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RECENT TRENDS IN ILLEGAL DRUG USE IN NEW ZEALAND, 2006-2016

Findings from the Illicit Drug Monitoring System (IDMS)

C.WILKINS / J.PRASAD / J.S.ROMEO / M.RYCHERT

Social and Health Outcomes Research
and Evaluation (SHORE)
College of Health
Massey University
PO Box 6137, Wellesley St
Auckland, New Zealand

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C. Wilkins
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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. A total of 310 frequent drug users were interviewed for the 2016 IDMS (i.e. 133 frequent methamphetamine users, 111 frequent injecting drug users and 66 frequent ecstasy users) from the three main centres (Auckland, Wellington and Christchurch), from October 2016 to February 2017. Findings from the IDMS are utilised by a wide range of people concerned with drug problems, including policy makers, government agencies, non-government organisations, hospital emergency staff, health providers, drug treatment organisations and community groups. This final IDMS report presents trend data on drug use and drug markets over the past 11 years.

Rising availability and declining prices of methamphetamine

Consistent with the record seizures of methamphetamine made in New Zealand in recent years, the frequent drug users reported sharp increases in the availability of methamphetamine, along with declining prices. The proportion of frequent drug users who reported methamphetamine was 'easier' to obtain increased from 19% in 2015 to 44% in 2016. The average price of a gram methamphetamine declined in Auckland from $579 in 2015 to $485 in 2016, and in Christchurch from $1,002 in 2015 to $746 in 2016. The weight of methamphetamine seized increased from 99 kilograms in 2014 to 941 kilograms in 2016. The frequent drug users increasingly reported purchasing methamphetamine from semi-public areas such as a 'street drug market', 'public area like a park', and 'tinny house'.

Rising use and availability of crystal methamphetamine

The frequent drug users also reported a sharp rise in the availability of crystal methamphetamine (i.e. the imported type of methamphetamine). The proportion of frequent drug users who reported crystal methamphetamine was 'easier' to obtain increased from 17% in 2015 to 35% in 2016. The proportion of methamphetamine users who reported using crystal methamphetamine increased from 54% in 2015 to 76% in 2016. These findings are consistent the record seizures of imported crystal methamphetamine made at the border in 2016, including a one-off seizure of 494 kilograms made from a coastal town in Northland.

Emergence of a black market for high potency synthetic cannabinoids

Overall, the availability of synthetic cannabinoids decreased from 2013 to 2016, with sharp declines reported following the bans imposed in 2014. The proportion of ecstasy users who had used synthetic cannabinoids declined from 21% in 2010 to 4% in 2016. However, the strength of synthetic cannabinoids increased from 2014 to 2016, reflecting the emergence of a new wave of high potency synthetic cannabinoids. Furthermore, consistent with the subsequent emergence of a black market for synthetic cannabinoids, there were sharp increases in the proportion of frequent drug users who purchased synthetic cannabinoids from a 'tinny house' (up from 2% in 2013 to 53% in 2016), 'street drug market' (up from 0% in 2013 to 30% in 2016) and from the 'internet' (up from 0% in 2014 to 35% in 2016). Similarly, there were sharp increases in the proportion who purchased synthetic cannabinoids from a 'drug dealer' (up from 6% in 2013 to 58% in 2016) and 'gang member or gang associate' (up from 0% in 2013 to 56% in 2016).

Sharp decline in cannabis markets

There was a sharp decline in the availability of cannabis from 2015 to 2016, following a number of years of steadily declining availability. The proportion of frequent drug users reporting that cannabis was 'more difficult' to obtain increased from 17% in 2015 to 34% in 2016. The decline in cannabis availability occurred in all the main centres. The proportion of frequent drug users who could purchase cannabis in one hour or less has declined from 82% in 2014 to 54% in 2016. Consistent with this decline in availability, there has been some decrease in cannabis use. For example, the number of days the frequent methamphetamine users had used cannabis in the past six months declined from 108 days in 2014 to 84 days in 2016. The average price of an ounce of cannabis has increased marginally over the past decade: up from $299 in 2006 to $338 in 2016.

Declining availability of ecstasy

The frequent drug users reported declining availability of ecstasy over recent years, particularly in Auckland. The proportion of frequent drug users saying ecstasy was 'more difficult' to obtain increased from 9% in 2015 to 24% in 2016. There were some reports that the strength of ecstasy has increased in recent years, and these findings are consistent with reports of a recovery in the international supply of MDMA. The price of ecstasy remains low. The average price per pill has steadily declined from $59 in 2006 to $41 in 2016. Fifteen percent of the frequent drug users who purchased ecstasy in 2016 reported purchasing it from the internet.

Re-emergence of psychedelics

There were some reports of increasing availability and use of LSD and other synthetic psychedelics. The proportion of frequent ecstasy users who reported using LSD increased sharply from 32% in 2015 to 63% in 2016. The average price of LSD per tab declined slightly from $37 in 2015 to $30 in 2016. These changes may reflect new sources of supply of synthetic psychedelics from encrypted websites, and the emergence of a number of new synthetic psychedelics such as NBOMe.

Signs of an increase in cocaine use?

The current availability of cocaine was reported to be “very difficult” or “difficult” in 2016. There was some indication of increasing cocaine use among some frequent drug user groups. The proportion of frequent ecstasy users who reported using cocaine in the past six months increased sharply from 9% in 2015 to 25% in 2016. However, users reported using cocaine, on average, only two days in the previous six months in 2016, suggesting a fairly thin market. The high price of cocaine ($289 per gram in 2016) is likely to limit its use to affluent groups and may mean the street level drug users interviewed for the IDMS are not be able to provide an accurate picture of current market conditions.

A recovering street morphine market

There has been a steady recovery in the availability of street morphine following a significant disruption of supply in 2012/13. It appears that gangs have increasingly become involved in the street morphine market following the disruption. The proportion of frequent drug users from Christchurch who reported purchasing street morphine from a ‘gang member or gang associate’ increased from 11% in 2009 to 41% in 2016.

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 university 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, and who 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 use and purchase of a number of drug types.

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 310 frequent drug users were interviewed for the 2016 IDMS, comprising 133 frequent methamphetamine users, 111 frequent injecting drug users and 66 frequent ecstasy 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 October 2016 to April 2017. 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). Recruitment of the three samples of frequent drug users for the 2016 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 $30 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 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 assess whether variations in findings between years occur because there has been some real change, or are simply due random sample variation. We only consider differences between the measures to be real 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. We firstly tested for long term trends using all the years of data (i.e. from 2006 to 2016), and we then tested for recent trends using the most recent years of data (i.e. from 2015 to 2016). 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 wanted to compare findings from the 2016 IDMS survey with the previous 2015, 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 respective weighted percentages of respondents for each site and module.

Table 1.1 Distribution of IDMS respondents by site for the years: 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015 and 2016

Site (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
	(n=318)	(n=324)	(n=404)	(n=315)	(n=411)	(n=372)	(n=330)	(n=312)	(n=313)	(n=301)	(n=310)	(n=3710)
Auckland	43.4	46.9	33.2	41.6	36.0	49.7	37.6	43.3	46.0	29.6	29.0	39.7
Wellington	22.0	28.1	31.7	23.8	28.5	23.7	25.2	15.7	21.1	23.6	22.0	24.1
Christchurch	34.6	25.0	35.1	34.6	35.5	26.6	37.3	41.0	33.0	46.8	49.0	36.2
Total	100	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, 2015 and 2016

Module (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
	(n=318)	(n=324)	(n=404)	(n=315)	(n=411)	(n=372)	(n=330)	(n=312)	(n=313)	(n=301)	(n=310)	(n=3710)
Methamphetamine	35.8	34.0	33.9	33.3	31.6	30.4	30.3	29.8	32.3	23.6	42.9	32.5
Ecstasy	34.9	32.4	33.4	35.6	37.2	43.3	38.2	37.8	35.0	39.2	21.3	35.3
Injecting	29.2	33.6	32.7	31.1	31.1	26.3	31.5	32.4	33.0	37.2	35.8	32.2
Total	100	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, 2015 and 2016

Site (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
	(n=318)	(n=323)	(n=405)	(n=315)	(n=412)	(n=375)	(n=331)	(n=312)	(n=313)	(n=301)	(n=310)	(n=3710)
Auckland	39.8	41.4	40.8	40.6	41.1	38.8	41.5	41.9	41.4	45.4	43.5	41.5
Wellington	27.1	27.6	27.6	27.4	27.2	26.8	27.1	26.9	27.4	25.8	28.1	27.2
Christchurch	33.1	31.0	31.6	32.0	31.7	34.5	31.4	31.2	31.2	28.7	28.4	31.3
Total	100	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, 2015 and 2016

Module (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
	(n=318)	(n=323)	(n=405)	(n=315)	(n=412)	(n=375)	(n=331)	(n=312)	(n=313)	(n=301)	(n=310)	(n=3710)
Methamphetamine	34.3	32.9	36.1	34.5	36.3	32.5	36.1	34.8	33.0	39.8	36.2	35.1
Ecstasy	35.2	31.2	33.6	33.9	33.6	32.3	34.1	36.1	36.0	33.8	39.6	34.4
Injecting	30.6	35.9	30.2	31.6	30.2	35.2	29.8	29.1	32.0	26.5	24.2	30.5
Total	100	100	100	100	100	100	100	100	100	100	100	100

2. Demographics

2.1 Introduction

The IDMS surveys three groups of frequent drug users and has consistently found distinct demographic profiles for each drug user group. 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), are more likely to be unemployed or on a sickness benefit, and also 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 over the past ten years (Wilkins et al., 2015). The mean age of the frequent methamphetamine users has increased from 30 years in 2009 to 36 years in 2015, suggesting a maturing population of users. The mean age of the frequent injecting drug users has also increased steadily from 32 years in 2006 to 40 years in 2015.

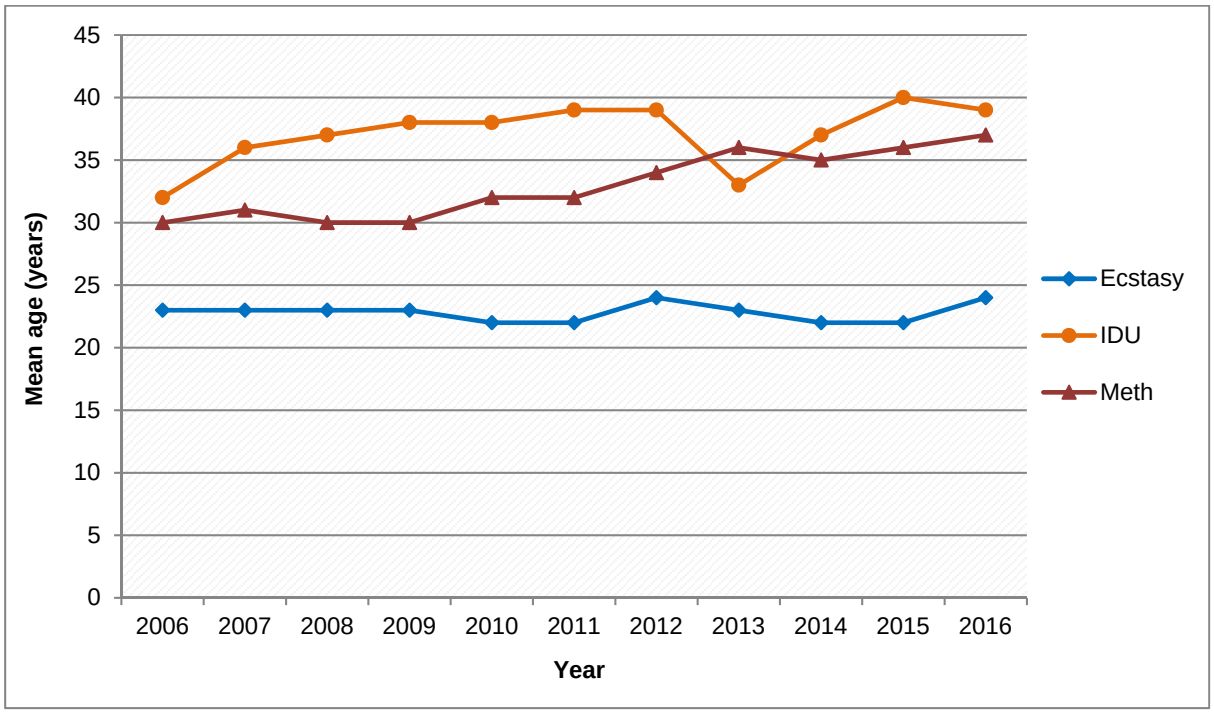
2.2 Gender

Sixty-five percent of the frequent ecstasy users, 57% of the frequent methamphetamine users and 55% of the frequent injecting drug users in 2016 were male. There was no change in the proportion of male frequent drug users in 2016.

2.3 Age

The mean age of the frequent methamphetamine users increased from 30 years in 2006 to 37 years in 2016 ($p<0.0001$). Similarly, the mean age of the frequent injecting drug users increased from 32 years in 2006 to 39 years in 2016 ($p=0.0004$) (Figure 2.1).

Figure 2.1 Mean age of the frequent drug users, 2006-2016



2.4 Ethnicity

Eighty-nine percent of frequent ecstasy users, 71% of the frequent injecting drug users and 55% of the frequent methamphetamine users were of European ethnicity in 2016 (Table 2.1).

Table 2.1 Ethnicity of the frequent drug users, 2016

Ethnicity (%)	Methamphetamine users (n=133)	Injecting drug users (IDU) (n=111)	Ecstasy users (n=66)
European	55	71	89
Maori	38	20	3
Pacific Island	5	2	0
Asian	0	0	5
Other	2	6	3

The proportion of frequent methamphetamine users who are Maori increased from 22% in 2006 to 38% in 2016 (p=0.0002). There was no statistically significant change in the proportion of frequent ecstasy and injecting drug users who were Maori from 2006 to 2016.

2.5 Employment status

In 2016, 74% of the frequent injecting drug users and 71% of the frequent methamphetamine users were unemployed or on a sickness benefit, compared to only 3% of the frequent ecstasy users (Table 2.2). Sixty-two percent of the frequent ecstasy users were students (i.e. tertiary or high school), compared to only 8% of the methamphetamine users and 3% of injecting drug users. The proportion of frequent methamphetamine users who were unemployed increased from 64% in 2006 to 71% in 2016, p=0.0379). Conversely, the proportion of ecstasy users who were unemployed declined from 6% in 2006 to 3% in 2016 (p=0.0309).

Table 2.2 Employment status of the frequent drug users, 2016

Employment status (%)	Methamphetamine users (n=128)	Injecting drug users (IDU) (n=110)	Ecstasy users (n=66)
Unemployed/ sick/ other	71	74	3
Employed	32	26	97
Students (tertiary/ high school)	8	3	62

2.6 Education

In 2016, 27% of the frequent injecting drug users and 19% of the frequent methamphetamine users had no educational qualifications (Table 2.3). In contrast, only 5% of the frequent ecstasy users had no educational qualifications. Overall, the proportion of frequent injecting drug users with no educational qualifications declined from 36% in 2006 to 27% in 2016 (p=0.0090). Similarly, the proportion of frequent methamphetamine users with no educational qualifications decreased from 37% in 2006 to 19% in 2016 (p=0.0008).

Table 2.3 Highest educational achievement of the frequent drug users, 2016

Highest educational qualification (%)	Methamphetamine users (n=130)	Injecting drug users (IDU) (n=110)	Ecstasy users (n=65)
No qualifications	19	27	5
High school qualifications	30	28	66
Trade qualifications	29	31	2
Tertiary qualifications	22	14	28

2.7 Sexual orientation

Thirty-seven percent of frequent ecstasy drug users, 22% of frequent injecting drug users and 16% of frequent methamphetamine users identified as non-heterosexual (i.e. gay man, lesbian woman, bi-sexual or 'other' sexual orientation) in 2016 (Table 2.4).

Table 2.4 Frequent drug users' sexual orientation, 2016

Sexual orientation (%)	Methamphetamine users (n=130)	Ecstasy users (n=66)	Intravenous drug users (IDU) (n=110)
Heterosexual	84	64	77
Gay male	3	6	3
Lesbian	2	0	2
Bisexual	10	27	13
Other	1	4	4

2.8 Marital status

Sixty-four percent of the frequent ecstasy users, 57% of the frequent methamphetamine users and 55% of the frequent injecting drug users were of single marital status in 2016 (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, 2016

Marital status (%)	Methamphetamine users (n=132)	Ecstasy users (n=66)	Intravenous drug users (IDU) (n=111)
Single	57	64	55
With a regular partner	23	30	19
Married/ defacto	9	2	12
Separated	6	2	8
Divorced	4	3	5
Widowed	<1	1	2

2.9 Accommodation

Sixty-seven percent of frequent injecting drug users, 63% of the frequent ecstasy users and 58% of frequent methamphetamine users were living in rented private accommodation in 2016 (Table 2.6). Five percent of the frequent methamphetamine users were homeless and a further 11% lived in a boarding hostel.

Table 2.6 Frequent drug users by current accommodation type, 2016

Accommodation type (%)	Methamphetamine users (n=133)	Ecstasy users (N=118)	Intravenous drug users (IDU) (n=111)
Rented private house	58	63	67
Own private house	6	6	6
Parents/family private house	4	20	8
Boarding house/hostel	11	11	7
No fixed address/homeless	5	1	6
Other	7	0	3
Shelter	2	0	2
Drug treatment residence	5	0	1

2.10 Summary of demographic characteristics

Frequent methamphetamine users

- Fifty-seven percent of the frequent methamphetamine users in 2016 were male and their mean age was 37 years
- The mean age of the frequent methamphetamine users increased from 30 years in 2006 to 37 years in 2016
- The proportion of the frequent methamphetamine users who were Maori increased from 22% in 2006 to 38% in 2016
- The proportion of frequent methamphetamine users who were unemployed or on a sickness benefit increased from 64% in 2006 to 71% in 2016
- Sixteen percent of the frequent methamphetamine users identified as non-heterosexual in 2016
- The proportion of frequent methamphetamine users with no educational qualifications declined from 37% in 2006 to 19% in 2016

Frequent ecstasy users

- Sixty-five percent of the frequent ecstasy users were male and their mean age was 24 years in 2016
- Only 3% of the frequent ecstasy users were Maori in 2016
- Sixty-two percent of the frequent ecstasy users were students in 2016
- Sixty-four percent of the frequent ecstasy users were of 'single' marital status in 2016

Frequent injecting users

- Fifty-five percent of the frequent injecting users were male and their mean age was 39 years in 2016
- The mean age of the frequent injecting drug users has increased steadily from 32 years in 2006 to 39 years in 2016
- Twenty percent of the frequent injecting drug users were Maori in 2016
- Seventy-four percent of the frequent injecting drug users reported that they were unemployed or on a sickness benefit in 2016
- The proportion of frequent injecting drug users with no educational qualifications decreased from 36% in 2006 to 27% in 2016

3. Drug use patterns

3.1 Introduction

This chapter presents the drug types the frequent drug users reported using over the six months prior to their interview. A number of global trends in drug use have impacted drug use patterns in New Zealand over the past decade. Firstly, there has been increasing use of synthetic stimulants, such as methamphetamine and ecstasy (EMCDDA, 2017; UNODC, 2017). Secondly, there has been growing extra-medical use of pharmaceutical medicines, such as opioid painkillers and methylphenidate (Ritalin™) (UNODC, 2017; Wilkins, et al., 2015; Wilkins et al., 2011a). Thirdly, there has been global disruption in the supply of MDMA (methylenedioxymethamphetamine) which resulted in increasing use of substitute compounds, including methylmethcathinone, methylone, mephedrone, and MDPV (EMCDDA, 2014; ESR, 2014; Wilkins et al., 2014). Fourthly, there has been a proliferation of new psychoactive substances (NPS) which mimic the effects of traditional drug types, including a range of synthetic cannabinoids (EMCDDA, 2017; UNODC, 2017; Wilkins et al., 2008; Wilkins, et al., 2015). 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 has declined over subsequent years and fell sharply in 2014 following the banning of all legal highs (Wilkins, et al., 2015).

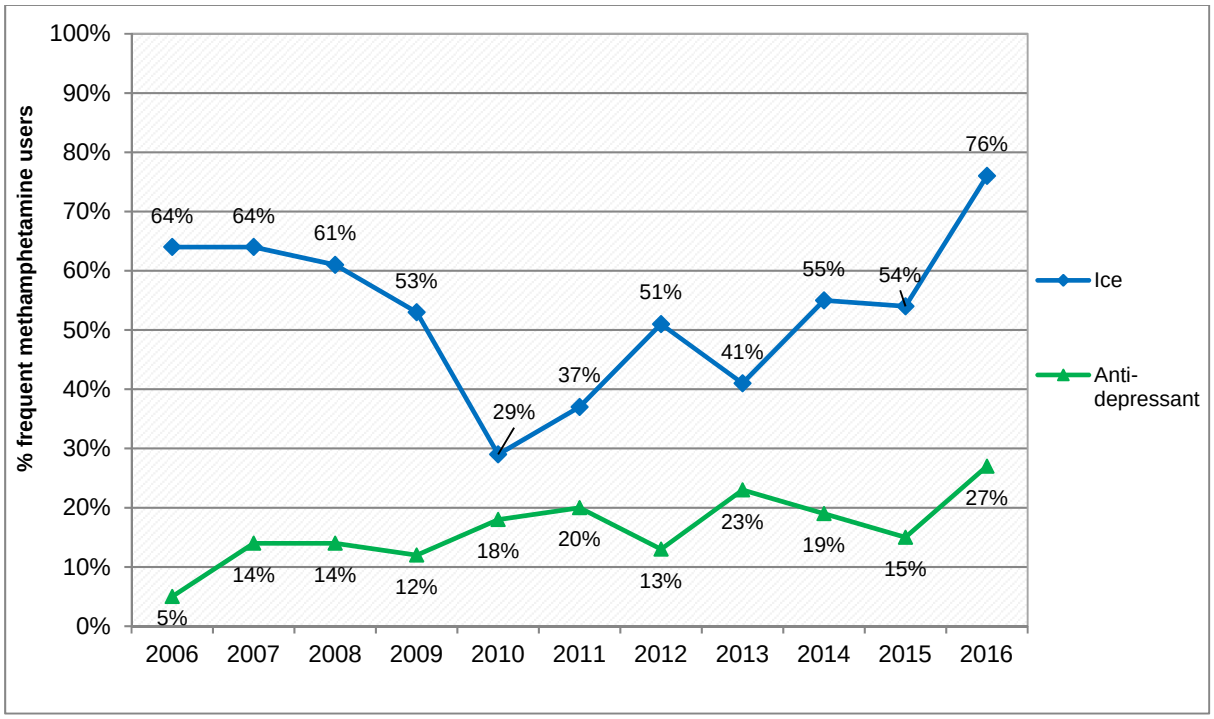
3.2 Current drug use of the frequent methamphetamine users

The frequent methamphetamine users had used a mean of eight drug types in the past six months in 2016 (median 8, range 1-18). The drug types most commonly used in the previous six months were methamphetamine (98%), tobacco (89%), cannabis (81%), alcohol (77%), crystal methamphetamine (Ice) (76%), ecstasy (31%), amphetamine (30%), GHB (27%) and synthetic cannabinoids (26%). Many of the frequent methamphetamine users had recently used pharmaceuticals such as codeine (41%), tramadol (33%), methylphenidate (Ritalin™) (33%), benzodiazepines (31%) and anti-depressants (27%).

The proportion of frequent methamphetamine users who reported using crystal methamphetamine increased sharply from 54% in 2015 to 76% in 2016 (p=0.0006) (Figure 3.1). There have been increases in the proportion of frequent methamphetamine users who report using anti-depressants (up from 5% in 2006 to 27% in 2016, p=0.0001), codeine (up from 21% in 2008 to 41% in 2016, p=0.0457), oxycodone (up from 3% in 2008 to 9% in 2016, p=0.0398), methadone (up from 16% in 2006 to 17% in 2016, p=0.0249), methylphenidate (Ritalin) (up from 21% in 2015 to 33% in 2016, p=0.0382),

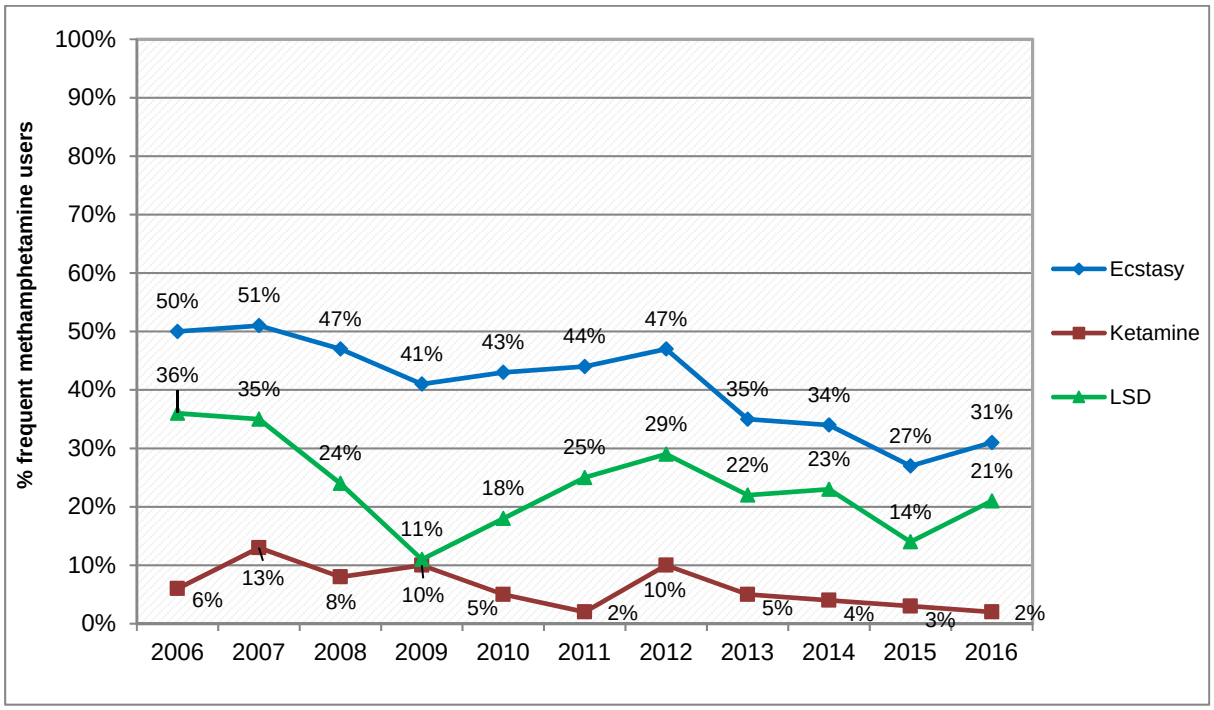
amphetamine (up from 17% in 2015 to 30% in 2016, p=0.0241) and GHB (13% in 2006 to 27% in 2016, p=0.0070).

Figure 3.1 Proportion of the frequent methamphetamine users who had used crystal methamphetamine (ice) and anti-depressants in the previous six months, 2006-2016



There were steady decreases in the proportion of frequent methamphetamine users who had recently used ecstasy (down from 51% in 2007 to 31% in 2016, p<0.0001), ketamine (down from 13% in 2007 to 2% in 2016, p=0.0009), LSD (down from 36% in 2006 to 21% in 2016, p=0.0026) and alcohol (down from 87% in 2006 to 77% in 2016, p=0.0494) (Figure 3.2).

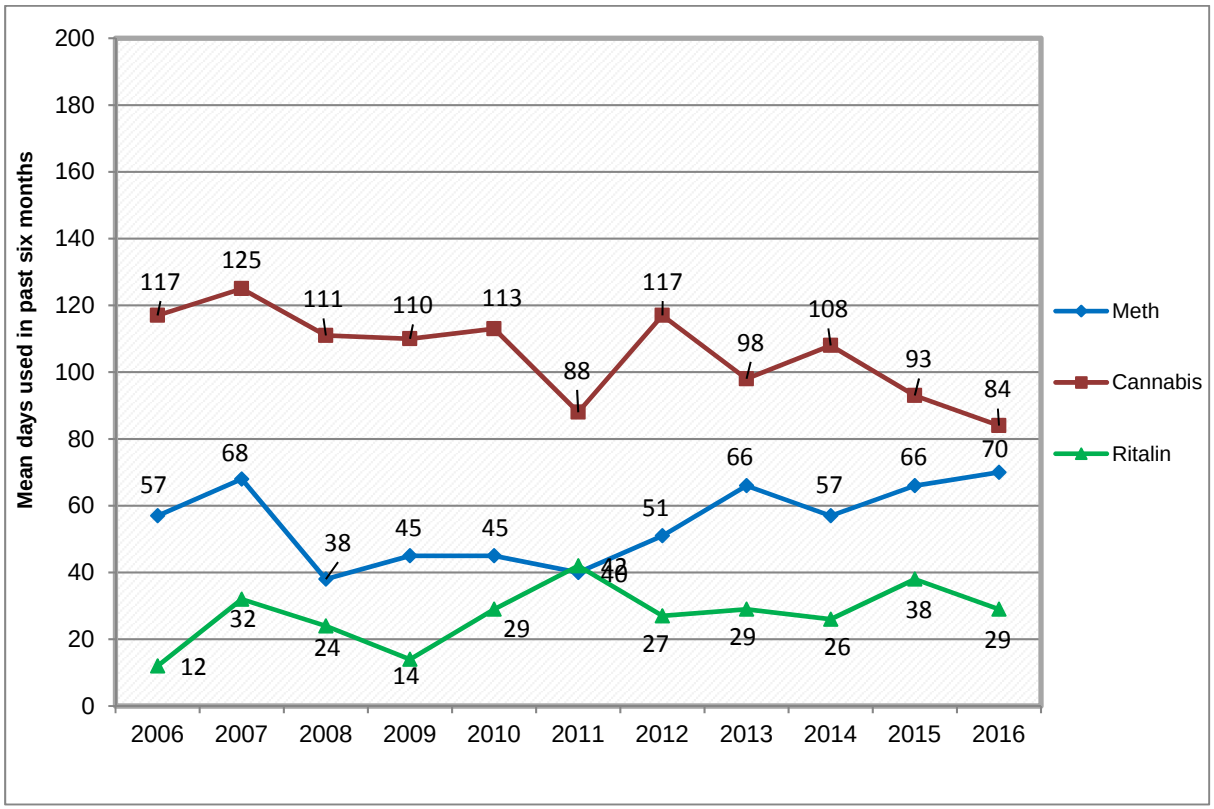
Figure 3.2 Proportion of the frequent methamphetamine users who had used ecstasy, Ketamine and LSD in the previous six months, 2006-2016



There has been a large 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 6% in 2016, p<0.0001). Similarly, the use of nitrous oxide (another former legal high) declined from 15% in 2006 to 9% in 2016 (p<0.0001).

