested this might reflect the emergence of NBOMes. Findings from the 2015 IDMS suggest the synthetic hallucinogen market remains largely stable with availability relatively difficult. There is some evidence of increasing strength of synthetic hallucinogens which is consistent with the greater availability of the much more potent NBOMe compounds. NBOMes have been linked to a number of overdose deaths in Europe and US due to their very high potency.

Little indication of an expanding cocaine market in New Zealand

The current availability of cocaine was reported to be 'very difficult/difficult' in 2015. Only 129 grams of cocaine were seized in 2015, considerably less than the 10 kilograms seized in 2014.

Low availability of heroin

Only a small number of injecting drug users knew anything about heroin availability, supporting the understanding that the supply of heroin in New Zealand is limited. The availability of heroin was described as 'stable/more difficult' in 2015.

The decline of 'homebake' heroin

'Homebake' heroin was invented in response to the lack of heroin in New Zealand in the 1980s. Our findings suggest homebake is largely in decline, with declining availability and lower perceptions of the number of users.

Frequent methamphetamine users reported a range of drug related harm

The frequent methamphetamine users in 2015 commonly reported 'arguing with others' (78%), 'losing their temper' (65%), 'damaging a friendship' (62%), 'upsetting a family relationship' (51%), having 'no money for food and rent' (43%), being 'physically assaulted' (33%) and 'passing out' (27%) as a result of their drug use. Nine percent had overdosed in the previous six months. The overwhelming majority of frequent methamphetamine users nominated methamphetamine (81%) as the drug type mainly responsible for their drug-related problems, followed by alcohol (13%) and cannabis (9%). Sixty-two percent of the frequent methamphetamine users were assessed to be methamphetamine-dependent in 2015.

High levels of mental illness among frequent drug users

Sixty-one percent of the injecting drug users, 45% of the methamphetamine users and 26% of the ecstasy users had suffered from a mental illness at some point in their lifetimes. Twenty-nine percent of injecting drug users, 19% of methamphetamine users and 5% of ecstasy users were currently receiving treatment for a mental illness at the time of interview.

Different levels of demand for help between drug user groups

In 2015, 49% of the frequent injecting drug users and 26% of the frequent methamphetamine users reported they needed 'a lot' of help to reduce their drug use. In contrast, only 2% of the frequent ecstasy users felt they needed 'a lot' of help to reduce their drug use. Thirty-four percent of the frequent injecting drug users, 31% of the frequent methamphetamine users and 10% of the frequent ecstasy users had sought help to reduce their drug use 'but had not got it' in 2015.

Drug treatment increasingly available to methamphetamine users via the criminal justice system

In 2015, 62% of the frequent methamphetamine users, 46% of the frequent injecting drug users and 25% of the frequent ecstasy users who had been convicted of a crime had received alcohol and drug treatment as a part of their sentence. The proportion of frequent methamphetamine users who had received treatment as part of their sentence increased from 32% in 2009 to 62% in 2015.

1. Introduction

The Illicit Drug Monitoring System (IDMS) was established in 2005 to provide annual 'snapshots' of emerging drug use, ongoing drug trends, drug markets and drug related harm in New Zealand. The findings from the IDMS are intended to inform strategic and policy responses to drug use in New Zealand. IDMS findings are utilised by a wide audience including government agencies, policy makers, non-government organisations, drug treatment organisations, drug prevention organisations, health services, needle exchanges and researchers.

1.1 Aims of IDMS

The principal aims of the IDMS are to:

- Track trends in drug use
- Identify the emergence of new drug types
- Measure the availability, price and strength of drugs of greatest concern
- Document changes in drug markets
- Measure the health and social harms of drug use
- Assess the level of demand for drug treatment and other health services in relation to drug use
- Identify the barriers experienced by those seeking help for drug problems

1.2 Methodology

The IDMS employs a research methodology which has been used successfully in a number of countries to track trends in drug use and drug related harm (see Griffiths et al., 2000; Mounteney & Leirvag, 2004; Wilkins & Rose, 2003). The Australian drug monitoring programmes (i.e. the Illicit Drug Reporting System (IDRS) and Ecstasy and related Drugs Reporting System (EDRS)) provided a natural starting point for the development of a drug monitoring system in New Zealand (see recent examples, Dunn et al., 2007; O'Brien et al., 2007; Stafford et al., 2009). These methodologies were adapted and extended in the IDMS to address the unique market and geographical features of illegal drug use in New Zealand. The recruitment methods employed in the IDMS were first piloted in 2004 during early research into methamphetamine use in New Zealand (see Wilkins et al., 2004).

The primary sources of information in the IDMS are three groups of frequent illegal drug users (i.e. frequent methamphetamine users, frequent ecstasy users and frequent injecting drug users) recruited from the community in the three main centres of New Zealand (i.e. Auckland, Wellington and Christchurch). The frequent drug users are interviewed because they are a 'sentinel population' with first-hand experience and expert knowledge of recent trends in drug use and drug markets. They also bear a disproportionately high level of drug related harm (see Breen et al., 2002; Hando et al., 1997; Wilkins, et al., 2004).

A unique design feature of the IDMS is that it simultaneously recruits and interviews *three* groups of frequent drug users from the community. This is done to provide a broader understanding of recent trends for different drug types and to ensure we have a sample of sufficient size to investigate less popular or emerging drug types. Most frequent drug users are poly drug users and some are involved in the buying and selling of different drug types. Consequently, they have knowledge of more than one drug type or drug market.

To be eligible to be interviewed for the study participants have to have used a drug type at least monthly in the past six months. The specific eligibility criteria are as follows:

i) Frequent methamphetamine users - at least monthly users of methamphetamine or crystal methamphetamine
ii) Frequent ecstasy users - at least monthly users of ecstasy
iii) Frequent Intravenous Drug Users (IDU) – at least monthly injectors of any drug. The drug types injected by the IDU sample can include legal pharmaceuticals which may have been illegally diverted from the medical system, such as morphine, methadone and methylphenidate (Ritalin).

1.3 Survey of frequent drug users

A total of 301 frequent drug users were interviewed for the 2015 IDMS, comprising 118 frequent ecstasy users, 112 frequent injecting drug users (IDU) and 71 frequent methamphetamine users. The frequent drug users interviewed for the study participated in an in-depth, hour-long face-to-face interview using a structured questionnaire. Recruitment and interviewing of the frequent drug users was carried out in the three main centres (i.e. Auckland, Wellington and Christchurch) from August 2015 to February 2016.

Participants were recruited through purposive sampling and 'snowballing' (Biernacki & Waldorf, 1981; Watters & Biernacki, 1989). Purposive sampling involves the use of targeted recruitment strategies and is used to recruit hard-to-reach populations, such as illegal drug users, when general population sampling would be prohibitively costly. In order to ensure that a broad sample of frequent drug users is interviewed for the IDMS, 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 area (see Wilkins et al., 2005a, 2005b, 2005c; Wilkins, et al., 2004). The recruitment of the three samples of frequent drug users for the 2015 IDMS was achieved through three separate promotional campaigns. The interviewers left promotional material at a wide range of locations. Those contacting interviewers about participating in the study indicated the type of drug advertisement to which they were responding and were screened for eligibility for that drug type. Participants were administered a structured face-to-face interview at a public venue of their choosing.

Participants were informed that all the information provided was strictly confidential and anonymous, and that the findings 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 voucher to compensate them for their time.

1.4 Secondary data sources

The findings from the interviews with frequent drug users were contextualised with drug seizure data. We would like to thank the New Zealand Police, National Drug Intelligence Bureau (NDIB) and New Zealand Customs Service for allowing us to present this data. The amount of a drug seized by the authorities in a given year is constantly updated as cases are resolved through the courts. The seizure data for previous years has been updated in this report and consequently may differ from previous IDMS reports.

1.5 Analysis

The statistical analysis presented in this report brings an important level of rigour to the findings. It is particularly important when trying to answer the question of whether variations in findings between

years occur because there has been some real change, or are simply due random sample variation. We only consider there to be a real difference between the measures if the result of a test is statistically significant at the $p<0.05$ level. In other words, the probability of obtaining that result by chance is less than one in 20.

Statistical testing was carried out for a range of drug measures collected in the study. We conducted two types of statistical tests across time to investigate recent trends and trends over the longer term. Firstly we tested for long term trends using all the years of data (i.e. from 2006 to 2015), and secondly we tested for recent trends using the most recent years of data (i.e. from 2014 to 2015). We tested for differences in proportions (e.g. yes/no questions) using logistic regression and differences in means using ANOVA and Student's t-tests. ANOVA and Student's t-tests were run on the log-transformed values for highly-skewed variables (e.g. number of days used methamphetamine in the previous six months). Scale-type questions such as current drug availability were allocated scores (e.g. very difficult=4, difficult=3, easy=2 and very easy=1) and differences were tested for using Student's t-tests. Student's t-tests assume the samples tested form a normal distribution. Frequency tables show the distribution of data as being mound shaped, providing an approximation of a normal probability distribution. The enumerated scale question is not intended to provide a precise description of the variable; rather it is a practical way to easily summarise the variable and demonstrate how it has changed. All analysis was run using SAS software.

1.6 Weighting of the sample

As part of the analysis we wished to compare findings from the 2015 IDMS survey with the previous 2014, 2013, 2012, 2011, 2010, 2009, 2008, 2007 and 2006 IDMS surveys. The annual samples differed somewhat in terms of the proportion of respondents in each site, and in each frequent drug user module (see Tables 1.1 and 1.2). If unaccounted for it is possible for the differences between the samples to influence the results of the comparisons. To minimise the effect of differing sample populations we weighted the sample to ensure the relative contribution of each site and module was equal across years. We applied fixed weightings for site location and frequent drug user group based on the averages for these categories for 2006-2008. Tables 1.3 and 1.4 show the weighted percentages of respondents for each site and module respectively.

Table 1.1 Distribution of IDMS respondents by site for the years: 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015

Site (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
	(n=318)	(n=324)	(n=404)	(n=315)	(n=411)	(n=372)	(n=330)	(n=312)	(n=313)	(n=301)	(n=3400)
Auckland	43.4	46.9	33.2	41.6	36.0	49.7	37.6	43.3	46.0	29.6	40.7
Wellington	22.0	28.1	31.7	23.8	28.5	23.7	25.2	15.7	21.1	23.6	24.3
Christchurch	34.6	25.0	35.1	34.6	35.5	26.6	37.3	41.0	33.0	46.8	35.0
Total	100	100	100	100	100	100	100	100	100	100	100

Table 1.2 Distribution of IDMS respondents by module for the years: 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015

Module (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
	(n=318)	(n=324)	(n=404)	(n=315)	(n=411)	(n=372)	(n=330)	(n=312)	(n=313)	(n=301)	(n=3400)
Methamphetamine	35.8	34.0	33.9	33.3	31.6	30.4	30.3	29.8	32.3	23.6	31.5
Ecstasy	34.9	32.4	33.4	35.6	37.2	43.3	38.2	37.8	35.0	39.2	36.7
Injecting	29.2	33.6	32.7	31.1	31.1	26.3	31.5	32.4	33.0	37.2	31.8
Total	100	100	100	100	100	100	100	100	100	100	100

Table 1.3 Weighted distribution of respondents by site for the years: 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015

Site (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
	(n=318)	(n=323)	(n=405)	(n=315)	(n=412)	(n=375)	(n=331)	(n=312)	(n=313)	(n=301)	(n=3400)
Auckland	39.8	41.4	40.8	40.6	41.1	38.8	41.5	41.9	41.4	45.4	41.3
Wellington	27.1	27.6	27.6	27.4	27.2	26.8	27.1	26.9	27.4	25.8	27.1
Christchurch	33.1	31.0	31.6	32.0	31.7	34.5	31.4	31.2	31.2	28.7	31.6
Total	100	100	100	100	100	100	100	100	100	100	100

Table 1.4 Weighted distribution of respondents by module for the years: 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015

Module (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
	(n=318)	(n=323)	(n=405)	(n=315)	(n=412)	(n=375)	(n=331)	(n=312)	(n=313)	(n=301)	(n=3400)
Methamphetamine	34.3	32.9	36.1	34.5	36.3	32.5	36.1	34.8	33.0	39.8	35.0
Ecstasy	35.2	31.2	33.6	33.9	33.6	32.3	34.1	36.1	36.0	33.8	34.0
Injecting	30.6	35.9	30.2	31.6	30.2	35.2	29.8	29.1	32.0	26.5	31.1
Total	100	100	100	100	100	100	100	100	100	100	100

2. Demographics

2.1 Introduction

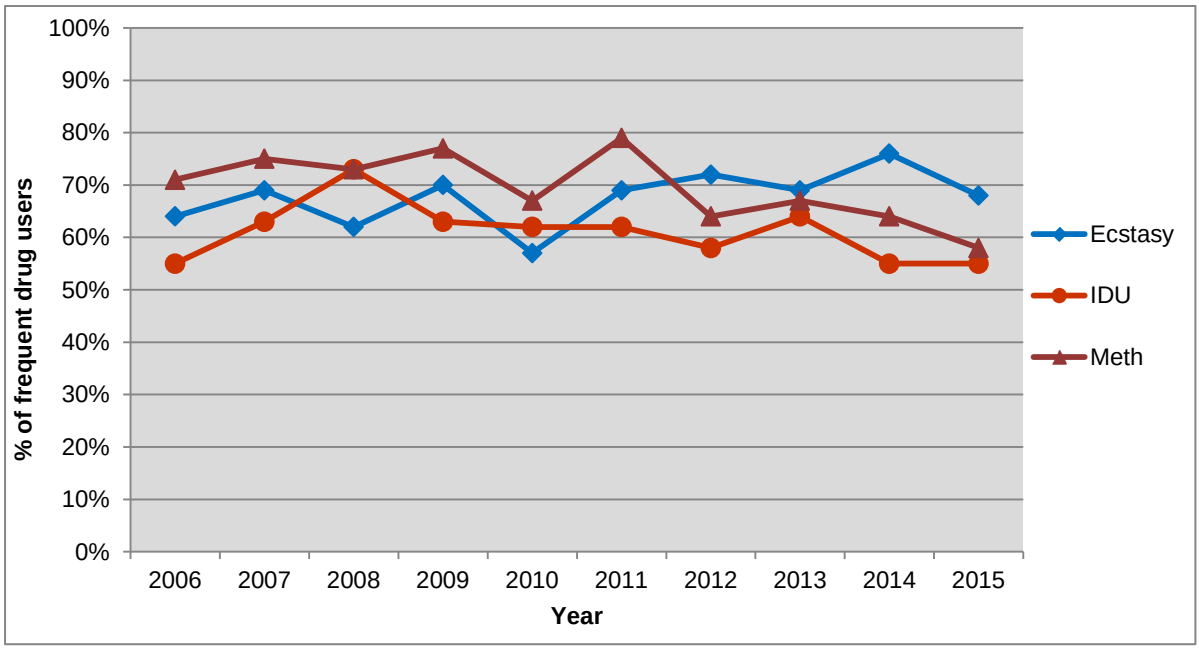
The IDMS has consistently found distinct demographic profiles for each of the three groups of frequent drug users interviewed for the study. The frequent ecstasy users tend to be younger (i.e. early 20s), students, and more highly educated. Frequent methamphetamine users, on the other hand, tend to be older (i.e. mid 30 year olds) and are more likely to be Maori. Finally, the frequent injecting drug users are the oldest group (i.e. late 30s / early 40s), more likely to be unemployed or on a sickness benefit, and more likely to have poor physical health.

The IDMS has also identified some emerging trends in the demographic profiles of the three frequent drug user groups (Wilkins et al., 2015). The mean age of the frequent methamphetamine users has increased from 30 years in 2009 to 35 years in 2014, suggesting a maturing population of users. Seventy-eight percent of the frequent ecstasy users were students in 2014. The mean age of the frequent injecting drug users has increased steadily from 32 years in 2006 to 37 years in 2014. Seventy–four percent of the frequent injecting drug users were unemployed or on a sickness benefit in 2014.

2.2 Gender

Sixty eight percent of the frequent ecstasy users, 58% of the frequent methamphetamine users and 55% of the frequent injecting drug users were male in 2015. The proportion of frequent methamphetamine users who are male decreased from 71% in 2006 to 58% in 2015 ($p=0.0015$) (Figure 2.1).

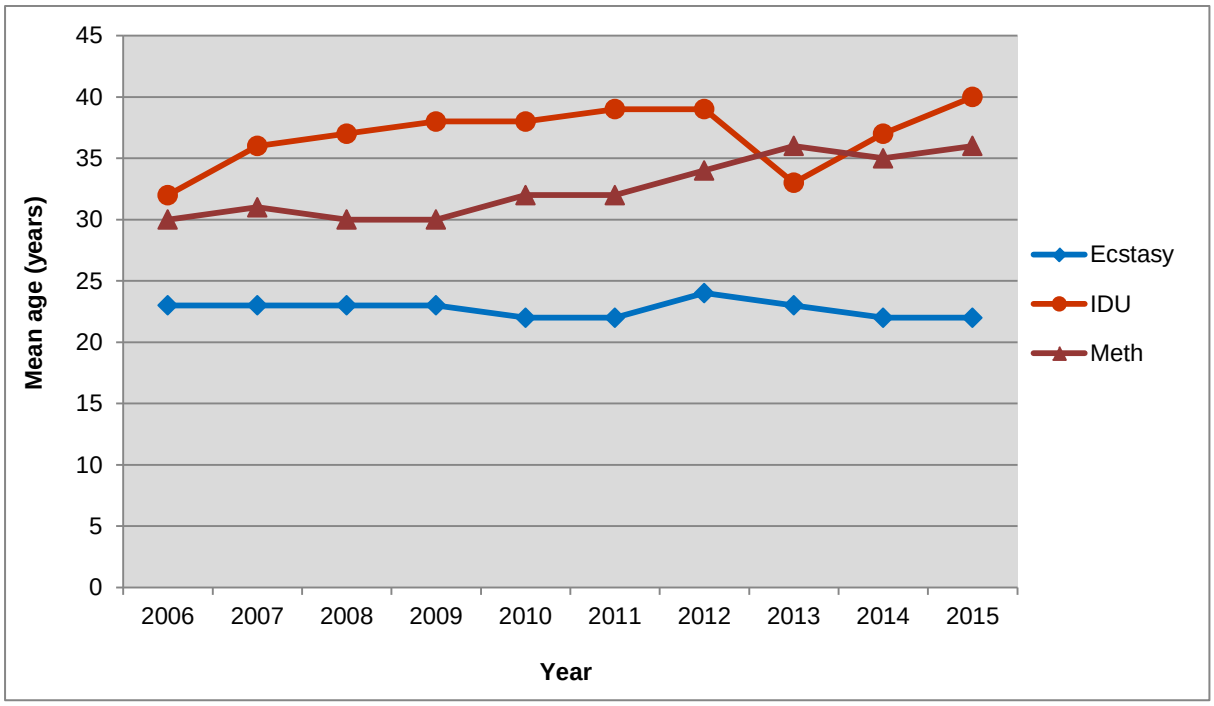
Figure 2.1 Proportion of the frequent drug users who were male, 2006-2015



2.3 Age

The frequent injecting drug users were a mean age of 40 years old, the methamphetamine users were 36 years old, and the frequent ecstasy users were 22 years old in 2015. The mean age of the frequent methamphetamine users has increased from 30 years in 2006 to 36 years in 2015 ($p<0.0001$). Similarly, the mean age of the frequent injecting drug users increased from 32 years in 2006 to 40 years in 2015 ($p=0.0031$) and from 37 years in 2014 to 40 years in 2015 ($p=0.0473$) (Figure 2.2).

Figure 2.2 Mean age of the frequent drug users, 2006-2015



2.4 Ethnicity

Eighty five percent of frequent ecstasy users, 75% of the frequent injecting drug users and 59% of the frequent methamphetamine users were of European ethnicity in 2015 (Table 2.1).

Table 2.1 Ethnicity of the frequent drug users, 2015

Ethnicity (%)	Methamphetamine users (n=69)	Injecting drug users (IDU) (n=112)	Ecstasy users (n=118)
European	59	75	85
Maori	39	18	6
Pacific Island	2	4	2
Asian	0	0	6
Other	0	1	1

The proportion of frequent methamphetamine users who are Maori increased from 22% in 2006 to 38% in 2015 ($p<0.0001$). There was no statistically significant change in the proportion of frequent ecstasy and injecting drug users who were Maori from 2006 to 2015.

2.5 Employment status

In 2015, 70% of the frequent injecting drug users and 60% of the frequent methamphetamine users were unemployed or on a sickness benefit, compared to only 7% of the frequent ecstasy users (Table 2.2). Sixty-seven percent of the frequent ecstasy users were students (i.e. tertiary or high school), compared to 8% of the methamphetamine users and 4% of injecting drug users.

Table 2.2 Employment status of the frequent drug users, 2015

Employment status (%)	Methamphetamine users (n=71)	Injecting drug users (IDU) (n=112)	Ecstasy users (n=118)
Unemployed/ sick/ other	60	70	7
Employed	32	27	26
Students (tertiary/ high school)	8	4	67

2.6 Education

In 2015, 32% of the frequent injecting drug users and 19% of the frequent methamphetamine users had no educational qualifications at all (Table 2.3). In contrast, only 2% of the frequent ecstasy users had no educational qualifications. Overall, the proportion of frequent injecting drug users with no educational qualifications has declined from 36% in 2006 to 32% in 2015 (p=0.0154). However, the proportion with no educational qualifications increased from 20% in 2014 to 32% in 2015, and this increase was close to being statistically significant (p=0.0993). The proportion of frequent methamphetamine users with no educational qualifications decreased from 37% in 2006 to 19% in 2015 (p=0.0088). The proportion of methamphetamine users with trade qualifications increased from 22% in 2014 to 37% in 2015, while the proportion with tertiary qualifications fell from 23% in 2006 to 10% in 2015.

Table 2.3 Highest educational achievement of the frequent drug users, 2015

Highest educational qualification (%)	Methamphetamine users (n=66)	Injecting drug users (IDU) (n=108)	Ecstasy users (n=114)
No qualifications	19	32	2
High school qualifications	33	29	72
Trade qualifications	37	14	9
Tertiary qualifications	10	26	17

2.7 Sexual orientation

Twenty-one percent of frequent methamphetamine users, 19% of frequent injecting drug users and 13% of frequent ecstasy users identified as non-heterosexual (i.e. gay man, lesbian woman, bi-sexual or 'other' sexual orientation) in 2015 (Table 2.4).

Table 2.4 Frequent drug users' sexual orientation, 2015

Sexual orientation (%)	Methamphetamine users (n=70)	Ecstasy users (n=118)	Intravenous drug users (IDU) (n=112)
Heterosexual	79	89	80
Gay male	2	3	0
Lesbian	1	1	4
Bisexual	16	5	13
Other	2	4	2

2.8 Marital status

Sixty-two percent of the frequent ecstasy users, 43% of the frequent methamphetamine users and 41% of the frequent injecting drug users were of single marital status in 2015 (Table 2.5). The frequent injecting drug users were more likely to be married or in a de facto relationship than the other two drug using groups.

Table 2.5 Frequent drug users by marital status, 2015

Marital status (%)	Methamphetamine users (n=71)	Ecstasy users (n=118)	Intravenous drug users (IDU) (n=110)
Single	43	62	41
With a regular partner	34	36	30
Married/ defacto	7	1	12
Separated	10	0	11
Divorced	3	1	6
Widowed	2	0	1

2.9 Accommodation

Sixty-eight percent of frequent injecting drug users, 63% of the frequent ecstasy users and 61% of frequent methamphetamine users were living in a rented private accommodation in 2015 (Table 2.6). Ten percent of the frequent methamphetamine users were homeless and a further 14% lived in a boarding hostel.

Table 2.6 Frequent drug users by current accommodation type, 2015

Accommodation type (%)	Methamphetamine users (n=71)	Ecstasy users (N=118)	Intravenous drug users (IDU) (n=112)
Rented private house	61	63	68
Own private house	2	6	5
Parents/family private house	8	20	9
Boarding house/hostel	14	11	10
No fixed address/homeless	10	1	3
Other	0	0	5
Shelter/refuge	0	0	1
Drug treatment residence	5	0	0

2.10 Physical health

The frequent drug users were asked to self-assess their current physical health using a five point scale (i.e. 1=poor–5=excellent). In 2015, approximately one third of the frequent methamphetamine users reported their physical health as either 'fair' (28%) or 'poor' (7%) (Table 2.7). Twenty-one percent of the frequent injecting drug users described their physical health as 'poor'. In contrast, only 9% of the frequent ecstasy users reported their physical health as either 'fair' (8%) or 'poor' (1%). The frequent injecting drug users also reported declining physical health from 2014 to 2015 (down from 3.1 to 2.7, p=0.0086). In contrast, the frequent ecstasy users reported increasing physical health from 2009 to 2015 (up from 3.7 to 3.9, p=0.0078).

Table 2.7 Frequent drug users' self-assessment of current physical health, 2009-2015

General physical health (%)	Year(s)		Excellent *(5)*	Very Good *(4)*	Good *(3)*	Fair *(2)*	Poor *(1)*	Average score of physical health *(1=poor - 5=excellent)*
Methamphetamine users	2009	(n=104)	13	19	35	24	10	3.0
	2010	(n=126)	7	23	37	23	11	2.9
	2011	(n=112)	13	31	37	9	10	3.3
	2012	(n=100)	7	20	32	31	10	2.8
	2013	(n=93)	5	17	39	28	12	2.8
	2014	(n=98)	6	18	33	28	15	2.7
	2015	(n=69)	8	14	43	28	7	2.9
Ecstasy users	2009	(n=111)	27	33	25	13	2	3.7
	2010	(n=153)	19	36	26	17	2	3.5
	2011	(n=161)	22	37	27	10	4	3.6
	2012	(n=124)	21	37	31	9	3	3.6
	2013	(n=118)	27	40	20	12	1	3.8
	2014	(n=109)	25	39	29	5	3	3.8
	2015	(n=118)	30	41	20	8	1	3.9
Intravenous drug users (IDU)	2009	(n=99)	4	19	29	29	19	2.6
	2010	(n=128)	5	21	36	24	15	2.8
	2011	(n=98)	7	21	29	32	10	2.8
	2012	(n=104)	11	15	32	31	12	2.8
	2013	(n=101)	8	17	30	20	25	2.6
	2014	(n=103)	13	23	37	20	7	3.1
	2015	(n=110)	6	21	33	20	21	2.7

2.11 Mental health

The frequent drug users were also asked to self-assess their mental health using a five point scale (i.e. 1=poor–5=excellent). Approximately one-third of the frequent methamphetamine users described their mental health as either 'fair' (28%) or 'poor' (2%) (Table 2.8) in 2015. Similarly, around one-third of the injecting drug users described their mental health as either 'fair' (24%) or 'poor' (8%). In contrast, 12% of the frequent ecstasy users reported their mental health as either 'fair' (11%) or 'poor' (1%). However, the frequent ecstasy users' assessment of their mental health had declined from 2014 to 2015 (down from 4.0 to 3.7, p=0.0159).

Table 2.8 Frequent drug users' self-assessment of current mental health, 2010-2015

General mental health (%)	Year(s)		Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Average score of mental health (1=poor - 5=excellent)
Methamphetamine users	2010	(n=128)	11	22	31	31	5	3.0
	2011	(n=113)	12	28	36	17	7	3.2
	2012	(n=100)	14	11	43	22	10	2.8
	2013	(n=92)	11	22	38	18	11	3.1
	2014	(n=96)	13	19	38	18	11	3.1
	2015	(n=70)	8	18	45	28	2	3.0
Ecstasy users	2010	(n=153)	26	35	27	10	1	3.7
	2011	(n=161)	29	36	21	12	2	3.8
	2012	(n=125)	28	31	27	11	2	3.7
	2013	(n=118)	38	33	18	9	2	4.0
	2014	(n=109)	35	39	21	4	2	4.0
	2015	(n=117)	23	28	27	11	1	3.7
Intravenous drug users (IDU)	2010	(n=127)	11	23	42	17	6	3.1
	2011	(n=96)	10	26	36	18	11	3.1
	2012	(n=104)	18	18	36	24	5	3.2
	2013	(n=101)	13	12	30	28	17	2.7
	2014	(n=102)	15	19	37	21	8	3.1
	2015	(n=111)	7	22	39	24	8	3.0

2.12 Summary of demographic characteristics

Frequent methamphetamine users

- Fifty-eight percent of the frequent methamphetamine users were male and their mean age was 36 years in 2015
- The proportion of frequent methamphetamine users who are male decreased from 71% in 2006 to 58% in 2015
- The mean age of the frequent methamphetamine users increased from 30 years in 2006 to 36 years in 2015
- The proportion of the frequent methamphetamine users who were Maori increased from 22% in 2006 to 38% in 2015
- Twenty-one percent of the frequent methamphetamine users identified as non-heterosexual in 2015
- Sixty percent of the frequent methamphetamine users were unemployed or on a sickness benefit in 2015
- The proportion of frequent methamphetamine users with no educational qualifications declined from 37% in 2006 to 19% in 2015
- Ten percent of the frequent methamphetamine users were homeless in 2015
- The frequent methamphetamine users reported a decline in their physical health from 2009 to 2015
- Thirty-one percent of the frequent methamphetamine users described their mental health as ‘fair’ or ‘poor’ in 2015

Frequent ecstasy users

- Sixty-eight percent of the frequent ecstasy users were male and their mean age was 22 years in 2015
- Only 6% of the frequent ecstasy users were Maori in 2015
- Sixty-seven percent of the frequent ecstasy users were students in 2015
- Sixty-two percent of the frequent ecstasy users were of ‘single’ marital status in 2015

- Twelve percent of the frequent ecstasy users described their mental health as either ‘fair’ or ‘poor’ in 2015

- The frequent ecstasy users self-reported an increase in their physical health from 2009 to 2015

Frequent injecting users

- Fifty-five percent of the frequent injecting users were male and their mean age was 40 years in 2015

- The mean age of the frequent injecting drug users has increased steadily from 32 years in 2006 to 40 years in 2014

- Eighteen percent of the frequent injecting drug users were Maori in 2015

- Seventy percent of the frequent injecting drug users reported that they were unemployed or on a sickness benefit in 2015

- The proportion of frequent injecting drug users with no educational qualifications decreased from 36% in 2006 to 32% in 2015

- Twenty-one percent of the frequent injecting drug users described their physical health as ‘poor’ in 2015

- The physical health of the injecting drug users deteriorated from 2014 to 2015

- Thirty-two percent of the injecting drugs users described their mental health as either ‘fair’ or ‘poor’ in 2015

3. Drug use patterns

3.1 Introduction

This chapter presents findings on the drug types which the frequent drug users reported using over the six months prior to their interview. There have been a number of global trends in drug use over the past decade which have impacted drug use patterns in New Zealand. Firstly, there has been increasing use of synthetic stimulants, such as methamphetamine and ecstasy, and East Asia and South-East Asia have been identified as major production regions (ACIC, 2016; EMCDDA, 2016; UNODC, 2016). New Zealand experienced a rapid emergence of methamphetamine and ecstasy use in the early 2000s (Wilkins et al., 2002b; Wilkins et al., 2003) and high levels of methamphetamine use have persisted among 'at risk' populations, including among police detainees (Wilkins et al., 2016). The United Nations Office of Drug Control (UNODC) has reported expanding global production of methamphetamine over the past five years and greater international interconnectedness of methamphetamine trafficking (UNODC, 2016).

Secondly, the extra-medical use of pharmaceutical medicines is increasingly recognised as a serious problem in many developed countries (Nicholas et al., 2011; UNODC, 2012, 2013; Wilkins et al., 2011a). The United States experienced substantial problems with the misuse of oxycodone, with resulting increases in treatment admissions, hospital emergencies and overdose deaths (Maxwell, 2011). Many of the frequent drug users interviewed for the IDMS reported the use of pharmaceuticals, such as methadone, morphine, methylphenidate (Ritalin™), benzodiazepines, tramadol, codeine and oxycodone (Wilkins, et al., 2015).

Thirdly, there was a global disruption in the supply of MDMA (methylenedioxymethamphetamine) from the mid-2000s which meant that drugs sold as 'ecstasy' increasingly contained a range of substitute compounds, including methylmethcathinone, methylone, mephedrone, MDPV, and piperazines (i.e. BZP, *m*CPP, TFMPP) (EMCDDA, 2014; ESR, 2014; Wilkins et al., 2014). This resulted in declining potency and use of ecstasy in many countries. In New Zealand, it created an opportunity for local syndicates to sell substitute compounds as 'ecstasy' which resulted in declining prices and growing availability and use (Wilkins et al., 2012b). These syndicates were dismantled in 2011/2012, substantially disrupting the local ecstasy market. More recently there have been signs of a return of high potency MDMA in Europe which may encourage more use (EMCDDA, 2016).

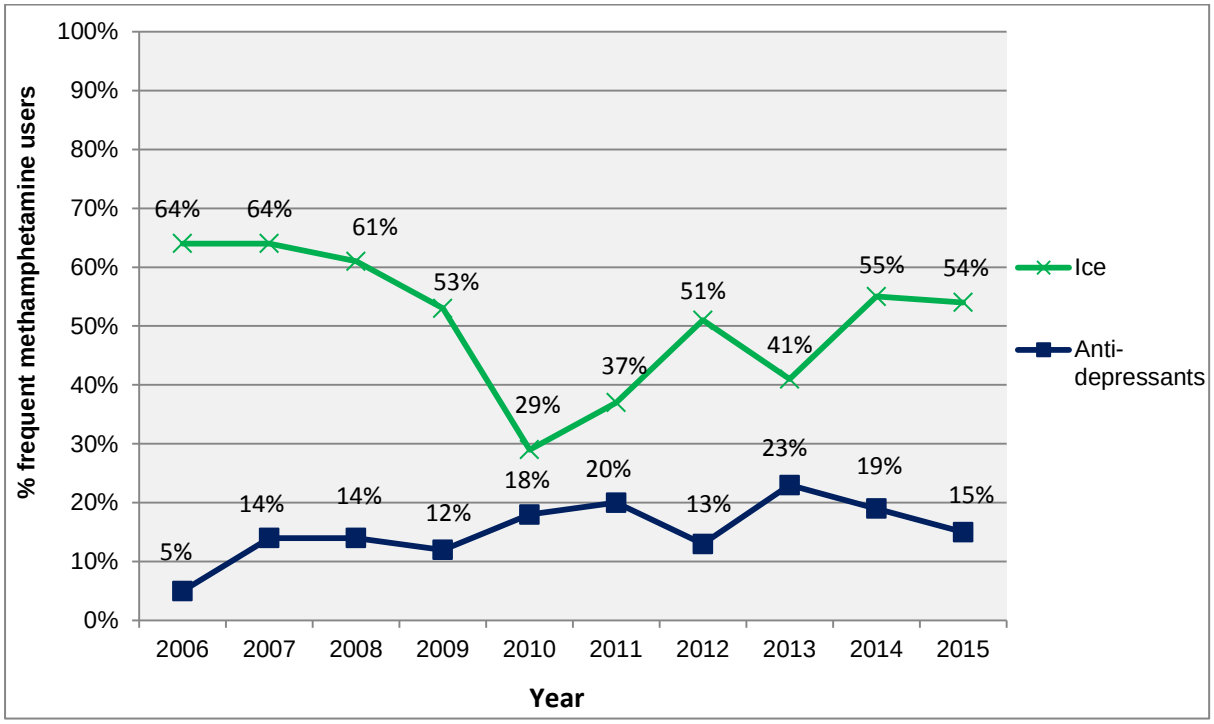
Fourthly, there has been a proliferation of new psychoactive substances (NPS), with many sold as so called 'legal highs' including synthetic cannabinoids, 'party pills' and plant extracts such as salvia divinorum (EMCDDA, 2016; UNODC, 2016; Wilkins, et al., 2015; Wilkins & Sweetsur, 2008). The number of NPS compounds reported in the Asia/Oceania region rose from 34 in 2009 to 131 in 2014 (UNODC, 2015a). The proportion of frequent methamphetamine users who used synthetic cannabinoids increased rapidly from 10% in 2010 to as high as 41% in 2011, but use declined over subsequent years and fell sharply in 2014 following the banning of all legal highs (Wilkins, et al., 2015).

3.2 Current drug use of the frequent methamphetamine users

The frequent methamphetamine users had used a mean of six drug types in the past six months in 2015 (median 6, range 1-16). The drug types most commonly used in the previous six months were methamphetamine (100%), tobacco (86%), cannabis (81%), alcohol (79%), crystal methamphetamine (Ice) (54%), ecstasy (27%) and synthetic cannabinoids (23%) (see Appendix 2). Many of the frequent methamphetamine users had recently used pharmaceuticals such as tramadol (43%), methylphenidate (Ritalin™) (21%), benzodiazepines (21%), anti-depressants (15%) and codeine (12%).

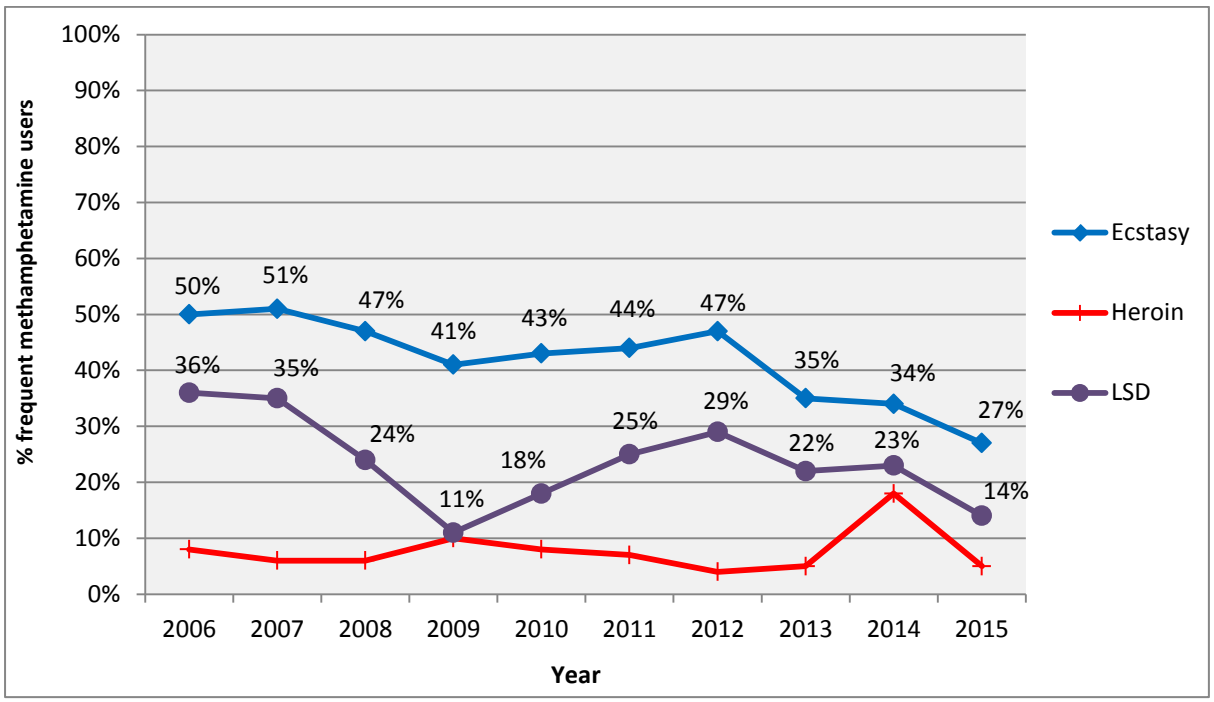
There had previously been a steady decrease in the reported use of crystal methamphetamine among the frequent methamphetamine users, down from 64% in 2006 to 29% in 2010 ($p<0.0001$). In more recent years, there has been a recovery in crystal methamphetamine use, with use increasing to 55% in 2014 and 54% in 2015 (Figure 3.1). There has been a steady increase in the proportion of frequent methamphetamine users who reported recently using anti-depressants, up from 5% in 2006 to 15% in 2015 ($p=0.0088$).

Figure 3.1 Proportion of the frequent methamphetamine users who had used crystal methamphetamine (ice) and anti-depressants in the previous six months, 2006-2015



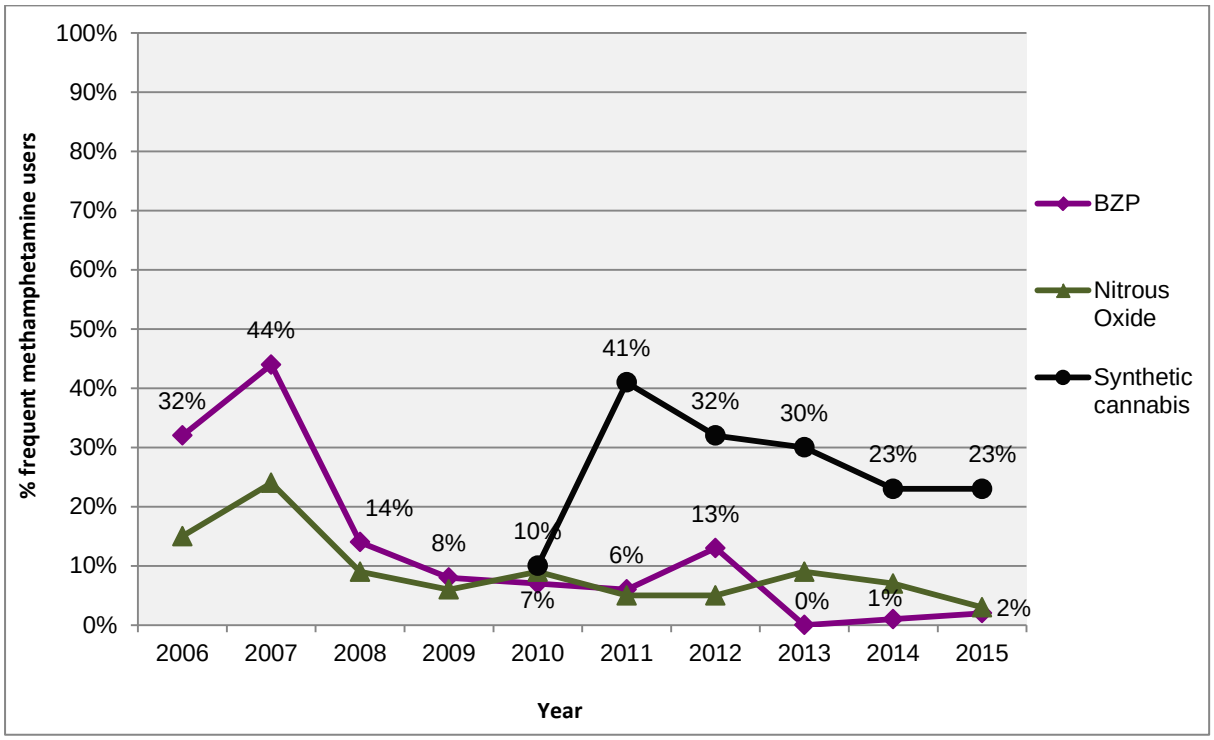
There were decreases in the proportion of frequent methamphetamine users who had recently used ecstasy (down from 51% in 2007 to 27% in 2015, p<0.0001), ketamine (down from 13% in 2007 to 3% in 2015, p=0.0088), amphetamine (down from 35% in 2014 to 17% in 2015, p=0.0025) and heroin (down from 18% in 2014 to 5% in 2015, p=0.0031) (Figure 3.2).

Figure 3.2 Proportion of the frequent methamphetamine users who had used ecstasy, heroin and LSD in the previous six months, 2006-2015



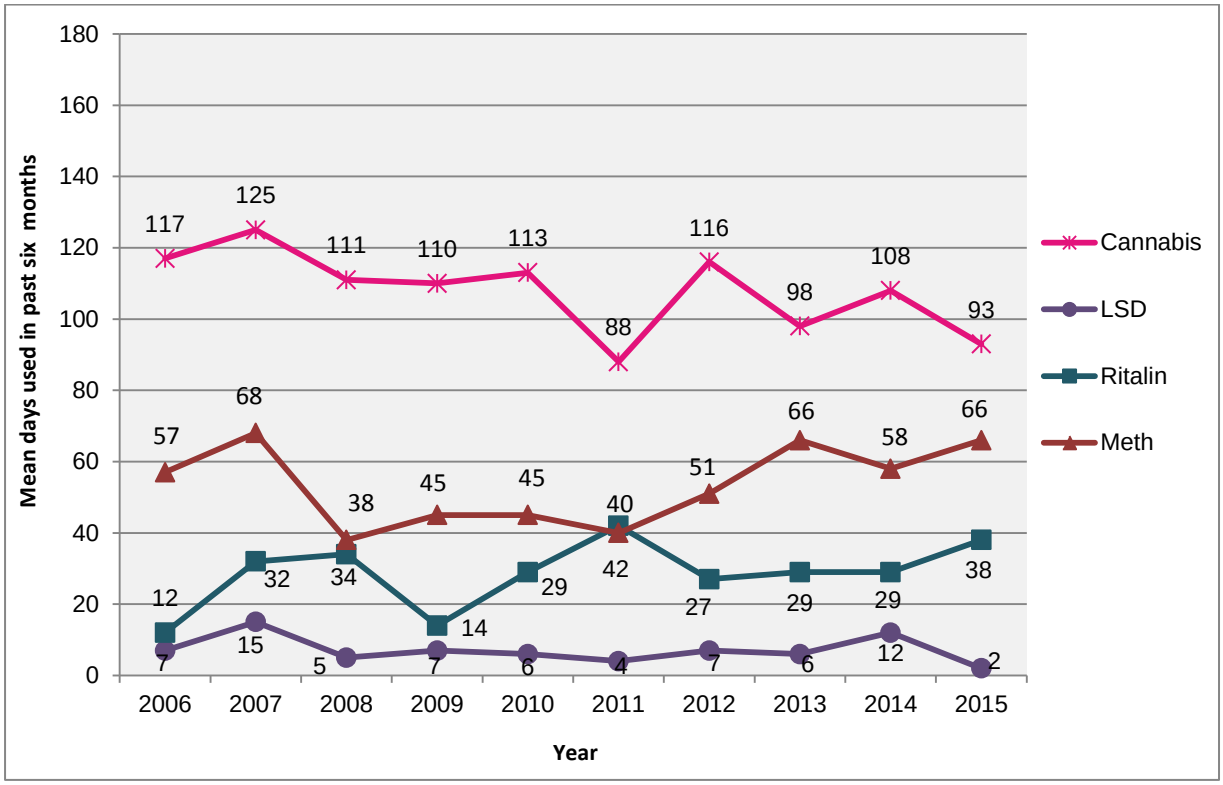
There has been a spectacular decline in the proportion of frequent methamphetamine users who use BZP (a former 'legal high') over the past ten years (down from 32% in 2006 to 2% in 2015, p<0.0001) (Figure 3.3). Similarly, the use of nitrous oxide (another former legal high) declined from 15% in 2006 to 3% in 2015 (p<0.0001). There had previously been a sharp increase in the proportion of frequent methamphetamine users who used synthetic cannabinoids, up from 10% in 2010 to 41% in 2011 (p<0.0001), but use steadily declined in subsequent years to 23% in 2014 and 2015.

Figure 3.3 Proportion of the frequent methamphetamine users who had used BZP, synthetic cannabinoids and nitrous oxide in the previous six months, 2006-2015



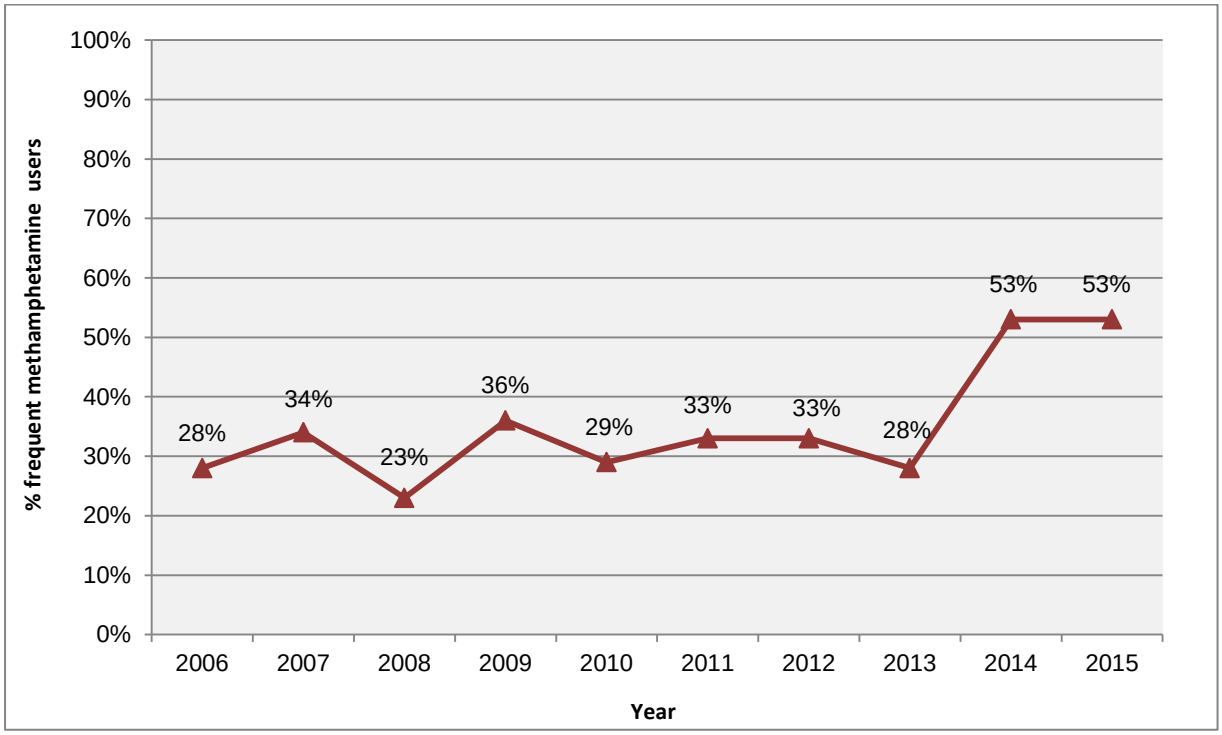
Those frequent methamphetamine users who indicated they had used a drug type were asked on how many days they had used that drug type in the previous six months. The mean number of days the frequent methamphetamine users had used methamphetamine in the past six months increased from 57 days in 2006 to 66 days in 2015 (p=0.0058) (Figure 3.4). The proportion of frequent methamphetamine users who reported using anti-depressants on a daily basis increased from 38% in 2007 to 89% in 2015 (p=0.0004). There were also increases in the number of days the frequent methamphetamine users had used benzodiazepines (up from 46 days in 2006 to 58 days in 2015, p=0.0276), methylphenidate (Ritalin™) (up from 12 days in 2006 to 38 days in 2015, p=0.0175). In contrast, there were decreases in the number of days the frequent methamphetamine users had used cannabis (down from 117 days in 2006 to 93 days in 2015, p=0.0039) and LSD (down from 15 days in 2007 to 2 days in 2015, p=0.0076).

Figure 3.4 Mean number of days frequent methamphetamine users had used methamphetamine, Ritalin, cannabis and LSD (of those who had used a drug in the previous six months), 2006-2014



If the frequent methamphetamine users reported using a drug in the previous six months they were asked if they had injected that drug in the same six month period. The proportion of frequent methamphetamine users who had injected methamphetamine in the past six months increased from 28% in 2006 to 53% in 2015 ($p<0.0001$) (Figure 3.5). Similarly, the proportion of frequent methamphetamine users who had injected crystal methamphetamine in the past six months increased from 28% in 2006 to 42% in 2015 ($p=0.0073$). There was also an increase in the proportion of frequent methamphetamine users who had injected methylphenidate (Ritalin™) from 70% in 2014 to 93% in 2015 ($p=0.0439$).

Figure 3.5 Proportion of frequent methamphetamine users who had injected methamphetamine in the previous six months (of those who had used methamphetamine in the previous six months), 2006-2015



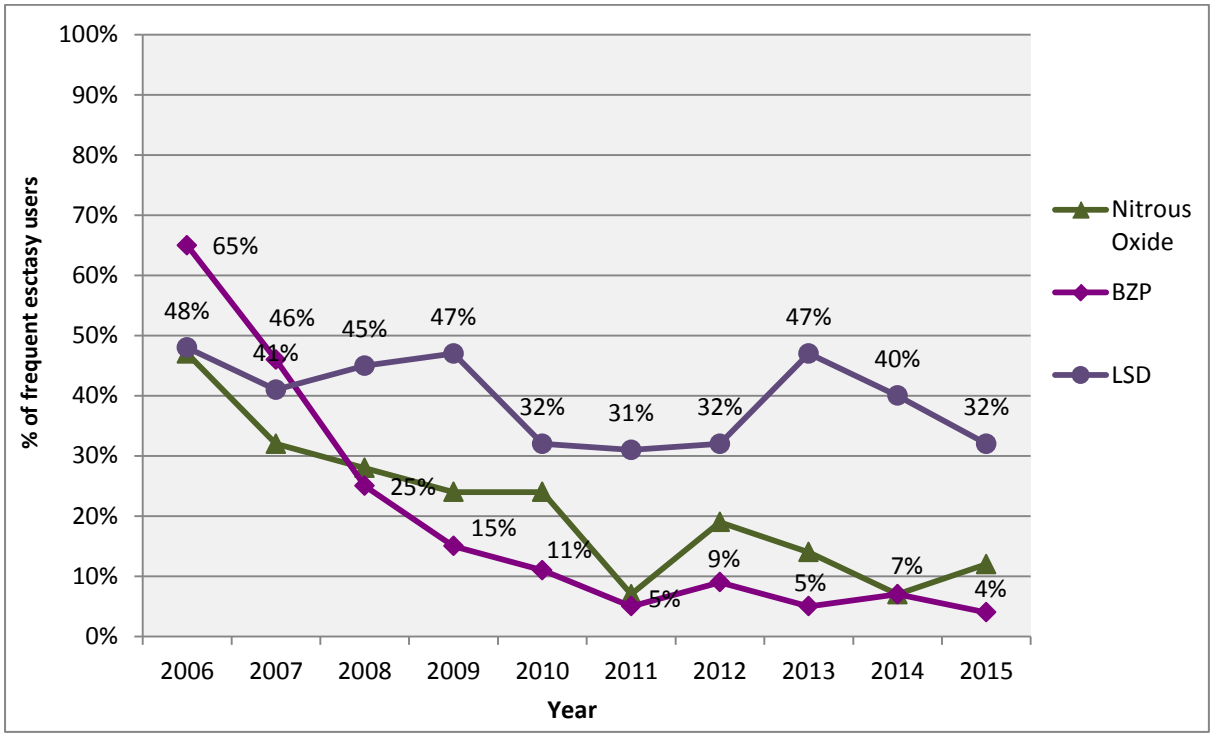
3.3 Current drug use of the frequent ecstasy (MDMA) users

The frequent ecstasy users had used a mean of six drug types in the past six months in 2015 (median 5, range 2-14). The drug types most commonly used by the frequent ecstasy users in the previous six months were alcohol (99%), ecstasy (97%), tobacco (66%), cannabis (54%), LSD (32%) and amphetamine (25%) (see Appendix 2). Some of the frequent ecstasy users had recently used pharmaceutical drugs such as tramadol (24%), codeine (23%) and methylphenidate (Ritalin™) (21%). Some of the frequent ecstasy users had used 'new drugs' in the past six months including NBOMe (15%), one of the '2C drugs' (14%), methylone (6%), mephedrone (5%), 'party pills' (5%) and synthetic cannabinoids (5%).

Overall, the proportion of frequent ecstasy users who had used LSD declined from 48% in 2006 to 32% in 2015 (p=0.0284). Reported use of LSD had previously declined from 48% in 2006 to a low of 32% in 2012 (p=0.0577), before increasing to 47% in 2013 (p=0.0298). A lower proportion of the frequent ecstasy users had recently used methamphetamine (down from 21% in 2006 to 11% in 2015, p=0.0534), cannabis (down from 92% in 2006 to 84% in 2015, p=0.0137), BZP (down from 65% in 2006 to only 4% in 2015, p<0.0001), nitrous oxide (down from 47% in 2006 to 12% in 2015, p<0.0001), hallucinogenic mushrooms (down from 32% in 2007 to 26% in 2015, p=0.0306), GHB

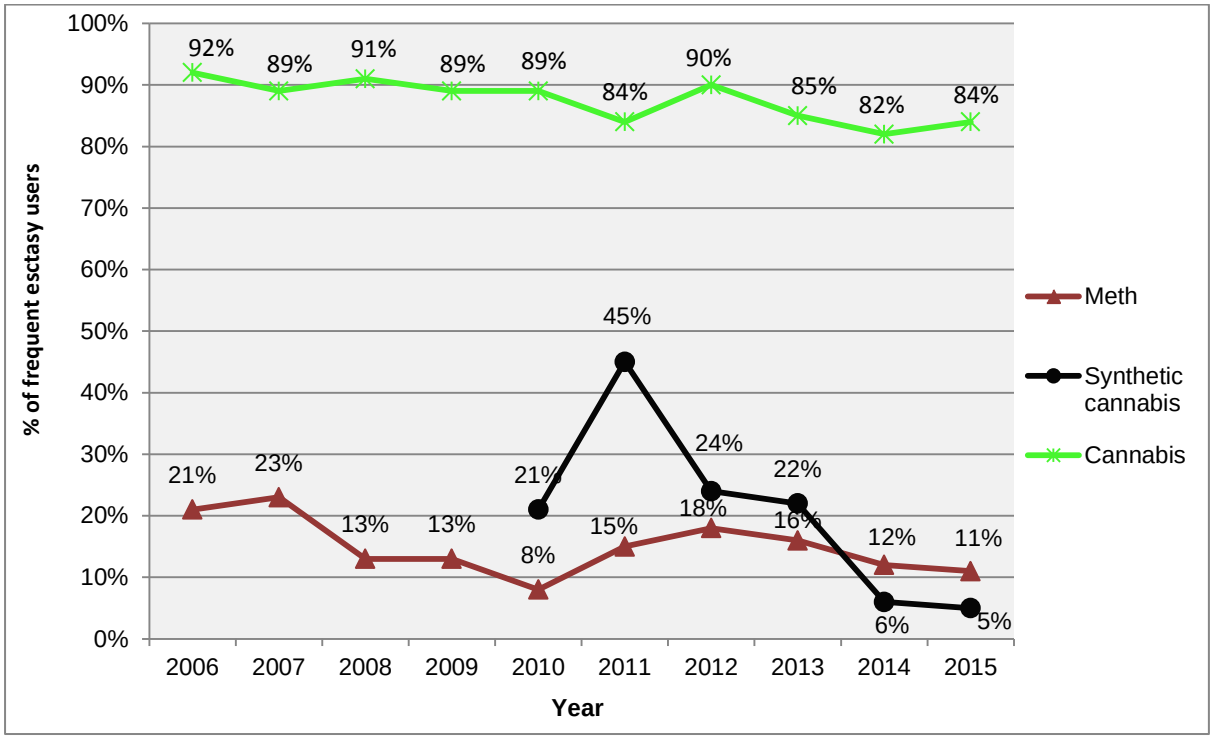
(down from 10% in 2006 to 4% in 2015, p=0.0202) and amyl nitrate (down from 17% in 2006 to 4% in 2015, p<0.0001) (Figure 3.6 and 3.7).

Figure 3.6 Proportion of the frequent ecstasy users who had used BZP, nitrous oxide, and LSD in the previous six months, 2006-2015



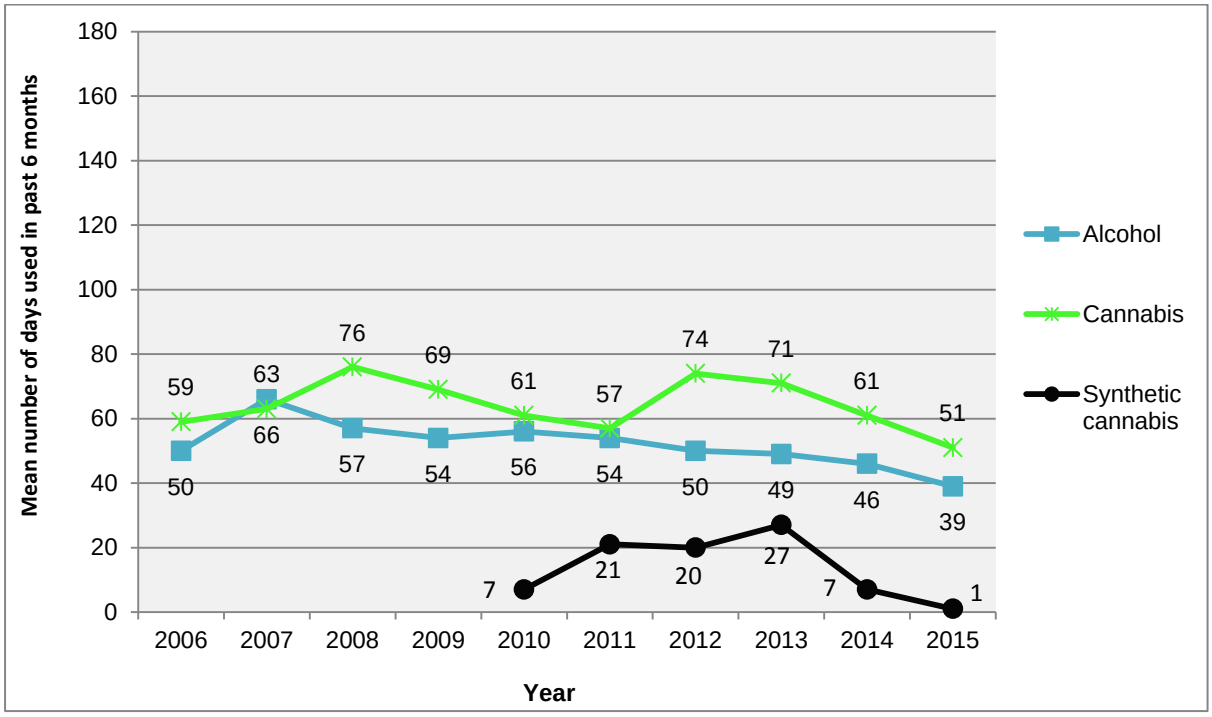
There had previously been a steep increase in synthetic cannabinoid use by the frequent ecstasy users, up from 21% in 2010 to 45% in 2011 (p<0.0001), but the level of use declined just as dramatically down from 45% in 2011 to 24% in 2012 (p=0.0008) (Figure 3.7). More recently, use declined sharply from 21% in 2010 to 5% in 2015 (p<0.0001) following the banning of all 'legal high' products in New Zealand in May 2014.

Figure 3.7 Proportion of the frequent ecstasy users who had used methamphetamine, cannabis and synthetic cannabinoids in the previous six months, 2006-2015



Those frequent ecstasy users who had used a drug type in the past six months were asked about the number of days they had used it in the previous six months. There was an increase in the mean number of days the frequent ecstasy users had used amphetamine (up from 5 days in 2006 to 9 days in 2015, p=0.0125) and antidepressants (up from 5 days in 2006 to 103 days in 2015, p=0.0380). Conversely, there was a decrease in the number of days the frequent ecstasy users had used alcohol (down from 50 days in 2006 to 39 days in 2015, p<0.0001), and tobacco (down from 106 days in 2006 to 83 days in 2015, p=0.0061) (Figure 3.8).

Figure 3.8 Mean number of days frequent ecstasy users had used alcohol, cannabis and synthetic cannabinoids (of those who had used a drug in the previous six months), 2006-2015



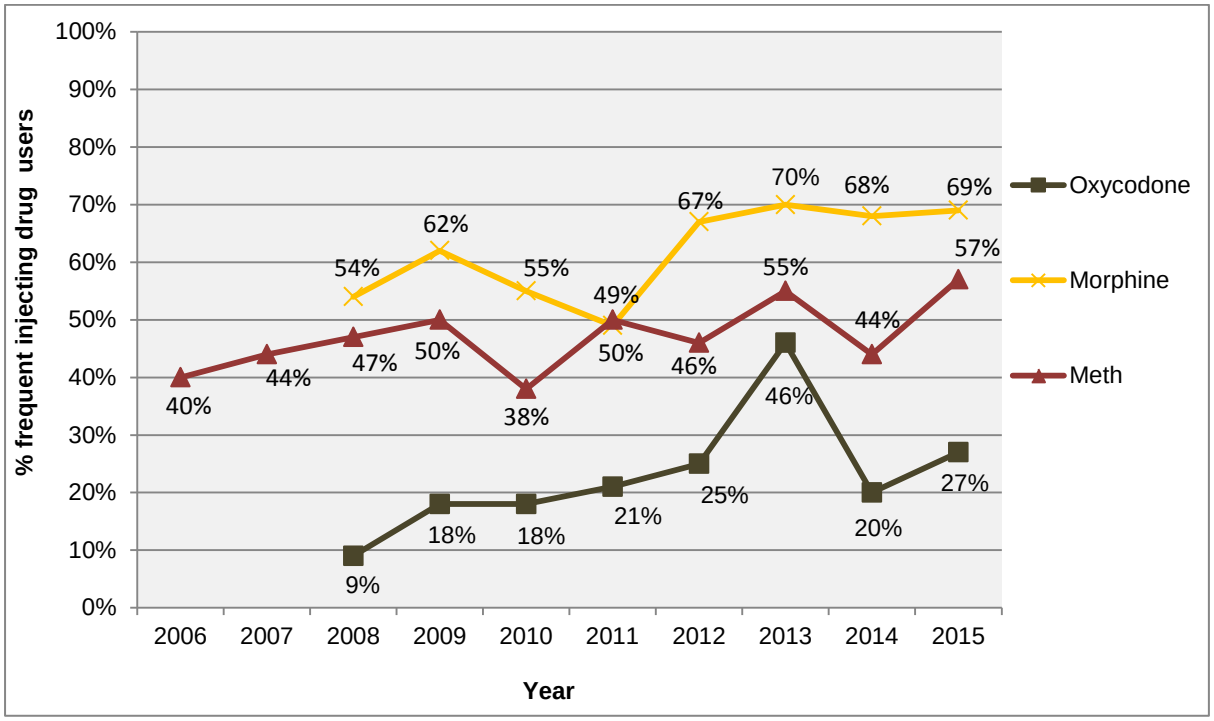
3.4 Current drug use of the frequent injecting drug users

The frequent injecting drug users had used a mean of eight drug types in the past six months in 2015 (median 7, range 1-19). The number of drug types used by the frequent injecting drug users in the previous six months increased from 6.6 in 2006 to 8.0 in 2015 ($p<0.0001$). Pharmaceutical drug use was common among the injecting drug users, with 73% using methadone, 69% using morphine, 58% using methylphenidate (Ritalin™), 57% using benzodiazepines, 34% using codeine, 27% using tramadol, and 27% using oxycocdone in the previous six months (see Appendix 2). The other drug types the frequent injecting drug users most commonly used were cannabis (77%), methamphetamine (57%), amphetamine (23%), crystal methamphetamine (20%) and homebake heroin/morphine (17%). Eleven percent of the frequent injecting drug users had used heroin in the previous six months.

The proportion of frequent injecting drug users who had used oxycodone in the previous six months increased from 9% in 2008 to 27% in 2015 ($p<0.0001$). Use of oxycodone had previously increased sharply from 9% in 2008 to 46% in 2013 ($p<0.0001$), before decreasing to 20% in 2014 ($p=0.0002$) (Figure 3.9). An increasing proportion of injecting drug users had recently used methamphetamine (up from 40% in 2006 to 57% in 2015, $p=0.0508$), morphine (up from 54% in 2008 to 69% in 2015,

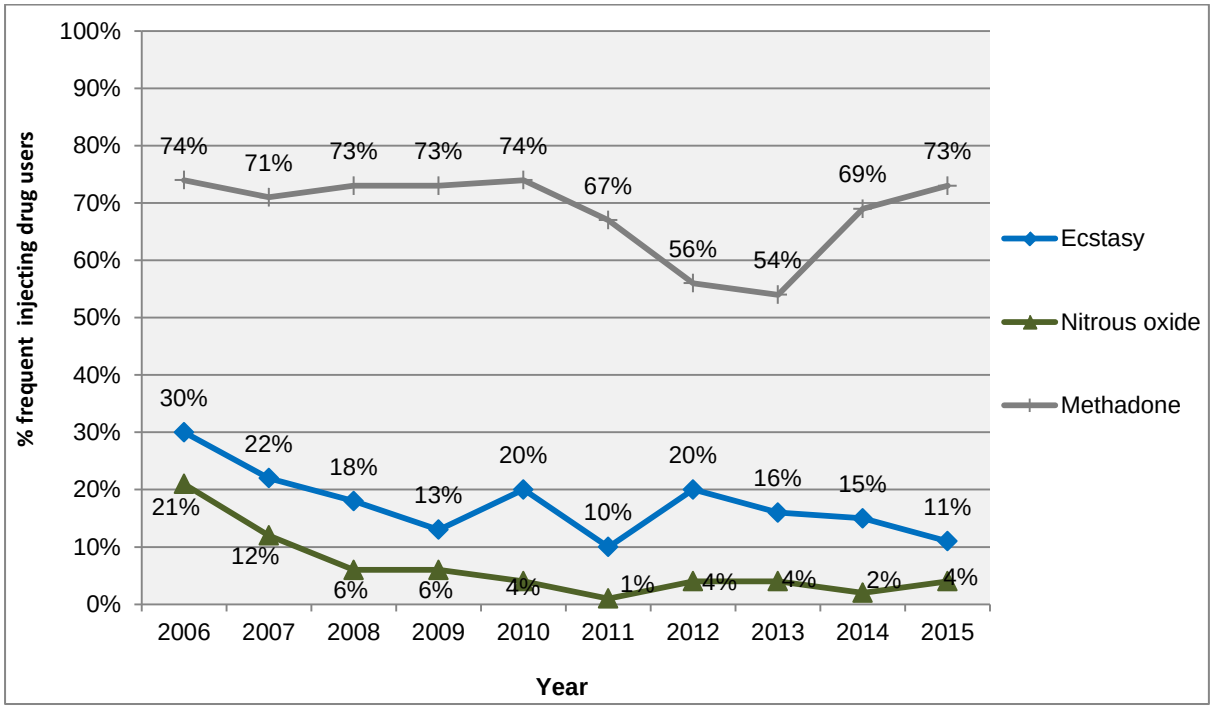
p=0.0013), anti-depressants (up from 8% in 2006 to 23% in 2015, p=0.0037) and Ritalin™ (up from 43% in 2006 to 58% in 2015, p<0.0001).