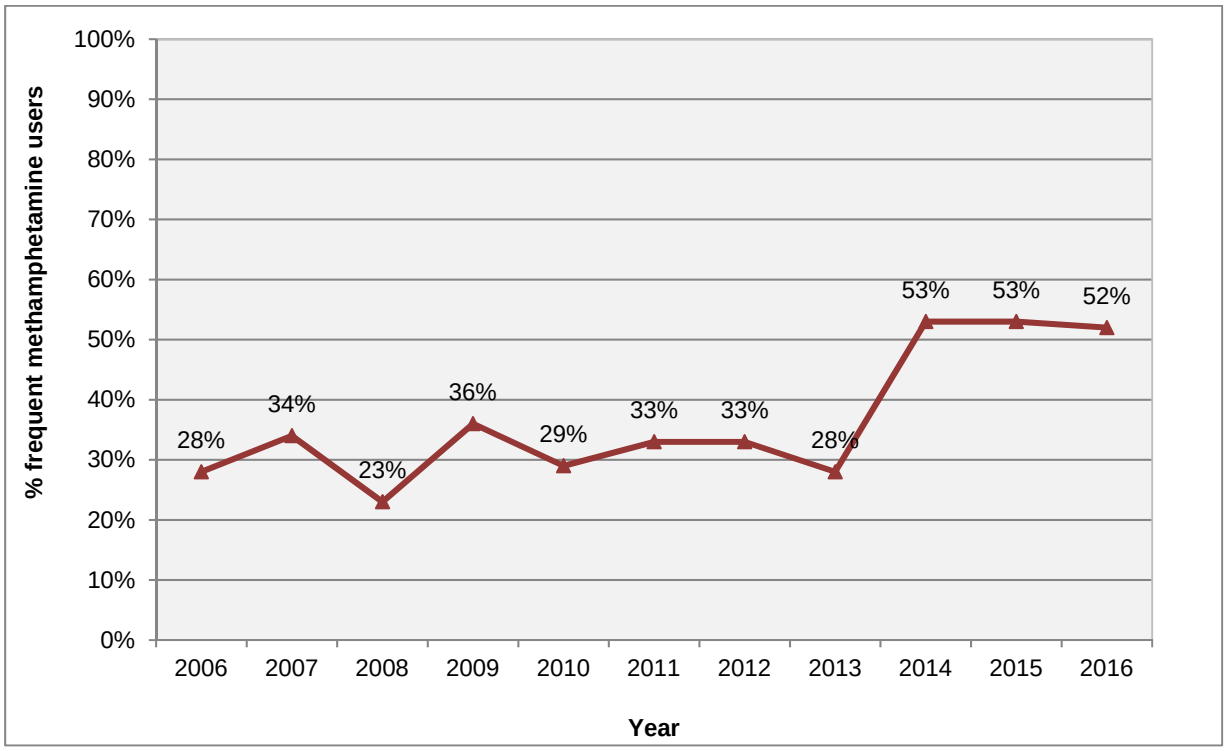
Those frequent methamphetamine users who indicated they had used a drug type were asked on how many days they had used that drug type in the previous six months. The mean number of days the frequent methamphetamine users had used methamphetamine in the past six months increased from 57 days in 2006 to 70 days in 2016 (p<0.0001) (Figure 3.3). The proportion of frequent methamphetamine users who reported using anti-depressants on a daily basis increased from 38% in 2007 to 62% in 2016 (p=0.0106). The number of days the frequent methamphetamine users had used LSD increased from two days in 2015 to five days in 2016 (p=0.0058). There were decreases in the number of days the frequent methamphetamine users had used cannabis (down from 117 days in 2006 to 84 days in 2016, p<0.0001) and methylphenidate (Ritalin) (down from 38 days in 2015 to 29 days in 2016, p=0.0025). The proportion of frequent methamphetamine users who smoked tobacco daily, decreased from 94% in 2015 to 85% in 2016 (p=0.0153).

Figure 3.3 Mean number of days frequent methamphetamine users had used methamphetamine, Ritalin and cannabis (of those who had used a drug in the previous six months), 2006-2016



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 52% in 2016 ($p<0.0001$) (Figure 3.4). Similarly, the proportion of frequent methamphetamine users who had injected crystal methamphetamine in the past six months increased from 28% in 2006 to 50% in 2016 ($p=0.0002$). Conversely, the proportion of frequent methamphetamine users who had injected methylphenidate (Ritalin™) decreased from 93% in 2015 to 58% in 2016 ($p=0.0070$).

Figure 3.4 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), 2006-2016



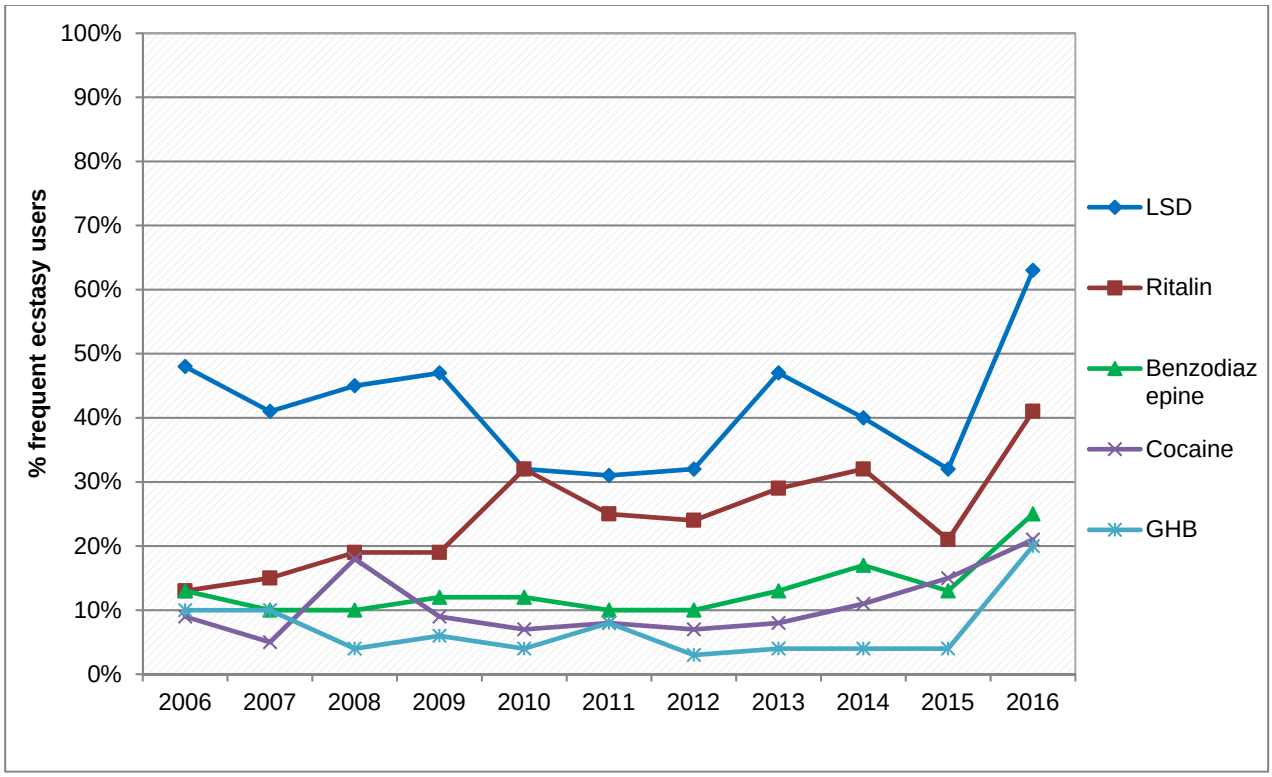
3.3 Current drug use of the frequent ecstasy (MDMA) users

The frequent ecstasy users had used a mean of seven drug types in the past six months in 2016 (median 7, range 2-15). The drug types most commonly used by the frequent ecstasy users in the previous six months were ecstasy (100%), alcohol (98%), cannabis (81%), tobacco (76%), LSD (63%), methylphenidate (Ritalin) (41%) and magic mushrooms (36%). Some of the frequent ecstasy users had recently used pharmaceutical drugs such as benzodiazepines (25%), tramadol (18%), codeine (18%) and antidepressant (11%). Some of the frequent ecstasy users had used nitrous oxide (23%), cocaine (21%), GHB (20%), ketamine (11%), methamphetamine (11%) and crystal methamphetamine (9%) in the past six months.

The proportion of frequent ecstasy users who had used LSD increased sharply from 32% in 2015 to 63% in 2016 ($p<0.0001$) (Figure 3.5). The use of methylphenidate (Ritalin) has also increased sharply from 13% in 2006 to 41% in 2016 ($p<0.0001$), and from 31% in 2015 to 41% in 2016 ($p=0.0018$). Similarly, there have been increases in the use of benzodiazepines from 13% in 2006 to 25% in 2016 ($p=0.0030$) and from 13% in 2015 to 25% in 2016 ($p=0.0286$). There has also been an increase in

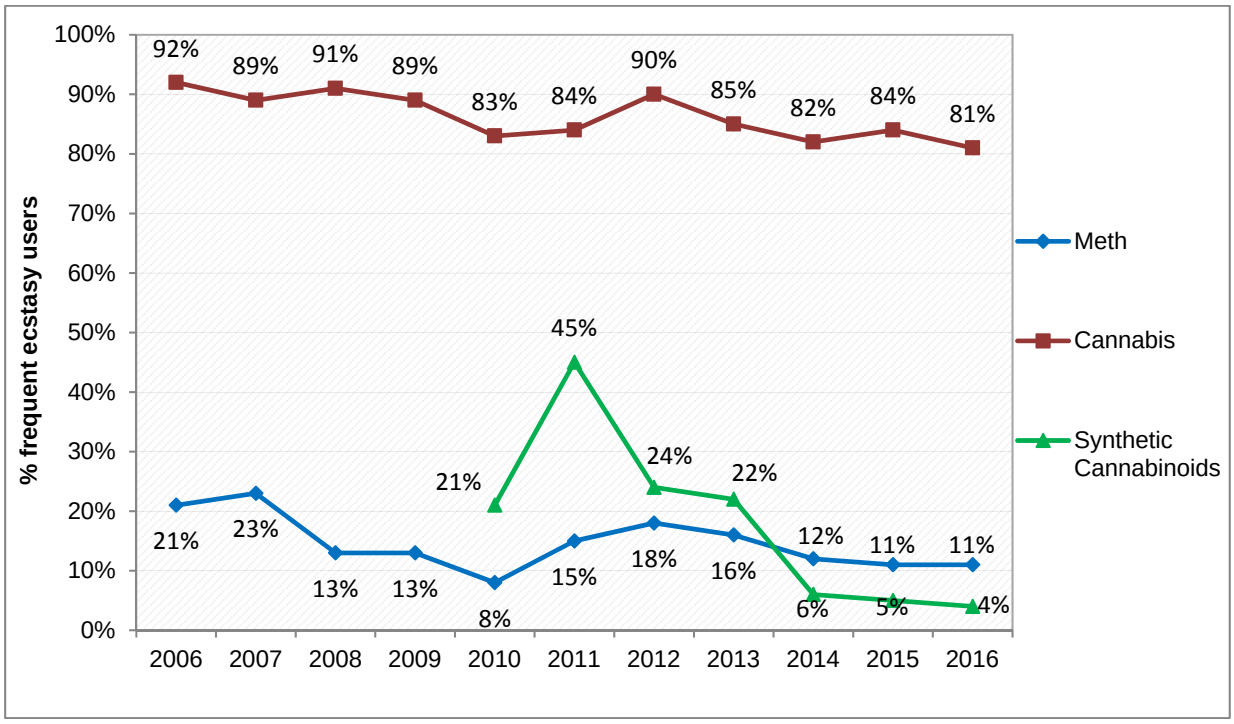
cocaine use by frequent ecstasy users (up from 9% in 21% in 2016, p=0.0166) and GHB (up from 4% in 2015 to 20% in 2016, p=0.0010).

Figure 3.5 Proportion of the frequent ecstasy users who had used LSD, Ritalin, benzodiazepine, Cocaine, and GHB in the previous six months, 2006-2016



A lower proportion of the frequent ecstasy users had recently used methamphetamine (down from 21% in 2006 to 11% in 2016, p=0.0201), cannabis (down from 92% in 2006 to 81% in 2016, p=0.0021), BZP (down from 65% in 2006 to only 2% in 2016, p<0.0001), amyl nitrate (down from 17% in 2006 to 4% in 2016, p<0.0001), synthetic cannabinoids (down from 21% in 2010 to 4% in 2016, p<0.0001) and nitrous oxide (down from 47% in 2006 to 23% in 2006 (p<0.0001) (Figure 3.6).

Figure 3.6 Proportion of the frequent ecstasy users who had used methamphetamine, cannabis and synthetic cannabinoids in the previous six months, 2006-2016



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 7 days in 2015, p=0.0270), LSD (up from 3 days in 2015 to 5 days in 2016, p=0.0297) and nitrous oxide (up from 3 days in 2015 to 6 days in 2016, p=0.0118). Conversely, there was a decrease in the number of days the frequent ecstasy users had used alcohol (down from 50 days in 2006 to 45 days in 2016, p<0.0001), BZP (down from 7 days in 2006 to 2 days in 2016, p<0.0001) and tobacco (down from 106 in 2006 to 96 in 2016, p=0.0020).

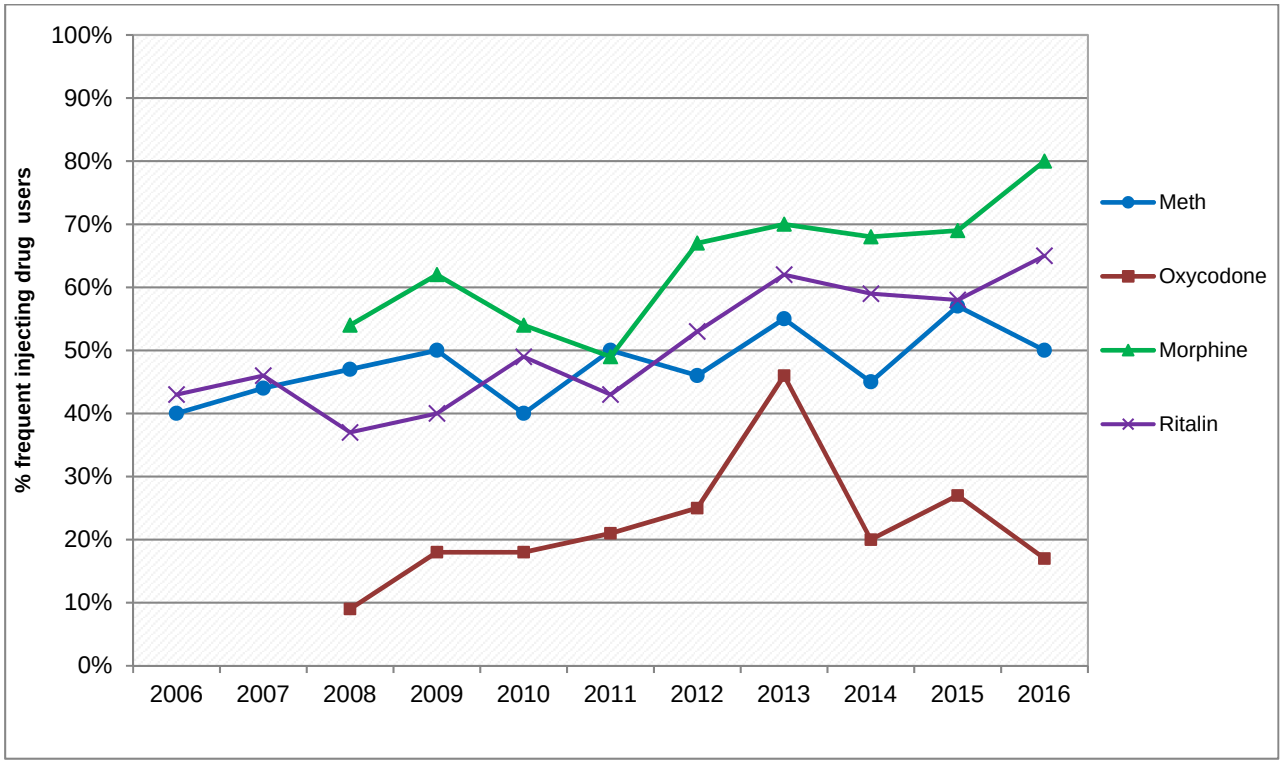
3.4 Current drug use of the frequent injecting drug users

The frequent injecting drug users had used a mean of eight drug types in the past six months in 2016 (median 7, range 0 -17). 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 2016 (p<0.0001). Pharmaceutical drug use was common among the injecting drug users, with 80% using morphine, 65% using methylphenidate (Ritalin™), 58% using benzodiazepines, 56% using methadone, 44% using codeine, 34% using tramadol, and 17% using oxycocdone in the previous six months. The other drug types the frequent injecting drug users most commonly used were tobacco (84%), cannabis (73%), alcohol (66%), methamphetamine (50%), crystal methamphetamine (28%), antidepressants (24%), and homebake

heroin/morphine (21%). Sixteen percent of the frequent injecting drug users had used heroin in the previous six months.

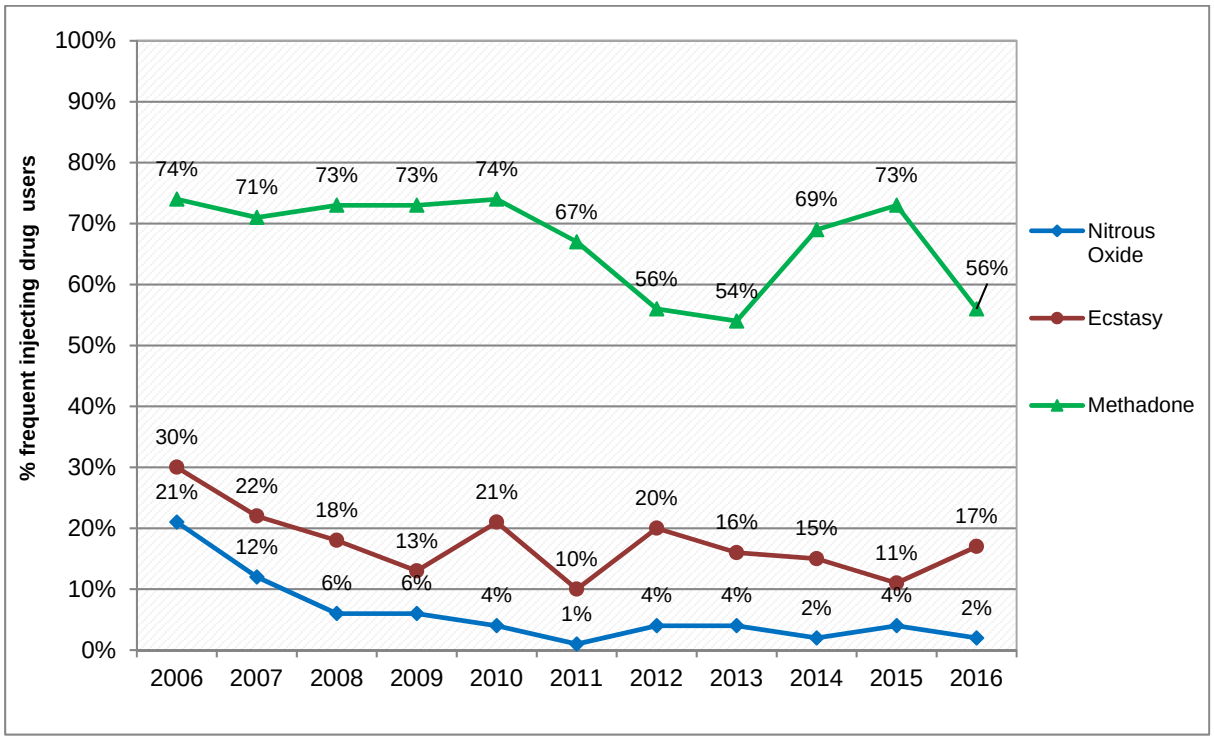
The proportion of frequent injecting drug users who had used oxycodone in the previous six months increased from 9% in 2008 to 17% in 2016 (p=0.0015) (Figure 3.7). An increasing proportion of injecting drug users had recently used methamphetamine (up from 40% in 2006 to 50% in 2016, p=0.0474), morphine (up from 54% in 2008 to 80% in 2016, p<0.0001), Ritalin™ (up from 43% in 2006 to 65% in 2016, p<0.0001) and anti-depressants (up from 8% in 2006 to 24% in 2016, p=0.0023).

Figure 3.7 Proportion of the frequent injecting drug users who had used methamphetamine, oxycodone, Ritalin and morphine in the previous six months, 2006-2016



There was a decline in the proportion of frequent injecting drug users who had used nitrous oxide (down from 21% in 2006 to 2% in 2016, p<0.0001), ecstasy (down from 30% in 2006 to 17% in 2016, p=0.0073), methadone (down from 73% in 2006 to 56% in 2016, p=0.0019) and BZP (down from 30% in 2006 to 14% in 2016, p<0.0001) (Figure 3.8).

Figure 3.8 Proportion of the frequent injecting drug users who had used nitrous oxide, methadone and ecstasy in the previous six months, 2006-2016



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 2016 were morphine (97%), 'homebake' morphine (96%), heroin (95%), methylphenidate (Ritalin™) (92%), oxycodone (86%), methamphetamine (77%) and crystal methamphetamine (74%). The proportion of frequent injecting drug users who had injected benzodiazepine increased from 11% in 2015 to 30% in 2016 (p=0.0277). Conversely, the proportion of frequent injecting drug users who had injected methadone decreased dramatically from 65% in 2006 to 46% in 2016 (p=0.0099).

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. There were increases in the number of days the frequent injecting drug users had used methylphenidate (Ritalin™) (up from 36 days in 2015 to 81 days in 2016, p=0.0270) and synthetic cannabinoids (up from 3 days in 2010 to 22 days in 2016, p=0.0100). The proportion of frequent injecting drug users who had used methadone daily increased from 46% in 2006 to 58% in 2016 (p=0.0343). There were decreases in the number of days the injecting drug users had used cannabis (down from 123 days in 2006 to 101 days in 2016, p=0.0015), heroin (down from 72 days in 2006 to 59 days in 2016, p=0.0444) and codeine (down from

49 days in 2015 to 30 days in 2016, p=0.0520). The proportion of frequent injecting drug users who had used tobacco daily decreased from 99% in 2006 to 87% in 2016 (p=0.0046).

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 2016 were methamphetamine (98%), tobacco (89%), cannabis (81%), alcohol (77%), crystal methamphetamine (Ice) (76%), ecstasy (31%), amphetamine (30%), GHB (27%) and synthetic cannabinoids (26%)
- Many of the frequent methamphetamine users had recently used pharmaceuticals such as codeine (41%), tramadol (33%), methylphenidate (Ritalin™) (33%), benzodiazepines (31%) and anti-depressants (27%)
- The proportion of frequent methamphetamine users who used crystal methamphetamine increased sharply from 54% in 2015 to 76% in 2016
- The mean number of days the frequent methamphetamine users had used methamphetamine in the past six months increased from 57 in 2006 to 70 in 2016
- There have been increases in the proportion of frequent methamphetamine users who had used anti-depressants (up from 5% in 2006 to 27% in 2016), codeine (up from 21% in 2008 to 41% in 2016) and methylphenidate (Ritalin) (up from 21% in 2015 to 33% in 2016)
- There were decreases in the proportion of frequent methamphetamine users who had recently used ecstasy (down from 51% in 2007 to 31% in 2016), ketamine (down from 13% in 2007 to 2% in 2016), LSD (down from 36% in 2006 to 21% in 2016) and alcohol (down from 87% in 2006 to 77% in 2016)
- There were decreases in the number of days the frequent methamphetamine users had used cannabis (down from 117 days in 2006 to 84 days in 2016) and methylphenidate (Ritalin™) (down from 38 days in 2015 to 29 days in 2016)
- The proportion of frequent methamphetamine users who injected methamphetamine increased from 28% in 2006 to 52% in 2016

Frequent ecstasy (MDMA) users

- The drug types most commonly used by the frequent ecstasy users in the previous six months in 2015 were ecstasy (100%), alcohol (98%), cannabis (81%), tobacco (76%), LSD (63%), methylphenidate (Ritalin) (41%) and magic mushrooms (36%)
- Some of the frequent ecstasy users had used drugs such as nitrous oxide (23%), cocaine (21%), GHB (20%), ketamine (11%), methamphetamine (11%) and crystal methamphetamine (9%)

- There were increases in the proportion of the frequent ecstasy users who had used methylphenidate (Ritalin™) (up from 13% in 2006 to 41% in 2016) and LSD (up from 32% in 2015 to 63% in 2016)
- A lower proportion of the frequent ecstasy users had recently used methamphetamine (down from 21% in 2006 to 11% in 2016), cannabis (down from 92% in 2006 to 81% in 2016,) and synthetic cannabinoids (down from 21% in 2010 to 4% in 2016)

Frequent injecting drug users

- Pharmaceutical drug use was common among the frequent injecting drug users, with 80% using morphine, 65% using methylphenidate (Ritalin™), 58% using benzodiazepines, 56% using methadone, 44% using codeine, 34% using tramadol, and 17% using oxycodone in the previous six months in 2016
- Sixteen 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 2016 were tobacco (84%), cannabis (73%), alcohol (66%), methamphetamine (50%), crystal methamphetamine (28%), antidepressants (24%), and homebake heroin/morphine (21%)
- There were increases in the proportion of frequent injecting drug users who had recently used methamphetamine (up from 40% in 2006 to 50% in 2016), morphine (up from 54% in 2008 to 80% in 2016), anti-depressants (up from 8% in 2006 to 24% in 2016) and Ritalin™ (up from 43% in 2006 to 65% in 2016)
- The injecting drug users were less likely to have used nitrous oxide (down from 21% in 2006 to 2% in 2016), and ecstasy (down from 30% in 2006 to 17% in 2016)
- There were increases in the number of days the frequent injecting drug users had used methylphenidate (Ritalin™) (up from 36 days in 2015 to 81 days in 2016) and synthetic cannabinoids (up from 3 days in 2010 to 22 days in 2016)

4. Emerging drug types

4.1 Introduction

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, 2017). The number of NPS compounds monitored worldwide increased from 166 at the end of 2009 to 739 in 2016 (UNODC, 2017).

NPS are sometimes sold as so called "legal highs" as their active compounds are generally not prohibited under existing international drug control treaties, although they are increasingly controlled under national drug legislation (Hughes & Griffiths, 2014). 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, 2017). Over 70 new NPS were reported for the first time in 2016 (UNODC, 2017). There is a core group of over 80 NPS that have been reported every year from 2009 to 2015 (UNODC, 2017).

New Zealand has been at the forefront of the NPS phenomena with an established market for BZP (benzylpiperazine) "party pills" operating during the mid-2000s, and more recently a substantial market for synthetic cannabinoid products (Wilkins et al., 2013). Forensic analysis has found drugs sold as "ecstasy" in New Zealand often contain NPS such as BZP, mephedrone (methylmethcathinone), MEC (methylethcathinone), DMAA (dimethylamylamine) and methylone (methylenedioxymethcathinone) (ESR, 2014). Similarly, tabs assumed to be LSD have been found to be NBOMe compounds (NDIB, 2014).

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 2016. 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 2016, 54% of the frequent ecstasy users, 22% of the frequent injecting drug users and 29% of the frequent methamphetamine users had used a drug type for the first time in the previous six months. The proportion of 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 increased from 24% in 2009 to 37% in 2016 (p=0.0005), and from 29% in 2015 to 37% in 2016 (p=0.0403) (Figure 4.1).