Figure 3.9 Proportion of the frequent injecting drug users who had used methamphetamine, oxycodone, and morphine in the previous six months, 2006-2015



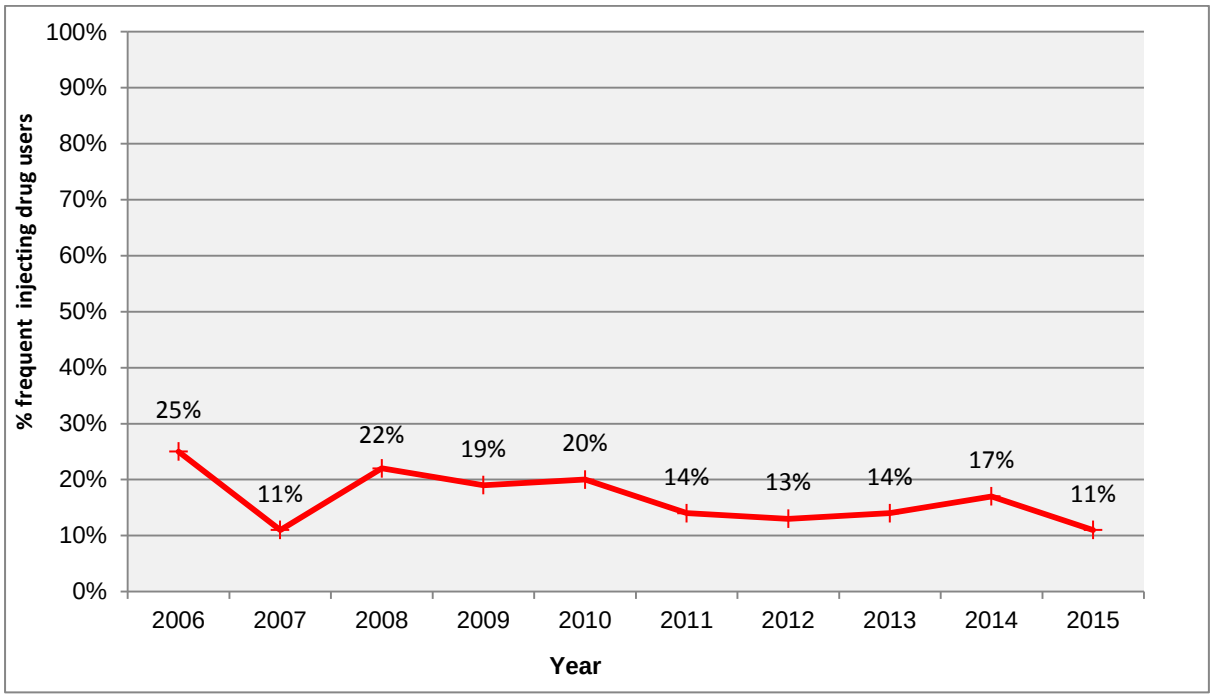
There was a decline in the proportion of frequent injecting drug users who had used nitrous oxide (down from 21% in 2006 to 4% in 2015, p<0.0001), amyl nitrate (down from 16% in 2006 to 4% in 2015, p=0.0005) and ecstasy (down from 30% in 2006 to 11% in 2015, p=0.0035) (Figure 3.10).

Figure 3.10 Proportion of the frequent injecting drug users who had used nitrous oxide, methadone and ecstasy in the previous six months, 2006-2015



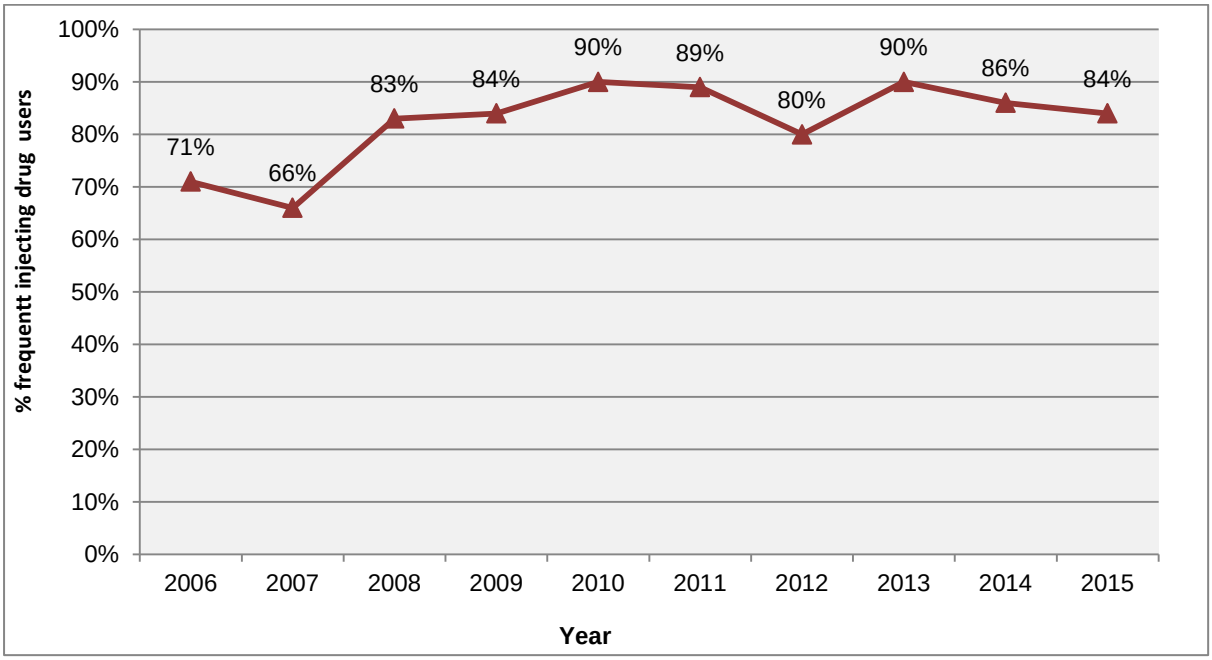
The proportion of injecting drug users who had recently used heroin declined from 25% in 2006 to 11% in 2015, and this decline was close to being statistically significant (p=0.0615) (Figure 3.11). There was also a steady decline in the use of BZP (a former legal high) from 30% in 2006 to 8% in 2015 (p<0.0001).

Figure 3.11 Proportion of the frequent injecting drug users who had used heroin in the previous six months, 2006-2015



Those injecting drug users who reported using a drug in the previous six months were asked if they had injected that drug in the same period. The drug types the frequent injecting drug users had most commonly injected in 2015 were heroin (100%), oxycodone (100%), morphine (99%), methylphenidate (Ritalin™) (98%), 'homebake' morphine (96%), crystal methamphetamine (85%) and methamphetamine (84%). The proportion of frequent injecting drug users who had injected methamphetamine increased from 71% in 2006 to 84% in 2015 (p=0.0072) (Figure 3.12).

Figure 3.12 Proportion of frequent injecting drug users who had injected methamphetamine in the previous six months (of those who had used these drugs in the previous six months), 2006-2015



Those frequent injecting drug users who reported using a drug type in the past six months were asked on how many days they had used the drug over the same six month period. The frequent injecting drug users had used methadone (up from 93 days to 119 days, p=0.0288), alcohol (up from 48 days in 2006 to 60 days in 2015, p=0.0002), codeine (up from 16 days in 2014 to 49 days in 2015, p=0.0177) and opium poppies (up from 4 days in 2014 to 12 days in 2015, p=0.0349) on a greater number of days in the previous six months from 2006 to 2015. There was a decrease in the number of days the injecting drug users had used cannabis, down from 123 days in 2006 to 86 days in 2015, p=0.0003).

3.5 Summary of drug patterns

Frequent methamphetamine users

- The drug types most commonly used by the frequent methamphetamine users in the previous six months in 2015 were methamphetamine (100%), tobacco (86%), cannabis (81%), alcohol (79%), crystal methamphetamine (54%), ecstasy (27%) and synthetic cannabinoids (23%)

- Many of the frequent methamphetamine users had recently used pharmaceuticals such as tramadol (43%), methylphenidate (Ritalin™) (21%), benzodiazepines (21%), anti-depressants (15%) and codeine (12%)

- There had previously been a steady decrease in the use of crystal methamphetamine among the frequent methamphetamine users (down from 64% in 2006 to 29% in 2010), but use has recovered in recent years (up to 55% in 2014 and 54% in 2015)

- The mean number of days the frequent methamphetamine users had used methamphetamine in the past six months increased from 57 in 2006 to 66 in 2015

- There has been a steady increase in the proportion of frequent methamphetamine users who had recently used anti-depressants (up from 5% in 2006 to 15% in 2015)

- There were decreases in the proportion of frequent methamphetamine users who had recently used ecstasy (down from 50% in 2006 to 27% in 2015), ketamine (down from 13% in 2007 to 3% in 2015), amphetamine (down from 35% in 2014 to 17% in 2015), heroin (down from 18% in 2014 to 5% in 2015) and LSD (down from 23% in 2014 to 14% in 2015)

- There had previously been a sharp increase in the proportion of frequent methamphetamine users who used synthetic cannabinoids, up from 10% in 2010 to 41% in 2011, but use has steadily declined to 23% in 2014 and 2015

- There were increases in the number of days the frequent methamphetamine users had used anti-depressants (up from 19 days in 2006 to 161 days in 2015), benzodiazepines (up from 46 days in 2006 to 58 days in 2015) and methylphenidate (Ritalin™) (up from 12 days in 2006 to 38 days in 2015)

- There were decreases in the number of days the frequent methamphetamine users had used heroin (down from 74 days in 2007 to 10 days in 2015), cannabis (down from 117 days in 2006 to 93 days in 2015) and LSD (down from 15 days in 2007 to 2 days in 2015)

- The proportion of frequent methamphetamine users who injected methamphetamine increased from 28% in 2006 to 53% in 2014 and 2015

Frequent ecstasy (MDMA) users

- The drug types most commonly used by the frequent ecstasy users in the previous six months in 2015 were alcohol (99%), ecstasy (97%), tobacco (66%), cannabis (54%), LSD (32%) and amphetamine (25%)

- Some of the frequent ecstasy users had recently used pharmaceutical drugs such as tramadol (24%), codeine (23%), methylphenidate (Ritalin™) (21%) and benzodiazepines (13%)

- Some had also used 'new drugs' such as NBOMe (15%), one of the '2C drugs' (14%), methylone (6%), mephedrone (5%), party pills (5%) and synthetic cannabinoids (5%)

- The proportion of the frequent ecstasy users who had used methylphenidate (Ritalin™) increased from 13% in 2006 to 21% in 2015

- The proportion of ecstasy users who had used synthetic cannabinoids declined sharply from 22% in 2013 to 6% in 2014 and 5% in 2015

- A lower proportion of the frequent ecstasy users had recently used methamphetamine (down from 21% in 2006 to 11% in 2015), cannabis (down from 92% in 2006 to 84% in 2015), BZP (down from 65% in 2006 to only 4% in 2015), LSD (down from 47% in 2013 to 32% in 2015), nitrous oxide (down from 47% in 2006 to 12% in 2015), GHB (down from 10% in 2006 to 4% in 2015), amyl nitrate (down from 17% in 2006 to 4% in 2015)

Frequent injecting drug users

- Pharmaceutical drug use was common among the frequent injecting drug users, with 73% using methadone, 69% using morphine, 58% using methylphenidate (Ritalin™), 57% using benzodiazepines, 34% using codeine, 27% using tramadol and 27% using oxycocdone in the previous six months in 2015

- Eleven percent of the injecting drug users had used heroin in the previous six months

- The other drug types most commonly used by the frequent injecting drug users in 2015 were tobacco (89%), cannabis (77%), alcohol (69%), methamphetamine (57%), amphetamine (23%), crystal methamphetamine (20%) and 'homebake' morphine (17%)

- There was an increase in the proportion of frequent injecting drug users who had recently used morphine (up from 54% in 2008 to 69% in 2015), methamphetamine (up from 40% in 2006 to 57% in 2015), Ritalin™ (up from 43% in 2006 to 58% in 2015) and anti-depressants (up from 8% in 2006 to 23% in 2015)

- The proportion of frequent injecting drug users who had used oxycodone had previously increased from 9% in 2008 to 46% in 2013, before decreasing to 27% in 2015

- The proportion of frequent injecting drug users who had injected methamphetamine (of those who used it) increased from 71% in 2006 to 84% in 2015

- The injecting drug users were less likely to have used ecstasy (down from 30% in 2006 to 11% in 2015), nitrous oxide (down from 21% in 2006 to 4% in 2015) and amyl nitrate (down from 16% in 2006 to 4% in 2015)

4. Emerging drug types

4.1 Introduction

Frequent drug users are often 'early adopters' of new drugs and so are well placed to comment on the emergence of new drug types. Over the past five years or so a growing number of new psychoactive substances (NPS) have emerged around the world which mimic the effects of traditional illegal drugs including synthetic cannabinoids (e.g. JWH-018, JWH-024), cathinones (e.g. mephedrone, methylone, MDPV), piperazines (e.g. BZP, TFMPP, *m*CPP), phenethylamines (e.g. MDEA, '2C Class', 25I-NBOMe), tryptamines (e.g. DMT) and plant-based drugs such as salvia divinorum, Khat and Kratom (EMCDDA, 2016; UNODC, 2016). NPS are often sold as so called 'legal highs' as their active compounds are not prohibited under existing international drug control treaties, although they are increasingly controlled under countries' domestic laws (Hughes & Griffiths, 2014).

The number of NPS compounds monitored worldwide increased from 166 at the end of 2009 to 644 in 2015 (UNODC, 2016). Seventy-five new NPS were reported for the first time in 2015 (UNODC, 2016). In recent years the majority of new NPS were synthetic cannabinoids, but increasing numbers of synthetic cathinones, synthetic opioids and sedatives were reported in 2015 (UNODC, 2016). The NPS market has proven to be particularly dynamic with a small number of compounds persisting for a number of years, while many others appear for a short time or only locally (UNODC, 2016).

New Zealand has been at the forefront of the NPS phenomena for many decades with an established market for BZP (benzylpiperazine) legal highs operating since the early 2000s, and most recently a substantial market for a range of synthetic cannabinoid products (Wilkins et al., 2013a). Forensic analysis has also found drugs sold as 'ecstasy' often contain NPS such as BZP, mephedrone (methylmethcathinone), MEC (methylethcathinone), DMAA (dimethylamylamine) and methylone (methylenedioxymethcathinone) (ESR, 2013). Similarly, tabs assumed to be LSD have been found to be NBOMe compounds (NDIB, 2014).

In July 2013, in an attempt to address the underlying drivers of the NPS problem (Wilkins, 2014a; Wilkins et al., 2013b), the New Zealand Government established the world's first regulated legal market for 'low risk' NPS with the enactment of the Psychoactive Substances Act 2013 (PSA). Under this new legislation, NPS products which can be shown with toxicological and clinical trial data to be 'low risk' will be permitted to be legally sold at licensed retail outlets subject to age, advertising and

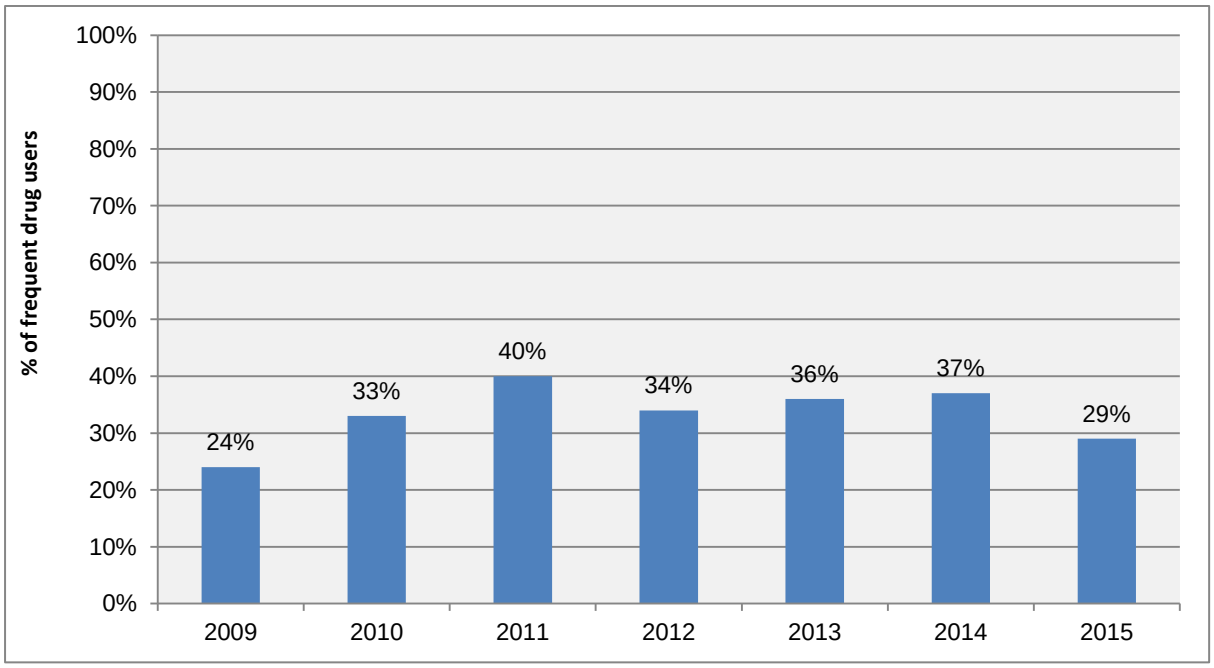
other restrictions. A transitory interim PSA regime was set up immediately following the passage of the PSA which allowed a reduced number of existing untested legal high products to be sold while product testing data was developed (Wilkins, 2014b). The interim regime proved to be controversial with ongoing reports of adverse effects from products and social disruption around the now reduced number of retail sites (Wilkins, 2014b, 2014c). The Government responded in May 2014 by abruptly withdrawing all licensed products and retail licenses, effectively prohibiting all psychoactive products (Wilkins, 2014c).

4.2 Drug types used for first time in past six months

The frequent drug users were first asked what 'drug types', if any, they had tried for the first time in the previous six months in 2015. This was an open question with the interviewer offering no suggestions concerning what drug types might be available. Note, the question asked about all the drug types a frequent drug user may have tried for the first time in the previous six months, not merely new drug types. Consequently, some answers could include established drugs.

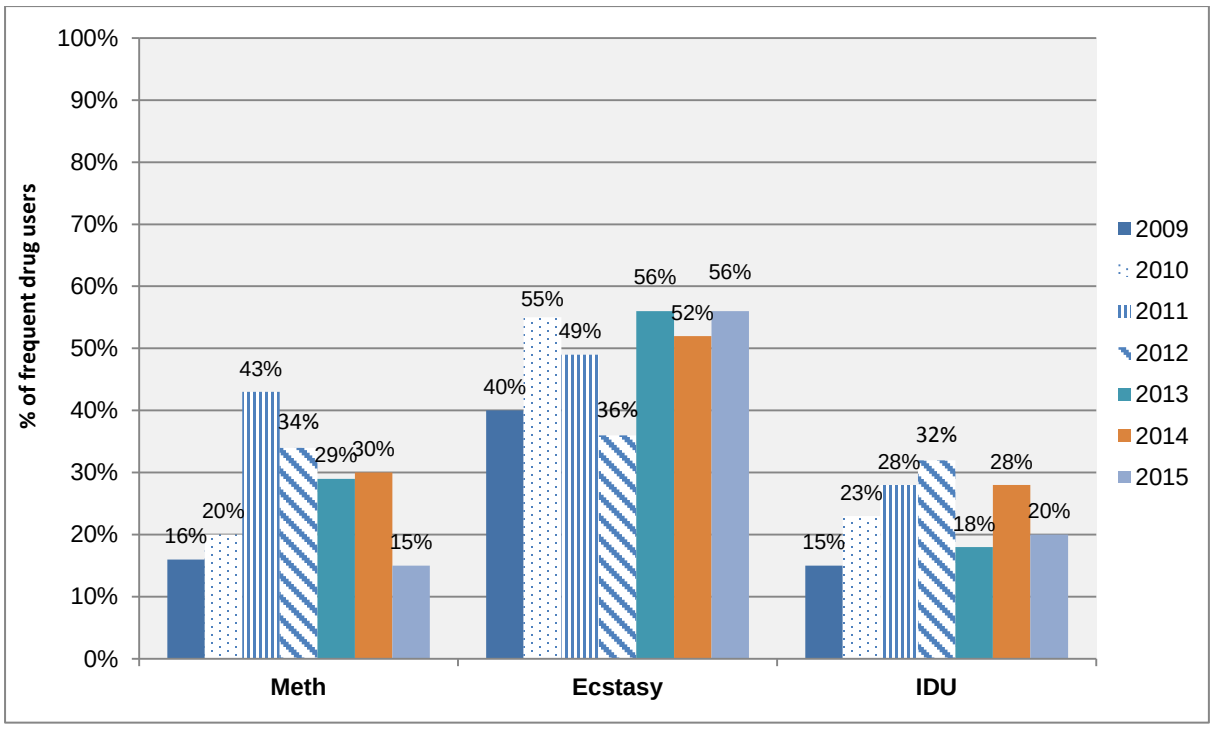
In 2015, 56% of the frequent ecstasy users, 20% of the frequent injecting drug users and 15% of the frequent methamphetamine users had used a drug type for the first time in the previous six months. The proportion of the frequent drug users (i.e. combined three frequent drug user groups) who had tried a drug type for the first time in the previous six months had previously increased from 24% in 2009 to 37% in 2014 ($p=0.0006$) (with a peak of 40% in 2011), but subsequently fell to 29% in 2015 ($p=0.0464$) (Figure 4.1).

Figure 4.1 Proportion of frequent drug users who had tried a drug type for the first time, 2009-2015



The proportion of frequent methamphetamine users who had tried a drug for the first time had previously increased from 16% in 2009 to 30% in 2014 (p=0.0115) (with a peak of 43% in 2011), but decreased sharply to 15% in 2015 (p=0.0091) (Figure 4.2). High proportions of the frequent ecstasy users continued to try new drugs from 2009 to 2015.

Figure 4.2 Proportion of frequent drug users who had tried a drug type for the first time by frequent drug user group, 2009-2015



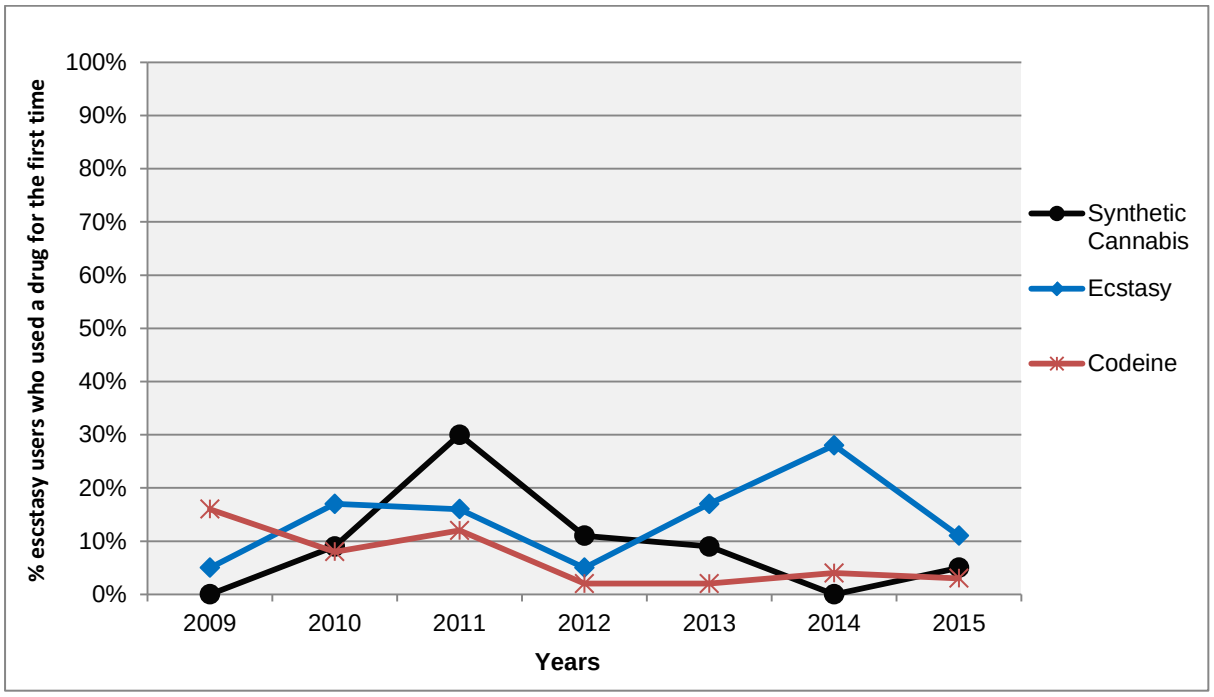
The drug types which the frequent ecstasy users had most commonly tried for the first time in 2015 were hallucinogenic mushrooms (16%), 'LSD' (13%), 'cocaine' (12%), 'amphetamine' (12%), 'ecstasy' (11%) and 'tramadol' (11%) (Table 4.1). A minority of the ecstasy users reported using NPS drugs for the first time in 2015, including mephedrone (5%), synthetic cannabinoids (4%) and 2CB (4%).

Table 4.1 Drug types the frequent ecstasy users used for the first time in the past six months (of those who reported using a drug for the first time in previous six months), 2009-2015

Frequent ecstasy users							
New drug (%)	**2009 (n=44)**	**2010 (n=84)**	**2011 (n=77)**	**2012 (n=46)**	**2013 (n=67)**	**2014 (n=54)**	**2015 (n=62)**
Hallucinogenic mushrooms (psilocybin)	17	21	9	7	10	20	16
'LSD'	25	14	10	7	15	16	13
Cocaine	0	4	1	2	6	8	12
Amphetamine	17	12	10	2	7	8	12
'Ecstasy'	5	17	16	5	17	28	11
Tramadol	0	4	6	12	7	10	11
Other	19	0	0	16	7	12	9
Nitrous oxide	2	6	2	0	5	0	8
Mephedrone (methylmethcathinone)	4	3	3	7	9	0	5
Synthetic cannabinoids	0	9	30	11	9	0	5
Methylphenidate (Ritalin™)	19	25	10	2	7	13	4
Tobacco	0	4	6	0	1	9	4
Methamphetamine	6	0	8	5	16	2	4
Ketamine	11	6	1	11	4	2	4
Oxycodone	11	2	2	0	3	0	4
2CB	0	1	5	2	0	0	4
Codeine	16	8	12	2	2	4	3
Cannabis	0	4	6	0	1	10	2
Alcohol	0	5	5	0	1	9	2
Benzodiazepines	7	5	6	0	0	4	2
Opium poppies	0	0	4	2	7	2	2
MDA	0	0	3	0	3	2	2
BZP party pills	4	3	1	4	0	2	2
Amyl nitrate	11	0	2	0	4	2	2
Methylone	4	1	0	2	3	0	2
MDPV	0	0	0	2	0	0	2
'Homebake' heroin/morphine	0	0	3	2	0	0	2
Viagra	0	0	2	0	0	0	1
Morphine	3	1	1	0	3	0	1
Mescaline	8	0	0	0	2	0	1
GHB/GBL	4	3	1	0	3	0	1

The proportion of frequent ecstasy users who had tried 'ecstasy' for the first time had previously increased from 5% in 2009 to 28% in 2014 (p=0.0185), but then decreased to 11% in 2015 (p=0.0311). There was a decline in the proportion of frequent ecstasy users who had tried synthetic cannabinoids for the first time (down from 30% in 2011 to 5% in 2015, p=0.0035), Ritalin™ (down from 19% in 2009 to 4% in 2015, p=0.0072) and codeine (down from 16% in 2009 to 3% in 2015, p=0.0119) (Figure 4.3).

Figure 4.3 Proportion of frequent ecstasy users who had used synthetic cannabinoids, ecstasy and codeine for the first time (of those who had tried a drug for the first time), 2009-2015



Only 11 frequent methamphetamine users reported using a drug for the first time in 2015, and this small number of respondents limits any comparison to previous years The drug types most often tried by the 11 methamphetamine users for the first time were MDPV (n=2), crystal methamphetamine (n=2), synthetic cannabinoids (n=1), morphine (n=1), tramadol (n=1), methadone (n=1) and methamphetamine (n=1) (Table 4.2).

Table 4.2 Drug types used by frequent methamphetamine users for the first time in the past six months (of those who reported using a drug for the first time in previous six months), 2009-2015

Frequent methamphetamine users							
New drug (%)	**2009 (n=17)**	**2010 (n=26)**	**2011 (n=47)**	**2012 (n=31)**	**2013 (n=25)**	**2014 (n=30)**	**2015 (n=11)**
Other drugs	17	0	4	10	7	14	36
MDPV	0	0	0	0	0	5	20
Crystal methamphetamine	0	0	2	3	0	6	16
Synthetic cannabinoids	0	16	36	29	30	16	11
Morphine	0	0	0	3	0	11	11
Tramadol	12	14	2	9	19	3	11
Methadone	0	4	4	0	0	0	11
Methamphetamine	0	16	11	10	3	15	9
Methylphenidate (Ritalin™)	12	8	2	3	0	14	5
'LSD'	0	4	2	0	0	6	5
Codeine	0	4	0	0	0	3	5
Benzodiazepines	12	0	2	0	0	3	5
Amphetamine	0	0	0	0	3	3	5
Synthetic cocaine	-	0	0	0	0	-	5

Only 18 frequent injecting drug users had tried a drug for the first time in 2015. The drug types most commonly tried for the first time were tramadol (n=4), synthetic cannabinoids (n=3), mephedrone (n=2) and methamphetamine (n=2) (Table 4.3).

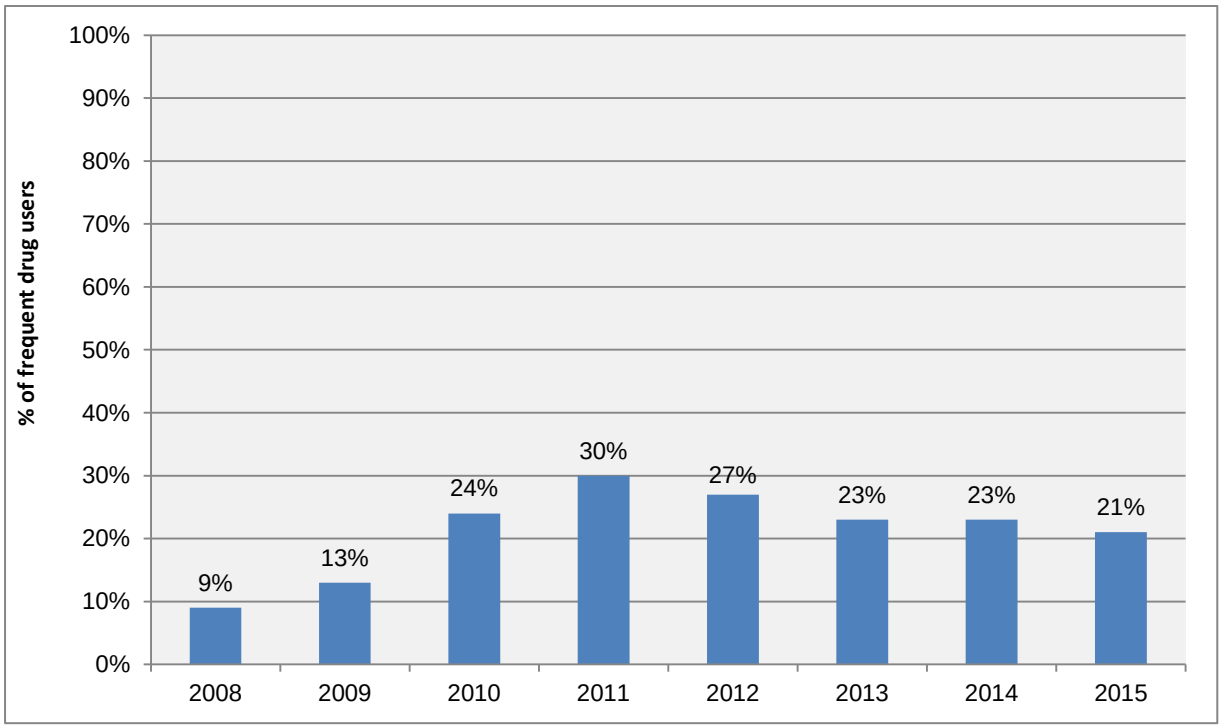
Table 4.3 Drug types used by the frequent injecting drug user for the first time in the past six months (of those who reported using a drug for the first time in previous six months), 2009-2015

Injecting drug users							
New drug (%)	**2009 (n=16)**	**2010 (n=30)**	**2011 (n=28)**	**2012 (n=32)**	**2013 (n=16)**	**2014 (n=29)**	**2015 (n=18)**
Tramadol	0	16	3	19	0	8	20
Synthetic cannabinoids	0	20	34	48	21	6	18
Mephedrone (methylmethcathinone)	0	0	3	3	0	-	14
Methamphetamine	0	7	8	4	0	3	11
Methylphenidate (Ritalin™)	12	10	12	9	0	14	7
Morphine	13	7	8	0	5	11	7
Homebake heroin/ morphine	0	3	8	6	11	8	7
Heroin	7	3	0	0	15	5	7
Amphetamine	6	7	0	0	0	5	7
'Ecstasy'	0	0	4	6	0	3	7
Anti-depressants	0	3	0	0	0	0	7
Amyl nitrate	12	0	0	3	0	0	7
GHB	0	3	0	0	0	0	7
MDPV	-	-	-	3	-	0	6
Zopiclone	0	7	0	0	0	5	4
'LSD'	0	0	4	3	0	0	4
Mescaline	-	0	0	0	0	-	4

New drug types noticed

The frequent drug users were also asked if they had 'noticed' any new drug types in the previous six months. This was an open qualitative question with the interviewer offering no suggestions concerning possible new drug types which might be available. The interviewer wrote down what the respondent said in consultation with them. A total of 64 frequent drug users (21% of the sample) provided reports of new drugs in 2015. The proportion of the frequent drug users who had noticed a new drug type increased from 9% in 2008 to 21% in 2015 ($p<0.0001$) (Figure 4.4). There had previously been a steady rise in the proportion of frequent drug users who had noticed a new drug type, from 9% in 2008 to 30% in 2011.

Figure 4.4 Proportion of frequent drug users who noticed a new drug type, 2008-2015



Twenty percent of those who answered the question (i.e. 13 respondents) reported noticing NBOMe drugs (e.g. '25I-NBOMe') (Table 4.4). A further 8% (n=5) had noticed new 'psychedelic drugs'. Thirteen percent (n=8) reported seeing new 'synthetic drugs' and a further 13% noticed more ecstasy (MDMA). Eight percent reported noticing new synthetic cannabinoids.

Table 4.4 New drug types noticed in previous six months, 2011-2 New drug types noticed in previous six months, 2011-2015

Drug type (%)	2011 (n=125)	2012 (n=89)	2013 (n=70)	2014 (n=71)	2015 (n=64)
NBOMe/LSD	-	-	19	8	20
Designer drugs, new synthetics, research chemicals	5	2	6	21	13
Ecstasy (MDMA)	7	10	13	11	13
2C drugs (e.g. 2CB, 2CE, 2CI, 2CP)	13	17	11	5	9
Synthetic cannabinoids	9	7	3	3	8
Psychedelic drugs	-	-	-	-	8
GHB	1	2	1	1	6
LSD	2	0	1	5	5
Methamphetamine (meth, P)	6	1	3	1	5
Methylone	1	1	3	5	3
Amphetamine (uppers, speed)	6	1	1	5	3
Heroin	0	1	6	1	3
Party pills	-	-	-	-	3
Synthetic cocaine	-	-	-	-	3
Unspecified ['ecstasy'] pill	19	2	0	5	2
Cocaine	1	2	3	4	2
Morphine (dots)	3	2	3	3	2
Ritalin	1	2	3	2	2
Homebake heroin	0	0	0	1	2
MDPV	1	10	1	1	2
Methoxetamine	0	4	3	1	2
Oxycodone	2	0	7	1	2
Salvia divinorum	-	-	-	-	2
Mephedrone (4-MMC, MCAT)	6	3	4	9	0
Sleeping pills	0	0	0	5	0
BZP	1	1	1	2	0
Ketamine	0	0	1	2	0
Dextromethorphan (in Robitussin cough syrup)	1	0	0	1	0
Methadone	1	1	6	1	0

New types of drug users

The frequent drug users were asked if they had seen any different types of drug users in the previous six months in 2015. Sixty-eight frequent drug users (23% of the sample) provided accounts of new types of drug users in 2015. Twenty-nine percent of those who commented (i.e. 20 respondents) reported seeing 'younger' drug users (Table 4.5). Twenty-two percent observed more 'people of all ages' using drugs. Twelve percent reported more 'university students' and 'professional/wealthier' people using drugs.

Table 4.5 New types of people reported using drugs, 2011-2015

Types of people (%)	2011 (n=150)	2012 (n=73)	2013 (n=52)	2014 (n=63)	2015 (n=68)
Young people	35	27	38	38	29
People of all ages	4	8	10	13	22
University students	12	11	10	8	12
Professional/wealthier people	8	10	14	19	12
High school students	-	7	4	13	10
More women/girls	-	-	8	3	9
Overseas people	-	-	-	-	4
Working people	-	-	-	-	3
Injecting drug users	5	4	6	13	3
Gym users	-	-	-	-	3
Synthetic cannabinoid users		4	4	6	1
Gangsters	0	0	0	2	1
Ecstasy users	9	8	4	2	1
Using at night clubs	13	3	0	2	0

Different ways of selling drugs

Finally, the frequent drug users were asked if they had noticed any new ways in which drugs had been sold in the previous six months. A total of 62 frequent drug users (21% of the sample) provided comments. Fifty-eight percent of those who commented (i.e. 36 respondents) reported increasing use of the internet to buy and sell drugs, including purchasing from the encrypted websites (18%) (e.g. 'Silk Road') and from social network sites (e.g. 'Facebook™', 'Tinder™', 'Snapchat™') (40%). There has been a steady increase in the proportion who mentioned the use of social media (2010=10%, 2011=17%, 2012=12%, 2013=36%, 2014=37%, 2015=40%) and crypto-drug markets (2011=0%, 2012=8%, 2013=18%, 2014=37%, 2015=18%) as new ways of selling drugs. Three frequent drug users reported home deliveries of drugs, often in conjunction with online purchases.

4.3 Summary of emerging drugs

- The proportion of the frequent drug users who had tried a drug type for the first time in the previous six months increased from 24% in 2009 to 37% in 2014, before decreasing to 29% in 2015

- The proportion of frequent methamphetamine users who had tried a drug for the first time increased from 16% in 2009 to 30% in 2014, before decreasing sharply to 15% in 2015

- Approximately half of the frequent ecstasy users had try a drug for the first time from 2013 to 2015

- The drug types which the frequent ecstasy users had tried for the first time in 2015 were hallucinogenic mushrooms (16%), 'LSD' (13%), 'cocaine' (12%), 'amphetamine' (12%), 'ecstasy' (11%) and 'tramadol' (11%)

- A minority of the ecstasy users reported using new psychoactive substances (NPS) for the first time in 2015, including mephedrone (5%), synthetic cannabinoids (4%) and 2CB (4%)

- The proportion of frequent ecstasy users who had tried 'ecstasy' for the first time had previously increased from 5% in 2009 to 28% in 2014 , but decreased to 11% in 2015

- There were declines in the proportion of frequent ecstasy users who had tried synthetic cannabinoids (down from 30% in 2011 to 5% in 2015), Ritalin™ (down from 19% in 2009 to 4% in 2015) and codeine (down from 16% in 2009 to 3% in 2015) for the first time

- Only 11 frequent methamphetamine users had used a drug for the first time in 2015

- Similarly, only 18 frequent injecting drug users (20%) had tried a drug for the first time in 2015, including tramadol (n=4), synthetic cannabinoids (n=3), mephedrone (n=2) and methamphetamine (n=2)

- The proportion of frequent drug users who had noticed a new drug type(s) increased from 9% in 2008 to 21% in 2015

- The new drug types the frequent drug users most commonly reported seeing in 2015 were NBOMe (20%), 'new synthetics' (13%), ecstasy (MDMA) (13%), 2C drugs (9%) and new psychedelics (8%)

- Fifty-eight percent of the frequent drug users reported greater use of the internet to buy and sell drugs, including purchasing from social media sites (e.g. 'Facebook™', 'Tinder™', 'Snapchat™') (40%) and from encrypted websites (e.g. 'Silk Road') (18%)

5. Methamphetamine

5.1 Introduction

Methamphetamine, known colloquially in New Zealand as 'P', is a powerful and addictive psychostimulant (Gawin & Ellinwood, 1988; Hall & Hando, 1994; Kuhn et al., 1998; Shearer et al., 2002). Chronic and high dose use of methamphetamine can cause hostility, paranoia, hallucinations, obsessive behaviour, psychosis and drug dependency (Hall & Hando, 1994; Kuhn, et al., 1998; Shearer, et al., 2002).

Methamphetamine use first emerged in New Zealand in the late 1990s/early 2000s, and reached its peak at the population level in 2001 (Wilkins, et al., 2002b; Wilkins & Sweetsur, 2008). The most recently available national household survey data found 1% of New Zealanders (aged 16-64 years) reported using amphetamines1 in the previous year in 2013/14 (Department of the Prime Minister and Cabinet, 2014; Ministry of Health, 2014a), similar to the levels found in the previous two years (Ministry of Health, 2013).

High levels of methamphetamine use have persisted among specific 'at risk' groups, such as police arrestees, and there are indications that use among arrestees may have increased in recent years (Wilkins, et al., 2016; Wilkins et al., 2012a; Wilkins et al., 2011b). The proportion of detainees who used methamphetamine in the previous 12 months increased from 28% in 2012 to 36% in 2015 (Wilkins et al., 2016). The proportion of methamphetamine using arrestees who felt dependent on methamphetamine increased from 22% in 2011 to 34% in 2015 (Wilkins, et al., 2016).

At the international level, the United Nations Office of Drug Control (UNODC) has reported expanding global production of methamphetamine. The quantity of methamphetamine seized in East and South-East Asia 'almost quadrupled' from 2009 to 2014 (UNODC, 2016). The UNODC has also reported increased interconnectedness in international trafficking of methamphetamine (UNODC, 2015b). For example methamphetamine seized in South-East Asia has been found to have been made in Africa and the Americas (UNODC, 2015b).

[1] In this survey the term 'amphetamines' referred to a number of amphetamine type drugs including methamphetamine, crystal methamphetamine (Ice) and amphetamine sulphate ('speed')

5.2 Knowledge of methamphetamine trends

Fifty-nine percent of the frequent drug users interviewed for the 2015 IDMS (n=146) indicated they felt confident enough to comment on the price, strength and availability of methamphetamine in the previous six months. This included 93% of the frequent methamphetamine users (n=66), 52% of the frequent injecting drug users (n=53) and 26% of the frequent ecstasy users (n=27).

5.3 Availability of methamphetamine

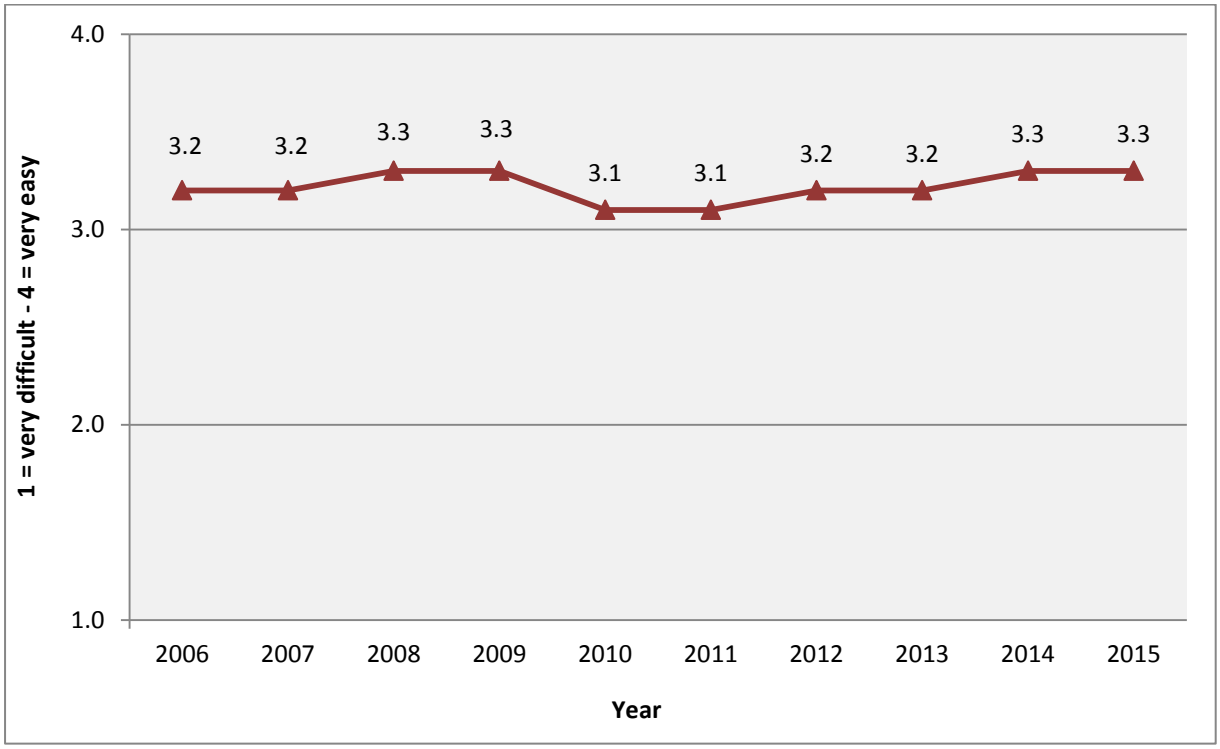
Current availability of methamphetamine

The frequent drug users reported the current availability of methamphetamine was 'easy/very easy' in 2015 (Table 5.1). Overall, there was no statistically significant change in the current availability of methamphetamine from 2006 to 2015 (Figure 5.1).

Table 5.1 Current availability of methamphetamine by combined frequent drug users, 2006-2015

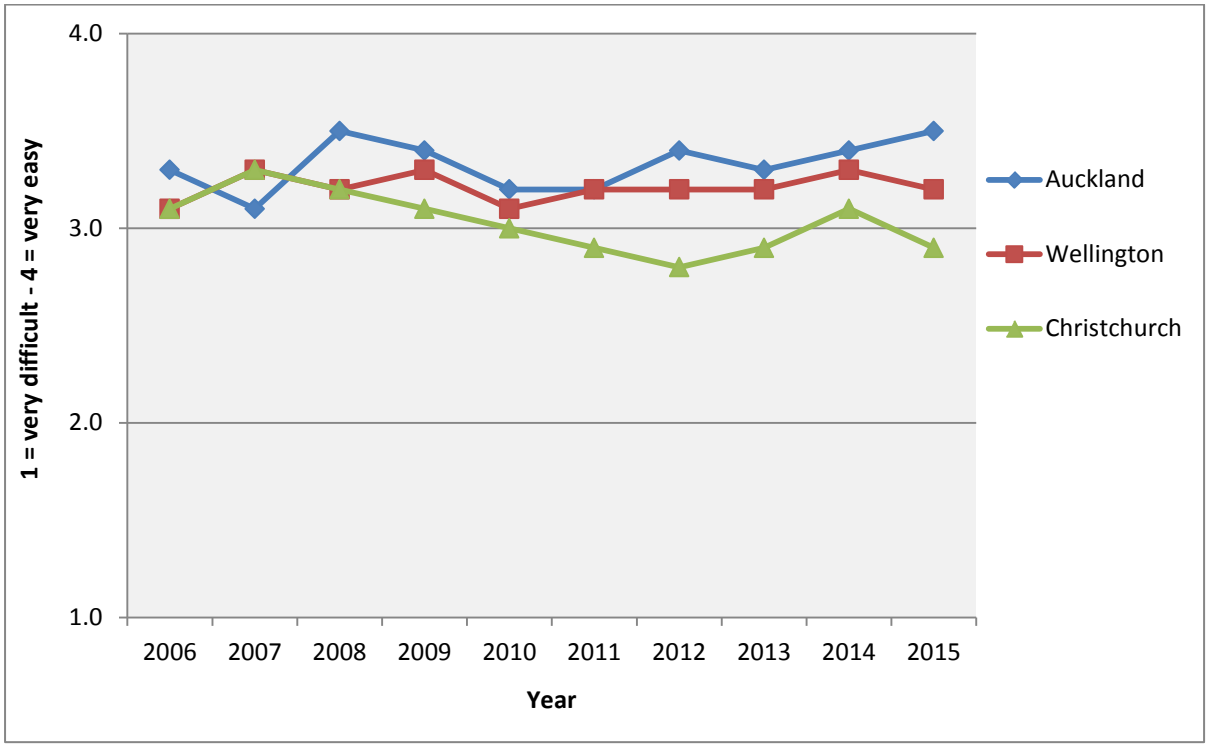
Current availability of methamphetamine (%)										
	2006	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
	Combined modules (n=176)	**Combined modules (n=176)**	**Combined modules (n=195)**	**Combined modules (n=167)**	**Combined modules (n=201)**	**Combined modules (n=185)**	**Combined modules (n=168)**	**Combined modules (n= 147)**	**Combined modules (n=137)**	**Combined modules (n=139)**
Very easy [4]	38%	38%	42%	37%	34%	32%	44%	39%	45%	43%
Easy [3]	44%	48%	48%	53%	48%	48%	37%	43%	43%	49%
Difficult [2]	17%	12%	9%	7%	16%	18%	17%	15%	11%	7%
Very difficult [1]	1%	2%	0%	2%	2%	2%	2%	2%	<1%	1%
Average availability score (1=very difficult – 4=very easy)	3.2	3.2	3.3	3.3	3.1	3.1	3.2	3.2	3.3	3.3
Overall current status	Easy / very easy	Easy / very easy	Easy / very easy	Easy / very easy	Easy / very easy	Easy / very easy	Very easy / easy	Easy / very easy	Very easy / easy	Easy / very easy

Figure 5.1 Mean score of the current availability of methamphetamine by combined frequent drug users, 2006-2015



The current availability of methamphetamine in Auckland increased from 2006 to 2015 (up from 3.3 to 3.5, p=0.0057) (Figure 5.2). There had previously been a decrease in the current availability of methamphetamine in Christchurch from 2006 to 2012 (down from 3.1 to 2.8, p=0.0006), the year immediately following the 2011 earthquakes. The availability of methamphetamine in Christchurch subsequently recovered from 2012 to 2015. However, the overall trend from 2006 to 2015 is a slight decline in availability (down from 3.1 in 2006 to 3.0 in 2015, p=0.0075). There was no statistically significant change in the current availability of methamphetamine in Wellington from 2006 to 2015. In 2015, the availability of methamphetamine was still higher in Auckland compared to Christchurch (3.5 vs. 2.9, p=0.0002), and compared to Wellington (3.5 vs. 3.2, p=0.0124).

Figure 5.2 Mean score of the current availability of methamphetamine by combined frequent drug users by location, 2006-2015



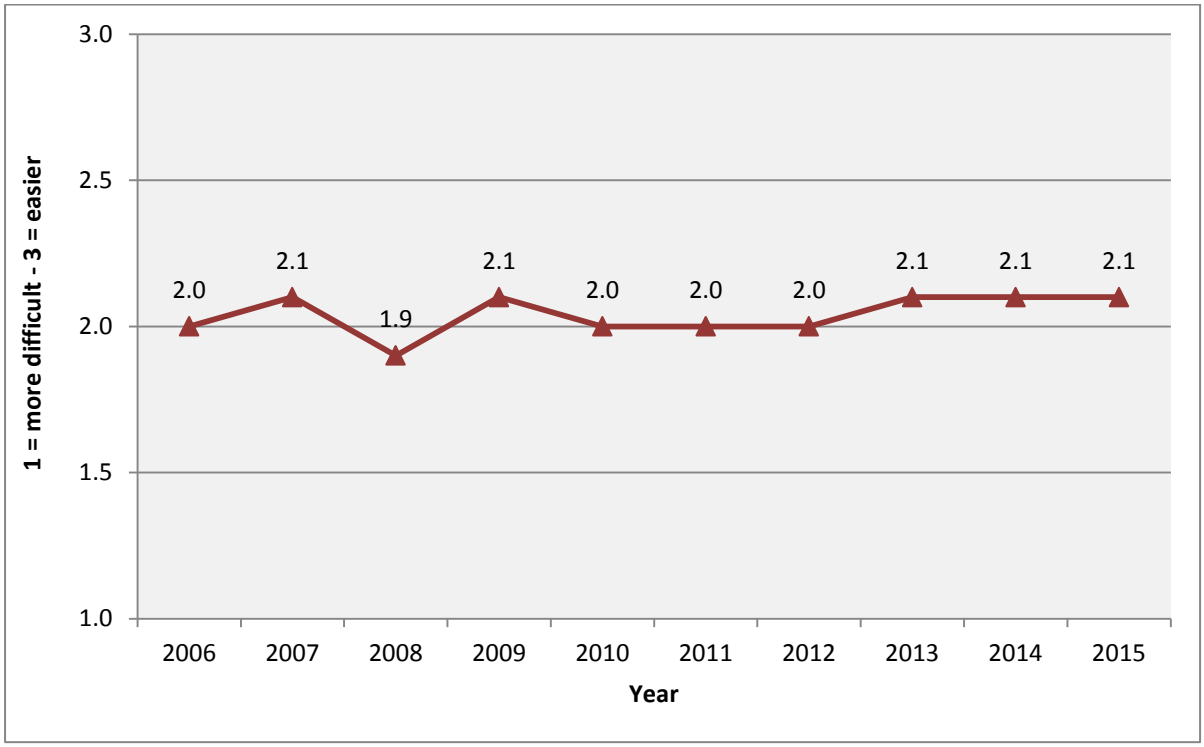
Change in the availability of methamphetamine

The frequent drug users considered the availability of methamphetamine to have been 'stable/easier' over the past six months in 2015 (Table 5.2). Overall, there was no statistically significant difference in reports of the change in the availability of methamphetamine from 2006 to 2015, with most saying it had been 'stable/easier' in recent years (Figure 5.3).

Table 5.2 Change in availability of methamphetamine by combined frequent drug users, 2006-2015

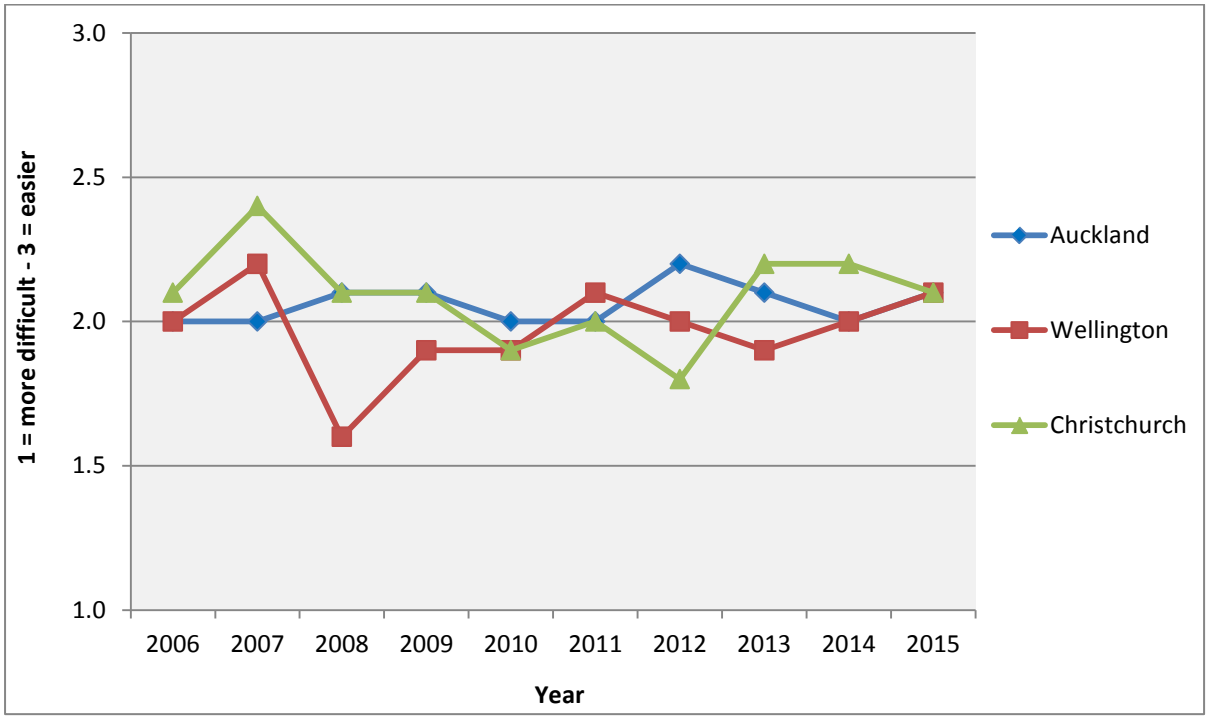
Change in availability of methamphetamine (%)										
	2006	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
	Combined modules (n=175)	**Combined modules (n=174)**	**Combined modules (n=193)**	**Combined modules (n=164)**	**Combined modules (n=194)**	**Combined modules (n=170)**	**Combined modules (n=165)**	**Combined modules (n= 143)**	**Combined modules (n=131)**	**Combined modules (n=129)**
Easier [3]	21%	29%	14%	28%	16%	18%	26%	15%	17%	19%
Stable [2]	52%	51%	57%	44%	60%	53%	51%	61%	61%	61%
Fluctuates [2]	9%	6%	6%	8%	8%	13%	7%	13%	10%	10%
More difficult [1]	19%	14%	23%	20%	17%	16%	16%	10%	11%	10%
Average change in availability score (1=more difficult – 3=easier)	2.0	2.1	1.9	2.1	2.0	2.0	2.0	2.1	2.1	2.1
Overall recent change	Stable / easier	Stable / easier	Stable / more difficult	Stable / easier	Stable / more difficult	Stable / easier	Stable / easier	Stable / easier	Stable / easier	Stable / easier

Figure 5.3 Mean score of the change in the availability of methamphetamine by combined frequent drug users, 2006-2015



The availability of methamphetamine increased in Auckland from 2006 to 2015 (up from 2.0 to 2.1, p=0.0456) (Figure 5.4). The availability of methamphetamine in Christchurch decreased from 2006 to 2012, the year immediately following the 2011 earthquakes, but has since recovered in the subsequent years. There was no statistically significant change in the availability of methamphetamine in Wellington from 2006 to 2015.

Figure 5.4 Mean score of the change in the availability of methamphetamine by combined frequent drug users by location, 2006-2015



5.4 Price of methamphetamine

Current price of methamphetamine

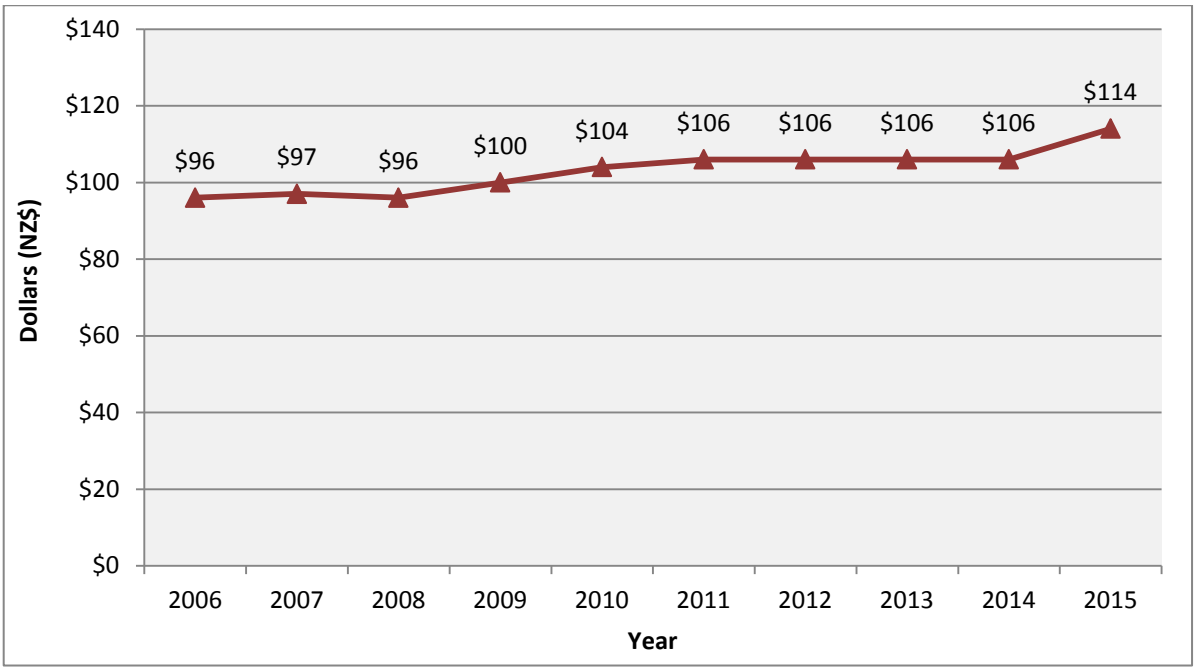
In 2015, the median price of a 'point' (0.1 grams) of methamphetamine was $100, and the median price for a gram of methamphetamine was $600 (Table 5.3).

Table 5.3 Current price of methamphetamine (NZD) by combined frequent drug users, 2006-2015

Current price of methamphetamine ($)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules
Number with knowledge	**n=144**	**n=130**	**n=166**	**n=137**	**n=155**	**n=161**	**n=139**	**n=114**	**n=105**	**n=112**
Median (mean) price 'point' (0.1 grams)	$100 ($96)	$100 ($97)	$100 ($96)	$100 ($100)	$100 ($104)	$100 ($106)	$100 ($106)	$100 ($106)	$100 ($106)	$100 ($114)
Number with knowledge	**n=75**	**n=68**	**n=54**	**n=56**	**n=69**	**n=69**	**n=83**	**n=62**	**n= 65**	**n=75**
Median (mean) price gram	$600 ($610)	$600 ($676)	$700 ($698)	$700 ($738)	$800 ($780)	$800 ($815)	$700 ($678)	$700 ($697)	$650 ($681)	$600 ($668)
Number with knowledge	**-**	**-**	**n=13**	**n=16**	**n=8**	**n=7**	**n=21**	**n=6**	**n=16**	**n=11**
Median (mean) price per ounce	-	-	$12,000 ($12,472)	$12,000 ($13,155)	12000 ($11,032)	$15,000 ($15,108)	$10,000 ($8,864)	$14,000 ($15157	$10,000 ($8,984)	$12000 ($13,480)

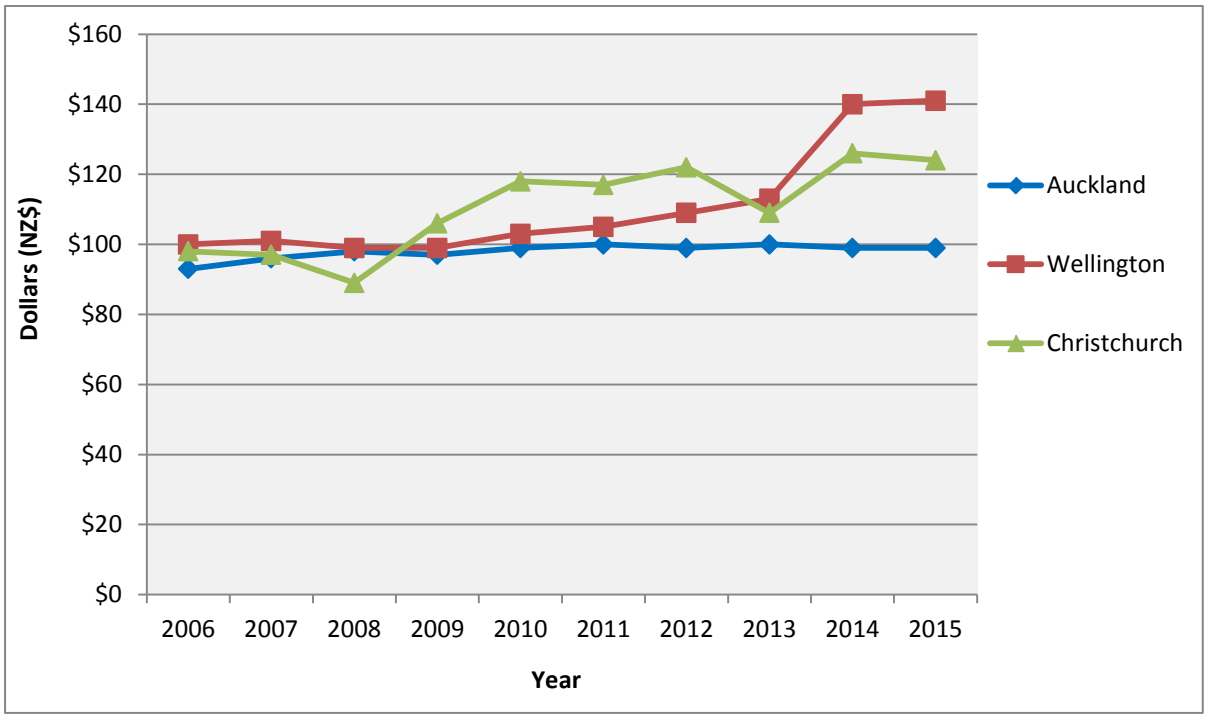
The mean price of a 'point' of methamphetamine has increased steadily over the past ten years, up from $96 in 2006 to $114 in 2015 (p<0.0001) (Figure 5.5).

Figure 5.5 Mean price of a 'point' of methamphetamine by combined frequent drug users, 2006-2015



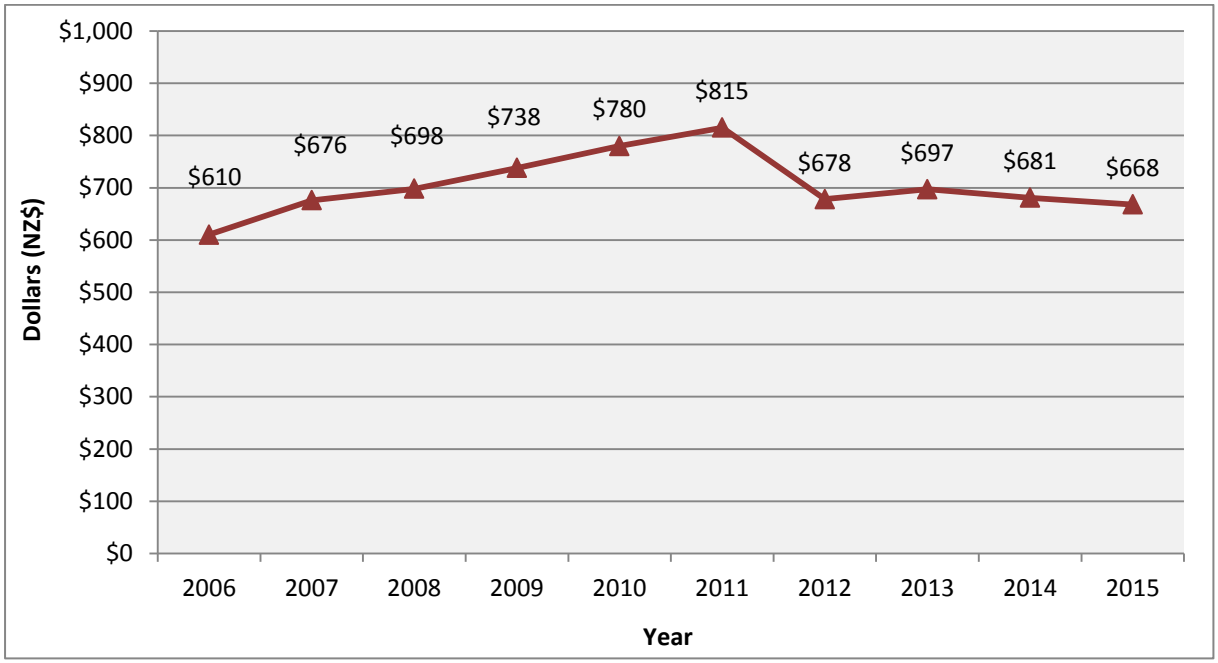
The price of a 'point' of methamphetamine increased in all three study locations from 2006 to 2015 (Figure. 5.6). In Auckland, the 'point' price increased from $93 in 2006 to $99 in 2015 (p=0.0011). In Wellington, the 'point' price increased from $100 in 2006 to $141 in 2015 (p=0.0030). In Christchurch, the 'point' price increased from $98 in 2006 to $124 in 2015 (p<0.0001).

Figure 5.6 Mean price of a 'point' of methamphetamine by location, 2006-2015



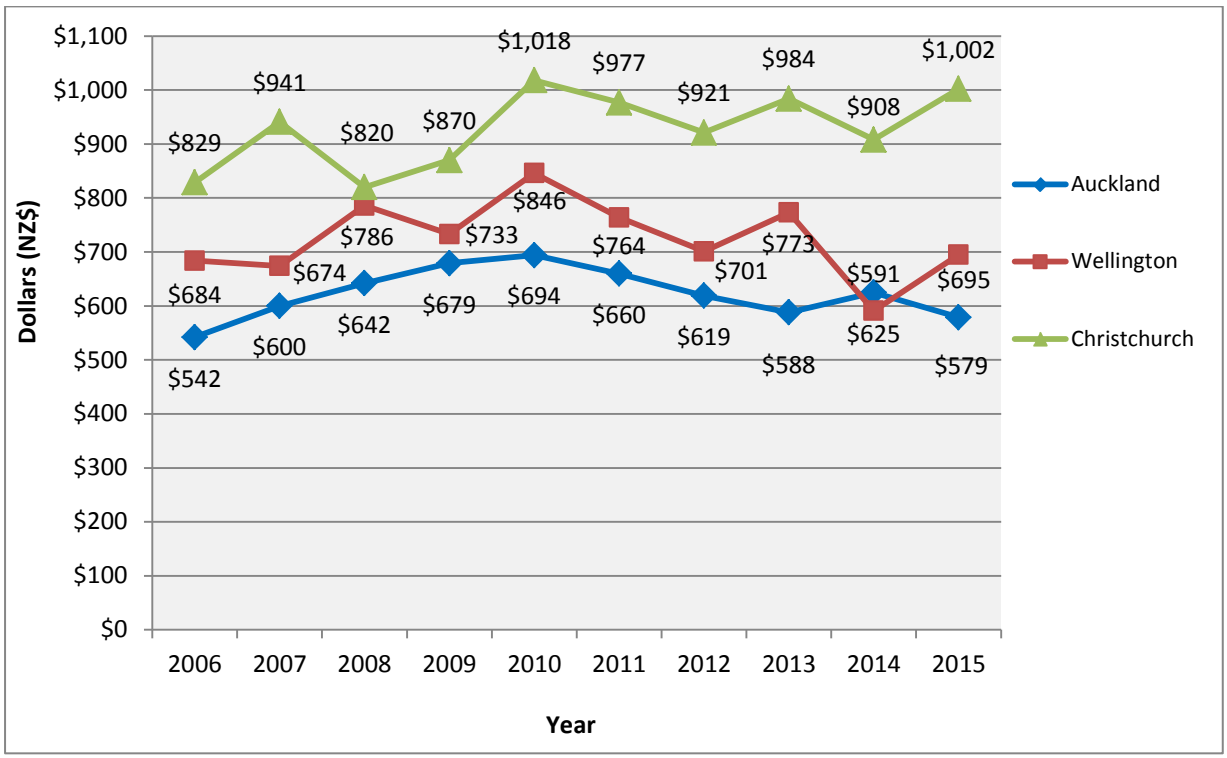
The mean price of a gram of methamphetamine had previously increased steadily from $610 in 2006 to a peak of $815 in 2011 ($p<0.0001$), before declining to $678 in 2012. There was no statistically significant change in the gram price from $681 in 2014 to $668 in 2015 (Figure 5.7).

Figure 5.7 Mean price of a gram of methamphetamine by combined frequent drug users, 2006-2015



Overall, there was no statistically significant change in the price of a gram of methamphetamine in Auckland from 2006 to 2015. The price of a gram of methamphetamine had previously increased in Auckland from $542 in 2006 to $660 in 2011 (p<0.0001) (Figure 5.8). Fewer frequent drug users in the other sites answered the gram price question and this accounts for the greater annual variation in these locations. The price of a gram of methamphetamine in Christchurch has increased steadily from $829 in 2006 to $1,002 in 2015, but this increase was not statistically significant (p=0.1079). There was no overall change in the gram price in Wellington from 2006 to 2014. In 2015, the price of a gram of methamphetamine was higher in Christchurch than Wellington ($1,002 vs. $695, p=0.0004) and in Christchurch compared to Auckland ($1,002 vs. $579, p<0.0001).