Figure 4.1 Proportion of frequent drug users who had tried a drug type for the first time, 2009-2016

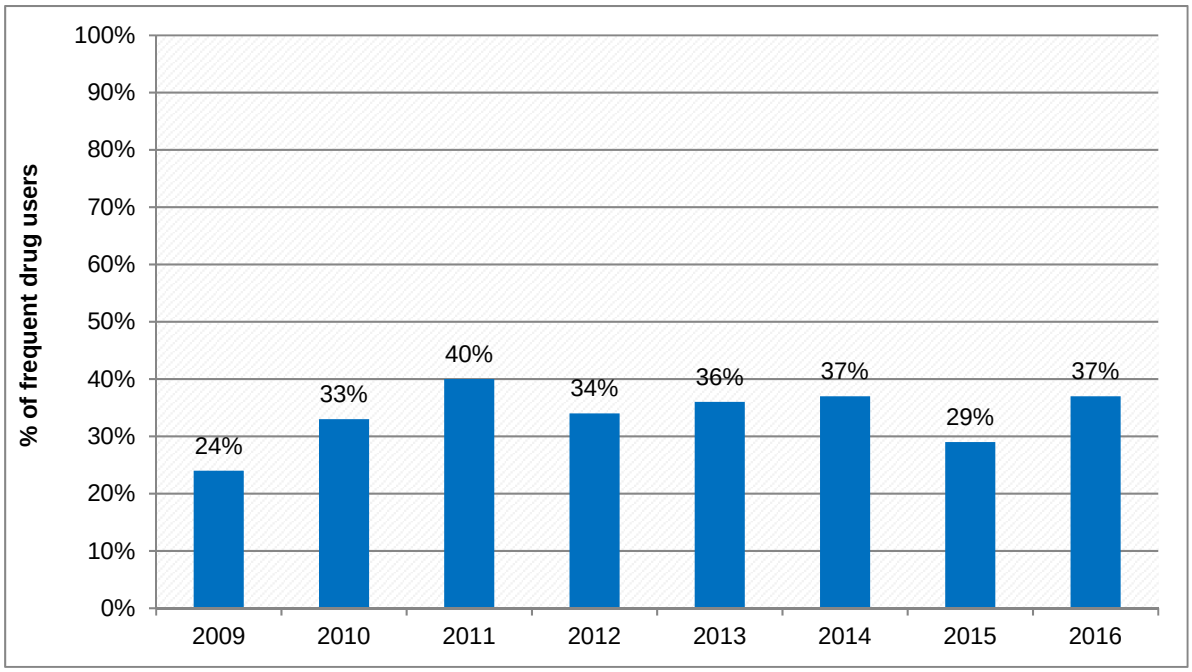
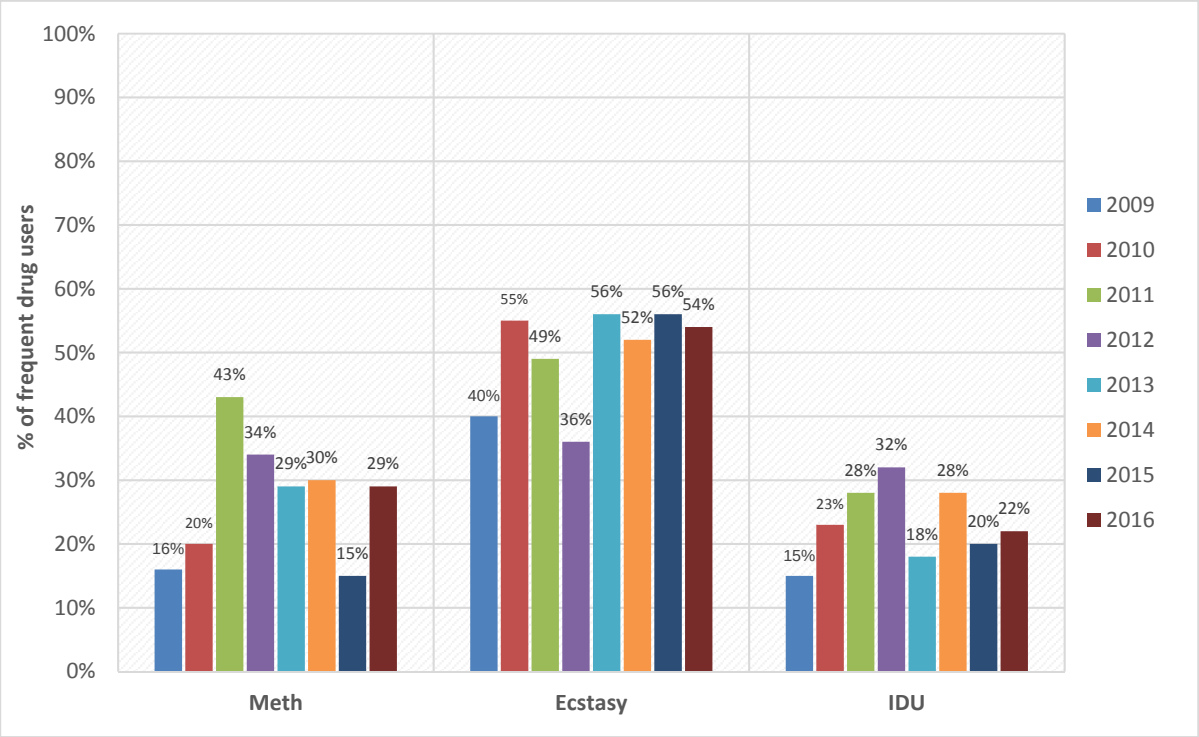


Figure 4.2 Proportion of frequent drug users who had tried a drug type for the first time by frequent drug user group, 2009-2016



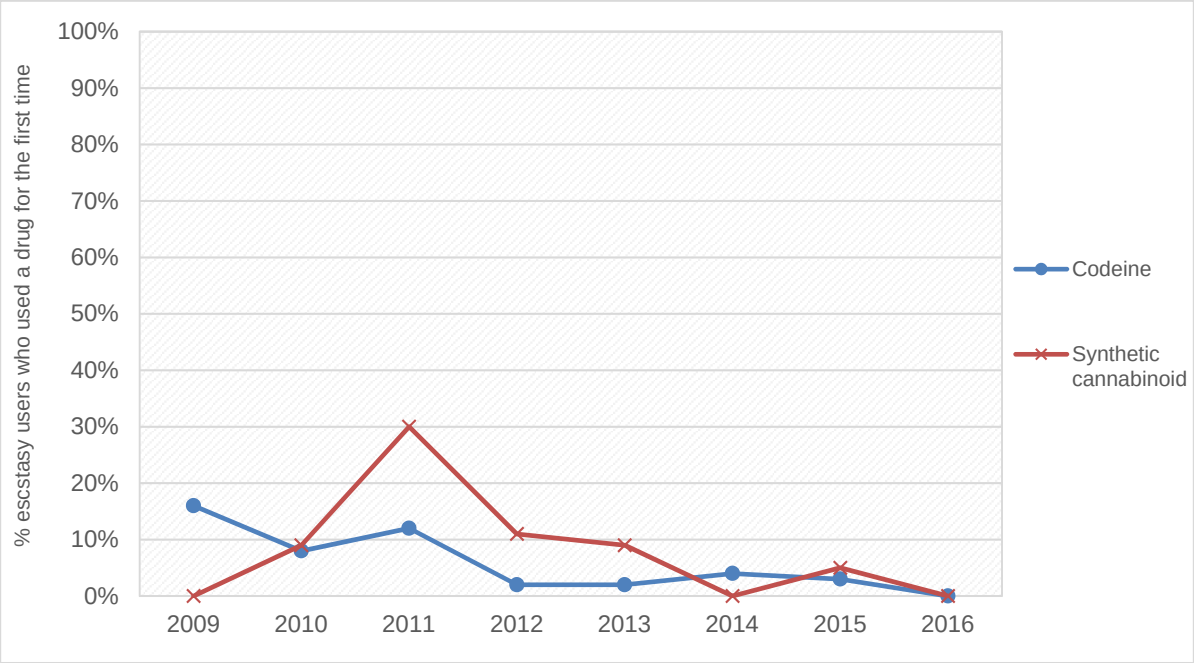
The proportion of frequent ecstasy users who had tried a drug for the first time increased from 40% in 2009 to 54% in 2016, and this increase was close to being statistically significant (p=0.0515). The drug types which the frequent ecstasy users had most commonly tried for the first time in 2016 were LSD (19%), Methylphenidate (Ritalin™) (15%) and cocaine (13%) (Table 4.1).

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), 2009-2016

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)	2016 (n=35)
'LSD'	25	14	10	7	15	16	13	19
Methylphenidate (Ritalin™)	19	25	10	2	7	13	4	15
Cocaine	0	4	1	2	6	8	12	13
Hallucinogenic mushrooms (psilocybin)	17	21	9	7	10	20	16	9
Ketamine	11	6	1	11	4	2	4	9
GHB/GBL	4	3	1	0	3	0	1	9
Other	19	0	0	16	7	12	9	8
Zopiclone	0	2	1	0	1	4	0	8
Amphetamine	17	12	10	2	7	8	12	6
'Ecstasy'	5	17	16	5	17	28	11	6
Methamphetamine	6	0	8	5	16	2	4	6
Crystal methamphetamine	0	0	2	3	0	2	0	5
Tramadol	0	4	6	12	7	10	11	3
Nitrous oxide	2	6	2	0	5	0	8	3
Oxycodone	11	2	2	0	3	0	4	3
Benzodiazepines	7	5	6	0	0	4	2	3
Opium poppies	0	0	4	2	7	2	2	3
Dextropropoxyphene	0	0	0	0	0	0	0	2
Mephedrone (methylmethcathinone)	4	3	3	7	9	0	5	0
Synthetic cannabinoids	0	9	30	11	9	0	5	0

The proportion of frequent ecstasy users who had tried synthetic cannabinoids for the first time declined from 30% in 2011 to 0% in 2016 ($p<0.0001$), and the proportion who had tried codeine for the first decreased from 16% in 2009 to 0% in 2016 ($p=0.0011$) (Figure 4.3).

Figure 4.3 Proportion of frequent ecstasy users who had used synthetic cannabinoids and codeine for the first time (of those who had tried a drug for the first time), 2009-2016



The proportion of frequent methamphetamine users who had tried a drug for the first time increased from 15% in 2015 to 29% in 2016 (p=0.0093) (Figure 4.2). The drug types most often tried by methamphetamine users for the first time were 'other drugs' (23%) [not one of the 37 listed drugs], 'GHB/GBL' (10%) and methylphenidate (Ritalin™) (9%) (Table 4.2). The proportion of frequent methamphetamine users who had tried synthetic cannabinoids for the first time declined from 36% in 2011 to 5% in 2016 (p=0.0039).

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), 2009-2016

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)	2016 (n=40)
Other drugs	17	0	4	10	7	14	36	23
GHB/GBL	6	4	0	0	6	0	0	10
Methylphenidate (Ritalin™)	12	8	2	3	0	14	5	9
'LSD'	0	4	2	0	0	6	5	6
Anti-depressants	0	4	5	0	0	0	0	6
Synthetic cannabinoids	0	16	36	29	30	16	11	5
Codeine	0	4	0	0	0	3	5	5
Benzodiazepines	12	0	2	0	0	3	5	5
Zopiclone	0	3	4	0	0	6	0	5
Tramadol	12	14	2	9	19	3	11	3
Ecstasy	7	0	2	7	3	3	0	3
Cocaine	12	4	2	9	0	3	0	3
Nitrous oxide	0	0	3	0	0	3	0	3
Street BZP	0	0	0	3	0	3	0	3
Oxycodone	12	15	7	0	3	3	0	3
Methamphetamine	0	16	11	10	3	15	9	2
Poppies	7	8	0	0	0	3	0	2
Crystal methamphetamine	0	0	2	3	0	6	16	0
Morphine	0	0	0	3	0	11	11	0
Methadone	0	4	4	0	0	0	11	0
Amphetamine	0	0	0	0	3	3	5	0
MDPV	0	0	0	0	0	5	20	-

The drug types which the frequent injecting drug users had most commonly tried for the first time in 2016 were 'other drugs' (17%) [not one of the 37 listed drugs], dexamphetamine (10%) and morphine (10%) (Table 4.3). The proportion of frequent injecting drug users who had used a synthetic cannabinoid for the first time decreased from 48% in 2012 to 3% in 2016 (p=0.0091).

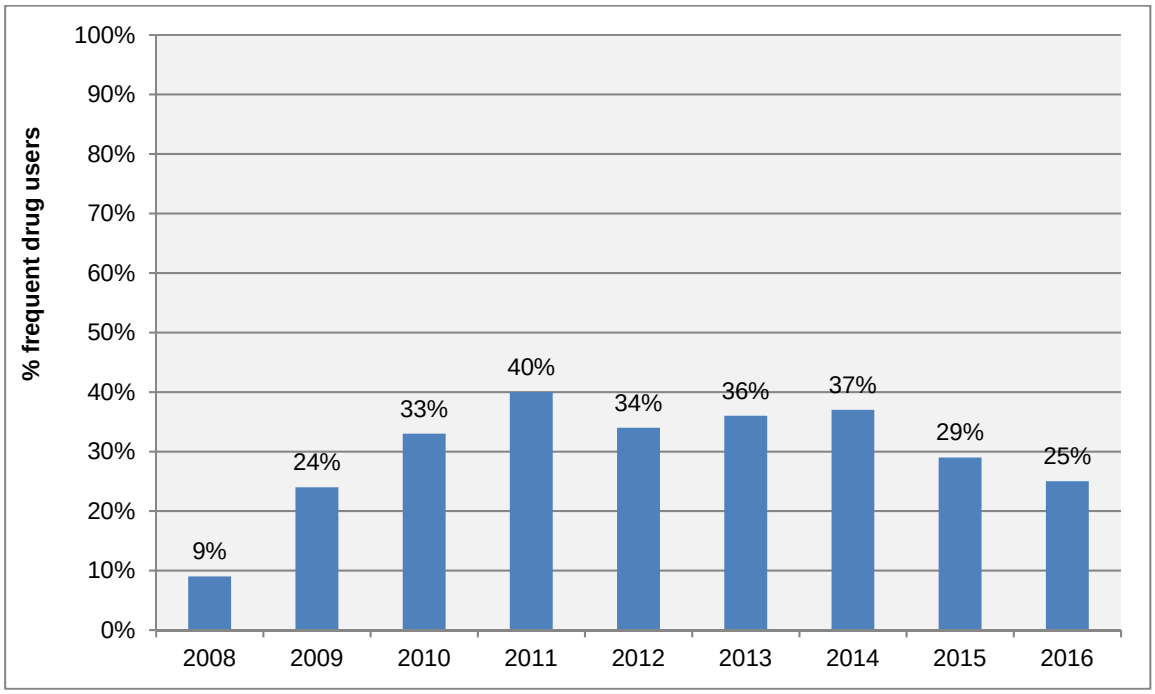
Table 4.3 Drug types used by the frequent injecting drug user for the first time in the past six months (of those who reported using a drug for the first time in previous six months), 2009-2016

	Frequent 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)	2016 (n=24)
Other drugs	7	0	3	6	6	15	25	17
Morphine	13	7	8	0	5	11	7	10
Dexamphetamine	0	0	0	0	0	0	0	10
Methylphenidate (Ritalin™)	12	10	12	9	0	14	7	7
Cannabis	0	3	0	0	0	0	0	7
Alcohol	0	0	0	0	0	3	0	7
Crystal methamphetamine	0	3	0	0	0	3	0	7
Oxycodone	31	7	22	9	5	9	0	7
Synthetic cannabinoids	0	20	34	48	21	6	18	3
Amphetamine	6	7	0	0	0	5	7	3
GHB	0	3	0	0	0	0	7	3
Cocaine	0	13	0	0	5	0	0	3
Street BZP	0	3	4	0	0	0	0	3
Tramadol	0	16	3	19	0	8	20	0
Mephedrone (methylmethcathinone)	0	0	3	3	0	-	14	0
Methamphetamine	0	7	8	4	0	3	11	0
Homebake heroin/ morphine	0	3	8	6	11	8	7	0
Heroin	7	3	0	0	15	5	7	0

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 new drug types which might be available. The interviewer wrote down what the respondent said in consultation with them. The proportion of frequent drug users who had noticed a new drug type increased from 9% in 2008 to 25% in 2016 ($p<0.0001$) (Figure 4.4).

Figure 4.4 Proportion of frequent drug users who noticed a new drug type, 2009-2016



Sixteen percent of those who answered the question (i.e. 12 respondents) reported noticing new 'synthetic' and 'designer' drugs in the past six months (Table 4.4). A further 7% mentioned 'NBOMe', 'ecstasy' and 'GHB'. Ten percent had noticed more methamphetamine.

Table 4.4 New drug types noticed in previous six months, 2011-2016

Drug type (%)	2011 (n=125)	2012 (n=89)	2013 (n=70)	2014 (n=71)	2015 (n=64)	2016 (n=73)
Designer drugs, new synthetics, research chemicals	5	2	6	21	13	16
Methamphetamine	6	1	3	1	5	10
NBOMe/LSD	-	-	19	8	20	7
Ecstasy	7	10	13	11	13	7
GHB	1	2	1	1	6	7
Amphetamine	6	1	1	5	3	5
2C drugs (e.g. 2CE, 2CI)	13	17	11	5	9	4
LSD	2	0	1	5	5	4
Cocaine	1	2	3	4	2	4
Morphine	3	2	3	3	2	4
Mephedrone	6	3	4	9	0	4
Synthetic cannabinoids	9	7	3	3	8	3
Ketamine	0	0	1	2	0	3
Nitrous oxide	-	-	-	-	-	3
Crystal methamphetamine	-	-	-	-	-	3

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 2016. Eighty-one frequent drug users (23% of the sample) provided accounts of new types of drug users in 2016. Forty-one percent of those who commented (i.e. 33 respondents) reported seeing 'younger' drug users (Table 4.5). Twenty-three percent observed more 'professional and wealthier' people using drugs.

Table 4.5 New types of people reported using drugs, 2011-2016

Types of people (%)	2011 (n=150)	2012 (n=73)	2013 (n=52)	2014 (n=63)	2015 (n=68)	2016 (n=81)
Young people	35	27	38	38	29	41
Professional/wealthier people	8	10	14	19	12	23
People of all ages	4	8	10	13	22	9
Injecting drug users	5	4	6	13	3	5
Construction workers	-	-	-	-	-	5
University students	12	11	10	8	12	4
Working people	-	-	-	-	3	4

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 66 frequent drug users (21% of the sample) provided comments. Eighty-five percent of those who commented (i.e. 56 respondents) reported increasing use of the internet to buy and sell drugs, including purchasing from the encrypted websites (43%) (e.g. 'Silk Road') and from social network sites (e.g. 'Facebook™', 'Tinder™', 'Snapchat™') (42%). There has been a steady increase in the proportion of frequent drug users who mentioned the use of social media (2010=10%, 2011=17%, 2012=12%, 2013=36%, 2014=37%, 2015=40%, 2016=42%) and crypto-drug markets (2011=0%, 2012=8%, 2013=18%, 2014=37%, 2015=18%, 2016=43%) as new ways of selling drugs.

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 2016, and from 29% in 2015 to 37% in 2016
- The proportion of frequent ecstasy users who had tried a drug for the first time increased from 40% in 2009 to 54% in 2016
- The drug types which the frequent ecstasy users had most commonly tried for the first time in 2016 were 'LSD' (19%), Methylphenidate (Ritalin™) (15%) and 'cocaine' (13%)
- The proportion of frequent ecstasy users who had tried synthetic cannabinoids for the first time declined from 30% in 2011 to 0% in 2016
- The proportion of frequent methamphetamine users who had tried a drug for the first time increased from 15% in 2015 to 29% in 2016
- The drug types most often tried by the frequent methamphetamine users for the first time in 2016 were 'GHB/GBL' (10%) and Methylphenidate (Ritalin™) (9%)
- The drug types most often tried by the frequent injecting drug users for the first time in 2016 were dexamphetamine (10%) and morphine (10%)
- The proportion of frequent drug users who had noticed a new drug type(s) increased from 9% in 2008 to 25% in 2016
- There has been a steady increase in the proportion of frequent drug users who mentioned the use of social media as a new way of selling drugs (2010=10%, 2011=17%, 2012=12%, 2013=36%, 2014=37%, 2015=40%, 2016=42%)
- There has been a sharp increase in the proportion of frequent drug users who mentioned crypto-drug markets as a new way of selling drugs (2011=0%, 2012=8%, 2013=18%, 2014=37%, 2015=18%, 2016=43%)

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, reaching peak use at the population level in 2001 (Wilkins et al., 2002b; Wilkins & Sweetsur, 2008). The most recently available national household survey found 1.1% of New Zealanders (aged 16-64 years) reported using amphetamines[1] in the previous year in 2015/16 (Ministry of Health, 2016); similar to the levels found in previous years (Ministry of Health, 2013).

High levels of methamphetamine use have persisted among specific 'at risk' groups, such as police arrestees. The proportion of police detainees who reported using methamphetamine in the past year increased from 26% in 2010 to 38% in 2016 (Wilkins et al., 2017a). There have also been important regional variations in methamphetamine use in recent years. While the availability of methamphetamine has been reported to be increasing in Auckland since 2013, conversely, the availability of methamphetamine declined slightly in Christchurch in 2015, following a number of years of rising availability following the earthquakes in 2011 (Wilkins, et al., 2017a).

At the international level, the United Nations Office of Drug Control (UNODC) has reported the quantity of methamphetamine seized in East and South-East Asia surpassed the quantity intercepted in North America for the first time in 2016, making East and South-East Asia the leading sub-regions for methamphetamine seizures worldwide (UNODC, 2017). The UNODC has suggested this trend may reflect the increasing interconnectedness in international trafficking of methamphetamine (UNODC, 2017). In particular, they note the large increase in methamphetamine seizures in China (UNODC, 2017).

[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-three percent of the frequent drug users interviewed for the 2016 IDMS (n=198) indicated they felt confident enough to comment on the price, strength and availability of methamphetamine in the previous six months. This included 100% of the frequent methamphetamine users (n=132), 51% of the frequent injecting drug users (n=57) and 11% of the frequent ecstasy users (n=9).

5.3 Availability of methamphetamine

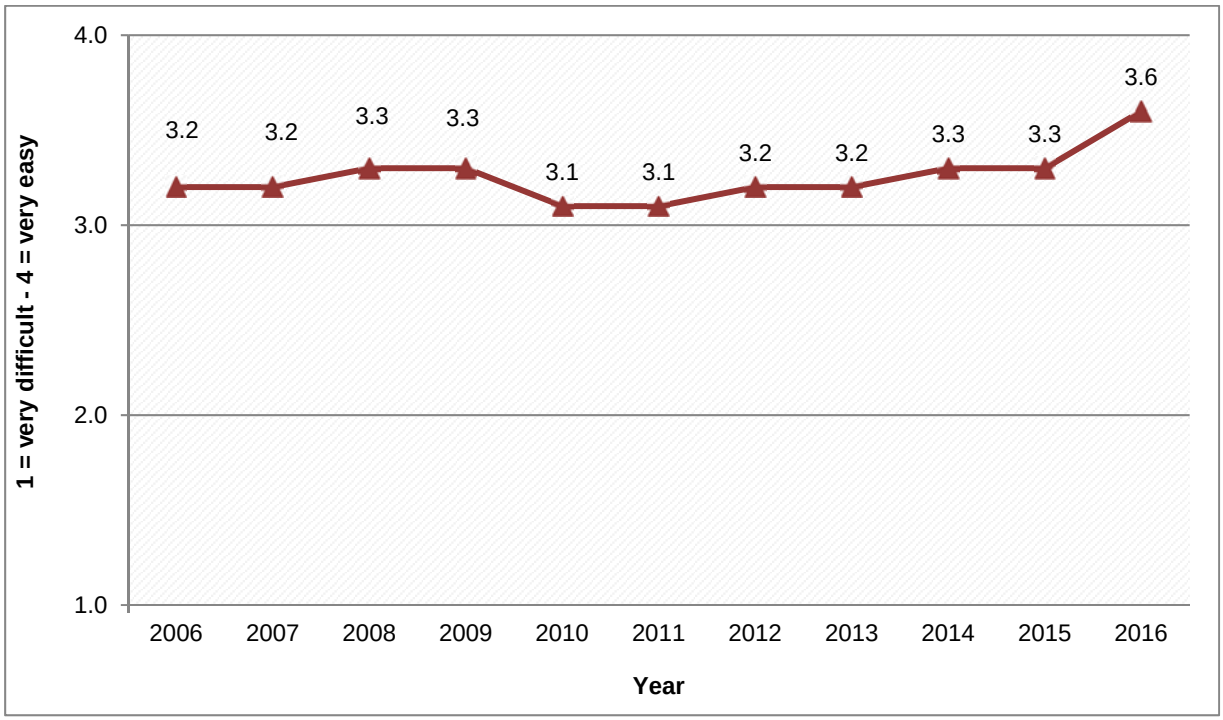
Current availability of methamphetamine

The frequent drug users reported the current availability of methamphetamine was 'very easy/easy' in 2016 (Table 5.1). The availability of methamphetamine increased from 2006 to 2016 (up from 3.2 to 3.6, p>0.0001), and from 2015 to 2016 (up from 3.3 to 3.6, p=0.0003) (Figure 5.1).

Table 5.1 Current availability of methamphetamine by combined frequent drug users, 2006-2016

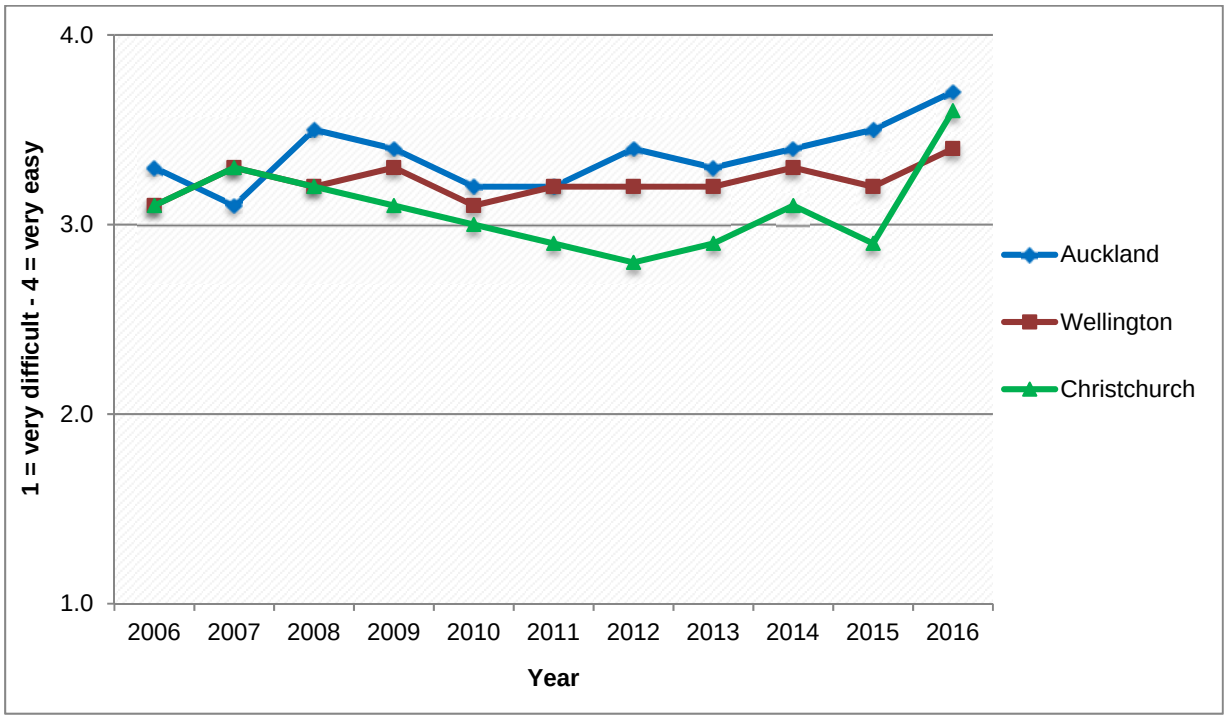
Current availability of methamphetamine (%)											
	2006	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
	Combined modules (n=176)	**Combined modules (n=176)**	**Combined modules (n=195)**	**Combined modules (n=167)**	**Combined modules (n=201)**	**Combined modules (n=185)**	**Combined modules (n=168)**	**Combined modules (n= 147)**	**Combined modules (n=137)**	**Combined modules (n=139)**	**Combined modules (n=197)**
Very easy [4]	38%	38%	42%	37%	34%	32%	44%	39%	45%	43%	63%
Easy [3]	44%	48%	48%	53%	48%	48%	37%	43%	43%	49%	33%
Difficult [2]	17%	12%	9%	7%	16%	18%	17%	15%	11%	7%	4%
Very difficult [1]	1%	2%	0%	2%	2%	2%	2%	2%	<1%	1%	0%
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	3.6
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	Very easy / easy

Figure 5.1 Mean score of the current availability of methamphetamine by combined frequent drug users, 2006-2016



The current availability of methamphetamine in Auckland increased from 2006 to 2016 (up from 3.3 to 3.7, $p<0.0001$) (Figure 5.2). There was no statistically significant change in the current availability of methamphetamine in Wellington from 2006 to 2016. The current availability of methamphetamine in Christchurch increased from 2015 to 2016 (up from 2.9 to 3.6, $p<0.0001$). In 2016, the current availability of methamphetamine was higher in Auckland than in Wellington (3.7 vs. 3.4, $p=0.0012$).

Figure 5.2 Mean score of the current availability of methamphetamine by location, 2006-2016



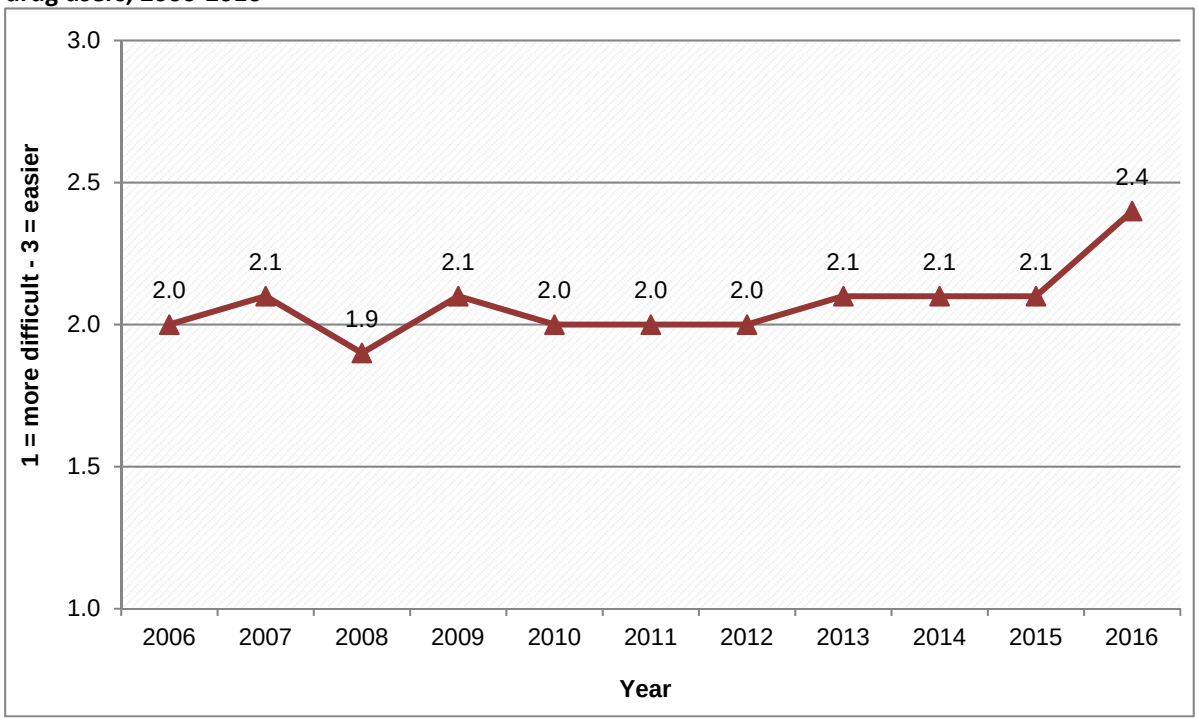
Change in the availability of methamphetamine

The frequent drug users considered the availability of methamphetamine to have been 'stable/easier' over the past six months in 2016 (Table 5.2). The availability of methamphetamine increased from 2006 to 2016 (up from 2.0 to 2.4, $p<0.0001$), and from 2015 to 2016 (up from 2.1 to 2.4, $p<0.0001$) (Figure 5.3).

Table 5.2 Change in availability of methamphetamine by combined frequent drug users, 2006-2016

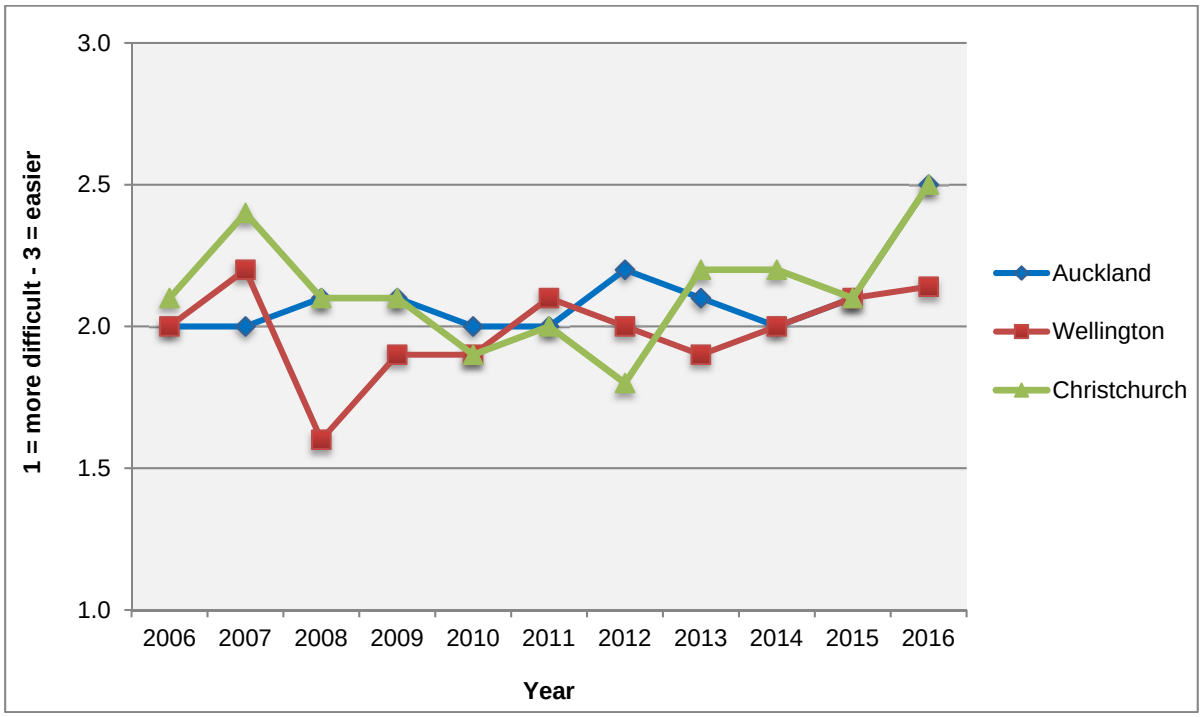
Change in availability of methamphetamine (%)											
	2006	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
	Combined modules (n=175)	**Combined modules (n=174)**	**Combined modules (n=193)**	**Combined modules (n=164)**	**Combined modules (n=194)**	**Combined modules (n=170)**	**Combined modules (n=165)**	**Combined modules (n= 143)**	**Combined modules (n=131)**	**Combined modules (n=129)**	**Combined modules (n=194)**
Easier [3]	21%	29%	14%	28%	16%	18%	26%	15%	17%	19%	44%
Stable [2]	52%	51%	57%	44%	60%	53%	51%	61%	61%	61%	45%
Fluctuates [2]	9%	6%	6%	8%	8%	13%	7%	13%	10%	10%	6%
More difficult [1]	19%	14%	23%	20%	17%	16%	16%	10%	11%	10%	5%
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	2.4
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	Stable / easier

Figure 5.3 Mean score of the change in the availability of methamphetamine by combined frequent drug users, 2006-2016



The availability of methamphetamine increased in Auckland from 2006 to 2016 (up from 2.0 to 2.5, $p<0.0001$), and from 2015 to 2016 (up from 2.1 to 2.5, $p=0.0026$) (Figure 5.4). Methamphetamine availability also increased in Wellington from 2006 to 2016 ($p=0.0357$), and in Christchurch from 2015 to 2016 (up from 2.1 to 2.5, $p<0.0001$).