Figure 5.8 Mean price of a gram of methamphetamine by location, 2006-2015



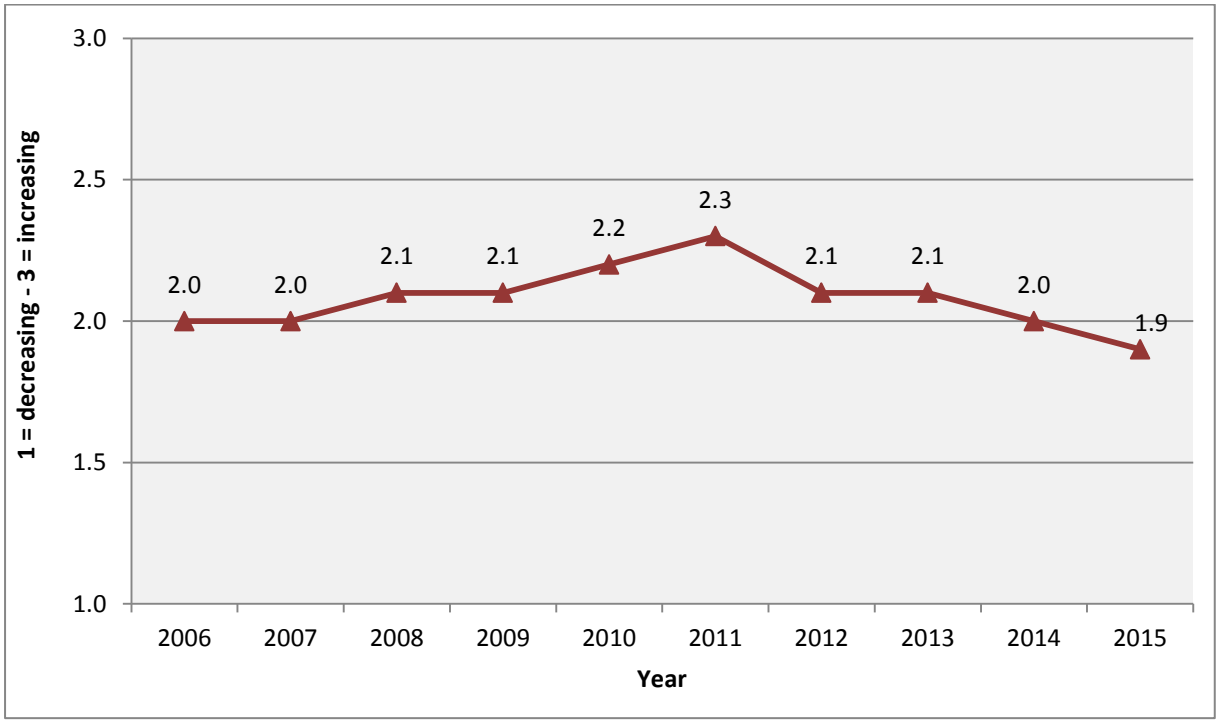
Change in the price of methamphetamine

The price of methamphetamine was reported to have been 'stable/decreasing' over the past six months in 2015 (Table 5.4). Sixty-eight percent of the frequent drug users described the price as 'stable' in 2015. Overall, there was no statistically significant change in the price of methamphetamine from 2006 to 2015 (p=0.6583). A strong price increase had previously been reported from 2006 to 2011 (up from 2.0 to 2.3, p<0.0001). The price was more likely to be described as decreasing from 2014 to 2015 (down from 2.0 to 1.9, p=0.0099) (Figure 5.9).

Table 5.4 Change in the price of methamphetamine in the past six months by combined frequent drug users, 2006-2015

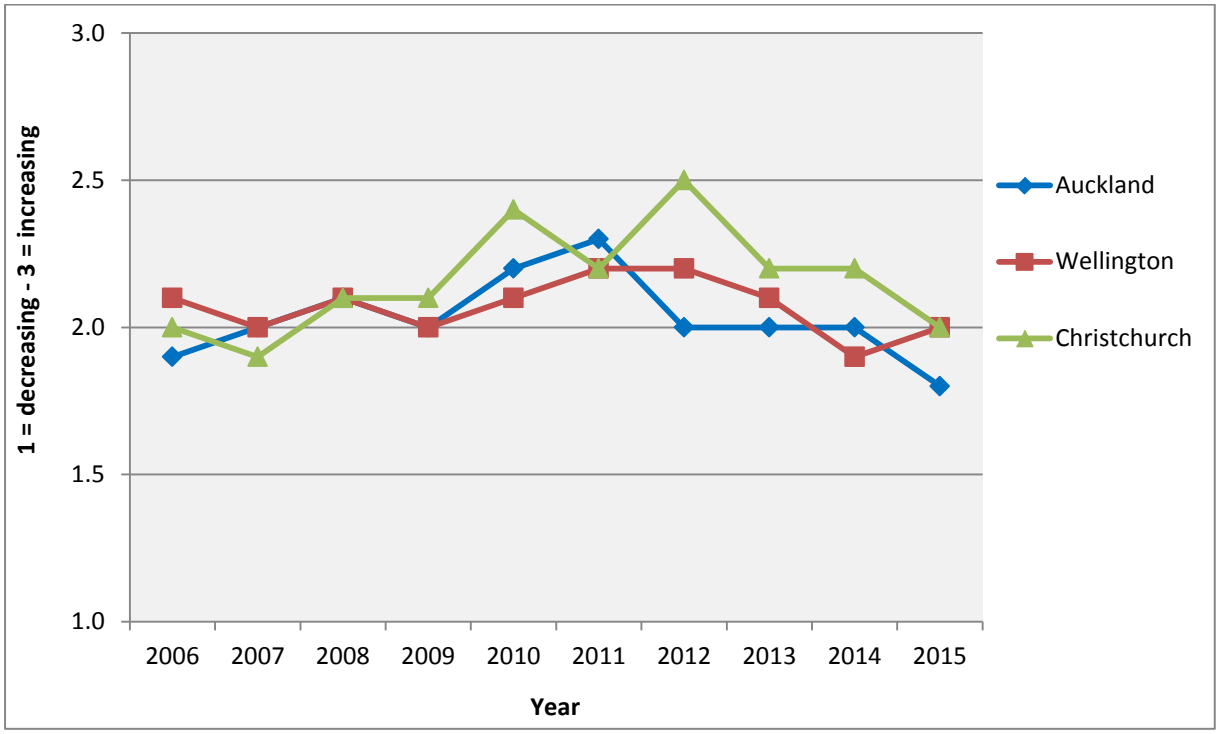
Change in price of methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=155)	Combined modules (n=167)	Combined modules (n=188)	Combined modules (n=159)	Combined modules (n=190)	Combined modules (n=177)	Combined modules (n=160)	Combined modules (n=136)	Combined modules (n=129)	Combined modules (n=124)
Increasing [3]	17%	13%	17%	12%	25%	31%	18%	10%	10%	5%
Fluctuating [2]	12%	9%	11%	8%	9%	15%	13%	11%	9%	10%
Stable [2]	49%	62%	66%	73%	63%	50%	65%	73%	73%	68%
Decreasing [1]	21%	16%	6%	6%	3%	5%	5%	5%	8%	17%
Average change in price score (1=decreasing – 3=increasing)	2.0	2.0	2.1	2.1	2.2	2.3	2.1	2.1	2.0	1.9
Overall recent change	Stable/ decreasing	Stable/ decreasing	Stable/ increasing	Stable	Stable/ increasing	Stable/ increasing	Stable/ increasing	Stable	Stable	Stable/ decreasing

Figure 5.9 Mean score of the change in the price of methamphetamine in the past six months by combined frequent drug users, 2006-2015



The frequent drug users in Auckland had previously reported a strong price increase from 2006 to 2011 (1.9 to 2.3, p<0.0001). The frequent drug users were more likely to have described the price in Auckland as 'stable' from 2011 to 2014 (down from 2.3 to 2.0, p<0.0001) (Figure 5.10). More recently, the price in Auckland was reported to be declining from 2014 to 2015 (down from 2.0 to 1.9, p=0.0084). The frequent drug users from Christchurch reported an increasing price for methamphetamine from 2006 to 2014 (up from 2.0 to 2.2, p=0.0026), but more described the price as 'fluctuating' from 2014 to 2015 (down from 2.2 to 2.0), and this difference was close to being statistically significant (p=0.0903). There was no statistically significant change in the price of methamphetamine in Wellington from 2006 to 2015.

Figure 5.10 Mean score of the change in the price of methamphetamine in the past six months by location, 2006-2015



5.5 Strength of methamphetamine

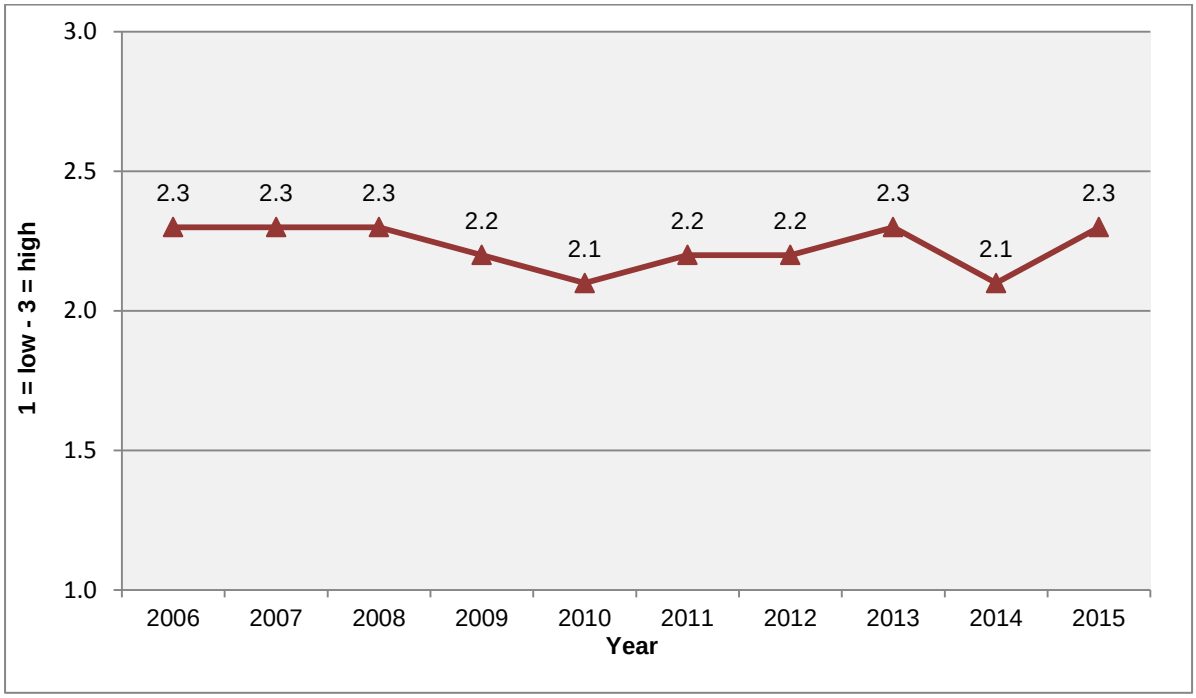
Current strength of methamphetamine

The current strength of methamphetamine was described as 'high/fluctuates' in 2015 (Table 5.5). The frequent drug users reported the strength of methamphetamine had increased from 2014 to 2015 (up from 2.1 to 2.3, p=0.0091) (Figure 5.11).

Table 5.5 Current strength of methamphetamine by combined frequent drug users, 2006-2015

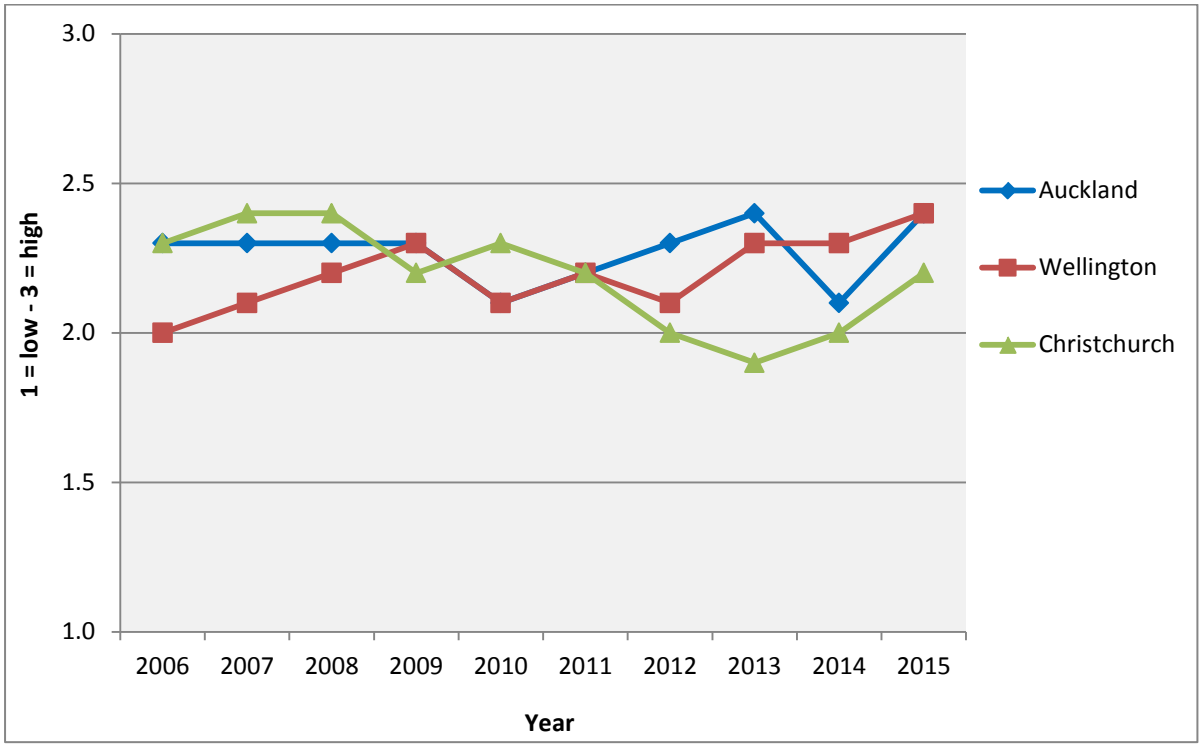
Current strength of methamphetamine	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=166)	Combined modules (n=166)	Combined modules (n=189)	Combined modules (n=159)	Combined modules(n =187)	Combined modules (n=171)	Combined modules (n=163)	Combined modules (n=143)	Combined modules (n=132)	Combined modules (n=136)
High [3]	33%	36%	36%	32%	28%	33%	30%	39%	27%	45%
Medium [2]	24%	20%	19%	22%	21%	18%	26%	25%	25%	18%
Fluctuates [2]	37%	35%	39%	39%	37%	35%	31%	29%	34%	26%
Low [1]	6%	8%	7%	7%	14%	14%	13%	7%	14%	11%
Average strength score (1=low – 3=high)	2.3	2.3	2.3	2.2	2.1	2.2	2.2	2.3	2.1	2.3
Overall current status	Fluctuates/ high	Fluctuates/ high	Fluctuates/ high	Fluctuates/ high	Fluctuates/ high	Fluctuates/ high	Fluctuates/h igh	High/ fluctuates	Fluctuates / high	High/ fluctuates

Figure 5.11 Mean score of the current strength of methamphetamine by combined frequent drug users, 2006-2015



Overall, the current strength of methamphetamine in Christchurch declined slightly from 2006 to 2015 (down from 2.3 to 2.2, p=0.0016) (Figure 5.12). The strength of methamphetamine in Christchurch declined until 2013, and has recovered in recent years, but the increase was not statistically significant. The current strength of methamphetamine increased in Auckland from 2014 to 2015 (up from 2.1 to 2.4, p=0.0432). The current strength of methamphetamine also increased in Wellington from 2006 to 2015 (up from 2.0 to 2.4, p=0.0021).

Figure 5.12 Mean score of the current strength of methamphetamine by combined frequent drug users by location, 2006-2015



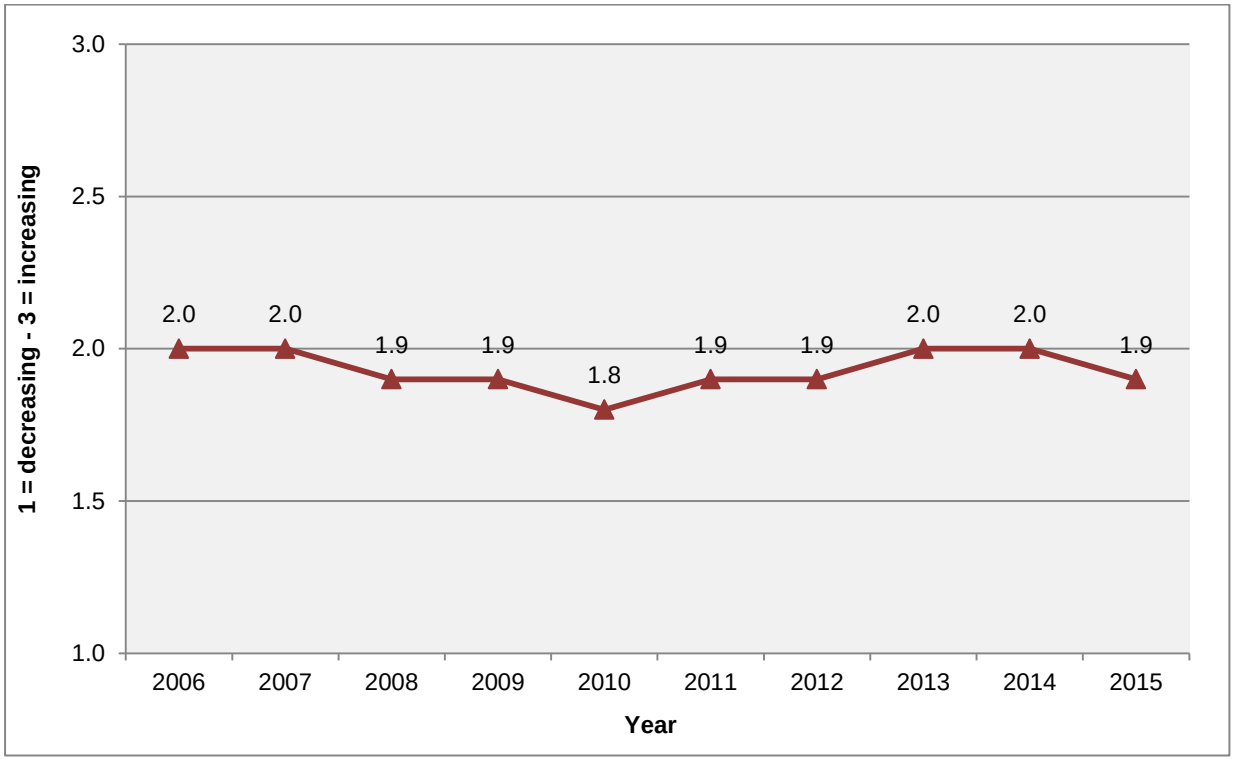
Change in strength of methamphetamine

The strength of methamphetamine was reported to have been 'stable/fluctuating' over the previous six months in 2015 (Table 5.6). The strength of methamphetamine had previously been reported to be decreasing from 2006 to 2012, before recovering somewhat in subsequent years (Figure 5.13).

Table 5.6 Change in strength of methamphetamine by combined frequent drug users, 2006-2015

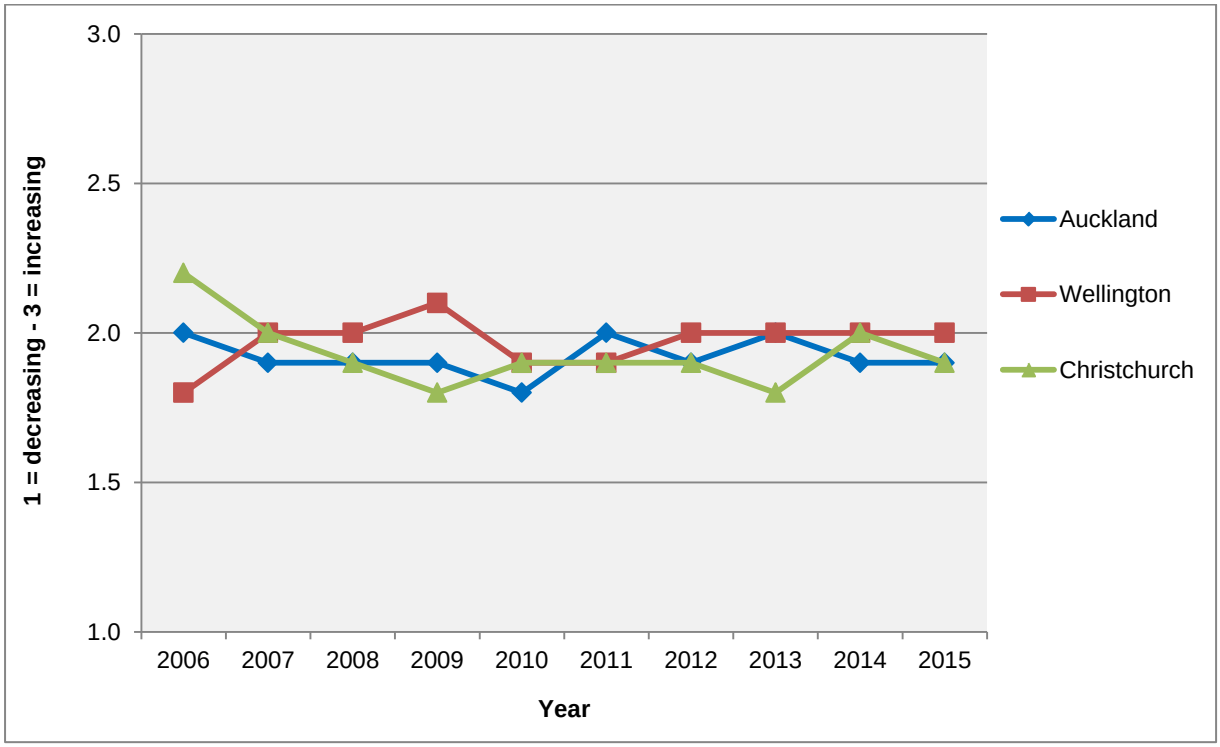
Change in strength of methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=156)	Combined modules (n=160)	Combined modules (n=189)	Combined modules (n=147)	Combined modules (n=179)	Combined modules (n=166)	Combined modules (n=158)	Combined modules (n=137)	Combined modules (n=127)	Combined modules (n=124)
Increasing [3]	17%	16%	9%	14%	8%	11%	14%	13%	10%	13%
Stable [2]	40%	34%	29%	28%	30%	33%	34%	45%	40%	42%
Fluctuating [2]	28%	30%	48%	39%	37%	38%	30%	27%	35%	26%
Decreasing [1]	15%	20%	14%	20%	25%	18%	22%	15%	15%	19%
Average change in strength score (1=decreasing – 3=increasing)	2.0	2.0	1.9	1.9	1.8	1.9	1.9	2.0	2.0	1.9
Overall recent change	Stable / fluctuates	Stable / fluctuates	Fluctuates / stable	Fluctuates / stable	Fluctuates / stable	Fluctuates / stable	Stable / fluctuates	Stable / fluctuates	Stable / fluctuates	Stable / fluctuates

Figure 5.13 Mean score of the change in strength of methamphetamine in the past six months by combined frequent drug users, 2006-2015



The strength of methamphetamine in Auckland had previously been reported to be declining from 2006 to 2010, before recovering from 2010 to 2011 (up from 1.8 to 2.0, p=0.0082), and thereafter being described as largely stable or fluctuating. The strength of methamphetamine in Christchurch was described as declining from 2006 to 2015 (down from 2.2 to 1.9, p=0.0291) (Figure 5.14). The strength of methamphetamine in Wellington was largely described as 'stable/fluctuating' from 2006 to 2015.

Figure 5.14 Mean score of the change in strength of methamphetamine in the past six months by combined frequent drug users by location, 2006-2015



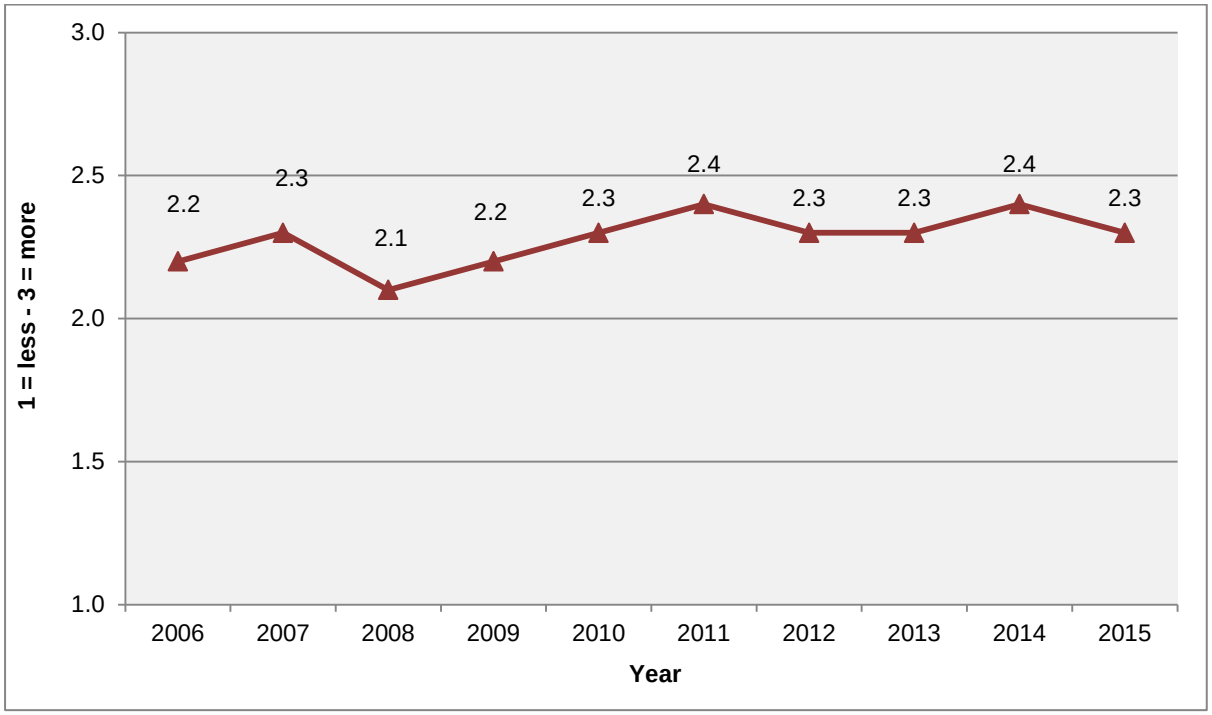
5.6 Perceptions of the number of people using methamphetamine

The number of people perceived by the frequent drug users to be using methamphetamine was described as 'same/more' in the previous six months in 2015 (Table 5.7). Fifty-four percent of the frequent drug users reported 'the same' number of people were using methamphetamine in 2015 compared to six months ago. An increasing proportion of frequent drug users thought that the 'same' number of people were using methamphetamine from 2006 to 2015 (up from 33% to 54%), and this was close to being statistically significant (p=0.0687) (Figure 5.15).

Table 5.7 Perceptions of the number of people using methamphetamine by combined frequent drug users, 2006-2015

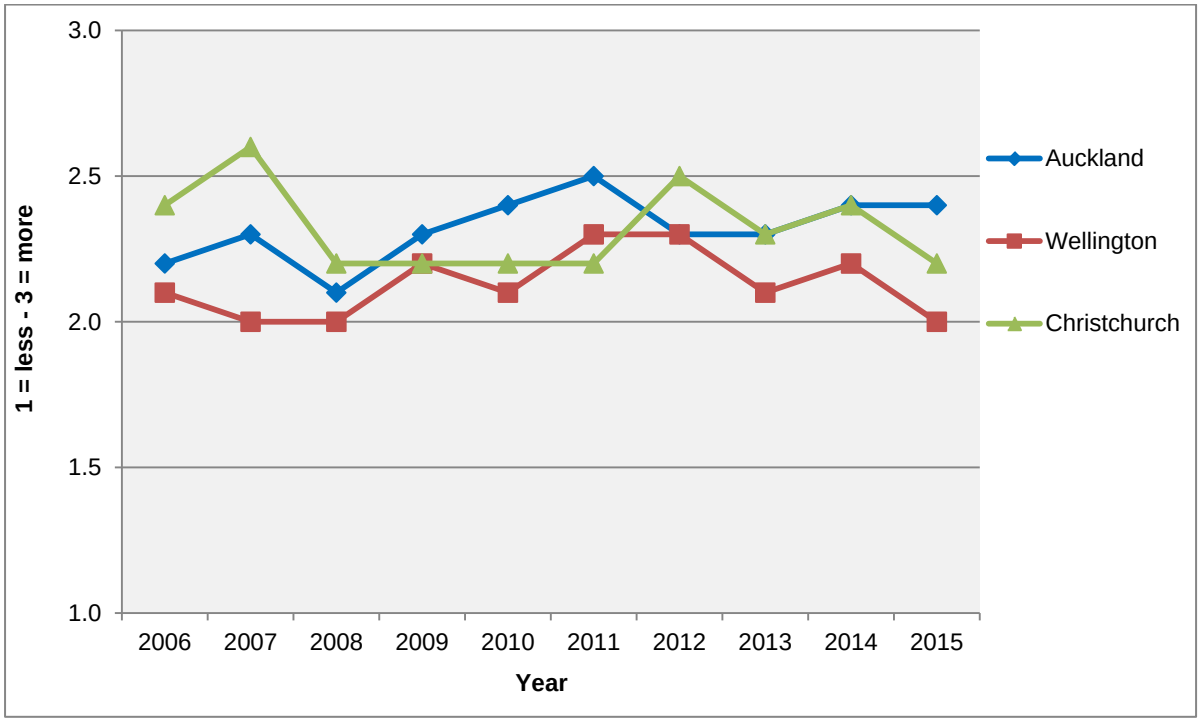
Number of people using methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=175)	Combined modules (n=173)	Combined modules (n=198)	Combined modules (n=169)	Combined modules (n=201)	Combined modules (n=180)	Combined modules (n=162)	Combined modules (n=141)	Combined modules (n= 121)	Combined modules (n= 134)
More [3]	43%	51%	35%	44%	45%	51%	46%	40%	46%	36%
Same [2]	33%	32%	39%	37%	38%	33%	41%	47%	43%	54%
Less [1]	23%	17%	26%	19%	16%	16%	13%	13%	11%	10%
Average number of people using score (1=less – 3=more)	2.2	2.3	2.1	2.2	2.3	2.4	2.3	2.3	2.4	2.3
Overall recent change	More /same	More /same	Same /more	More /same	More /same	More /same	More /same	Same /more	More /same	Same /more

Figure 5.15 Perceptions of the number of people using methamphetamine by combined frequent drug users, 2006-2015



The number of people using methamphetamine in Auckland was perceived to be increasing from 2006 to 2015 (up from 2.2 to 2.4, p=0.0159) (Figure 5.16). The frequent drug users in Christchurch have consistently reported 'same/more' people were using methamphetamine from 2006 to 2015. Overall, there was no statistically significant change in the perceptions of the number of people using methamphetamine in Wellington from 2006 to 2015.

Figure 5.16 Perceptions of the number of people using methamphetamine by combined frequent drug users by location, 2006-2015



5.7 Purchase of methamphetamine

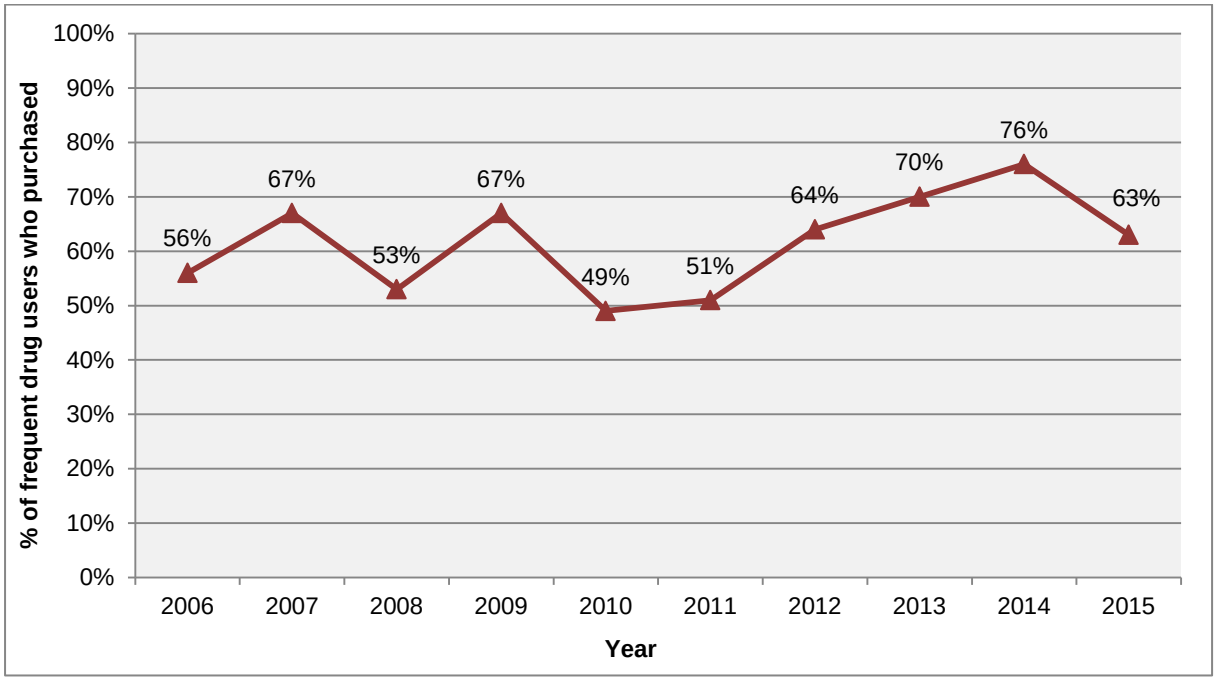
Frequency of purchase

The proportion of frequent drug users who purchased methamphetamine weekly or more often increased from 50% in 2006 to 61% in 2015, but this increase was not statistically significant (p=0.1182). The proportion of frequent drug users from Auckland who purchased methamphetamine weekly or more often increased from 61% in 2006 to 71% in 2015 (p=0.0144).

Time taken to purchase

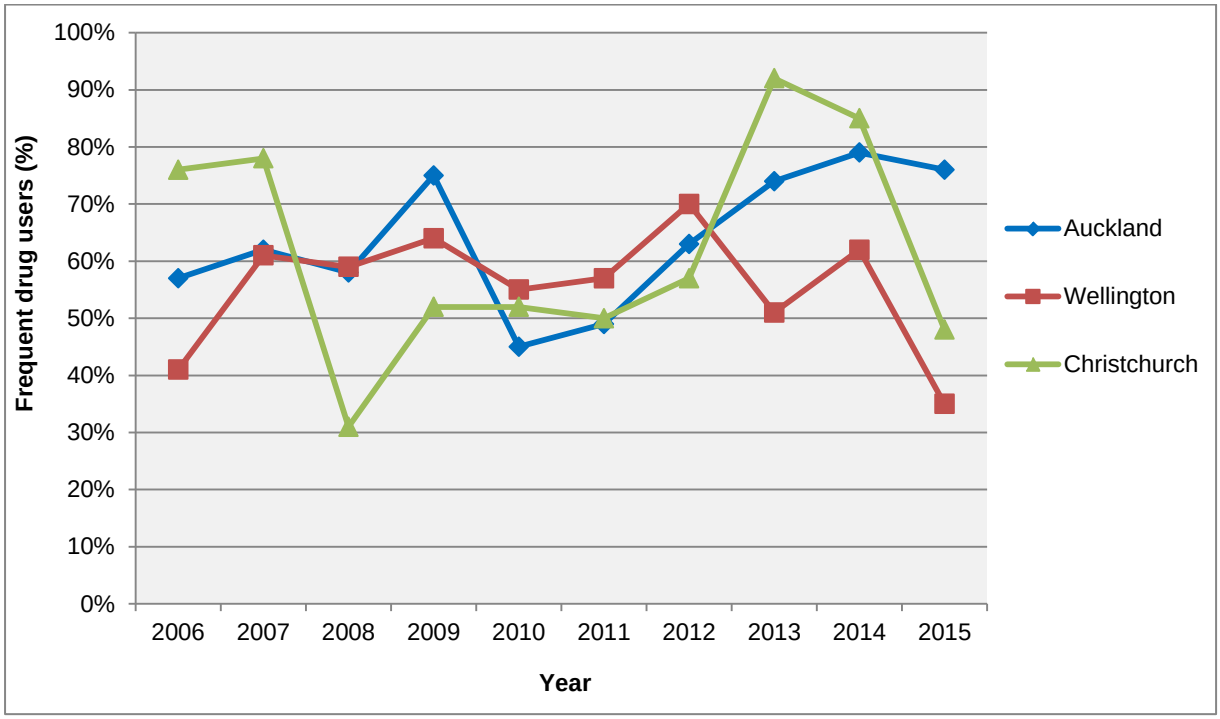
The frequent drug users were asked to estimate how long it would take them to buy some methamphetamine and were read a list of seven options from 'months' to 'less than 20 minutes'. This is a leading edge measure and therefore tends to be quite volatile as illustrated in the graphs (Figure 5.17 & 5.18). Sixty-three percent of the frequent drug users were able to purchase methamphetamine in 'one hour' or less in 2015. Overall, the proportion of frequent drug users who could purchase methamphetamine in one hour or less increased from 56% in 2006 to 63% in 2015 (p=0.0054), but decreased from 76% in 2014 to 63% in 2015 (p=0.0294) (Figure 5.17).

Figure 5.17 Proportion of frequent drug users who could purchase methamphetamine in one hour or less, 2006-2015



The proportion of frequent drug users in Auckland who could purchase methamphetamine in one hour or less increased steadily from 57% in 2006 to 76% in 2015 (p=0.0003) (Figure 5.18). The proportion of frequent drug users in Christchurch who could purchase methamphetamine in one hour or less had previously increased dramatically from 56% in 2012 to 92% in 2013 (p=0.0139). The proportion of Christchurch users who could purchase methamphetamine in one hour or less subsequently decreased just as dramatically from 85% in 2014 to 48% in 2015 (p=0.0166) (Figure 5.21). The proportion of frequent drugs users in Wellington who could purchase methamphetamine in one hour or less also decreased substantially from 62% in 2014 to 35% in 2015, and the decrease was very close to being statistically significant (p=0.0557).

Figure 5.18 Proportion of frequent drug users who could purchase methamphetamine in one hour or less by location, 2006-2015



Location of purchase

There were increases in the proportion of frequent drug users who had purchased methamphetamine from semi-public locations such as a 'street drug market' (up from 5% in 2009 to 23% in 2015, p=0.0196), 'public area like a park' (up from 9% in 2009 to 40% in 2015, p<0.0001), 'tinny house' (up from 11% in 2009 to 24% in 2015, p=0.0006), 'pub/bar/club' (up from 2% in 2009 to 22% in 2015, p<0.0001) and an 'agreed public location' (up from 39% in 2014 to 56% in 2015, p=0.0071) (Table 5.8). The proportion who purchased methamphetamine from 'work' increased from 3% in 2009 to 15% in 2015 (p=0.0020) and from 7% in 2014 to 15% in 2015 (p=0.0465).

Table 5.8 Location from which methamphetamine purchased in the past six months by combined frequent drug users, 2009-2015

Location (%)	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=117)	Combined modules (n=145)	Combined modules (n=143)	Combined modules (n=135)	Combined modules (n=124)	Combined modules (n=105)	Combined modules (n=108)
Private house	83	86	69	78	69	79	81
Agreed public location	42	39	42	46	20	39	56
Public area (e.g. park)	9	13	16	21	21	35	40
'Tinny' house	11	13	9	21	12	20	24
Street market	5	13	17	16	21	20	23
Pub/bar/club	2	7	9	15	18	16	22
Work	3	6	7	5	7	7	15
Educational institute	0	4	4	1	2	9	5
Internet/website	0	0	4	3	2	3	2

Type of seller

There were steady increases in the proportion of frequent drug users who had purchased methamphetamine from 'gang member/associate' (up from 30% in 2009 to 54% in 2015, p<0.0001), a 'friend' (up from 56% in 2009 to 71% in 2015, p=0.0094) and from 'partner or family member' (up from 10% in 2009 to 28% in 2015, p=0.0028) (Table 5.9). There were more recent increases in the proportion who had bought methamphetamine from a 'drug dealer' (up from 63% in 2014 to 80% in 2015, p=0.0023) and 'social acquaintance' (up from 49% in 2014 to 63% in 2015, p=0.0183).

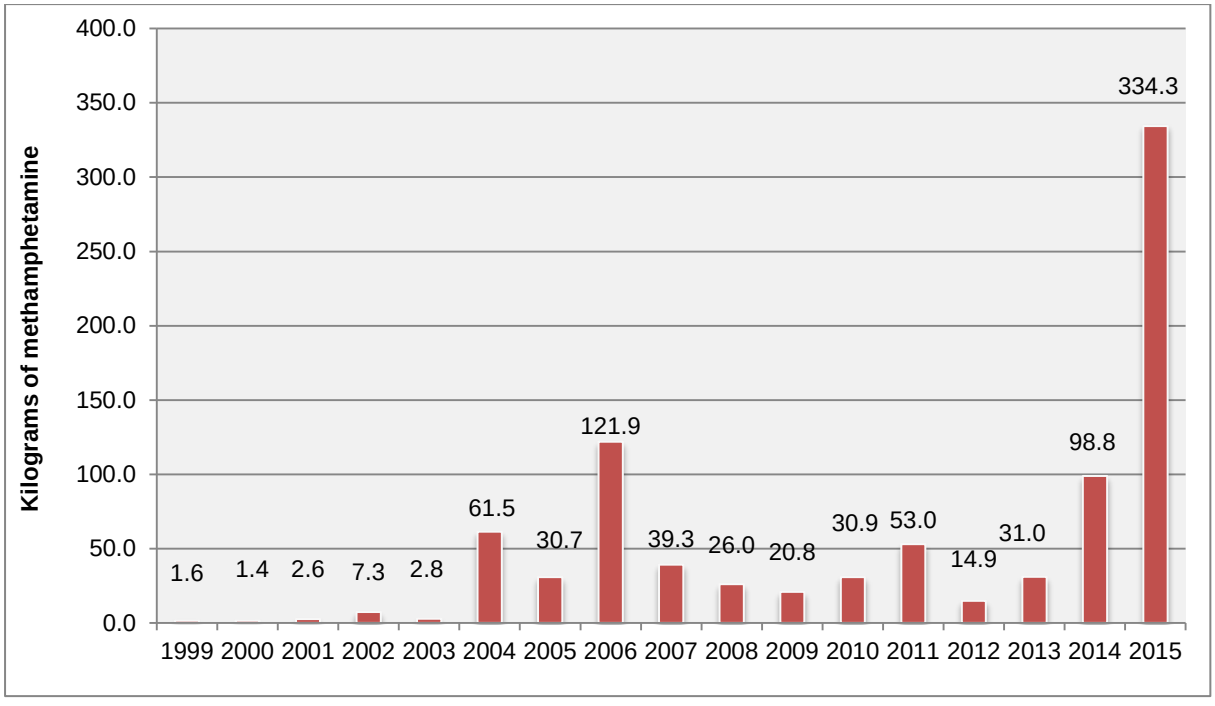
Table 5.9 People from whom methamphetamine purchased in the past six months by combined frequent drug users, 2009-2015

Type of person (%)	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=117)	Combined modules (n=146)	Combined modules (n=144)	Combined modules (n=134)	Combined modules (n=124)	Combined modules (n=115)	Combined modules (n=107)
Drug dealer	69	69	56	69	63	63	80
Friend	56	66	54	68	62	70	71
Social acquaintance	50	52	40	57	55	49	63
Gang member/associate	30	34	33	44	36	50	54
Partner/family member	10	15	20	19	11	18	28

5.8 Seizures of methamphetamine

The weight of methamphetamine seized by the New Zealand Police and New Zealand Customs Service increased after 2003, before stabilising from 2007 to 2013. Large annual seizures of methamphetamine were previously made in 2004 (i.e. 61.5 kilograms) and 2006 (i.e. 121.9 kilograms). These large seizures were recently dwarfed by the unprecedented amount seized in 2015 (i.e. 334.3 kilograms) (Figure 5.19). The quantity seized in 2015 was 174% higher than the next largest yearly seizure total in 2006, and the largest amount seized in 17 years of the data series.

Figure 5.19 Kilograms of methamphetamine and crystal methamphetamine seized in New Zealand, 1999-2015

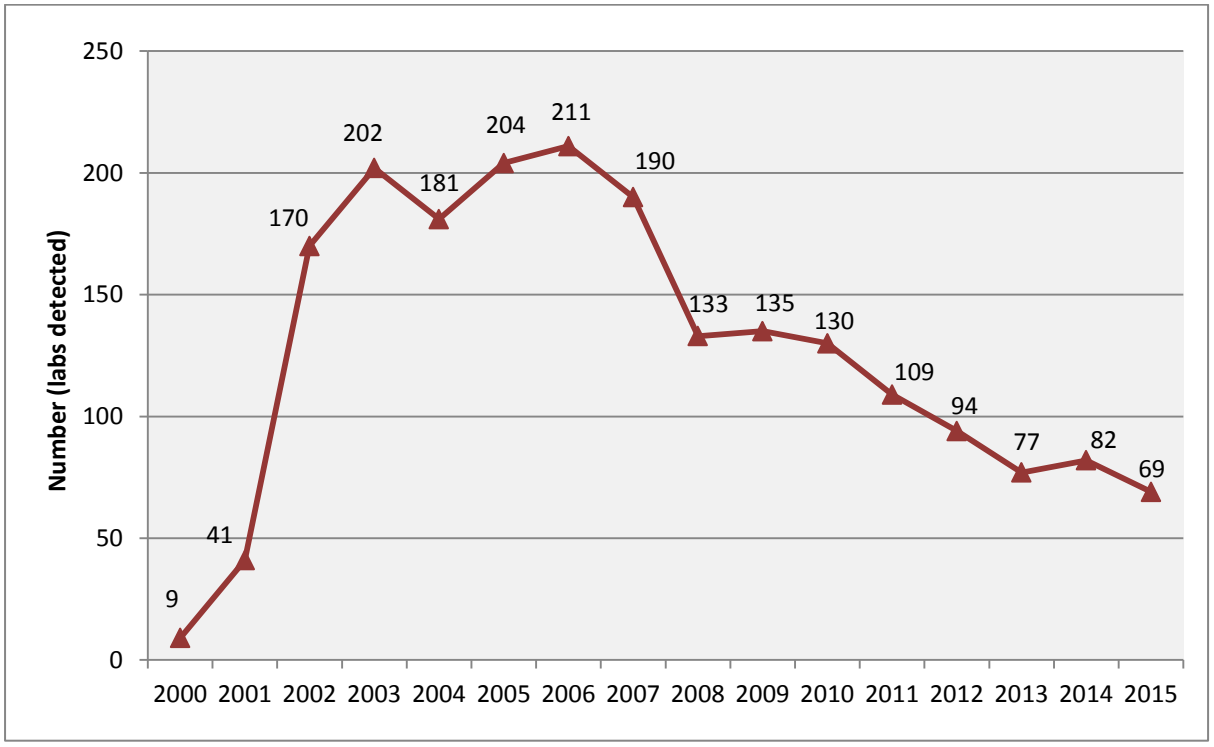


Source: NDIB, 2016

5.9 Methamphetamine laboratories

The number of clandestine methamphetamine laboratories detected by law enforcement is a useful but imperfect measure of total methamphetamine production. This is because it is difficult to both estimate how many laboratories remain undetected and the production capacity of both the detected and undetected laboratories (see UNODC, 2010). The number of methamphetamine laboratories dismantled each year by New Zealand Police increased dramatically from a low level in the early 2000s to reach a peak in the mid-2000s at approximately 200 laboratories per year. Laboratory detections then levelled off after 2007 at about 130 per year for the next three years. There have been further declines in methamphetamine laboratory detections since 2010 (Figure 5.20). The number of methamphetamine laboratories detected in 2015 was 47% lower than the number detected in 2010, and 67% lower than the number detected in 2006 (i.e. the peak number of laboratory detections). New Zealand Police have noted that methamphetamine laboratories are increasingly located in isolated rural areas making detection more difficult (NDIB, 2011). The laboratories detected in recent years are also increasingly assessed to be producing at a 'commercial level' capacity, yielding kilograms of methamphetamine (NDIB, 2015).

Figure 5.20 Number of methamphetamine laboratories dismantled in New Zealand, 2000-2014

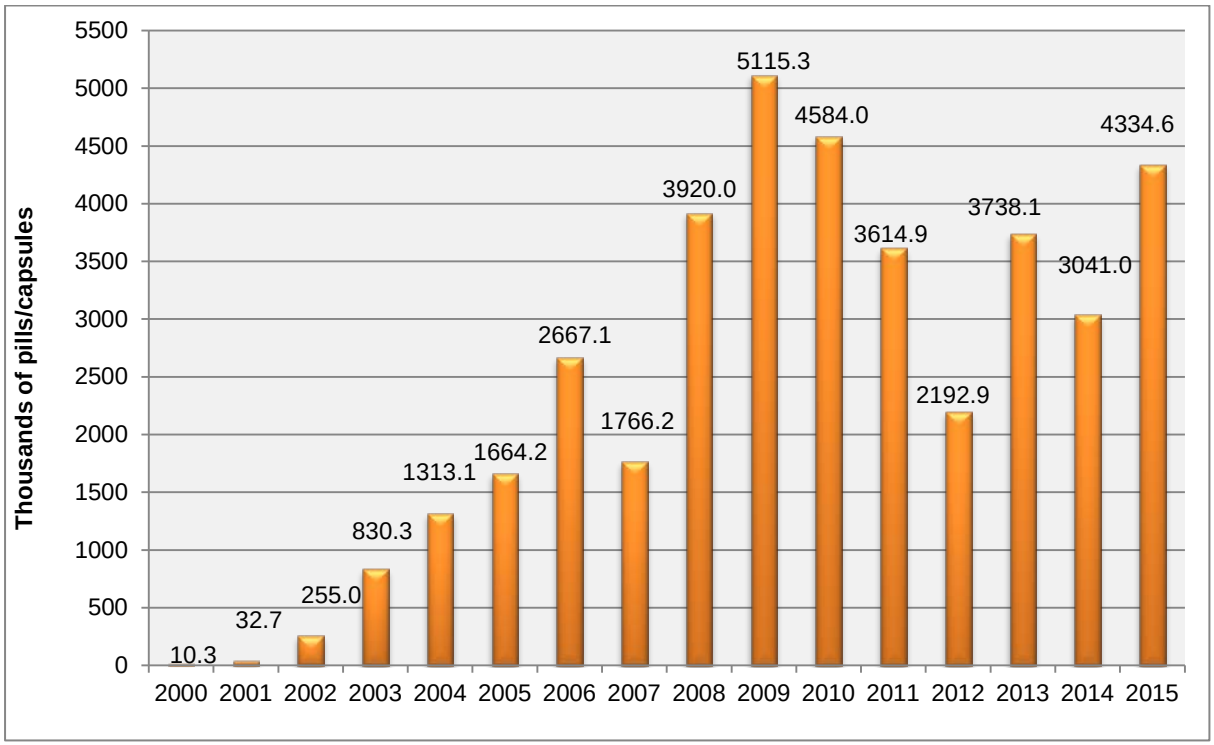


Source: NDIB, 2016

5.10 Pseudoephedrine and ephedrine seizures

Pseudoephedrine (PSE) and ephedrine (EPH) are key chemical precursors used to manufacture methamphetamine. In August 2011, EPH and PSE were re-classified as Class B2 controlled drugs, making them available only by prescription from a medical practitioner. The amount of PSE and EPH seized by the New Zealand Customs Service increased dramatically from 2002 to reach over 5.5 million (equivalent) tablets in 2009 (Figure 5.21). There was a substantial decline in precursor seizures over the next three years to just over 2 million tablets in 2012. There has subsequently been a return to high seizures since 2013 (3.7 million tablets). A total of 4.3 million equivalent tablets were seized in 2015 (i.e. 966.62 kilograms of methamphetamine at a conversion rate of 0.223 grams per tablet).

Figure 5.21 Thousands of (equivalent) tablets of pseudoephedrine and ephedrine seized in New Zealand, 2000-2015



Source: NDIB, 2016

5.11 Summary of methamphetamine trends

- The current availability of methamphetamine was reported to be 'easy/very easy' in 2015
- The current availability of methamphetamine in Auckland increased from 2006 to 2015
- The availability of methamphetamine in Christchurch declined from 2006 to 2012, before recovering sharply in 2013, and remaining 'stable/easier' in 2015
- The mean price of a 'point' of methamphetamine increased from $96 in 2006 to $114 in 2015
- The 'point' price of methamphetamine increased in Auckland, Wellington and Christchurch from 2006 to 2015
- The mean price of a gram methamphetamine increased steadily from $610 in 2006 to a peak of $815 in 2011, before declining to $668 in 2015
- The price of methamphetamine in Auckland was more likely to be described as declining from 2014 to 2015
- The current strength of methamphetamine was described as 'high/fluctuates' in 2015
- The strength of methamphetamine increased in Auckland from 2014 to 2015
- The number of people using methamphetamine was described as 'same/more' in 2015
- An increasing proportion of frequent drug users thought that 'the same' number of people were using methamphetamine compared to six month ago from 2006 to 2015
- The number of people using methamphetamine in Auckland was perceived to be increasing from 2006 to 2015
- The proportion of frequent drug users from Auckland who purchased methamphetamine weekly or more often increased from 61% in 2006 to 71% in 2015
- The proportion of frequent drug users who could purchase methamphetamine in one hour or less increased from 57% in 2006 to 76% in 2014, before decreasing to 63% in 2015
- The proportion of frequent drug users in Auckland who could purchase methamphetamine in one hour or less increased from 57% in 2006 to 76% in 2015
- The proportion of frequent drug users in Christchurch who could purchase methamphetamine in one hour or less had previously increased dramatically from 56% in

2012 to 92% in 2013, before decreasing just as dramatically from 85% in 2014 to 48% in 2015

- An increasing proportion of frequent drug users purchased methamphetamine from semi-public areas such as a 'street drug market', 'public area like a park', 'tinny house', 'work', 'agreed public location' and from a 'pub/bar or club'

- An increasing proportion of frequent drug users purchased methamphetamine from a 'drug dealer', 'gang member', 'friend', 'social acquaintance' and 'partner and family member'

- The 334.3 kilograms of methamphetamine seized in 2015 was the largest yearly seizure in the past 17 years; 174% higher than the next largest (i.e. 122 kilograms in 2006)

- The number of methamphetamine laboratories detected in 2015 (i.e. 69) was 47% lower than the number detected in 2010, and 67% lower than the number detected in 2006 (i.e. the peak number of laboratory detections)

- The number of (equivalent) tablets of ephedrine seized in 2015 (4.3 million tablets) is the third highest amount seized in the past 16 years; the highest numbers seized were in 2009 (5.1 million tablets) and 2010 (4.6 million tablets)

6. Crystal methamphetamine

6.1 Introduction

Crystal methamphetamine ('ice', 'crystal' or 'shabu') refers to the highly finished, crystallised form of methamphetamine (Matsumoto et al., 2002; McKetin & McLaren, 2004). In New Zealand, crystal methamphetamine (or 'ice') is often distinguished from locally made methamphetamine (or 'P') on the basis that crystal methamphetamine is manufactured overseas and is believed to be of higher quality (Wilkins et al. 2004). However, ESR analysis has shown that there is actually little difference in strength between locally made methamphetamine and imported crystal methamphetamine (NDIB, 2009). To ensure that the frequent drug users interviewed for the IDMS clearly understood the difference between crystal methamphetamine and methamphetamine the interviewer read out a brief description of crystal methamphetamine (i.e. 'ice comes in large crystals and is usually imported') and encouraged the respondent to complete the crystal methamphetamine section only if they clearly knew about this form of methamphetamine.

The IDMS had previously found a steady decrease in the use of crystal methamphetamine among frequent methamphetamine users, down from 64% in 2006 to 29% in 2010, but in more recent years use has recovered sharply from 29% in 2010 to 51% in 2012, and has remained at the higher level since (i.e. 55% in 2014) (Wilkins, et al., 2015). The frequent drug users interviewed for the IDMS reported a recovery in the availability of crystal methamphetamine from 2006 to 2014 (Wilkins, et al., 2015). The mean price of a 'point' of crystal methamphetamine increased from $100 in 2006 to $123 in 2014. An increasing proportion of frequent drug users said 'more' people were using crystal methamphetamine from 2006 to 2014. These findings are consistent with the very large seizures of crystal methamphetamine made at the New Zealand border in recent years (NDIB, 2016).
A one-off seizure of 494 kilograms of crystal methamphetamine was made in July 2016 from a coastal town in Northland following a failed attempt to smuggle it in via the sea.

The re-emergence of crystal methamphetamine in New Zealand may reflect greater domestic controls over methamphetamine precursors, and enforcement success against domestic methamphetamine manufacture, both of which make the importation of finished ice more attractive. As noted previously, quantity of methamphetamine seized in East and South-East Asia 'almost quadrupled' from 2009 to 2014 (UNODC, 2016). Increasing use of crystal methamphetamine has also been noted in Australia in recent years (AIHW, 2015).

6.2 Knowledge of crystal methamphetamine trends

Twenty percent of the frequent drug users interviewed for the 2015 IDMS (n=42) indicated they felt confident enough to comment on the price, purity and availability of crystal methamphetamine in the previous six months. This included 37% of the frequent methamphetamine users (n=24), 13% of the frequent injecting drug users (n=12), and 6% of the frequent ecstasy users (n=6).

6.3 Availability of crystal methamphetamine

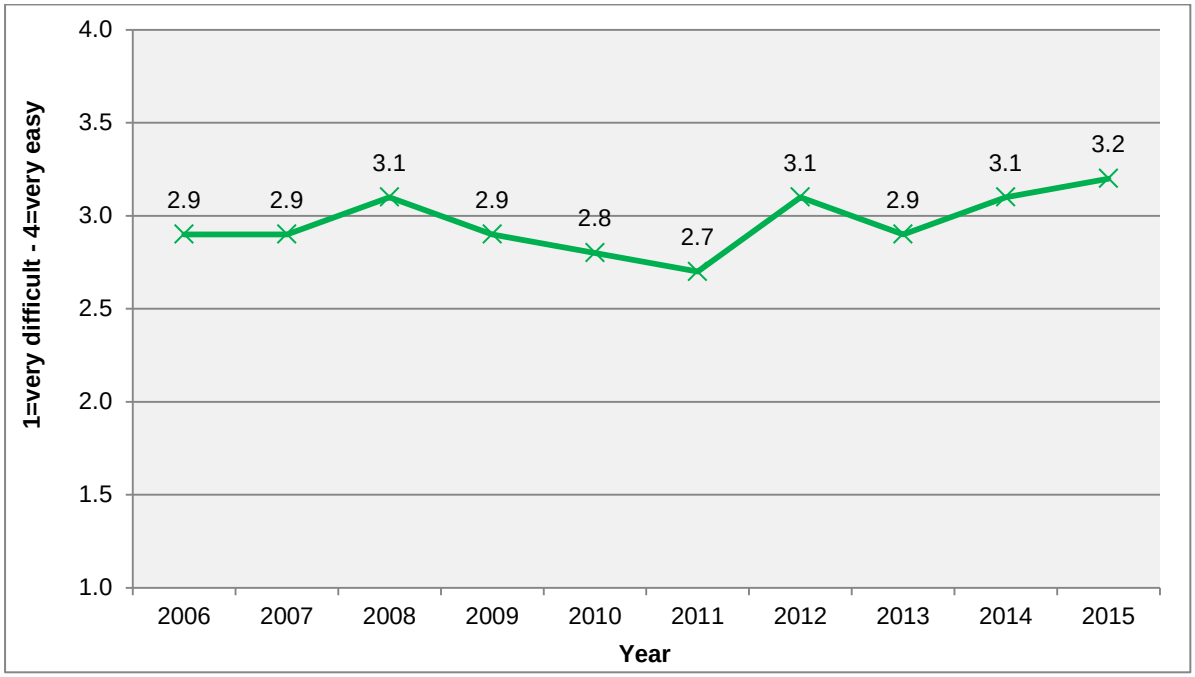
Current availability of crystal methamphetamine

The frequent drug users described the current availability of crystal methamphetamine as 'very easy/easy' in 2015 (Table 6.1). There was an increase in the current availability of crystal methamphetamine from 2006 to 2015 (up from 2.9 to 3.2), but this increase was not statistically significant (p=0.1366) (Figure 6.1). The current availability of crystal methamphetamine had previously increased from 2011 to 2012 (up from 2.7 to 3.1, p=0.0154).

Table 6.1 Current availability of crystal methamphetamine by combined frequent drug users, 2006-2015

Current availability of crystal methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=107)	Combined modules (n=71)	Combined modules (n=86	Combined modules (n=66)	Combined modules (n=61)	Combined modules (n=61)	Combined modules (n=56)	Combined modules (n=33)	Combined modules (n= 49)	Combined modules (n= 41)
Very easy [4]	24%	26%	19%	27%	22%	12%	40%	23%	33%	44%
Easy [3]	48%	40%	72%	47%	37%	49%	35%	46%	49%	39%
Difficult [2]	23%	32%	9%	18%	36%	34%	19%	26%	14%	8%
Very difficult [1]	5%	2%	0%	7%	5%	5%	7%	4%	4%	8%
Average availability score (1=very difficult – 4=very easy)	2.9	2.9	3.1	2.9	2.8	2.7	3.1	2.9	3.1	3.2
Overall current status	Easy/ very easy	Easy/ difficult	Easy	Easy/ very easy	Easy/ difficult	Easy/ difficult	Very easy/ easy	Easy/ difficult	Easy/ very easy	Very easy/ easy

Figure 6.1 Mean score of the current availability of crystal methamphetamine by combined frequent drug users, 2006-2015



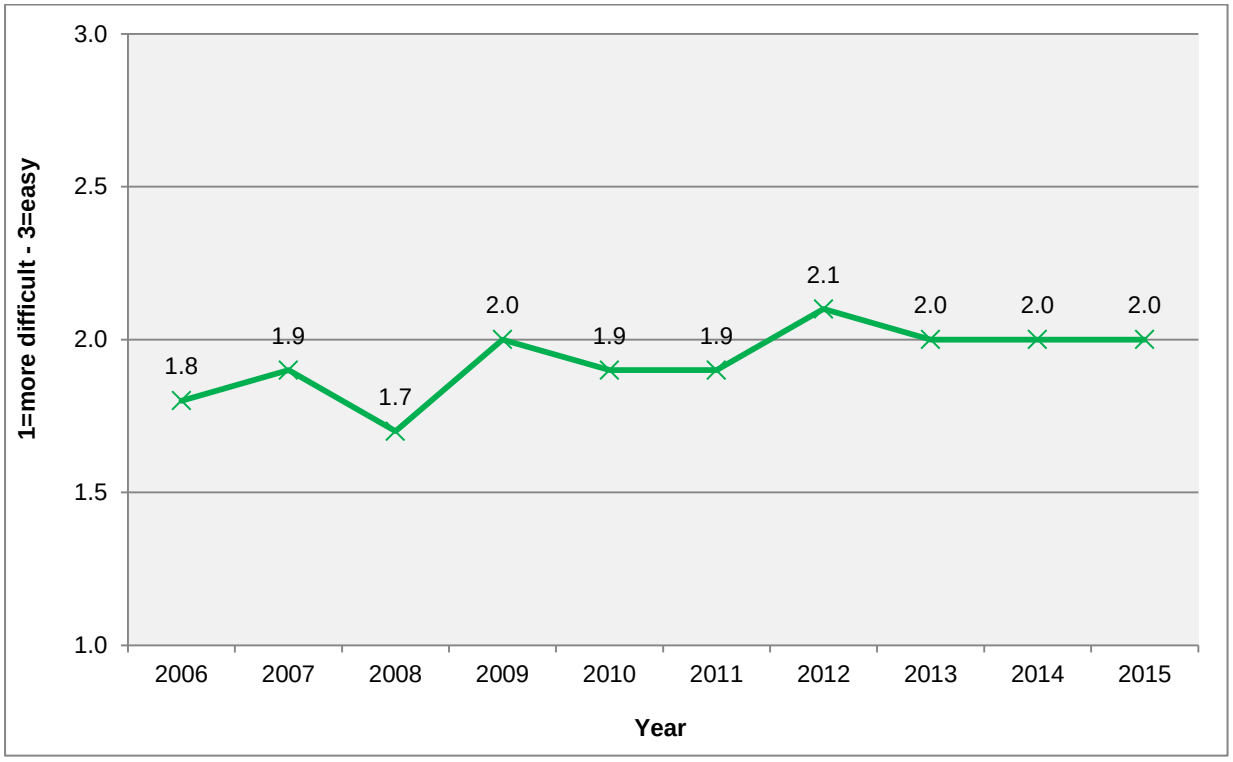
Change in availability of crystal methamphetamine

The frequent drug users considered the availability of crystal methamphetamine to have been 'stable' over the past six months in 2015 (Table 6.2). Seventy-two percent described availability as 'stable' in 2015. The frequent drug users reported a recovery in the availability of crystal methamphetamine from 2006 to 2015 (up from 1.8 to 2.0, p=0.0002) (Figure 6.2). A higher proportion had previously reported the availability of crystal methamphetamine had become 'easier' from 2011 to 2012 (up from 1.9 to 2.1, p=0.0169). There was no difference in perceptions of the change in the availability of crystal methamphetamine from 2014 to 2015 (i.e. 2.0 in both years)

Table 6.2 Mean score of the current availability of crystal methamphetamine by combined frequent drug users, 2006-2015

Change in availability of crystal methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=106)	Combined modules (n=69)	Combined modules (n=86)	Combined modules (n=65)	Combined modules (n=58)	Combined modules (n=57)	Combined modules (n=53)	Combined modules (n=33)	Combined modules (n=47)	Combined modules (n=38)
Easier [3]	10%	17%	14%	21%	14%	4%	21%	9%	13%	17%
Stable [2]	50%	53%	38%	49%	50%	68%	55%	71%	65%	72%
Fluctuates [2]	10%	5%	5%	9%	14%	12%	13%	11%	14%	0%
More difficult [1]	30%	25%	42%	21%	22%	17%	11%	9%	8%	12%
Average change in availability score (1=more difficult – 3=easier)	1.8	1.9	1.7	2.0	1.9	1.9	2.1	2.0	2.0	2.0
Overall recent change	Stable/ more difficult	Stable/ more difficult	More difficult/ stable	Stable/ more difficult	Stable/ more difficult	Stable/ more difficult	Stable/ easier	Stable	Stable/ fluctuates	Stable

Figure 6.2 Mean score of the change in availability of crystal methamphetamine by combined frequent drug users, 2006-2015



6.4 Price of crystal methamphetamine

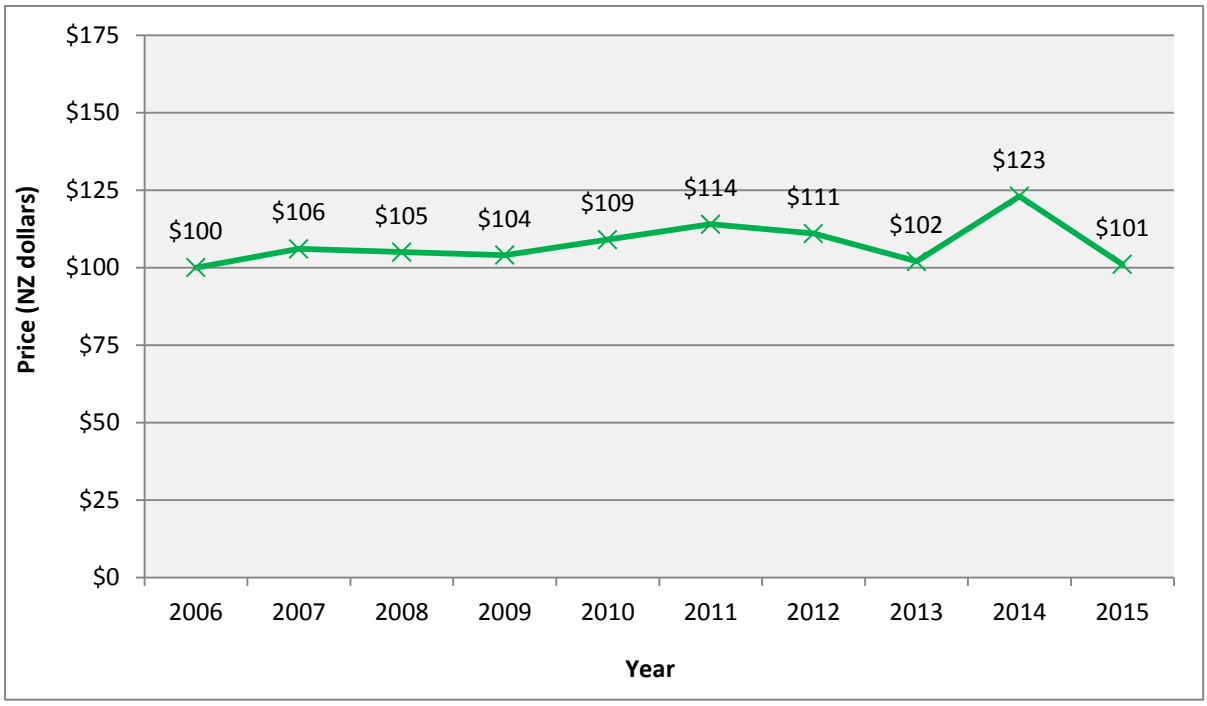
Current price of crystal methamphetamine

The median price of a 'point' (0.1 grams) of crystal methamphetamine was reported to be $100 in 2015 (Table 6.3). The mean price of a 'point' of crystal methamphetamine had previously increased from $100 in 2006 to $114 in 2011 (p=0.0035). More recently, the price declined from $123 in 2014 to $101 in 2015, and this decline was close to being statistically significant (p=0.0765) (Figure 6.3).