Figure 5.4 Mean score of the change in the availability of methamphetamine by location, 2006-2016



5.4 Price of methamphetamine

Current price of methamphetamine

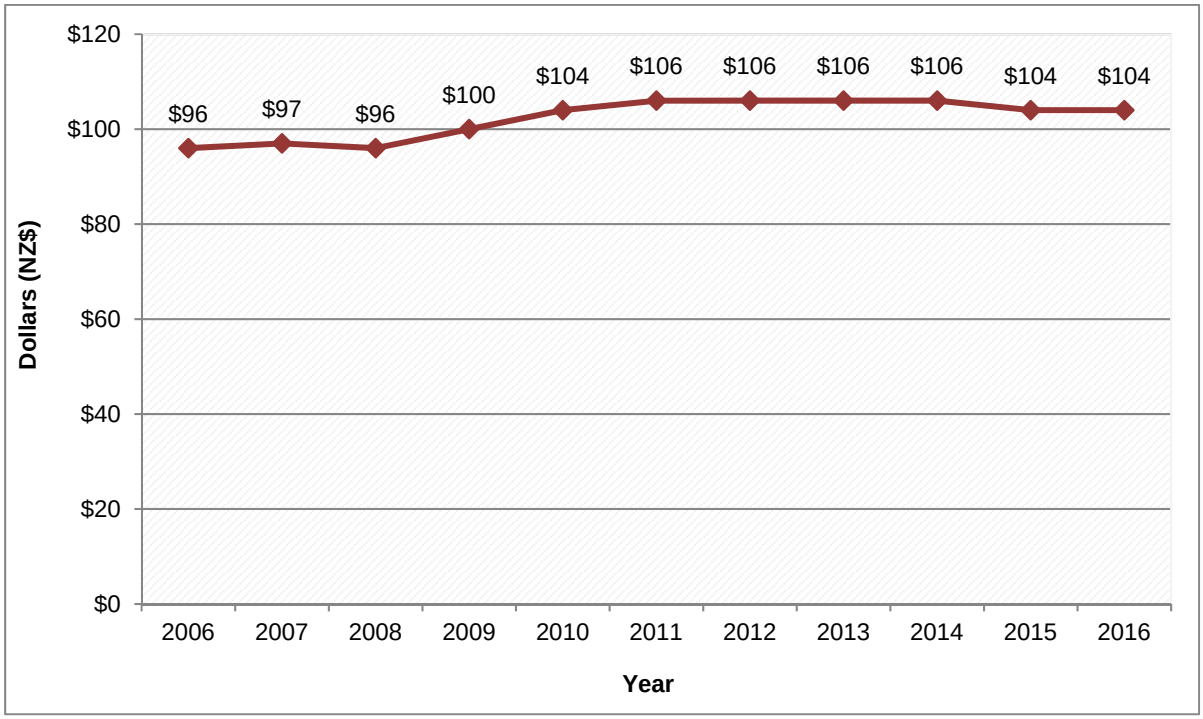
In 2016, the median price of a 'point' (0.1 grams) of methamphetamine was $100, and the median price for a gram of methamphetamine was $500 (Table 5.3).

Table 5.3 Current price of methamphetamine (NZD) by combined frequent drug users, 2006-2016

Current price of methamphetamine ($)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules	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**	**n=152**
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 ($104)	$100 ($104)
Number with knowledge	**n=75**	**n=68**	**n=54**	**n=56**	**n=69**	**n=69**	**n=83**	**n=62**	**n= 65**	**n=75**	**n=104**
Median (mean) price gram	$600 ($610)	$600 ($676)	$700 ($698)	$700 ($738)	$800 ($780)	$800 ($815)	$700 ($678)	$700 ($697)	$650 ($681)	$600 ($668)	$500 ($603)
Number with knowledge	**-**	**-**	**n=13**	**n=16**	**n=8**	**n=7**	**n=21**	**n=6**	**n=16**	**n=11**	**n=42**
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 ($15,157	$10,000 ($8,984)	$12,000 ($13,480)	$10,000 ($10,129)

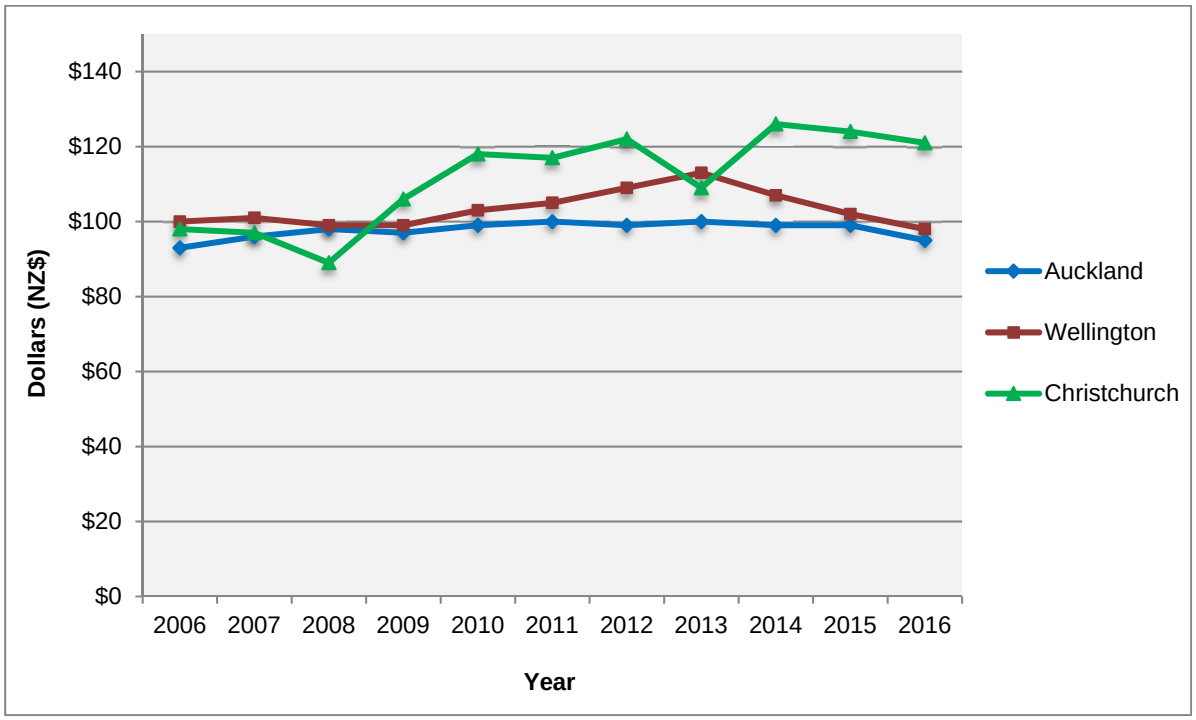
The mean price of a 'point' of methamphetamine has increased steadily over the past eleven years, up from $96 in 2006 to $104 in 2016 (p<0.0001) (Figure 5.5).

Figure 5.5 Mean price of a 'point' of methamphetamine by combined frequent drug users, 2006-2016



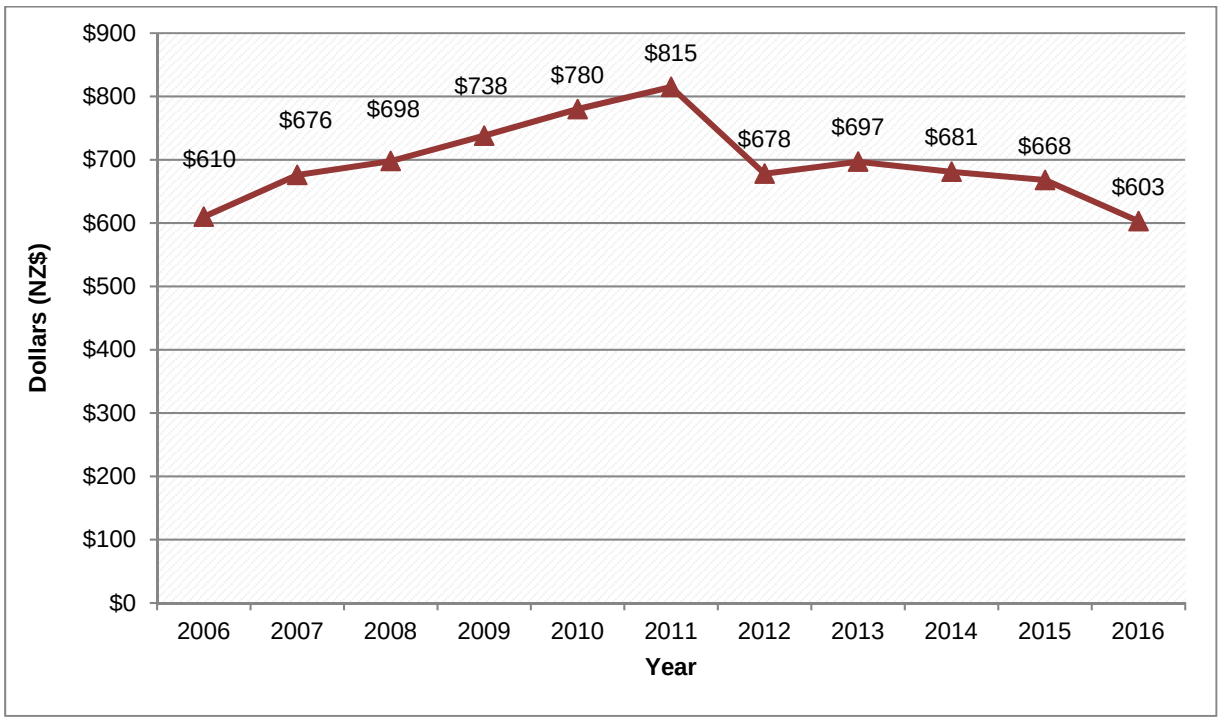
The mean price of a 'point' of methamphetamine increased slightly in Auckland (up from $93 in 2006 to $95 in 2016, p=0.0221), and in Christchurch (up from $98 in 2006 to $121 in 2016, p<0.0001). In 2016, the price of a 'point' of methamphetamine was reported to be higher in Christchurch than in Wellington ($121 vs. $98, p=<0.0001) and in Christchurch than in Auckland ($121 vs. $95, p<0.0001).

Figure 5.6 Mean price of a 'point' of methamphetamine by location, 2006-2016



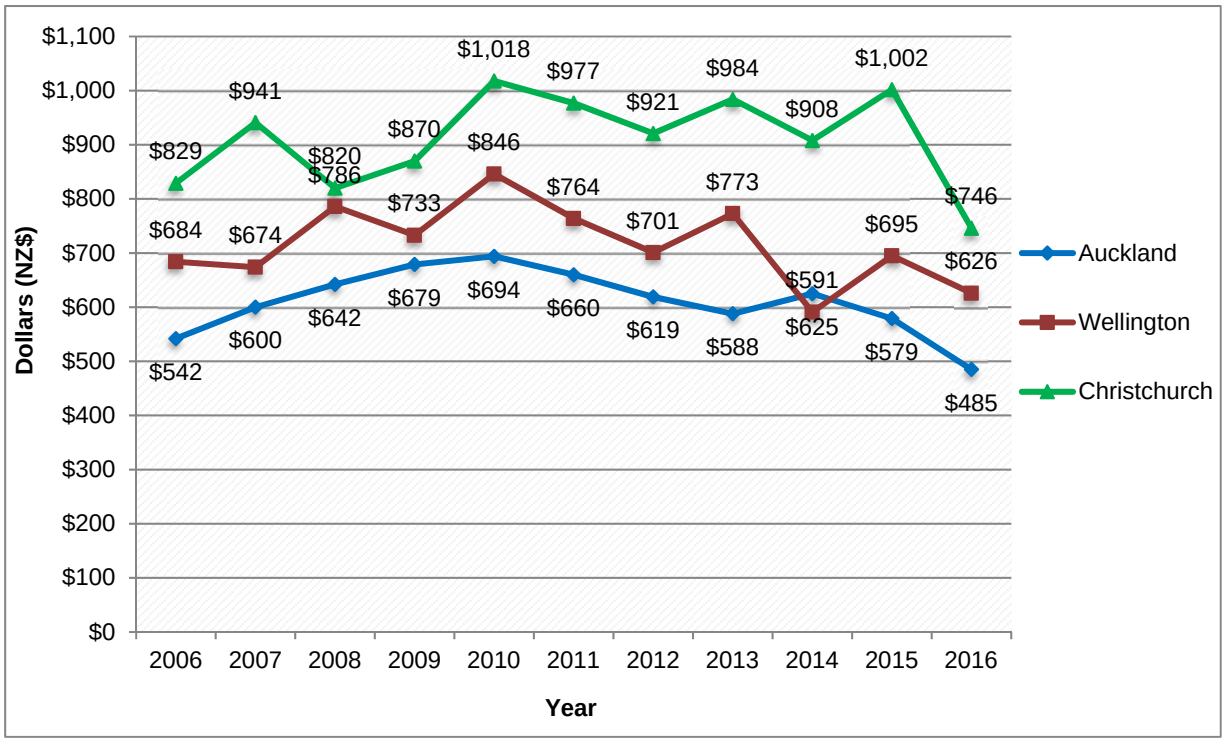
Overall, there was no change in the mean gram price from 2006 to 2016 (Figure 5.7).

Figure 5.7 Mean price of a gram of methamphetamine by combined frequent drug users, 2006-2016



The mean price of a gram of methamphetamine declined in Auckland from $579 in 2015 to $485 in 2016 (p=0.0118), and in Christchurch from $1,002 in 2015 to $746 in 2016 (p<0.0001) (Figure 5.8). There was no change in the mean gram price in Wellington from 2006 to 2016. In 2016, the mean price of a gram of methamphetamine was higher in Christchurch than Wellington ($746 vs. $626, p=0.0054), and in Christchurch compared to Auckland ($746 vs. $485, p<0.0001).

Figure 5.8 Mean price of a gram of methamphetamine by location, 2006-2016



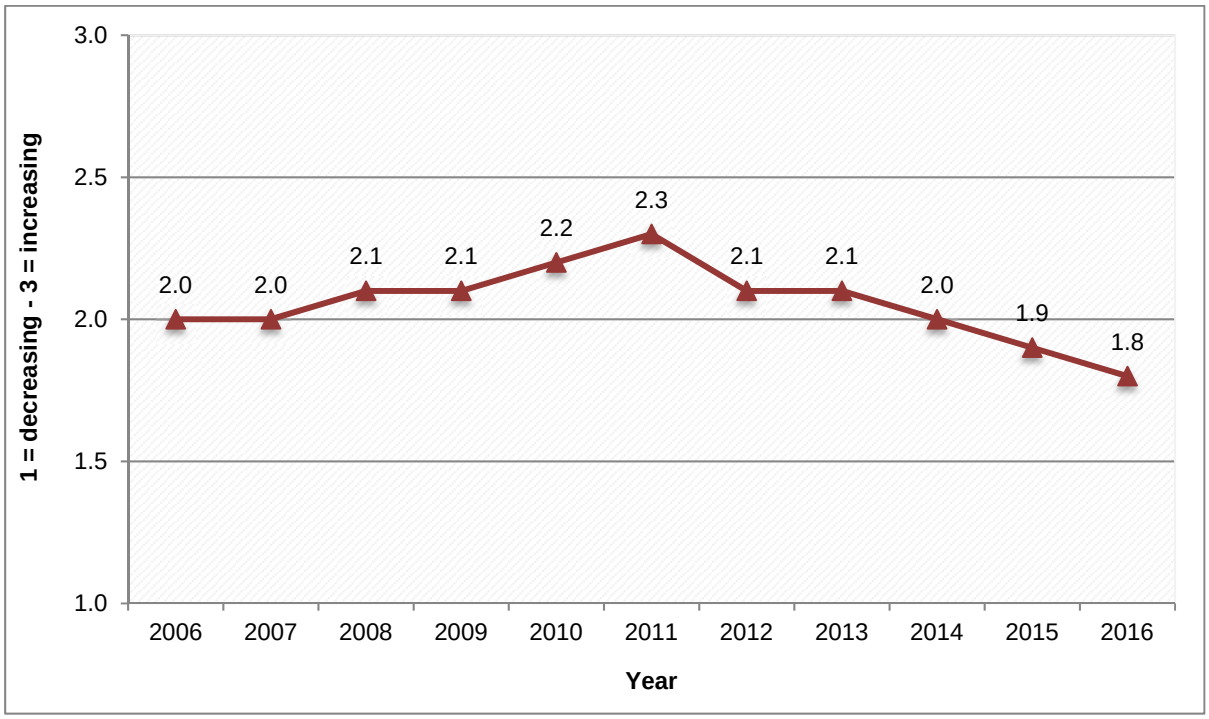
Change in the price of methamphetamine

The price of methamphetamine was reported to have been 'stable/decreasing' over the past six months in 2016 (Table 5.4). The price of methamphetamine declined from 2006 to 2016 (down from 2.0 to 1.8, p=0.0012) (Figure 5.9).

Table 5.4 Change in the price of methamphetamine in the past six months by combined frequent drug users, 2006-2016

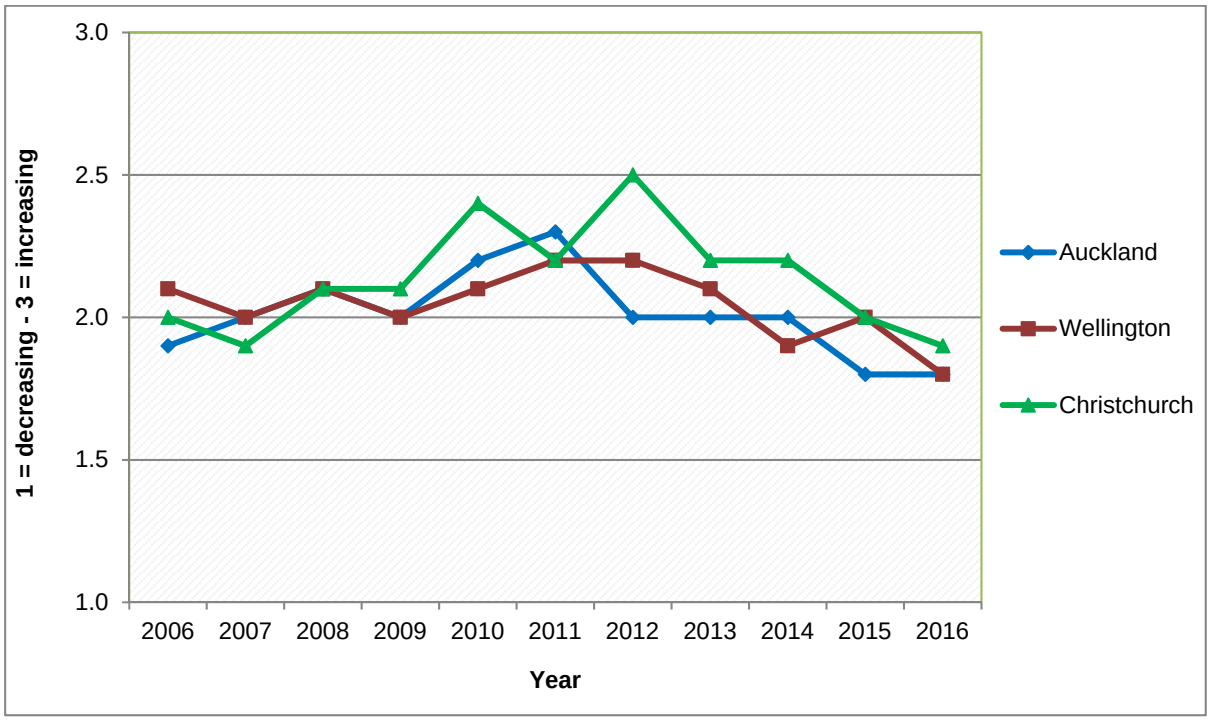
Change in price of methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=155)	Combined modules (n=167)	Combined modules (n=188)	Combined modules (n=159)	Combined modules (n=190)	Combined modules (n=177)	Combined modules (n=160)	Combined modules (n=136)	Combined modules (n=129)	Combined modules (n=124)	Combined modules (n=183)
Increasing [3]	17%	13%	17%	12%	25%	31%	18%	10%	10%	5%	8%
Fluctuating [2]	12%	9%	11%	8%	9%	15%	13%	11%	9%	10%	11%
Stable [2]	49%	62%	66%	73%	63%	50%	65%	73%	73%	68%	57%
Decreasing [1]	21%	16%	6%	6%	3%	5%	5%	5%	8%	17%	25%
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	1.8
Overall recent change	Stable/ decreasing	Stable/ decreasing	Stable/ increasing	Stable	Stable/ increasing	Stable/ increasing	Stable/ increasing	Stable	Stable	Stable/ decreasing	Stable/ decreasing

Figure 5.9 Mean score for the change in the price of methamphetamine in the past six months by combined frequent drug users, 2006-2016



The price of methamphetamine was reported to be declining in Auckland from 2006 to 2016 (down from 1.9 to 1.8, p=0.0026). The frequent drug users reported the price of methamphetamine had also declined in Christchurch from 2015 to 2016 (down from 2.0 to 1.9, p=0.0174).

Figure 5.10 Mean score of the change in the price of methamphetamine in the past six months by location, 2006-2016



5.5 Strength of methamphetamine

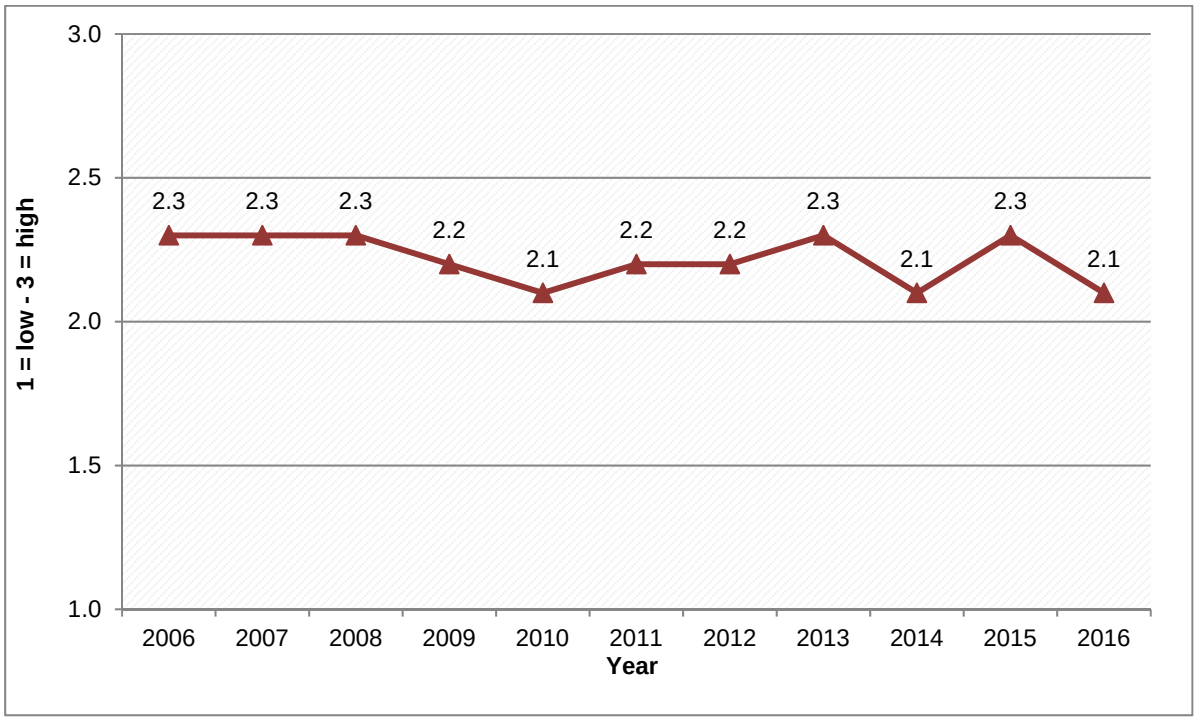
Current strength of methamphetamine

The current strength of methamphetamine was described as 'fluctuates/high' in 2016 (Table 5.5). The frequent drug users reported the current strength of methamphetamine had declined from 2015 to 2016 (down from 2.3 to 2.1, p=0.0118) (Figure 5.11).

Table 5.5 Current strength of methamphetamine by combined frequent drug users, 2006-2016

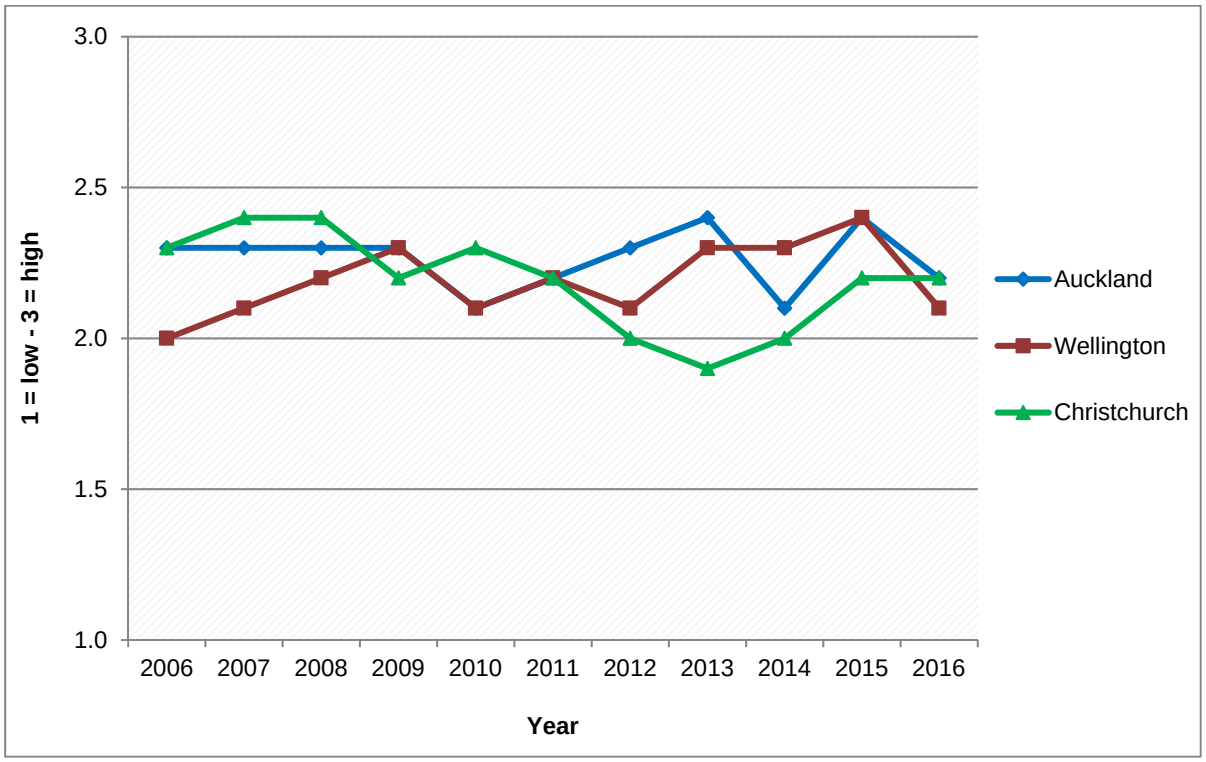
Current strength of methamphetamine	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=166)	Combined modules (n=166)	Combined modules (n=189)	Combined modules (n=159)	Combined modules(n=187)	Combined modules (n=171)	Combined modules (n=163)	Combined modules (n=143)	Combined modules (n=132)	Combined modules (n=136)	Combined modules (n=193)
High [3]	33%	36%	36%	32%	28%	33%	30%	39%	27%	45%	32%
Medium [2]	24%	20%	19%	22%	21%	18%	26%	25%	25%	18%	16%
Fluctuates [2]	37%	35%	39%	39%	37%	35%	31%	29%	34%	26%	34%
Low [1]	6%	8%	7%	7%	14%	14%	13%	7%	14%	11%	18%
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	2.1
Overall current status	Fluctuates/ high	Fluctuates/ high	Fluctuates/ high	Fluctuates/ high	Fluctuates/ high	Fluctuates/ high	Fluctuates/ high	High/ fluctuates	Fluctuates / high	High/ fluctuates	Fluctuates / high

Figure 5.11 Mean score of the current strength of methamphetamine by combined frequent drug users, 2006-2016



There was no change in the current strength of methamphetamine in Auckland from 2006 to 2016 (Figure 5.12). The current strength of methamphetamine declined in Wellington from 2015 to 2016 (down from 2.4 to 2.1, p=0.0331). The current strength of methamphetamine in Christchurch also declined from 2006 to 2016 (down from 2.3 to 2.2, p=0.0019)

Figure 5.12 Mean score of the current strength of methamphetamine by location, 2006-2016



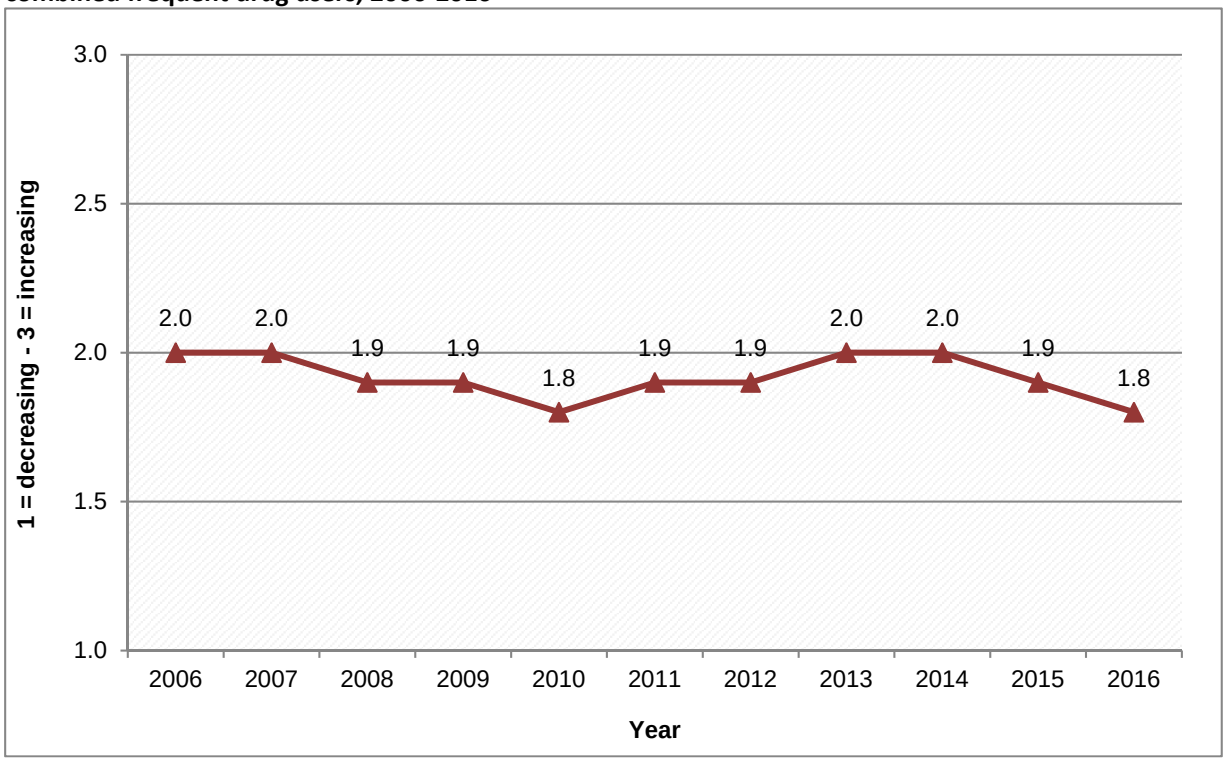
Change in strength of methamphetamine

The strength of methamphetamine was reported to have been 'fluctuating/decreasing' over the previous six months in 2016 (Table 5.6).