Table 6.3 Current median (mean) price for crystal methamphetamine (NZD) by combined frequent drug users, 2006-2015

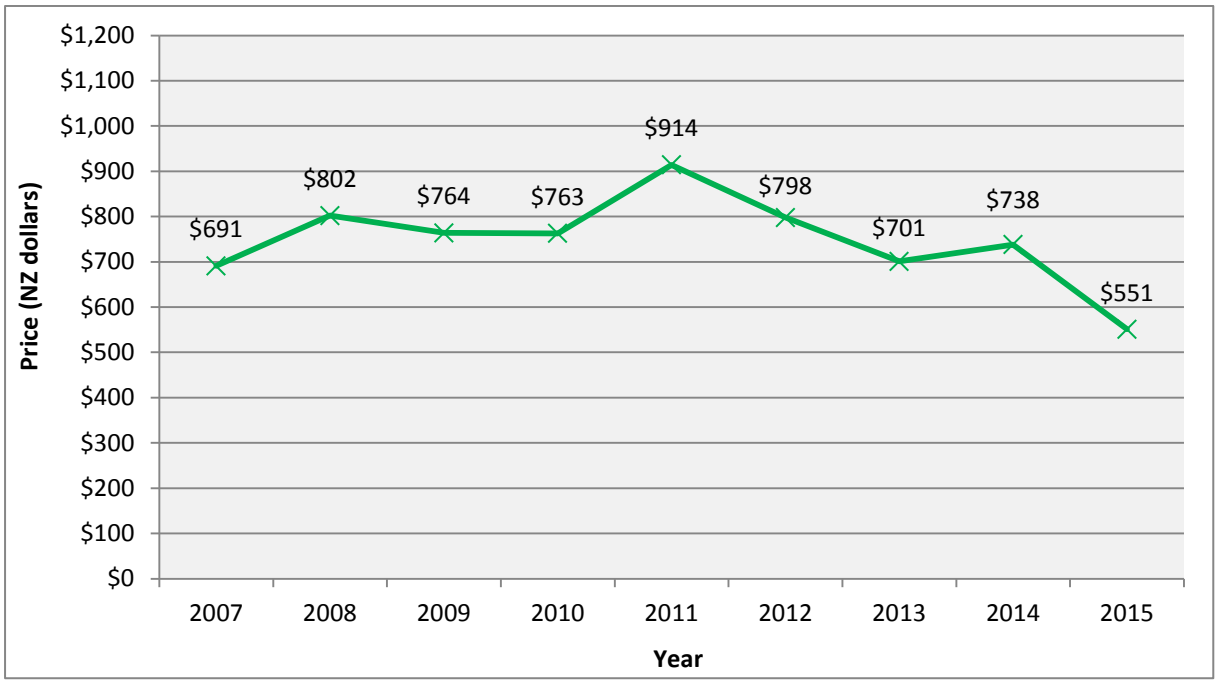
Current price of crystal methamphetamine ($)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules
Number with knowledge	**n=76**	**n=45**	**n=76**	**n=46**	**n=42**	**n=52**	**n=45**	**n=27**	**n=36**	**n=31**
Median (mean) price 'point' (0.1 grams)	$100 ($100)	$100 ($106)	$100 ($105)	$100 ($104)	$100 ($109)	$100 (114)	$100 ($111)	$100 ($102)	$100 ($123)	$100 ($101)
Number with knowledge	**-**	**n=36**	**n=14**	**n=16**	**n=21**	**n=16**	**n=24**	**n=13**	**n=18**	**n=17**
Median (mean) price per gram	-	$700 ($691)	$800 ($802)	$800 ($764)	$700 ($763)	$900 ($914)	$700 ($798)	$700 ($701)	$650 ($738)	$500 ($551)
Number with knowledge	**-**	**-**	**n=2**	**n=2**	**n=5**	**n=4**	**n=5**	**n=2**	**-**	**n=31**
Median (mean) price per ounce	-	-	$14,000 ($12,297)	$18,000 ($16,009)	$14,000 ($11,601)	$4,500 ($9,889)	$21,000 ($19,429)	$12,000 ($12,906)	-	$12,000 ($7,513)

Figure 6.3 Mean price of a 'point' of crystal methamphetamine by combined frequent drug users, 2006-2015



The median price of a gram of crystal methamphetamine was $500. The mean price of a gram of crystal methamphetamine declined from $738 in 2014 to $551 in 2015 (p=0.0059) (Figure 6.4). The mean price of a gram of crystal methamphetamine had previously increased from $691 in 2007 to $914 in 2011 (p=0.0152). The fairly low number of frequent drug users providing gram prices in some of these years (i.e. n<20) means these results should be interpreted with some caution.

Figure 6.4 Mean price of a gram of crystal methamphetamine by combined frequent drug users, 2007-2015



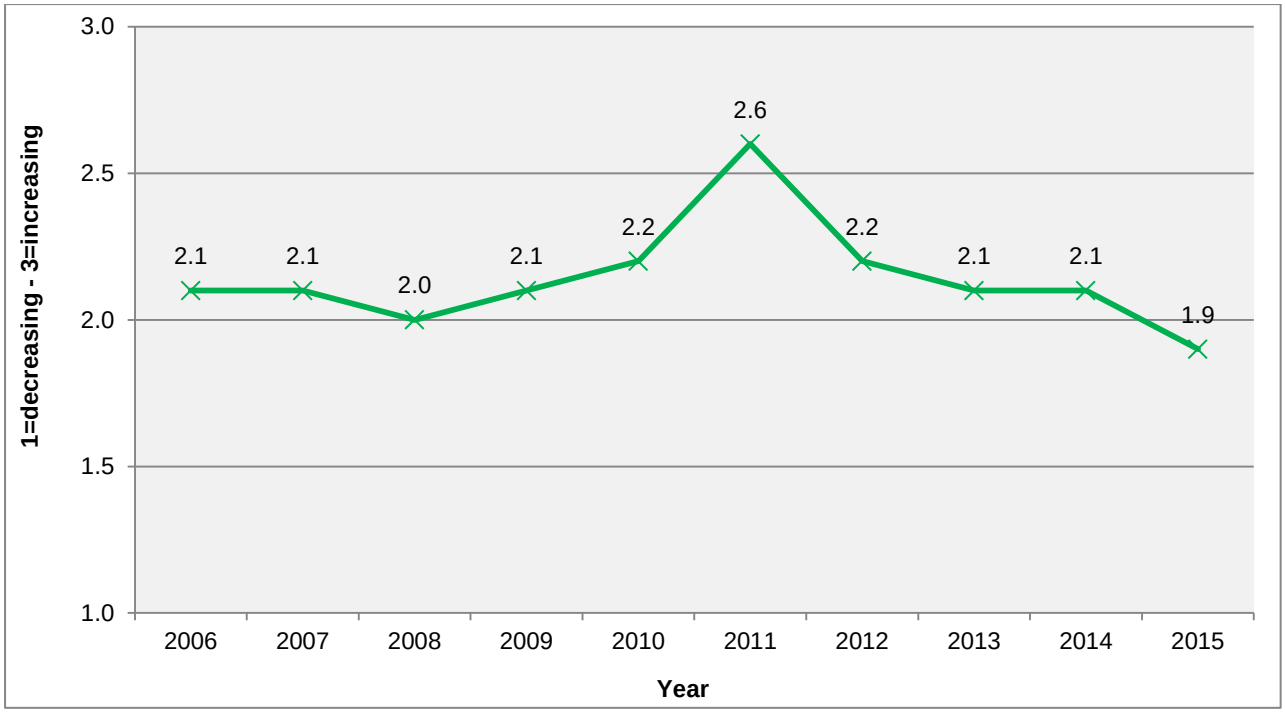
Change in price

The frequent drug users reported that the price of crystal methamphetamine had been 'stable' in the previous six months in 2015 (Table 6.4). Seventy-one percent described the price as 'stable' in 2015. The frequent drug users were more likely to say the price of crystal methamphetamine had been decreasing from 2014 to 2015 (down from 2.1 to 1.9, p=0.0184) (Figure 6.5). The frequent drug users were previously more likely to say the price had been increasing from 2010 to 2011 (up from 2.2 to 2.6, p=0.0004).

Table 6.4 Change in the price of crystal methamphetamine in the past six months by combined frequent drug users, 2006-2015

Change in price of crystal methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=98)	Combined modules (n=69)	Combined modules (n=860	Combined modules (n=64)	Combined modules (n=58)	Combined modules (n=59)	Combined modules (n=51)	Combined modules (n=32)	Combined modules (n=44)	Combined modules (n=39)
Increasing [3]	17%	19%	6%	15%	22%	53%	20%	20%	16%	5%
Fluctuating [2]	10%	11%	6%	12%	3%	7%	15%	3%	3%	7%
Stable [2]	62%	61%	85%	69%	70%	39%	63%	71%	77%	71%
Decreasing [1]	11%	9%	4%	3%	5%	1%	2%	5%	4%	17%
Average change in price score (1=decreasing-3=increasing)	2.1	2.1	2	2.1	2.2	2.5	2.2	2.1	2.1	1.9
Overall recent change	Stable/ increasing	Stable/ increasing	Stable	Stable/ increasing	Stable	Increasing/ stable	Stable/ increasing	Stable	Stable	Stable

Figure 6.5 Mean score of the change in the price of crystal methamphetamine in the past six months by combined frequent drug users, 2006-2015



6.5 Strength of crystal methamphetamine

Current strength

The current strength of crystal methamphetamine was considered to be 'high/medium' in 2015 (Table 6.5). There was no overall change in the current strength of crystal methamphetamine from 2006 to 2015. The frequent drug users had previously reported the strength of crystal methamphetamine had increased from 2010 to 2011 (up from 2.2 to 2.6, p=0.0089), and then decreased from 2012 to 2013 (down from 2.6 to 2.3, p=0.0469).

Table 6. 5 Current purity of crystal methamphetamine by combined frequent drug users, 2006-2015

Current purity of crystal methampheta mine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=103)	Combined modules (n=73)	Combined modules (n=86)	Combined modules (n=65)	Combined modules (n=59)	Combined modules (n=58)	Combined modules (n=56)	Combined modules (n=33)	Combined modules (n=46)	Combined modules (n=42)
High [3]	47%	52%	29%	46%	34%	63%	62%	38%	42%	41%
Medium [2]	25%	18%	13%	24%	30%	13%	13%	34%	36%	34%
Fluctuates [2]	18%	26%	52%	23%	25%	15%	20%	18%	22%	14%
Low [1]	9%	4%	6%	7%	11%	9%	5%	9%	0%	12%
Average purity score (1=low – 3=high)	2.4	2.5	2.2	2.4	2.2	2.6	2.6	2.3	2.4	2.3
Overall current status	High/ medium	High/ fluctuates	Fluctuate s/high	High/ medium	High/ medium	High/ fluctuates	High/ fluctuates	High/ medium	High/ medium	High/ medium

Change in strength

The strength of crystal methamphetamine was considered to have been 'stable/decreasing' during the previous six months in 2015 (Table 6.6). There was no statistically significant difference in reports of the change in the strength of crystal methamphetamine from 2006 to 2015 (p=0.2824).

Table 6.6 Change in strength of crystal methamphetamine by combined frequent drug users, 2006-2015

Change in strength of crystal methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=102)	Combined modules (n=68)	Combined modules (n=86)	Combined modules (n=64)	Combined modules (n=59)	Combined modules (n=55)	Combined modules (n=53)	Combined modules (n=33)	Combined modules (n= 45)	Combined modules (n= 40)
Increasing [3]	15%	17%	11%	18%	10%	8%	18%	11%	16%	16%
Stable [2]	54%	52%	17%	54%	46%	56%	51%	64%	63%	54%
Fluctuating [2]	18%	22%	66%	21%	22%	25%	15%	12%	11%	9%
Decreasing [1]	13%	9%	6%	7%	22%	11%	15%	14%	9%	21%
Average change in purity score (1=decreasing – 3=increasing)	2.0	2.1	2.1	2.1	1.9	2.0	2.0	2.0	2.1	2.0
Overall recent change	Stable/ fluctuating	Stable/ fluctuating	Fluctuating/ stable	Stable/ fluctuating	Stable/ fluctuating	Stable/ fluctuating	Stable/ increasing	Stable/ decreasing	Stable/ increasing	Stable/ decreasing

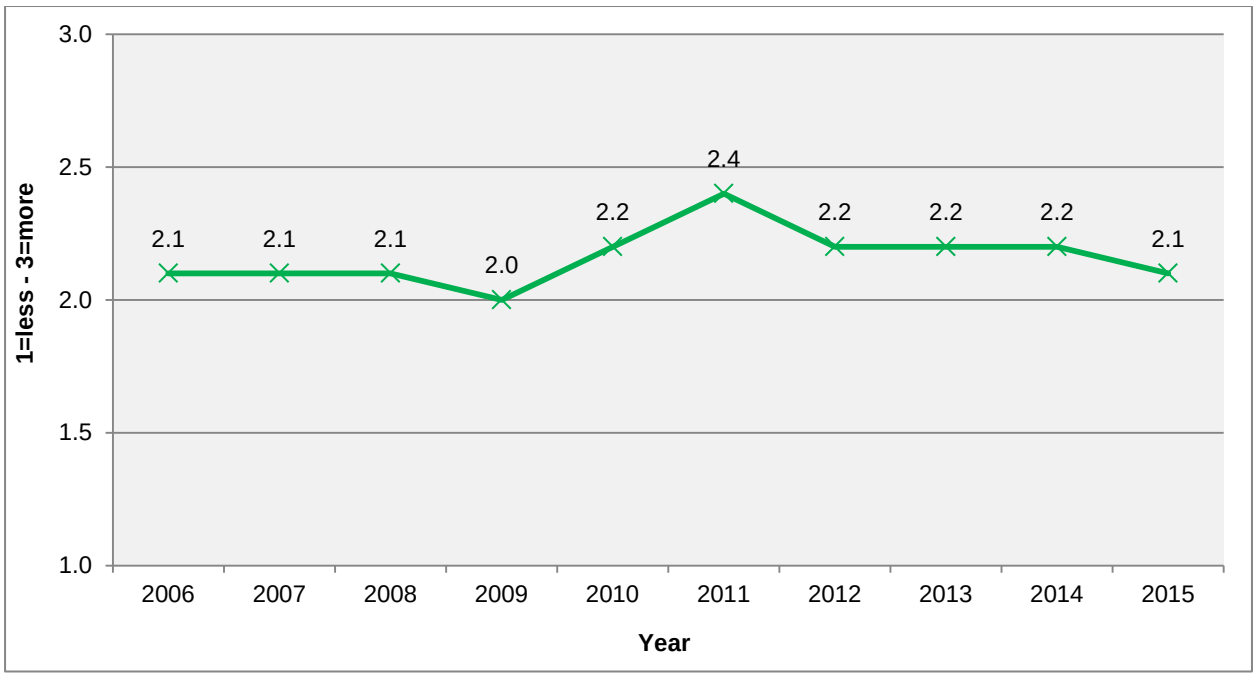
6.6 Perceptions of the number of people using crystal methamphetamine

The number of people using crystal methamphetamine was described as the 'same/more' in the past six months in 2015 (Table 6.7). There was no statistically significant change in perceptions of the change in the number of people who were using crystal methamphetamine from 2006 to 2015, with most describing it as 'same/more' in recent years (Figure 6.6).

Table 6.7 Perceptions of the number of people using crystal methamphetamine by combined frequent drug users, 2006-2015

Number of people using crystal methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=108)	Combined modules (n=71)	Combined modules (n=86)	Combined modules (n=64)	Combined modules (n=54)	Combined modules (n=47)	Combined modules (n=53)	Combined modules (n=32)	Combined modules (n=45)	Combined modules (n=40)
More [3]	38%	36%	32%	25%	40%	49%	39%	33%	35%	30%
Same [2]	37%	35%	48%	45%	41%	43%	45%	58%	51%	53%
Less [1]	25%	29%	18%	30%	19%	8%	15%	9%	14%	17%
Average number of people using score (1=less – 3=more)	2.1	2.1	2.1	2.0	2.2	2.4	2.2	2.2	2.2	2.1
Overall recent change	More/ same	More/ same	Same/ more	Same/ less	Same/ more	More/ same	Same/ more	Same/ more	Same/ more	Same/ more

Figure 6.6 Mean score of the perceptions of the number of people using crystal methamphetamine by combined frequent drug users, 2006-2015



6.7 Summary of crystal methamphetamine trends

- The current availability of crystal methamphetamine was reported to be 'very easy/easy' in 2015
- The availability of crystal methamphetamine declined from 2006 to 2011 before recovering from 2012 to 2015
- The mean price of a gram of crystal methamphetamine declined from $738 in 2014 to $551 in 2015
- The frequent drug users were more likely to say the price of crystal methamphetamine had been decreasing from 2014 to 2015
- The current strength of crystal methamphetamine was described as 'high/medium' in 2015
- The frequent drug users reported the 'same/more' people were using crystal methamphetamine in 2015

7. Ecstasy

7.1 Introduction

The term 'ecstasy' traditionally referred to MDMA (methylenedioxymethamphetamine), but due to greater international control of key MDMA precursors there has been a global shortage of MDMA since the mid-2000s. As a consequence, drugs sold as 'ecstasy' increasingly contain a range of substitute compounds which mimic the effects of MDMA, including BZP (benzylpiperazine), mephedrone (methylmethcathinone), MEC (methylethcathinone), DMAA (dimethylamylamine) and methylone (methylenedioxymethcathinone) (ESR, 2014).

The frequent drug users interviewed for the IDMS reported a decline in the strength of ecstasy in New Zealand from around 2008 (Wilkins, et al., 2011b). Laboratory analysis of 'ecstasy' seized in New Zealand in 2012/2012 confirmed the presence of a range of substitute compounds other than MDMA (ESR, 2014). The availability of substitute compounds from Asia created an opportunity for New Zealand based syndicates to produce locally supplied 'ecstasy'. As a result there was greater availability of lower quality cheap 'ecstasy' pills and increasing use of ecstasy in New Zealand from around 2009 to 2011. The expansion in the local ecstasy market was particularly apparent in Auckland, with the price of an ecstasy tablet declining from $50 in 2009 to $41 in 2010, and the proportion of frequent drug users who purchased ecstasy weekly or more often increasing from 3% in 2009 to 22% in 2011 (Wilkins, et al., 2012b).

The growing domestic supply of 'ecstasy' led to a number of police operations against local ecstasy syndicates in 2011 and 2012. This appears to have particularly disrupted the Auckland 'ecstasy' market where the IDMS found a reduction in availability, increase in price, and decline in strength of ecstasy in 2012 (Wilkins, et al., 2012b). There was also a sharp decline in perceptions of the number of people using ecstasy in Auckland and Christchurch in these years (Wilkins, et al., 2012b).

A final contextual factor influencing the current ecstasy market is the emergence of encrypted 'dark' websites which facilitate the anonymous on-line buying and selling of drugs using decentralised bitcoin currency (e.g. Agora and Evolution) (Van Buskirk et al., 2015). MDMA has fairly consistently been the most commonly purchased drug from dark websites (Van Buskirk et al., 2014; Van Buskirk, et al., 2015), and these websites are reported to offer MDMA at higher purities than is often available from street level drug markets.

The supply of MDMA has reportedly improved in Europe in recent years and this may lead to resurgence in use (EMCDDA, 2016; UNODC, 2012, 2013, 2015b, 2016). Increasing levels of MDMA in ecstasy are thought to be behind the growing preference for ecstasy in Australia (Sindicich & Burns, 2012). The 2014 IDMS found strong regional differences in ecstasy supply, with a sharp increase in the use, availability and strength of ecstasy in Christchurch (Wilkins, et al., 2015). The proportion of frequent drug users from Christchurch who reported ecstasy was 'very easy' to obtain increased from 9% in 2013 to 25% in 2014, and the proportion who had purchased ecstasy weekly or more often increased from 2% in 2013 to 30% in 2014 (Wilkins, et al., 2015). Similarly, the proportion of Christchurch Central detainees who used ecstasy in the past year increased from 14% in 2014 to 24% in 2015 (Wilkins, et al., 2016).

7.2 Knowledge of ecstasy trends

Forty-seven percent of the frequent drug users interviewed for the 2015 IDMS (n=150) indicated they felt confident enough to comment on the price, strength and availability of ecstasy in the previous six months. This included 100% of the frequent ecstasy users (n=118), 22% of the frequent methamphetamine users (n=17), and 15% of the frequent injecting drug users (n=15).

7.3 Drug types perceived to be in ecstasy

In response to the changing composition of ecstasy in recent years, we asked the frequent drug users who answered the ecstasy section to name the drug types they thought were in the ecstasy they had been using in the previous six months. They were read out a list of 11 substitute compounds commonly found in 'ecstasy' tablets. They could name more than one compound if they desired. Seventeen percent of the frequent ecstasy users 'did not know' what was in the ecstasy they had used in 2015. Of those who thought they knew what was in their ecstasy, 95% believed it contained MDMA, 23% caffeine, 19% methamphetamine and 15% BZP (Table 7.1). Twenty-two percent thought their ecstasy contained 'nothing or almost nothing'.

Table 7.1 Drug types thought to be in ecstasy (of the people who thought they knew), 2011-2015

Drug type (%)	2011	2012	2013	2014	2015
	(n=109)	(n=182)	(n=141)	(n=123)	(n=118)
MDMA	89	88	96	92	95
Caffeine	21	38	31	30	23
Nothing/almost nothing	19	22	9	24	22
Methamphetamine	47	31	34	21	19
BZP	48	47	47	29	15
Mephedrone	28	43	26	25	10
Ketamine	29	29	14	16	10
Other research chemicals	5	7	5	6	10
MDPV	2	8	4	5	1
4-MEC	1	4	3	2	0
TFMPP	3	5	1	2	0

7.4 Availability of ecstasy

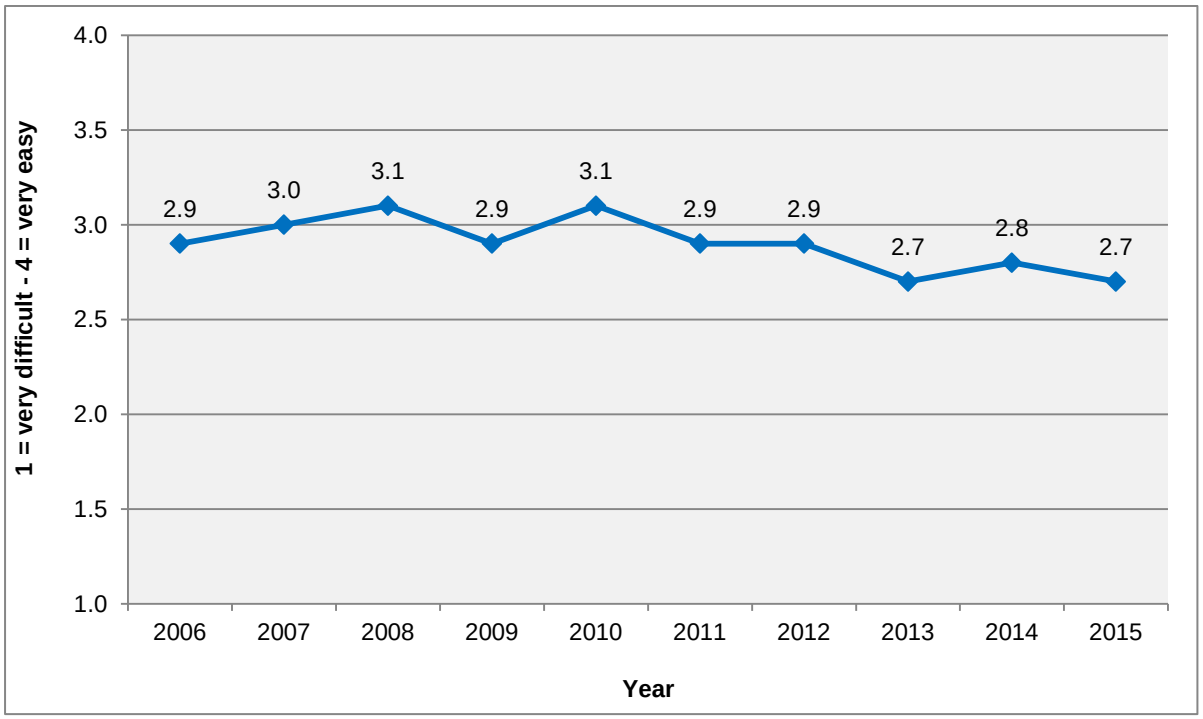
Current availability of ecstasy

The frequent drug users reported the current availability of ecstasy to be 'easy/difficult' in 2015 (Table 7.2). Overall, there was a steadily decline in the current availability of ecstasy from 2006 to 2015 (down from 2.9 to 2.7, $p<0.0001$) (Figure 7.1).

Table 7.2 Current availability of ecstasy by combined frequent drug users, 2006-2015

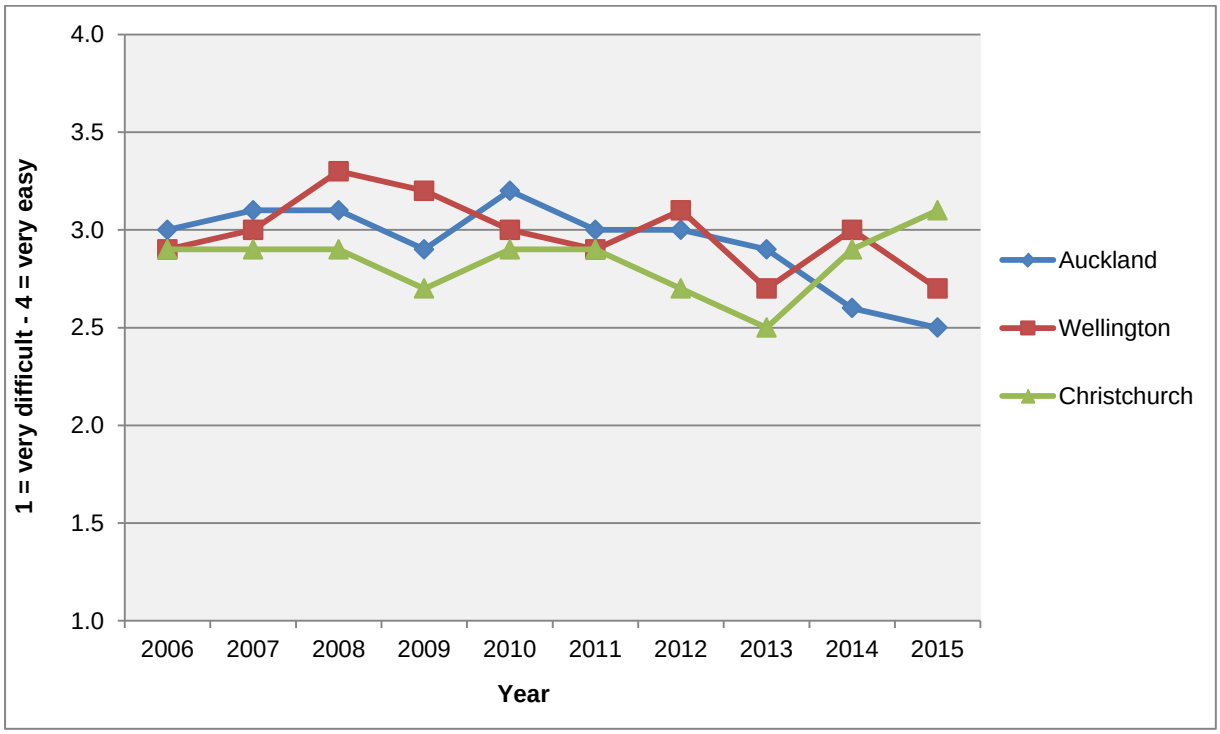
Current availability of ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=200)	Combined modules (n=157)	Combined modules (n=194)	Combined modules (n=1590	Combined modules (n=229)	Combined modules (n=215)	Combined modules (n=181)	Combined modules (n=148)	Combined modules (n=131)	Combined modules (n=143)
Very easy [4]	19%	25%	32%	25%	29%	24%	28%	16%	15%	14%
Easy [3]	54%	54%	46%	46%	53%	47%	39%	46%	54%	49%
Difficult [2]	27%	20%	21%	27%	16%	26%	30%	33%	28%	33%
Very difficult [1]	0%	1%	1%	2%	2%	2%	2%	5%	2%	4%
Average availability score (1=very difficult–4=very easy)	2.9	3.0	3.1	2.9	3.1	2.9	2.9	2.7	2.8	2.7
Overall current status	Easy/ difficult	Easy/ very easy	Easy/ very easy	Easy/ difficult	Easy/ very easy	Easy/ difficult	Easy/ difficult	Easy/ difficult	Easy/ difficult	Easy/ difficult

Figure 7.1 Mean score of the current availability of ecstasy by combined frequent drug users, 2006-2015



The current availability of ecstasy in Auckland declined steadily from 2006 to 2015 (down from 2.9 to 2.5, p<0.0001) (Figure 7.2). The availability of ecstasy in Wellington also declined from 2006 to 2015 (down from 2.9 to 2.7, p=0.0322), and from 2014 to 2015 (down from 3.0 to 2.7, p=0.0386). In 2015, the current availability of ecstasy was higher in Christchurch than in Auckland (3.1 vs. 2.5, p=0.0006).

Figure 7.2 Mean score of the current availability of ecstasy by location, 2006-2015



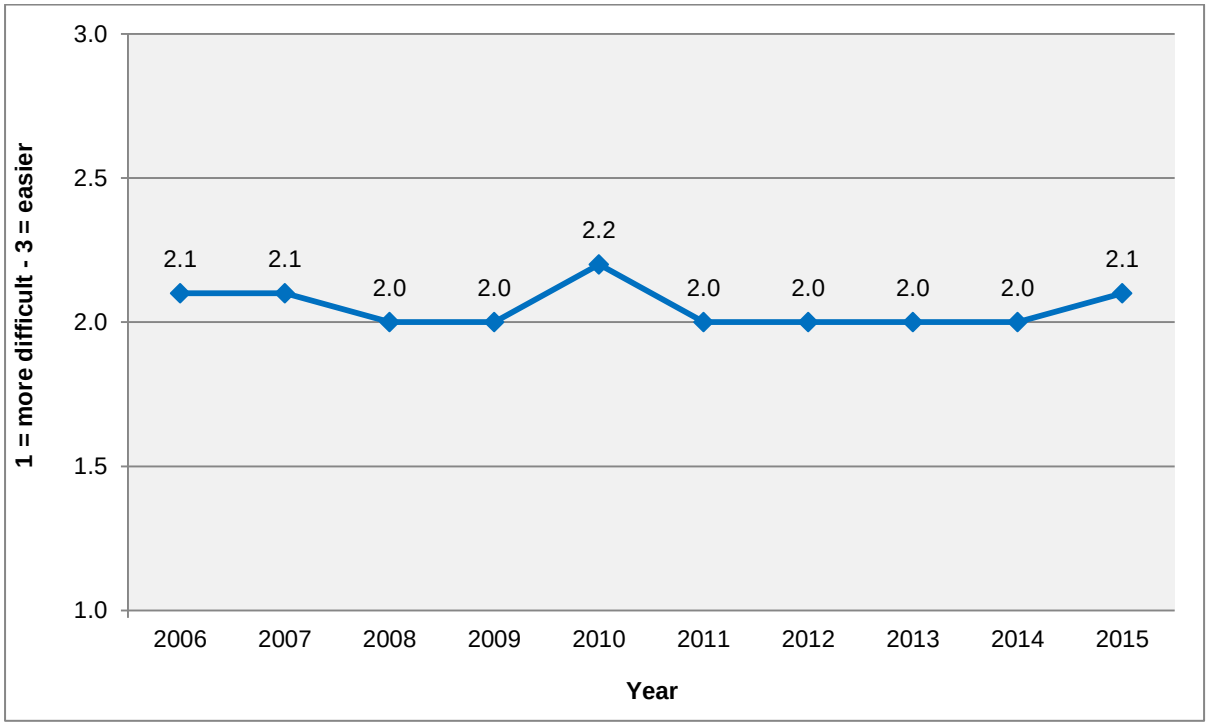
Change in availability of ecstasy

The frequent drug users described the availability of ecstasy as being 'stable/fluctuating' in the previous six months in 2015 (Table 7.3). The frequent drug users had previously reported the availability of ecstasy was becoming easier from 2009 to 2010 (up from 2.0 to 2.2, p=0.0158), and then more difficult from 2010 to 2011 (down from 2.2 to 2.0, p=0.0147) (Figure 7.3).

Table 7.3 Change in availability of ecstasy by combined frequent drug users, 2006-2015

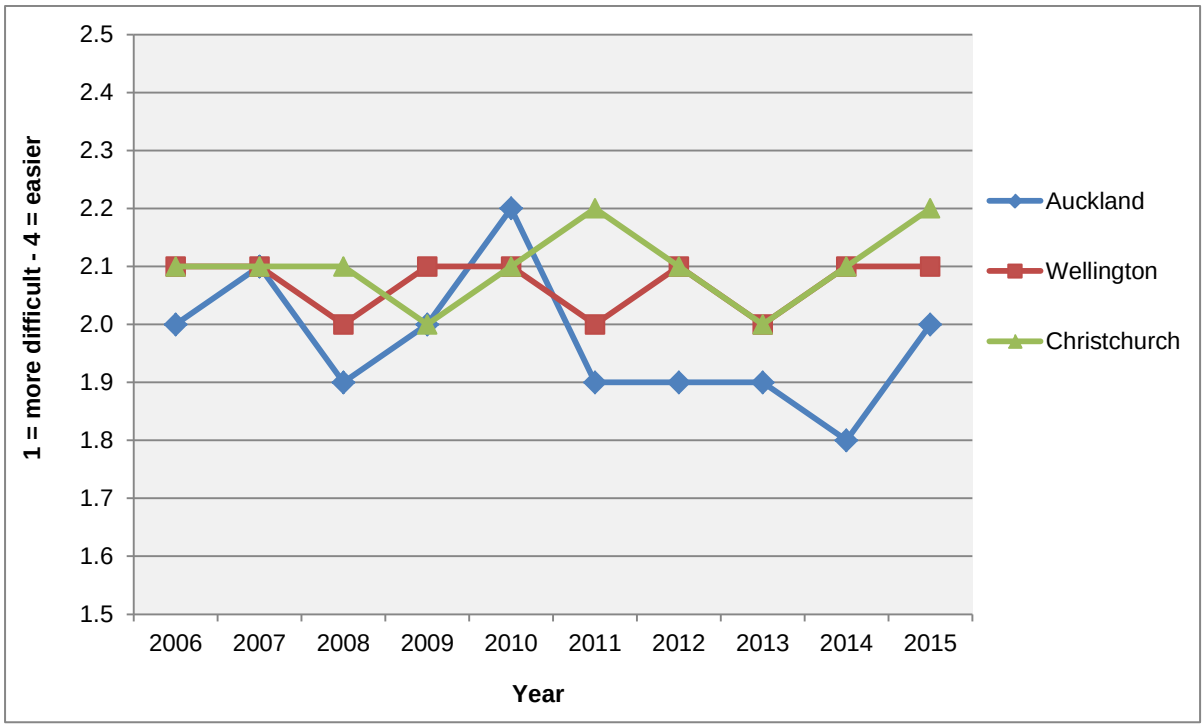
Change in availability of ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=194)	Combined modules (n=154)	Combined modules (n=191)	Combined modules (n=154)	Combined modules (n=223)	Combined modules (n=207)	Combined modules (n=181)	Combined modules (n=147)	Combined modules (n=124)	Combined modules (n=133)
Easier [3]	19%	28%	15%	20%	28%	24%	21%	18%	16%	20%
Stable [2]	44%	48%	54%	47%	41%	33%	46%	46%	48%	43%
Fluctuates [2]	24%	6%	14%	12%	18%	20%	12%	15%	19%	28%
More difficult [1]	13%	18%	17%	21%	13%	24%	21%	22%	16%	9%
Average change in availability score (1=more difficult – 3=easier)	2.1	2.1	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.1
Overall recent change	Stable/ fluctuates	Stable/ easier	Stable/more difficult	Stable/more difficult	Stable/ easier	Stable/more difficult	Stable/more difficult	Stable/more difficult	Stable/ fluctuates	Stable/ fluctuates

Figure 7.3 Mean score of the change in the availability of ecstasy by combined frequent drug users, 2006-2015



Overall, the frequent drug users in Auckland were more likely to report the availability of ecstasy had become 'more difficult' from 2006 to 2015 (down from 2.0 to 1.9), and this decline was close to being statistically significant (p=0.0552) (Figure 7.4). The frequent drug users in Auckland had previously reported an increase in the availability of ecstasy from 2009 to 2010 (up from 2.0 to 2.2, p=0.0138), and this was followed by an equally dramatic fall from 2010 to 2011 (down from 2.2 to 1.9, p=0.0207).

Figure 7.4 Mean score of the change in the availability of ecstasy by location, 2006-2015



7.5 Price of ecstasy

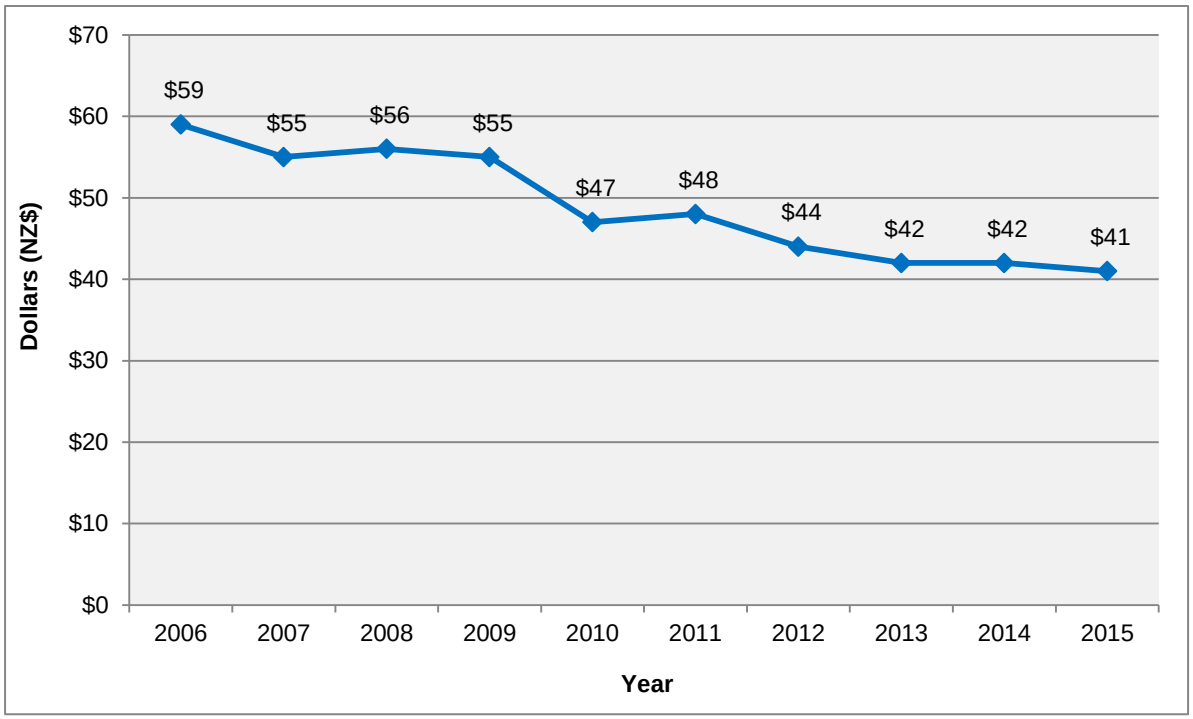
Current price of ecstasy

The median price of a tablet of ecstasy was $40 in 2015 (Table 7.4). The mean price of a tablet of ecstasy had declined steadily from $59 in 2006 to $41 in 2015 (p<0.0001) (Figure 7.5).

Table 7.4 Current price of ecstasy (NZD) by combined frequent drug users, 2006-2015

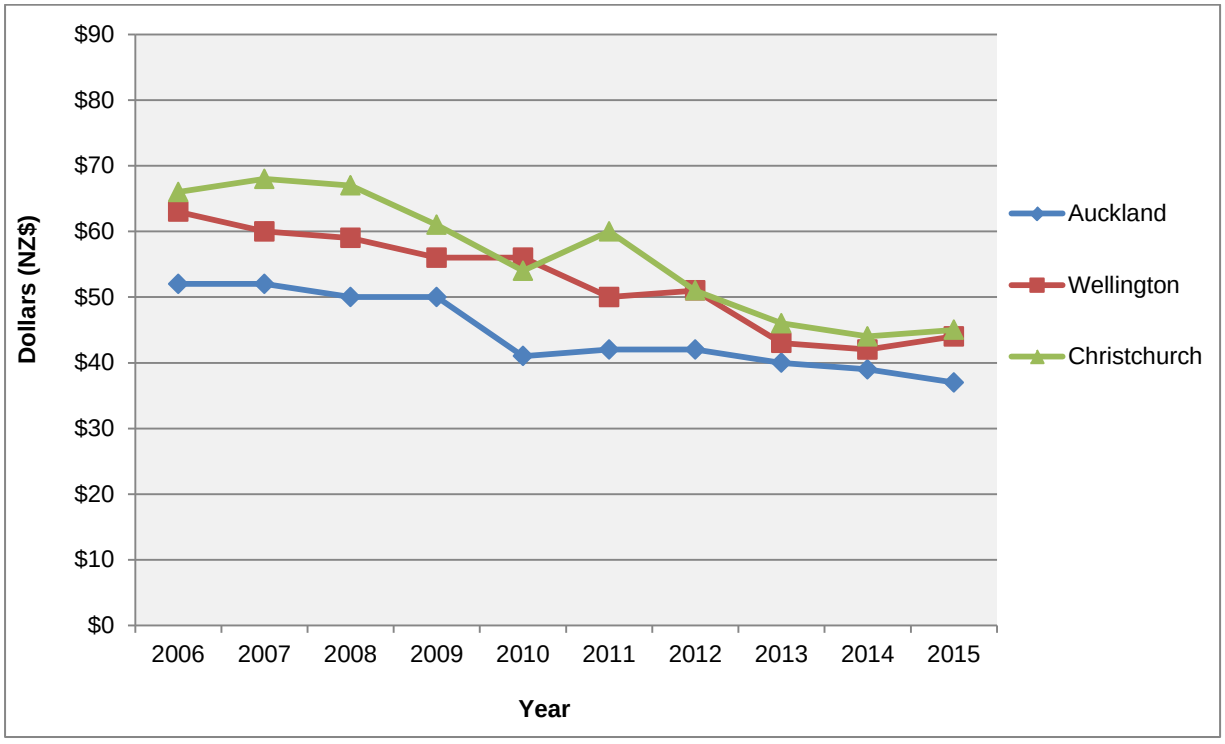
Current price of ecstasy ($)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=190)	Combined modules (n=122)	Combined modules (n=127)	Combined modules (n=122)	Combined modules (n=143)	Combined modules (n=180)	Combined modules (n=162)	Combined modules (n=121)	Combined modules (n=101)	Combined modules (n=101)
Median (mean) price tablet	$60 ($59)	$60 ($55)	$60 ($56)	$60 ($55)	$43 ($47)	$50 ($48)	$40 ($47)	$40 ($42)	$40 ($42)	$40 ($41)

Figure 7.5 Mean price of a tablet of ecstasy by combined frequent drug users, 2006-2015



The mean price of an ecstasy tablet had declined from 2006 to 2015 in Auckland (down from $52 to $37, p<0.0001), Wellington ($63 to $44 p<0.0001) and Christchurch ($66 to $45, p<0.0001) (Figure 7.6). In 2015, the mean price of a tablet of ecstasy was lower in Auckland than in Christchurch ($37 vs. $45, p=0.0205), and lower in Auckland than in Wellington ($37 vs. $44, p=0.0259).

Figure 7.6 Mean price of a pill of ecstasy by location, 2006-2015



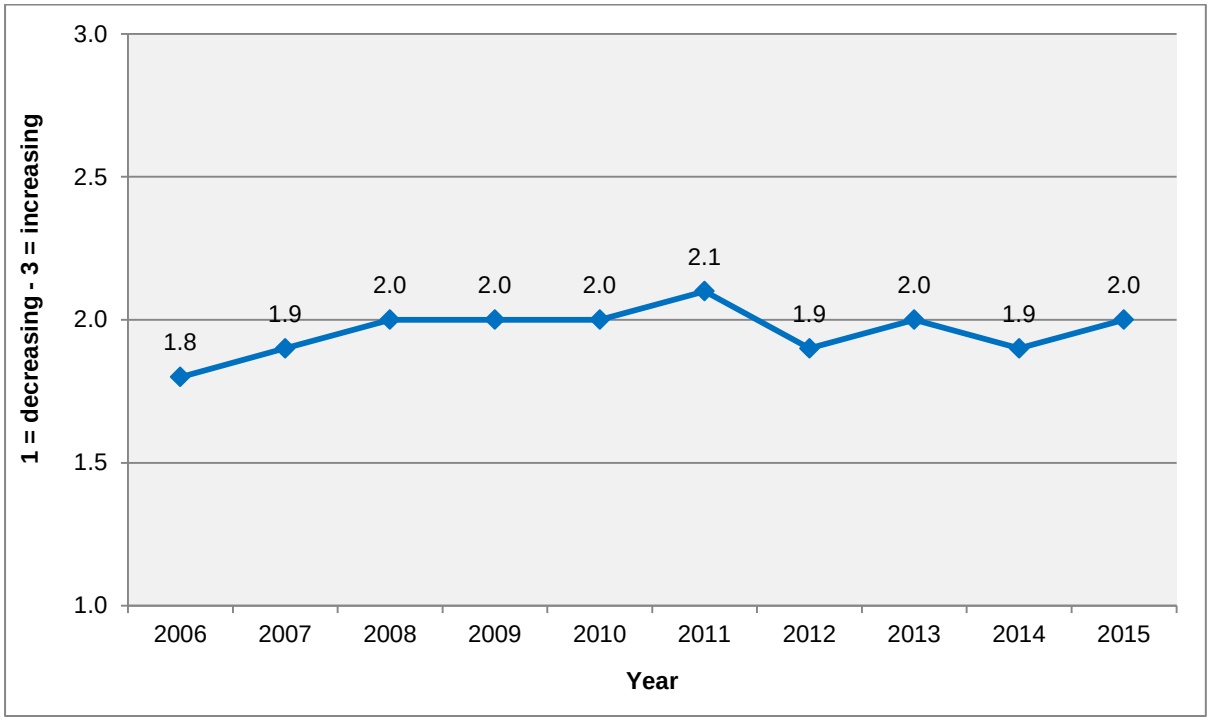
Change in price of ecstasy

The frequent drug users reported the price of ecstasy had been 'stable/fluctuating' over the previous six months in 2015 (Table 7.5). A higher proportion of frequent drug users described the price of ecstasy as 'stable' over the past nine years (up from 1.8 in 2006 to 2.0 in 2015, p=0.0452) (Figure 7.7).

Table 7.5 Change in the price of ecstasy in the past six months by combined frequent drug users, 2006-2015

Change in price of ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=187)	Combined modules (n=158)	Combined modules (n=194)	Combined modules (n=156)	Combined modules (n=224)	Combined modules (n=205)	Combined modules (n=177)	Combined modules (n=143)	Combined modules (n=125)	Combined modules (n=132)
Increasing [3]	7%	8%	12%	12%	17%	23%	11%	9%	7%	8%
Fluctuating [2]	13%	14%	20%	16%	14%	18%	11%	19%	16%	16%
Stable [2]	58%	64%	55%	60%	51%	44%	62%	63%	63%	67%
Decreasing [1]	22%	14%	13%	13%	18%	15%	17%	8%	14%	9%
Average change in price score (1=decreasing – 3=increasing)	1.8	1.9	2.0	2.0	2.0	2.1	1.9	2.0	1.9	2.0
Overall recent change	Stable/ decreasing	Stable/ Fluctuating/ decreasing	Stable/ fluctuating	Stable/ fluctuating	Stable/ decreasing	Stable/ increasing	Stable/ decreasing	Stable/ fluctuating	Stable/ fluctuating	Stable/ fluctuating

Figure 7.7 Mean score of the change in the price of ecstasy in the past six months by combined frequent drug users, 2006-2015



The frequent drug users in Wellington were more likely to say the price of ecstasy was increasing from 2006 to 2015 (up from 1.9 to 2.1, p=0.0414).

7.6 Strength of ecstasy

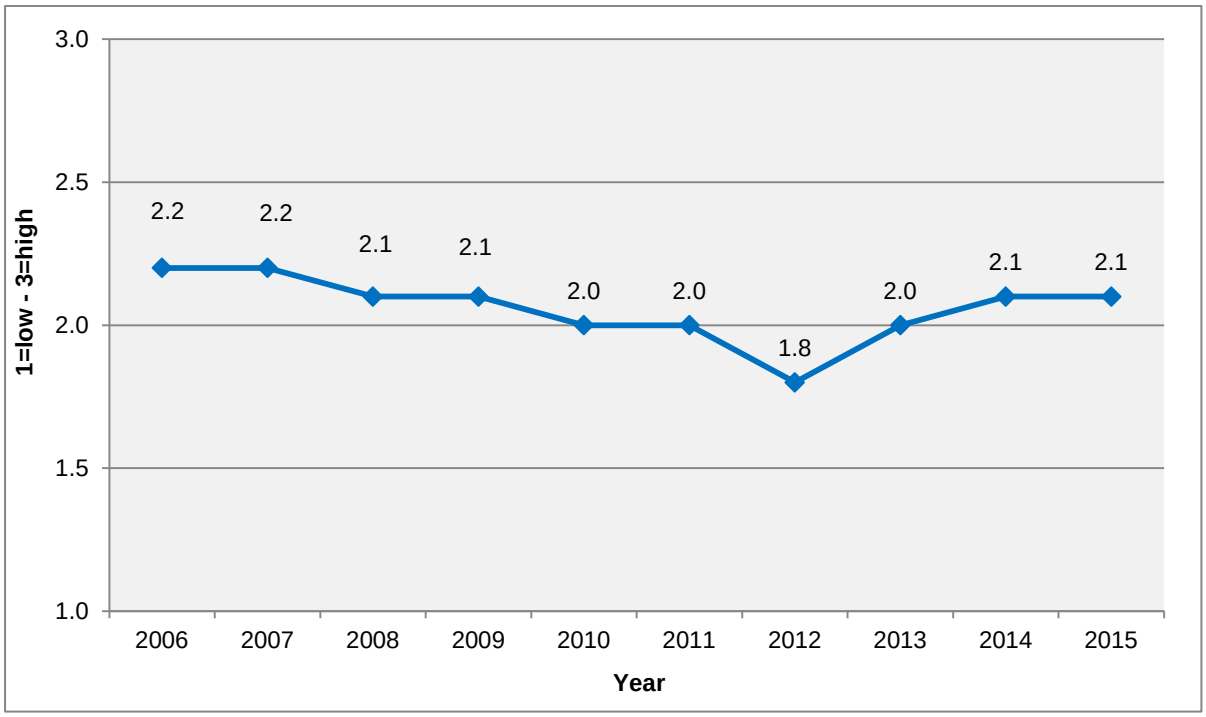
Current strength of ecstasy

The frequent drug users reported the current strength of ecstasy to be 'medium/fluctuating' in 2015 (Table 7.6). The current strength of ecstasy had previously declined sharply from 2006 to 2012 (down from 2.2 to 1.8, p<0.0001), before recovering in 2014 and 2015 (Figure 7.8).

Table 7.6 Current strength of ecstasy by combined frequent drug users, 2006-2015

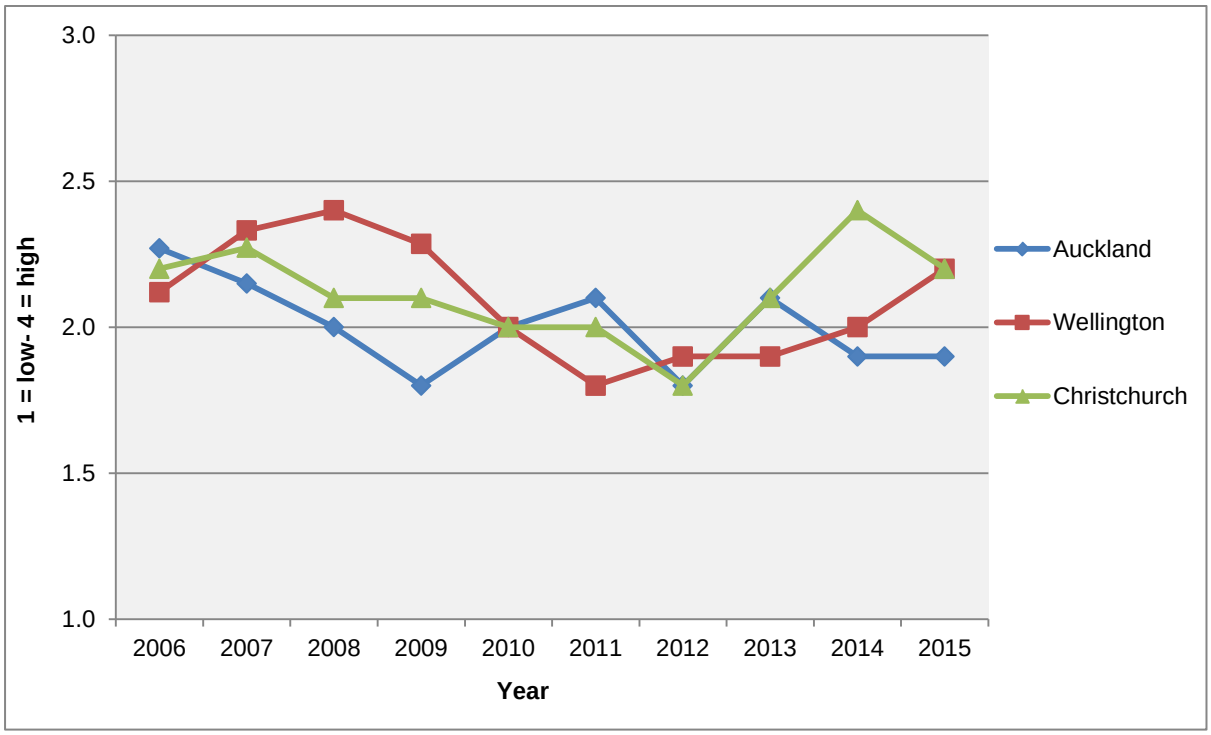
Current strength of ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=191)	Combined modules (n=156)	Combined modules (n=191)	Combined modules (n-157)	Combined modules (n=221)	Combined modules (n=213)	Combined modules (n=179)	Combined modules (n=147)	Combined modules (n=126)	Combined modules (n=145)
High [3]	28%	31%	26%	25%	23%	15%	17%	24%	27%	23%
Medium [2]	32%	29%	30%	28%	29%	30%	23%	25%	22%	37%
Fluctuates [2]	32%	33%	32%	27%	27%	23%	28%	26%	30%	24%
Low [1]	8%	8%	12%	19%	21%	23%	33%	25%	21%	16%
Average strength score (1=low – 3=high)	2.2	2.2	2.1	2.1	2	2	1.8	2	2.1	2.1
Overall current status	Fluctuates/ medium	Fluctuates/ high	Fluctuates/ medium	Medium/ fluctuates	Medium/ fluctuates	Medium/low	Low/ fluctuating	Fluctuates/ medium/low	Fluctuates/ high	Medium/ fluctuates

Figure 7.8 Mean score of the current strength of ecstasy by combined frequent drug users, 2006-2015



The current strength of ecstasy had previously declined from 2006 to 2012 in Auckland (down from 2.3 to 1.8, p=0.0003), Wellington (down from 2.1 to 1.9, p<0.0001) and in Christchurch (down from 2.2 to 1.8, p=0.0006) (Figure 7.11). Overall, the current strength of ecstasy had declined in Auckland from 2006 to 2015 (down from 2.3 to 1.9, p=0.0003). The current strength of ecstasy slightly increased in Wellington from 2006 to 2015 (up from 2.1 in 2006 to 2.2 in 2015, p=0.0003). The frequent drug users from Christchurch had previously reported a dramatic recovery in the strength of ecstasy from 2012 to 2013 (up from 1.8 to 2.1, p=0.0042) (Figure 7.9). In 2015, the strength of ecstasy was reported to be lower in Auckland than in Christchurch (1.9 vs. 2.2, p=0.0330), and lower in Auckland than in Wellington (1.9 vs. 2.2, p=0.0141).

Figure 7.9 Mean score of the current strength of ecstasy by location, 2006-2015



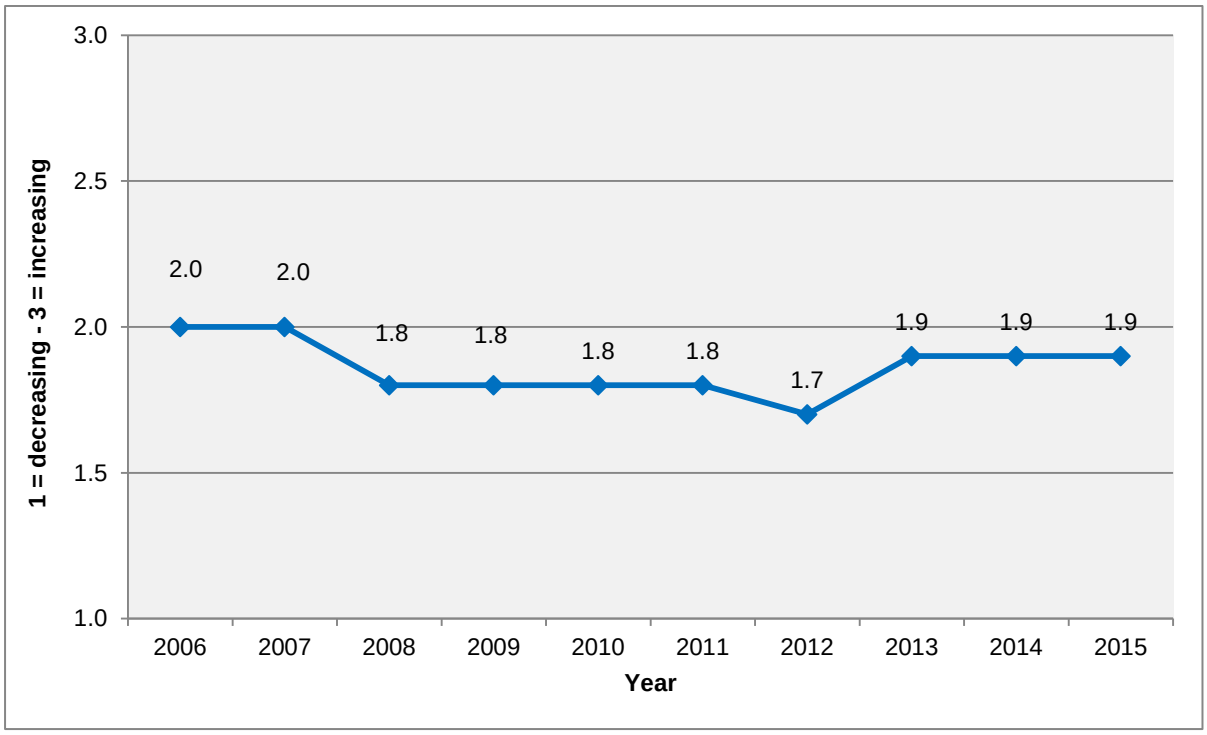
Change in strength of ecstasy

The strength of ecstasy was reported to have been 'stable/fluctuating' over the previous six months in 2015 (Table 7.7). The frequent drug users had previously reported the current strength of ecstasy as decreasing from 2006 to 2012 (down from 2.0 to 1.7, $p<0.0001$), followed by a recovery in strength from 2012 to 2013 (up from 1.7 to 1.9, $p=0.0002$) (Figure 7.10).

Table 7.7 Change in strength of ecstasy (MDMA) by combined frequent drug users, 2006-2015

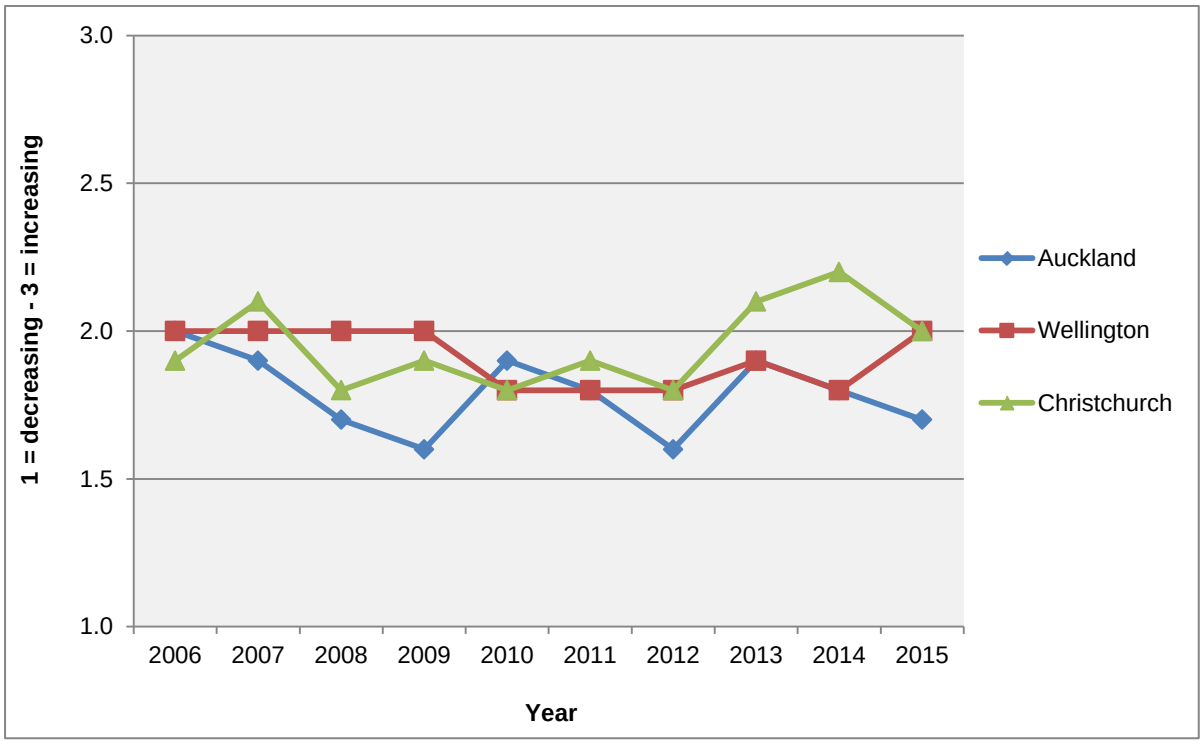
Change in strength of ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=102)	Combined modules (n=68)	Combined modules (n=86)	Combined modules (n=64)	Combined modules (n=211)	Combined modules (n=197)	Combined modules (n=174)	Combined modules (n=141)	Combined modules (n= 122)	Combined modules (n= 133)
Increasing [3]	9%	10%	8%	9%	11%	10%	6%	12%	11%	8%
Stable [2]	36%	39%	29%	31%	33%	28%	28%	38%	32%	40%
Fluctuating [2]	42%	36%	40%	31%	28%	34%	31%	32%	33%	31%
Decreasing [1]	13%	15%	23%	29%	28%	27%	36%	18%	24%	21%
Average change in strength score (1=decreasing – 3=increasing)	2.0	2.0	1.8	1.8	1.8	1.8	1.7	1.9	1.9	1.9
Overall recent change	Fluctuates/ stable	Stable/ fluctuates	Fluctuates/ stable	Fluctuates/ stable	Stable/ fluctuates	Fluctuates/ stable	Decreasing/ fluctuates	Stable/ fluctuates	Fluctuates/ stable	Stable/ fluctuates

Figure 7.10 Mean score of the change in strength of ecstasy by combined frequent drug users, 2006-2015



Overall, the strength of ecstasy was reported to have been declining in Auckland from 2006 to 2015 (down from 2.0 to 1.7, p=0.0070) (Figure 7.11). The strength of ecstasy declined in Wellington from 2006 to 2014 (down from 2.0 to 1.8, p=0.0112). The frequent drug users from Christchurch had previously reported a dramatic recovery in the strength of ecstasy from 2012 to 2013 (up from 1.8 to 2.1, p=0.0042).

Figure 7.11 Mean score of the change in strength of ecstasy by location, 2006-2015



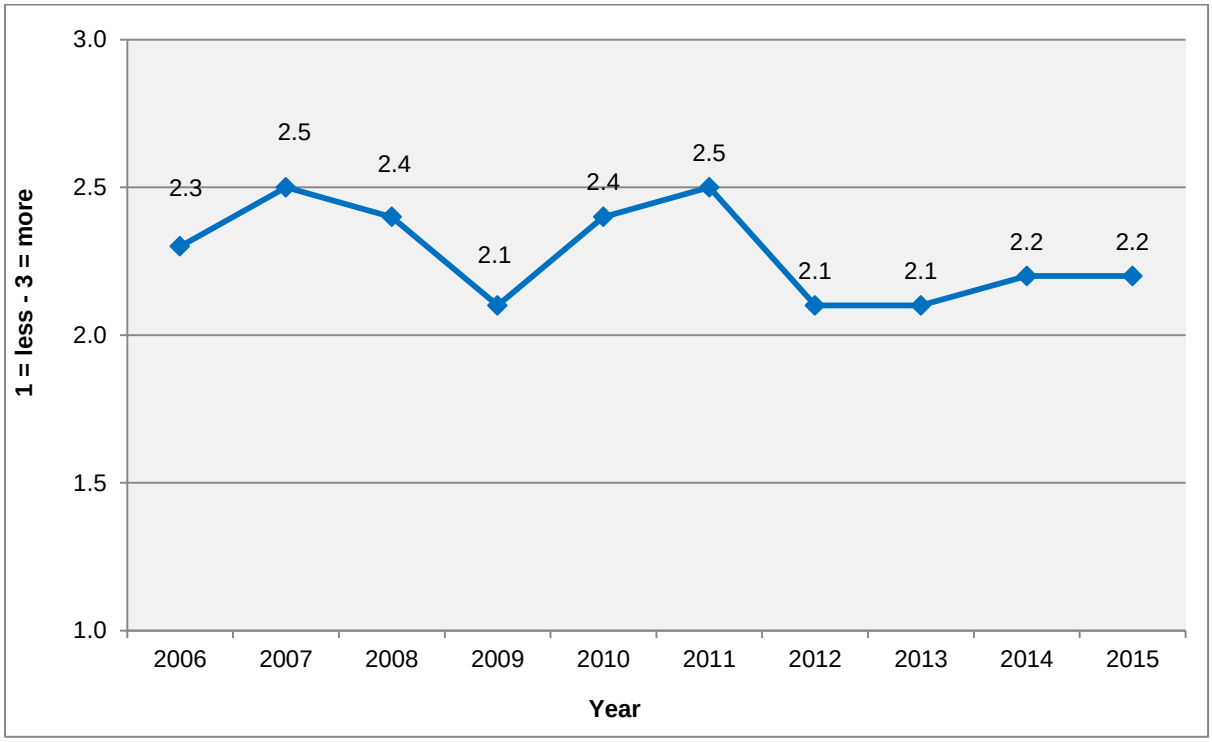
7.7 Perceptions of the number of people using ecstasy

The number of people using ecstasy was reported to be the 'same/more' in the previous six months in 2015 (Table 7.8). Overall, a lower proportion of frequent drug users reported that 'more' people were using ecstasy from 2006 to 2015 (down from 2.3 to 2.2, p=0.0001) (Figure 7.12). The frequent drug users had previously reported that an increasing number of people were using ecstasy from 2009 to 2010 (up from 2.1 to 2.4, p=0.0003), followed by a lower proportion reporting that 'more' people were using ecstasy from 2011 to 2012 (down from 2.5 to 2.1, p<0.0001).

Table 7.8 Perceptions of the number of people using ecstasy by combined frequent drug users, 2006-2015

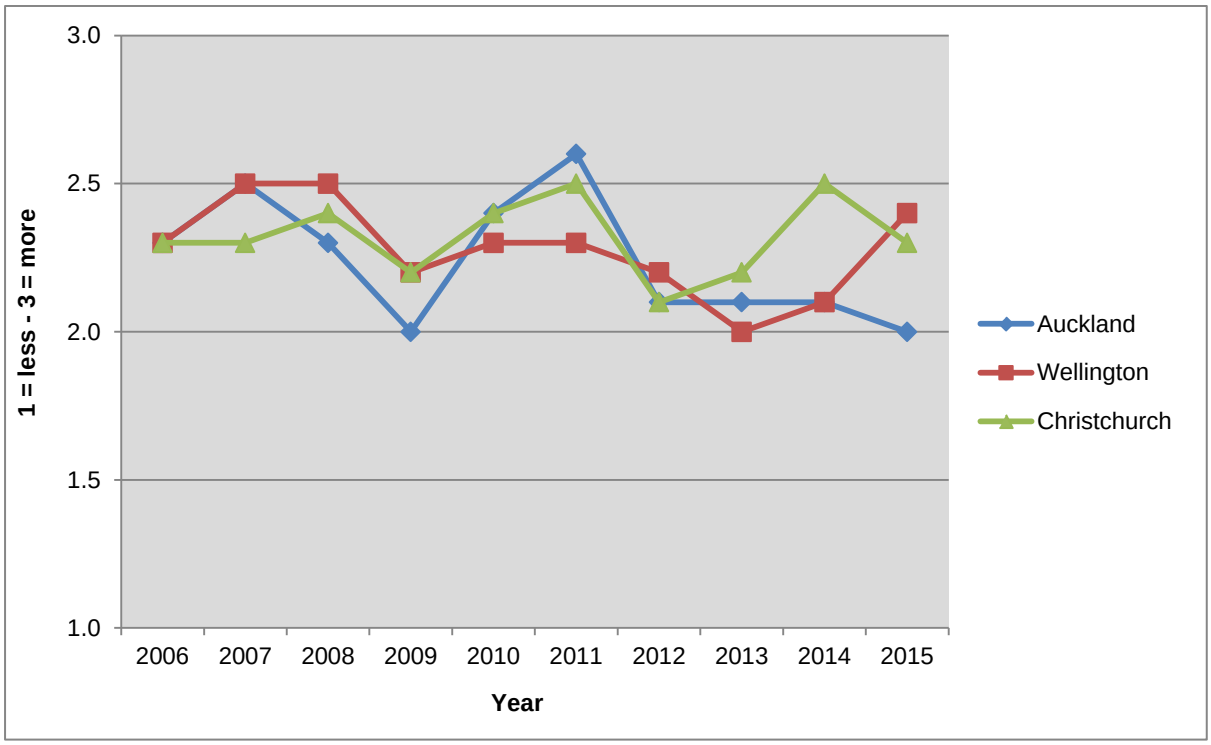
Number of people using ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=196)	Combined modules (n=159)	Combined modules (n=194)	Combined modules (n=156)	Combined modules (n=226)	Combined modules (n=218)	Combined modules (n=181)	Combined modules (n=149)	Combined modules (n=131)	Combined modules (n=147)
More [3]	39%	51%	44%	27%	54%	58%	35%	32%	33%	39%
Same [2]	50%	43%	48%	60%	30%	31%	45%	44%	50%	43%
Less [1]	11%	6%	8%	14%	16%	12%	20%	24%	17%	18%
Average number of people using score (1=less – 3=more)	2.3	2.5	2.4	2.1	2.4	2.5	2.1	2.1	2.2	2.2
Overall recent change	Same/ more	More/ same	Same/more	Same/ more	More/same	More/same	Same/more	Same/more	Same/more	Same/more

Figure 7.12 Mean score of perceptions of the number of people using ecstasy by combined frequent drug users, 2006-2015



Overall, a lower proportion of frequent drug users in Auckland reported 'more' people were using ecstasy from 2006 to 2014 (down from 2.3 to 2.0, p=0.0010) (Figure 7.13). The frequent drug users in Auckland had previously reported an increasing number of people were using ecstasy from 2009 to 2010 (2.0 to 2.4, p=0.0009), followed by a lower proportion using 'more' ecstasy from 2011 to 2012 (down from 2.6 to 2.1, p=0.0004). Overall, less people were reported to be using ecstasy in Wellington from 2006 to 2015 (p=0.0074). A lower proportion of frequent drug users in Christchurch had previously reported that 'more' people were using ecstasy from 2011 to 2012 (down from 2.5 to 2.1, p=0.0027). In 2015, 'more' people were reported to be using ecstasy in Wellington than in Auckland (2.4 vs. 2.0, p=0.0292).

Figure 7.13 Mean score of perceptions of the number of people using ecstasy by location, 2006-2015



7.8 Purchase of ecstasy

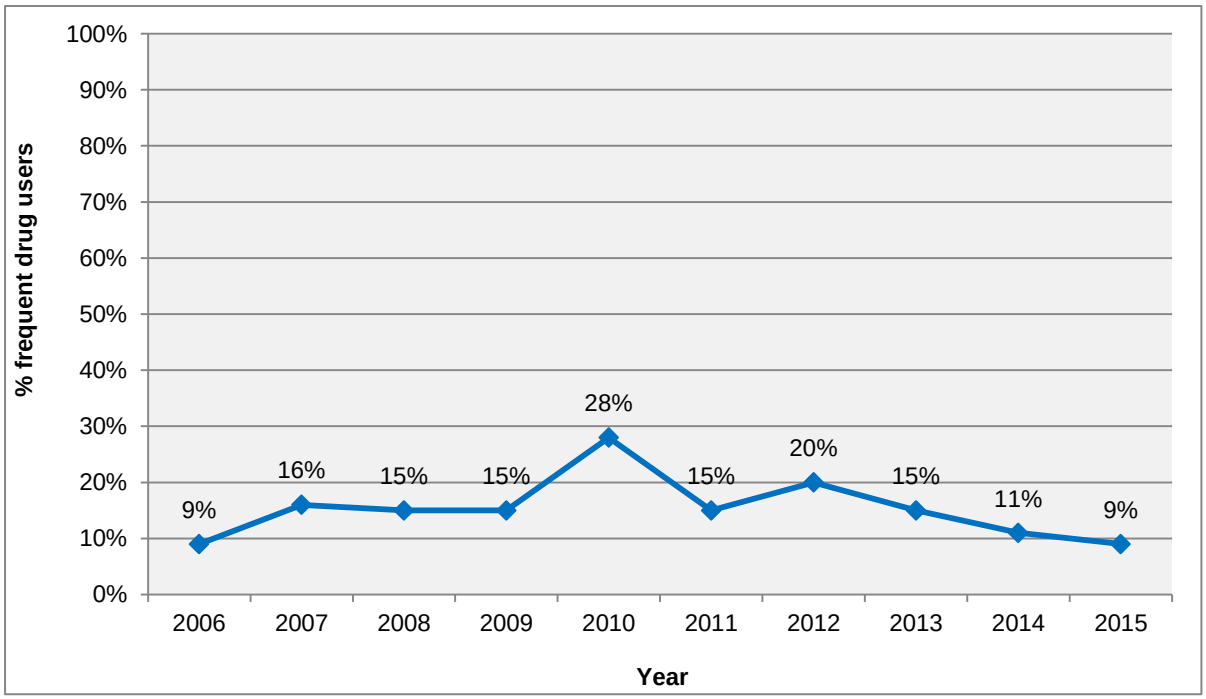
Frequency of purchase of ecstasy

Ninety-one percent of the frequent drug users who answered the ecstasy section had purchased ecstasy in the previous six months in 2015. Nine percent had done so weekly or more often over the past six months in 2015 (Table 7.9). The proportion of the frequent drug users who reported purchasing ecstasy weekly or more often had previously increased from 15% in 2009 to 28% in 2010 (p=0.0045), before declining from 28% in 2010 to 15% in 2011 (p=0.0015) (Figure 7.14).

Table 7.9 Frequency of purchase of ecstasy in past six months by combined frequent drug users, 2006-2015

Frequency purchase in past six months (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=160)	Combined modules (n=127)	Combined modules (n=186)	Combined modules (n=140)	Combined modules (n=196)	Combined modules (n=187)	Combined modules (n=166)	Combined modules (n=139)	Combined modules (n=116)	Combined modules (n=128)
1-2 times	22	22	17	22	23	23	18	26	22	22
3-4 times	28	21	26	34	17	25	22	25	25	23
Once per month	21	27	19	18	15	17	26	12	22	28
Twice per month	20	15	23	11	17	21	15	23	21	18
Once per week	8	13	13	14	18	12	14	10	6	7
2-3 times per week	1	1	1	1	10	3	4	5	3	1
4-5 times per week	0	2	1	0	0	0	0	0	2	1
Once per day	0	0	0	0	0	0	1	0	0	0
More than once per day	0	0	0	0	0	0	1	0	0	0

Figure 7.14 Proportion of frequent drug users who purchased ecstasy weekly or more often, 2006-2015



There had previously been a dramatic increase in the proportion from Auckland who purchased ecstasy weekly or more often from 3% in 2009 compared to 46% in 2010 ($p<0.0001$), followed by a decrease from 46% in 2010 to 22% in 2011 ($p=0.0008$).

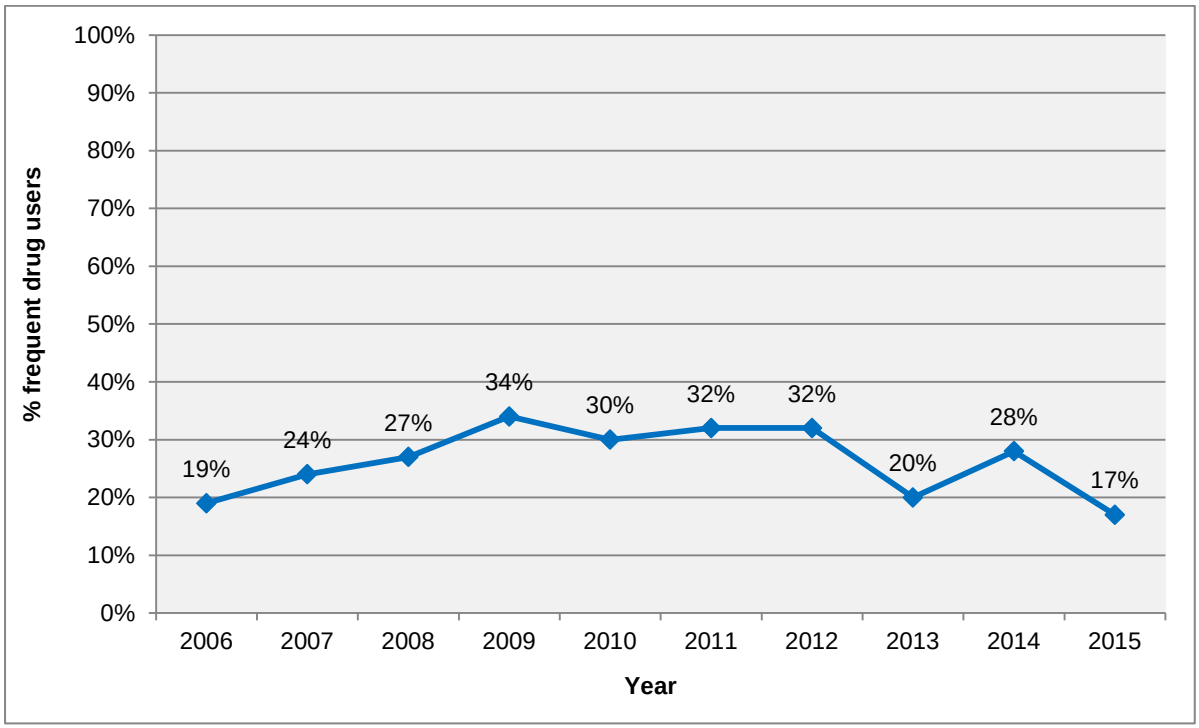
Time taken to purchase ecstasy

Seventeen percent of the frequent drug users who had purchased ecstasy in the past six months were able to do so in one hour or less in 2015 (Table 7.10). Overall, there was no statistically significant change in the proportion of frequent drug users who were able to purchase ecstasy in one hour or less from 2006 to 2015 (Figure 7.15). The proportion of frequent drug users who were able to purchase ecstasy in one hour or less had previously increased from 19% in 2006 to 34% in 2009, before decreasing from 32% in 2012 to 20% in 2013 ($p=0.0198$).

Table 7.10 Time taken to purchase ecstasy by combined frequent drug users, 2006-2015

Time to purchase (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=158)	Combined modules (n=126)	Combined modules (n=186)	Combined modules (n=139)	Combined modules (n=196)	Combined modules (n=187)	Combined modules (n=165)	Combined modules (n=136)	Combined modules (n=117)	Combined modules (n=127)
Weeks	6	5	4	4	4	5	5	10	4	6
Days	37	37	34	31	22	18	28	18	20	32
About one day	24	18	22	12	26	28	18	34	31	25
Hours	14	16	13	17	19	17	16	19	17	20
One Hour	11	14	11	22	14	22	18	15	18	10
Less than 20 mins	8	10	16	14	16	10	14	5	9	7

Figure 7.15 Proportion of frequent drug users who could purchase ecstasy in one hour or less, 2006-2015



The proportion of frequent drug users in Christchurch who could purchase ecstasy in one hour or less decreased from 39% in 2014 to 16% in 2015, and this decrease was close to being statistically significant (p=0.0537).

Location of purchase of ecstasy

Seventy-six percent of the frequent drug users had purchased ecstasy from a 'private house', 30% had purchased ecstasy from an 'agreed public location', and 19% had purchased it from a 'pub, bar or club' in 2015 (Table 7.11). There were increases from 2009 to 2015 in the proportion of frequent drug users who purchased ecstasy from 'public area like a park' (up from 2% to 7%, p=0.0299) and from an educational institution (up from 0% to 10%, p=0.0017). The proportion purchasing ecstasy from a 'private house' decreased from 88% in 2014 to 76% in 2015 (p=0.0236). The proportion who purchased ecstasy from the internet increased from <1% in 2011 to 10% in 2014 and 2015.

Table 7.11 Location from which ecstasy purchased in the past six months by combined frequent drug users, 2009-2015

Location (%)	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=139)	Combined modules (n=184)	Combined modules (n=187)	Combined modules (n=164)	Combined modules (n=134)	Combined modules (n=115)	Combined modules (n=129)
Private house	83	82	68	85	75	88	76
Agreed public location	23	33	31	30	29	29	30
Pub/bar/club	13	17	33	31	29	21	19
Internet	0	2	<1	4	7	10	10
Educational institute	0	4	12	2	7	9	10
Street market	5	4	6	8	5	7	10
Public area (e.g. park)	2	9	10	11	19	9	7
Work	3	6	7	8	4	4	7
'Tinny' house	3	3	3	6	5	3	2

Types of sellers of ecstasy

Seventy-one percent of the frequent drug users had purchased ecstasy from a 'friend', 60% had purchased from a 'social acquaintance', and 37% from a 'drug dealer' in 2015 (Table 7.12). The proportion who had purchased ecstasy from a 'partner/family member' declined from 8% in 2009 to 3% in 2015 (p=0.0010). The proportion of frequent drug users who had purchased ecstasy from a 'social acquaintance' increased from 40% in 2009 to 60% in 2015 (p=0.0002).

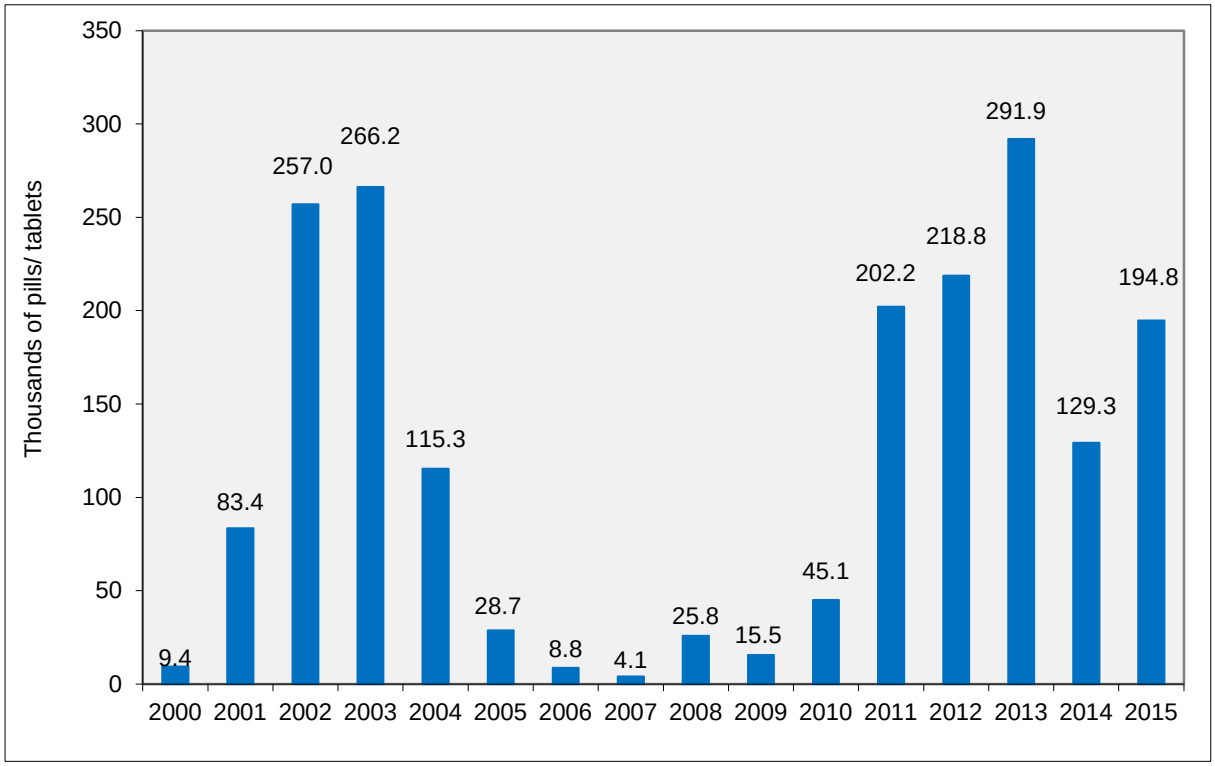
Table 7.12 People from whom ecstasy purchased in the past six months by combined frequent drug users, 2009-2015

Type of person (%)	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=140)	Combined modules (n=189)	Combined modules (n=185)	Combined modules (n=165)	Combined modules (n=136)	Combined modules (n=115)	Combined modules (n=128)
Friend	79	76	77	70	63	78	71
Social acquaintance	40	51	46	52	53	61	60
Drug dealer	50	38	38	46	51	41	37
Gang member/associate	9	6	8	10	6	5	9
Partner/family member	8	12	8	11	5	3	3

7.9 Seizures of ecstasy

Seizures of ecstasy made by the New Zealand Police and New Zealand Customs Service increased dramatically from 2001 onwards and remained high until 2004. Ecstasy seizures then declined to a low level for the next five years (Figure 7.16). MDMA became difficult to obtain during this time and seizures of 'ecstasy' were increasingly found to contain a range of substitute compounds. There was a dramatic increase in seizures of these 'ecstasy' substitutes in 2011 and 2012 following a number of law enforcement operations against local 'ecstasy' syndicates. For example, 111,881 tablets were seized in one operation against an Auckland based syndicate in late 2011 (NDIB, 2013). Large seizures of 'ecstasy' powders and pills were made at the border in 2013 by the New Zealand Customs Service (NDIB, 2014). The quantity of ecstasy seized in 2015 (195,000 equivalent pills) was 51% higher than the amount seized in 2014.

Figure 7.16 Thousands of (equivalent) ecstasy tablets seized in New Zealand, 2000-2015



Source: NDIB, 2016

7.10 Summary of ecstasy trends

- The availability of ecstasy steadily declined from 2006 to 2015, with a more substantial decline previously reported from 2012 to 2013
- The availability of ecstasy declined in Auckland and Wellington from 2006 to 2015
- The availability of ecstasy in Christchurch had previously declined from 2006 to 2013, but has since recovered from 2013 to 2015
- The mean price of a tablet of ecstasy declined from $59 in 2006 to $41 in 2015
- The mean price of a tablet of ecstasy declined from 2006 to 2015 in Auckland (from $52 to $37), Wellington ($63 to $44) and Christchurch ($66 to $45)
- The strength of ecstasy declined from 2006 to 2012, but recovered from 2012 to 2015
- The strength of ecstasy has increased sharply in Christchurch in recent years
- An increasing proportion of frequent drug users said 'more' people were using ecstasy from 2009 to 2011; a lower proportion said 'more' people were using ecstasy from 2012 to 2015
- The proportion of frequent drug users who were able to purchase ecstasy in one hour or less had previously increased from 19% in 2006 to 34% in 2009, before decreasing to 20% in 2013 and 17% in 2015
- The proportion of frequent drug users in Christchurch who could purchase ecstasy in one hour or less decreased from 39% in 2014 to 16% in 2015
- There were increases from 2009 to 2015 in the proportion of frequent drug users who purchased ecstasy from a 'public area like a park' and an 'education institution'
- The proportion of frequent drug users who purchased ecstasy from the internet increased from <1% in 2011 to 10% in 2014 and 2015
- The proportion of frequent drug users who had purchased ecstasy from a 'social acquaintance' increased from 40% in 2009 to 60% in 2015
- The quantity of ecstasy seized in 2015 (i.e. 195,00 equivalent tablets) was 51% higher than quantity seized in 2014

8. Cannabis

8.1 Introduction

Cannabis use is associated with a number of health risks and related developmental and social problems, including respiratory illness, low educational achievement, mental illness, drug dependency and vehicle crashes (Hall et al., 2016; Room et al., 2010). While cannabis is the most widely used illegal drug worldwide (UNODC, 2015b), prevalence of use has declined in a number of Western countries over the past decade or so (AIHW, 2008, 2011; EMCDDA, 2009; Wilkins & Sweetsur, 2008). These declines have been attributed to concerns about the health risks of smoking, the declining social acceptability of smoking, and the increase in the availability of synthetic stimulants (UNODC, 2012, 2013).

The supply of cannabis in New Zealand is almost entirely met through domestic cultivation, either via outdoor cultivation or indoor cannabis growing operations (Wilkins et al., 2002a; Wilkins & Casswell, 2002, 2003; Wilkins et al., 2005b; Yska, 1990). Many users receive cannabis for 'free' during group consumption sessions, while heavier users often support their use financially through selling cannabis (Wilkins & Sweetsur, 2006). Cannabis is largely sold via personal networks, but in New Zealand it is also sold from semi-public drug houses, known as 'tinny' houses, and these often attract adolescent users (Wilkins et al., 2005a). The principal enforcement strategy against cannabis in New Zealand is the 'National Cannabis and Crime Operation' (NCCO) which conducts annual field operations to destroy clandestine cannabis plantations before they are harvested. These operations have achieved fairly high seizure rates (e.g. 26% in 2009) (Wilkins & Sweetsur, 2011c). The illegal market for cannabis in New Zealand remains significant. In the mid-2000s, it was estimated to be $131-$190 million (NZD) per year (Wilkins & Casswell, 2002; Wilkins, et al., 2005b).

There have been anecdotal reports in recent years of a 'cannabis drought' in New Zealand, particularly in the South Island. Findings from the 2014 IDMS provide some support for these claims (Wilkins, et al., 2015). The current availability of cannabis declined from 2013 to 2014, with a particularly marked decline in Christchurch. The frequent drug users have reported modest declines in cannabis use in recent years. NZ-ADUM has also found a decline in cannabis use among police detainees, down from 76% in 2011 to 69% in 2015 (Wilkins, et al., 2016). The reduction in cannabis use and availability among detainees was strongest in Christchurch and Auckland. The proportion of Auckland Central detainees who were able to purchase cannabis in one hour or less decreased from

88% in 2011 to 71% in 2015. There are a number of possible explanations for this decline including the emergence of synthetic cannabinoids, the impact of the NCCO, declining social acceptability of smoking, and changes in preferences for drug types, that is stimulants over depressants.

8.2 Knowledge of cannabis trends

Eighty-one percent of the frequent drug users interviewed for the 2015 IDMS (n=248) indicated they felt confident enough to comment on the price, strength and availability of cannabis in the previous six months. This included 85% of the frequent ecstasy users (n=99), 80% of the frequent methamphetamine users (n=58), and 80% of the frequent injecting drug users (n=91). The large number of respondents answering the cannabis section means small changes in variables can achieve statistical significance. Consequently, the reader is encouraged to note the magnitude of the variable change, as well as the statistical significance of the test, when interpreting the importance of findings. Note, the statistical tests are of the mean scores of variables to a number of decimal places, whereas the mean scores presented in the graphs and tables are rounded to one decimal place only.

8.3 Availability of cannabis

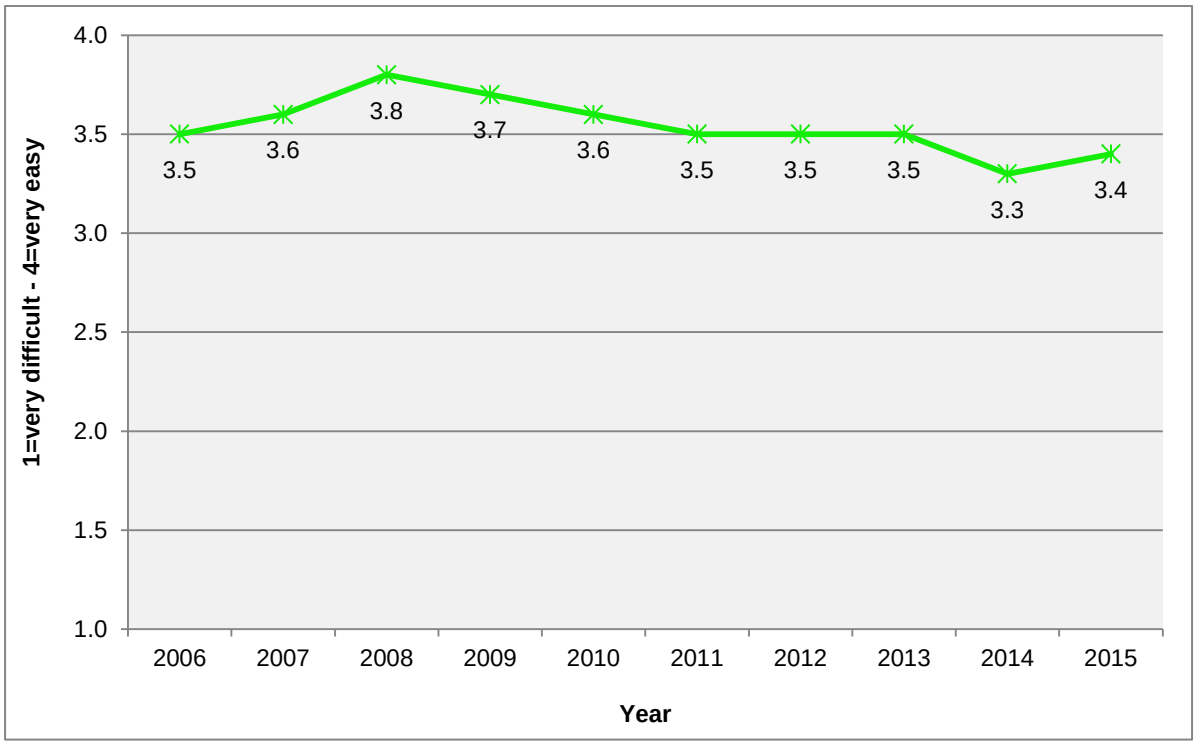
Current availability of cannabis

The current availability of cannabis was reported to be 'very easy/easy' in 2015 (Table 8.1). Fifty percent of the frequent drug users described the current availability of cannabis as 'very easy'. Overall, the current availability of cannabis had declined from 2006 to 2015 (down from 3.5 to 3.4, $p<0.0001$) (Figure 8.1).

Table 8.1 Current availability of cannabis by combined frequent drug users, 2006-2015

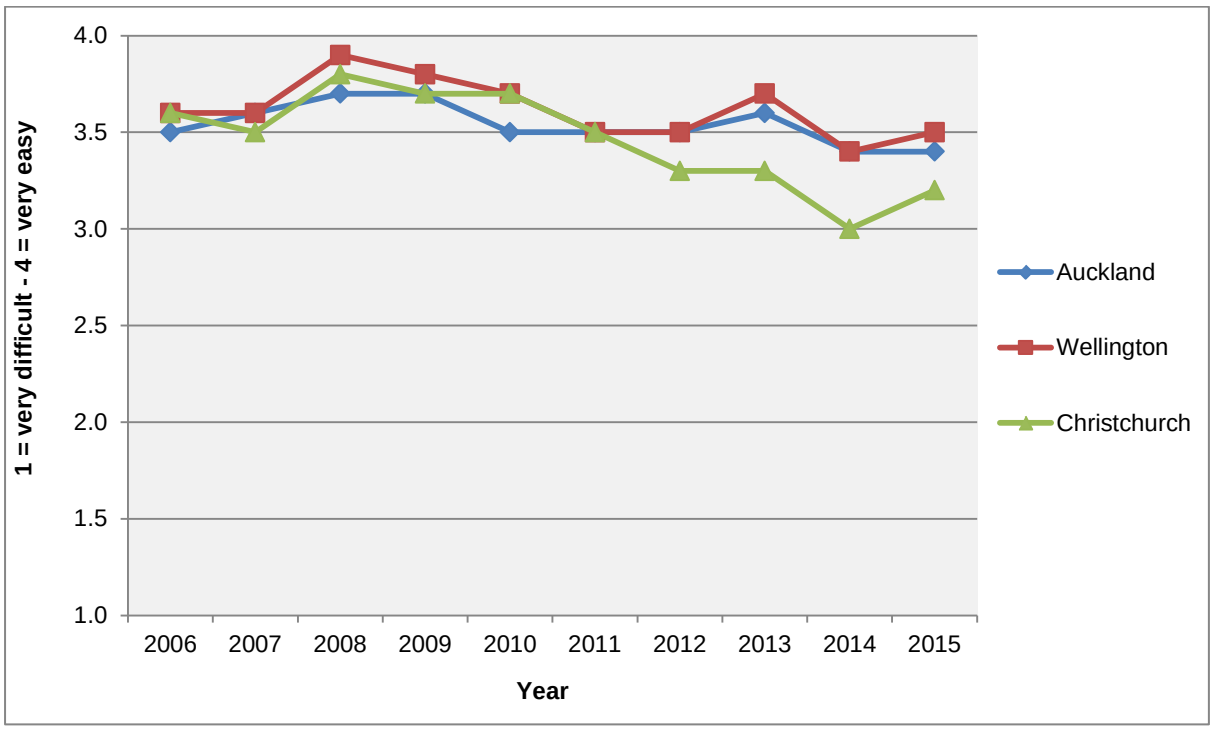
Current availability of cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=276)	Combined modules (n=263)	Combined modules (n=318)	Combined modules (n=245)	Combined modules (n=344)	Combined modules (n=323)	Combined modules (n=280)	Combined modules (n=258)	Combined modules (n=231)	Combined modules (n=246)
Very easy [4]	60%	64%	82%	73%	69%	56%	59%	62%	45%	50%
Easy [3]	36%	30%	16%	23%	27%	38%	30%	31%	40%	39%
Difficult [2]	4%	5%	3%	3%	3%	5%	10%	7%	15%	10%
Very difficult [1]	0%	1%	0%	0%	1%	2%	1%	1%	1%	1%
Average availability score (1=very difficult – 4=very easy)	3.5	3.6	3.8	3.7	3.6	3.5	3.5	3.5	3.3	3.4
Overall current status	Very easy/ easy	Very easy/ easy	Very easy	Very easy	Very easy/ easy	Very easy/ easy	Very easy/ easy	Very easy/ easy	Very easy/ easy	Very easy/ easy

Figure 8.1 Current availability of cannabis by combined frequent drug users, 2006-2015



There was a decrease in the current availability of cannabis in Auckland (down from 3.5 in 2006 to 3.4 in 2015, p=0.0451), Wellington (down from 3.6 in 2006 to 3.5 in 2015, p=0.0036) and Christchurch (down from 3.6 in 2006 to 3.2 in 2015, p<0.0001) (Figure 8.2). In 2015, the current availability of cannabis was lower in Christchurch than in Wellington (3.2 vs.3.5, p=0.0331).

Figure 8.2 Current availability of cannabis by combined frequent drug users by location, 2006-2015



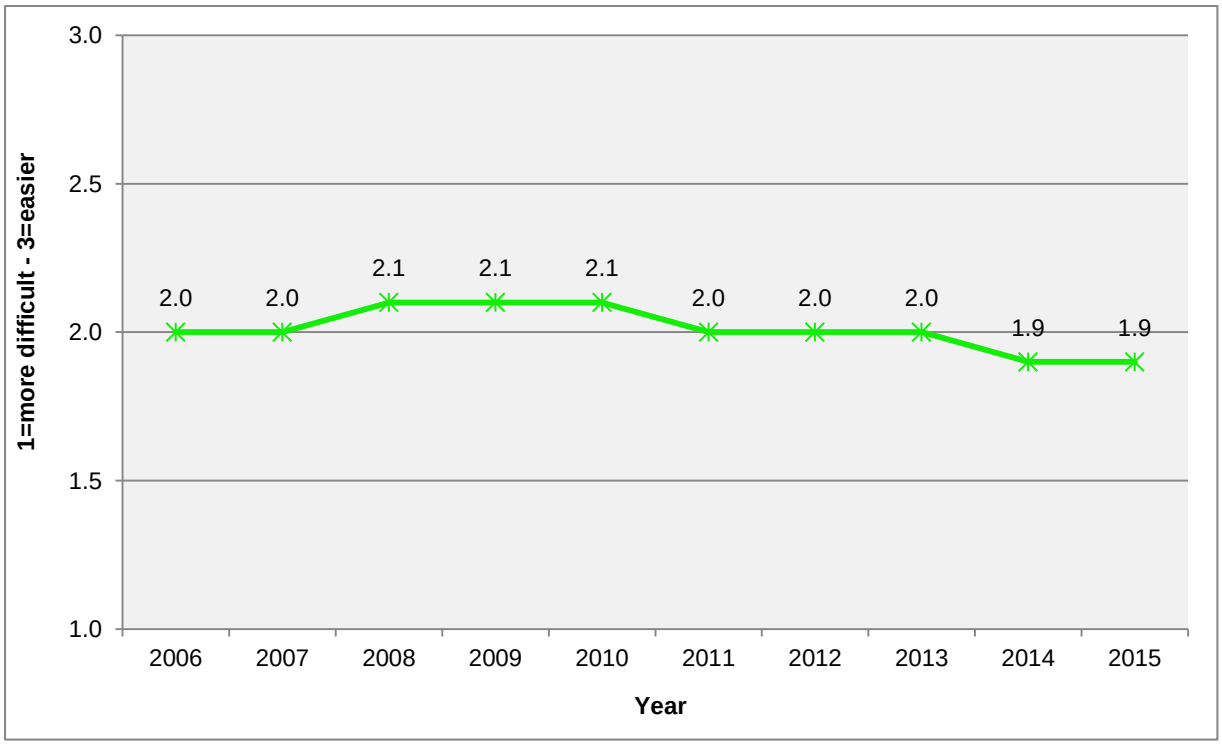
Change in availability of cannabis

The frequent drug users reported the availability of cannabis had been 'stable/fluctuating/more difficult' over the previous six months in 2015 (Table 8.2). The availability of cannabis was more likely to have been described as declining from 2006 to 2015 (down from 2.0 to 1.9, $p<0.0001$) (Figure 8.3).

Table 8.2 Change in availability of cannabis by combined frequent drug users, 2006-2015

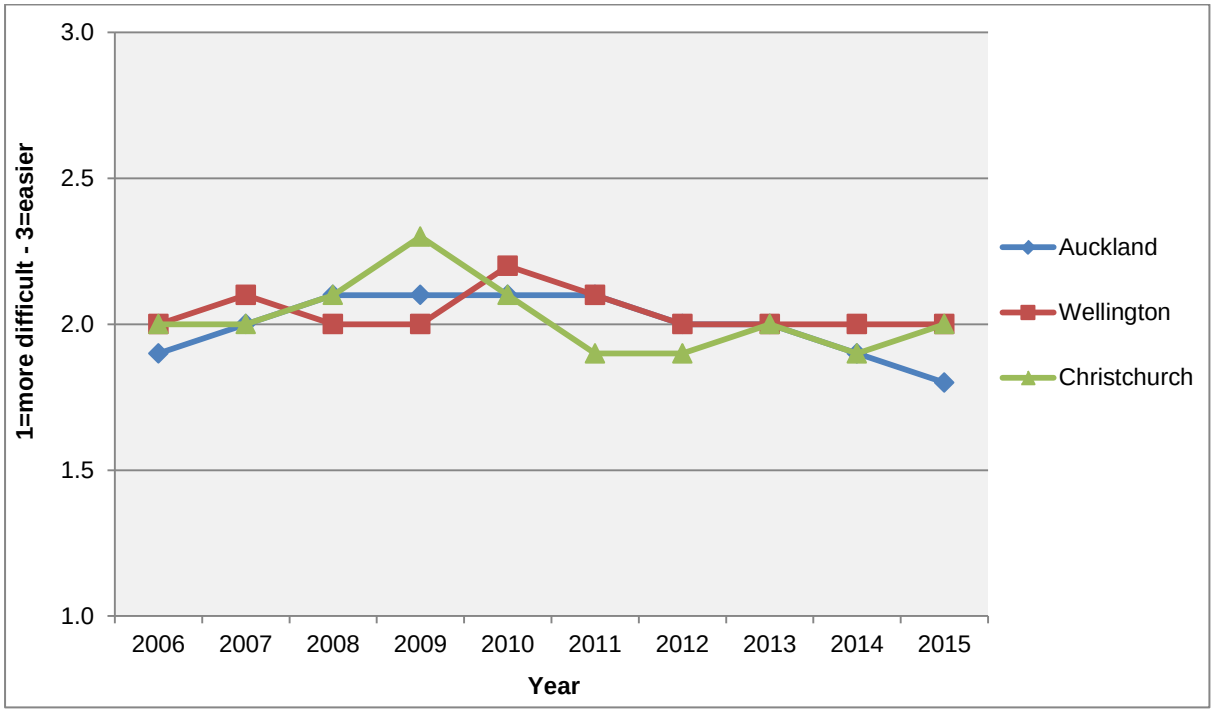
Change in availability of cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=274)	Combined modules (n=261)	Combined modules (n=318)	Combined modules (n=242)	Combined modules (n=337)	Combined modules (n=311)	Combined modules (n=279)	Combined modules (n=257)	Combined modules (n=226)	Combined modules (n=239
Easier [3]	7%	11%	14%	18%	16%	16%	13%	9%	8%	7
Stable [2]	68%	72%	71%	66%	67%	61%	61%	70%	58%	60
Fluctuates [2]	16%	8%	9%	10%	11%	12%	12%	12%	19%	17
More difficult [1]	9%	9%	6%	5%	6%	12%	14%	10%	15%	17
Average change in availability score (1=more difficult – 3=easier)	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9
Overall recent change	Stable/ fluctuates	Stable	Stable	Stable / easier	Stable / easier	Stable / easier	Stable / more difficult	Stable	Stable / fluctuates	Stable / fluctuates

Figure 8.3 Change in availability of cannabis by combined frequent drug users, 2006-2015



Overall, the availability of cannabis was more likely to have been described as declining slightly in Christchurch from 2006 to 2015 (down from 2.04 to 1.98, p=0.0004) (Figure 8.4). The availability of cannabis had declined in Auckland from 2006 to 2015 (down from 1.9 to 1.8, p=0.0041), and from 2014 to 2015 (1.9 vs. 1.8, p=0.0419). In 2015, the availability of cannabis was lower in Auckland than Christchurch (1.8 vs. 2.0, p=0.0067) and lower in Auckland than Wellington (1.8 vs. 2.0, p=0.0017).

Figure 8.4 Change in availability of cannabis by location, 2006-2015



8.4 Price of cannabis

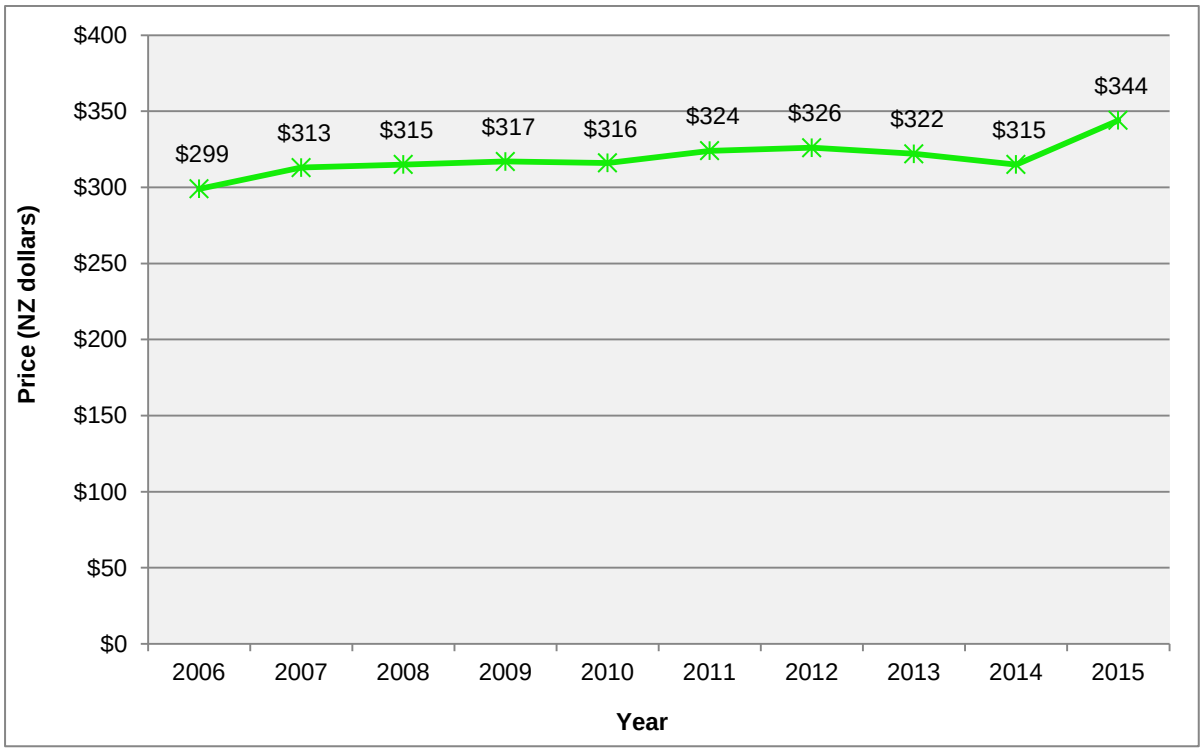
Current price of cannabis

The current median price of a 'tinny' of cannabis (approximately 1.5 grams) was $20 in 2015, and the median price of an ounce of cannabis (approximately 28 grams) was $350 in 2015 (Table 8.3). The mean price of a tinny in Auckland had declined slightly from $20.80 in 2006 to $20.00 in 2015 ($p=0.0144$). There was an increase in the mean price of an ounce of cannabis from $299 in 2006 to $344 in 2015 ($p<0.0001$), with a more recent increase from $315 in 2014 to $344 in 2015 ($p<0.0001$) (Figure 8.5). The mean price of a pound of cannabis had increased from $3,046 in 2006 to $3,645 in 2015 ($p=0.0370$).

Table 8.3 Current price of cannabis (NZD) by combined frequent drug users, 2006-2015

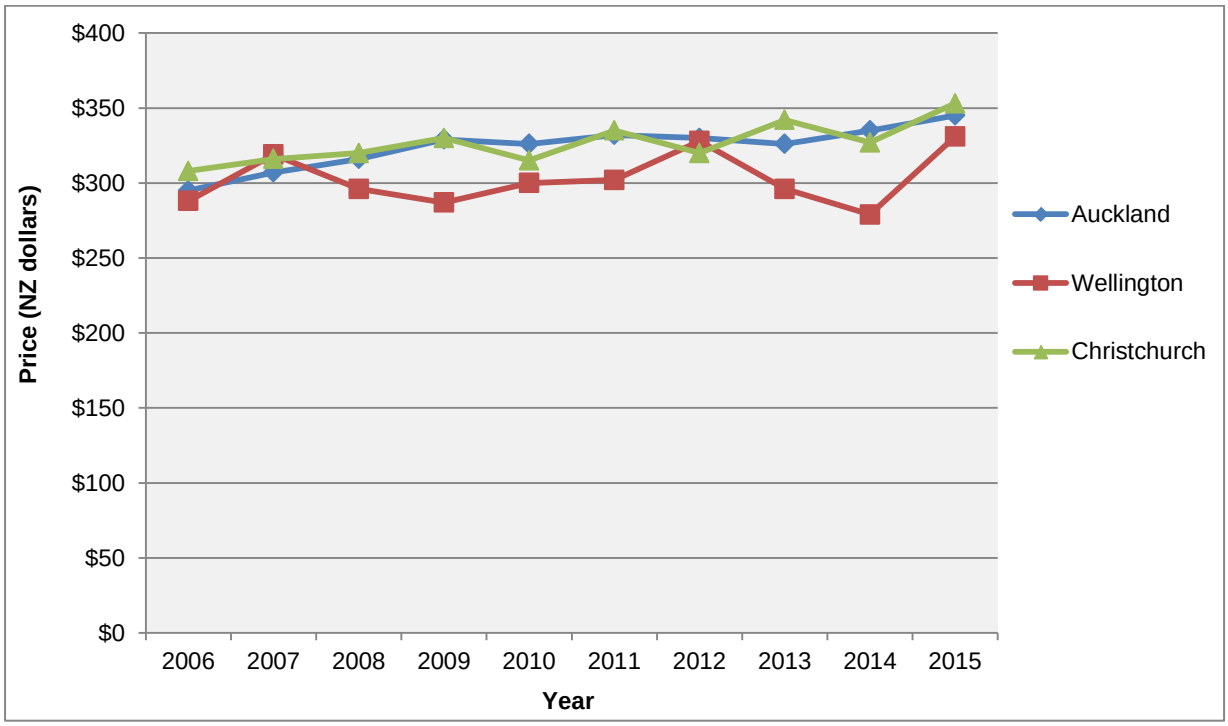
Column1	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Current price of cannabis ($)	**Combined modules**	**Combined modules**	**Combined modules**	**Combined modules**	**Combined modules**	**Combined modules**	**Combined modules**	**Combined modules**	**Combined modules**	**Combined modules**
Number with knowledge	n=229	n=207	n=281	n=195	n=306	n=293	n=248	n=229	n =207	n=215
Median (mean) price for a 'tinny/foil' (1.5 grams)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($21)	$20 ($20)
Number with knowledge	n=175	n=101	n=111	n=101	n=135	n=157	n=161	n=115	n=107	n=128
Median (mean) price for an ounce (28 grams)	$300 ($299)	$300 ($313)	$300 ($315)	$325 ($317)	$300 ($316)	$350 ($324)	$350 ($326)	$320 ($322)	$340 ($309)	$350 ($344)
Number with knowledge	-	-	n=33	n=24	n=26	n=36	n=40	n=30	n=36	n=32
Median (mean) price for an pound (16 ounces)	-	-	$3000 ($3046)	$3500 ($3389)	$3000 ($2832)	$3000 ($3020)	$3500 ($3587)	4000 ($4079)	$3500 ($3492)	$4000 ($3645)

Figure 8.5 Price of an ounce of cannabis by combined frequent drug users, 2006-2015



The mean price of an ounce of cannabis had increased in Auckland (up from $295 in 2006 to $345 in 2015, p<0.0001), Wellington (up from $279 in 2014 to $331 in 2015, p=0.0060) and Christchurch (up from $308 in 2006 to $353 in 2015, p<0.0001, and from $327 in 2014 to $353 in 2015, p=0.0003) (Figure 8.6).

Figure 8.6 Mean price paid for an ounce of cannabis (NZD) by location, 2006-2015



Change in price of cannabis

Overall, the price of cannabis was reported to have been 'stable' in the past six months in 2015, and this had not changed from the previous nine years (Table 8.4). Eighty-six percent of frequent drug users described the price of cannabis as 'stable' in 2015.

Table 8.4 Change in the price of cannabis in the past six months by combined frequent drug users, 2006-2015

Change in price of cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=269)	Combined modules (n=253)	Combined modules (n=312)	Combined modules (n=241)	Combined modules (n=328)	Combined modules (n=315)	Combined modules (n=273)	Combined modules (n=255)	Combined modules (n=225)	Combined modules (n=234)
Increasing [3]	11%	9%	8%	6%	10%	10%	9%	9%	7%	5%
Fluctuating [2]	10%	4%	7%	4%	6%	8%	2%	4%	7%	7%
Stable [2]	75%	82%	84%	89%	81%	81%	88%	86%	85%	86%
Decreasing [1]	4%	4%	1%	1%	3%	2%	1%	2%	<1%	2%
Average change in price score (1=decreasing – 3=increasing)	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0
Overall recent change	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable

8.5 Strength of cannabis

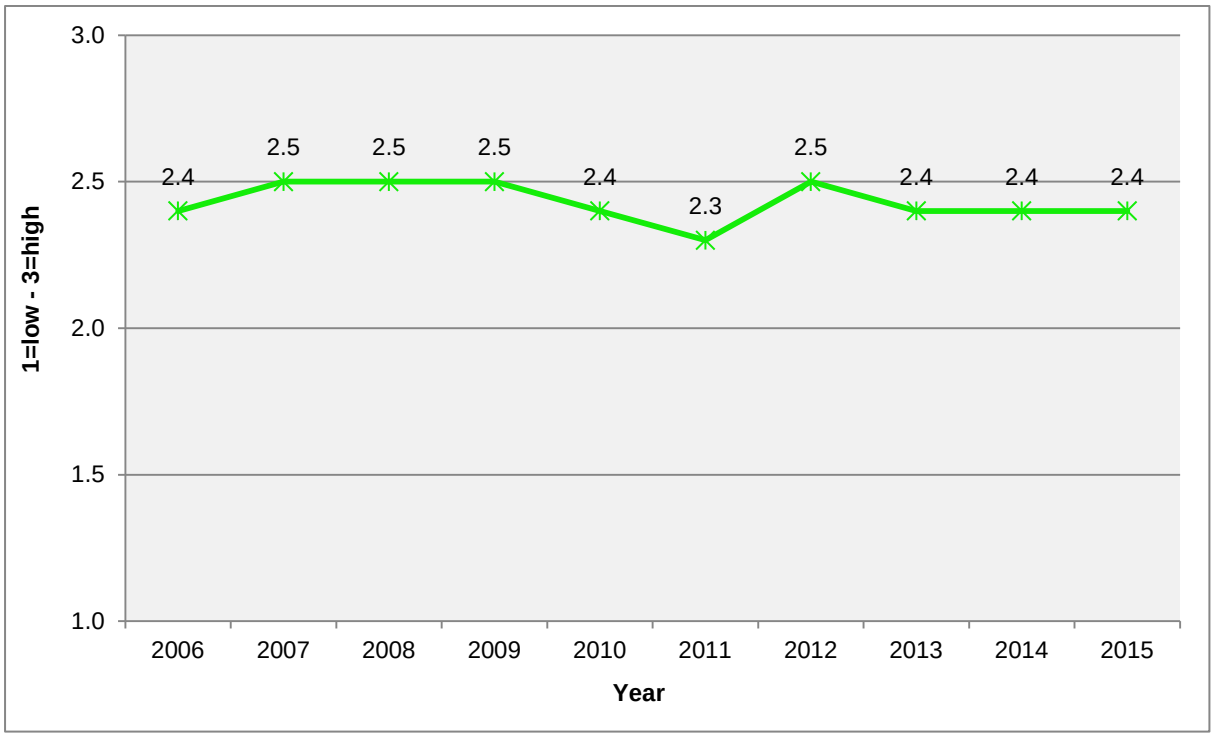
Current strength of cannabis

The current strength of cannabis was reported to be 'high/medium' in 2015 (Table 8.5). There was a very small decline in the current strength of cannabis from 2006 to 2015 (down from 2.42 to 2.37, p=0.0013) (Figure 8.7).

Table 8.5 Current strength of cannabis by combined frequent drug users, 2006-2015

Current strength of cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (N=267)	Combined modules (n=258)	Combined modules (n=309)	Combined modules (n=240)	Combined modules (n=334)	Combined modules (n=306)	Combined modules (n=269)	Combined modules (n=250)	Combined modules (n=225)	Combined modules (n=238)
High [3]	46%	51%	49%	52%	37%	38%	48%	40%	37%	43%
Medium [2]	17%	13%	21%	21%	23%	24%	26%	29%	25%	26%
Fluctuates [2]	33%	33%	28%	26%	38%	35%	23%	29%	36%	25%
Low [1]	4%	2%	2%	1%	2%	4%	3%	3%	2%	6%
Average purity score (1=low – 3=high)	2.4	2.5	2.5	2.5	2.4	2.3	2.5	2.4	2.4	2.4
Overall current status	High/ fluctuates	High/ fluctuates	High/ fluctuates	High/ fluctuates	Fluctuates/ high	High/ fluctuates	High/ medium	High/ medium/ fluctuates	High/ fluctuates	High/ medium

Figure 8.7 Mean score of the current strength of cannabis by combined frequent drug users, 2006-2015



The strength of cannabis had declined in Wellington from 2006 to 2015 (2.4 vs. 2.1, p=0.0475), and also from 2014 to 2015 (2.3 vs. 2.1, p=0.0484). There was also a decline in the strength of cannabis reported in Christchurch from 2006 to 2015 (down from 2.5 to 2.3, p<0.0001). In 2015, the strength of cannabis was higher in Auckland than in Christchurch (2.6 vs. 2.3, p=0.0041), and in Auckland than in Wellington (2.6 vs. 2.1, p<0.0001).

Change in strength of cannabis

The strength of cannabis was reported to be 'stable/fluctuating' in the previous six months in 2015 (Table 8.6). An increasing proportion of the frequent drug users had described the strength of cannabis as stable from 2006 to 2015 (down from 2.13 to 2.02, p=0.0005). Overall, there was an increase in the proportion saying the strength of cannabis was stable in Christchurch from 2006 to 2015 (down from 2.23 to 2.10, p=0.0097), but a higher proportion said it was increasing from 2014 to 2015 (up from 2.01 to 2.10, p=0.0146). The frequent drug users in Auckland were also slightly more likely to describe the strength of cannabis as stable from 2006 to 2015 (down from 2.06 to 1.95, p=0.0110) and from 2014 to 2015 (down from 2.10 to 1.95, p=0.0239).

Table 8.6 Change in strength of cannabis by combined frequent drug users, 2006-2015

Change in strength of cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=262)	Combined modules (n=254)	Combined modules (n=303)	Combined modules (n=240)	Combined modules (n=321)	Combined modules (n=292)	Combined modules (n=263)	Combined modules (n=248)	Combined modules (n=221)	Combined modules (n=234)
Increasing [3]	18%	17%	14%	19%	16%	15%	14%	14%	8%	8%
Stable [2]	46%	49%	45%	51%	45%	51%	61%	60%	60%	62%
Fluctuating [2]	31%	30%	39%	26%	34%	30%	19%	24%	30%	24%
Decreasing [1]	5%	4%	3%	4%	5%	4%	6%	2%	2%	6%
Average change in purity score (1=decreasing – 3=increasing)	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0
Overall recent change	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates

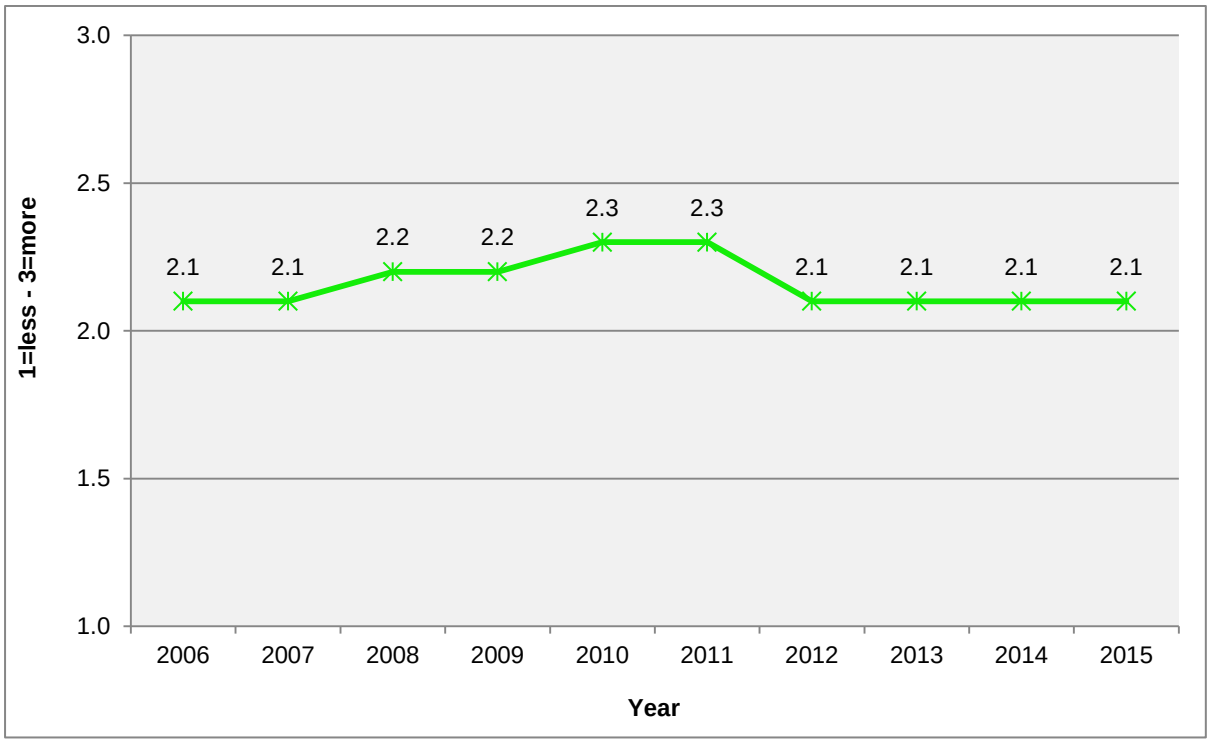
8.6 Perceptions of the number of people using cannabis

The number of people using cannabis was reported to be the 'same/more' in the previous six months in 2015 (Table 8.7). There was no statistically significant change in perceptions of the number of people using cannabis from 2006 to 2015, with 66% saying 'the same' number of people were using cannabis (Figure 8.8). Previously, there had been an increase in the proportion of frequent drug users who thought that 'more' people were using cannabis from 2006 to 2011 (up from 2.1 to 2.3, $p<0.0001$), followed by a lower proportion who thought 'more' people were using the drug from 2011 to 2012 (down from 2.3 to 2.1, $p=0.0038$).

Table 8.7 Perceptions of the number of people using cannabis by combined frequent drug users, 2006-2015

Number of people using cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=279)	Combined modules (n=261)	Combined modules (n=312)	Combined modules (n=244)	Combined modules (n=341)	Combined modules (n=320)	Combined modules (n=278)	Combined modules (n=259)	Combined modules (n=227)	Combined modules (n=243)
More [3]	17%	22%	25%	26%	32%	35%	21%	23%	21%	23%
Same [2]	73%	66%	68%	69%	61%	57%	71%	65%	70%	66%
Less [1]	10%	11%	7%	4%	7%	8%	8%	12%	10%	11%
Average number of people using score (1=less – 3=more)	2.1	2.1	2.2	2.2	2.3	2.3	2.1	2.1	2.1	2.1
Overall recent change	Same	Same/ more	Same/ more	Same/ more	Same/ more	Same/ more	Same	Same/more	Same	Same/more

Figure 8.8 Perceptions of the number of people using cannabis by combined frequent drug users, 2006-2015



A higher proportion of frequent drug users in Christchurch said 'the same' number of people were using cannabis from 2006 to 2015 (down from 2.2 in 2006 to 2.1 in 2015, p=0.0182).

8.7 Purchase of cannabis

Frequency of purchase of cannabis

Sixty-three percent of the frequent drug users who answered the cannabis section had purchased cannabis in the past six months in 2015. Fifty-three percent of those who had purchased cannabis had done so weekly or more often in the previous six months in 2015 (Table 8.8). There was no statistically significant change in the proportion who had purchased cannabis weekly or more often from 2006 to 2015.

Table 8.8 Frequency of purchase of cannabis in past six months by combined frequent drug users, 2006-2015

Frequency purchase in past six months (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=202)	Combined modules (n=202)	Combined modules (n=284)	Combined modules (n=193)	Combined modules (n=276)	Combined modules (n=254)	Combined modules (n=227)	Combined modules (n=226)	Combined modules (n=189)	Combined modules (n=188)
1-2 times	14	13	9	8	12	18	11	10	11	14
3-4 times	7	6	9	10	9	9	4	8	4	8
Once per month	11	12	11	9	10	10	14	5	9	9
Twice per month	11	10	11	12	8	12	11	9	15	16
Once per week	27	28	27	30	22	17	19	27	31	29
2-3 times per week	16	17	22	22	20	21	19	27	15	12
4-5 times per week	5	4	5	4	5	5	8	5	6	4
Once per day	8	10	6	4	11	6	11	9	7	8
More than once per day	1	1	2	0	2	1	2	0.3	1	0

The proportion of frequent drug users in Christchurch who purchased cannabis weekly or more often had declined from 65% in 2006 to 47% in 2015 (p=0.0432), and from 71 % in 2014 to 47% in 2015 (p=0.0041).

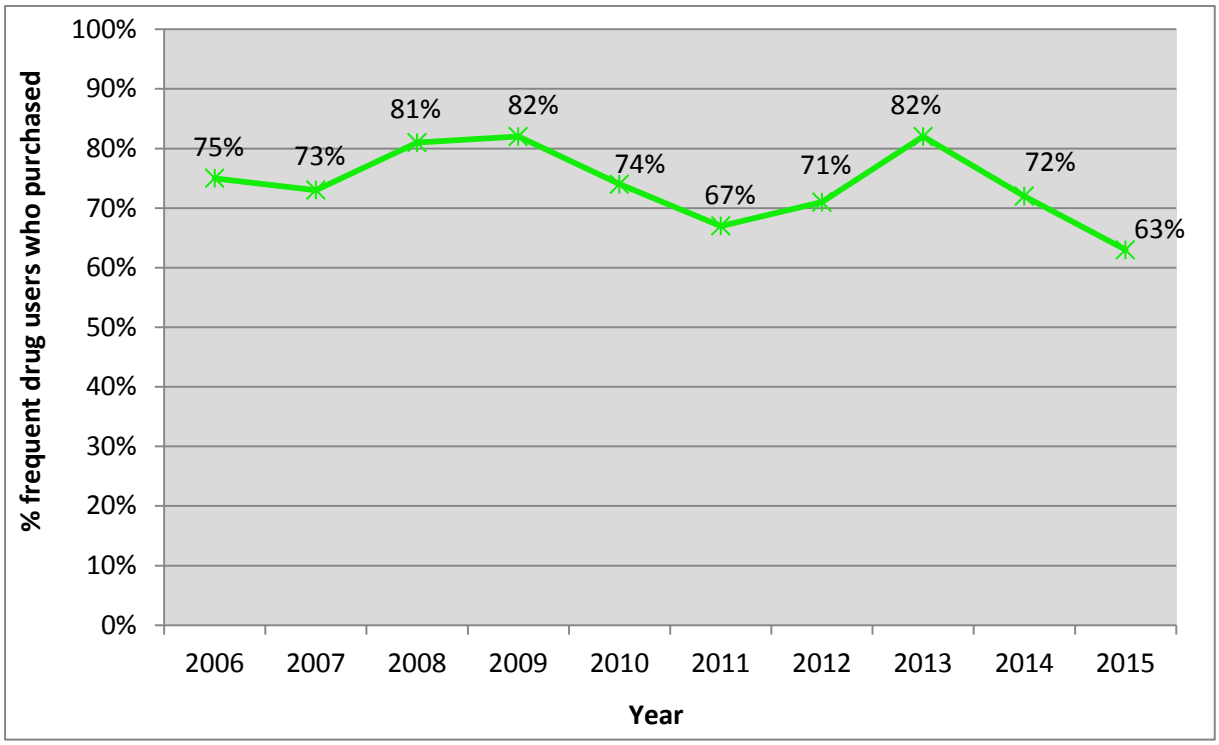
Time taken to purchase cannabis

Sixty-three percent of the frequent drug users were able to purchase cannabis in one hour or less in the past six months in 2015 (Table 8.9). The proportion of frequent drug users who could purchase cannabis in one hour or less had decreased from 75% in 2006 to 63% in 2015 (p=0.0090) (Figure 8.9). There had previously been an increase in the proportion who could purchase cannabis in one hour or less from 75% in 2006 to 82% in 2013 (p=0.0066).

Table 8.9 Time taken to purchase cannabis by combined frequent drug users, 2006-2015

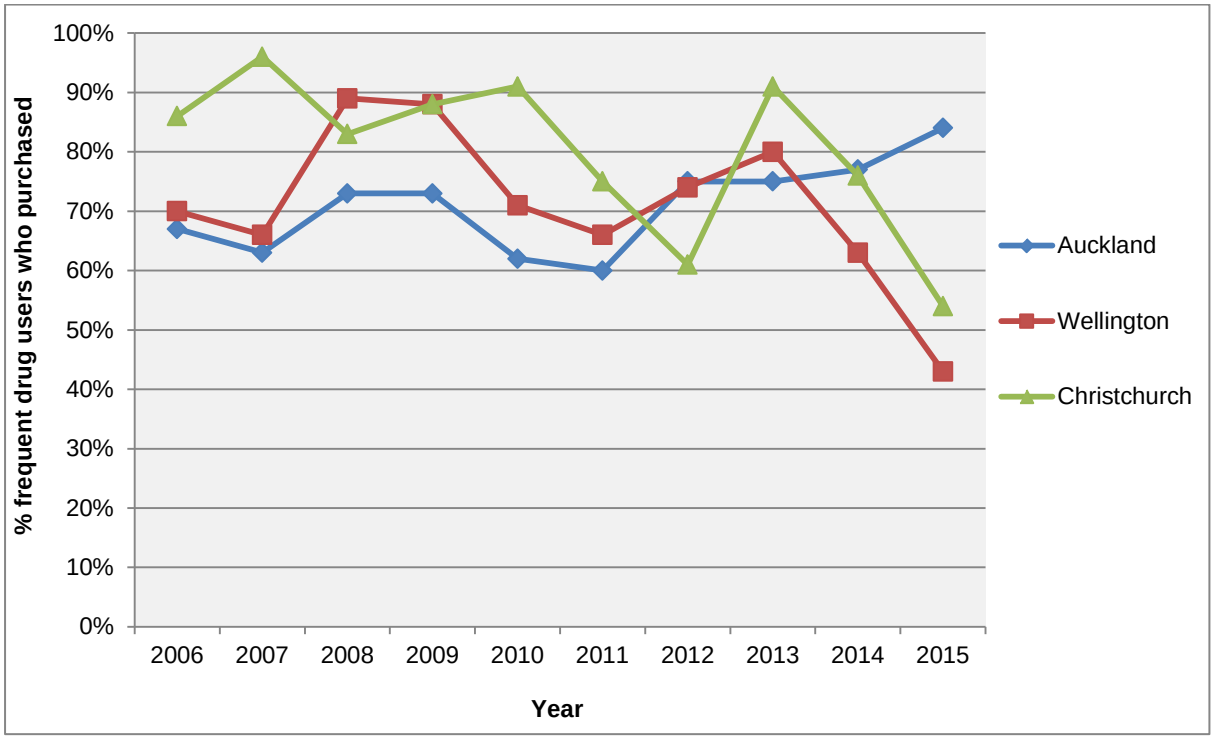
Time to purchase (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=203)	Combined modules (n=202)	Combined modules (n=283)	Combined modules (n=193)	Combined modules (n=272)	Combined modules (n=250)	Combined modules (n=227)	Combined modules (n=226)	Combined modules (n=189)	Combined modules (n=190)
Months	0	0	0	0	0	0	0	0.3	0	0
Weeks	0	0	0	0	1	1	1	0	0	3
Days	4	4	1	3	2	3	5	4	4	9
About one day	7	6	6	8	10	12	11	6	6	9
Hours	14	17	11	7	14	17	13	8	17	16
1 Hour	30	26	28	29	19	26	25	38	36	25
Less than 20 mins	45	47	53	53	55	41	45	44	36	38

Figure 8.9 Proportion of frequent drug users who could purchase cannabis in one hour or less, 2006-2015



Overall, the proportion of frequent drug users in Christchurch who could purchase cannabis in one hour or less had declined from 86% in 2006 to 54% in 2015 ($p<0.0001$) (Figure 8.10). The proportion who could purchase cannabis in one hour or less in Christchurch had previously increased sharply from 61% in 2012 to 91% in 2013 ($p<0.0001$), before decreasing from 91% in 2013 to 76% in 2014 ($p=0.0099$), and then decreasing further from 76% in 2014 to 54% in 2015 ($p=0.0073$). The proportion of frequent drug users in Wellington who could purchase cannabis in one hour or less had decreased from 70% in 2006 to 43% in 2015 ($p=0.0020$). In contrast, the proportion of frequent drug users from Auckland who could purchase cannabis in one hour or less had increased from 67% in 2006 to 84% in 2015 ($p=0.0054$). In 2015, the proportion of frequent drug users who could purchase cannabis in one hour or less was higher in Auckland than in Christchurch (84% vs. 54%, $p=0.0014$), and in Auckland than in Wellington (84% vs. 43%, $p<0.0001$).

Figure 8.10 Proportion of frequent drug users who could purchase cannabis in one hour or less by location, 2006-20154



Location of purchase of cannabis

In 2015, 81% of the frequent drug users had purchased cannabis from a 'private house', 45% from a 'tinny house', 41% from an 'agreed public location', and 33% from 'public area like a park' (Table 8.10). A higher proportion of the frequent drug users had purchased cannabis from an 'agreed public location' (up from 29% in 2009 to 41% in 2015, p=0.0021), a 'public area like a park' (up from 13% in 2009 to 33% in 2015, p<0.0001) and from a 'street drug market' (up from 12% in 2009 to 16% in 2015, p=0.0268).

Table 8.10 Location from which cannabis purchased in the past six months by combined frequent drug users, 2009-2015

Location (%)	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=193)	Combined modules (n=267)	Combined modules (n=249)	Combined modules (n=225)	Combined modules (n=228)	Combined modules (n=187)	Combined modules (n=190)
Private house	85	79	72	86	82	77	81
'Tinny' house	44	51	38	46	49	51	45
Agreed public location	29	29	29	38	33	36	41
Public area (e.g. park)	12	12	15	24	27	25	33
Street drug market	12	8	13	21	13	15	16
Pub/bar/club	10	12	9	14	17	12	13
Work	11	7	11	8	9	10	11
Educational institute	2	6	7	8	8	12	5
Internet	1	2	2	6	3	2	2

Types of sellers of cannabis

In 2015, 80% of the frequent drug users had purchased cannabis from a 'friend', 63% from a 'drug dealer' and 58% from a 'social acquaintance' (Table 8.11). There was an increase in the proportion who purchased cannabis from a 'gang member' (up from 19% in 2009 to 34% in 2015, $p<0.0001$), 'social acquaintance' (up from 46% in 2009 to 58% in 2015, $p=0.0100$) and from a 'partner or family member' (up from 13% in 2014 to 23% in 2015, $p=0.0298$).

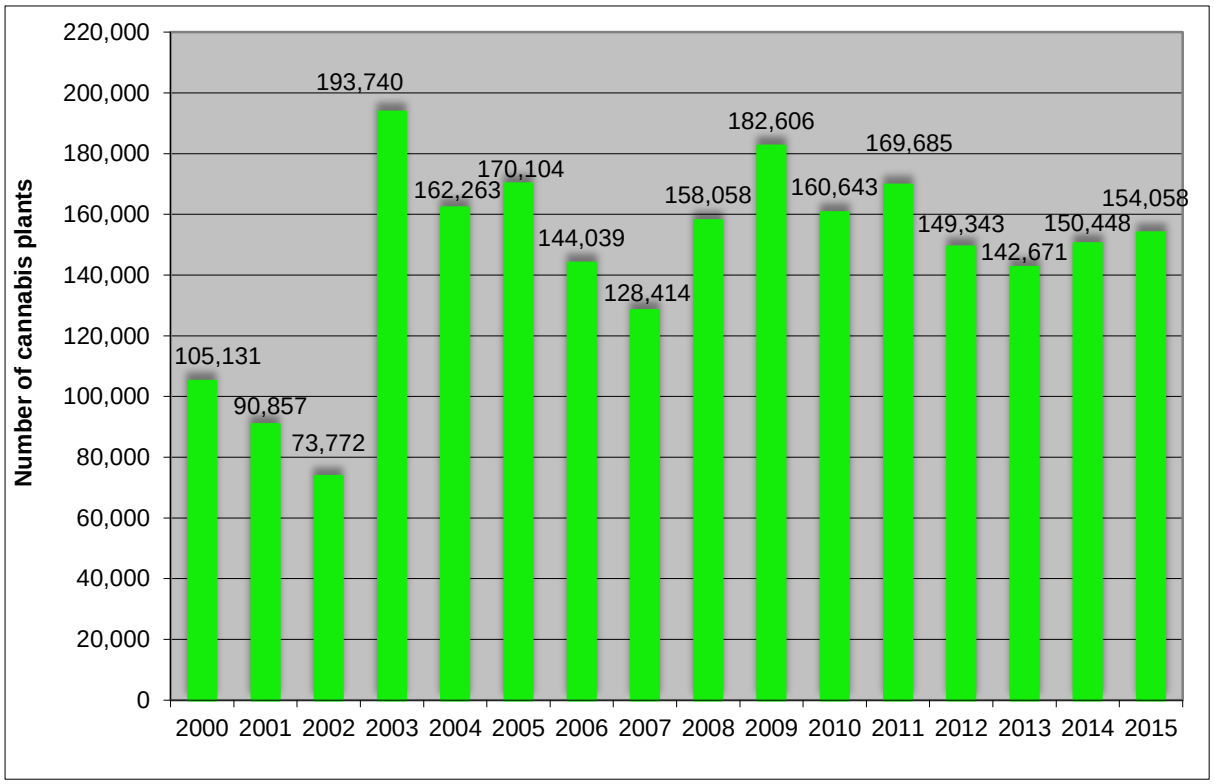
Table 8.11 People from whom cannabis purchased in the past six months by combined frequent drug users, 2009-2015

Type of person (%)	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=193)	Combined modules (n=265)	Combined modules (n=248)	Combined modules (n=226)	Combined modules (n=226)	Combined modules (n=188)	Combined modules (n=189)
Friend	74	73	74	79	71	75	80
Drug dealer	67	55	45	63	61	65	63
Social acquaintance	46	54	45	55	57	56	58
Gang member/ associate	19	25	21	27	35	34	34
Partner/ family member	19	23	18	22	21	13	23

8.8 Seizures of cannabis plants

In recent years the previous annual cannabis crop recovery operation has evolved into the NCCO, with a greater focus on organised criminal groups involved in cannabis cultivation and related criminal offending. An average of approximately 154,000 cannabis plants was destroyed each year over the past five years from 2010 to 2014 (Figure 8.11). The number of cannabis plants seized in 2015 (154,058 plants) is line with these results.