Table 5.6 Change in strength of methamphetamine by combined frequent drug users, 2006-2016

Change in strength of methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=190)
Increasing [3]	17%	16%	9%	14%	8%	11%	14%	13%	10%	13%	14%
Stable [2]	40%	34%	29%	28%	30%	33%	34%	45%	40%	42%	24%
Fluctuating [2]	28%	30%	48%	39%	37%	38%	30%	27%	35%	26%	32%
Decreasing [1]	15%	20%	14%	20%	25%	18%	22%	15%	15%	19%	30%
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	1.8
Overall recent change	Stable / fluctuates	Stable / fluctuates	Fluctuates / stable	Fluctuates / stable	Fluctuates / stable	Fluctuates / stable	Stable / fluctuates	Stable / fluctuates	Stable / fluctuates	Stable / fluctuates	Fluctuating/ decreasing

Figure 5.13 Mean score of the change in strength of methamphetamine in the past six months by combined frequent drug users, 2006-2016



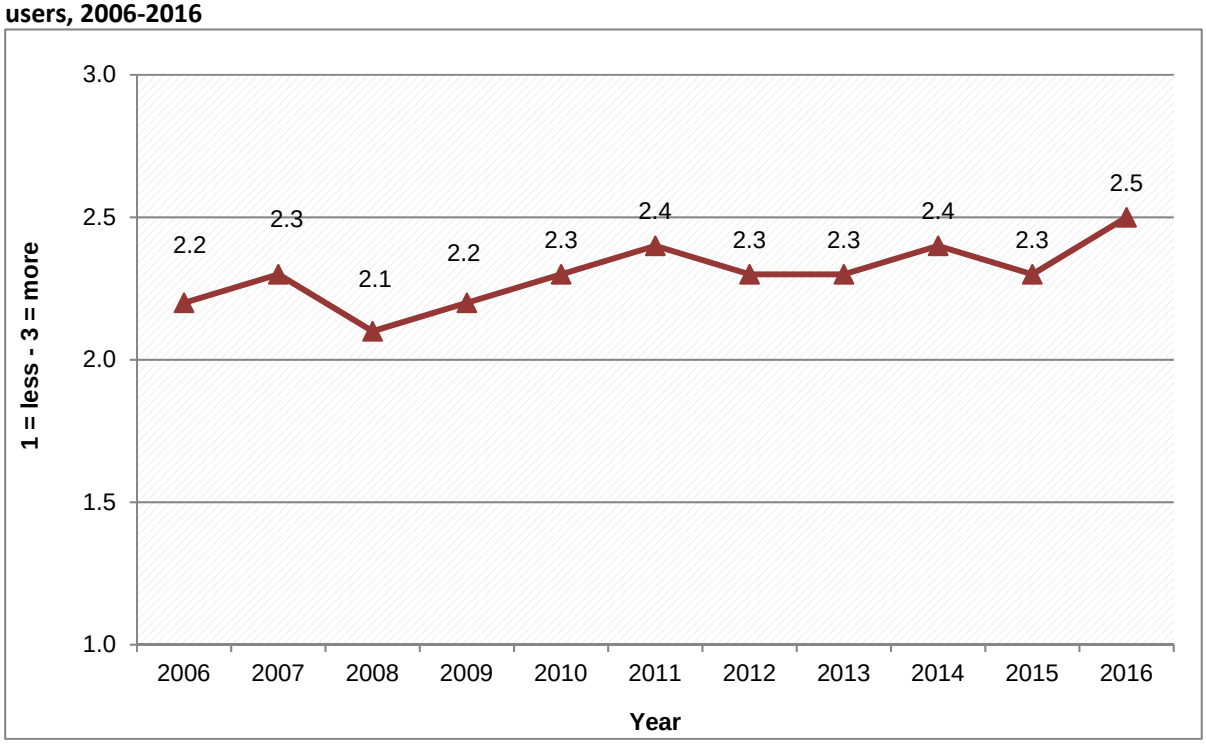
5.6 Perceptions of the number of people using methamphetamine

The number of people perceived to be using methamphetamine was described as 'more/same' in the previous six months in 2016 (Table 5.7). Sixty percent of the frequent drug users reported 'more' people were using methamphetamine in 2016 compared to six months ago. An increasing proportion of frequent drug users thought that 'more' people were using methamphetamine from 2006 to 2016 (p=0.0002), and from 2015 to 2016 (p=0.0002) (Figure 5.14).

Table 5.7 Perceptions of the number of people using methamphetamine by combined frequent drug users, 2006-2016

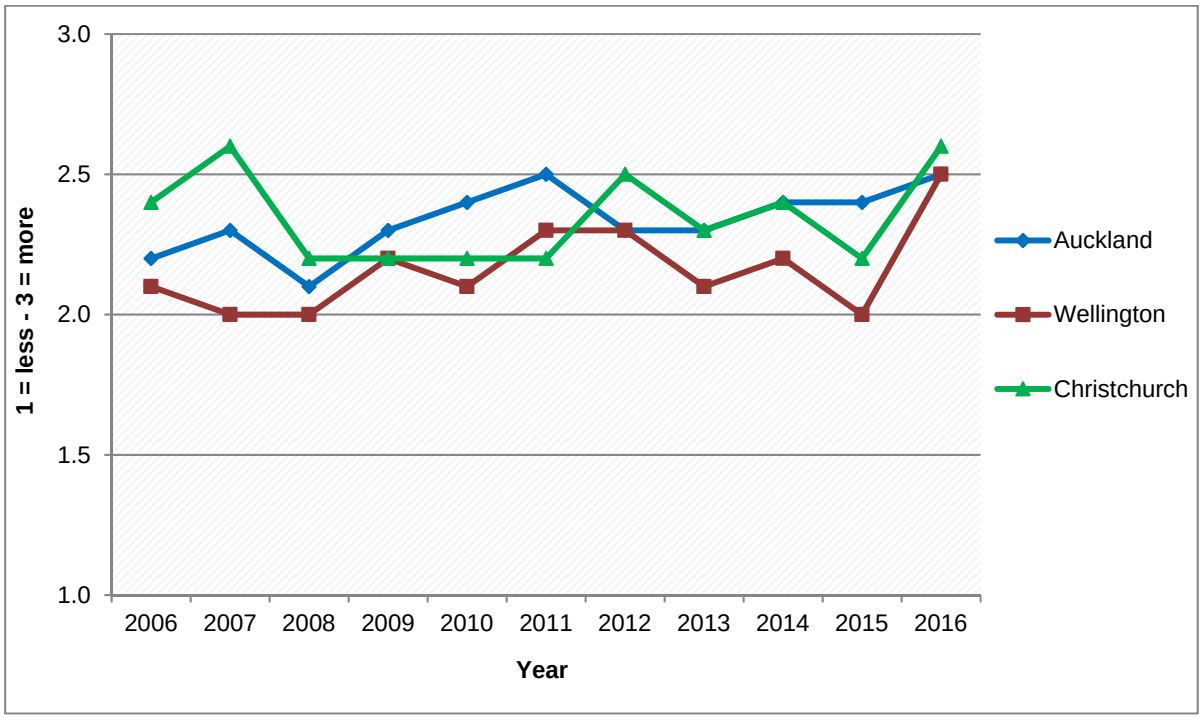
Number of people using methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=175)	Combined modules (n=173)	Combined modules (n=198)	Combined modules (n=169)	Combined modules (n=201)	Combined modules (n=180)	Combined modules (n=162)	Combined modules (n=141)	Combined modules (n= 121)	Combined modules (n= 134)	Combined modules (n= 190)
More [3]	43%	51%	35%	44%	45%	51%	46%	40%	46%	36%	60%
Same [2]	33%	32%	39%	37%	38%	33%	41%	47%	43%	54%	33%
Less [1]	23%	17%	26%	19%	16%	16%	13%	13%	11%	10%	7%
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	2.5
Overall recent change	More /same	More /same	Same /more	More /same	More /same	More /same	More /same	Same /more	More /same	Same /more	More / same

Figure 5.14 Perceptions of the number of people using methamphetamine by combined frequent drug users, 2006-2016



The number of people using methamphetamine in Auckland was perceived to be increasing from 2006 to 2016 (up from 2.2 to 2.5, p=0.0028) (Figure 5.15). More people were perceived to be using methamphetamine in Christchurch from 2015 to 2016 (up from 2.2 to 2.6, p=0.0001). The number of people perceived to be using methamphetamine in Wellington also increased from 2006 to 2016 (up from 2.1 to 2.5, p=0.0210), and from 2015 to 2016 (up from 2.0 to 2.5, p=0.0045).

Figure 5.15 Perceptions of the number of people using methamphetamine by location, 2006-2016



5.7 Purchase of methamphetamine

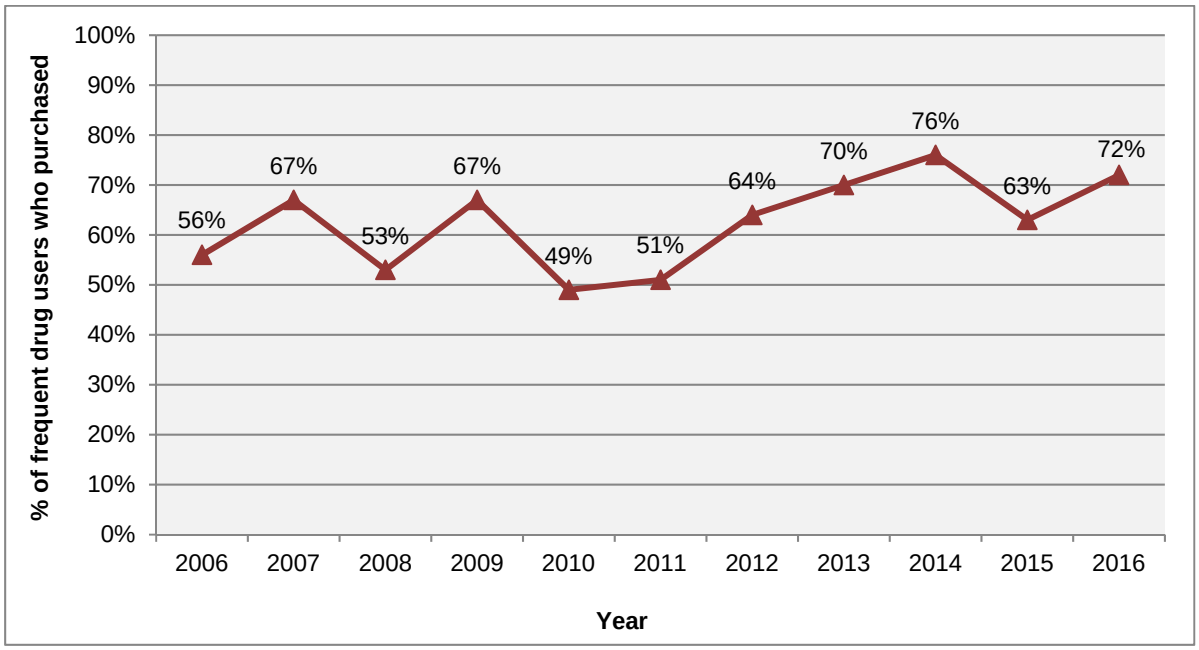
Frequency of purchase

The proportion of frequent drug users who purchased methamphetamine weekly or more often increased from 50% in 2006 to 60% in 2016, but this increase was not statistically significant (p=0.0620). The proportion of frequent drug users from Auckland who purchased methamphetamine weekly or more often increased from 61% in 2006 to 65% in 2016 (p=0.0198).

Time taken to purchase

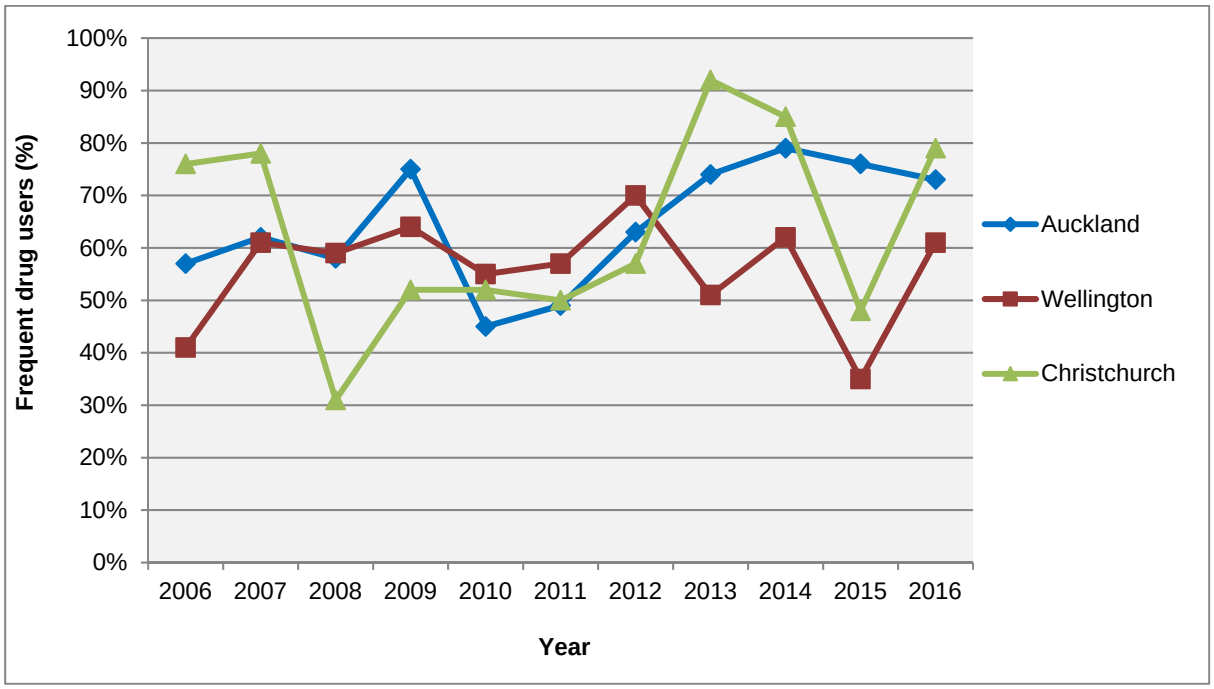
In 2016, 72% of the frequent drug users reported they were able to purchase methamphetamine in 'one hour' or less. The proportion of frequent drug users who could purchase methamphetamine in one hour or less increased from 56% in 2006 to 72% in 2016 (p=0.0002) (Figure 5.16).

Figure 5.16 Proportion of frequent drug users who could purchase methamphetamine in one hour or less, 2006-2016



The proportion of frequent drug users in Auckland who could purchase methamphetamine in one hour or less increased steadily from 57% in 2006 to 73% in 2016 ($p<0.0001$) (Figure 5.17). The proportion of frequent drug users in Christchurch who purchase methamphetamine in one hour or less increased from 48% in 2015 to 79% in 2016 ($p=0.0082$), and the proportion of frequent drug users in Wellington who could purchase methamphetamine in one hour or less also increased from 35% in 2015 to 61% in 2016 ($p=0.0365$).

Figure 5.17 Proportion of frequent drug users who could purchase methamphetamine in one hour or less by location, 2006-2016



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 30% in 2016, p<0.0001), 'public area like a park' (up from 9% in 2009 to 38% in 2016, p<0.0001), 'tinny house' (up from 11% in 2009 to 20% in 2016, p=0.0003), 'pub/bar/club' (up from 2% in 2009 to 25% in 2016, p<0.0001), 'work' (up from 3% in 2009 to 16% in 2016, p<0.0001) and an 'agreed public location' (up from 42% in 2009 to 59% in 2016, p=0.0048) (Table 5.8).

Table 5.8 Location from which methamphetamine purchased in the past six months by combined frequent drug users, 2009-2016

Location (%)	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=166)
Private house	83	86	69	78	69	79	81	90
Agreed public location	42	39	42	46	20	39	56	59
Public area (e.g. park)	9	13	16	21	21	35	40	38
Street market	5	13	17	16	21	20	23	30
Pub/bar/ club	2	7	9	15	18	16	22	25
'Tinny' house	11	13	9	21	12	20	24	20
Work	3	6	7	5	7	7	15	16
Internet	0	0	4	3	2	3	2	10
Educational institute	0	4	4	1	2	9	5	8

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 56% in 2016, p<0.0001), a 'friend' (up from 56% in 2009 to 77% in 2016, p<0.0001), 'social acquaintance' (up from 50% in 2009 to 62% in 2016, p=0.0017), a 'drug dealer' (up from 69% in 2009 to 73% in 2016, p=0.0319) and from 'partner or family member' (up from 10% in 2009 to 22% in 2016, p=0.0012) (Table 5.9).

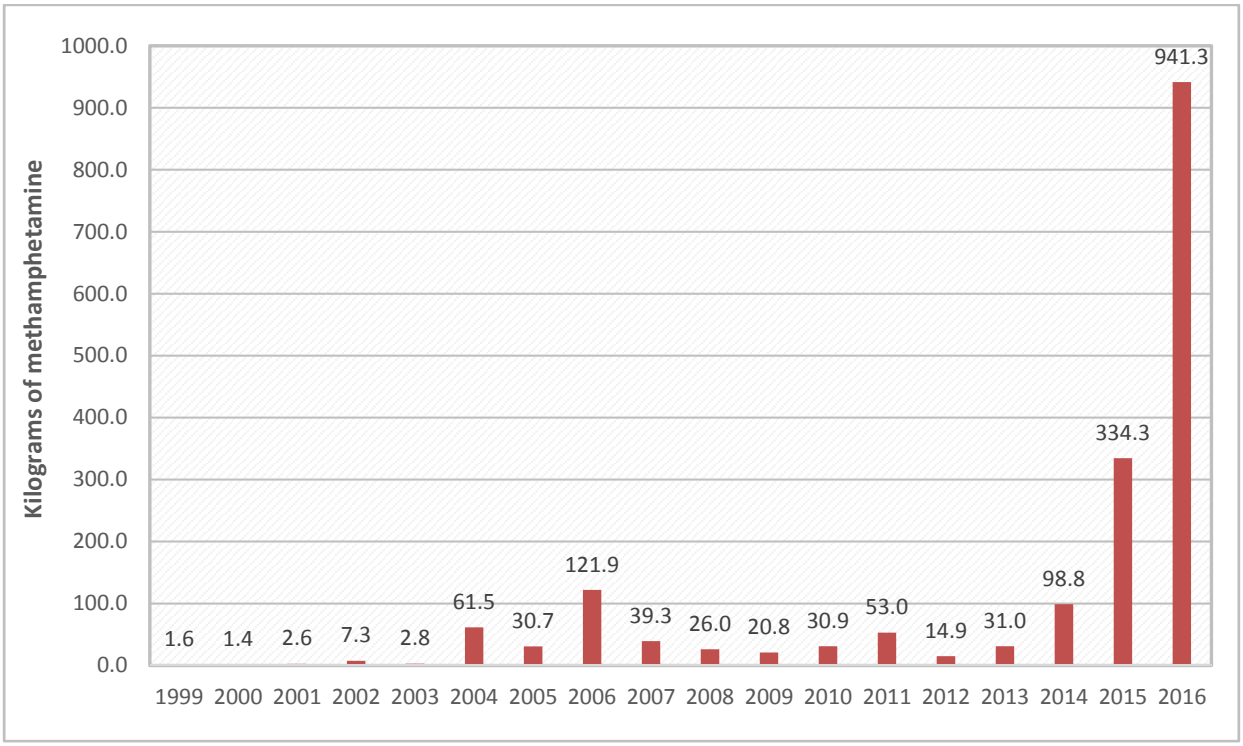
Table 5.9 People from whom methamphetamine purchased in the past six months by combined frequent drug users, 2009-2016

	2009	2010	2011	2012	2013	2014	2015	2016
Type of person (%)	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)	Combined modules (n=167)
Friend	56	66	54	68	62	70	71	77
Drug dealer	69	69	56	69	63	63	80	73
Social acquaintance	50	52	40	57	55	49	63	62
Gang member/gang associate	30	34	33	44	36	50	54	56
Partner/family member	10	15	20	19	11	18	28	22

5.8 Seizures of methamphetamine

The weight of methamphetamine seized by the New Zealand Police and New Zealand Customs Service increased after 2003. Significant annual seizures of methamphetamine were made in 2004 (i.e. 61.5 kilograms) and 2006 (i.e. 121.9 kilograms). These seizures have been dwarfed in recent years by the unprecedented amount seized in 2015 (i.e. 334.3 kilograms) and 2016 (941.3 kilograms) (Figure 5.18). The quantity of methamphetamine seized in 2016 was 181% higher than the amount seized in 2015, and 852% higher than the amount seized in 2014.

Figure 5.18 Kilograms of methamphetamine and crystal methamphetamine seized in New Zealand, 1999-2016



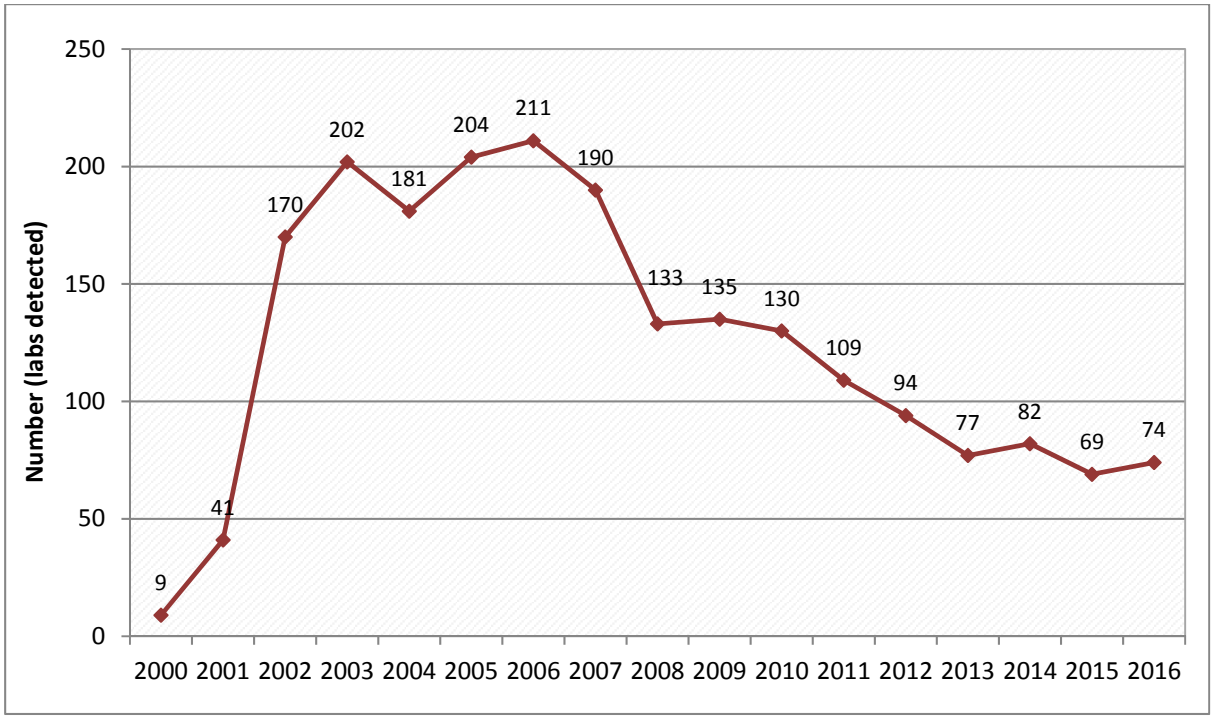
Source: NDIB, 2017

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 estimate both how many laboratories remain undetected, and the production capacity of the detected and undetected laboratories (see UNODC, 2010). The number of methamphetamine laboratories dismantled each year by New Zealand Police has increased dramatically from a low level in the early 2000s to reach a peak of approximately 200 laboratories per year in the mid-2000s. 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 5.19). The number of methamphetamine laboratories detected in 2016 was 43% lower than the number detected in 2010, and 65% 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 5.19 Number of methamphetamine laboratories dismantled in New Zealand, 2000-2016



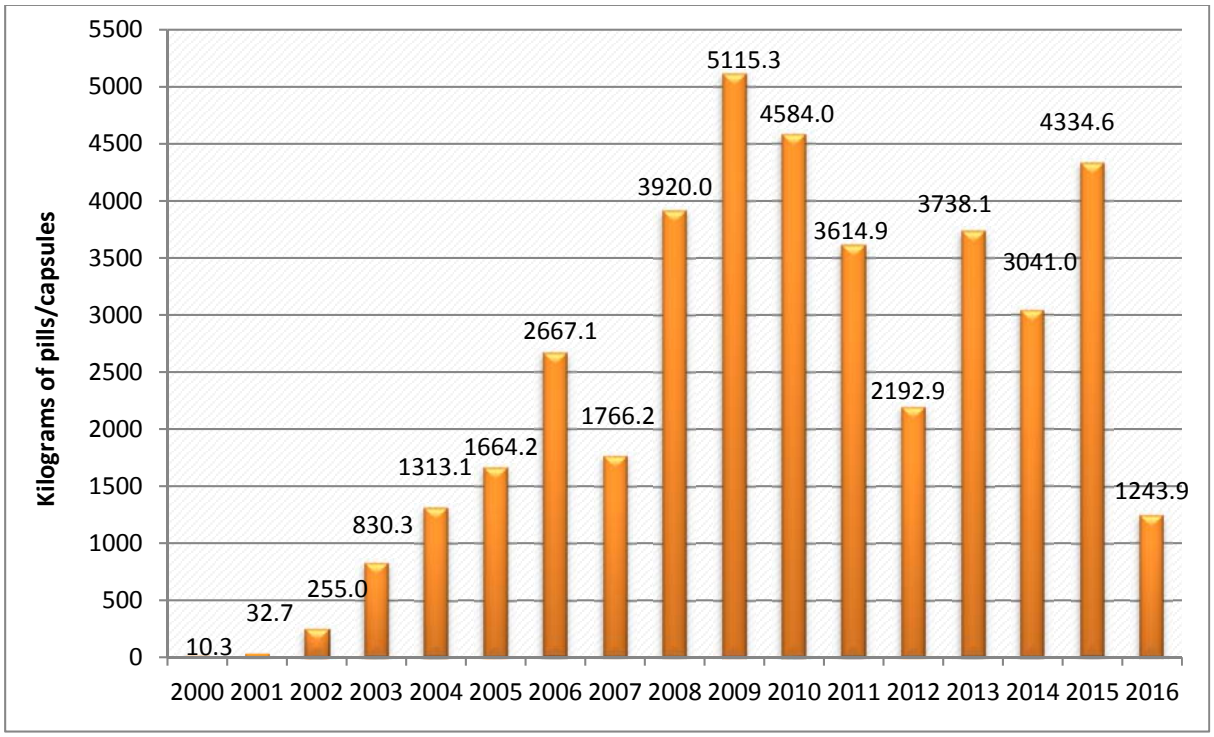
Source: NDIB, 2017

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 5.20). There was a substantial decline in methamphetamine precursor seizures over the next three years to just over 2 million tablets in 2012. Seizures returned

to previous levels in 2013 and remained high for the next two years. There was a significant drop in seizures in 2016; down to an equivalent of 1.2 million tablets.

Figure 5.20 Thousands of (equivalent) tablets of pseudoephedrine and ephedrine seized in New Zealand, 2000-2016



Source: NDIB 2017

5.11 Summary of methamphetamine trends

- The current availability of methamphetamine was reported to be 'very easy/easy' in 2016
- The current availability of methamphetamine increased from 2006 to 2016, and from 2015 to 2016
- The current availability of methamphetamine in Auckland increased from 2006 to 2016
- The current availability of methamphetamine in Christchurch also increased from 2015 to 2016
- In 2016, the change in availability of methamphetamine was described as 'stable/easier'
- The availability of methamphetamine was reported to be increasing from 2006 to 2016, and from 2015 to 2016
- The mean price of a 'point' of methamphetamine increased slightly from $96 in 2006 to $104 in 2016
- The mean price of a gram methamphetamine declined in Auckland from $579 in 2015 to $485 in 2016, and in Christchurch from $1,002 in 2015 to $746 in 2016
- The price of methamphetamine was reported to be declining from 2006 to 2016
- The current strength of methamphetamine was described as 'fluctuates/high' in 2016
- The current strength of methamphetamine declined from 2015 to 2016
- An increasing proportion of frequent drug users thought that 'more' people were using methamphetamine from 2006 to 2016, and from 2015 to 2016
- The number of people using methamphetamine in Auckland was perceived to be increasing from 2006 to 2016
- The number of people using methamphetamine in Wellington was perceived to be increasing from 2006 to 2016, and from 2015 to 2016
- The number of people using methamphetamine in Christchurch was also perceived to be increasing from 2015 to 2016
- The proportion of frequent drug users who could purchase methamphetamine in one hour or less increased from 56% in 2006 to 72% in 2016
- The proportion of frequent drug users in Auckland who could purchase methamphetamine in one hour or less increased from 57% in 2006 to 73% in 2016
- The proportion of frequent drug users in Christchurch who purchase methamphetamine in one hour or less increased from 48% in 2015 to 79% in 2016
- The proportion of frequent drug users in Wellington who could purchase methamphetamine in one hour or less also increased from 35% in 2015 to 61% in 2016
- 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 weight of methamphetamine seized in 2016 was 181% higher than the amount seized in 2015, and 852% higher than the amount seized in 2014

6. Crystal methamphetamine

6.1 Introduction

Crystal methamphetamine ('ice', 'crystal' or 'shabu') is 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 it is imported from overseas and so believed to be of higher quality (Wilkins, et al., 2004). However, ESR analysis suggests there is actually little difference in potency between the forms (NDIB, 2009). To ensure that the frequent drug users interviewed for the IDMS 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. In 2016, the number of respondents who indicated they had knowledge of crystal methamphetamine trends and completed this part of the interview was twice the number for previous years (i.e. 106=2016, 41=2015, 49=2014, 33=2013). This is indicative of an expanding crystal methamphetamine market.