Figure 8.11 Annual number of cannabis plants destroyed in New Zealand, 2000-2015



Source: NDIB, 2016

8.9 Summary of cannabis trends

- The current availability of cannabis was reported to be 'very easy/easy' in 2015
- The current availability of cannabis had declined from 2006 to 2015
- The current availability of cannabis had declined in Auckland, Wellington and Christchurch from 2006 to 2015
- In 2015, the median price of a 'tinny' of cannabis was $20, and the median price of an ounce of cannabis was $350
- The mean price of an ounce of cannabis had increased from $299 in 2006 to $344 in 2015, and from $315 in 2014 to $344 in 2015
- The mean price of an ounce of cannabis had increased in Auckland (from $295 in 2006 to $345 in 2015), Wellington (up from $279 in 2014 to $331 in 2015) and Christchurch (up from $308 in 2006 to $353 in 2015)
- The mean price of a pound of cannabis had increased from $3,046 in 2006 to $3,645 in 2015

- The current strength of cannabis was described as ‘high/medium’ in 2015
- The current strength of cannabis had declined slightly in Christchurch and Wellington from 2006 to 2015
- Overall, there was no change in perceptions of the number of people using cannabis from 2006 to 2015, with most saying the ‘same’ number were using the drug
- The proportion of frequent drug users in Christchurch who purchased cannabis weekly or more often decreased from 71% in 2014 to 47% in 2015
- The proportion of frequent drug users who could purchase cannabis in one hour or less declined from 72% in 2014 to 63% in 2015
- The proportion of frequent drug users who could purchase cannabis in hour or less declined sharply in Wellington (from 63% in 2014 to 43% in 2015) and Christchurch (down from 76% in 2014 to 54% in 2015)
- In contrast, the proportion of frequent drug users in Auckland who could purchase cannabis in hour or less had increased from 67% in 2006 to 84% in 2015
- An increasing proportion of frequent drug users had purchased cannabis from public locations including ‘agreed public locations’ (up from 29% in 2009 to 41% in 2015), ‘public areas like a park’ (up from 13% in 2009 to 33% in 2015), and from ‘street drug market’ (up from 12% in 2009 to 16% in 2015)
- There were increases in the proportion of frequent drug users who had purchased cannabis from a gang member (up from 19% in 2009 to 34% in 2015), ‘social acquaintance’ (up from 46% in 2009 to 58%) and a ‘partner or family member’ (up from 13% in 2014 to 23% in 2015)
- The number of cannabis plants seized increased from 150,448 in 2014 to 237,873 in 2015 (a 58% increase)

9. Synthetic Cannabinoids

9.1 Introduction

Synthetic cannabinoids have been among the most widely used 'legal high' products around the world in recent years, including in New Zealand and Australia (EMCDDA, 2016; Munro & Wilkins, 2014; UNODC, 2016; Wilkins, et al., 2015). Synthetic cannabinoids are smokable products consisting of plant matter which has been infused with a synthetic cannabinomimetic compound, and are often marketed as 'legal alternatives' to cannabis. They have proven challenging to control as manufacturers regularly change the active compounds in response to legislative bans and other restrictions. The use of synthetic cannabinoids has been associated with vomiting, agitation, seizures and psychotic episodes (Every-Palmer, 2010; Ministry of Health, 2014a; Schep, 2014; Wilkins, et al., 2015).

The passage of the Psychoactive Substances Act 2013 (PSA) in July 2013 established a legal regulated market for 'low risk' psychoactive products ('legal highs') in New Zealand (Wilkins, 2014a). Under the new approach, psychoactive products which were shown to be 'low risk' would be approved for legal sale subject to a range of retail controls, such as sales restricted to those 18 years or older and from licensed retail outlets. A transitory interim regulatory regime was established immediately following the passage of the PSA in 2013, which permitted the sale of a reduced number of existing products while the full product testing standards were developed. Under the interim PSA regime, the number of products available on the legal market was reduced from an estimated 200 unlicensed products to 46 licensed products, and the number of retail outlets was reduced from an estimated 3,000-4,000 largely convenience stores to 156 licensed specialty ones (Wilkins, 2014b). This interim legal market was brought to an abrupt halt in early May 2014, when the Government withdrew all products and retail licenses following public concerns about the health risks of products and social disruption around outlets (Ministry of Health, 2014b). The withdrawal of all PSA licenses effectively prohibited all legal high products. Some commentators expressed concern that the ban would drive the sale of legal highs underground to the black market, and there were anecdotal reports of illicit sales of synthetic cannabinoids in the months following the ban (NDIB, 2015).

Questions on the availability, price and strength of synthetic cannabinoids were included in the IDMS for the first time in 2013. The 2014 IDMS (conducted after the 2014 ban) found the proportion of frequent drug users who reported synthetic cannabinoids were 'more difficult' to obtain increased

from 19% in 2013 to 57% in 2014, and the proportion who reported the price was 'increasing' rose from 31% in 2013 to 51% in 2014 (Wilkins, et al., 2015). The frequent drug users were also more likely to believe 'less' people were using synthetic cannabinoids compared to six months ago, up from 36% in 2013 to 70% in 2014 (Wilkins, et al., 2015). There were also dramatic decreases in the use of synthetic cannabinoids by the frequent drug users (Wilkins, et al., 2015). For example, the proportion of frequent ecstasy users who used synthetic cannabinoids declined sharply from 22% in 2013 to 6% in 2014 (Wilkins, et al., 2015).

9.2 Knowledge of synthetic cannabinoids trends

Eleven percent of the frequent drug users interviewed for the 2015 IDMS (n=33) indicated they felt confident enough to comment on the price, strength and availability of synthetic cannabinoids in the previous six months. The low number of respondents prevents any reliable statistical comparisons by site location over time.

9.3 Availability of synthetic cannabinoids

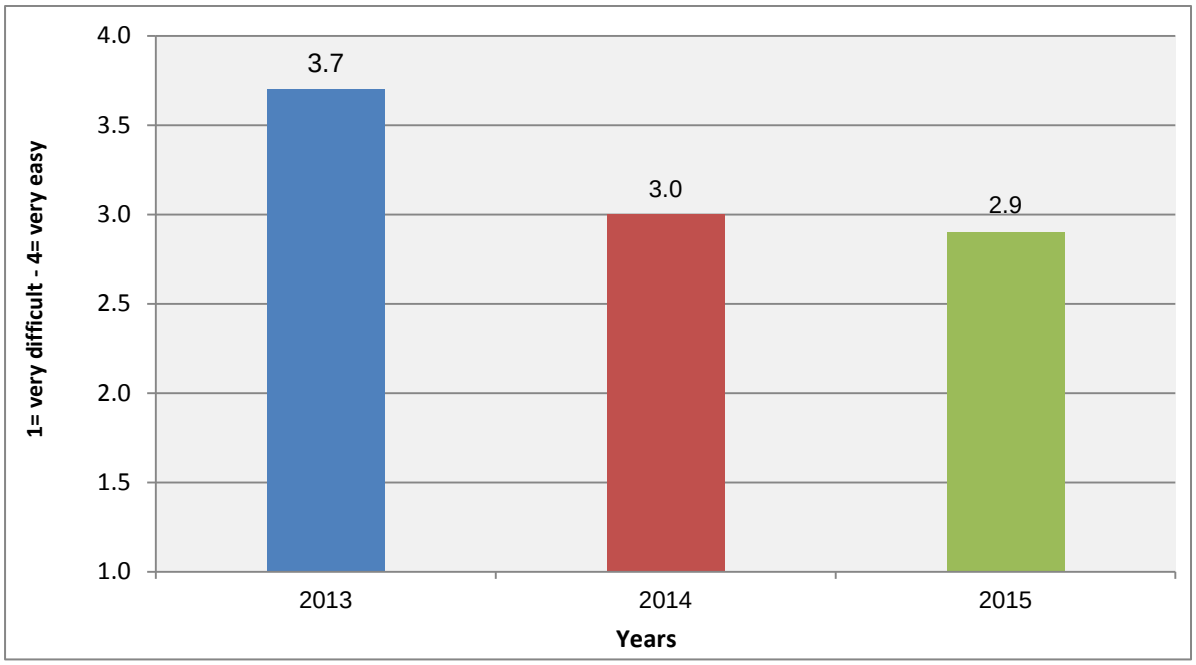
Current availability of synthetic cannabinoids

The frequent drug users reported the current availability of synthetic cannabinoids to be 'very easy/easy' in 2015 (Table 9.1). The current availability of synthetic cannabinoids declined from 2013 to 2015 (down from 3.7 to 2.9, $p<0.0001$) (Figure 9.1). Current availability had previously declined sharply from 2013 to 2014 (down from 3.7 to 3.0, $p=0.0002$).

Table 9.1 Current availability of synthetic cannabinoids, 2013-2015

Current availability (%)	2013 (n=67)	2014 (n=29)	2015 (n=32)
Very easy [4]	73%	36%	38%
Easy [3]	20%	38%	28%
Difficult [2]	7%	20%	25%
Very difficult [1]	0%	6%	9%
Average availability score (1=very difficult - 4=very easy)	3.7	3.0	2.9
Overall recent change	Stable	Easy/very easy	Very easy/easy

Figure 9.1 Mean score of the current availability of synthetic cannabinoids, 2013-2015



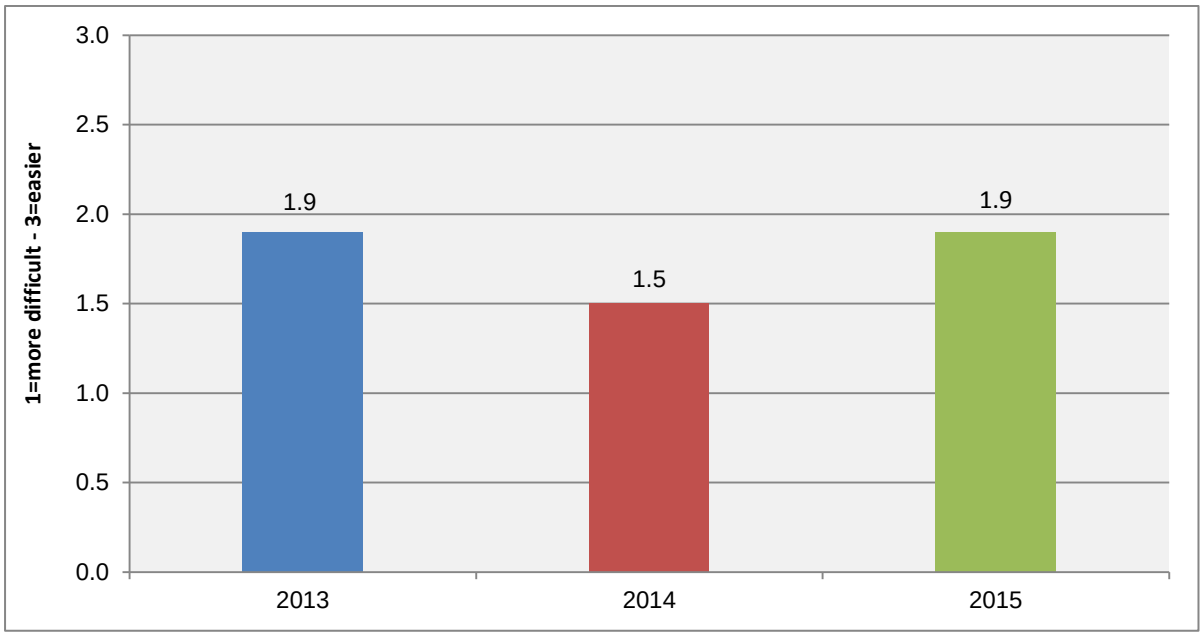
Change in availability of synthetic cannabinoids

The availability of synthetic cannabinoids was reported to have been 'stable/more difficult' over the previous six months in 2015 (Table 9.2). A higher proportion of frequent drug users described the availability of synthetic cannabinoids as 'stable' from 2014 to 2015 (up from 1.5 to 1.9, p=0.0442) (Figure 9.2). The frequent drug users had previously described the availability of synthetic cannabinoids as 'more difficult' from 2013 to 2014 (down from 1.9 to 1.5, p=0.0066).

Table 9.2 Change in availability of synthetic cannabinoids by location, 2013-2015

Change in availability (%)	2013 (n=65)	2014 (n=29)	2015 (n=30)
Easier [3]	9%	11%	16%
Stable [2]	70%	29%	56%
Fluctuates [2]	2%	3%	3%
More difficult [1]	19%	57%	26%
Average change in availability score (1=more difficult – 3=easier)	1.9	1.5	1.9
Overall recent change	Stable	More difficult/ stable	Stable/ more difficult

Figure 9.2 Mean score of the change in the availability of synthetic cannabinoids, 2013-2015



9.4 Price of synthetic cannabinoids

Change in price of synthetic cannabinoids

The price of synthetic cannabinoids was reported to have been 'stable/increasing' over the past six months in 2015 (Table 9.3). Forty-two percent of the frequent drug users reported the price of synthetic cannabinoids had been 'increasing' in 2015. There was no statistically significant difference in the change in price of synthetic cannabinoids from 2013 to 2015.

Table 9.3 Change in the price of synthetic cannabinoids, 2013-2015

Change in price (%)	2013 (n=59)	2014 (n=26)	2015 (n=23)
Increasing [3]	31%	53%	42%
Fluctuating [2]	6%	7%	0%
Stable [2]	50%	27%	50%
Decreasing [1]	13%	13%	8%
Average change in price score (1=decreasing – 3=increasing)	2.2	2.4	2.3
Overall recent change	Stable/ increasing	Increasing/ stable	Stable/ increasing

9.5 Strength of synthetic cannabinoids

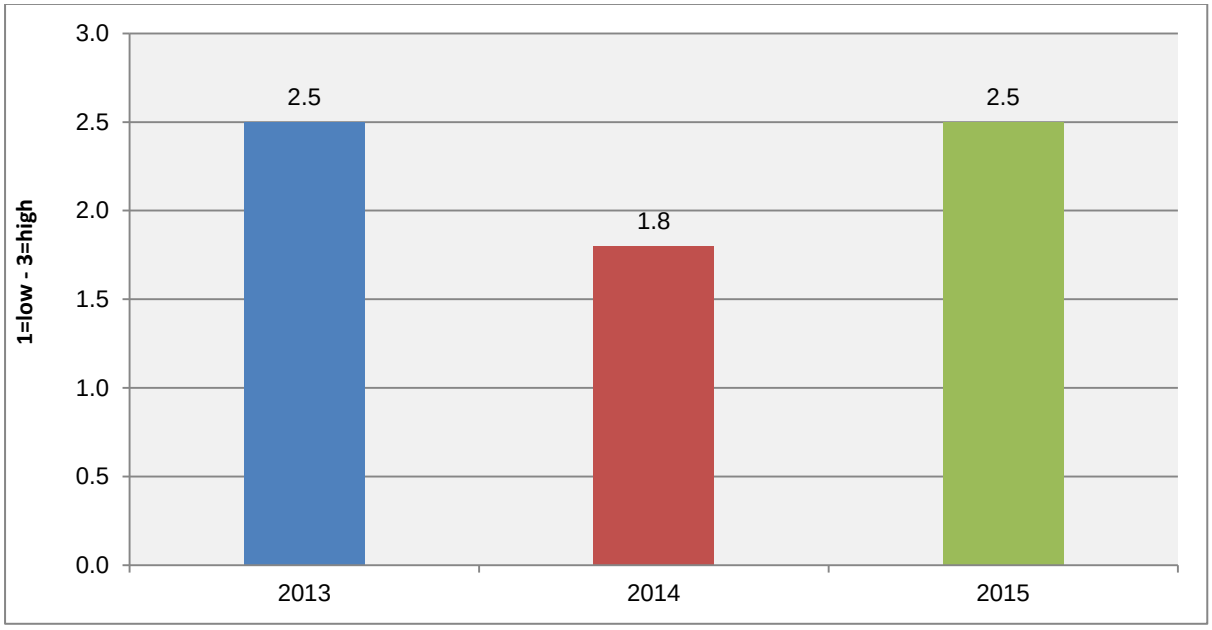
Current strength of synthetic cannabinoids

The current strength of synthetic cannabinoids was described as 'high/medium' in 2015 (Table 9.4). There was an increase in the current strength of synthetic cannabinoids from 2014 to 2015 (up from 1.8 to 2.5, p=0.0003) (Figure 9.3). There had previously been a decline in the current strength of synthetic cannabinoids from 2013 to 2014 (down from 2.5 to 1.8, p=0.0001).

Table 9.4 Current strength of synthetic cannabinoids, 2013-2015

Current strength (%)	2013 (n=65)	2014 (n=28)	2015 (n=33)
High [3]	57%	14%	59%
Medium [2]	23%	37%	25%
Fluctuates [2]	8%	16%	7%
Low [1]	12%	33%	10%
Average strength score (1=low – 3=high)	2.5	1.8	2.5
Overall current status	High/ medium	Medium/low	High/ medium

Figure 9.3 Mean score of the current strength of synthetic cannabinoids, 2013-2015



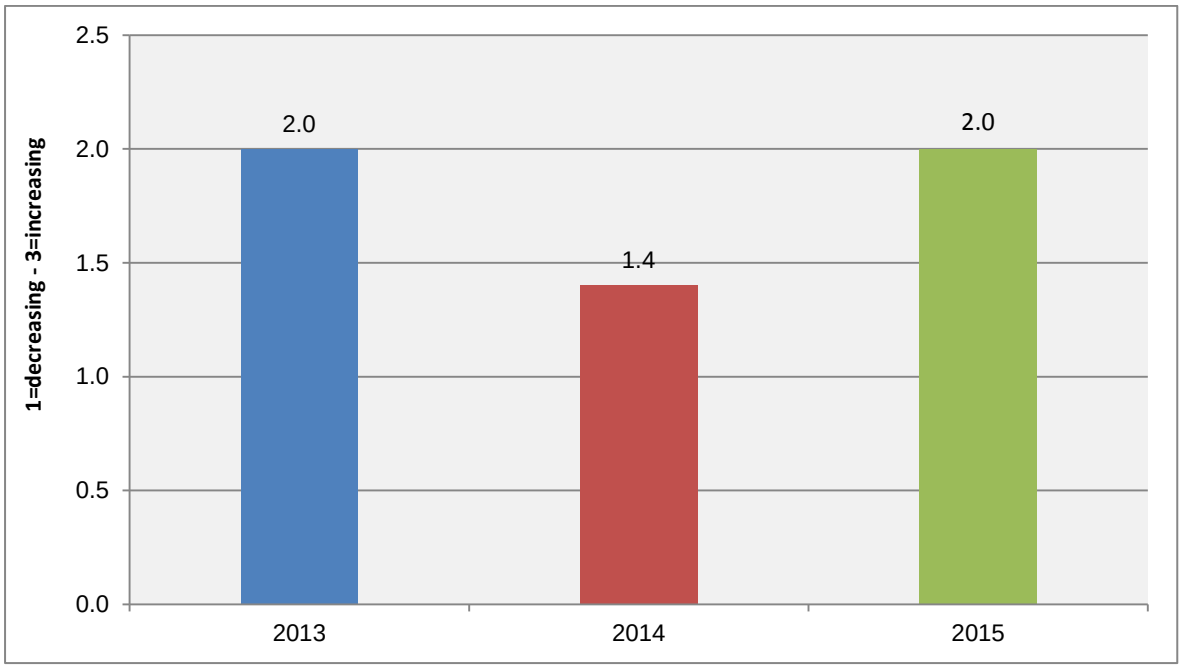
Change in strength of synthetic cannabinoids

The strength of synthetic cannabinoids was reported to be 'stable/increasing' in the previous six months in 2015 (Table 9.5). An increasing proportion described the strength of synthetic cannabinoids as 'stable' from 2014 to 2015 (up from 1.4 to 2.0, p=0.0004) (Figure 9.4). There had previously been a substantial decline in the strength of synthetic cannabinoids from 2013 to 2014 (down from 2.0 to 1.4, p<0.0001) (Figure 9.4).

Table 9.5 Change in strength of synthetic cannabinoids, 2013-2015

Change in strength (%)	2013 (n=62)	2014 (n=27)	2015 (n=30)
Increasing [3]	16%	6%	22%
Stable [2]	54%	16%	53%
Fluctuating [2]	14%	11%	6%
Decreasing [1]	16%	66%	18%
Average change in strength score (1=decreasing 3=increasing)	2.0	1.4	2.0
Overall recent change	Stable/ decreasing/ increasing	Decreasing/ stable	Stable/ increasing

Figure 9.4 Mean score of the change in strength of synthetic cannabinoids, 2013-2015



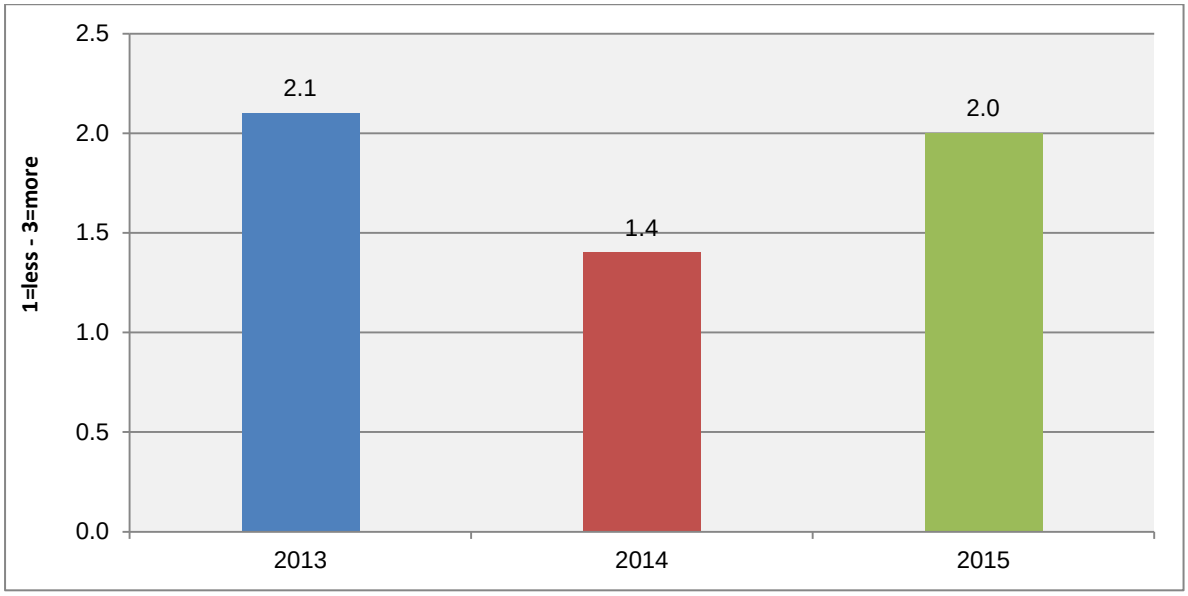
9.6 Perceptions of the number of people using synthetic cannabinoids

Forty-five percent of the frequent drug users reported that 'more' people were using synthetic cannabinoids compared to the previous six months in 2015 (Table 9.6). A higher proportion of frequent drug users reported that 'more' people were using synthetic cannabinoids from 2014 to 2015 (up from 1.4 to 2.0, p=0.0092) (Figure 9.5). The frequent drug users had previously reported that 'less' people were using synthetic cannabinoids from 2013 to 2014 (down from 2.1 to 1.4, p=0.0014).

Table 9.6 Perceptions of the number of people using synthetic cannabinoids, 2013-2015

Number of people using (%)	2013 (n=63)	2014 (n=29)	2015 (n=33)
More [3]	45%	14%	45%
Same [2]	19%	15%	15%
Less [1]	36%	70%	41%
Average number of people using score (1=less – 3=more)	2.1	1.4	2.0
Overall recent change	More/ less	Less	More/less

Figure 9.5 Mean score of perceptions of the change in the number of people using synthetic cannabinoids, 2013-2015



9.7 Purchase of synthetic cannabinoids

Time taken to purchase synthetic cannabinoids

Seventy-five percent of the frequent drug users were able to purchase synthetic cannabinoids in one hour or less in 2015 (Table 9.7). The proportion who could purchase synthetic cannabinoids in one hour or less decreased from 91% in 2013 to 75% in 2015, but this decrease was not statistically significant (p=0.1071).

Table 9.7 Time taken to purchase synthetic cannabinoids, 2013-2015

Time taken to purchase	2013 (n=39)	2014 (n=19)	2015 (n=16)
Months	0	0	0
Weeks	0	8	0
Days	3	5	4
About one day	4	13	8
Hours	3	15	13
1 Hour	13	19	5
Less than 20 mins	78	42	71

Location of purchase of synthetic cannabinoids

The frequent drug users were asked about all the locations where they had purchased synthetic cannabinoids in the previous six months in 2015. This six-month timeframe was after the ban on all synthetic cannabinoids in May 2014. The proportion of frequent drug users who purchased synthetic cannabinoids from a 'legal shop' decreased from 91% in 2013 to 47% in 2015 (p=0.0001) (Table 9.8). However, there were increases in the frequent drug users who now purchased synthetic cannabinoids from other black market locations, such as 'tinny houses' (up from 2% in 2013 to 17% in 2015) and 'street drug markets' (up from 0% in 2013 to 32% in 2015). There was a sharp increase in the proportion of frequent drug users who had purchased synthetic cannabinoids from an 'agreed public location' (up from 0% in 2014 to 36% in 2015) and from a 'pub/bar/club' (up from 0% in 2014 to 30% in 2015).

Table 9.8 Location from which synthetic cannabinoids were purchased in the past six months, 2013-2015

Location of purchase (%)	2013 (n=41)	2014 (n=16)	2015 (n=16)
Legal shop	91	63	47
Public area (e.g. park)	2	26	30
Street drug market	0	26	32
Private house	9	23	25
'Tinny' house	2	9	17
Agreed public location	0	0	36
Work	0	0	8
Pub/bar/club	0	0	30
Educational institute	0	0	0
Internet	0	0	8

Types of sellers of synthetic cannabinoids

The frequent drug users were asked about all the people they had purchased synthetic cannabinoids from in the previous six months in 2015. Again, this six-month timeframe was after the ban on synthetic cannabinoids in May 2014. The proportion of frequent drug users who had purchased synthetic cannabinoids from a 'legal retailer' decreased from 94% in 2013 to 46% in 2015 ($p<0.0001$) (Table 9.9). Conversely, there were sharp increases in the proportions of synthetic cannabinoids purchased from a 'friend', 'social acquaintance', 'drug dealer' and 'gang member/associate'.

Table 9.9 People from whom synthetic cannabinoids were purchased in the past six months, 2013-2015

Type of person (%)	2013 (n=41)	2014 (n=13)	2015 (n=17)
Legal retailer	94	71	46
Friend	6	7	32
Social acquaintance	6	7	50
Drug dealer	6	7	41
Gang member/gang associate	0	7	32
Partner/family member	0	0	15

9.8 Summary of synthetic cannabinoid trends

- In May 2014 the Government withdrew all licenses for legal high products under the Psychoactive Substances Act, effectively making the sale of synthetic cannabinoid products illegal

- The availability of synthetic cannabinoids declined from 2013 to 2015

- The availability of synthetic cannabinoids had previously declined sharply from 2014 to 2015

- A higher proportion of frequent drug users described the availability of synthetic cannabinoids as 'stable' from 2014 to 2015

- Fifty-nine percent of frequent drug users described the current strength of synthetic cannabinoids as 'high' in 2015

- The current strength of synthetic cannabinoids increased from 2014 to 2015

- An increasing proportion of frequent drug users reported the strength of synthetic cannabinoids as 'stable' from 2014 to 2015

- Forty-five percent of the frequent drug users reported that 'more' people were using synthetic cannabinoids compared to the previous six months in 2015

- There was an increase in the proportion of frequent drug users who reported 'more' people were using synthetic cannabinoids from 2014 to 2015

- The proportion of frequent drug users who could purchase synthetic cannabinoids in one hour or less decreased from 91% in 2013 to 75% in 2015

- The proportion of frequent drug users who purchased synthetic cannabinoids from a 'legal shop' decreased from 91% in 2013 to 47% in 2015

- There were increases in the proportions of frequent drug users who had purchased synthetic cannabinoids from a range of black market locations such as 'tinny houses' and 'street drug markets'

- The proportion of frequent drug users who had purchased synthetic cannabinoids from a 'legal retailer' decreased from 94% in 2013 to 46% in 2015

- Conversely, there were sharp increases in the proportions who purchased synthetic cannabinoids from a 'friend', 'social acquaintance', 'drug dealer' and 'gang member/associate'

10. Street Morphine

10.1 Introduction

Morphine is a potent opioid analgesic which acts directly on the central nervous system and has a high dependency potential. Pharmaceutical morphine has been the principal opioid used by injecting drug users in New Zealand for a number of decades, primarily due to the ongoing poor supply of internationally sourced heroin (Wilkins et al., 2010; Wilkins, et al., 2011b). The international supply of heroin to New Zealand was substantially disrupted in the late 1970s by the arrest of the 'Mr Asia' heroin syndicate (New Zealand Customs Service, 2002; Newbold, 2000). Three domestic sources of opioids emerged in the subsequent decades to largely replace heroin: (1) 'street morphine' - pharmaceutical morphine illicitly diverted from the medical system; (2) 'homebake heroin/morphine' – morphine made by users from diverted codeine in make-shift 'kitchen' laboratories; and (3) opium extracted on a seasonal basis from locally grown opium poppies (Adamson & Sellman, 1998; New Zealand Customs Service, 2002). The IDMS has collected separate trend data on the four main opioid groups used in New Zealand since 2008 (i.e. 'street' morphine, 'street' methadone, heroin and 'homebake' heroin/morphine).

The IDMS previously reported a decrease in the availability of street morphine in Christchurch in 2012 (Wilkins, et al., 2013a), and this trend continued in 2013 (Wilkins, et al., 2014). The 2014 IDMS found a recovery in the availability of morphine in Christchurch (Wilkins, et al., 2015). There was also evidence that gangs were playing a growing part in this recovery. The proportion of frequent drug users from Christchurch who purchased street morphine from a 'gang member' increased from 7% in 2012 to 51% in 2014 (Wilkins, et al., 2015).

10.2 Knowledge of street morphine

Twenty-six percent of the frequent drug users interviewed for the 2015 IDMS (n=103) indicated they felt confident enough to comment on the price, strength and availability of 'street' morphine in the previous six months. This included 79% of the frequent injecting drug users (n=92), 8% of the frequent methamphetamine users (n=7) and 4% of the frequent ecstasy users (n=4). As in previous years, the majority of those commenting on morphine trends in 2015 came from Christchurch (71%, n=73), while only fairly small numbers came from Wellington (18%, n=19) and Auckland (11%, n=11). The low numbers of respondents in some years makes comparisons within sites over time problematic, and consequently we largely focus on trends in Christchurch.

10.3 Availability of street morphine

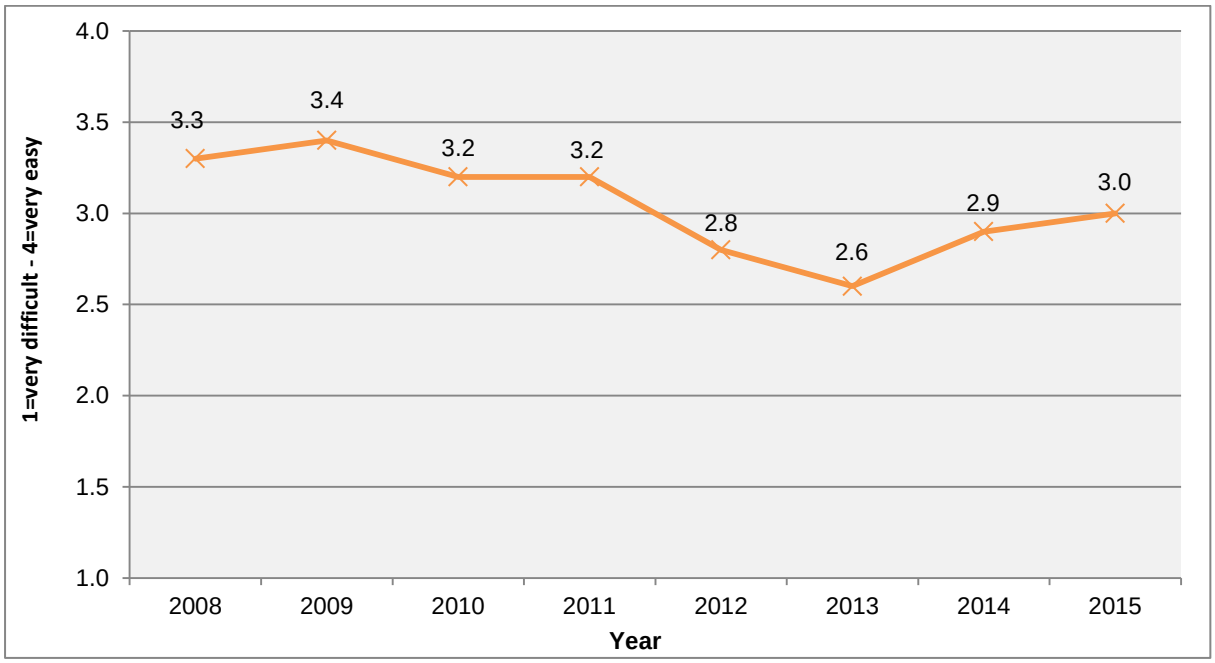
Current availability of street morphine

The frequent drug users reported the current availability of street morphine to be 'easy/difficult' in 2015 (Table 10.1). Overall, the current availability of street morphine had declined from 2008 to 2015 (down from 3.3 to 3.0, $p<0.0001$) (Figure 10.1). There had previously been a substantial decline in the current availability of street morphine from 2008 to 2013 (down from 3.3 to 2.6, $p<0.0001$). This was followed by a recovery in availability from 2013 to 2014 (up from 2.6 to 2.9).

Table 10.1 Current availability of street morphine by combined frequent drug users, 2008-2015

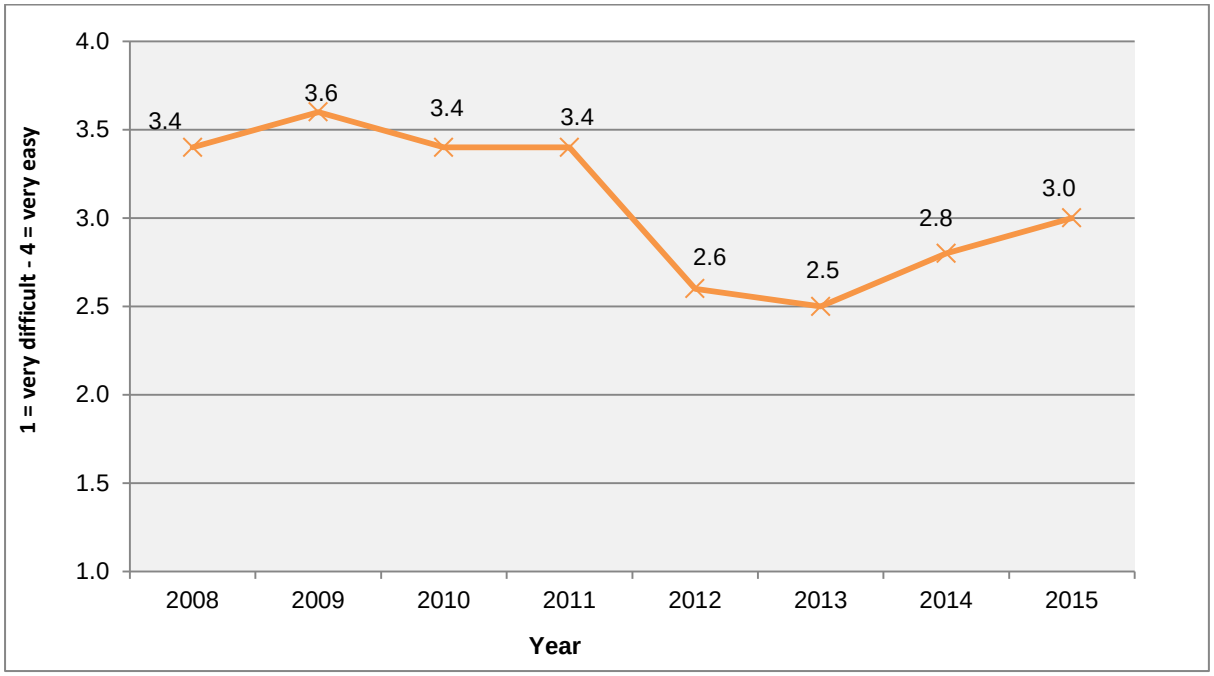
Current availability of street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=110)	Combined modules (n=108)	Combined modules (n=116)	Combined modules (n=96)	Combined modules (n=97)	Combined modules (n=95)	Combined modules (n=90)	Combined modules (n=102)
Very easy [4]	40%	50%	33%	40%	23%	23%	21%	25%
Easy [3]	52%	40%	54%	41%	32%	29%	48%	49%
Difficult [2]	7%	9%	12%	17%	45%	35%	27%	26%
Very difficult [1]	1%	1%	1%	1%	0%	13%	4%	0%
Average availability score (1=very difficult – 4=very easy)	3.3	3.4	3.2	3.2	2.8	2.6	2.9	3.0
Overall current status	Easy/very easy	Very easy/easy	Easy/very easy	Easy/very easy	Difficult/ easy	Difficult/ easy	Easy/difficult	Easy/difficult

Figure 10.1 Current availability of street morphine by combined frequent drug users, 2008-2015



Overall, the current availability of street morphine in Christchurch had declined from 3.4 in 2008 to 3.0 in 2015 ($p<0.0001$). The availability of street morphine in Christchurch had previously declined from 3.4 in 2008 to a low of 2.5 in 2013 ($p<0.0001$), but recovered from 2.5 in 2013 to 2.8 in 2014 ($p=0.0338$) and to 3.0 in 2015 (Figure 10.2).

Figure 10.2 Current availability of street morphine in Christchurch, 2008-2015



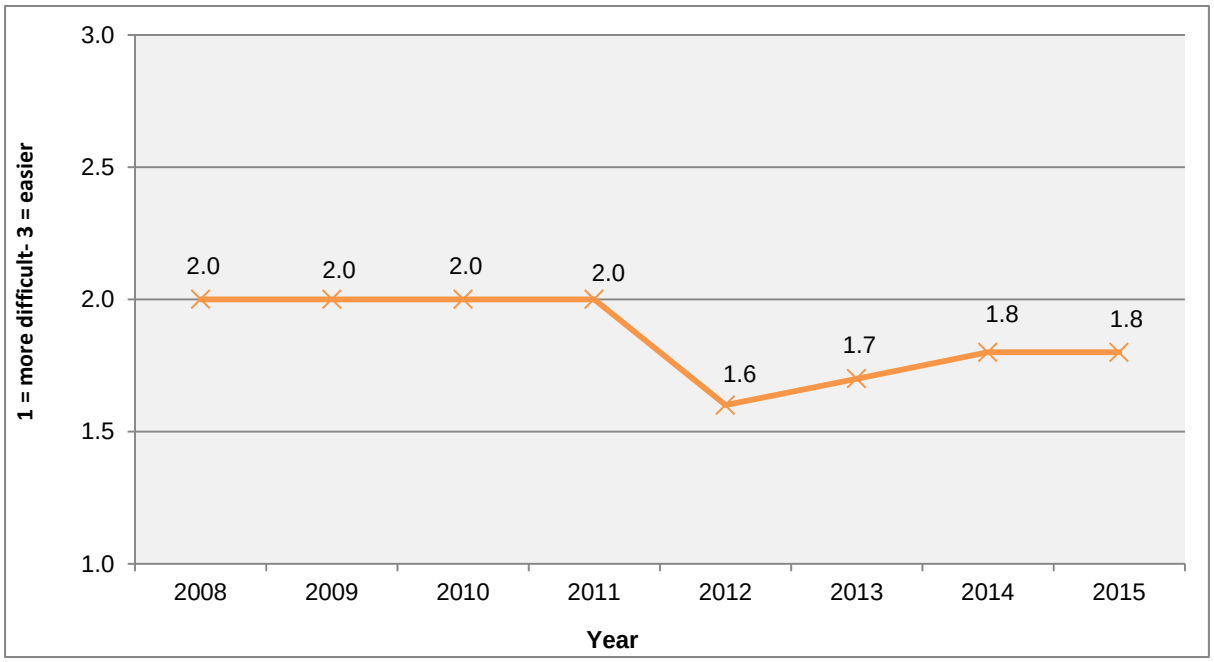
Change in availability of street morphine

The frequent drug users reported the availability of street morphine had been 'stable/more difficult' over the past six months in 2015 (Table 10.2). A greater proportion of frequent drug users reported that street morphine was 'more difficult' to obtain from 2008 to 2015 (up from 11% to 24%, $p<0.0001$) (Figure 10.3). The availability of street morphine had previously been reported to have declined significantly from 2008 to 2012 (down from 2.0 to 1.6, $p<0.0001$).

Table 10.2 Change in availability of street morphine by combined frequent drug users, 2008-2015

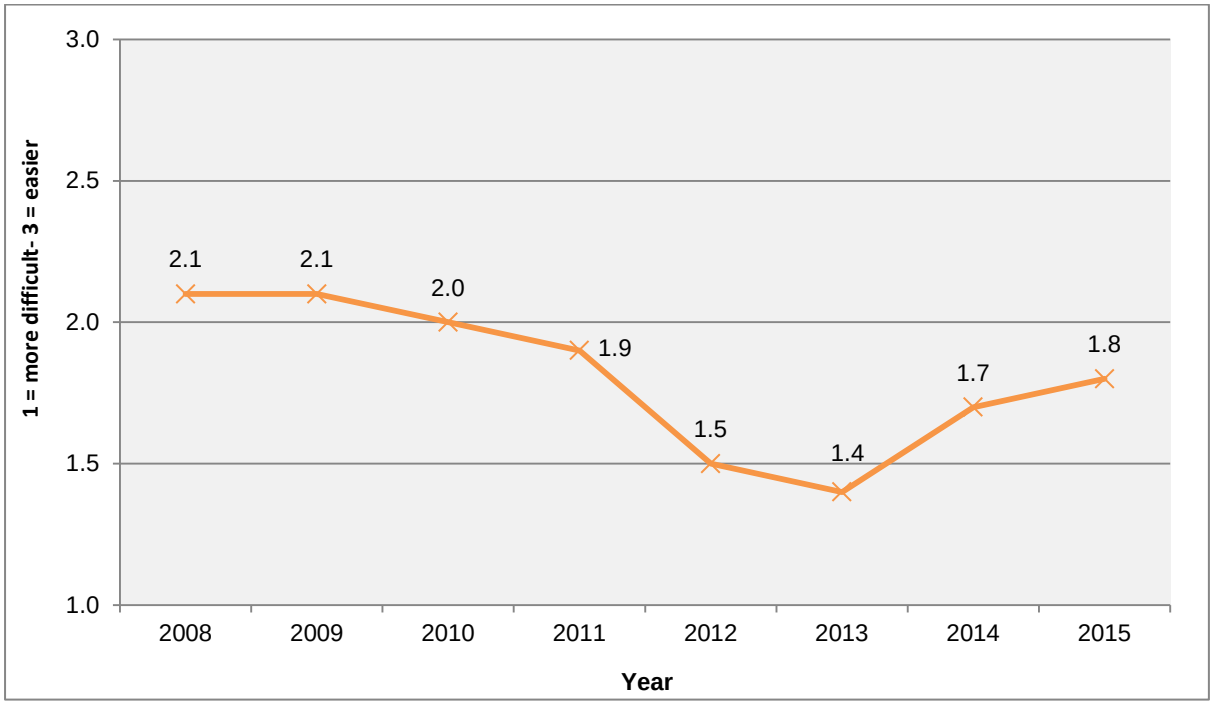
Change in availability of street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=110)	Combined modules (n=109)	Combined modules (n=113)	Combined modules (n=93)	Combined modules (n=97)	Combined modules (n=96)	Combined modules (n=89)	Combined modules (n=100)
Easier [3]	13%	16%	16%	7%	1%	12%	5%	8%
Stable [2]	62%	60%	53%	65%	44%	26%	43%	57%
Fluctuates [2]	14%	7%	12%	16%	18%	18%	25%	11%
More difficult [1]	11%	17%	19%	12%	37%	44%	27%	24%
Average change in availability score (1=more difficult – 3=easier)	2.0	2.0	2.0	2.0	1.6	1.7	1.8	1.8
Overall recent change	Stable/ fluctuates	Stable/ more difficult	Stable/ more difficult	Stable/ fluctuates	Stable/ more difficult	More difficult/stable	Stable/ more difficult	Stable/ more difficult

Figure 10.3 Change in availability of street morphine by combined frequent drug users, 2008-2015



Overall, the availability of street morphine in Christchurch had declined from 2.1 in 2008 to 1.8 in 2015 ($p<0.0001$). The availability of street morphine in Christchurch had previously declined from 2.1 in 2008 to 1.4 to 2013 ($p<0.0001$), followed by a recovery to 1.7 in 2014 ($p=0.0006$) and 1.8 in 2015 (Figure 10.4).

Figure 10.4 Change in availability of street morphine in Christchurch, 2008-2015



10.4 Price of street morphine

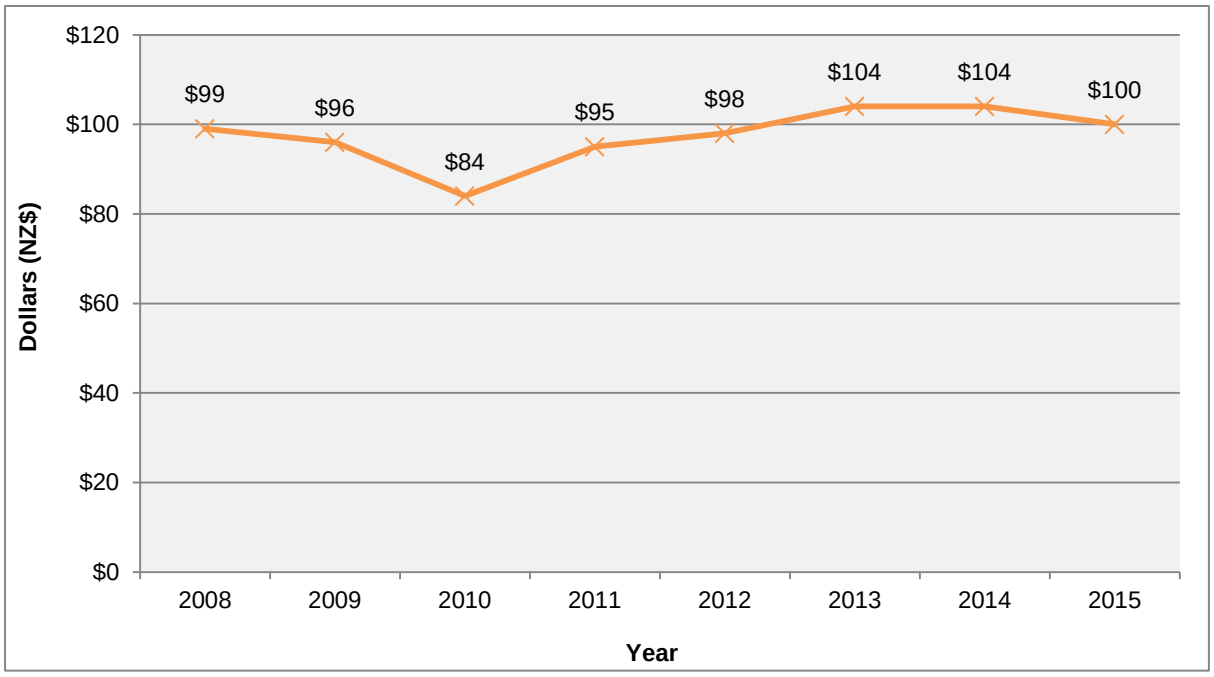
Current price of street morphine

The current median price for one milligram of street morphine was $1 (or $100 per 100 milligrams) in 2015 (Table 10.3). Overall, the mean price of 100 milligrams of street morphine had increased slightly from $99 in 2008 to $100in 2015 (p=0.0005) (Figure 10.5).

Table 10.3 Current median (mean) price for street morphine (NZD) by combined frequent drug users, 2008-2015

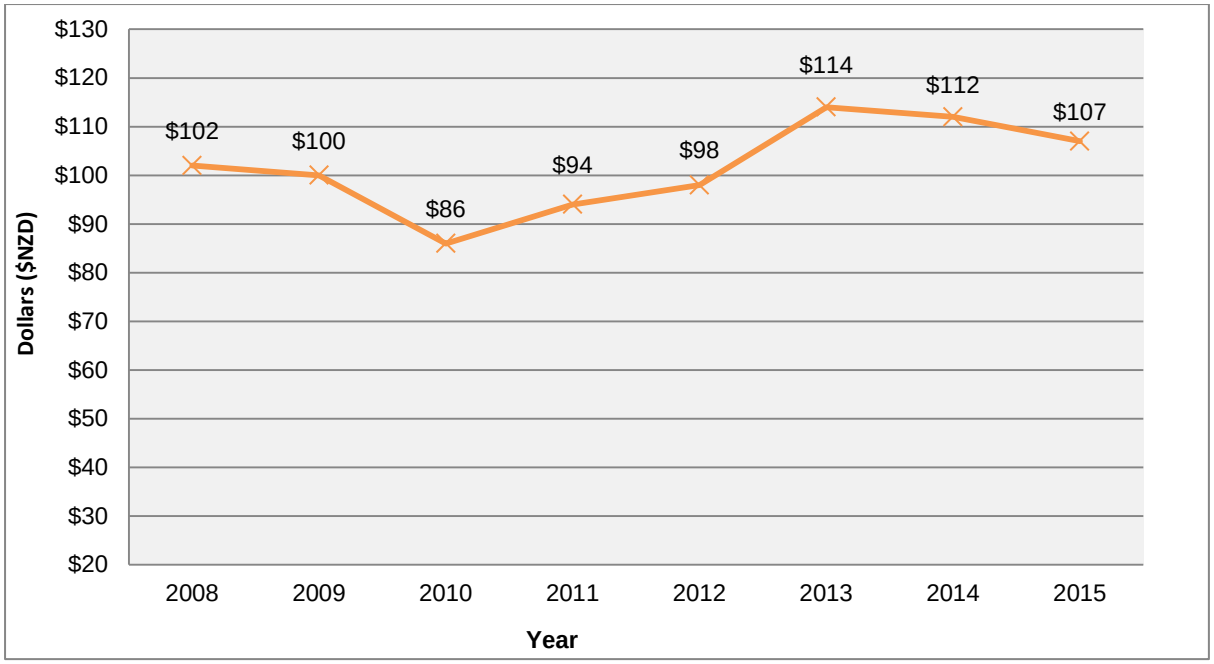
Current price of street morphine ($)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=103)	Combined modules (n=109)	Combined modules (n=109)	Combined modules (n=84)	Combined modules (n=93)	Combined modules (n=87)	Combined modules (n=79)	Combined modules (n=89)
Median (mean) price for a milligram	$1.00 ($0.99)	$1.00 ($0.96)	$1.00 ($0.84)	$1.00 ($0.95)	$1.00 ($0.98)	$1.00 ($1.04)	$1.00 ($1.10)	$1.00 ($1.00)

Figure 10.5 Current mean price paid for 100 milligrams of street morphine (NZD), 2008-2015



The price of morphine in Christchurch had increased from $102 in 2008 to $107 in 2015 ($p<0.0001$) (Figure 10.6).

Figure 10.6 Current mean price paid for 100 milligrams of street morphine in Christchurch (NZD), 2008-2015



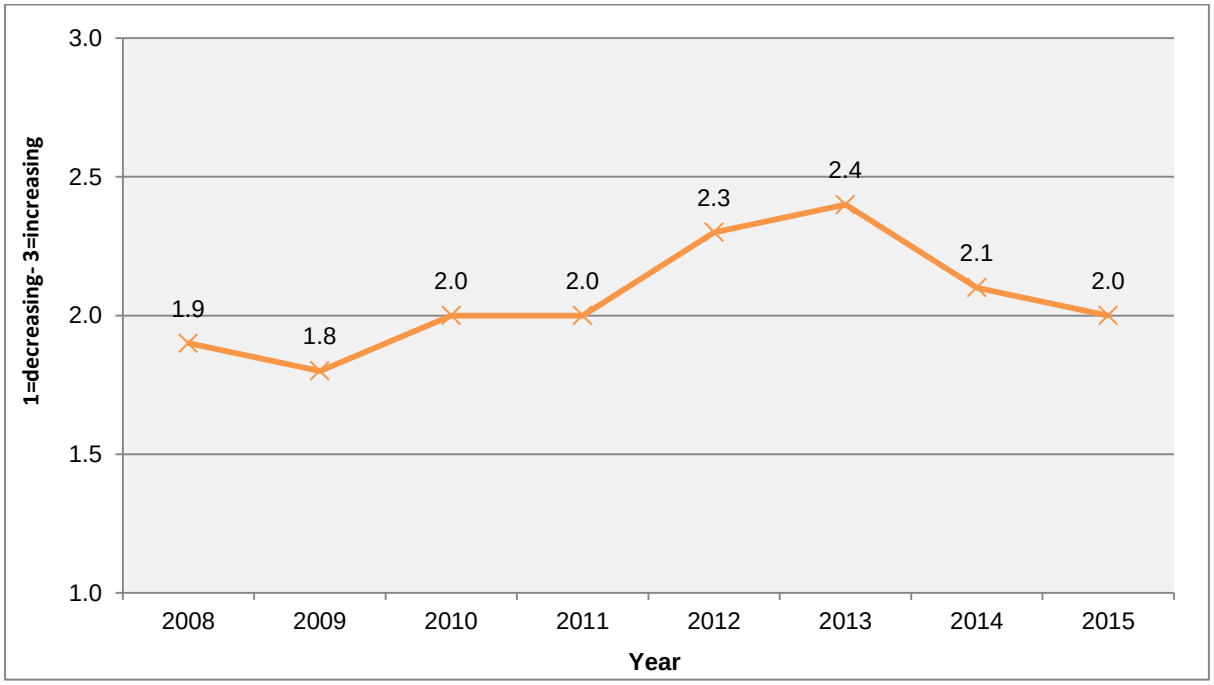
Change in price of street morphine

The price of street morphine was described as 'stable' over the past six months in 2015 (Table 10.4). Ninety-three percent of the frequent drug users described the price of street morphine as 'stable'. Overall, a higher proportion of frequent drug users thought the price of street morphine was 'increasing' from 2008 to 2015 (up from 1.9 to 2.0, $p<0.0001$) (Figure 10.7). However, the frequent drug users were more likely to report that the price of street morphine was 'stable' from 2014 to 2015 (down from 2.1 to 2.0, $p=0.0347$).

Table 10.4 Change in the price of street morphine in the past six months by combined frequent drug users, 2008-2015

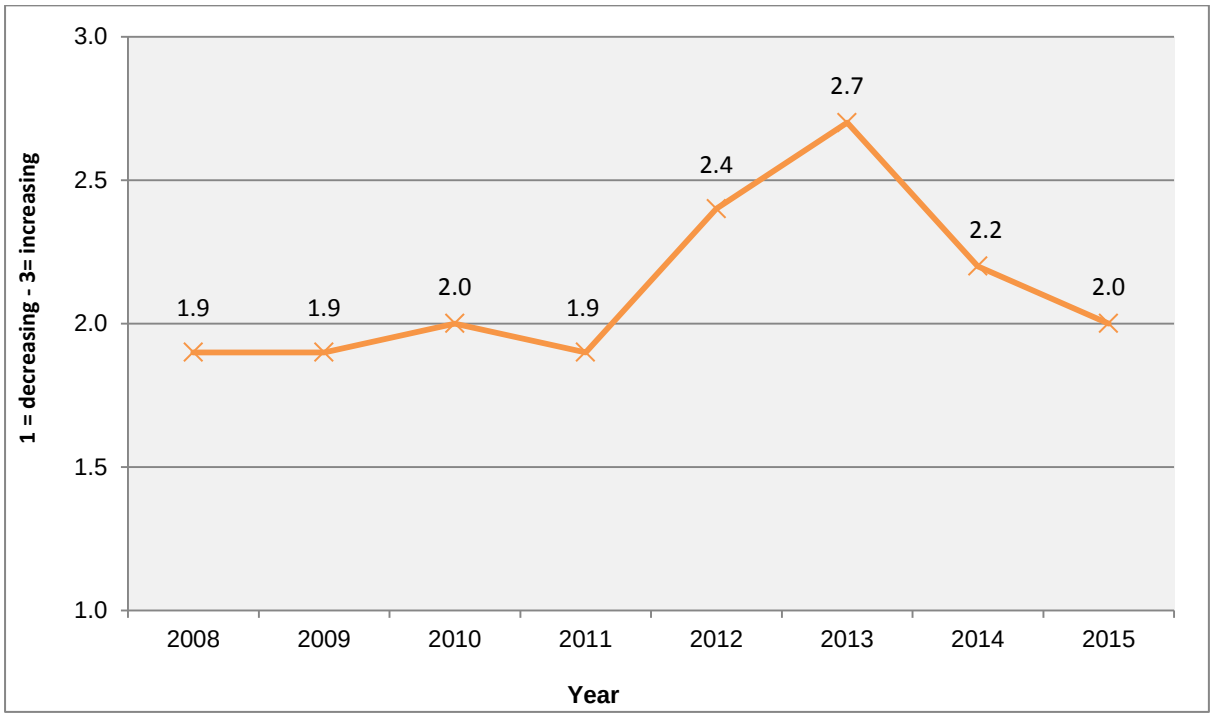
Change in price of street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=106)	Combined modules (n=107)	Combined modules (n=114)	Combined modules (n=95)	Combined modules (n=93)	Combined modules (n=92)	Combined modules (n=89)	Combined modules (n=98)
Increasing [3]	2%	2%	12%	7%	30%	41%	12%	1%
Fluctuating [2]	6%	4%	8%	3%	5%	14%	7%	5%
Stable [2]	80%	77%	70%	80%	62%	40%	77%	93%
Decreasing [1]	12%	18%	10%	8%	4%	5%	4%	2%
Average change in price score (1=decreasing –3=increasing)	1.9	1.8	2.0	2.0	2.3	2.4	2.1	2.0
Overall recent change	Stable	Stable	Stable	Stable	Stable/ increasing	Increasing/ stable	Stable	Stable

Figure 10.7 Change in the price of street morphine in the past six months by combined frequent drug users, 2008-2015



Overall, the frequent drug users in Christchurch were more likely to describe the price as 'increasing' from 2013 to 2014 ($p<0.0001$), but they were more likely to describe the price as 'stable' from 2014 to 2015 (up from 75% to 93%, $p=0.0023$) (Figure 10.8).

Figure 10.8 Change in the price of street morphine in the past six months in Christchurch, 2008-20154



10.5 Strength of street morphine

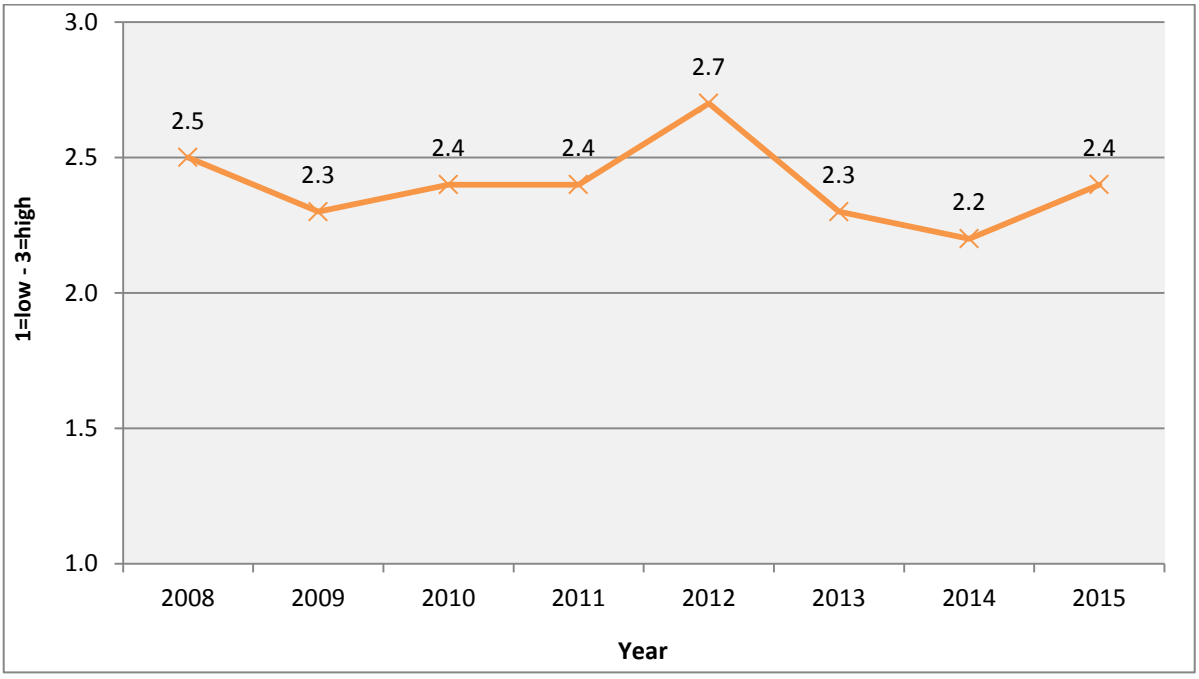
Current strength of street morphine

The current strength of street morphine was considered to be 'high/medium' in 2015 (Table 10.5). The strength of street morphine had previously declined sharply from 2012 to 2013 (down from 2.7 to 2.3, $p<0.0001$). However, the strength of street morphine recovered from 2014 to 2015 (up from 2.2 to 2.4, $p=0.0261$) (Figure 10.9).

Table 10.5 Current strength of street morphine by combined frequent drug users, 2008-2015

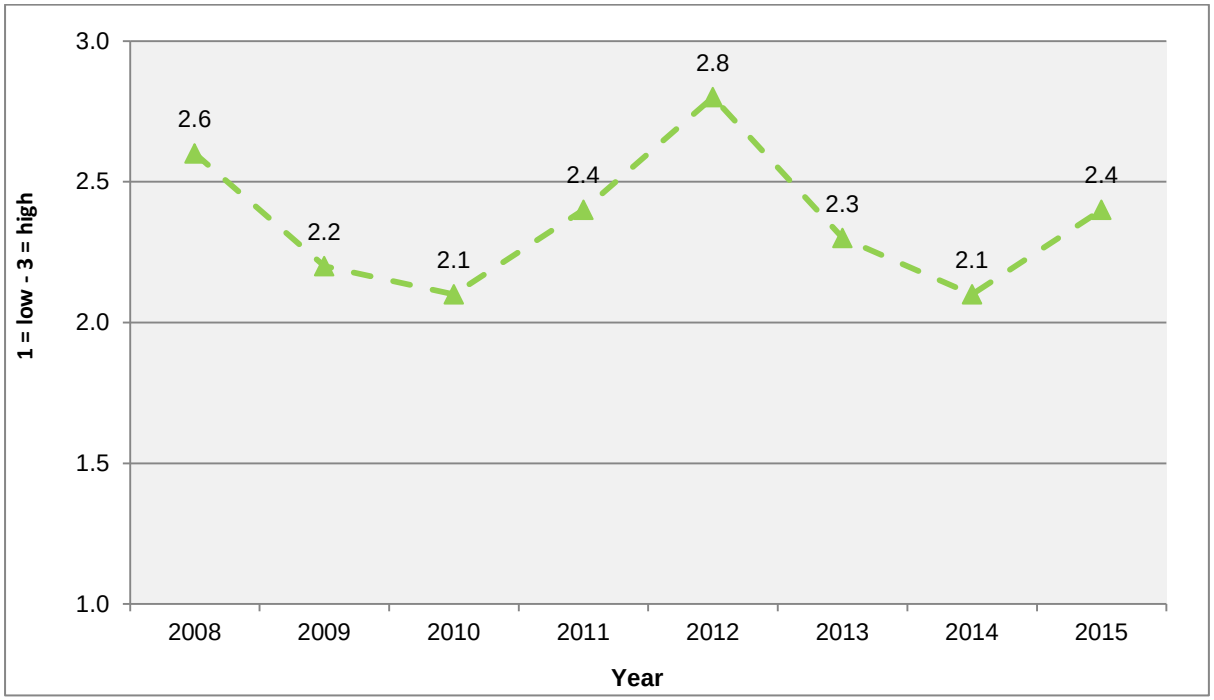
Current strength of street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=111)	Combined modules (n=100)	Combined modules (n=75)	Combined modules (n=83)	Combined modules (n=87)	Combined modules (n=78)	Combined modules (n=76)	Combined modules (n=97)
High [3]	57%	40%	44%	41%	74%	33%	25%	42%
Medium [2]	29%	41%	33%	42%	21%	54%	66%	41%
Fluctuates [2]	11%	9%	18%	17%	4%	13%	5%	13%
Low [1]	4%	10%	5%	0%	1%	0%	4%	4%
Average strength score (1=low – 3=high)	2.5	2.3	2.4	2.4	2.7	2.3	2.2	2.2
Overall current status	High/medium	Medium/high	High/medium	Medium/high	High	Medium/high	Medium/high	High/medium

Figure 10.9 Current strength of street morphine in the past six months by combined frequent drug users, 2008-2015



The frequent drug users in Christchurch reported a sharp increase in the strength of street morphine from 2014 to 2015 (up from 2.1 to 2.4, p=0.0010) (Figure 10.10).

Figure 10.10 Current strength of street morphine in Christchurch, 2008-2015



Change in strength of street morphine

The strength of street morphine was reported to have been 'stable' in the past six months in 2015 (Table 10.6). Ninety-one percent described the strength as 'stable'. There was no statistically significant difference in perceptions of the change in strength of street morphine from 2008 to 2015 (2.0 in all the years).

Table 10.6 Change in strength of street morphine by combined frequent drug users, 2008-2015

Change in strength of street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=110)	Combined modules (n=106)	Combined modules (n=108)	Combined modules (n=92)	Combined modules (n=91)	Combined modules (n=84)	Combined modules (n=89)	Combined modules (n=99)
Increasing [3]	2%	3%	2%	2%	0%	3%	0%	3%
Stable [2]	88%	89%	88%	86%	97%	91%	96%	91%
Fluctuating [2]	6%	5%	8%	10%	3%	5%	4%	4%
Decreasing [1]	5%	3%	3%	2%	0%	1%	0%	2%
Average change in strength score (1=decreasing – 3=increasing)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Overall recent change	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable

10.6 Perceptions of the number of people using street morphine

The number of people using street morphine was reported to be the 'same/more' in 2015 (Table 10.7). There was no statistically significant change in the number of people using street morphine from 2008 to 2015. There was also no change in perceptions of the number of people using street morphine in Christchurch, with 70% reporting the 'same' number of people using in 2015.

Table 10.7 Perceptions of the number of people using street morphine, 2008-2015

Number of people using street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=109)	Combined modules (n=108)	Combined modules (n=109)	Combined modules (n=89)	Combined modules (n=92)	Combined modules (n=94)	Combined modules (n=90)	Combined modules (n=100)
More [3]	22%	18%	26%	29%	15%	27%	15%	19%
Same [2]	59%	62%	54%	46%	61%	59%	73%	63%
Less [1]	19%	19%	20%	25%	23%	14%	12%	17%
Average number of people using score (1=less – 3=more)	2.0	2.0	2.1	2.0	1.9	2.1	2.0	2.0
Overall recent change	Same/more	Same/less	Same/more	Same/more	Same/less	Same/more	Same	Same/more

10.7 Purchase of street morphine

Frequency of purchase of street morphine

Sixty-three percent of the frequent drug users who purchased street morphine had done so 'weekly or more often' in the previous six months in 2015 (Table 10.8). The proportion of the frequent drug users who purchased street morphine 'weekly or more often' had increased from 55% in 2008 to 63% in 2015 (p=0.0480). The proportion of frequent drug users from Christchurch who purchased morphine weekly or more often also had increased from 59% in 2008 to 76% in 2015 (p=0.0003).

Table 10.8 Frequency of purchase of street morphine in past six months by combined frequent drug users, 2008-2015

Frequency purchase in past six months (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=94)	Combined modules (n=89)	Combined modules (n=90)	Combined modules (n=67)	Combined modules (n=85)	Combined modules (n=83)	Combined modules (n=78)	Combined modules (n=79)
1-2 times	7	10	12	18	12	9	8	12
3-4 times	18	7	10	12	8	1	6	11
Once per month	12	6	15	8	7	8	4	5
Twice per month	8	6	6	7	11	10	9	9
Once per week	14	17	11	13	11	19	14	18
2-3 times per week	18	19	21	14	24	15	14	7
4-5 times per week	6	8	10	7	7	6	6	5
Once per day	13	17	10	19	16	28	30	21
More than once per day	4	10	4	3	4	4	9	12

Time taken to purchase street morphine

Seventy-four percent of the frequent drug users could purchase street morphine in one hour or less in 2015 (Table 10.9). There was no statistically significant change in the proportion of frequent drug users who could purchase street morphine in one hour or less from 2008 to 2015.

Table 10.9 Time taken to purchase street morphine by combined frequent drug users, 2008-2015

Time to purchase (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=95)	Combined modules (n=90)	Combined modules (n=89)	Combined modules (n=68)	Combined modules (n=86)	Combined modules (n=81)	Combined modules (n=77)	Combined modules (n=81)
Months	0	0	1	0	0	0	0	0
Weeks	0	0	3	0	1	0	2	0
Days	2	1	2	1	6	5	0	4
About one day	17	4	15	6	12	2	4	3
Hours	14	11	14	16	15	12	18	19
1 Hour	38	39	20	37	30	51	47	46
Less than 20 mins	29	44	44	40	36	30	29	28

Location of purchase of street morphine

In 2015, 88% of the frequent drug users had purchased street morphine from a 'private house', 40% had purchased morphine from an 'agreed public location', 23% from a 'public area' such as a park, and 15% from 'pub/bar/club' (Table 10.10). There were increases in the proportion who had purchased street morphine from a 'public area like a park' (up from 11% in 2009 to 23% in 2015, p=0.0001) and from an 'agreed public location' (up from 22% in 2009 to 40% in 2015, p<0.0001). The proportion who had purchased street morphine from 'agreed public location' declined from 55% in 2014 to 40% in 2015, and this decline was very close to being statistically significant (p=0.0541).

Table 10.10 Location from which street morphine purchased in the past six months by combined frequent drug users, 2015

Location (%)	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=88)	Combined modules (n=87)	Combined modules (n=64)	Combined modules (n=84)	Combined modules (n=82)	Combined modules (n=77)	Combined modules (n=81)
Private house	89	90	78	91	95	90	88
Agreed public location	22	27	26	25	51	55	40
Public area (e.g. park)	11	4	18	15	27	23	23
Pub/bar/club	2	5	11	6	18	24	15
Work	0	0	1	4	7	13	12
'Tinny' house	2	4	6	5	9	9	7
Street drug market	3	6	16	5	3	6	2
Educational institute	1	2	1	0	1	3	2
Internet	0	1	1	0	0	0	2

There was also an increase in the proportion of frequent drug users from Christchurch who purchased morphine from an 'agreed public location' (up from 17% in 2009 to 51% in 2015 ($p<0.0001$) and from a 'public area like a park' (up from 6% in 2009 to 22% in 2015, $p<0.0001$). The frequent drug users who had purchased street morphine from a 'private house' also increased from 85% in 2009 to 93% in 2015 ($p=0.0084$).

Types of sellers of street morphine

In 2015, 80% of the frequent drug users had purchased street morphine from a 'drug dealer', 62% had purchased morphine from a 'friend', 56% had purchased morphine from a 'social acquaintance' and 41% had purchased from a 'gang member or gang associate' (Table 10.11). There were increases in the proportion of frequent drug users who had purchased street morphine from a 'drug dealer' (up from 67% in 2009 to 80% in 2015, $p<0.0001$), a 'gang member or gang associate' (up from 10% in 2009 to 41% in 2015, $p<0.0001$) and from a 'social acquaintance' (up from 10% in 2009 to 41% in 2015, $p<0.0001$).

The proportion of frequent drug users from Christchurch who purchased street morphine from a 'gang member or gang associate' had increased from 11% in 2009 to 44% in 2015 ($p<0.0001$) (Figure

10.11). The proportion who purchased from a gang member had previously increased sharply from 7% in 2012 to 36% in 2013 (p=0.0007). The proportion of frequent drug users from Christchurch who purchased morphine from a 'drug dealer' had also increased from 64% in 2009 to 87% in 2015 (p<0.0001).

Figure 10.11 Proportion of frequent drug users from Christchurch who purchased street morphine from a 'gang member or gang associate' or 'drug dealer', 2008-2015

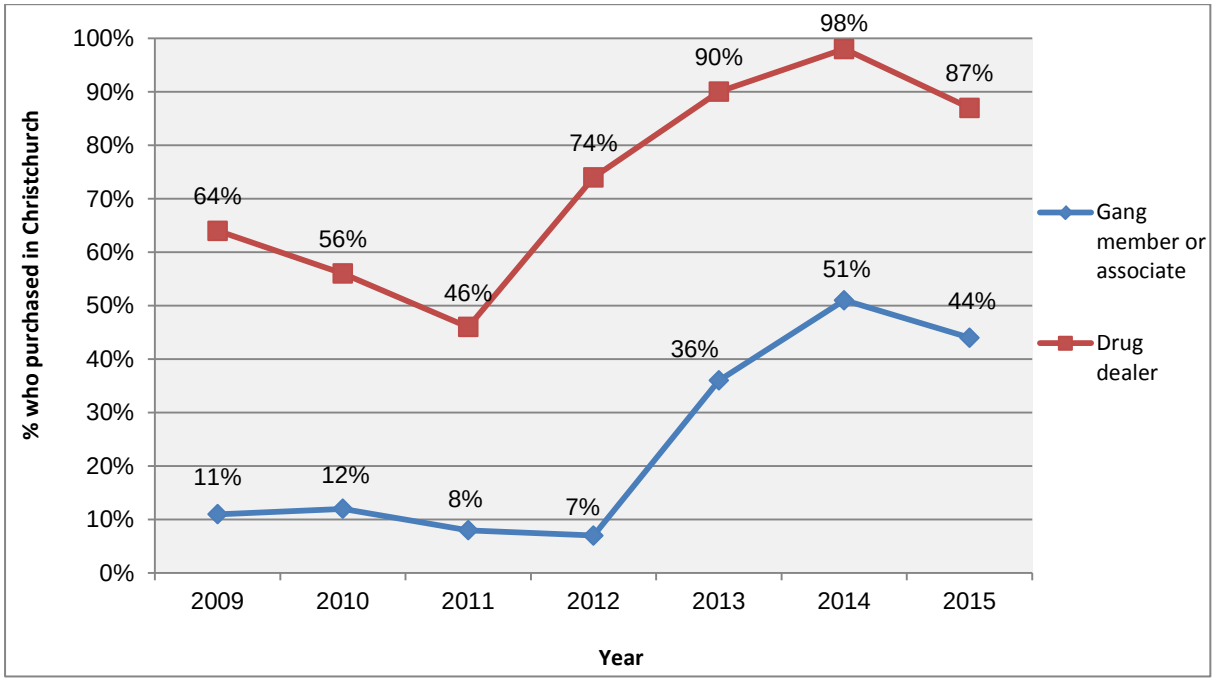


Table 10.11 People from whom street morphine was purchased in the past six months by combined frequent drug users, 2008-2015

Type of person (%)	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=89)	Combined modules (n=88)	Combined modules (n=65)	Combined modules (n=84)	Combined modules (n=82)	Combined modules (n=77)	Combined modules (n=80)
Drug dealer	67	57	49	75	71	87	80
Friend	53	57	51	56	46	57	62
Social acquaintance	51	42	45	49	56	25	56
Gang member/associate	10	13	11	10	32	38	41
Partner/family member	3	9	8	4	18	0	22

10.8 Seizures of opioids

The opioid category includes a wide range of opioid products which come in liquids, tablets and powders of varying potencies and product configurations, making comparisons between years challenging. Table 10.12 is a summary of the opioid products seized from 2009-2014, provided by the National Drug Intelligence Bureau (NDIB). Seizures of oxycodone were made from 2012 onwards, mirroring reports of increasing use in the IDMS over the same years.

Table 10.12 Opioid products seized from 2009-2015

COMMODITY & CLASSIFICATION		2009	2010	2011	2012	2013	2014	2015
Codeine [Class C2 or C6]	Amount Seized	1,532 TE	1,800 TE	1,341 TE	4,457.5 TE & 30ml & 9g	1530.5 TE	1254.3 TE & 200mL	1744.3 TE
	Number of Incidents	26	30	24	46	27	30	29
Methadone [Class B3]	Amount Seized	135 TE, 1,100 mg & 153 ml	16 TE & 290 ml	65 ml	452 TE & 354 ml	18 TE & 114 ml	16TE & 250mL	14TE & 89mL
	Number of Incidents	11	8	3	14	12	3	6
Morphine [Class B1]	Amount Seized	732 TE & 86 ml	1,006 TE, 455 ml &21.5 mg	758.5 TE & 990 ml	433 TE, 11.3g & 1,418.5 ml	1,149 TE & 5,364.5 ml	1563.4 TE & 86.5mL	627.56 TE & 606.5mL
	Number of Incidents	59	50	30	40	43	46	40
Oxycodone	Amount Seized	-	-	-	205 TE & 100 ml	681 TE & 1 ml	324.3 TE	263.5 TE
	Number of Incidents	-	-	-	8	19	21	10

TE = tablet equivalent

Source: NDIB, 2016

10.9 Summary of street morphine trends

- As in previous years, the majority of those commenting on the street morphine market were from Christchurch (71%, n=73)
- Overall, the current availability of street morphine was described as 'easy/difficult' in 2015
- There had previously been a substantial decline in the current availability of street morphine in Christchurch from 2011 to 2013, but availability subsequently recovered in 2014 and 2015
- The current median price paid for street morphine was $1 per milligram (or $100 per 100 milligrams) in 2015
- The mean price of 100 milligrams of street morphine in Christchurch had previously increased from $98 in 2012 to $114 in 2013, before declining from $112 in 2014 to $107 in 2015
- The current strength of street morphine was described as 'high/medium' in 2015
- The frequent drug users in Christchurch reported an increase in the strength of street morphine from 2014 to 2015
- Overall, the number of people using street morphine was reported to be the 'same/more' in 2015
- The proportion of frequent drug users in Christchurch who purchased morphine weekly or more often increased from 59% in 2008 to 76% in 2015
- There was an increase in the proportion of frequent drug users in Christchurch who purchased street morphine from an 'agreed public location' (up from 12% in 2012 to 51% in 2015) and 'public area such as a park' (up from 8% in 2012 to 22% in 2015)
- The proportion of frequent drug users from Christchurch who purchased street morphine from a 'gang member or gang associate' increased from 7% in 2012 to 44% in 2015
- The proportion of frequent drug users who purchased from a drug dealer increased from 46% in 2011 to 87% in 2015

11. Cocaine

11.1 Introduction

Cocaine is a commonly used illegal drug in many countries around the world, including North America and Europe (EMCDDA, 2016; UNODC, 2016). In New Zealand, cocaine use has historically been rare with use thought to be confined to a minority affluent social milieu (Field & Casswell, 1999; NDIB, 2015; Wilkins & Sweetsur, 2008). Large seizures of cocaine are sometimes made in New Zealand but they are generally made at the border and considered to be ultimately destined for the much larger Australian cocaine market (New Zealand Customs Service, 2002).

A number of factors appear to contribute to the low level of cocaine use in New Zealand including its high price, uncertain quality, short duration of action and uncertain supply (New Zealand Customs Service, 2002). International experience suggests that cocaine and methamphetamine are close substitutes for each other and one stimulant type tends to dominate in a locality at the expense of the other, reflecting local smuggling and transport conditions (Weisheit & White, 2009).

However, illegal drug markets can often respond quickly to new demand and supply opportunities. The 2014 IDMS reported the current availability of cocaine had increased from 2013 to 2014, but there was otherwise little indication of expanding use (Wilkins, et al., 2015). The 2015 NZ-ADUM found a steady increase in the proportion of police detainees who had tried cocaine at some point in their lifetimes, but recent use has stayed persistently low, perhaps reflecting the fact that experimentation occurs in other countries during holidays or extended overseas work (Wilkins, et al., 2016).

11.2 Knowledge of cocaine trends

Only 10% of the frequent drug users interviewed for the 2015 IDMS (n=27) indicated they felt confident enough to comment on the price, purity and availability of cocaine in the previous six months. This included 8% of the frequent methamphetamine users (n=5), 14% of the frequent ecstasy users (n=16) and 7% of the frequent injecting drug users (n=6). The low number of frequent drug users answering the cocaine section indicates the findings should be interpreted with caution.

11.3 Availability of cocaine

Current availability of cocaine

The current availability of cocaine was reported to be 'very difficult/difficult' in 2015 (Table 11.1). Forty-seven percent of the frequent drug users described the current availability of cocaine as 'very difficult'. There was no statistically significant change in the current availability of cocaine from 2006 to 2015 (Figure 11.1).

Figure 11.1 Mean score of the current availability of cocaine by combined frequent drug users, 2006-2015

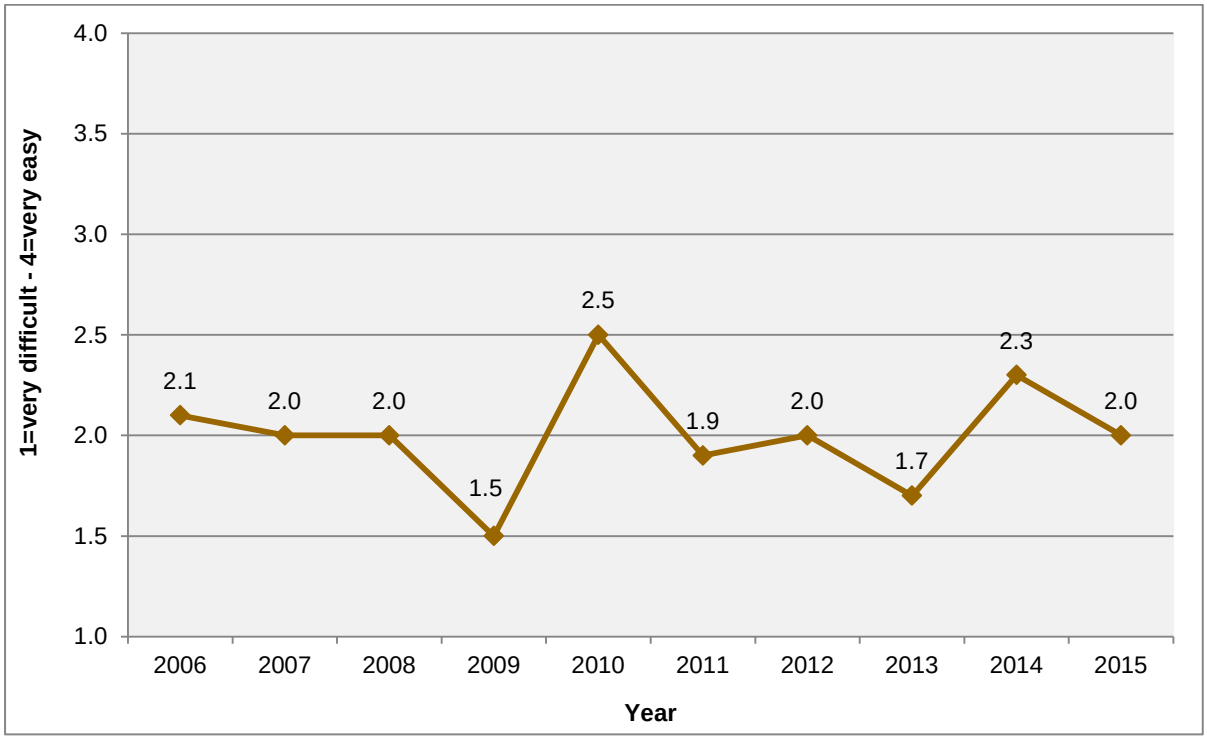


Table 11.1 Current availability of cocaine by combined frequent drug users, 2006-2015

Current availability of cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=29)	Combined modules (n=29)	Combined modules (n=31)	Combined modules (n=20)	Combined modules (n=24)	Combined modules (n=33)	Combined modules (n=25)	Combined modules (n=17)	Combined modules (n=18)	Combined modules (n=26)
Very easy [4]	10%	3%	12%	0%	24%	0%	13%	9%	5%	18%
Easy [3]	18%	16%	10%	9%	22%	16%	8%	10%	33%	8%
Difficult [2]	47%	52%	42%	35%	31%	57%	40%	24%	50%	27%
Very difficult [1]	25%	28%	37%	56%	23%	27%	39%	57%	12%	47%
Average availability score (1=very difficult – 4=very easy)	2.1	2.0	2.0	1.5	2.5	1.9	2.0	1.7	2.3	2.0
Overall current status	Difficult/ very difficult	Difficult/ very difficult	Difficult/ very difficult	Very difficult/ difficult	Difficult/ very easy	Difficult/ very difficult	Difficult/ very difficult	Very difficult /difficult	Difficult/ easy	Very difficult /difficult

Change in availability of cocaine

The frequent drug users reported the availability of cocaine had been ‘stable’ in the previous six months in 2015 (Table 11.2). Seventy-five percent of the frequent drug users described the availability of cocaine as ‘stable’. There was no statistically significant difference in the change in the availability of cocaine from 2006 to 2015.

Table 11.2 Change in availability of cocaine by combined frequent drug users, 2006-2015

Change in availability of cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=30)	Combined modules (n= 28)	Combined modules (n=29)	Combined modules (n=16)	Combined modules (n=23)	Combined modules (n=32)	Combined modules (n=32)	Combined modules (n=15)	Combined modules (n=18)	Combined modules (n=22)
Easier [3]	7%	0%	27%	0%	21%	5%	13%	9%	29%	6%
Stable [2]	56%	65%	55%	56%	38%	61%	47%	65%	31%	75%
Fluctuates [2]	13%	14%	3%	12%	18%	12%	7%	14%	26%	4%
More difficult [1]	23%	21%	15%	32%	22%	22%	33%	12%	14%	15%
Average change in availability score (1=more difficult – 3=easier)	1.8	1.8	2.1	1.7	2.0	1.8	1.8	2.0	2.1	1.9
Overall recent change	Stable/ more difficult	Stable/ more difficult	Stable/ easier	Stable/ more difficult	Stable/ more difficult	Stable/ more difficult	Stable/ more difficult	Stable/ fluctuates	Stable/ easier	Stable

11.4 Price of cocaine

Current price of cocaine

The median price paid for a gram of cocaine was $350 in 2015 (Table 11.3). There was no statistically significant change in the price of cocaine from 2006 to 2015. The number of respondents reporting prices for cocaine has been low in recent years (i.e. 14=2013, 13=2014, 18=2015) and consequently these results should be treated with some caution.

Table 11.3 Current price of cocaine (NZD) by combined frequent drug users, 2006-2015

Current price of cocaine ($)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=25)	Combined modules (n=20)	Combined modules (n=25)	Combined modules (n=16)	Combined modules (n=17)	Combined modules (n=29)	Combined modules (n=17)	Combined modules (n=14)	Combined modules (n=13)	Combined modules (n=18)
Median (mean) price for a gram	$300 ($353)	$350 ($431)	$400 ($422)	$350 ($560)	$350 ($357)	$500 ($585)	$400 ($383)	$500 ($617)	$400 ($340)	$350 ($349)

Change in price of cocaine

The price of cocaine was reported to have been ‘stable’ over the previous six months in 2015 (Table 11.4). Eighty-four percent of the frequent drug users described the price as ‘stable’. The frequent drug users were more likely to describe the price of cocaine as stable from 2014 to 2015, and this change was close to being statistically significant (p=0.1048).

Table 11.4 Change in the price of cocaine in the past six months by combined frequent drug users, 2006-2015

Change in price of cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=24)	Combined modules (n=22)	Combined modules (n=22)	Combined modules (n=16)	Combined modules (n=22)	Combined modules (n=29)	Combined modules (n=17)	Combined modules (n=14)	Combined modules (n=14)	Combined modules (n=15)
Increasing [3]	8%	18%	4%	32%	18%	46%	25%	36%	0%	6%
Fluctuating [2]	20%	9%	15%	12%	17%	16%	0%	6%	16%	10%
Stable [2]	64%	69%	65%	50%	65%	29%	44%	58%	72%	84%
Decreasing [1]	9%	4%	16%	6%	0%	9%	31%	0%	12%	0%
Average change in price score (1=decreasing – 3=increasing)	2	2.1	1.9	2.3	2.2	2.4	1.9	2.4	1.9	2.1
Overall recent change	Stable/ fluctuating	Stable/ increasing	Stable/ decreasing	Stable/ increasing	Stable/ increasing	Increasing/ stable	Stable/ decreasing	Stable/ increasing	Stable	Stable

11.5 Strength of cocaine

Current strength of cocaine

The current strength of cocaine was described as 'high/low' in 2015 (Table 11.5). There was no statistically significant change in the purity of cocaine from 2006 to 2015.

Table 11.5 Current strength of cocaine by combined frequent drug users, 2006-2015

Current strength of cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=24)	Combined modules (n=26)	Combined modules (n=28)	Combined modules (n=16)	Combined modules (n=23)	Combined modules (n=29)	Combined modules (n=21)	Combined modules (n=12)	Combined modules (n=17)	Combined modules (n=22)
High [3]	13%	26%	28%	24%	35%	40%	15%	24%	32%	37%
Medium [2]	21%	27%	25%	24%	27%	40%	38%	28%	13%	27%
Fluctuates [2]	17%	16%	25%	6%	17%	8%	4%	5%	32%	8%
Low [1]	49%	31%	23%	46%	21%	12%	42%	43%	23%	28%
Average strength score (1=low – 3=high)	1.6	1.9	2.1	1.8	2.1	2.3	1.7	1.8	2.1	2.1
Overall current status	Low/ medium	Low/ medium	High/ medium	Low/ medium	High/ medium	High/ medium	Low/ medium	Low/ medium	Fluctuates/ high	High/ low

Change in strength of cocaine

The strength of cocaine was described as 'stable/fluctuating' in the previous six months in 2015 (Table 11.6). There was no statistically significant difference in the change in strength of cocaine from 2006 to 2015.

Table 11.6 Change in strength of cocaine by combined frequent drug users, 2006-2015

Change in strength of cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=20)	Combined modules (n=25)	Combined modules (n=21)	Combined modules (n=14)	Combined modules (n=22)	Combined modules (n=29)	Combined modules (n=16)	Combined modules (n=12)	Combined modules (n=16)	Combined modules (n=17)
Increasing [3]	5%	4%	18%	7%	9%	3%	14%	0%	6%	16%
Stable [2]	36%	48%	37%	58%	54%	52%	62%	77%	49%	36%
Fluctuating [2]	24%	31%	23%	14%	28%	23%	0%	8%	32%	26%
Decreasing [1]	35%	17%	21%	21%	9%	22%	24%	15%	13%	22%
Average change in strength score (1=decreasing – 3=increasing)	1.7	1.9	2.0	1.9	2.0	1.8	1.9	1.9	1.9	1.9
Overall recent change	Stable/ decreasing	Stable/ fluctuating	Stable/ fluctuating	Stable/ decreasing	Stable/ fluctuating	Stable/ fluctuating	Stable/ decreasing	Stable	Stable/ fluctuating	Stable/ fluctuating

11.6 Perceptions of the number of people using cocaine

The number of people using cocaine was described as 'more/same' compared to six months ago in 2015 (Table 11.7). Forty-four percent reported that 'more' people were using cocaine compared to six months ago in 2015. There was no statistically significant difference in perceptions of the change in the number of people using cocaine from 2006 and 2015.

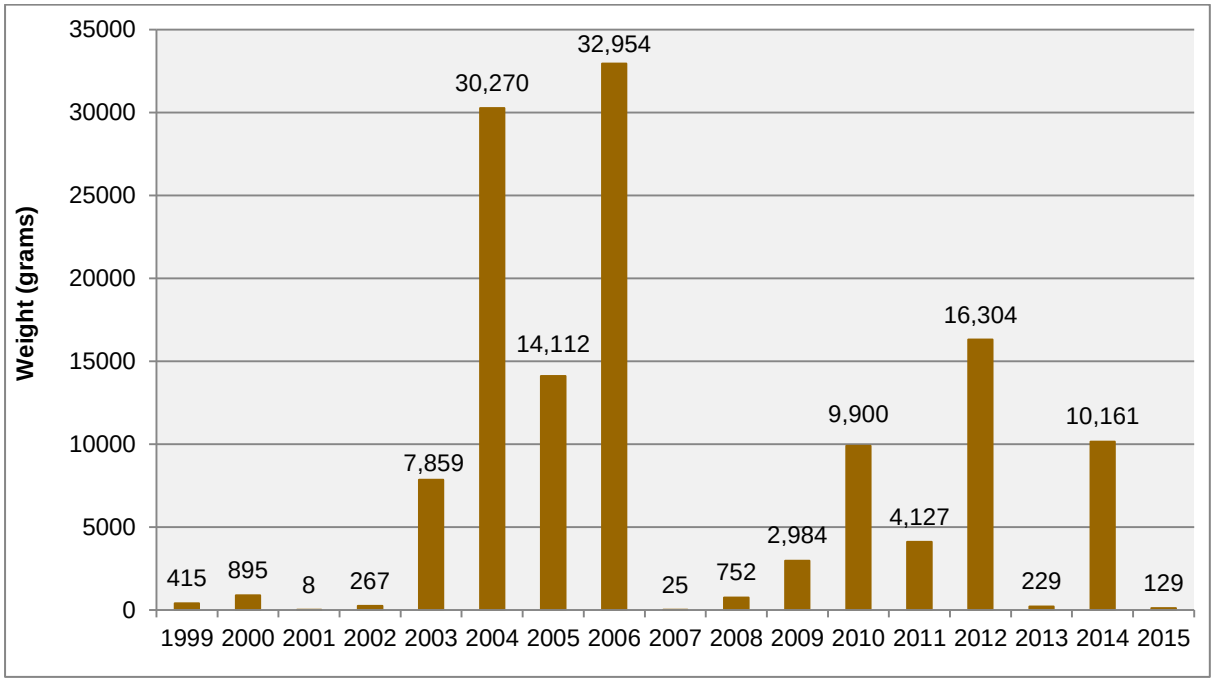
Table 11.7 Perceptions of the number of people using cocaine by combined frequent drug users, 2006-2015

Number of people using cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=27)	Combined modules (n=25)	Combined modules (n=23)	Combined modules (n=18)	Combined modules (n=23)	Combined modules (n=27)	Combined modules (n=21)	Combined modules (n=14)	Combined modules (n=17)	Combined modules (n=21)
More [3]	23%	16%	30%	17%	16%	18%	19%	23%	30%	44%
Same [2]	47%	57%	62%	51%	70%	29%	47%	69%	27%	42%
Less [1]	29%	27%	8%	32%	14%	53%	34%	7%	43%	14%
Average number of people using score (1=less – 3=more)	1.9	1.9	2.2	1.8	2	1.6	1.8	2.2	1.9	2.3
Overall recent change	Same/less	Same/less	Same/more	Same/less	Same	Less/same	Same/less	Same/less	Less/more	More/same

11.7 Seizures of cocaine

There has been considerable variation in the quantity of cocaine seized year to year over the past ten years or so (Figure 11.2). The largest seizures were made in 2004 (i.e. 30,270 grams), 2006 (32,954 grams) and 2012 (16,304 grams). Only 129 grams of cocaine was seized in 2015.

Figure 11.2 Grams of cocaine seized in New Zealand, 1999-2015



Source: NDIB, 2016

11.8 Summary of cocaine trends

- The low number of frequent drug users answering the cocaine section (n=27) indicates the findings should be interpreted with caution
- The current availability of cocaine was reported to be 'very difficult/difficult' in 2015
- The availability of cocaine was described as 'stable' in the previous six months in 2015
- The median price paid for a gram of cocaine was $350 in 2015
- The frequent drug users were more likely to report the price of cocaine had been 'stable' from 2014 to 2015
- The current strength of cocaine was reported to be 'high/low' in 2015

- The number of people using cocaine was described as ‘more/same’ in 2015
- Only 129 grams of cocaine was seized in 2015, much less than the 10,161 grams seized in 2014

12. Heroin

12.1 Introduction

The international supply of heroin to New Zealand has been poor since the late 1970s (Newbold, 2000). As a consequence, injecting drug users in New Zealand largely use pharmaceuticals opioids illicitly diverted from the health system, principally morphine, methadone or more recently oxycodone, or make their own morphine from codeine, commonly known as 'homebake' (Wilkins, et al., 2011b). However, some heroin continues to be available in New Zealand and there remains a risk that a larger heroin market could develop if international supply conditions improve (New Zealand Customs Service, 2002).

12.2 Knowledge of heroin trends

Only 7% of the frequent drug users interviewed for the 2015 IDMS (n=22) indicated they felt confident enough to comment on the price, purity and availability of heroin in the previous six months. This included 20% of the frequent injecting drug users (n=19), 2% of the frequent methamphetamine users (n=1) and 2% of the frequent ecstasy users (n=2). The relatively small number of frequent drug users answering the heroin section of the IDMS indicates the findings in this chapter should be interpreted with caution.

12.3 Availability of heroin

Current availability of heroin

Thirty-one percent of the frequent drug users described the current availability of heroin as 'very easy' in 2015. Conversely, 26% described the current availability as 'very difficult' (Table 12.1). There was no statistically significant trend in the availability of heroin from 2008 to 2015.

Table 12.1 Current availability of heroin by combined frequent drug users, 2008-2015

Current availability of heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=38)	Combined modules (n=40)	Combined modules (n=47)	Combined modules (n=34)	Combined modules (n=20)	Combined modules (n=14)	Combined modules (n=33)	Combined modules (n=15)
Very easy [4]	20%	27%	18%	26%	30%	31%	17%	31%
Easy [3]	23%	22%	38%	18%	25%	10%	37%	25%
Difficult [2]	27%	23%	28%	37%	35%	25%	16%	18%
Very difficult [1]	30%	29%	16%	20%	10%	34%	26%	26%
Average availability score (1=very difficult–4=very easy)	2.3	2.5	2.6	2.5	2.8	2.4	2.5	2.6
Overall current status	Very difficult/ difficult	Very difficult/ very easy	Easy/ difficult	Difficult/ very easy	Difficult/ very easy	Very difficult/ very easy	Easy/ very difficult	Very easy/very difficult

Change in availability of heroin

The frequent drug users reported the availability of heroin had been 'stable/more difficult' in the previous six months in 2015 (Table 12.2). There was no statistically significant difference in the change in availability of heroin from 2008 to 2015 (Figure 12.1).

Figure 12.1 Change in availability of heroin by combined frequent drug users, 2006-2015

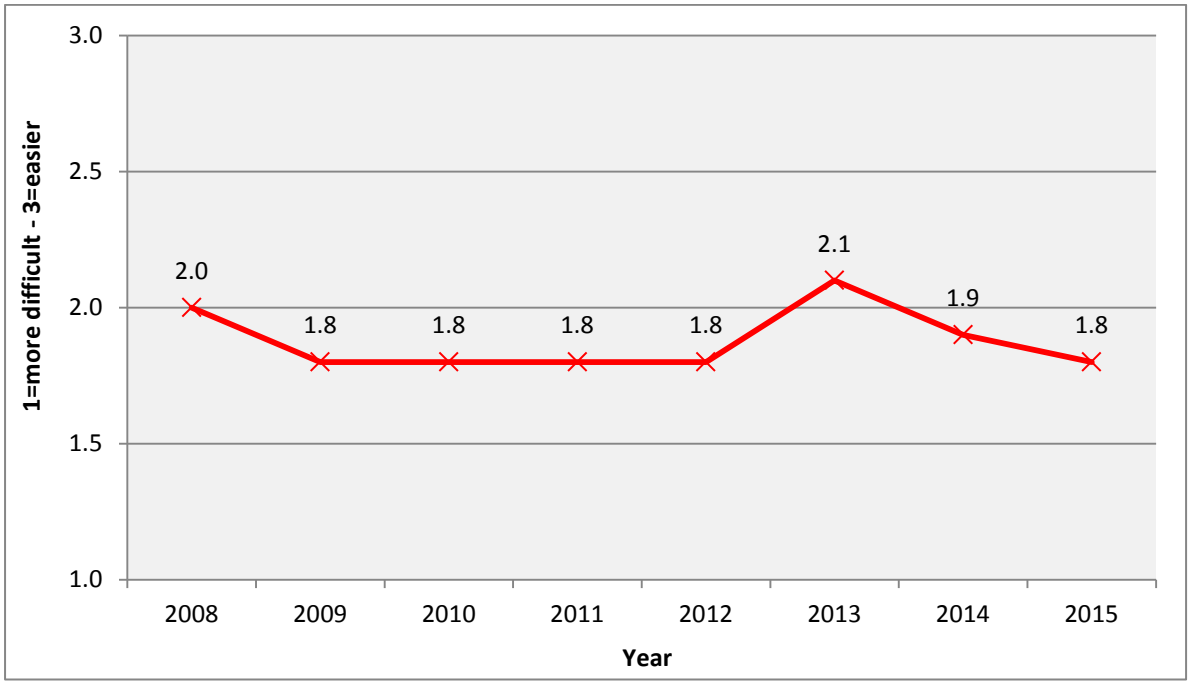


Table 12.2 Change in availability of heroin by combined frequent drug users, 2008-2015

Change in availability of heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=37)	Combined modules (n=40)	Combined modules (n=45)	Combined modules (n=34)	Combined modules (n=20)	Combined modules (n=13)	Combined modules (n=32)	Combined modules (n=16)
Easier [3]	17%	7%	11%	11%	6%	30%	12%	8%
Stable [2]	62%	55%	43%	46%	49%	44%	56%	66%
Fluctuates [2]	7%	7%	13%	17%	21%	6%	8%	0%
More difficult [1]	14%	30%	33%	26%	24%	20%	24%	26%
Average change in availability score (1=more difficult – 3=easier)	2	1.8	1.8	1.8	1.8	2.1	1.9	1.8
Overall recent change	Stable/ easier	Stable/ more difficult	Stable/ more difficult	Stable/ more difficult	Stable/ more difficult	Stable/ easier	Stable/ more difficult	Stable/ more difficult

12.4 Price of heroin

Current price of heroin

The median price of a milligram of heroin was $1 in 2015 (or $100 per 100 milligrams) (Table 12.3). The very low number of respondents answering the heroin price question in 2015 (n=7) indicates these result should be treated with caution.

Table 12.3 Current median (mean) price of heroin (NZD) by combined frequent drug users, 2008-2015

Current price of heroin ($)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=32)	Combined modules (n=39)	Combined modules (n=39)	Combined modules (n=22)	Combined modules (n=17)	Combined modules (n=10)	Combined modules (n=16)	Combined modules (n=7)
Median (mean) price for a milligram	$1.00 ($1.06)	$1.00 ($1.01)	$1.00 ($1.11)	$1.00 ($1.11)	$1.00 ($0.95)	$1.00 ($0.92)	$1.00 ($1.06)	$1.00 ($1.48)

Change in price of heroin

The price of heroin was reported to have been ‘stable’ over the past six months in 2015 (Table 12.4). There was no statistically significant difference in perceptions of the change in the price of heroin from 2008 to 2015.

Table 12.4 Change in the price of heroin in the past six months by combined frequent drug users, 2008-2015

Change in price of heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=31)	Combined modules (n=37)	Combined modules (n=37)	Combined modules (n=29)	Combined modules (n=20)	Combined modules (n=9)	Combined modules (n=28)	Combined modules (n=13)
Increasing [3]	20%	8%	13%	26%	4%	0%	3%	10%
Fluctuating [2]	7%	0%	5%	2%	11%	0%	19%	0%
Stable [2]	60%	77%	73%	64%	81%	73%	64%	90%
Decreasing [1]	13%	16%	8%	8%	5%	27%	15%	0%
Average change in price score (1=decreasing – 3=increasing)	2.1	1.9	2.1	2.2	2.0	1.7	1.9	2.1
Overall recent change	Stable/ increasing	Stable	Stable	Stable/ increasing	Stable	Stable	Stable/ fluctuating	Stable

12.5 Purity of heroin

Current purity of heroin

The current purity of heroin was described as 'high/fluctuates' in 2015 (Table 12.5).

Table 12.5 Current purity of heroin by combined frequent drug users, 2008-2015

Current purity of heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=36)	Combined modules (n=35)	Combined modules (n=40)	Combined modules (n=32)	Combined modules (n=18)	Combined modules (n=9)	Combined modules (n=27)	Combined modules (n=16)
High [4]	55%	38%	32%	30%	38%	29%	14%	40%
Medium [3]	17%	42%	18%	45%	34%	16%	42%	18%
Fluctuates [2]	11%	11%	42%	17%	22%	45%	30%	35%
Low [1]	17%	8%	8%	8%	6%	10%	15%	7%
Average purity score (1=low – 4=high)	2.4	2.3	2.2	2.2	2.3	2.2	2.0	2.3
Overall current status	High/ medium/ low	Medium/ high	Fluctuate/ high	Medium/ high	High/ medium	Fluctuate/ high	Medium/ fluctuates	High/ fluctuates

Change in purity of heroin

The purity of heroin was described as 'stable' over the past six months in 2015 (Table 12.6).

Table 12.6 Change in purity of heroin by combined frequent drug users, 2008-2015

Change in purity of heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=35)	Combined modules (n=35)	Combined modules (n=37)	Combined modules (n=31)	Combined modules (n=17)	Combined modules (n=10)	Combined modules (n=24)	Combined modules (n=14)
Increasing [3]	16%	14%	5%	9%	0%	16%	9%	4%
Stable [2]	61%	67%	70%	53%	64%	65%	51%	77%
Fluctuating [2]	23%	6%	22%	29%	23%	12%	28%	19%
Decreasing [1]	0%	13%	3%	10%	12%	8%	11%	0%
Average change in purity score (1=decreasing – 3=increasing)	2.2	2.0	2.0	2.0	1.9	2.1	2.0	2.0
Overall recent change	Stable/ fluctuating	Stable/ increasing	Stable	Stable/ fluctuating	Stable/ fluctuating	Stable/ increasing	Stable/ fluctuating	Stable

12.6 Perceptions of the number of people using heroin

The number of people using heroin was described as 'more/same' compared to six months ago in 2015 (Table 12.7). Overall, the frequent drug users were more likely to say there were more people using heroin from 2008 to 2015 (up from 1.9 to 2.3, 0.0051). The low number of respondents answering the question in 2015 (n=17) indicates these result should be treated with some caution.

Table 12.7 Perceptions of the number of people using heroin by combined frequent drug users, 2008-2015

Number of people using heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=32)	Combined modules (n=41)	Combined modules (n=46)	Combined modules (n=29)	Combined modules (n=18)	Combined modules (n=12)	Combined modules (n=29)	Combined modules (n=17)
More [3]	22%	7%	23%	44%	15%	61%	28%	51%
Same [2]	45%	59%	46%	23%	63%	27%	43%	29%
Less [1]	33%	34%	31%	33%	22%	12%	28%	20%
Average number of people using score (1=less – 3=more)	1.9	1.7	1.9	2.1	1.9	2.5	2.0	2.3
Overall recent change	Same/ less	Same/ less	Same/ less	More/ less	Same/ less	More/ same	Same/ more/ less	More/ same

12.7 Summary of heroin trends

- The low number of frequent drug users reporting knowledge of heroin trends (e.g. 22=2015) indicates the findings in this chapter should be treated with caution
- The current availability of heroin was described as 'very easy/very difficult' in 2015
- The availability of heroin was reported to have been 'stable/more difficult' in 2015
- The median price of a milligram of heroin was $1 (or $100 per 100 milligrams) in 2015
- The price of heroin was reported to have been 'stable' in the past six months in 2015
- A higher proportion of frequent drug users said the 'more' people were using heroin from 2006 to 2015

13. Homebake morphine/heroin

13.1 Introduction

'Homebake' morphine or heroin is an opioid manufactured by drug users in makeshift 'kitchen' laboratories from a codeine base (Newbold, 2000). Homebake morphine emerged in New Zealand in the early 1980s in response to the general shortage of internationally sourced heroin, largely brought about by the arrest and dismantling of the 'Mr Asia' heroin smuggling network (Newbold, 2000).

13.2 Knowledge of homebake morphine/heroin trends

Twelve percent of the frequent drug users interviewed for the 2015 IDMS (n=40) indicated they felt confident enough to comment on the price, purity and availability of homebake morphine/heroin in the previous six months. This included 27% of the frequent injecting drug users (n=30), 9% of the frequent methamphetamine users (n=7) and 3% of the frequent ecstasy users (n=3). The low number of frequent drug users who responded to the homebake section in 2008 (n=27) and 2012 (n=20) reduces the ability of the statistical tests to establish reliable trends over time.

13.3 Availability of homebake morphine/heroin

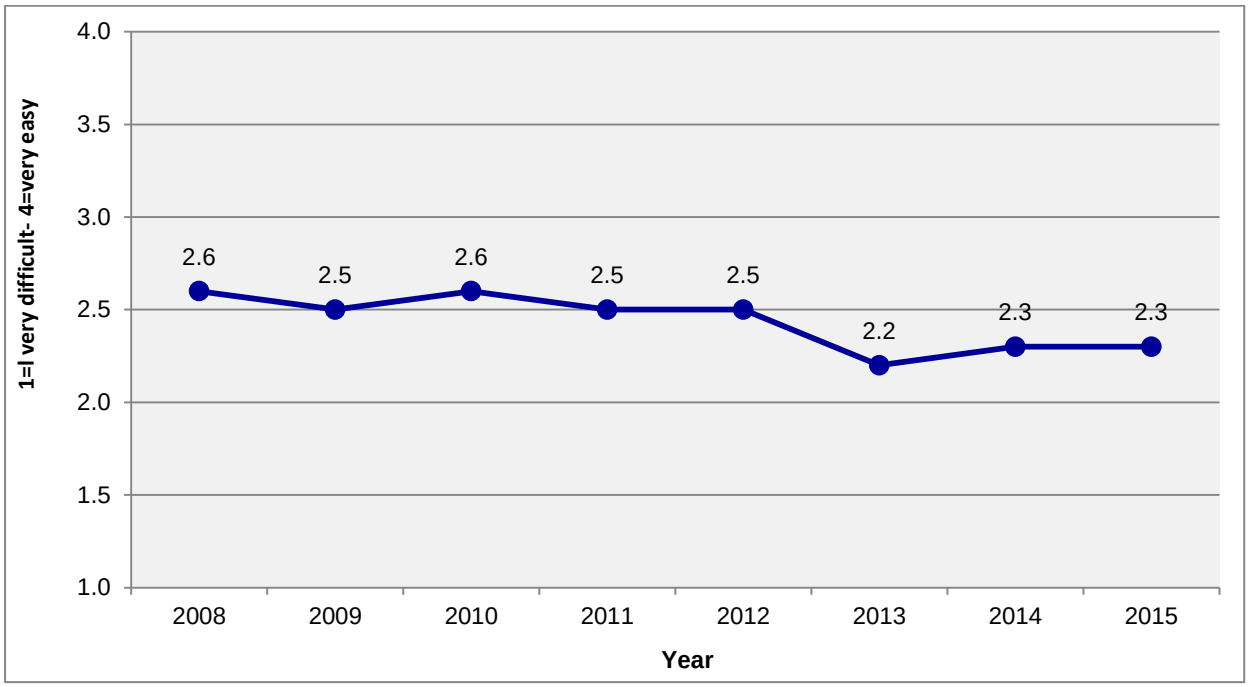
Current availability of homebake morphine/ heroin

The frequent drug users described the current availability of homebake morphine/heroin as 'easy/very difficult' in 2015 (Table 13.1). There had been a decline in the current availability of homebake morphine/heroin from 2008 to 2015 (down from 2.6 to 2.3, p=0.0335).

Table 13.1 Current availability of homebake morphine/heroin by combined frequent drug users, 2008-2015

Current availability of homebake morphine/heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=27)	Combined modules (n=45)	Combined modules (n=58)	Combined modules (n=58)	Combined modules (n=20)	Combined modules (n=46)	Combined modules (n=40)	Combined modules (n=39)
Very easy [4]	19%	6%	20%	19%	21%	22%	16%	14%
Easy [3]	30%	43%	32%	33%	33%	16%	32%	33%
Difficult [2]	44%	43%	37%	33%	22%	18%	20%	23%
Very difficult [1]	7%	8%	11%	15%	24%	43%	32%	30%
Average availability score (1=very difficult – 4=very easy)	2.6	2.5	2.6	2.5	2.5	2.2	2.3	2.3
Overall current status	Difficult/ easy	Easy/ difficult	Difficult/ easy	Easy/ diffcult	Easy/very difficult	Very difficult/ very easy	Easy/very difficult/difficult	Easy/very difficult

Figure 13.1 Mean score of the current availability of homebake morphine/heroin by combined frequent drug users, 2006-2015



Change in availability of homebake morphine/heroin

The frequent drug users reported the availability of homebake morphine/heroin had been 'more difficult/stable' in the previous six months in 2015 (Table 13.2). Forty-three percent described availability as 'more difficult'. There was no statistically significant difference in assessments of the change in availability of homebake morphine/heroin from 2008 to 2015, with many describing availability as 'more difficult'.

Table 13.2 Change in availability of homebake morphine/heroin by combined frequent drug users, 2008-2015

Change in availability of homebake morphine/heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=26)	Combined modules (n=45)	Combined modules (n=57)	Combined modules (n=55)	Combined modules (n=20)	Combined modules (n=46)	Combined modules (n=39)	Combined modules (n=38)
Easier 3]	11%	4%	11%	6%	11%	12%	9%	12%
Stable [2]	38%	46%	46%	58%	49%	32%	38%	36%
Fluctuates [2]	9%	9%	4%	10%	10%	7%	12%	9%
More difficult [1]	42%	41%	39%	25%	30%	49%	40%	43%
Average change in availability score (1=more difficult – 3=easier)	1.7	1.6	1.7	1.8	1.8	1.6	1.7	1.7
Overall recent change	More difficult/ stable	Stable/ more difficult	Stable/ more difficult	Stable/ more difficult	Stable/ more difficult	More difficult/ stable	More difficult/ stable	More difficult/ stable

13.4 Perceptions of the number of people using homebake morphine/heroin

The number of people using homebake morphine/heroin was described as the ‘less/same ’ in 2015 (Table 13.3).

Table 13.3 Perceptions of the number of people using homebake morphine/ heroin by combined frequent drug users, 2008-2015

Number of people using homebake morphine/heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015
	Combined modules (n=26)	Combined modules (n=46)	Combined modules (n=58)	Combined modules (n=54)	Combined modules (n=18)	Combined modules (n=45)	Combined modules (n=35)	Combined modules (n=32)
More [3]	32%	15%	16%	29%	21%	31%	23%	19%
Same [2]	46%	53%	50%	49%	50%	25%	41%	37%
Less [1]	22%	31%	34%	21%	34%	45%	36%	44%
Average number of people using score (1=less – 3=more)	2.1	1.8	1.8	2.1	1.9	1.9	1.9	1.7
Overall recent change	Same/ more	Same/ less	Same/ ess	Same/ more	Same/ less	Less/ more	Same/ less	Less/ same

13.5 Summary of homebake morphine/heroin trends

- The low number of frequent drug users who answered the homebake morphine/heroin section in 2008 and 2012 indicates the results from this chapter should be interpreted with some caution

- The current availability of homebake morphine/heroin was described as 'easy/very difficult' in 2015

- There was a decline in the current availability of homebake morphine/heroin from 2008 to 2015

- The frequent drug users described the number of people using homebake morphine/heroin as the 'less/same' in 2015

14. Health risks and the social harm of drug use

14.1 Introduction

Drug and alcohol use is associated with a range of health and social problems including physical and psychological illness, drug dependency, relationship breakdown, family dysfunction, poor educational achievement, violence, property crime, poverty, sexual assault, accidents, unsafe work practices, dangerous driving, unemployment, social welfare dependency and low work productivity and workplace accidents (Ministry of Health, 2015). A number of vulnerable groups are particularly 'at risk' from drug related harm including adolescents, those suffering from mental illness, marginalised and lower socio-economic groups, and those from dysfunctional family environments (Ministry of Health, 2015). Some drugs can cause strong psychological and physical dependency which makes it difficult for users to stop use even when they are experiencing serious harmful consequences and hurting others.

14.2 Drug-related life impacts

The frequent drug users were asked if they had experienced any of a range of negative social consequences from their drug use in the previous six months. The interviewer specifically explained that these questions only referred to incidents they had experienced *'due to your drug use'*. The frequent methamphetamine users commonly reported 'arguing with others' (78%), 'no money for luxuries' (75%), 'losing their temper' (65%), and 'damaging a friendship' (62%) as a result of their drug use in 2015 (Table 14.1).

Table 14.1 Drug-related incidents by frequent drug user group, 2015

Drug related incident (%)	Methamphetamine users	Ecstasy users (MDMA)	Intravenous drug users (IDU)
	(n=71)	**(n=118)**	**(n=111)**
No money for luxuries	75	32	84
Got into debt/owing money	57	24	74
Argued with others	78	23	65
No money for food or rent	43	10	63
Lost your temper	65	27	58
Damaged a friendship	62	13	54

Did something under the influence of drugs and later regretted it	57	57	53
Upset a family relationship	51	24	53
Physically hurt yourself	28	20	40
Were verbally or physically threatened (yourself)	44	16	37
Had reduced work/study performance	48	63	37
Passed out	27	28	36
Ended a personal relationship	44	23	35
Got arrested	23	5	32
Took sick leave/did not attend classes	24	46	30
Couldn't remember what happened the night before	37	69	29
Stole property (you)	14	5	29
Damaged property (you)	29	18	28
Were physically assaulted	33	9	27
Spent some nights sleeping rough (i.e. living on the streets)	20	10	26
Had unprotected sex	39	42	25
Physically hurt someone else	29	8	23
Was kicked out of where I was living	20	2	22
Overdosed on drugs	9	4	18
Sacked/lose business/quit study course	9	5	15
Were sexually harassed	9	2	14
Someone gave you a drug without your knowledge	9	7	14
Had sex and later regretted it	26	22	12
Were sexually assaulted	4	2	11
Someone spiked your drink	7	3	6

The frequent ecstasy users commonly reported that as a result of their drug use they were 'not able to remember what happened the night before' (69%), had 'reduced work/study performance' (63%), 'did something under the influence of drugs and later regretted it' (57%), 'took sick leave or did not attend classes' (46%), and 'had unprotected sex' (42%) (Table 14.1).

The frequent injecting drug users commonly reported that as a result of their drug use they had 'no money for luxuries' (84%), 'got into debt' (74%), 'argued with others' (65%), had 'no money for food or rent' (63%) and 'lost their temper' (58%) in 2015 (Table 14.1). The frequent injecting drug users were more likely to report 'getting into debt/owing money' (up from 69% in 2007 to 74% in 2015, p=0.0287), 'physically hurting themselves' (up from 28% in 2007 to 40% in 2015, p=0.0023) and having 'spent some nights sleeping rough' (up from 14% in 2014 to 26% in 2015, p=0.0443) as a result of their drug use.

14.3 Drug type responsible for drug-related life impacts

The frequent drug users who had experienced a drug related harmful incident were asked what drug type they considered to be 'mainly responsible' for their drug-related problems. Respondents were asked to name only one drug type to provide a clear signal for policy priority. However, a small number of respondents insisted on providing more than one drug type.

Table 14.2 presents the findings for each of the three groups of frequent drug users for 2015. The overwhelming majority of methamphetamine users nominated methamphetamine (81%) as the drug type mainly responsible for their drug-related problems, followed by alcohol (13%) and cannabis (9%). The frequent ecstasy users named three drug types as responsible for their drug-related problems; alcohol (49%), ecstasy (25%), and cannabis (16%). The frequent injecting drug users nominated morphine (49%), methamphetamine (15%), alcohol (7%), methylphenidate (Ritalin™) (8%), cannabis (6%), benzodiazepines (5%), heroin (5%) and methadone (5%) as responsible for their drug related problems. The proportion of methamphetamine users who nominated methamphetamine as the drug type responsible for drug-related problems increased from 67% in 2014 to 81% in 2015, although this was not statistically significant (p=0.0695).

Table 14.2 Drug types mainly responsible for drug related incidents by frequent drug user group, 2015

Drug type (%)	Methamphetamine users	Ecstasy users (MDMA)	Intravenous drug users (IDU)
	(n=66)	(n=109)	(n=108)
Methamphetamine	81	3	15
Alcohol	13	49	7
Cannabis	9	16	6
Methylphenidate (Ritalin)	4	0	8
Amphetamine	4	2	4
LSD	2	3	0
Crystal methamphetamine	2	0	0
Synthetic cannabis	2	0	1
Morphine	1	0	49
Benzodiazepines	0	0	5
Methadone	0	0	5
Heroin	0	0	5
Ecstasy (MDMA)	0	25	0
Amyl nitrate	0	0	0
Homebake heroin	0	1	2
Oxycodone	0	0	0
Codeine	0	0	0
Tobacco	0	0	0
Mephedrone	0	0	1
Street BZP	0	0	0
Cocaine	0	0	0
Non-BZP party pills	0	0	0
Tramadol	0	0	2
Other	0	0	5
Steroids	0	1	0
Zopiclone	0	0	0
Mushrooms	0	1	0

14.4 Medical and health services

The frequent drug users were asked if they had accessed any of a range of medical and other health services 'in relation to their drug use' in the previous six months in 2015. The same question was asked in previous IDMS surveys, although several additional help and information services were included in 2010, reflecting a number of initiatives undertaken as part of the Government's Methamphetamine Action Plan.

As in previous years, the frequent injecting drug users had the highest level of contact with medical and other health services. The health services they most commonly accessed in 2015 were a 'needle exchange' (89%), 'drug and alcohol worker' (58%), 'pharmacy' (54%), 'General Practitioner' (i.e. medical doctor) (46%), 'electronic needle dispenser' (43%), 'counsellor' (43%), and 'social worker' (22%) (Table 14.3). There were increases in the proportion of frequent injecting drug users who had accessed a 'counsellor' (up from 11% in 2006 to 43% in 2015, p<0.0001), 'social worker' (up from 4% in 2006 to 22% in 2015, p<0.0001), a 'psychologist' (up from 6% in 2006 to 15% in 2015, p=0.0373), and 'drug and alcohol worker' (up from 43% in 2014 to 58% in 2015,p=0.0459) (Figure 14.1 & Figure 14.2).

Table 14.3 Proportion of frequent injecting drug users who had accessed medical and health services in relation to drug use in the past six months, 2006-2015

Medical and health service (%)	2006 (n=92)	2007 (n=108)	2008 (n=130)	2009 (n=99)	2010 (n=128)	2011 (n=99)	2012 (n=104)	2013 (n=101)	2014 (n=103)	2015 (n=110)
Needle exchange	-	93	69	87	83	87	89	82	90	89
Drug and Alcohol worker	39	54	29	42	46	37	39	51	43	58
Pharmacy	-	58	49	52	62	55	46	39	48	54
General Practitioner	36	35	43	52	56	44	49	32	37	46
Electronic needle dispenser	-	47	46	44	40	28	41	48	54	43
Counsellor	11	21	24	31	33	32	22	50	34	43
Social worker	4	11	13	12	9	15	16	36	28	22
Psychologist	6	10	10	10	8	7	8	18	12	15

Accident and Emergency	13	10	11	9	19	11	20	10	11	13
Psychiatrist	8	11	13	8	7	8	14	13	8	13
Ambulance	12	9	6	6	13	15	11	6	8	13
First Aid	9	7	6	5	13	13	4	13	13	12
Hospital (admitted)	9	9	10	6	13	14	14	6	10	10
Meth-Help or Drug-Help websites	-	-	-	-	2	6	6	4	11	4
Alcohol and Drug Helpline	-	-	-	-	6	6	5	12	9	10

Figure 14.1 Proportion of frequent injecting drug users who had accessed a 'counsellor' or a 'psychologist' in relation to drug use in the past six months, 2006-2015

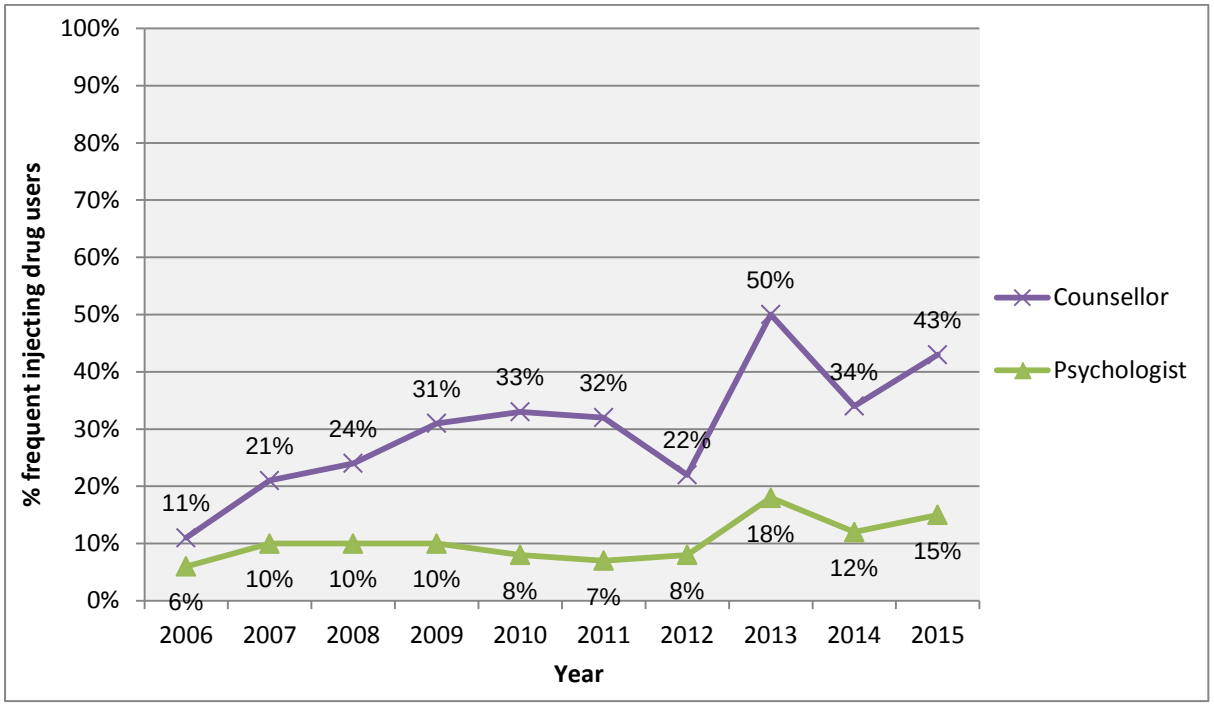
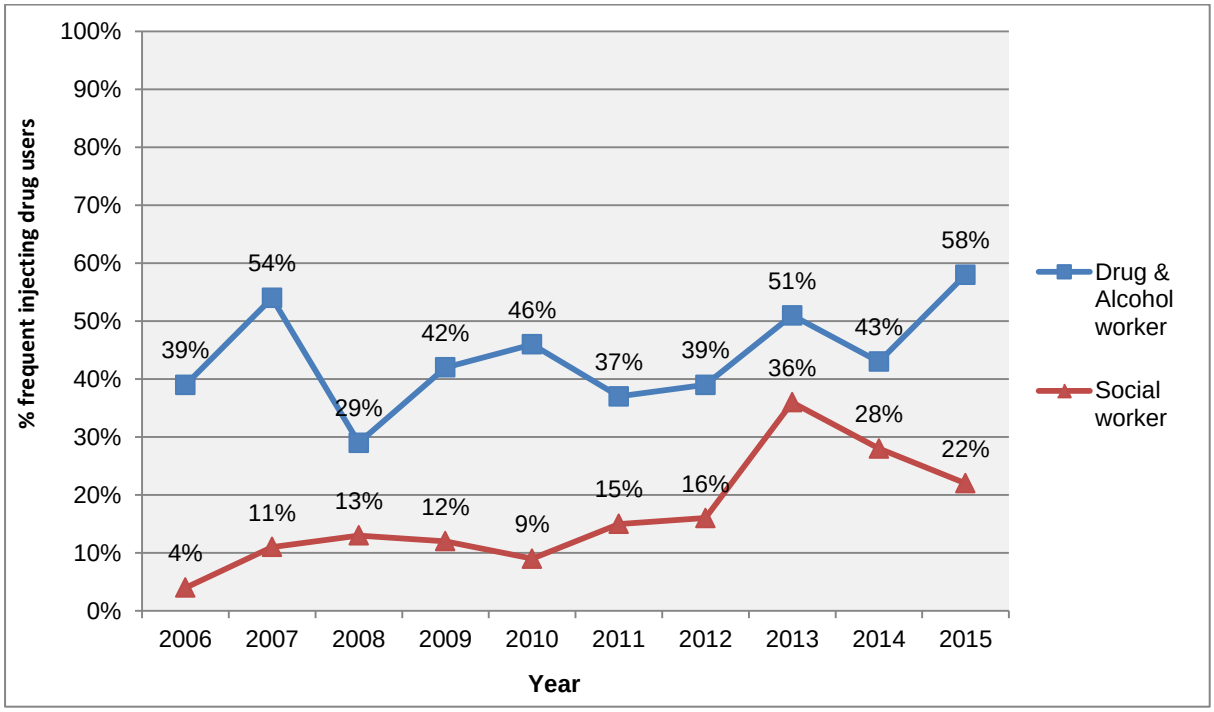


Figure 14 2 Proportion of frequent injecting drug users who had accessed a 'Drug & alcohol worker' or a 'Social worker' in relation to drug use in the past six months, 2006-2015

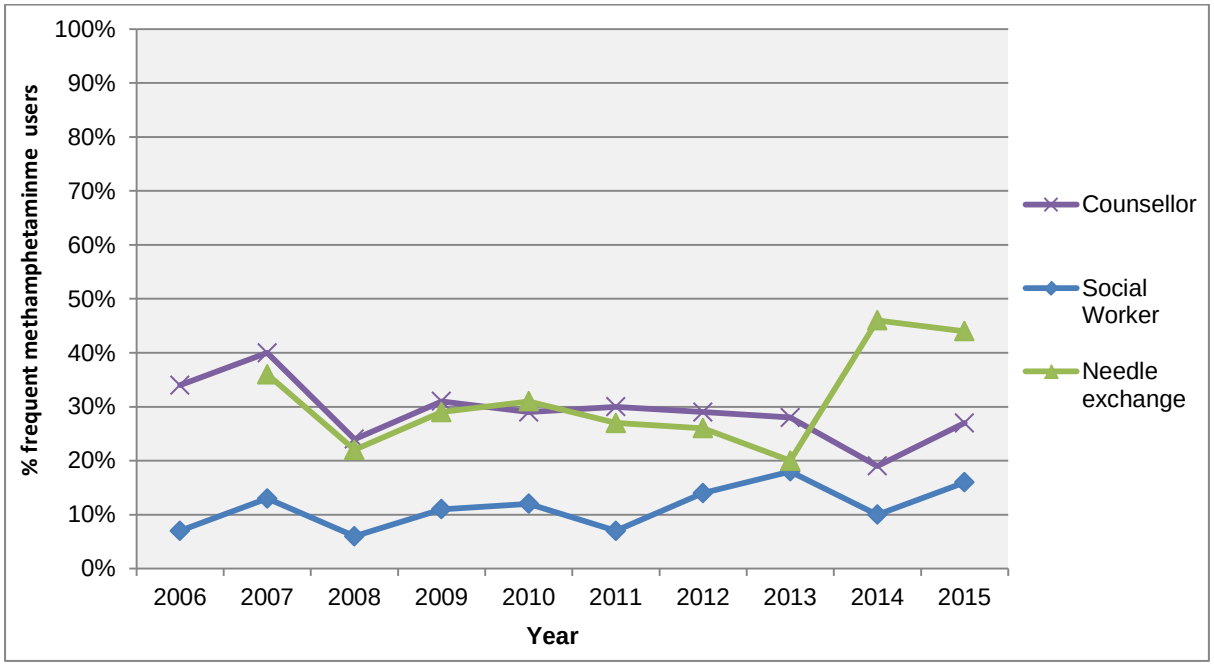


Many of the frequent methamphetamine users had also had contact with medical and other health services in relation to their drug use. The services which the frequent methamphetamine users had most commonly accessed in 2015 were a 'needle exchange' (44%), 'drug and alcohol worker' (30%), 'counsellor' (27%), an 'electronic needle dispenser' (21%), a 'General Practitioner' (20%) and 'pharmacy' (20%) (Table 14.4). There was an increase in the proportion of frequent methamphetamine users who had accessed a 'needle exchange' (up from 36% in 2007 to 44% in 2015, p=0.0130) and a 'social worker' (up from 7% in 2006 to 16% in 2015, p=0.0136) (Figure 14.3). The proportion of frequent methamphetamine users who assessed a 'counsellor' declined from 34% in 2006 to 27% in 2015 (p=0.0253).

Table 14.4 Proportion of frequent methamphetamine users who had accessed medical and health services in relation to drug use in the past six months, 2006-2015

Medical and health service (%)	2006 (n=114)	2007 (n=110)	2008 (n=137)	2009 (n=105)	2010 (n=130)	2011 (n=110)	2012 (n=100)	2013 (n=93)	2014 (n=100)	2015 (n=68)
Needle exchange	-	36	22	29	31	27	26	20	46	44
Drug and Alcohol worker	37	36	25	33	33	29	26	36	23	30
Counsellor	34	40	24	31	29	30	29	28	19	27
Electronic needle dispenser	-	19	10	17	16	10	15	17	18	21
General Practitioner	27	38	22	26	22	29	32	37	22	20
Pharmacy	-	27	15	20	29	23	25	16	19	20
Social worker	7	13	6	11	12	7	14	18	10	16
Ambulance	3	15	7	9	10	14	12	15	9	10
Psychologist	9	14	3	4	7	12	5	17	11	8
Accident and Emergency	6	17	11	10	18	15	10	23	7	7
Hospital (admitted)	4	12	5	8	19	22	9	17	7	7
First Aid	2	7	9	3	16	22	12	10	4	7
Psychiatrist	9	10	7	8	6	10	8	15	7	4
Meth-Help or Drug-Help websites	-	-	-	-	5	8	10	12	9	7
Alcohol and Drug Helpline	-	-	-	-	5	13	7	22	6	6

Figure 14.3 Proportion of frequent methamphetamine users who assessed a 'counsellor', 'social worker' and 'needle exchange' in relation to drug use in the past six months, 2006-2015



The frequent ecstasy users had lower levels of contact with medical and other health services compared to the injecting drug users and methamphetamine users. However a minority of ecstasy users had accessed health services such as accident and emergency department (7%) and an ambulance (2%), which suggest serious health incidents. The services which they most commonly accessed in relation to their drug use in 2015 were a 'General Practitioner' (7%), 'pharmacy' (7%), 'accident and emergency department' (7%), 'counsellor' (6%) and 'drug and alcohol worker' (6%) (Table 14.5).

Table 14.5 Proportion of frequent ecstasy users who had accessed medical and health services in relation to drug use in the past six months, 2006-2015

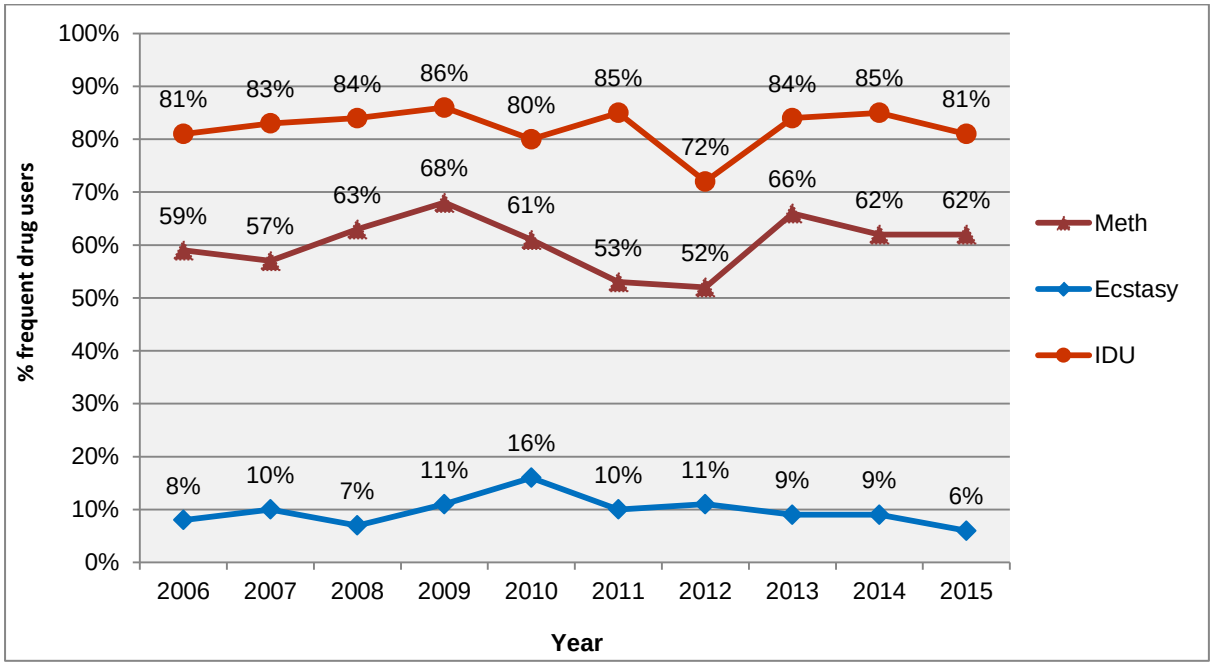
Medical and health service (%)	2006 (n=111)	2007 (n=105)	2008 (n=135)	2009 (n=111)	2010 (n=153)	2011 (n=160)	2012 (n=126)	2013 (n=118)	2014 (n=109)	2015 (n=118)
General Practitioner	4	5	6	9	9	8	11	11	8	7
Pharmacy	-	12	4	5	3	5	8	8	7	7
Accident and Emergency	8	5	6	11	5	5	9	6	6	7
Counsellor	5	8	7	3	9	6	11	6	8	6
Drug and Alcohol worker	2	6	4	3	6	3	6	6	4	6
First Aid	2	7	5	8	6	6	10	8	11	4
Psychologist	0	2	2	0	3	2	3	5	1	3
Ambulance	4	3	4	6	5	4	7	5	7	2
Needle exchange	-	6	1	3	1	3	1	3	5	2
Psychiatrist	0	2	1	0	3	2	1	2	1	2
Hospital (admitted)	2	1	3	6	3	3	7	2	4	1
Electronic needle dispenser	-	5	1	2	1	1	1	1	3	1
Social worker	0	2	1	1	4	1	3	4	2	1
Meth-Help or Drug-Help websites	-	-	-	-	3	0	6	1	0	1
Alcohol and Drug Helpline	-	-	-	-	3	1	6	1	2	0

14.5 Drug Dependency

The drug dependency of the frequent drug users was assessed using a five item short dependency scale (SDS) (see Gossop et al., 1995). The SDS has previously been validated as an instrument for identifying drug dependency among users of various drug types including amphetamine, alcohol, cocaine and cannabis (Gossop, et al., 1995; Martin et al., 2006; Topp & Mattick, 1997). Those frequent drug users scoring four or more on the combined five enumerated questions of the SDS are categorised as drug dependent. Each type of frequent drug user answered questions in relation to the drug type they were recruited for (i.e. frequent methamphetamine users answered in relation to methamphetamine; frequent ecstasy users answered in relation to ecstasy; and frequent injecting drug users in relation to the main drug they injected).

Eighty-one percent of the frequent injecting drug users, 62% of the frequent methamphetamine users and 6% of the frequent ecstasy users were assessed to be drug dependent in 2015 (Figure 14.4). There was no change in extent of drug dependency for any of the frequent drug user groups from 2006 to 2015.

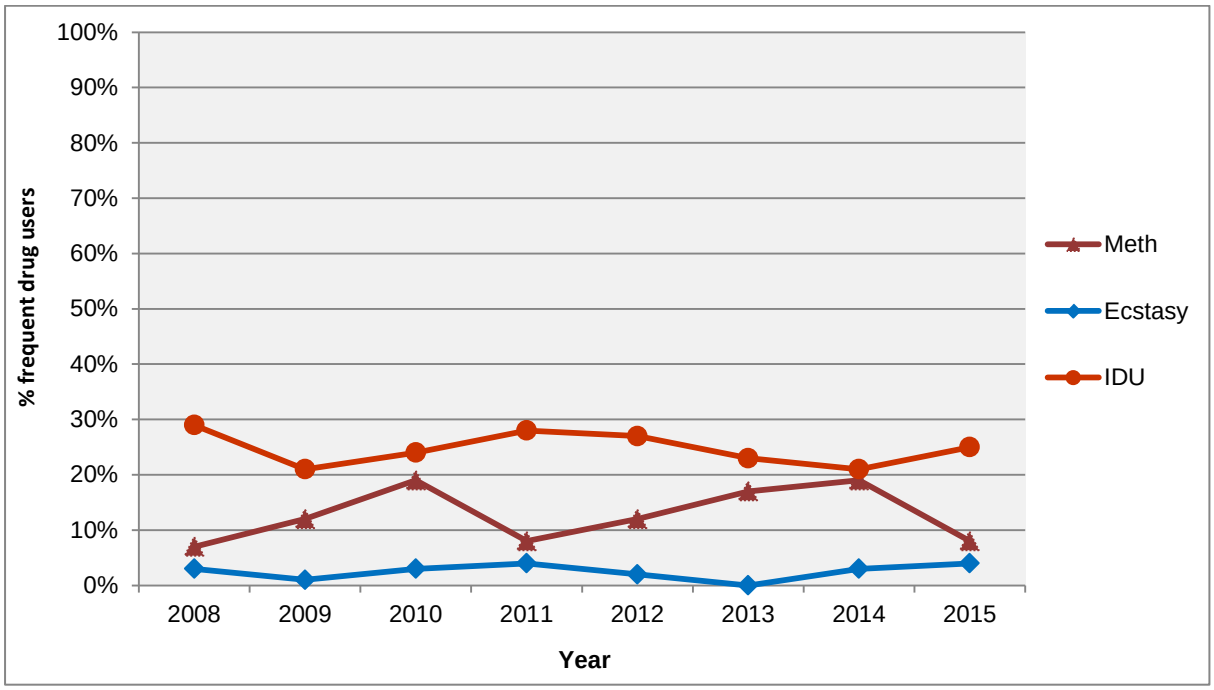
Figure 14.4 Proportion of frequent drug user groups who were assessed as drug dependent using the Short Dependency Scale, 2006-2015



14.6 Mental illness

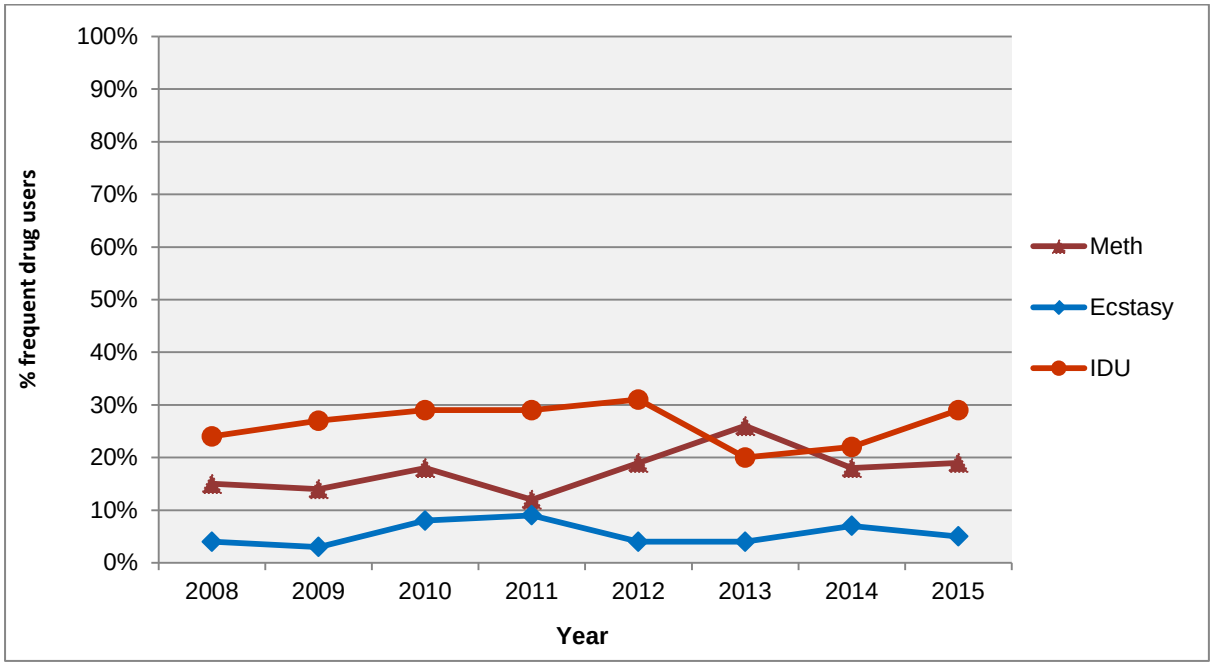
The frequent drug users were asked if they had ever suffered from any form of mental illness, such as depression, anxiety, psychosis or schizophrenia. Sixty-one percent of the injecting drug users, 45% of the methamphetamine users and 26% of the ecstasy users had suffered from a mental illness at some point in their lives. Twenty-five percent of the frequent injecting drug users, 8% of the frequent methamphetamine users and 4% of ecstasy users had been spent at least one night in a mental health facility (Figure 14.5). The proportion of frequent methamphetamine users who had spent at least one night in a mental health facility decreased from 19% in 2014 to 8% in 2015 (p=0.0237).