Previous IDMS have identified growing use and availability of crystal methamphetamine. The proportion of frequent methamphetamine users who used crystal methamphetamine increased from 29% in 2010 to 54% in 2015 (Wilkins et al., 2017b). The availability of crystal methamphetamine also increased from 2006 to 2015 (Wilkins, et al., 2017b). 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. The re-emergence of imported crystal methamphetamine in New Zealand may reflect sustained enforcement success against the importation of domestic methamphetamine precursors and local methamphetamine manufacture, which could have made the importation of finished ice more attractive.

6.2 Knowledge of crystal methamphetamine trends

Twenty-eight percent of the frequent drug users interviewed for the 2016 IDMS (n=106) indicated they felt confident enough to comment on the price, purity and availability of crystal methamphetamine in the previous six months. This included 62% of the frequent methamphetamine

users (n=84), 17% of the frequent injecting drug users (n=17), and 5% of the frequent ecstasy users (n=5).

6.3 Availability of crystal methamphetamine

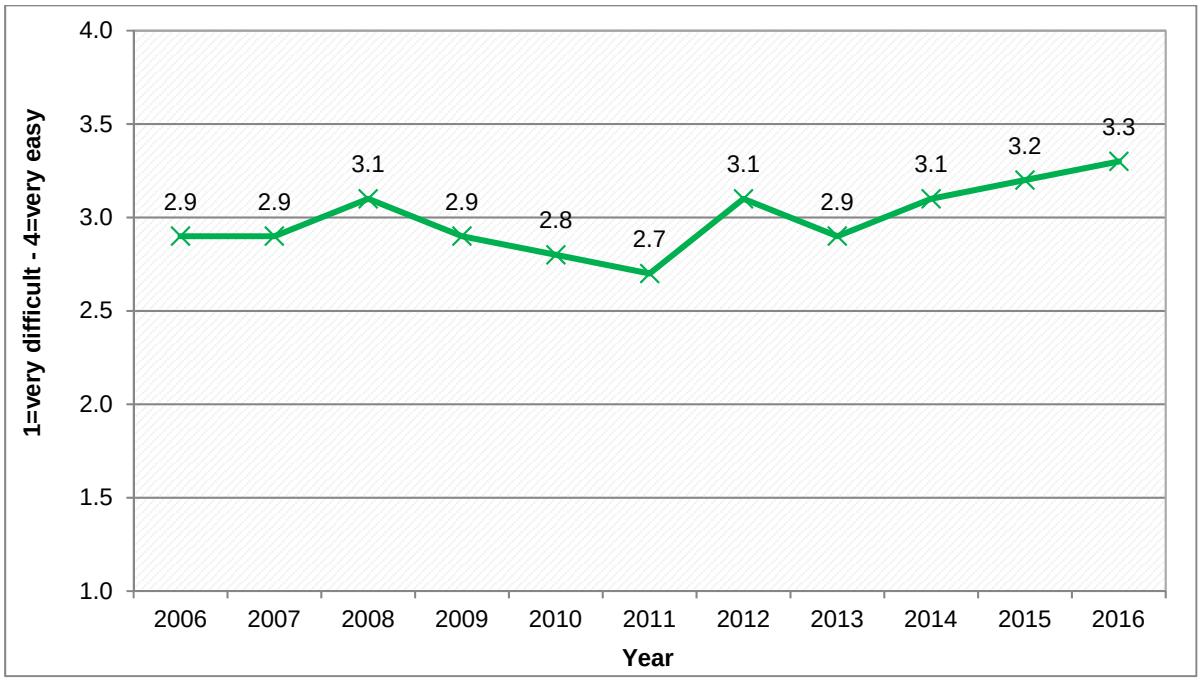
Current availability of crystal methamphetamine

The frequent drug users described the current availability of crystal methamphetamine as 'easy/very easy' in 2016 (Table 6.1). There was an increase in the reported current availability of crystal methamphetamine from 2006 to 2016 (up from 2.9 to 3.3, p=0.0015) (Figure 6.1).

Table 6 1 Current availability of crystal methamphetamine by combined frequent drug users, 2006-2016

Current availability of crystal methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=104)
Very easy [4]	24%	26%	19%	27%	22%	12%	40%	23%	33%	44%	39%
Easy [3]	48%	40%	72%	47%	37%	49%	35%	46%	49%	39%	50%
Difficult [2]	23%	32%	9%	18%	36%	34%	19%	26%	14%	8%	9%
Very difficult [1]	5%	2%	0%	7%	5%	5%	7%	4%	4%	8%	2%
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	3.3
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	Easy/ very easy

Figure 6.1 Mean score of the current availability of crystal methamphetamine by combined frequent drug users, 2006-2016



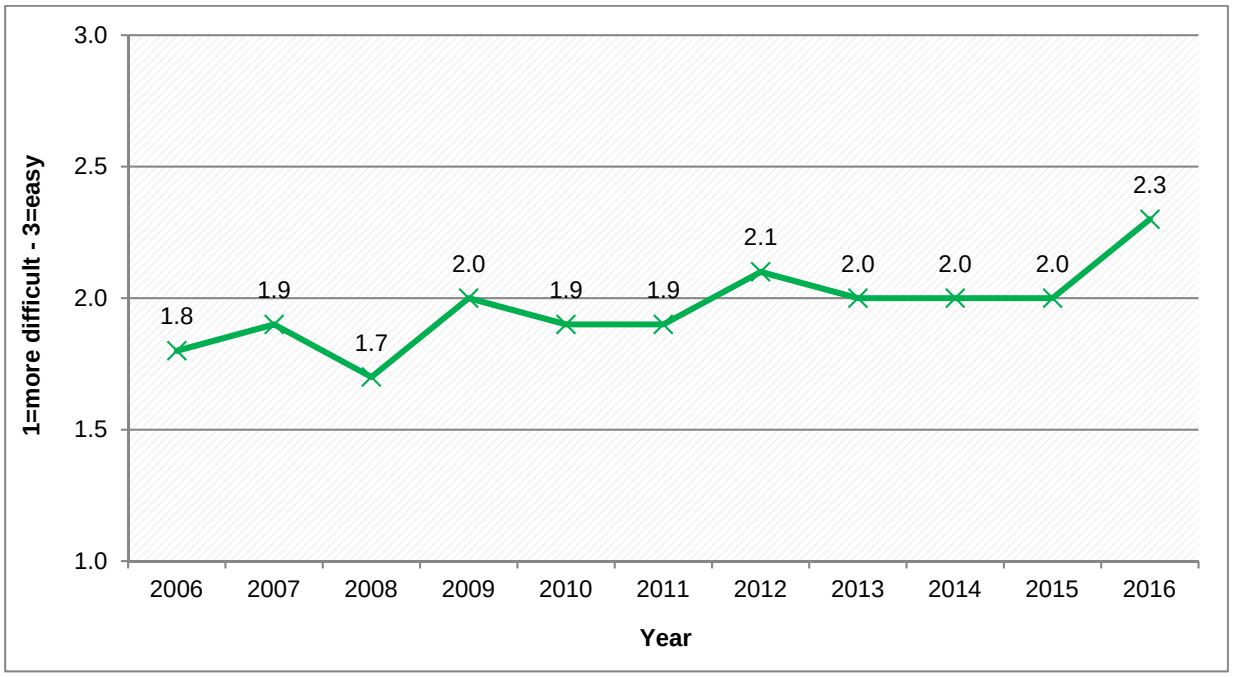
Change in availability of crystal methamphetamine

The frequent drug users described the availability of crystal methamphetamine as being 'stable/easier' over the past six months in 2016 (Table 6.2). The reported availability of crystal methamphetamine increased from 2006 to 2016 (up from 1.8 to 2.3, $p<0.0001$), and from 2015 to 2016 (up from 2.0 to 2.3, $p=0.0089$) (Figure 6.2).

Table 6.2 Change in availability of crystal methamphetamine by combined frequent drug users, 2006-2016

Change in availability of crystal methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=102)
Easier [3]	10%	17%	14%	21%	14%	4%	21%	9%	13%	17%	35%
Stable [2]	50%	53%	38%	49%	50%	68%	55%	71%	65%	72%	56%
Fluctuates [2]	10%	5%	5%	9%	14%	12%	13%	11%	14%	0%	6%
More difficult [1]	30%	25%	42%	21%	22%	17%	11%	9%	8%	12%	3%
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	2.3
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	Stable/ easier

Figure 6.2 Change in availability of crystal methamphetamine by combined frequent drug users, 2006-2016



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 2016 (Table 6.3). There was no statistically significant change in the price of a point of crystal methamphetamine from 2006 to 2016 (Figure 6.3).

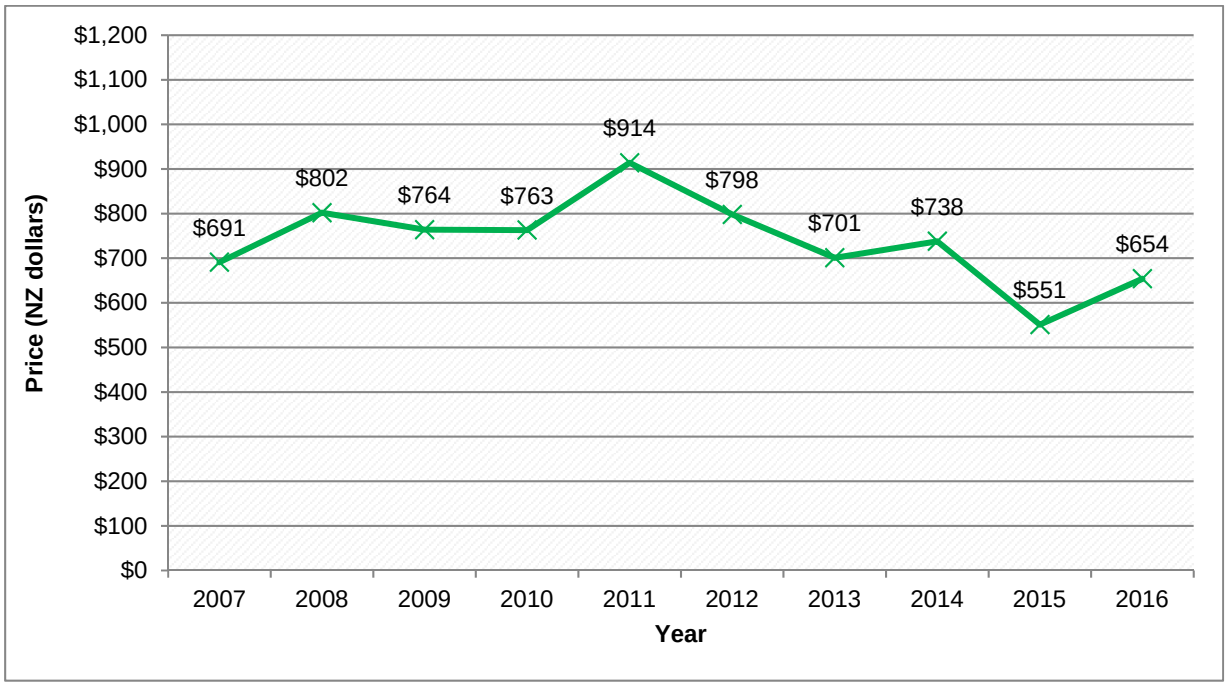
Table 6.3 Current median (mean) price for crystal methamphetamine (NZD) by combined frequent drug users, 2006-2016

Current price of crystal methamphetamine ($)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules	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**	**n=78**
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)	$100 ($101)
Number with knowledge	**-**	**n=36**	**n=14**	**n=16**	**n=21**	**n=16**	**n=24**	**n=13**	**n=18**	**n=17**	**n=45**
Median (mean) price per gram	-	$700 ($691)	$800 ($802)	$800 ($764)	$700 ($763)	$900 ($914)	$700 ($798)	$700 ($701)	$650 ($738)	$500 ($551)	$650 ($654)
Number with knowledge	**-**	**-**	**n=2**	**n=2**	**n=5**	**n=4**	**n=5**	**n=2**	**-**	**n=31**	**n=18**
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)	$10,000 ($11,712)

Figure 6.3 Mean price of a 'point' of crystal methamphetamine by combined frequent drug users, 2006-2016

Overall, the mean price of a gram of crystal methamphetamine declined from $691 in 2007 to $654 in 2016 (p=0.0151). More recently the mean gram price of crystal methamphetamine increased from a record low of $551 in 2015 to $654 in 2016 (p=0.0250) (Figure 6.4). The fairly low number of frequent drug users providing gram prices in the years before 2016 means these trends should be interpreted with some caution.

Figure 6.4 Mean price of a gram of crystal methamphetamine by combined frequent drug users, 2007-2016



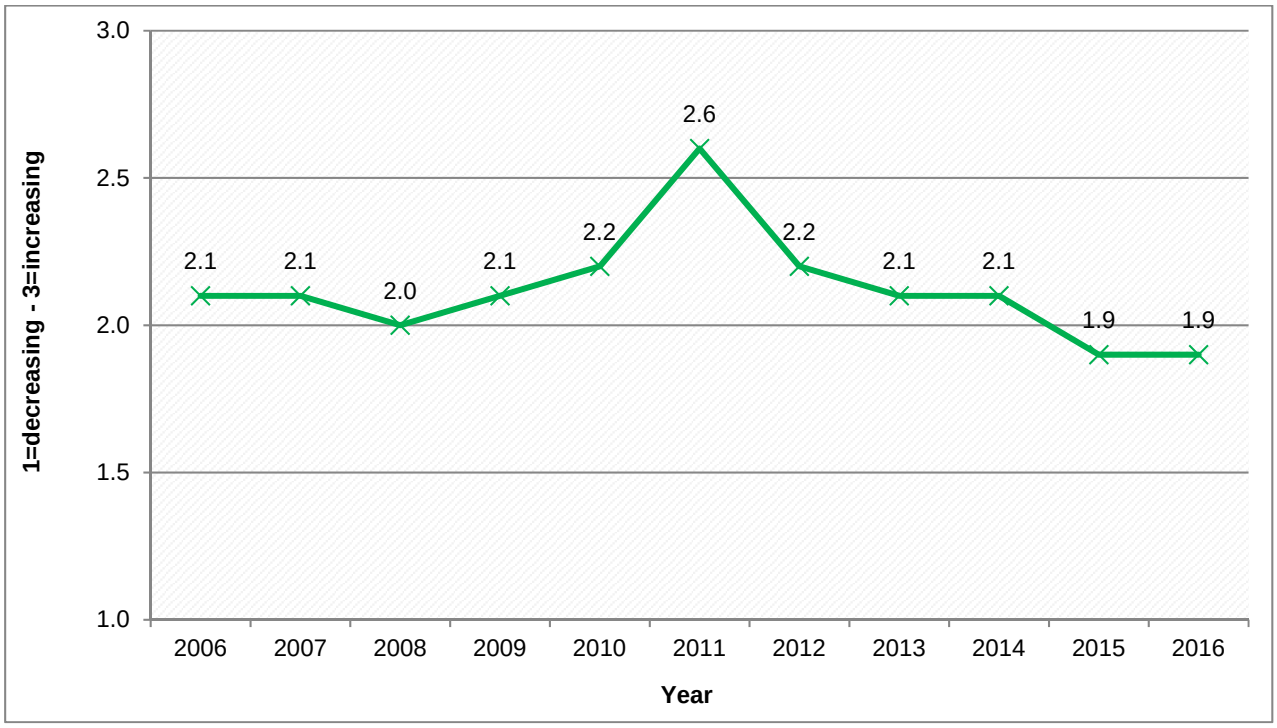
Change in price

The frequent drug users reported that the price of crystal methamphetamine had been 'stable' in the previous six months in 2016 (Table 6.4). Eighty-one percent of frequent drug users described the price of crystal methamphetamine as 'stable' (Figure 6.5).

Table 6.4 Change in the price of crystal methamphetamine in the past six months by combined frequent drug users, 2006-2016

Change in price of crystal methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=98)
Increasing [3]	17%	19%	6%	15%	22%	53%	20%	20%	16%	5%	4%
Fluctuating [2]	10%	11%	6%	12%	3%	7%	15%	3%	3%	7%	5%
Stable [2]	62%	61%	85%	69%	70%	39%	63%	71%	77%	71%	81%
Decreasing [1]	11%	9%	4%	3%	5%	1%	2%	5%	4%	17%	10%
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	1.9
Overall recent change	Stable/ increasing	Stable/ increasing	Stable	Stable/ increasing	Stable	Increasing/ stable	Stable/ increasing	Stable	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, 2006-2016



6.5 Strength of crystal methamphetamine

Current strength

In 2016, the current strength of crystal methamphetamine was described as 'high/fluctuating' (Table 6.5). There was no statistically significant change in the current strength of crystal methamphetamine from 2006 to 2016.

Table 6.5 Current purity of crystal methamphetamine by combined frequent drug users, 2006-2016

Current purity of crystal methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=103)
High [3]	47%	52%	29%	46%	34%	63%	62%	38%	42%	41%	40%
Medium [2]	25%	18%	13%	24%	30%	13%	13%	34%	36%	34%	18%
Fluctuates [2]	18%	26%	52%	23%	25%	15%	20%	18%	22%	14%	25%
Low [1]	9%	4%	6%	7%	11%	9%	5%	9%	0%	12%	17%
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	2.2
Overall current status	High/ medium	High/ fluctuates	Fluctuates/high	High/ medium	High/ medium	High/ fluctuates	High/ fluctuates	High/ medium	High/ medium	High/ medium	High/ fluctuates

Change in strength

The strength of crystal methamphetamine was considered to have been 'stable/fluctuating' during the previous six months in 2016 (Table 6.6). There was no statistically significant difference in reported change in strength of crystal methamphetamine from 2006 to 2016.

Table 6.6 Change in strength of crystal methamphetamine by combined frequent drug users, 2006-2016

Change in strength of crystal methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n= 99)
Increasing [3]	15%	17%	11%	18%	10%	8%	18%	11%	16%	16%	17%
Stable [2]	54%	52%	17%	54%	46%	56%	51%	64%	63%	54%	51%
Fluctuating [2]	18%	22%	66%	21%	22%	25%	15%	12%	11%	9%	20%
Decreasing [1]	13%	9%	6%	7%	22%	11%	15%	14%	9%	21%	13%
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	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	Stable/ fluctuating

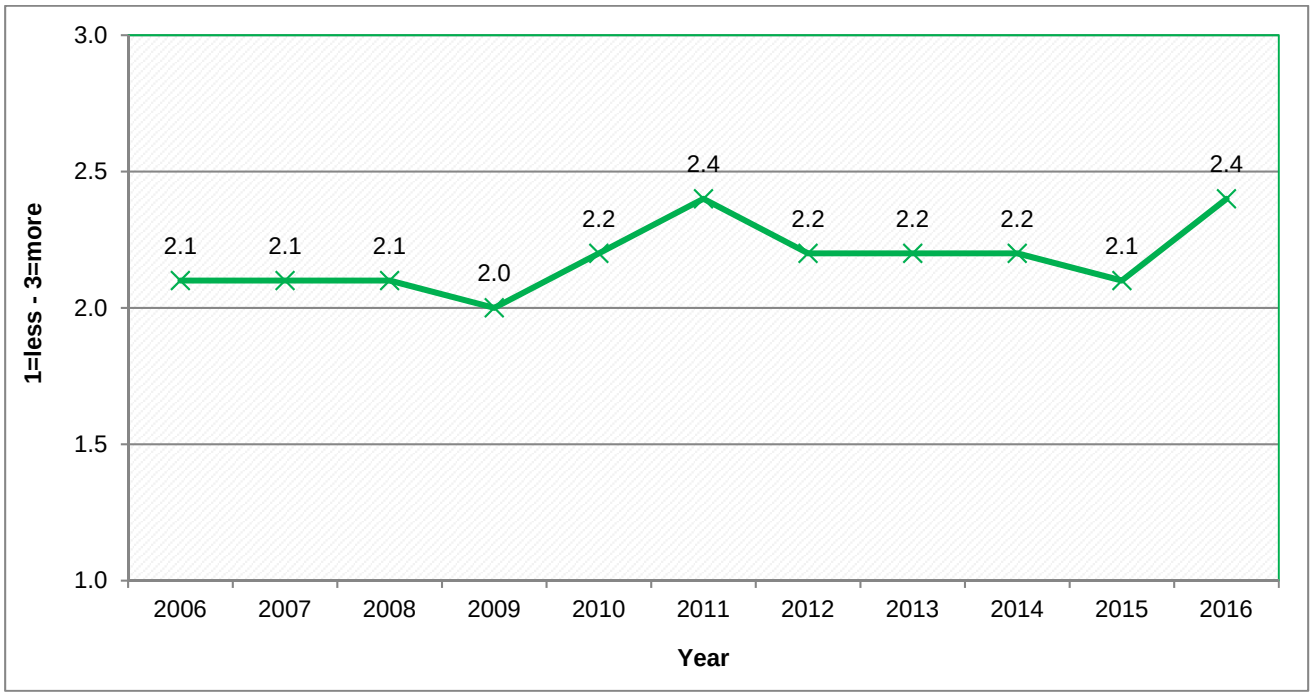
6.6 Perceptions of the number of people using crystal methamphetamine

The number of people using crystal methamphetamine was described as the 'same/more' in the past six months in 2016 (Table 6.7). The number of people using crystal methamphetamine was perceived to be increasing from 2006 to 2016 (up from 2.1 to 2.4, p=0.0074) (Figure 6.6).

Table 6.7 Perceptions of the number of people using crystal methamphetamine by combined frequent drug users, 2006-2016

Number of people using crystal methamphetamine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=104)
More [3]	38%	36%	32%	25%	40%	49%	39%	33%	35%	30%	45%
Same [2]	37%	35%	48%	45%	41%	43%	45%	58%	51%	53%	47%
Less [1]	25%	29%	18%	30%	19%	8%	15%	9%	14%	17%	8%
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	2.4
Overall recent change	More/ same	More/ same	Same/ more	Same/ less	Same/ more	More/ same	Same/ more	Same/ more	Same/ more	Same/ more	Same/ more

Figure 6.6 Mean score of perceived number of people using crystal methamphetamine by combined frequent drug users, 2006-2016



6.7 Summary of crystal methamphetamine trends

- In 2016, the current availability of crystal methamphetamine was reported to be 'easy/very easy'
- There was an increase in the current availability of crystal methamphetamine from 2006 to 2016
- The availability of crystal methamphetamine was described as being 'stable/easier' over the previous six months in 2016
- The availability of crystal methamphetamine was reported to be increasing from 2006 to 2016 and from 2015 to 2016
- Overall, the mean price of crystal methamphetamine decreased from $691 in 2007 to $654 in 2016
- More recently the mean price of a gram of crystal methamphetamine increased from a record low of $551 in 2015 to $654 in 2016
- The current strength of crystal methamphetamine was described as 'high/fluctuating' in 2016
- The frequent drug users reported the 'same/more' people were using crystal methamphetamine in 2016
- The number of people using crystal methamphetamine was perceived to be increasing from 2006 to 2016

7. Ecstasy

7.1 Introduction

Traditionally the term “ecstasy” referred to MDMA (methylenedioxymethamphetamine), but due to greater international control of key MDMA precursors, drugs sold as “ecstasy” increasingly contain a range of compounds which mimic the effects of MDMA, including BZP (benzylpiperazine), mephedrone (methylmethcathinone), MEC (methylethcathinone), DMAA (dimethylamylamine) and methylone (methylenedioxymethcathinone) (ESR, 2014). Consistent with these international trends, the frequent drug users interviewed for the IDMS have 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 has confirmed the presence of a range of substitute compounds other than MDMA (ESR, 2014).

The availability of MDMA substitute compounds from Asia created an opportunity for New Zealand based syndicates to import these compounds and produce locally supplied “ecstasy”, resulting in greater availability and increasing use of “ecstasy” in New Zealand from 2009 to 2011. These local syndicates were dismantled by police in 2011 and 2012, and as a consequence there was a subsequent reduction in availability, increase in price, and decline in perceptions of the number of people using ecstasy in Auckland and Christchurch (Wilkins et al., 2012).

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; 2015), and these websites are reported to offer MDMA at higher purities than is available from street drug markets. The purchase of “ecstasy” online has emerged as a source of supply among frequent drug users interviewed for the IDMS. The proportion of frequent drug users who purchased ecstasy from the internet increased from <1% in 2011 to 10% in 2014 and 2015 (Wilkins, et al., 2017b).

At the international level, there has been a resurgence in ecstasy markets in Europe with reported seizures of ecstasy containing high levels of MDMA, and ecstasy increasingly being sold in crystal and powder form (EMCDDA, 2017; UNODC, 2017). High strength ecstasy is thought to be responsible for a number of deaths in Europe (EMCDDA, 2017).

7.2 Knowledge of ecstasy trends

Fifty percent of the frequent drug users interviewed for the 2016 IDMS (n=108) 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=66), 24% of the frequent methamphetamine users (n=33), and 9% of the frequent injecting drug users (n=9).

7.3 Availability of ecstasy

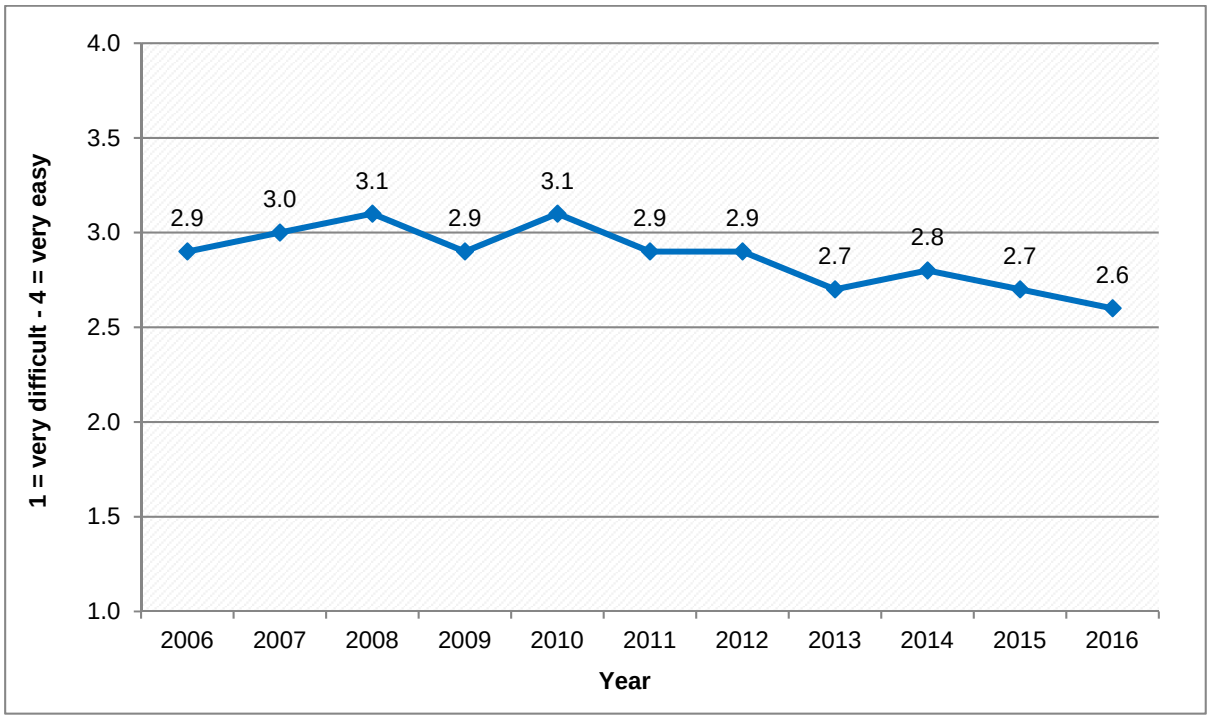
Current availability of ecstasy

The frequent drug users reported the current availability of ecstasy to be 'easy/difficult' in 2016 (Table 7.1). There has been a steady decline in the current availability of ecstasy from 2006 to 2016 (down from 2.9 to 2.6, $p<0.0001$) (Figure 7.1).

Table 7.1 Current availability of ecstasy by combined frequent drug users, 2006-2016

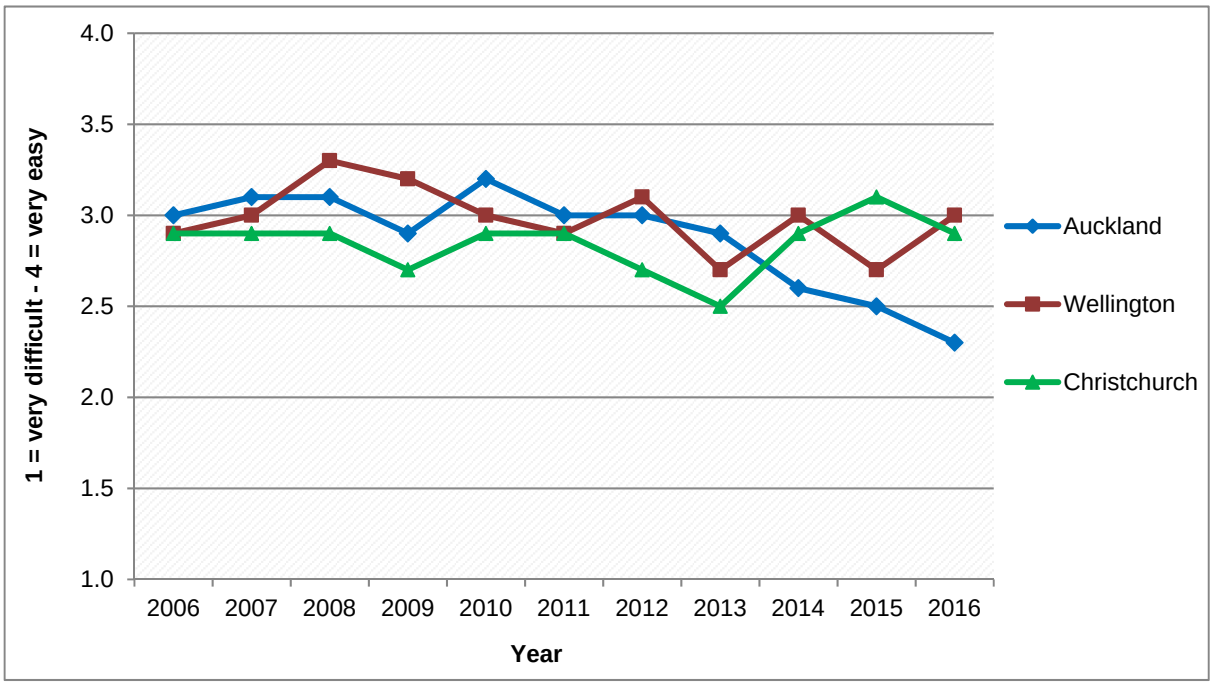
Current availability of ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=200)	Combined modules (n=157)	Combined modules (n=194)	Combined modules (n=1590	Combined modules (n=229)	Combined modules (n=215)	Combined modules (n=181)	Combined modules (n=148)	Combined modules (n=131)	Combined modules (n=143)	Combined modules (n=108)
Very easy [4]	19%	25%	32%	25%	29%	24%	28%	16%	15%	14%	12%
Easy [3]	54%	54%	46%	46%	53%	47%	39%	46%	54%	49%	47%
Difficult [2]	27%	20%	21%	27%	16%	26%	30%	33%	28%	33%	32%
Very difficult [1]	0%	1%	1%	2%	2%	2%	2%	5%	2%	4%	9%
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	2.6
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	Easy/ difficult

Figure 7.1 Mean score of the current availability of ecstasy by combined frequent drug users, 2006-2016



The current availability of ecstasy in Auckland declined steadily from 2006 to 2016 (down from 2.9 to 2.3, $p<0.0001$) (Figure 7.2). In 2016, the current availability of ecstasy was reported to be lower in Auckland than in Christchurch (2.3 vs. 2.9, $p=0.0363$), and compared to Wellington (2.3 vs. 3.0, $p=0.0003$).

Figure 7.2 Mean score of the current availability of ecstasy by location, 2006-2016



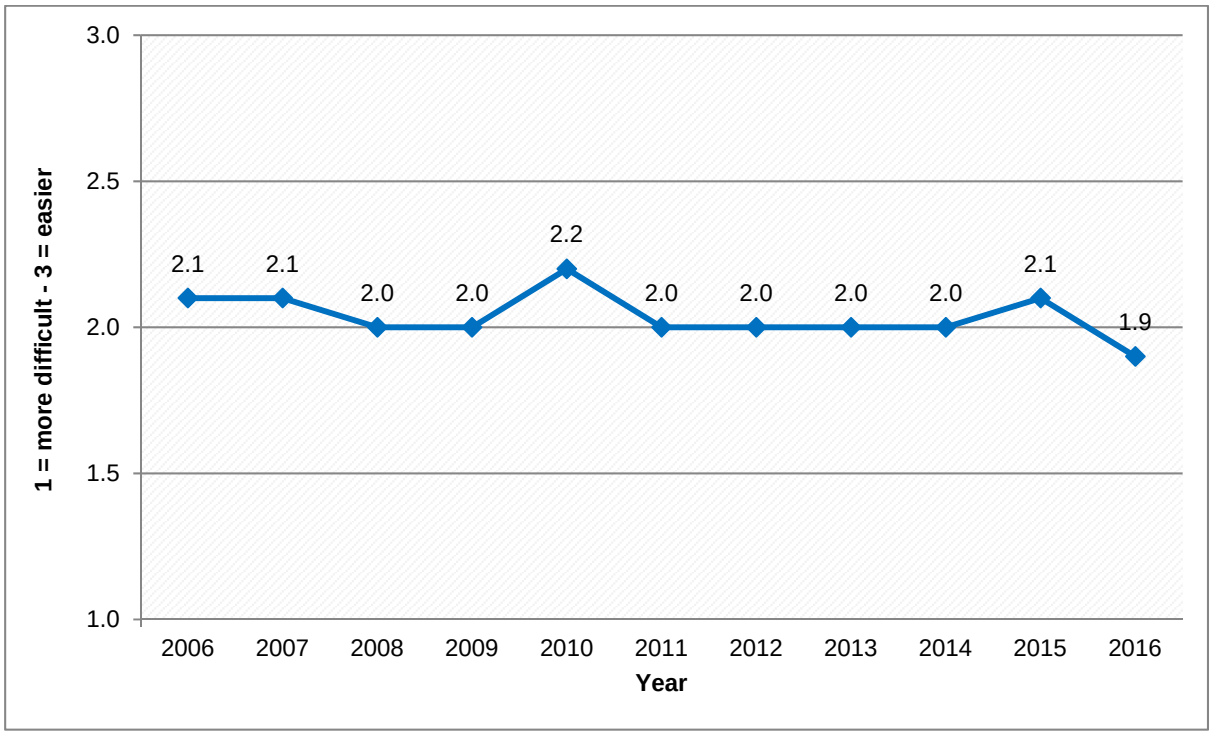
Change in availability of ecstasy

The frequent drug users described the availability of ecstasy as being 'stable/more difficult' in the previous six months in 2016 (Table 7.2). The availability of ecstasy was reported to be becoming more difficult from 2015 to 2016 (down from 2.1 to 1.9, p=0.0263) (Figure 7.3). In 2016, ecstasy was reported to be more difficult to obtain in Auckland than Wellington (1.8 vs. 2.1, p=0.0233).

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

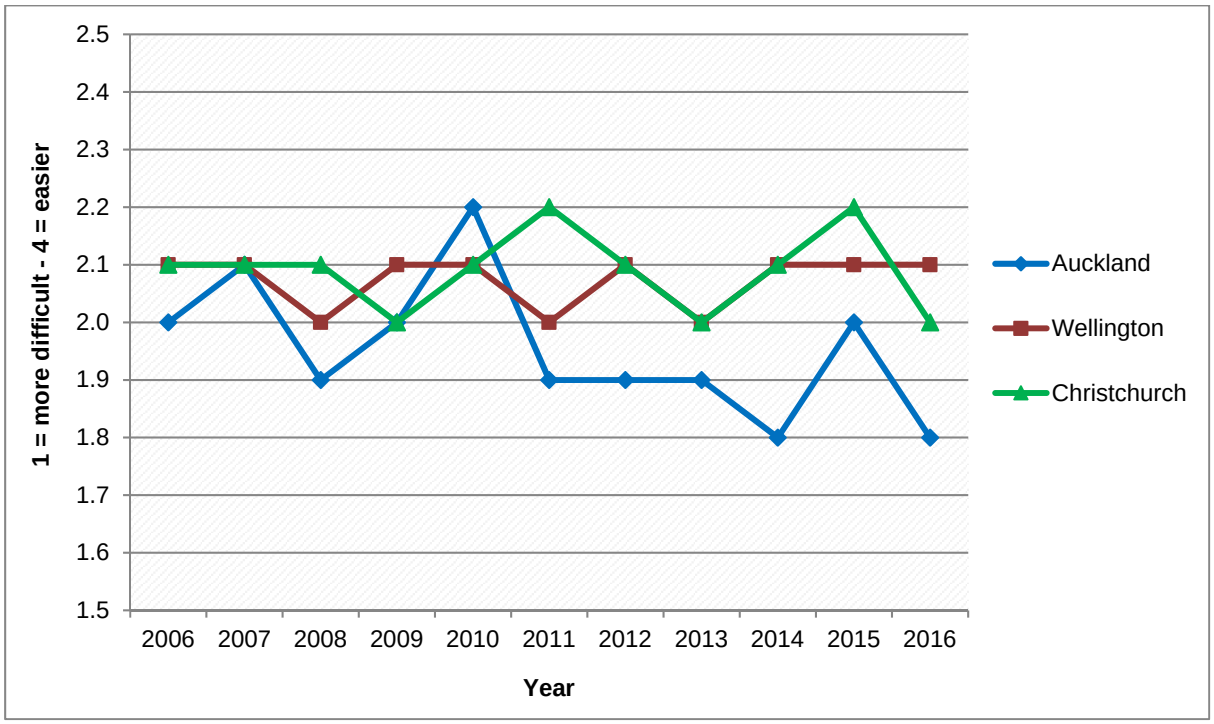
Change in availability of ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=194)	Combined modules (n=154)	Combined modules (n=191)	Combined modules (n=154)	Combined modules (n=223)	Combined modules (n=207)	Combined modules (n=181)	Combined modules (n=147)	Combined modules (n=124)	Combined modules (n=133)	Combined modules (n=100)
Easier [3]	19%	28%	15%	20%	28%	24%	21%	18%	16%	20%	17%
Stable [2]	44%	48%	54%	47%	41%	33%	46%	46%	48%	43%	51%
Fluctuates [2]	24%	6%	14%	12%	18%	20%	12%	15%	19%	28%	8%
More difficult [1]	13%	18%	17%	21%	13%	24%	21%	22%	16%	9%	24%
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	1.9
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	Stable/ more difficult

Figure 7.3 Mean score of the change in the availability of ecstasy by combined frequent drug users, 2006-2016



The frequent drug users in Auckland were more likely to report the availability of ecstasy had become 'more difficult' from 2006 to 2016 (down from 2.0 to 1.8, p=0.0020) (Figure 7.4).

Figure 7.4 Mean score of the change in the availability of ecstasy by location, 2006-2016



7.4 Price of ecstasy

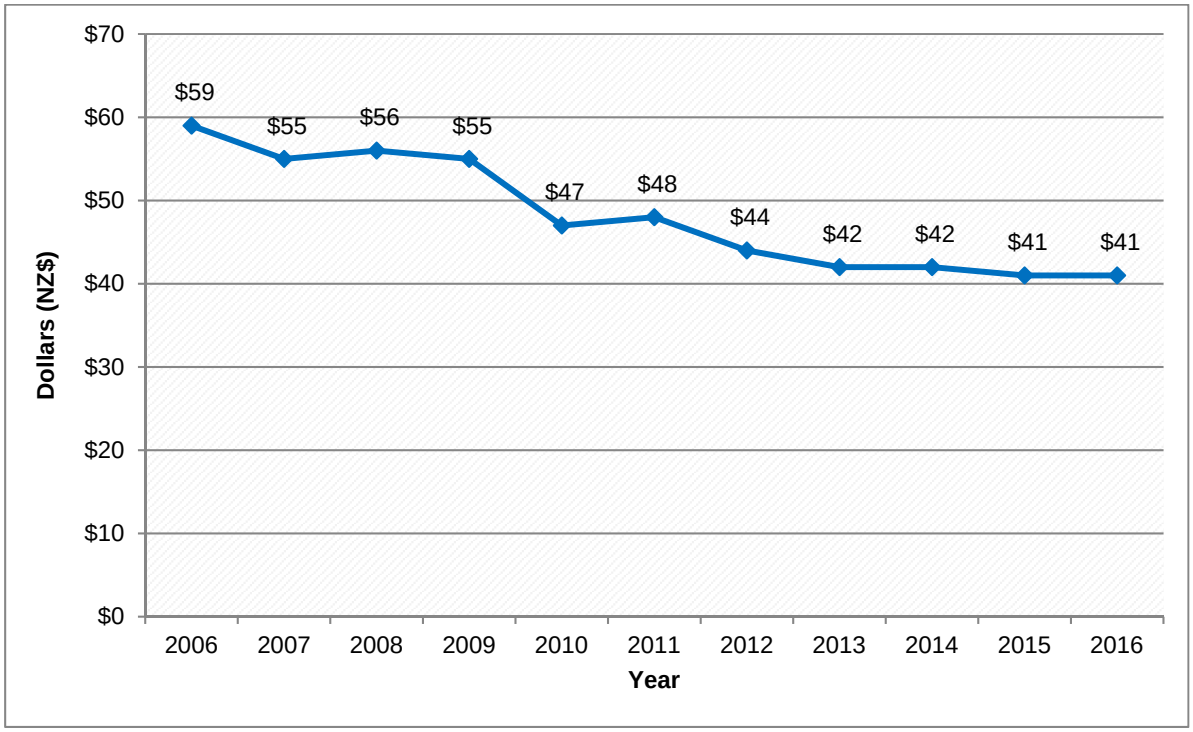
Current price of ecstasy

The median price of a tablet of ecstasy was $40 in 2016 (Table 7.3). The mean price of a tablet of ecstasy has declined steadily from $59 in 2006 to $41 in 2016 (p<0.0001) (Figure 7.5).

Table 7.3 Current price of ecstasy (NZD) by combined frequent drug users, 2006-2016

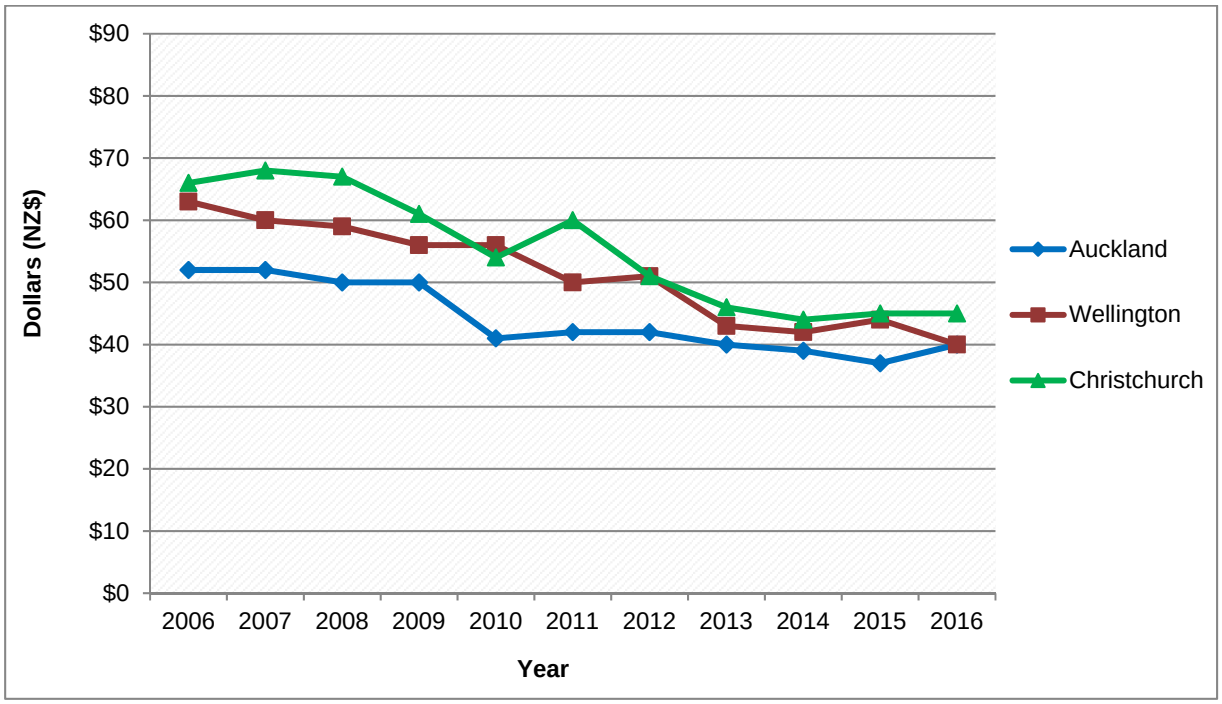
Current price of ecstasy ($)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined module (n=190)	Combined modules (n=122)	Combined modules (n=127)	Combined modules (n=122)	Combined modules (n=143)	Combined modules (n=180)	Combined modules (n=162)	Combined modules (n=121)	Combined modules (n=101)	Combined modules (n=101)	Combined modules (n=81)
Median (mean) price tablet	$60 ($59)	$60 ($55)	$60 ($56)	$60 ($55)	$43 ($47)	$50 ($48)	$40 ($47)	$40 ($42)	$40 ($42)	$40 ($41)	$40 ($41)

Figure 7.5 Mean price of a tablet of ecstasy by combined frequent drug users, 2006-2016



The mean price of a tablet of ecstasy declined from 2006 to 2016 in Auckland (down from $52 to $40, p<0.0001), Wellington ($63 to $40 p<0.0001) and Christchurch ($66 to $45, p<0.0001) (Figure 7.6).

Figure 7.6 Mean price of a pill of ecstasy by location, 2006-2016



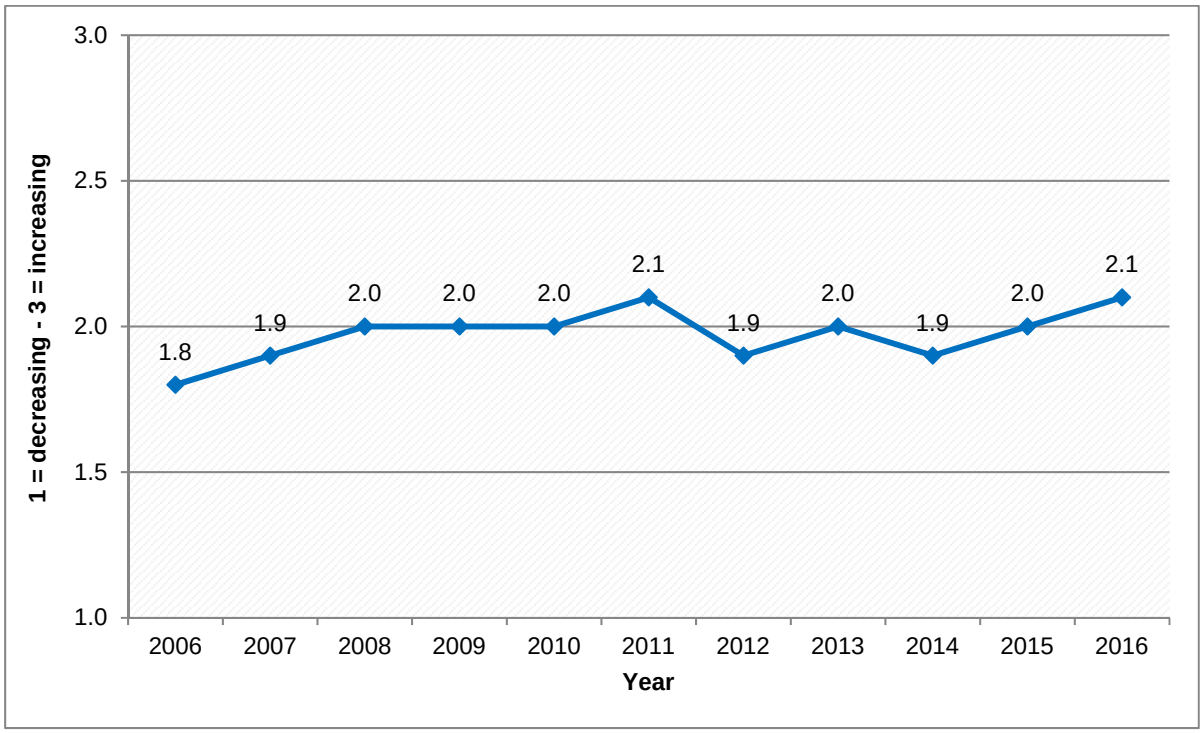
Change in price of ecstasy

The frequent drug users reported the price of ecstasy had been 'stable/increasing' over the previous six months in 2016 (Table 7.4). Overall, the frequent drug users were more likely to describe the price of ecstasy as 'stable' over the past 10 years (up from 1.8 in 2006 to 2.1 in 2016, p=0.0023) (Figure 7.7).

Table 7.4 Change in the price of ecstasy in the past six months by combined frequent drug users, 2006-2016

Change in price of ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=102)
Increasing [3]	7%	8%	12%	12%	17%	23%	11%	9%	7%	8%	16%
Fluctuating [2]	13%	14%	20%	16%	14%	18%	11%	19%	16%	16%	12%
Stable [2]	58%	64%	55%	60%	51%	44%	62%	63%	63%	67%	63%
Decreasing [1]	22%	14%	13%	13%	18%	15%	17%	8%	14%	9%	8%
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	2.1
Overall recent change	Stable/ decreasing	Stable/ Fluctuating / decreasing	Stable/ fluctuating	Stable/ fluctuating	Stable/ decreasing	Stable/ increasing	Stable/ decreasing	Stable/ fluctuating	Stable/ fluctuating	Stable/ fluctuating	Stable/ increasing

Figure 7.7 Mean score of the change in the price of ecstasy in the past six months by combined frequent drug users, 2006-2016



The frequent drug users in Auckland were more likely to say the price of ecstasy was increasing from 2006 to 2016 (up from 1.9 to 2.2, p=0.0024), and from 2015 to 2016 (up from 1.9 to 2.2, p=0.0037). Similarly, the frequent drug users in Wellington were more likely to say the price of ecstasy was increasing from 2006 to 2016 (up from 1.9 to 2.1, p=0.0120). Conversely, the price of ecstasy in Christchurch was reported to have decreased from 2015 to 2016 (down from 2.0 to 1.6, p=0.0015).

7.5 Strength of ecstasy

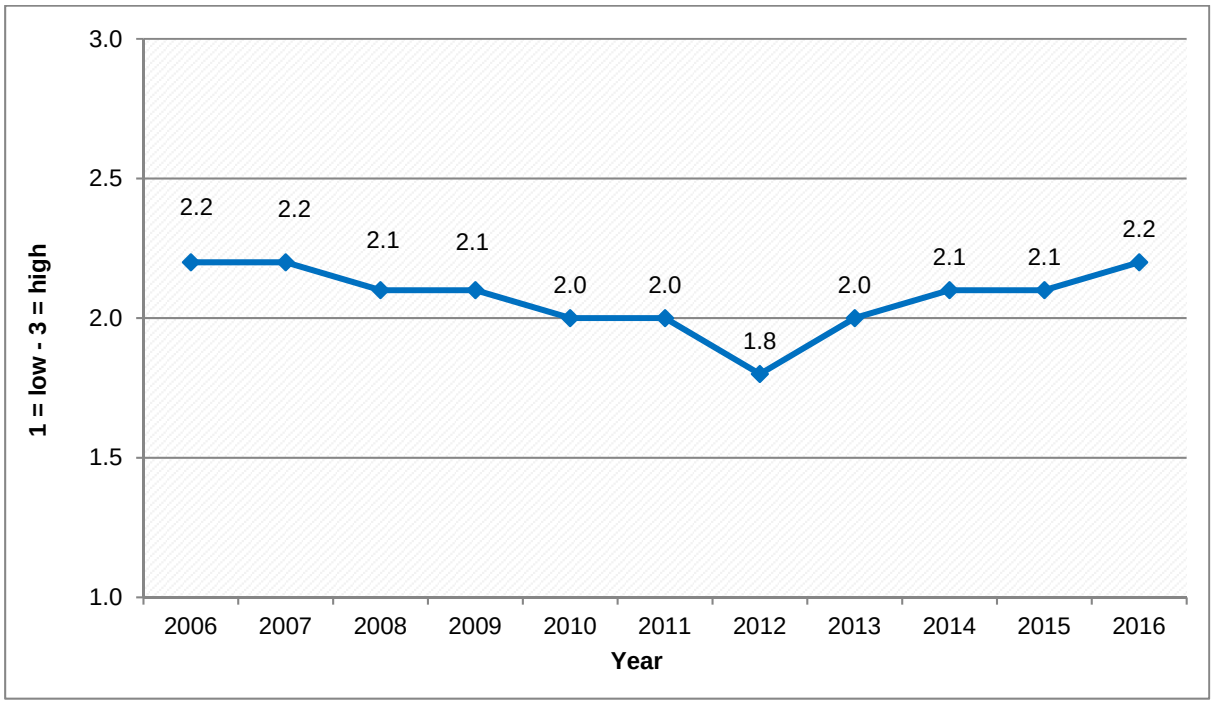
Current strength of ecstasy

The frequent drug users reported the current strength of ecstasy to be 'medium/high' in 2016 (Table 7.5). The current strength of ecstasy increased from 2006 to 2016 (up from 2.20 to 2.22, p=0.0242). The strength of ecstasy also increased from 2015 to 2016 (up from 2.10 to 2.22), and this difference was very close to being statistically significant (p=0.0555). The strength of ecstasy had previously declined from 2006 to 2012 (down from 2.2 to 1.8, p<0.0001) (Figure 7.8).

Table 7.5 Current strength of ecstasy by combined frequent drug users, 2006-2016

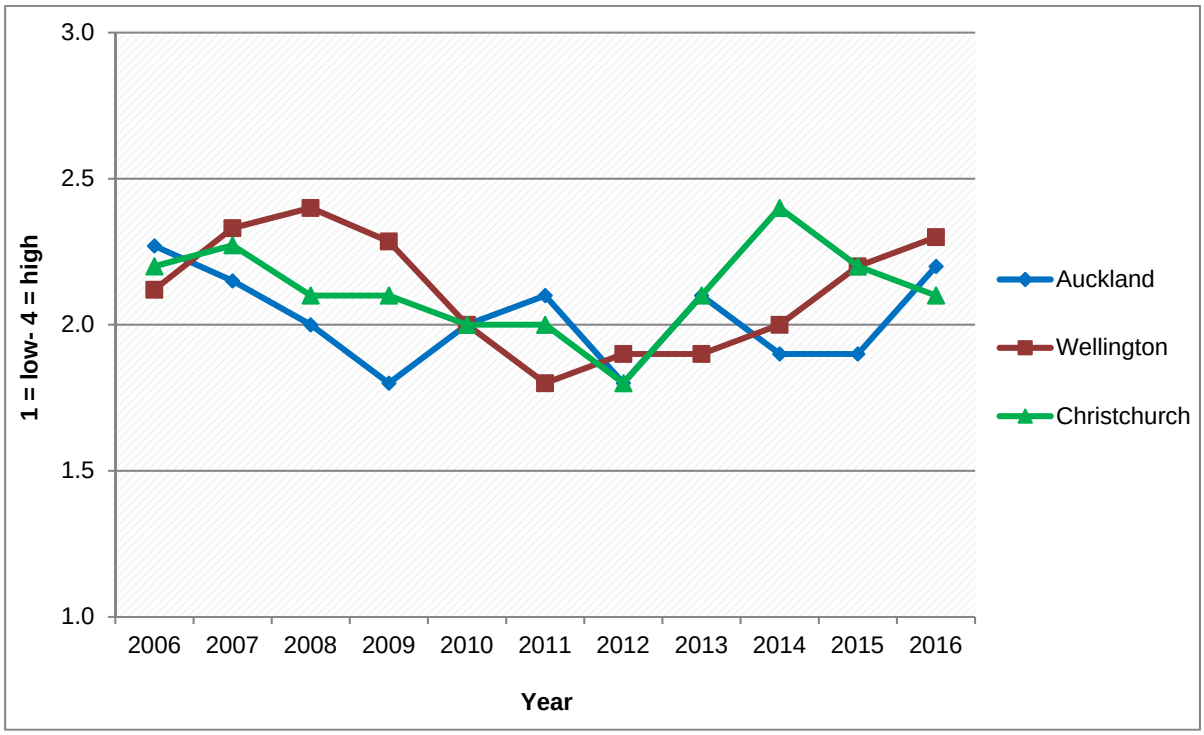
Current strength of ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=191)	Combined modules (n=156)	Combined modules (n=191)	Combined modules (n-157)	Combined modules (n=221)	Combined modules (n=213)	Combined modules (n=179)	Combined modules (n=147)	Combined modules (n=126)	Combined modules (n=145)	Combined modules (n=105)
High [3]	28%	31%	26%	25%	23%	15%	17%	24%	27%	23%	33%
Medium [2]	32%	29%	30%	28%	29%	30%	23%	25%	22%	37%	39%
Fluctuates [2]	32%	33%	32%	27%	27%	23%	28%	26%	30%	24%	17%
Low [1]	8%	8%	12%	19%	21%	23%	33%	25%	21%	16%	11%
Average strength score (1=low – 3=high)	2.2	2.2	2.1	2.1	2	2	1.8	2	2.1	2.1	2.2
Overall current status	Fluctuates/ medium	Fluctuates/ high	Fluctuates/ medium	Medium/ fluctuates	Medium/ fluctuates	Medium/low	Low/ fluctuating	Fluctuates/ medium/low	Fluctuates/ high	Medium / fluctuates	Medium / high

Figure 7.8 Mean score of the current strength of ecstasy by combined frequent drug users, 2006-2016



The current strength of ecstasy in Auckland increased sharply from 2015 to 2016 (up from 1.9 to 2.2, p=0.0020) (Figure 7.9). The current strength of ecstasy also increased in Wellington from 2006 to 2016 (up from 2.1 in 2006 to 2.3 in 2016, p=0.0265).

Figure 7.9 Mean score of the current strength of ecstasy by location, 2006-2016



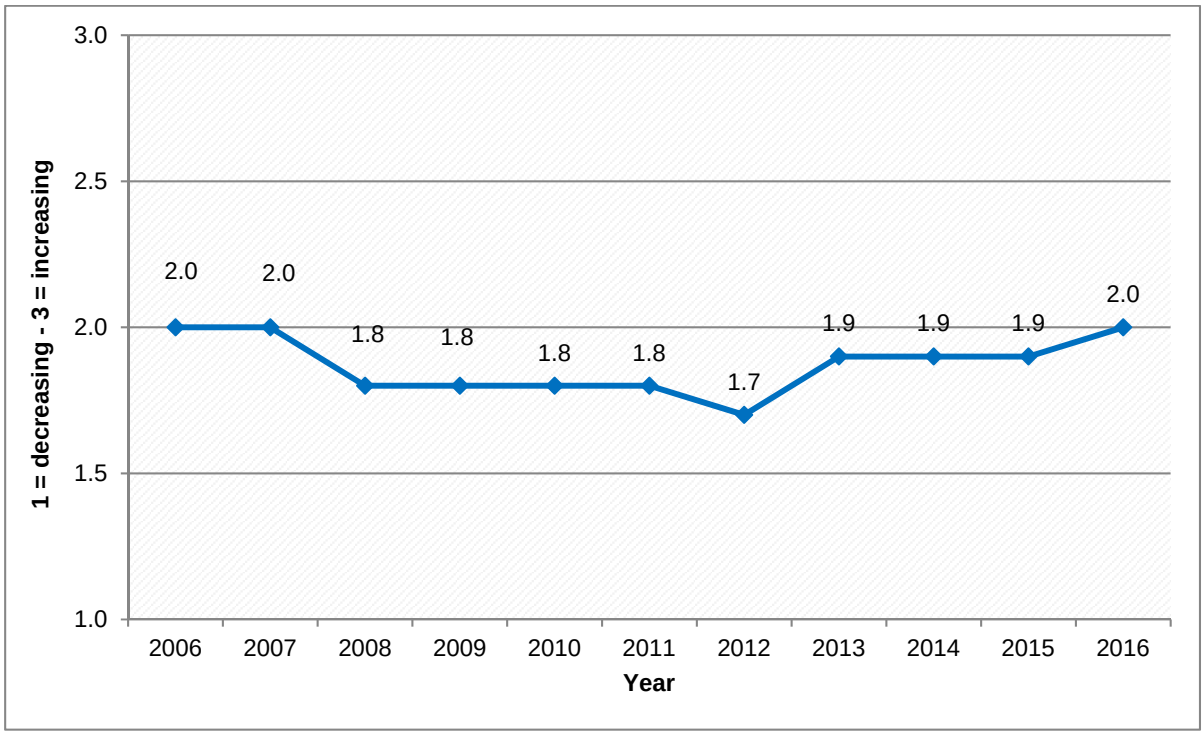
Change in strength of ecstasy

The strength of ecstasy was reported to have been 'stable/fluctuating' over the previous six months in 2016 (Table 7.6). The frequent drug users reported the strength of ecstasy was increasing from 2015 to 2016 (1.9 to 2.0, p=0.0046) (Figure 7.10).