Figure 14.5 Proportion of frequent drug users who had stayed in a psychiatric facility overnight or longer by frequent drug user group, 2008-2015



Twenty-nine percent of injecting drug users, 19% of methamphetamine users and 5% of ecstasy users were currently receiving treatment for a mental illness in 2015. The proportion of frequent methamphetamine users currently receiving treatment for a mental illness increased from 15% in 2008 to 19% in 2015, although this was not statistically significant (p=0.0770) (Figure 14.6).

Figure 14.6 Proportion of frequent drug user group who are currently receiving treatment for a mental illness, 2008-2015



14.7 Summary of health risks and social harm from drug use

- The frequent methamphetamine users commonly reported 'arguing with others' (78%), 'no money for luxuries' (75%), 'losing their temper' (65%), and 'damaging a friendship' (62%) as a result of their drug use in 2015

- The frequent injecting drug users commonly reported they had 'no money for luxuries' (84%), 'got into debt' (74%), 'argued with others' (65%), had 'no money for food or rent' (63%) and 'lost their temper' (58%) due to their drug use in 2015

- The frequent injecting drug users were more likely to report 'got into debt/owing money' (up from 69% in 2007 to 74% in 2015), 'physically hurting themselves' (up from 28% in 2007 to 40% in 2015) and having 'spent some nights sleeping rough' (up from 14% in 2014 to 26% in 2015) as a result of their drug use

- The frequent ecstasy users commonly reported that as a result of their drug use they were 'not able to remember what happened the night before' (69%), had 'reduced work/study performance' (63%), 'did something under the influence of drugs and later regretted it' (57%), 'took sick leave or did not attend classes' (46%) and 'had unprotected sex' (42%) in 2015

- The overwhelming majority of frequent methamphetamine users nominated methamphetamine (81%) as the drug type mainly responsible for their drug-related problems, followed by alcohol (13%) and cannabis (9%)

- The frequent ecstasy users named three drug types as mainly responsible for their drug-related problems; alcohol (49%), ecstasy (25%), and cannabis (16%)

- The frequent injecting drug users nominated morphine (49%), methamphetamine (15%), alcohol (7%), methylphenidate (Ritalin™) (8%), cannabis (6%), benzodiazepines (5%), heroin (5%) and methadone (5%) as mainly responsible for their drug related problems

- Eighty-one percent of the frequent injecting drug users, 62% of the frequent methamphetamine users and 6% of the frequent ecstasy users were assessed to be drug dependent in 2015

- The health services the injecting drug users most commonly accessed in 2015 were a 'needle exchange' (89%), 'drug and alcohol worker' (58%), 'pharmacy' (54%), 'General Practitioner' (i.e. medical doctor) (46%), 'electronic needle dispenser' (43%), 'counsellor' (43%), and 'social worker' (22%)

- An increasing proportion of frequent injecting drug users had accessed a 'counsellor' (up from 11% in 2006 to 43% in 2015), 'social worker' (up from 4% in 2006 to 22% in 2015), 'psychologist' (up 6% in 2006 to 15% in 2015) and 'drug and alcohol worker' (up from 43% in 2014 to 58% in 2015) in relation to their drug use in 2015

- The health services which the frequent methamphetamine users had most commonly accessed in 2015 were a 'needle exchange' (44%), 'drug and alcohol worker' (30%), 'counsellor' (27%), an 'electronic needle dispenser' (21%), a 'General Practitioner' (20%) and 'pharmacy' (20%)

- There were increases in the proportions of frequent methamphetamine users who had accessed a 'needle exchange' (up from 36% in 2007 to 44% in 2015) and 'social worker' (up from 7% in 2006 to 16% in 2015) in relation to their drug use

- The health services which the frequent ecstasy users had most commonly accessed in 2015 due to their drug use were 'General Practitioner' (7%), 'pharmacy' (7%), 'accident and emergency department' (7%), 'counsellor' (6%) and 'drug and alcohol worker' (6%)

- Sixty-one percent of the injecting drug users, 45% of the methamphetamine users and 26% of the ecstasy users had suffered from a mental illness at some point in their lifetimes

- Twenty-five percent of the frequent injecting drug users, 8% of the frequent methamphetamine users and 4% of the ecstasy users had stayed in a psychiatric facility overnight or longer in 2015

- Twenty-nine percent of injecting drug users, 19% of methamphetamine users and 5% of ecstasy users were currently receiving treatment for a mental illness in 2015

15. Drug and alcohol treatment

15.1 Introduction

Drug and alcohol treatment provides a means for substance users experiencing serious problems to address these issues. The benefits of successful drug treatment extend beyond the user themselves to include their partners, children, extended family, friends, work colleagues and local community (Babor et al., 2010). Drug treatment can also play a part in reducing acquisitive crime and the size of the illegal drug market by removing heavy drug users who commit property crime to finance their use and sell drugs to pay for their drug habits (Wilkins & Sweetsur, 2011a, 2011b). Problematic substance users are most receptive to entering treatment immediately following a serious drug related incident such as an accident, overdose, loss of employment, arrest or imprisonment (ADANZ, 2009). The criminal justice system can play an important role in this process by making treatment a feature of diversion, sentencing and parole conditions (see Caulkins & Reuter, 2009; Hough, 1996).

Consistent with this approach, two pilot Alcohol and Drug Treatment Courts were established at the Auckland and Waitakere District Courts in November 2012. Those who are substance dependent and plead guilty to an offence (excluding arson, serious violence or sexual offences) and who would otherwise be sentenced to a prison term of up to three years are eligible for the drug court programme. Once in the programme, offenders will be required to comply with a treatment plan imposed by the courts, which includes mandatory drug testing and attendance at treatment meetings. Once a detainee has completed the programme the judge will take their compliance into account when sentencing them for their original offence.

15.2 Extent needed help to reduce drug use

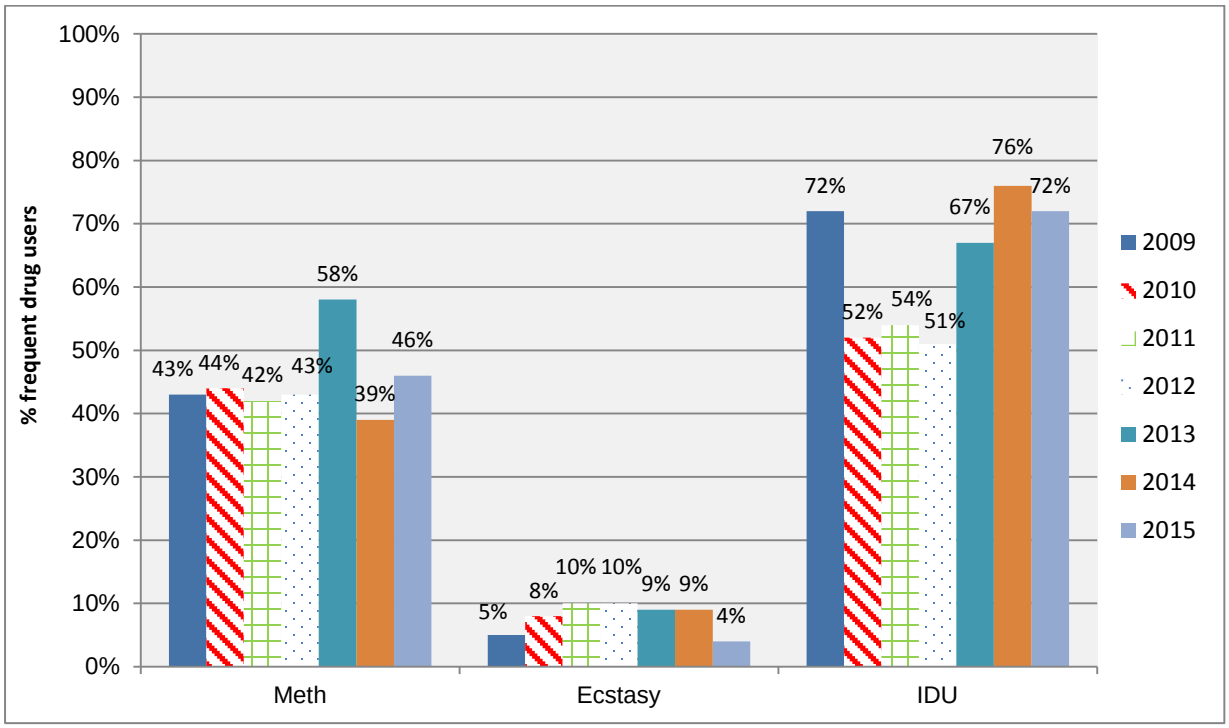
The frequent drug users were first asked about the extent to which they felt they needed help to reduce their drug use. Forty-nine percent of the frequent injecting drug users and 26% of the frequent methamphetamine users reported they needed ‘a lot’ of help to reduce their drug use in 2015 (Table 15.1). In contrast, 71% of the frequent ecstasy users believed they needed ‘no help at all’ to reduce their drug use.

Table 15.1 Extent to which the frequent drug users felt they needed help to reduce their drug use by frequent drug user group, 2009-2015

Extent felt needed help (%)	Methamphetamine users							Ecstasy users							Intravenous drug users						
	2009 (n=105)	2010 (n=124)	2011 (n=101)	2012 (n=100)	2013 (n=92)	2014 (n=96)	2015 (n=67)	2009 (n=111)	2010 (n=151)	2011 (n=159)	2012 (n=125)	2013 (n=117)	2014 (n=109)	2015 (n=118)	2009 (n=99)	2010 (n=125)	2011 (n=91)	2012 (n=104)	2013 (n=99)	2014 (n=102)	2015 (n=111)
A lot of help [3]	25	22	29	25	29	20	26	2	3	3	5	4	3	2	46	28	20	27	45	53	49
Some help [2]	18	22	12	18	29	19	20	3	5	7	5	5	6	2	26	24	34	24	22	23	23
A little help [1]	18	20	17	22	25	34	23	18	18	17	17	18	12	25	14	25	13	14	8	9	12
No help at all [0]	39	37	41	36	16	27	32	77	74	72	72	73	79	71	14	23	32	35	25	14	16
Mean score (0='no help' - 3= 'a lot of help'	1.3	1.3	1.3	1.3	1.7	1.3	1.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	2.0	1.6	1.4	1.4	1.9	2.2	2.0

There was no statistically significant change in the extent to which the methamphetamine users felt they needed help to reduce their drug use from 2009 to 2015. There had previously been a spike in frequent methamphetamine users wanting help to reduce their drug use, from 2012 to 2013 (up from 1.4 to 1.9, p=0.0157). Overall, the frequent injecting drug users were more likely to believe they needed help to reduce their drug use from 2010 to 2015 (p=0.0088) (Table15.1 and Figure 15.1).

Figure 15.1 Proportion of the frequent drug users who felt they needed at least some help to reduce their drug use by frequent drug user group, 2009-2015



15.3 Wanted help to reduce drug use but did not get it

The frequent drug users were then asked if they had ever wanted help to reduce their drug use in the previous six months 'but had not got it'. Thirty-four percent of the frequent injecting drug users, 31% of the frequent methamphetamine users, and 10% of the frequent ecstasy users said they had wanted help but 'had not got it' (Table 15.2). Overall, the proportion of frequent methamphetamine users who wanted help but did not get it had increased slightly over the previous nine years (p=0.0437).

Table 15.2 Proportion of frequent drug users who had wanted help to reduce their drug use in the previous six months but had not got it, 2007-2015

	Meth users	Ecstasy users	Injecting drug users
2007	**n=110**	**n=105**	**n=108**
	32%	10%	34%
2008	**n=137**	**n=135**	**n=131**
	22%	9%	34%
2009	**n=105**	**n=111**	**n=98**
	21%	3%	23%
2010	**n=126**	**n=152**	**n=127**
	24%	8%	30%
2011	**n=110**	**n=158**	**n=97**
	29%	13%	25%
2012	**n=99**	**n=125**	**n=104**
	34%	13%	32%
2013	**n=93**	**n=118**	**n=101**
	33%	15%	25%
2014	**n=99**	**n=108**	**n=101**
	32%	12%	39%
2015	**n=71**	**n=118**	**n=111**
	31%	10%	34%

15.4 Barriers encountered when looking for help to reduce drug use

Those frequent drug users who had wanted help to reduce their drug use but been unable to find it were asked what barriers, if any, they experienced when trying to find help. They were read a list of 15 barriers to seeking treatment. The same list of barriers has been read out in previous years' interviews for the IDMS.

The frequent methamphetamine users had experienced a mean of three barriers to finding help in 2015 (median 2, range 1-11). The barriers they most often experienced were 'social pressure to keep using' (40%), 'fear of what might happen after made contact with a service' (28%), 'fear of police' (28%), 'didn't know where to go' (26%), 'fear of Child Youth and Family (CYF) or other social welfare agency' (21%) and 'couldn't get appointment at a suitable time' (21%) (Table 15.3).

Table 15.3 Barriers experienced by the frequent methamphetamine users when trying to find help to reduce drug use (of those who were unable to find help), 2007-2015

Barriers to trying to get help (%)	2007 (n=33)	2008 (n=31)	2009 (n=22)	2010 (n=31)	2011 (n=33)	2012 (n=34)	2013 (n=27)	2014 (n=34)	2015 (n=23)
Social pressure to keep using	48	36	19	39	48	30	40	28	40
Fear of what might happen after make contact with service	53	45	15	26	33	21	39	31	28
Fear of police	43	27	10	25	20	24	34	25	28
Didn't know where to go	38	21	22	32	21	27	31	23	26
Fear of CYFs or other social welfare agency	22	14	4	9	20	23	27	20	21
Couldn't get appointment at suitable time	35	10	22	22	20	18	24	8	21
Concern about impact on job/career	36	8	4	23	23	30	27	25	19
Costs too much	26	5	14	23	21	21	20	11	19
Fear of losing friends	36	34	14	16	27	21	15	23	14
No transport to get there	26	11	9	25	14	23	24	17	14
Long waiting lists	38	14	18	19	33	32	38	14	14
Service not appropriate for my drug use/problems	27	7	18	12	6	18	17	10	14
No after-hours service	20	8	9	10	10	9	9	6	7
Lack of childcare	8	0	0	10	3	3	6	6	7
No local service available	27	4	13	13	5	23	11	6	5

Only a fairly modest number of the frequent methamphetamine users had wanted help to reduce their drug use but not got it from 2007 to 2015 (i.e. approximately 30 respondents each year), and this low number of respondents makes it difficult to statistically test for changes over time. The proportion of frequent methamphetamine users who nominated 'fear of losing friends' as a barrier to finding help decreased sharply from 36% in 2007 to 14% in 2015 (p=0.0241).

The frequent injecting drug users reported a mean of four barriers to finding help to reduce their drug use in 2015 (median 4, range 1-12). The barriers most often experienced were: 'fear of what might happen after contact with service' (64%), 'fear of police' (39%), 'no transport to get there' (37%), 'long waiting list' (36%), 'service not appropriate for my drug use/problem' (35%), 'fear of

CYFs or other social welfare agencies' (35%), 'no after-hours service' (30%), 'couldn't get appointment at suitable time' (26%) and 'social pressure to keep using' (26%) (Table 15.4).

Table 15.4 Barriers experienced by the frequent injecting drug users when trying to find help to reduce drug use (of those who were unable to find help), 2007-2015

Barriers to trying to get help (%)	2007 (n=36)	2008 (n=45)	2009 (n=25)	2010 (n=39)	2011 (n=26)	2012 (n=32)	2013 (n=24)	2014 (n=40)	2015 (n=41)
Fear of what might happen after contact with service	52	32	20	22	29	49	35	46	64
Fear of police	14	24	4	10	25	26	7	14	39
No transport to get there	23	22	4	12	29	43	31	25	37
Long waiting lists	52	32	33	36	21	41	47	36	36
Service not appropriate for my drug use/problems	31	13	13	23	34	28	39	25	35
Fear of CYFs or other social welfare agency	19	16	4	8	29	24	21	18	35
No after-hours service	22	9	8	10	8	13	22	10	30
Couldn't get appointment at suitable time	41	22	24	18	20	24	37	32	26
Social pressure to keep using	28	14	4	8	20	9	22	14	26
Concern about impact on job/career	21	10	0	9	28	7	10	28	22
Didn't know where to go	7	17	4	15	28	27	18	9	17
Fear of losing friends	14	21	4	2	13	19	7	5	17
Costs too much	20	26	5	16	17	16	7	6	11
No local service available	18	15	9	5	13	20	8	2	6
Lack of childcare	0	7	0	8	4	3	7	10	4

There were increases in the proportion of frequent injecting drug users who reported having 'no transport' to get help (up from 23% in 2007 to 37% in 2015, p=0.0288) and 'fear of police' (up from 14% in 2014 to 39% in 2015, p=0.0232). Conversely, there was a decrease in the proportion of frequent injecting drug users who reported financial cost (i.e. 'cost too much') as a barrier to seeking help (down from 20% in 2007 to 11% in 2015, p=0.0281).

Only a very small number of the frequent ecstasy users had 'wanted help for their drug use but not got it' over the previous eight years (i.e. 2007=9; 2008=13; 2009=3; 2010=12; 2011=23; 2012=16; 2013=17; 2014=12; 2015=11) and this prevented any meaningful statistical comparison over time (Table 15.5).

Table 15.5 Barriers experienced by frequent ecstasy users when trying to find help to reduce drug use (of those who were unable to find help), 2010-2015

Barriers to trying to get help (%)	2010 (n=12)	2011 (n=23)	2012 (n=16)	2013 (n=17)	2014 (n=12)	2015 (n=12)
Concern about impact on job/career	25	20	45	19	25	42
Social pressure to keep using	34	52	31	63	44	25
Didn't know where to go	41	4	32	27	25	20
Costs too much	25	17	40	19	0	20
No local service available	8	0	19	9	0	20
Fear of what might happen after contact with service	24	9	49	36	44	18
Fear of losing friends	18	27	20	14	44	18
Service not appropriate for my drug use/problems	8	26	25	9	6	18
Fear of police	8	7	32	28	16	15
No after-hours service	8	9	20	5	6	11
Couldn't get appointment at good time	8	7	13	0	9	9
No transport to get there	8	9	32	19	6	9
Fear of CYFs or social welfare agencies	0	4	19	9	6	9
Long waiting lists	16	9	45	0	16	0
Lack of childcare	0	5	7	0	0	0

15.5 Drug treatment history

Fifty-eight percent of the frequent injecting drug users and 32% of the frequent methamphetamine users were currently in drug treatment in 2015 (Figure 15.2). Only 5% of the frequent ecstasy users were currently enrolled in a drug treatment programme. There was an increase in the proportion of frequent injecting drug users who were currently in drug treatment from 2014 to 2015 (up from 35%

to 58%, p=0.0029). The proportion of frequent methamphetamine drug users who were currently in drug treatment also increased from 17% in 2014 to 32% in 2015 (p=0.0105).

15.6 Drug type responsible for drug treatment

Those frequent drug users who were currently in drug treatment were asked what drug type they were receiving treatment for. Again, the numbers were low for methamphetamine users and consequently these results should be interpreted with caution. Of the 22 frequent methamphetamine users who were currently receiving treatment, 11 were in treatment for methamphetamine, six for methadone, four for cannabis, four for alcohol and two for heroin (Table 15.6). Of the intravenous drug users currently receiving treatment (n=58), 60% were being treated for morphine, 33% for methadone, 13% for 'homebake' heroin/morphine and 11% for heroin.

Table 15.6 Drug type(s) currently in treatment for by frequent drug user group, 2010-2015

	Frequent methamphetamine users						Frequent injecting drug users					
	2010 (n=23)	2011 (n=18)	2012 (n=14)	2013 (n=13)	2014 (n=16)	2015 (n=22)	2010 (n=47)	2011 (n=33)	2012 (n=34)	2013 (n=26)	2014 (n=35)	2015 (n=58)
Morphine	27	27	54	38	46	3	57	60	76	86	76	60
Heroin	13	0	0	0	63	9	15	9	22	3	19	11
Methadone	34	11	18	0	22	24	24	32	17	7	15	33
Methamphetamine	53	61	58	48	21	52	5	5	14	4	12	8
Ritalin	4	7	12	0	16	5	6	0	11	3	11	8
Homebake heroin/morphine	4	0	14	13	46	0	27	9	13	17	10	13
Benzodiazepines	5	0	6	20	13	4	9	16	17	0	9	9
Poppies	0	0	16	0	9	0	2	3	3	10	7	0
Zopiclone	-	-	-	-	-	-	-	-	-	0	4	5
Alcohol	9	41	14	14	12	21	7	0	13	0	3	5
Cannabis	10	20	20	21	6	21	2	6	6	0	3	4
Tobacco	0	0	0	0	-	-	5	3	3	3	3	5
Crystal methamphetamine	0	5	8	0	9	0	0	0	0	0	3	3
Oxycodone	0	0	0	0	22	0	0	3	0	3	3	4

Amphetamine	4	5	0	7	6	0	2	0	3	0	0	3
Ecstasy	0	0	0	0	-	-	2	0	3	0	-	-
Cocaine	0	0	0	0	9	0	0	0	3	0	-	3
LSD	0	0	0	0	-	-	0	0	3	0	-	-
Amyl nitrate	0	0	0	0	-	-	0	0	3	0	-	-
Street BZP	0	0	0	0	-	-	0	0	3	0	-	-
Mushrooms	0	0	0	0	-	-	2	0	3	0	-	-
Other	10	9	0	0	-	-	5	2	0	0	-	3
Codeine	0	0	0	6	0	-	0	9	0	0	-	3
Anti – depressant	-	-	0	7	0	-	-	-	-	0	-	-
Dextropropoxyphene	-	-	-	0	6	0	-	-	-	--	-	-
GHB	-	-	-	-	-	-	-	-	-	-	0	3
Ketamine	-	-	-	-	-	-	-	-	-	-	0	3

15.7 Summary of drug treatment

- Forty-nine percent of the frequent injecting drug users and 26% of the frequent methamphetamine users indicated they needed ‘a lot’ of help to reduce their drug use in 2015

- In contrast, only 2% of the frequent ecstasy users felt they needed ‘a lot’ of help to reduce their drug use in 2015

- Overall, the frequent injecting drug users were more likely to believe they needed help to reduce their drug use from 2010 to 2015

- Thirty-four percent of the frequent injecting drug users, 31% of the frequent methamphetamine users and 10% of the frequent ecstasy users had sought help to reduce their drug use ‘but not got it’ in 2015

- The barriers most often experienced by the frequent methamphetamine users in 2015 were ‘social pressure to keep using’ (40%), ‘fear of what might happen after made contact with a

service' (28%), 'fear of police' (28%), 'didn't know where to go' (26%), 'fear of CYFs or other social welfare agency' (21%) and 'couldn't get appointment at a suitable time' (21%)

- The barriers most often experienced by frequent injecting drug users in 2015 were: 'fear of what might happen after contact with service' (64%), 'fear of police' (39%), 'no transport to get there' (37%), 'long waiting list' (36%), 'service not appropriate for my drug use/problem' (35%), 'fear of CYFs or other social welfare agencies' (35%), 'no after-hours service' (30%), 'couldn't get appointment at suitable time' (26%) and 'social pressure to keep using' (26%)

- There were increases in the proportions of frequent injecting drug users who reported having 'no transport' to get help (up from 23% in 2007 to 37% in 2015) and 'fear of police' (up from 14% in 2014 to 39% in 2015

- The proportion of frequent injecting drug users who reported treatment services 'cost too much' as a barrier to seeking help decreased from 20% in 2007 to 11% in 2015

- The most common barriers experienced by frequent ecstasy users in 2015 were 'concern about impact on job/career' (42%), 'social pressure to keep using' (25%), 'didn't know where to go' (20%), 'cost too much' (20%) and 'no local service available' (20%)

- Fifty-eight percent of the frequent injecting drug users and 32% of the frequent methamphetamine users were currently in drug treatment in 2015

- Only 5% of the frequent ecstasy users were currently in drug treatment

- The proportion of frequent methamphetamine drug users who were currently in drug treatment increased from 17% in 2014 to 32% in 2015

- The frequent methamphetamine users were receiving treatment for methamphetamine (52%), methadone (24%), alcohol (21%) and cannabis (21%) in 2015

- The proportion of frequent injecting drug users who were currently in drug treatment also increased from 35% in 2014 to 58% in 2015

- The injecting drug users were receiving treatment for morphine (60%), methadone (33%), 'homebake heroin (13%) and heroin (11%) in 2015

16. Drug enforcement

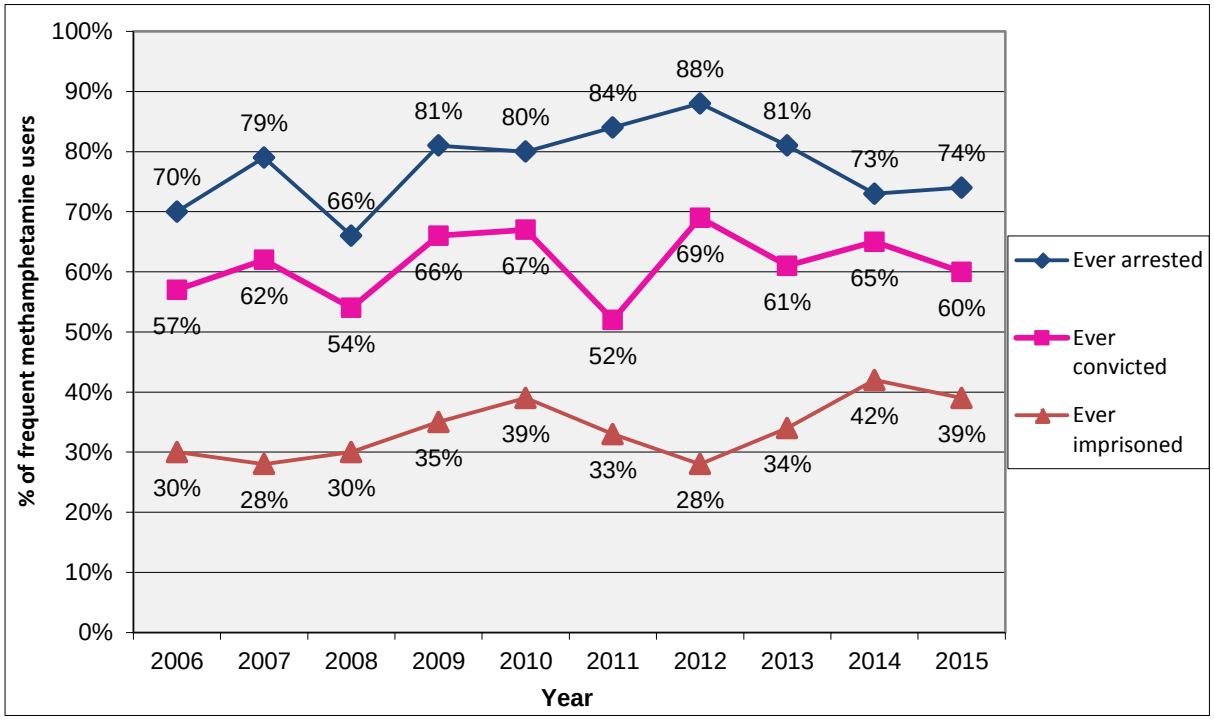
16.1 Introduction

Frequent drug users often have a high level of contact with the police and the wider criminal justice system, either for drug use itself, or for a range of nuisance, anti-social, dangerous driving and other criminal behaviour related to intoxication. Pre-Charge Warnings (PCW) were introduced in 2010 as a new approach to minor offending. They are intended to target offences committed while intoxicated, particularly by first time offenders (New Zealand Police, 2013). Under the PCW process, police officers can arrest an intoxicated individual and escort them back to the police station, thereby removing them from a potentially risky situation. If the individual is deemed eligible for a PCW the incident does not result in a prosecution and conviction, with all the related negative life impacts (New Zealand Police, 2013). Offence types eligible for PCWs include 'breach of liquor ban', 'disorderly conduct' and 'possession of cannabis' (New Zealand Police, 2013). Methamphetamine offences are excluded from the PCW process (New Zealand Police, 2013). Offenders must meet various conditions to be eligible for a PCW; offending history, victim impact, seriousness of offending and demeanour are all taken into consideration (New Zealand Police, 2013). Reparation, such as community work, may be a condition of the warning (New Zealand Police, 2013). A total of 1,097 PCWs were issued by NZ Police in 2015/16 (New Zealand Police, 2015).

16.2 History of arrest, conviction and imprisonment

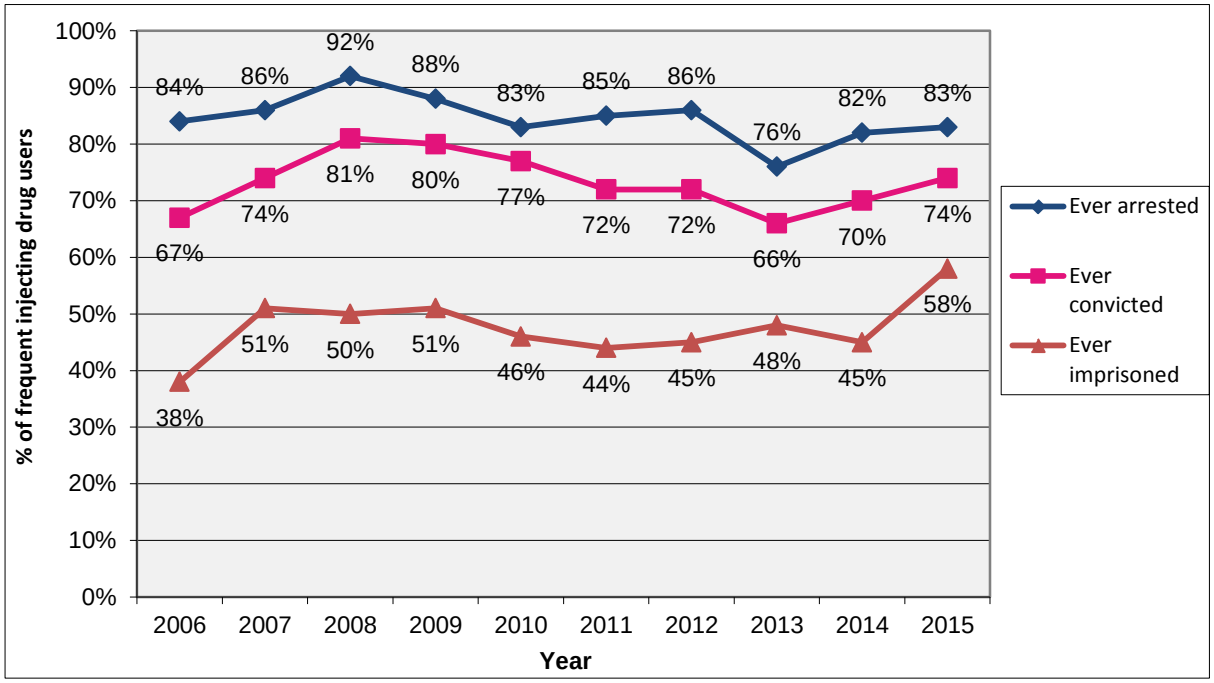
The frequent drug users were first asked if they had ever been arrested, convicted of a crime or imprisoned. Eighty-three percent of injecting drug users, 74% of the frequent methamphetamine users and 30% of the frequent ecstasy users had been arrested at some point in their lives. The proportion of methamphetamine users who had ever been imprisoned increased from 30% in 2006 to 39% in 2015 ($p=0.0445$) (Figure 16.1). There was no statistically significant change in the proportion of frequent methamphetamine users who had ever been convicted of a crime over the same years.

Figure 16.1 Proportion of frequent methamphetamine users who had ever been arrested, convicted or imprisoned, 2006-2015



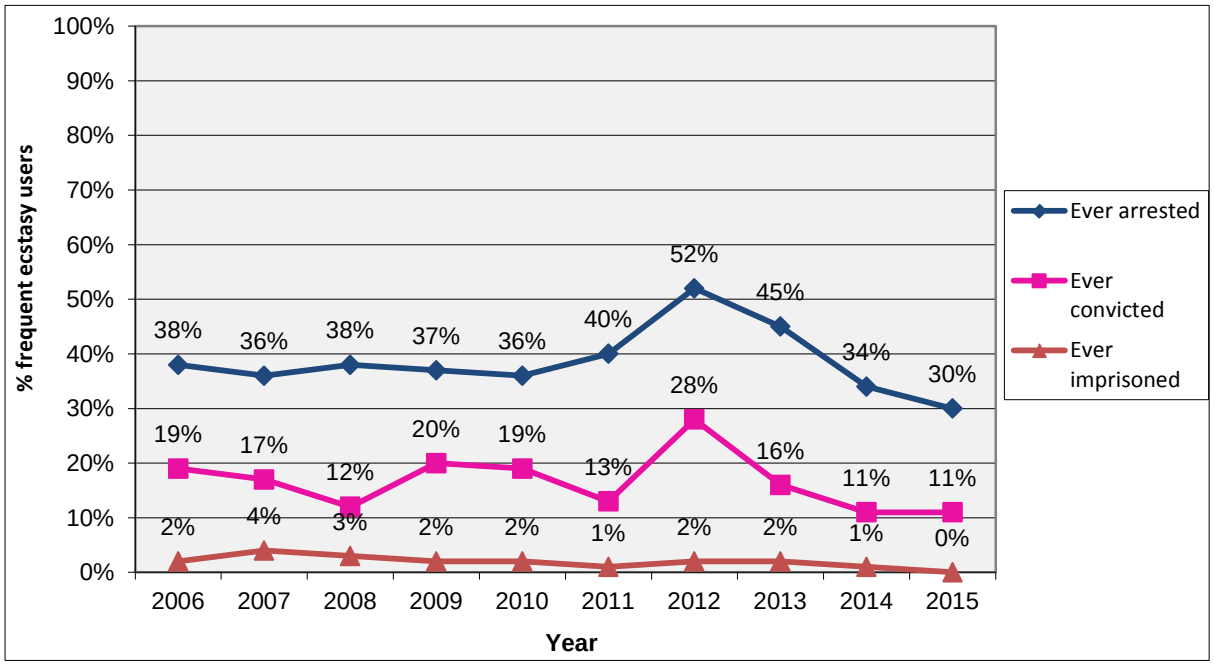
Overall, the proportion of frequent injecting drug users who had ever been arrested declined from 2006 to 2015, although this decline was not statistically significant (p=0.0595) (Figure 16.2). There was no statistically significant change in the proportion of frequent injecting drug users who had ever been convicted of a crime or imprisoned from 2006-2015.

Figure 16.2 Proportion of frequent injecting drug users who had ever been arrested, convicted or imprisoned, 2006-2015



There was no statistically significant change in the proportion of frequent ecstasy users who had ever been arrested and convicted of a crime from 2006 to 2015 (Figure 16.3).

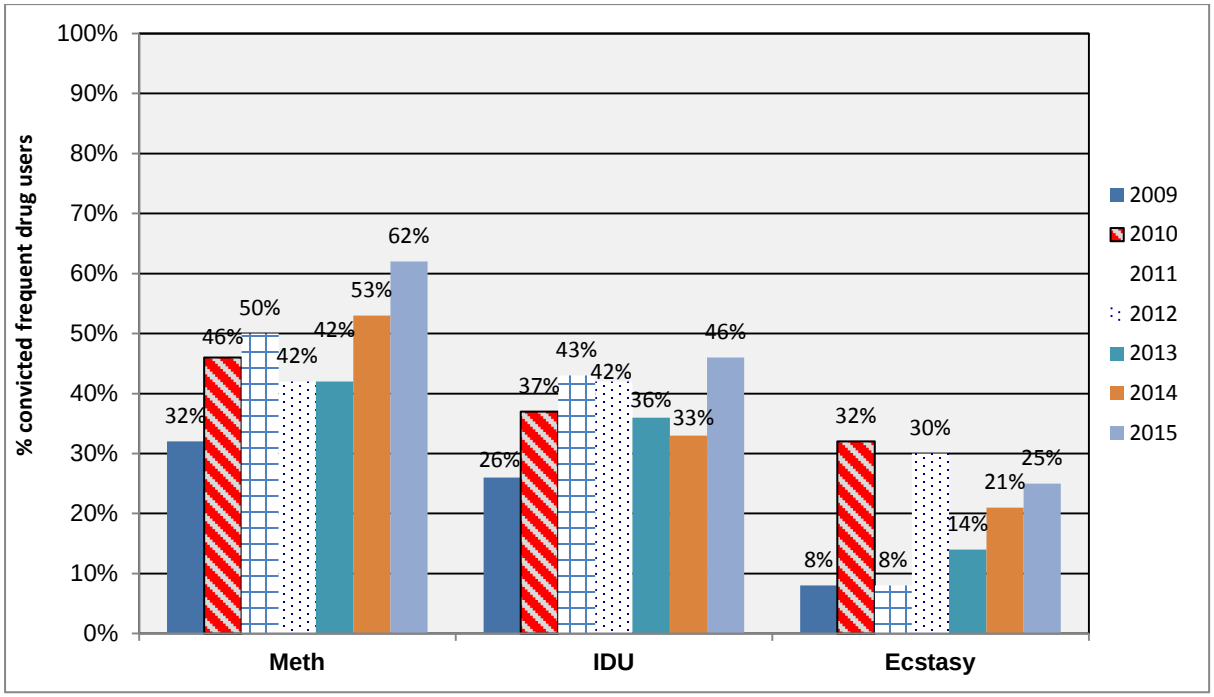
Figure 16.3 Proportion of frequent ecstasy users who had ever been arrested, convicted or imprisoned, 2006-2015



16.3 Drug treatment as part of sentencing

Those frequent drug users who had been convicted of a crime were asked whether they had received any treatment for alcohol and drug issues as part of their sentence. Sixty-two percent of the frequent methamphetamine users, 46% of the frequent injecting drug users and 25% of the frequent ecstasy users who had been convicted received alcohol and drug treatment as a part of their sentence in 2015. The proportion of frequent methamphetamine users who had received treatment as part of their sentence increased from 32% in 2009 to 62% in 2015 (p=0.0014) (Figure 16.4).

Figure 16.4 Proportion of convicted frequent drug users who received alcohol and drug treatment as part of sentence, 2009-2015

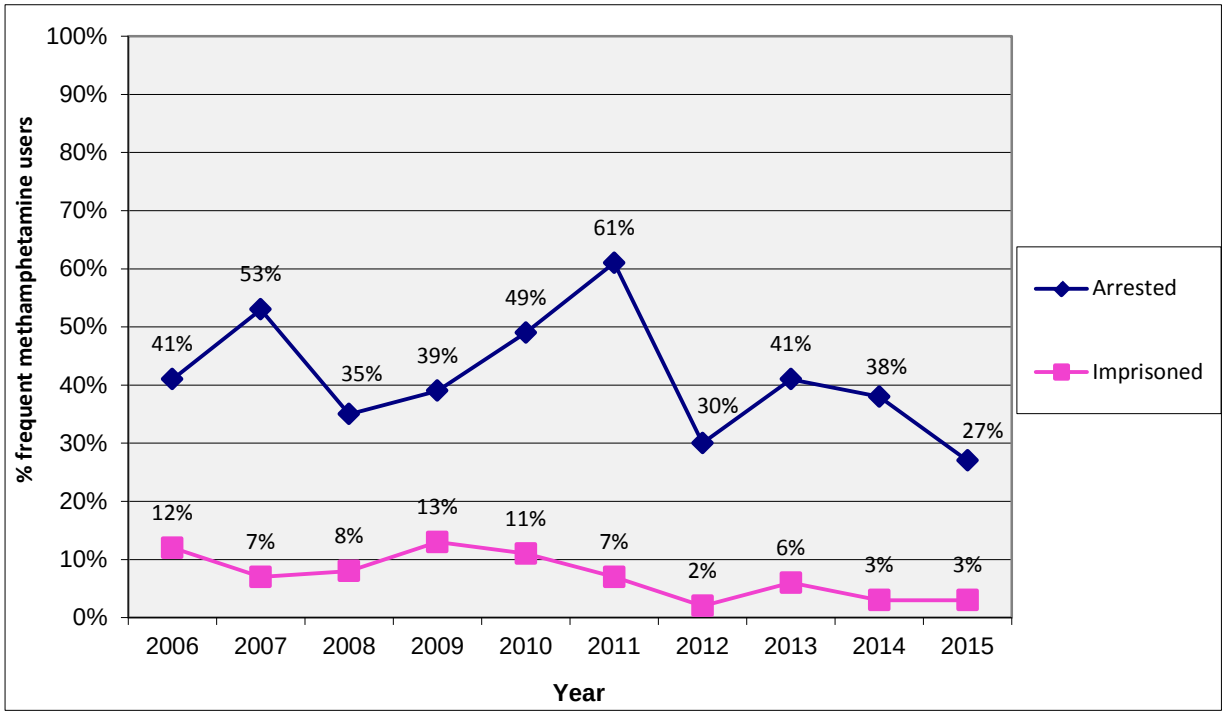


16.4 Recent arrest and imprisonment

The frequent drug users were also asked if they had been arrested or imprisoned in the previous 12 months. Thirty-four percent of the frequent injecting drug users, 27% of the frequent methamphetamine users and 7% of the frequent ecstasy users had been arrested in the past year in 2015. The proportion of frequent methamphetamine users who had been arrested in the previous year declined from 41% in 2006 to 27% in 2015 (p=0.0144) (Figure 16.5). The proportion of frequent methamphetamine users who had been arrested in the past year had previously increased sharply from 35% in 2008 to 61% in 2011 (p=0.0147). The proportion of frequent methamphetamine users

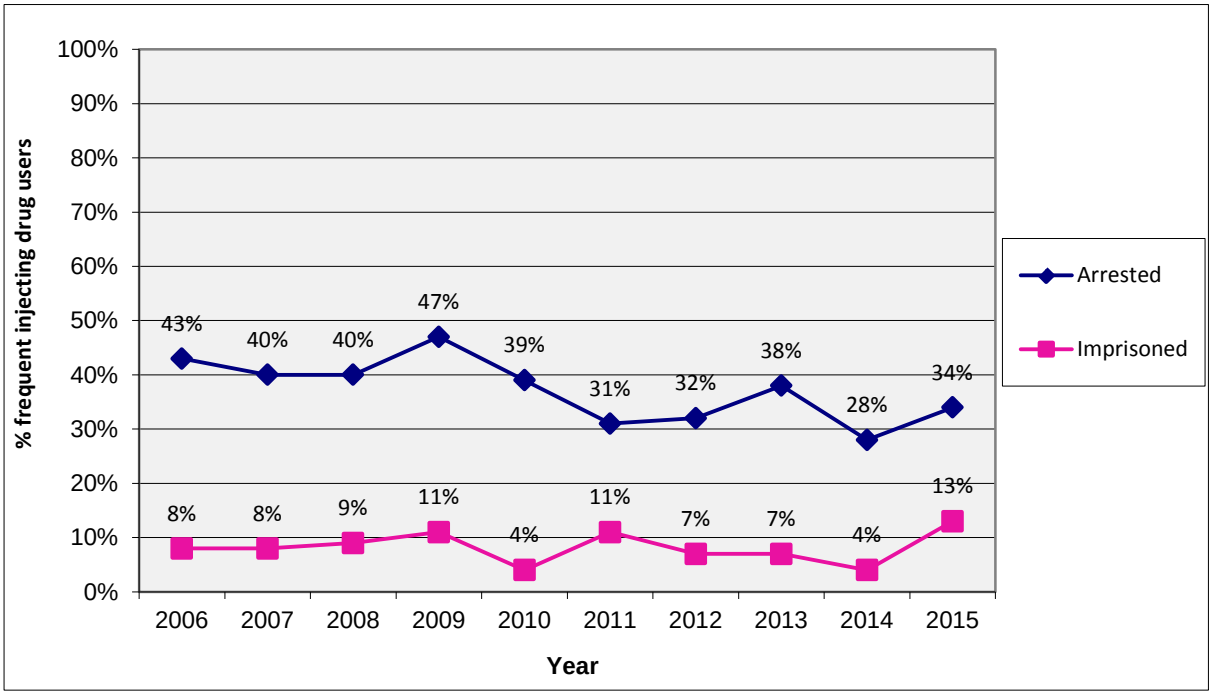
who had been imprisoned in the previous 12 months declined from 12% in 2006 to 3% in 2015 (p=0.0004).

Figure 16.5 Proportion of frequent methamphetamine users who had been arrested and imprisoned in the previous 12 months, 2006-2015



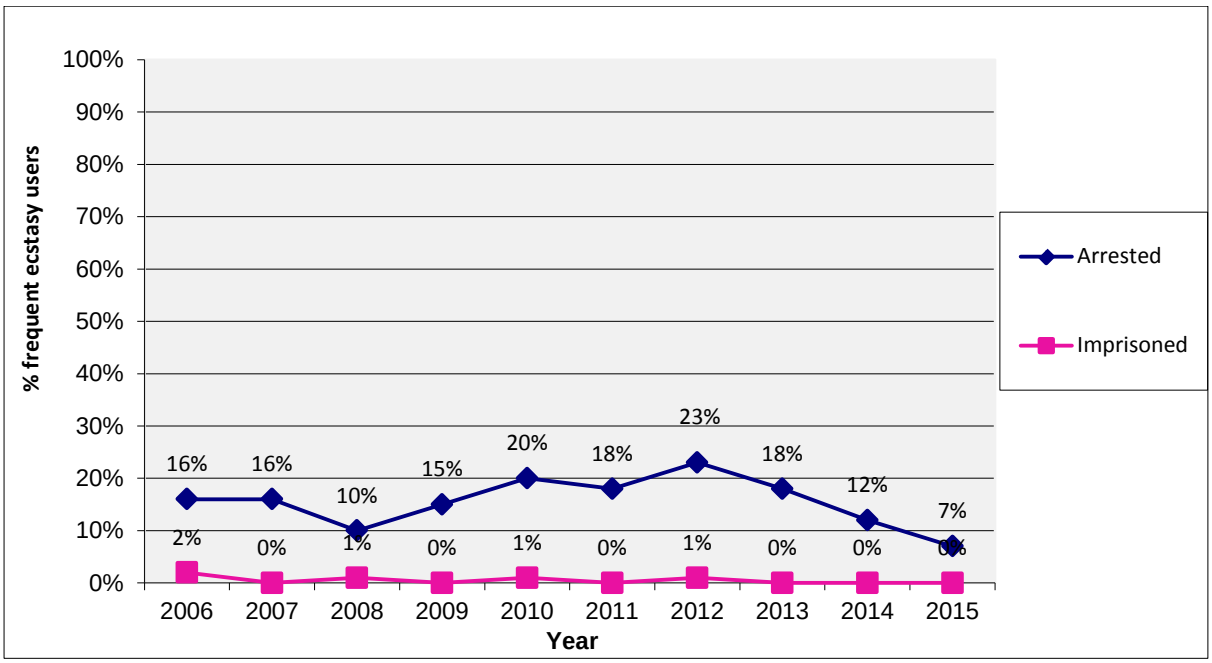
The proportion of frequent injecting drug users who had been arrested in the previous 12 months also declined from 43% in 2006 to 34% in 2015 (p=0.0094) (Figure 16.6). The proportion of injecting drug users who had been imprisoned in the past year increased from 4% in 2014 to 13% in 2015 (p=0.0345).

Figure 16.6 Proportion of frequent injecting drug users who had been arrested and imprisoned in the previous 12 months, 2006-2015



There was no statistically significant change in the proportion of frequent ecstasy users who had recently been arrested from 2006 to 2015 (Figure 16.7).

Figure 16.7 Proportion of frequent ecstasy users who had been arrested and imprisoned in the previous 12 months, 2006-2015



16.5 Offences arrested for in past 12 months

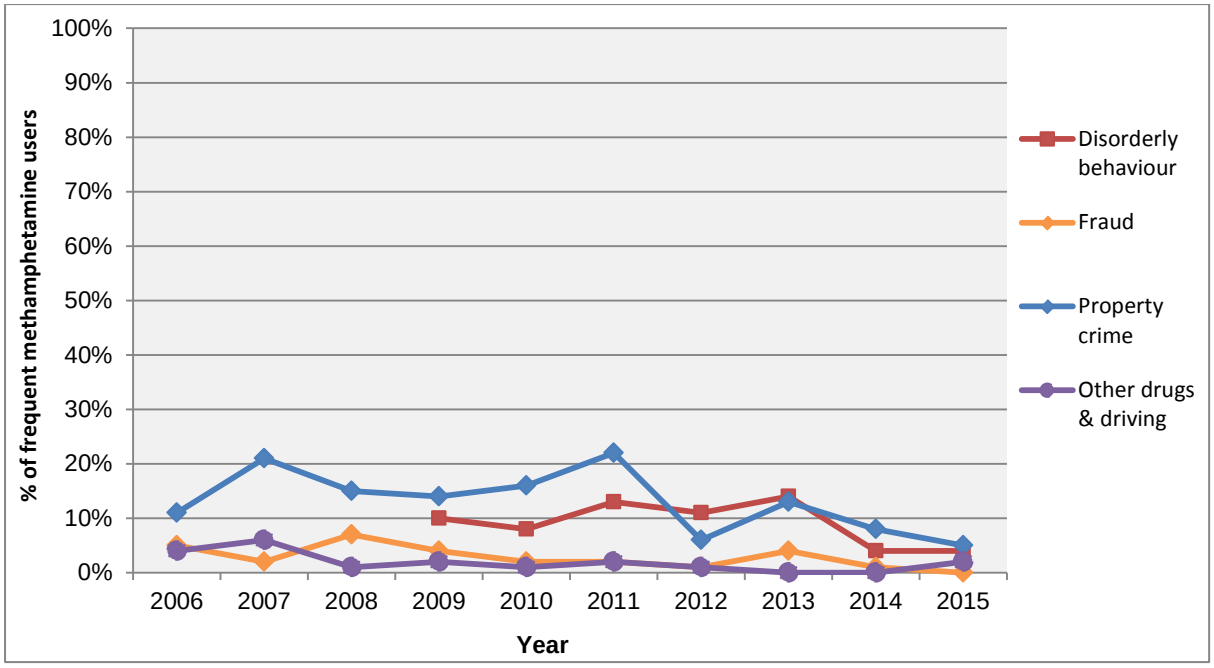
Those frequent drug users who had been arrested in the previous 12 months were asked what offence(s) they had been arrested for during this time. Table 16.1 presents the offences the frequent drug users had been arrested for by the entire sample (not just the ones arrested), to provide an indication of offending behaviour across the whole population of frequent drug users. The offences the frequent methamphetamine users had most commonly been arrested for in 2015 were 'other offences' (12%), 'possession or use of drugs' (10%), 'property crime' (5%), 'disorderly behaviour' (4%), 'violent crime' (4%) and 'drink driving' (4%). 'Other offences' largely refer to administrative offences against justice including 'breach of bail', 'breach of probation', failure to appear in court', 'warrant to arrest', 'unpaid fines', and 'breach of a liquor ban'.

Table 16.1 Proportion of frequent drug users who were arrested for different criminal offences in the past 12 months by frequent drug user group, 2015

Criminal offences in past 12 months (%)	Methamphetamine users	Ecstasy users (MDMA)	Intravenous drug users (IDU)
	(n=68)	(n=117)	(n=109)
Other offences	12%	2%	13%
Use/possession drugs	10%	1%	6%
Property crime	5%	3%	18%
Disorderly behaviour	4%	4%	3%
Violent crime	4%	2%	4%
Drink driving	4%	0%	7%
Other driving offence	2%	0%	6%
Drug driving	2%	0%	3%
Fraud	0%	0%	0%
Drug manufacturing	0%	-	1%
Dealing drugs	0%	1%	1%

The proportion of frequent methamphetamine users who had been arrested for 'disorderly behaviour' decreased from 10% in 2009 to 4% in 2015 (p=0.0415) (Figure 16.8). There were also decreases in the proportion of frequent methamphetamine users who had been arrested for 'fraud' (down from 5% in 2006 to 0% in 2015, p=0.0036), 'property crime' (down from 11% in 2006 to 5% in 2015, p=0.0031) and 'drugs and driving' (down from 4% in 2006 to 2% in 2015, p=0.0052).

Figure 16.8 Proportion of frequent methamphetamine users who had been arrested for disorderly behaviour, fraud, property crime and driving under the influence of drugs in the previous 12 months, 2006-2015



The offences the frequent injecting drug users had most commonly been arrested for were 'property crime' (18%), 'other offences' (13%), 'drink driving' (7%), 'use or possession of drugs' (6%) and 'other driving offences' (6%). The proportion of frequent injecting drug users who had been arrested for 'fraud' declined from 4% in 2009 to 0% in 2015 (p=0.0137).

The proportion of frequent ecstasy users arrested for 'disorderly behaviour' decreased from 7% in 2009 to 4% in 2015 (p=0.0005) (Figure 16.11). There was also a decrease in the proportion of frequent ecstasy users who were arrested for the 'other offences', down from 10% in 2006 to 2% in 2015 (p<0.0001).

16.6 Perceptions of the current level of drug enforcement

The frequent drug users were asked if they had noticed any change in police activity toward drug users, and whether the level of activity was 'more', 'the same' or 'less' compared to six months ago. Among those who had noticed police activity towards drug users, 43% of the frequent methamphetamine users, 41% of the frequent injecting drug users and 30% of the frequent ecstasy users reported noticing 'more' police activity in the previous six months in 2015. Overall, the frequent methamphetamine users reported a decline in police activity toward drug users from 2006 to 2015 (p=0.0045) (Table 16.2 and Figure 16.9). The frequent methamphetamine users had

previously reported a sharp increase in the level of police activity toward drug users from 2009 to 2010 (p=0.0017). The frequent ecstasy users also reported a decline in the level of police activity toward drug users from 2006 to 2015 (p=0.0024) (Table 16.3). Again, the frequent ecstasy users had previously reported a sharp increase in police activity toward drug users from 2009 to 2010 (p=0.0107). Similarly, the frequent injecting drug users reported a decline in the level of police activity towards drug users from 2006 to 2015 (p=0.0276) (Table 16.3).

Table 16.2 Frequent methamphetamine users' perceptions of the change in police activity in relation to drug users in the past six months (of those who noticed any change in police activity), 2006-2015

Frequent methamphetamine users										
Change in police activity (%)	**2006 (n=77)**	**2007 (n=80)**	**2008 (n=84)**	**2009 (n=71)**	**2010 (n=85)**	**2011 (n=78)**	**2012 (n=65)**	**2013 (n=73)**	**2014 (n=72)**	**2015 (n=44)**
More [3]	72	63	67	48	72	68	61	53	50	43
Stable [2]	20	32	30	49	27	30	35	40	48	57
Less [1]	7	5	3	3	1	4	5	7	3	0
Average score (1=less activity – 3=more activity)	2.6	2.6	2.6	2.4	2.7	2.6	2.6	2.5	2.5	2.4
Overall recent change	More	More/ stable	More/ stable	Stable/ more	More	More/ stable	More/ stable	More/ stable	More/ stable	Stable/ more

Figure 16.9 Mean score of change in police activity toward drug users in the past six months for frequent drug users, 2006-2015

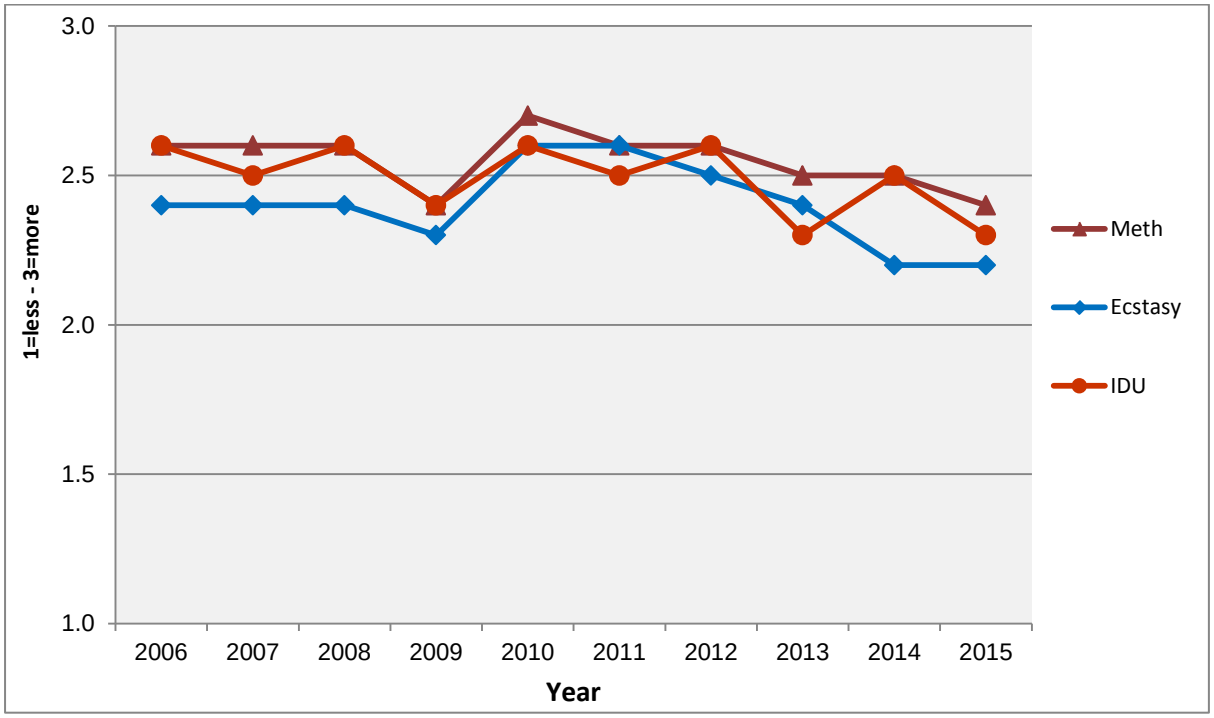


Table 16.3 Frequent ecstasy users' perceptions of the change in police activity in relation to drug users in the past six months (of those who noticed any change in police activity), 2006-2015

Frequent ecstasy users										
Change in police activity (%)	**2006 (n=42)**	**2007 (n=50)**	**2008 (n=57)**	**2009 (n=48)**	**2010 (n=97)**	**2011 (n=94)**	**2012 (n=78)**	**2013 (n=56)**	**2014 (n=56)**	**2015 (n=51)**
More [3]	50	52	48	33	61	67	48	42	24	30
Stable [2]	45	39	47	67	34	26	49	54	69	58
Less [1]	5	8	5	0	4	7	3	4	7	12
Average score (1=less activity – 3=more activity)	2.4	2.4	2.4	2.3	2.6	2.6	2.5	2.4	2.2	2.2
Overall recent change	More/ stable	More/ stable	More/ stable	Stable/ more	More/ stable	More/ stable	Stable/ more	Stable/ more	Stable/ more	Stable/ more

Table 16.4 Frequent injecting drug users' perceptions of the change in police activity in relation to drug users in the past six months (of those who noticed any change in police activity), 2006-2015

Frequent injecting drug users										
Change in police activity (%)	**2006 (n=55)**	**2007 (n=69)**	**2008 (n=89)**	**2009 (n=66)**	**2010 (n=79)**	**2011 (n=50)**	**2012 (n=61)**	**2013 (n=56)**	**2014 (n=66)**	**2015 (n=65)**
More [3]	62	53	70	44	60	55	63	34	46	41
Stable [2]	32	40	25	49	39	41	34	64	53	52
Less [1]	5	6	5	6	1	4	3	2	0	7
Average score (1=less activity – 3=more activity)	2.6	2.5	2.6	2.4	2.6	2.5	2.6	2.3	2.5	2.3
Overall recent change	More/ stable	More/ stable	More	Stable/ more	More/ stable	More/ stable	More/ stable	Stable/ more	Stable/ more	Stable/ more

16.7 Perceptions of the impact of drug enforcement

The frequent drug users were asked if police activity had made it 'more difficult' for them to obtain drugs in the past six months. Thirty-one percent of the frequent injecting drug users, 21% of the frequent methamphetamine users and 15% of the frequent ecstasy users reported that police activity had made it 'more difficult' for them to obtain drugs in 2015 (Table 16.5). The proportion of frequent injecting drug users who reported police activity had made it 'more difficult' for them to obtain drugs increased from 20% in 2006 to 31% in 2015 (p=0.0009) (Figure 16.10). There was no statistically significant change in the proportion of frequent methamphetamine and ecstasy users who reported police activity had made it 'more difficult' for them to obtain drugs in 2015. The frequent methamphetamine users had previously shown a sharp decline in the proportion saying police activity had made it 'more difficult' to obtain drugs, down from 38% in 2013 to 23% in 2014 (p=0.0185).

Figure 16.10 Proportion of frequent drug users who thought police activity had made it 'more difficult' for them to obtain drugs in the past six months, 2006-2015

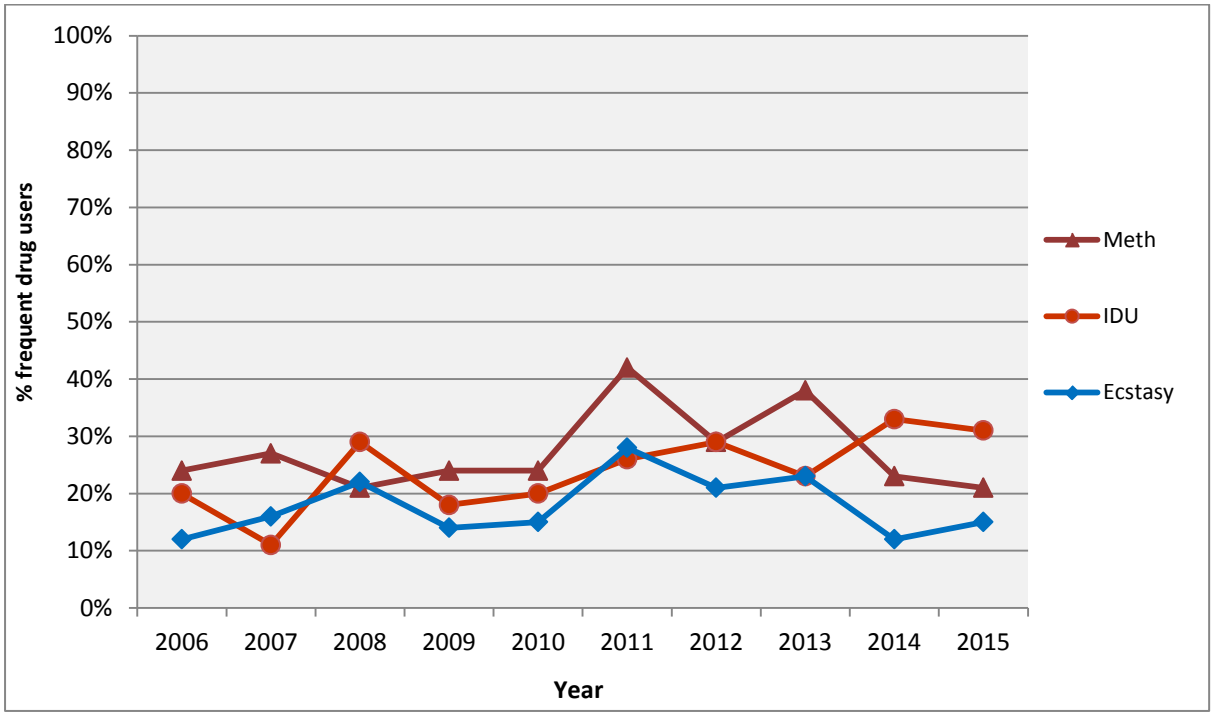


Table 16.5 Proportion of frequent drug users who thought police activity had made it 'more difficult' for them to obtain drugs in the past six months, 2006-2015

Police made it more difficult to obtain drugs (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Meth users	(n=112)	(n=110)	(n=133)	(n=100)	(n=120)	(n=94)	(n=98)	(n= 90)	(n=97)	(n=65)
	24	27	21	24	24	42	29	38	23	21
Injecting drug users	(n=92)	(n=107)	(n=127)	(n=99)	(n=124)	(n=86)	(n=102)	(n=93)	(n=96)	(n=104)
	20	11	29	18	20	26	29	23	33	31
Ecstasy users	(n=106)	(n=100)	(n=122)	(n=101)	(n=149)	(n=141)	(n=122)	(n=102)	(n=85)	(n=98)
	12	16	22	14	15	28	21	23	12	15

16.8 Number of friends arrested

Finally, the frequent drug users were asked if there had been any change in the number of their friends arrested in the past six months. Some frequent drug users had not had any of their friends arrested in the past six months. Sixty-six percent of the frequent methamphetamine users, 58% of the frequent injecting drug users and 37% of the frequent ecstasy users had had a friend arrested in the previous six months in 2015.

Overall, the proportion of frequent methamphetamine users who had had a friend(s) arrested increased from 63% in 2006 to 66% in 2015 (p=0.0155). The proportion of frequent methamphetamine users who had had a friend(s) arrested had previously increased sharply from 63% in 2012 to 82% in 2013 (p=0.0025). The proportion of frequent ecstasy users who had had a friend(s) arrested increased from 24% 2006 to 37% 2015 (p=0.0093). There was no change in the proportion of injecting drug users who had had a friend(s) arrested from 2006 to 2015.

Those frequent drug users who had had a friend arrested were asked if 'more', 'the same', or 'less' of their friends had been arrested in the past six months. Fifty percent of the frequent injecting drug users, 39% of the frequent methamphetamine users and 21% of the frequent ecstasy users reported that 'more' of their friends had been arrested in the previous six months in 2015 (Table 16.6). The frequent methamphetamine users reported fewer of their friends arrested from 2006 to 2015 (p=0.0036). There was no change in perceptions of the number of friends arrested for the injecting drug users.

Table 16.6 Change in the number of friends arrested in the past six months by frequent drug user group (of those who had a friend arrested), 2009-2015

Number of friends arrested (%)	Methamphetamine users							Ecstasy users (MDMA)							Intravenous drug users (IDU)						
	2009 (n=57)	2010 (n=76)	2011 (n=69)	2012 (n=61)	2013 (n=69)	2014 (n=64)	2015 (n=43)	2009 (n=33)	2010 (n=58)	2011 (n=57)	2012 (n=56)	2013 (n=52)	2014 (n=30)	2015 (n=36)	2009 (n=65)	2010 (n=67)	2011 (n=42)	2012 (n=56)	2013 (n=52)	2014 (n=61)	2015 (n=60)
More [3]	55	63	60	50	52	38	39	54	57	50	42	29	28	21	44	53	52	52	42	44	50
Stable [2]	36	30	29	45	43	56	51	35	37	37	51	52	65	75	52	41	45	42	54	56	49
Less [1]	9	7	11	5	5	6	10	11	7	13	7	19	7	4	5	6	3	6	4	0	1
Average score (1=less arrested – 3=more arrested)	2.5	2.6	2.5	2.5	2.5	2.3	2.3	2.4	2.5	2.4	2.3	2.1	2.2	2.2	2.4	2.5	2.5	2.5	2.4	2.4	2.5
Overall recent change	More/ stable	More/ stable	More/ stable	More/ stable	More/ stable	Stable/ more	Stable/ more	More/ stable	More/ stable	More/ stable	Stable/ more	Stable/ more	Stable/ more	Stable	Stable/ more	More/ stable	More/ stable	More/ stable	Stable/ more	Stable/ more	More/ stable

16.9 Summary of drug enforcement

Frequent methamphetamine users

- Seventy-four percent of the frequent methamphetamine users had been arrested, 60% had been convicted of a crime, and 39% had been imprisoned at some point in their lives
- The proportion of methamphetamine users who had ever been imprisoned increased from 30% in 2006 to 39% in 2015
- The proportion of frequent methamphetamine users who had received treatment as part of their sentence increased from 32% in 2009 to 62% in 2015
- The proportion of frequent methamphetamine users who had been arrested in the past 12 months declined from 41% in 2006 to 27% in 2015
- The proportion of frequent methamphetamine users who had been imprisoned in the previous 12 months also declined from 12% in 2006 to 3% in 2015
- The offences the frequent methamphetamine users were most commonly arrested for in 2015 were 'other offences' (12%), 'possession or use of drugs' (10%), 'property crime' (5%), 'disorderly behaviour' (4%), 'violent crime' (4%) and 'drink driving' (4%)
- There were decreases in the proportion of frequent methamphetamine users who had been arrested for 'disorderly behaviour' (down from 10% in 2009 to 4% in 2015), 'fraud' (down from 5% in 2006 to 0% in 2015), 'property crime' (down from 11% in 2006 to 5% in 2015) and 'drugs and driving' (down from 4% in 2006 to 2% in 2015)
- The frequent methamphetamine users reported a decline in police activity toward drug users from 2006 to 2015
- The frequent methamphetamine users reported fewer of their friends arrested from 2006 to 2015

Frequent injecting drug users

- Eighty-three percent of the frequent injecting drug users had been arrested, 74% had been convicted of a crime, and 58% had been imprisoned at some point in their lifetimes
- The proportion of frequent injecting drug users who had been arrested in the previous 12 months declined from 43% in 2006 to 34% in 2015

- The proportion of frequent injecting drug users who had been imprisoned in the past year increased from 4% in 2014 to 13% in 2015

- The offences the frequent injecting drug users were most commonly arrested for in 2015 were 'property crime' (18%), 'other offences' (13%), 'drink driving' (7%), 'use or possession of drugs' (6%) and 'other driving offences' (6%)

- The proportion of frequent injecting drug users who had been arrested for 'fraud' declined from 4% in 2009 to 0% in 2015

- The frequent injecting drug users reported a decline in the level of police activity towards drug users from 2006 to 2015

- The proportion of frequent injecting drug users who reported police activity had made it 'more difficult' for them to obtain drugs increased from 20% in 2006 to 31% in 2015

Frequent ecstasy users

- Thirty percent of the frequent ecstasy users had been arrested and 11% had been convicted of a crime at some point in their lives

- None of the frequent ecstasy users had ever been imprisoned

- The offence the frequent ecstasy users were most commonly arrested for in 2015 was 'disorderly behaviour' (4%)

- The frequent ecstasy users reported a decline in the level of police activity toward drug users from 2006 to 2015

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