Table 7.6 Change in strength of ecstasy (MDMA) by combined frequent drug users, 2006-2016

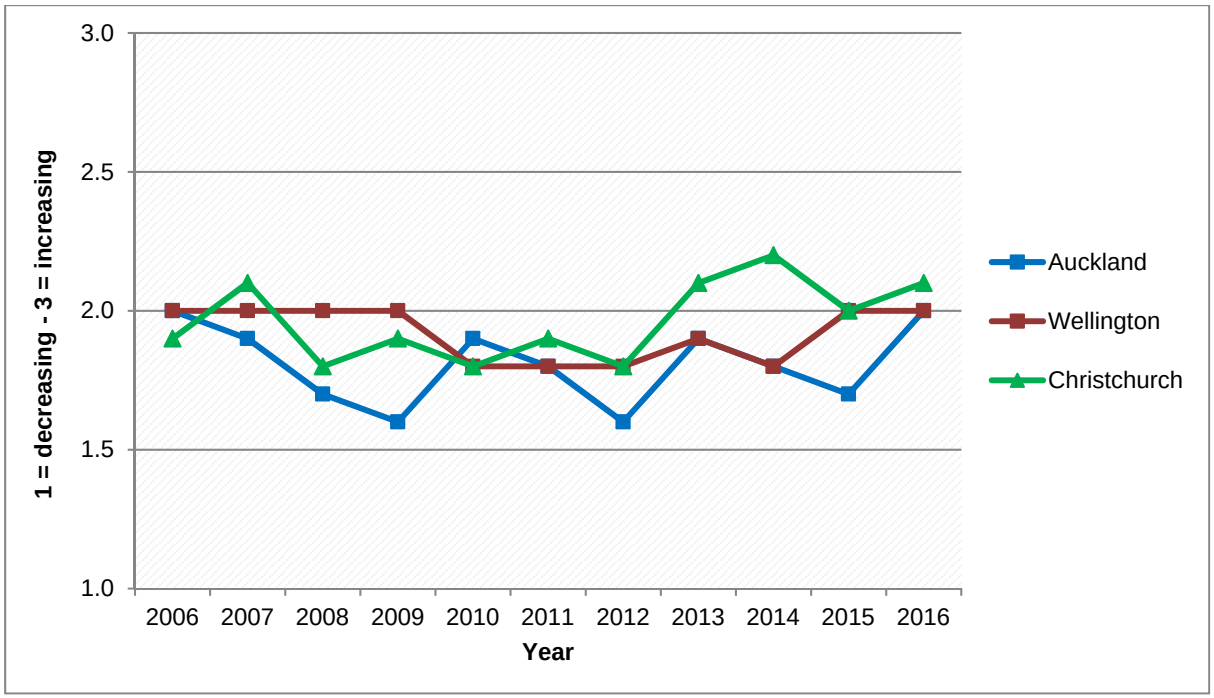
Change in strength of ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=102)	Combined modules (n=68)	Combined modules (n=86)	Combined modules (n=64)	Combined modules (n=211)	Combined modules (n=197)	Combined modules (n=174)	Combined modules (n=141)	Combined modules (n= 122)	Combined modules (n= 133)	Combined modules (n= 92)
Increasing [3]	9%	10%	8%	9%	11%	10%	6%	12%	11%	8%	9%
Stable [2]	36%	39%	29%	31%	33%	28%	28%	38%	32%	40%	53%
Fluctuating [2]	42%	36%	40%	31%	28%	34%	31%	32%	33%	31%	33%
Decreasing [1]	13%	15%	23%	29%	28%	27%	36%	18%	24%	21%	5%
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	2.0
Overall recent change	Fluctuates/ stable	Stable/ fluctuates	Fluctuates/ stable	Fluctuates/ stable	Stable/ fluctuates	Fluctuates/ stable	Decreasing/ fluctuates	Stable/ fluctuates	Fluctuates/ stable	Stable/ fluctuates	Stable/ fluctuates

Figure 7.10 Mean score of the change in strength of ecstasy by combined frequent drug users, 2006-2016



The strength of ecstasy in Auckland increased sharply from 2015 to 2016 (up from 1.7 to 2.0, p=0.0011) (Figure 7.11). The strength of ecstasy also increased in Christchurch from 2006 to 2016 (up from 1.9 to 2.1, p=0.0076).

Figure 7.11 Mean score of the change in strength of ecstasy by location, 2006-2016



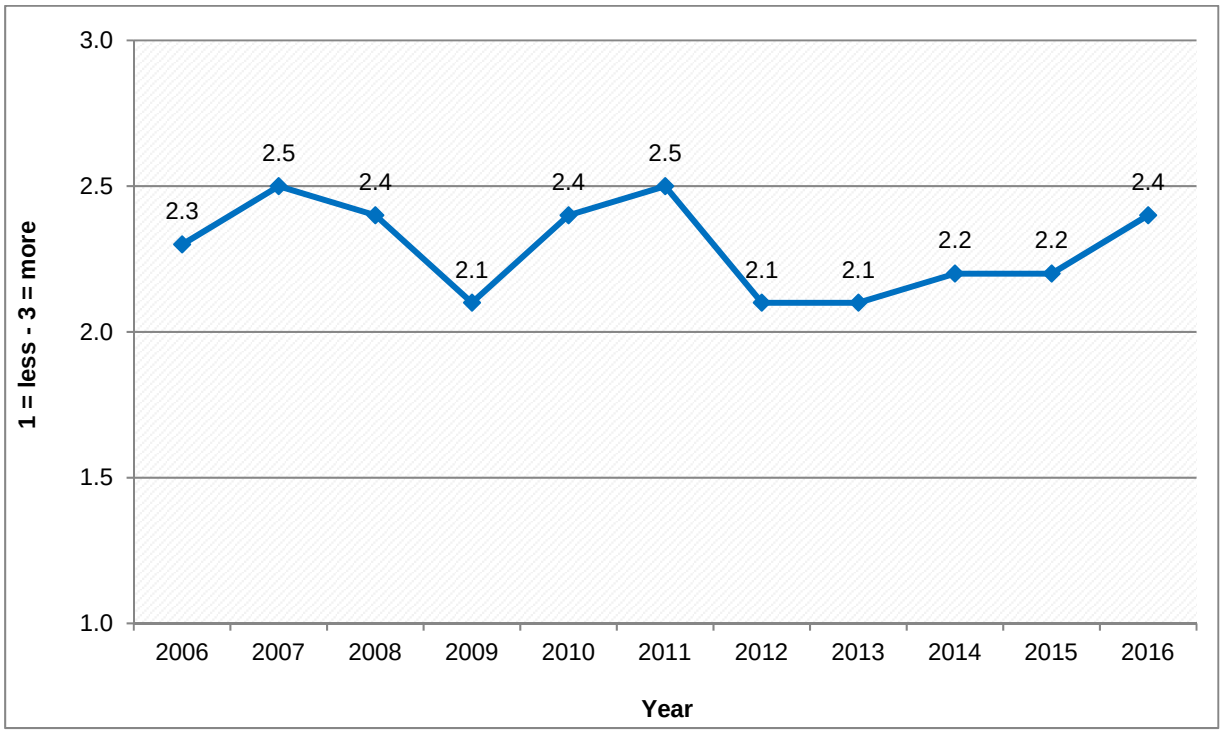
7.6 Perceptions of the number of people using ecstasy

The number of people using ecstasy was reported to be the 'more/same' in the previous six months in 2016 (Table 7.7). A higher proportion of frequent drug users reported that 'more' people were using ecstasy from 2006 to 2016 (up from 2.3 to 2.4, p=0.0273) (Figure 7.12). The frequent drug users were also more likely to report more people using ecstasy from 2015 to 2016 (up from 2.2 to 2.4), and this increase was close to being statistically significant (p=0.0559).

Table 7.7 Perceptions of the number of people using ecstasy by combined frequent drug users, 2006-2016

Number of people using ecstasy (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=109)
More [3]	39%	51%	44%	27%	54%	58%	35%	32%	33%	39%	52%
Same [2]	50%	43%	48%	60%	30%	31%	45%	44%	50%	43%	36%
Less [1]	11%	6%	8%	14%	16%	12%	20%	24%	17%	18%	13%
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	2.4
Overall recent change	Same/ more	More/ same	Same /more	Same/ more	More/ same	More/ same	Same /more	Same /more	Same /more	Same/ more	More/ same

Figure 7.12 Mean score of perceptions of the number of people using ecstasy by combined frequent drug users, 2006-2016



A higher proportion of frequent drug users in Auckland reported 'more' people were using ecstasy from 2015 to 2016 (2.0 vs. 2.4, p=0.0065).

7.7 Purchase of ecstasy

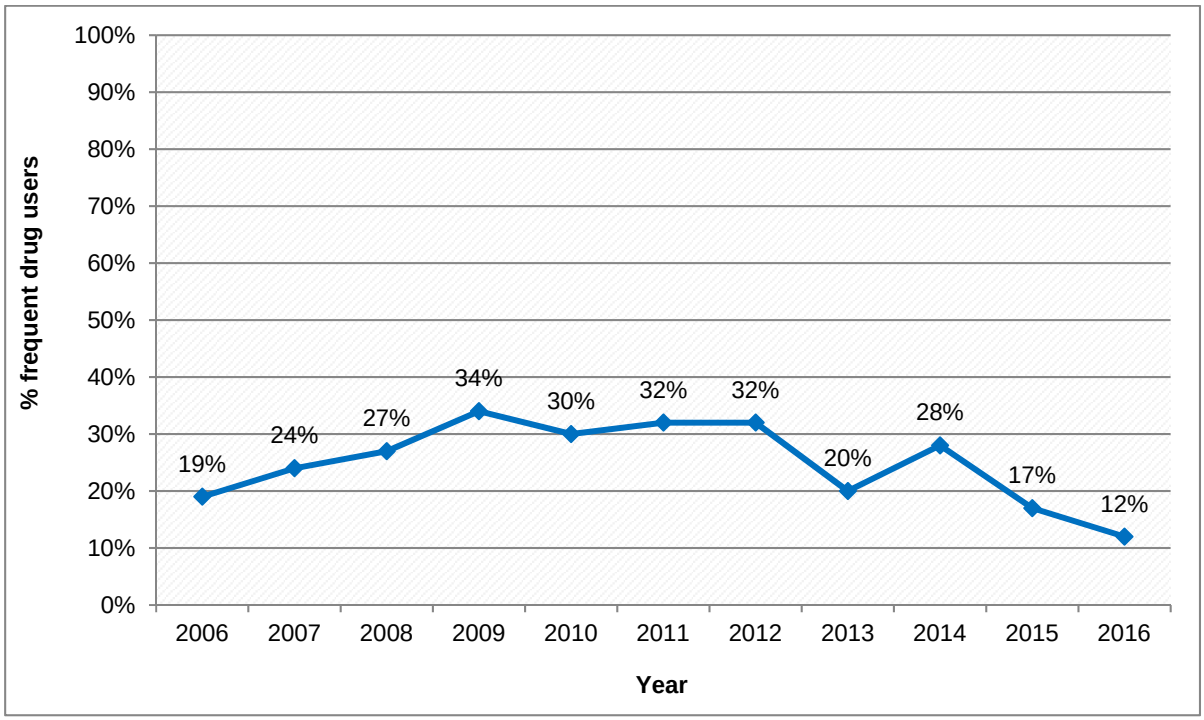
Time taken to purchase ecstasy

In 2016, 12% of the frequent drug users who had purchased ecstasy were able to do so in one hour or less (Table 7.8). Overall, the proportion of frequent drug users who were able to purchase ecstasy in one hour or less declined from 19% in 2006 to 12% in 2016 (p=0.0180).

Table 7.8 Time taken to purchase ecstasy by combined frequent drug users, 2006-2016

Time to purchase (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=95)
Weeks	6	5	4	4	4	5	5	10	4	6	5
Days	37	37	34	31	22	18	28	18	20	32	46
About one day	24	18	22	12	26	28	18	34	31	25	27
Hours	14	16	13	17	19	17	16	19	17	20	9
One Hour	11	14	11	22	14	22	18	15	18	10	10
Less than 20 minutes	8	10	16	14	16	10	14	5	9	7	2

Figure 7.13 Proportion of frequent drug users who could purchase ecstasy in one hour or less, 2006-2016



The proportion of frequent drug users in Auckland who could purchase ecstasy in one hour or less decreased steadily from 27% in 2006 to 0% in 2016 (p=0.0018).

Location of purchase of ecstasy

In 2016, 80% of the frequent drug users had purchased ecstasy from a 'private house', 24% had purchased ecstasy from an 'agreed public location', 23% had purchased it from a 'pub, bar or club', and 22% had purchased it from a 'public area like a park' (Table 7.9). The proportion of frequent drug users who had purchased ecstasy from 'public area like a park' increased sharply from 7% in 2015 to 22% in 2016 (p=0.0084). There were also increases from 2009 to 2016 in the proportion of frequent drug users who had purchased ecstasy from an 'educational institution' (up from 0% to 9%, p=0.0032) and 'street drug market' (up from 4% to 9%, p=0.0541).

Table 7.9 Location from which ecstasy purchased in the past six months by combined frequent drug users, 2009-2016

Location (%)	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=96)
Private house	83	82	68	85	75	88	76	80
Agreed public location	23	33	31	30	29	29	30	24
Pub/bar/club	13	17	33	31	29	21	19	23
Public area (e.g. park)	2	9	10	11	19	9	7	22
Internet	0	2	<1	4	7	10	10	15
Educational institute	0	4	12	2	7	9	10	9
Street market	5	4	6	8	5	7	10	9
Work	3	6	7	8	4	4	7	6
'Tinny' house	3	3	3	6	5	3	2	4

Types of sellers of ecstasy

In 2016, 80% of the frequent drug users had purchased ecstasy from a 'friend', 60% had purchased from a 'social acquaintance', and 46% from a 'drug dealer' (Table 7.10). The proportion who had purchased ecstasy from a 'partner/family member' declined from 8% in 2009 to 5% in 2016 (p=0.0065). The proportion of frequent drug users who had purchased ecstasy from a 'social acquaintance' increased from 40% in 2009 to 60% in 2016 (p=0.0002).

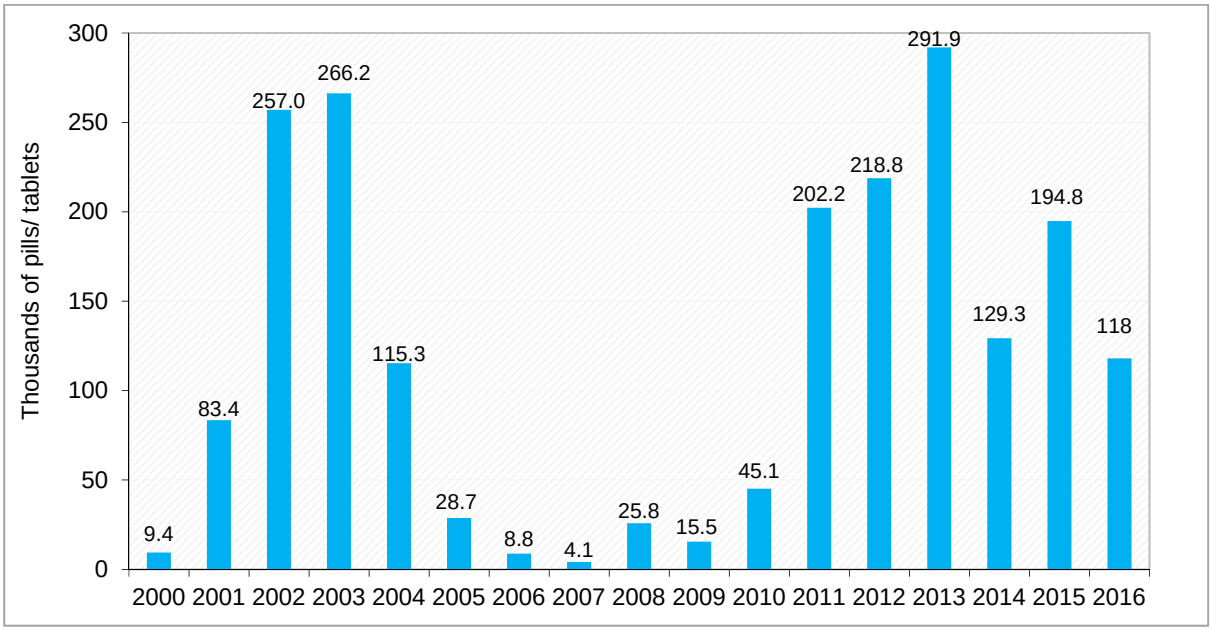
Table 7.10 People from whom ecstasy purchased in the past six months by combined frequent drug users, 2009-2016

Type of person (%)	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=96)
Friend	79	76	77	70	63	78	71	80
Social acquaintance	40	51	46	52	53	61	60	60
Drug dealer	50	38	38	46	51	41	37	46
Gang member/associate	9	6	8	10	6	5	9	9
Partner/family member	8	12	8	11	5	3	3	5

7.8 Seizures of ecstasy

Seizures of "ecstasy" made by the New Zealand Police and New Zealand Customs Service have varied considerably over the past 15 years or so (Figure 7.14). There was a dramatic increase in seizures of ecstasy substitutes in 2011 and 2012 following a number of successful law enforcement operations against local syndicates. For example, 111,881 tablets were seized in one operation against an Auckland based syndicate in late 2011 (NDIB, 2013). The quantity of ecstasy seized in 2016 (118,005 equivalent pills) was 39% lower than the amount seized in 2015.

Figure 7.14 Thousands of (equivalent) ecstasy tablets seized in New Zealand, 2000-2016



Source: NDIB, 2017

7.9 Summary of ecstasy trends

- The overall availability of ecstasy declined from 2006 to 2016
- The availability of ecstasy also declined in Auckland from 2006 to 2016
- The mean price of a tablet of ecstasy declined from $59 in 2006 to $41 in 2016
- The mean price of an ecstasy tablet declined from 2006 to 2016 in Auckland (down from $52 to $40), Wellington (down from $63 to $40) and Christchurch (down from $66 to $45)
- The current strength of ecstasy increased in Auckland from 2015 to 2016 and in Wellington from 2006 to 2016
- An increasing proportion of frequent drug users reported more people were using ecstasy from 2006 to 2016
- The proportion of frequent drug users who were able to purchase ecstasy in one hour or less declined from 19% in 2006 to 12% in 2016
- The proportion of frequent drug users from Auckland who were able to purchase ecstasy in one hour or less declined from 27% in 2006 to 0% in 2016
- There were increases from 2009 to 2016 in the proportion of frequent drug users who purchased ecstasy from a 'public area like a park', an 'education institution' and 'street drug market'
- The proportion of frequent drug users who had purchased ecstasy from a 'social acquaintance' increased from 40% in 2009 to 60% in 2016
- The quantity of ecstasy seized in 2016 was 39% lower than the amount seized in 2015

8. Cannabis

8.1 Introduction

Cannabis is the most widely used illegal drug around the world, including in New Zealand (UNODC, 2017). Cannabis use is associated with a number of health risks and social problems, including respiratory illness, low educational achievement, mental illness, drug dependency and vehicle crashes (Hall et al., 2016; Room et al., 2010). The population prevalence of cannabis use has been in decline 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 and social acceptability of smoking, and the increase in the availability of synthetic stimulants (UNODC, 2012, 2013; Wilkins, et al., 2017b).

The supply of cannabis in New Zealand is met almost entirely through domestic cultivation, either via outdoor cultivation or indoor cannabis growing operations (Wilkins et al., 2002a; Wilkins & Casswell, 2002, 2003; Wilkins et al., 2005; Yska, 1990). In the mid-2000s, the dollar value of the cannabis market was estimated to be $131-$190 million (NZD) per year (Wilkins & Casswell, 2002; Wilkins, et al., 2005). There have been anecdotal reports of a "cannabis drought" in New Zealand in more recent years, particularly in the South Island, and IDMS findings have provided some support for these claims. For example, 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. 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.

8.2 Knowledge of cannabis trends

Seventy-seven percent of the frequent drug users interviewed for the 2016 IDMS (n=243) indicated they felt confident enough to comment on the price, strength and availability of cannabis in the previous six months. This included 86% of the frequent methamphetamine users (n=115), 73% of the frequent injecting drug users (n=79), and 72% of the frequent ecstasy users (n=49). 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, and 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

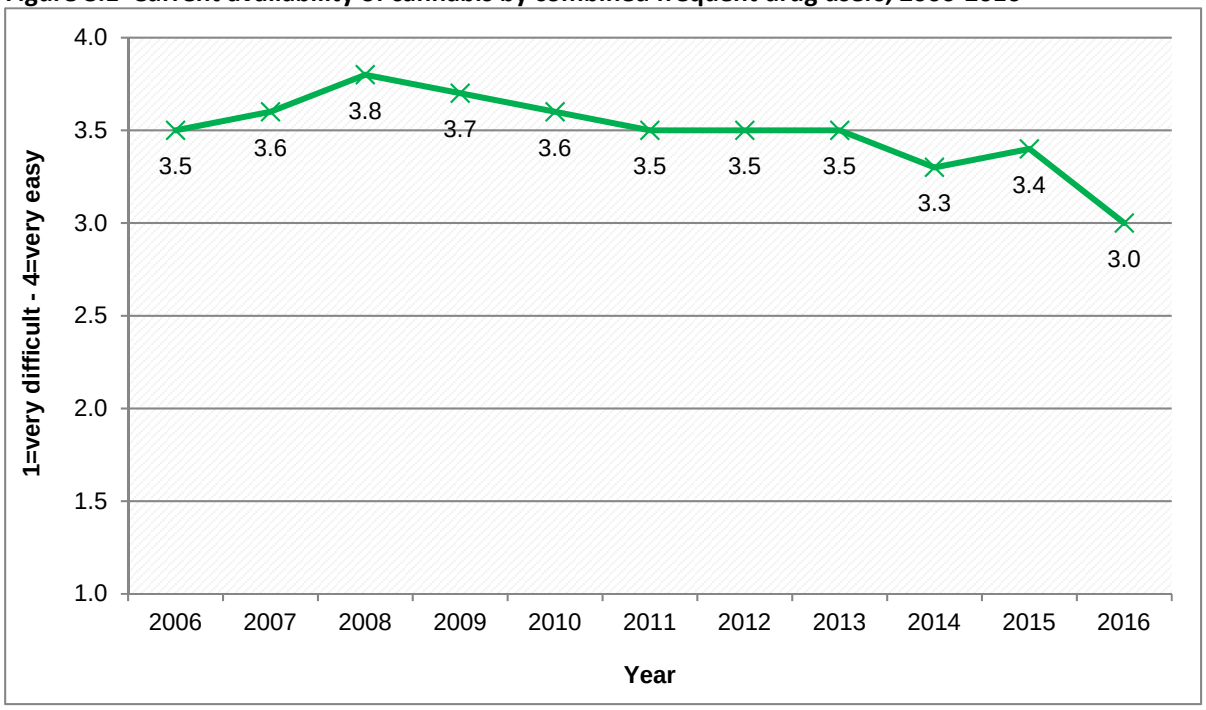
Current availability of cannabis

The current availability of cannabis was reported to be 'very easy/easy' in 2016 (Table 8.1). The current availability of cannabis declined from 2006 to 2016 (down from 3.5 to 3.0, $p<0.0001$), and from 2015 to 2016 (down from 3.4 to 3.0, $p<0.0001$) (Figure 8.1).

Table 8.1 Current availability of cannabis by combined frequent drug users, 2006-2016

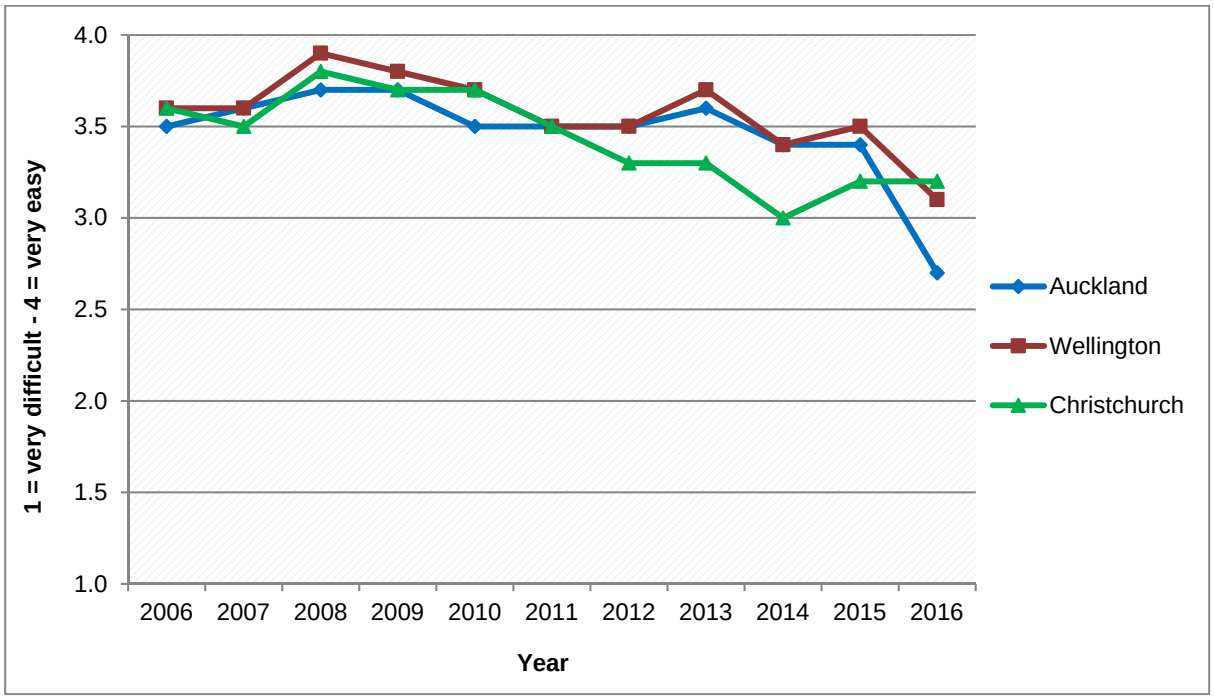
Current availability of cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=276)	Combined modules (n=263)	Combined modules (n=318)	Combined modules (n=245)	Combined modules (n=344)	Combined modules (n=323)	Combined modules (n=280)	Combined modules (n=258)	Combined modules (n=231)	Combined modules (n=246)	Combined modules (n=239)
Very easy [4]	60%	64%	82%	73%	69%	56%	59%	62%	45%	50%	39%
Easy [3]	36%	30%	16%	23%	27%	38%	30%	31%	40%	39%	30%
Difficult [2]	4%	5%	3%	3%	3%	5%	10%	7%	15%	10%	21%
Very difficult [1]	0%	1%	0%	0%	1%	2%	1%	1%	1%	1%	11%
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	3.0
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	Very easy/ easy

Figure 8.1 Current availability of cannabis by combined frequent drug users, 2006-2016



The current availability of cannabis in Auckland declined from 2006 to 2016 (down from 3.5 to 2.7, p<0.0001), and from 2015 to 2016 (down from 3.4 to 2.7, p<0.0001) (Figure 8.2). The current availability of cannabis in Wellington also declined from 2006 to 2016 (down from 3.6 to 3.1, p<0.0001), and from 2015 to 2016 (down from 3.5 to 3.1, p=0.0103). There was also a decrease in the current availability of cannabis in Christchurch (down from 3.6 in 2006 to 3.2 in 2016, p<0.0001). In 2016, the current availability of cannabis was lower in Auckland than Wellington (2.7 vs. 3.1, p=0.0110), and in Christchurch (2.7 vs. 3.2, p=0.0009).

Figure 8.2 Current availability of cannabis by location, 2006-2016



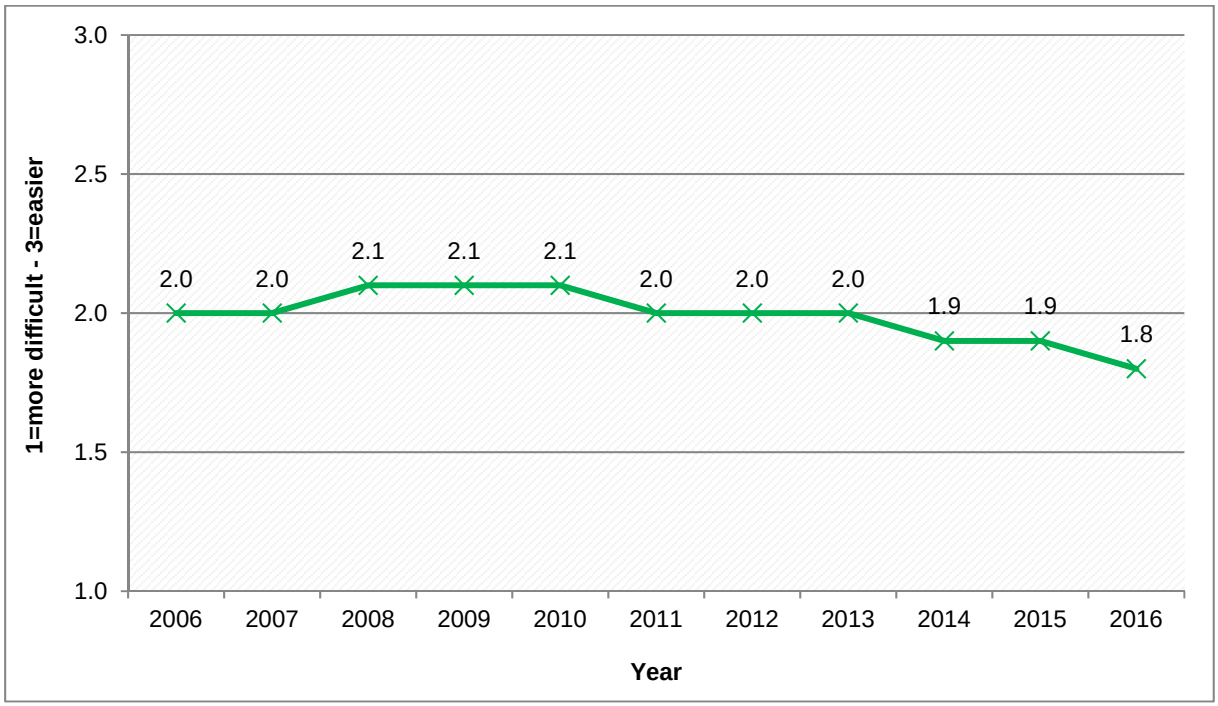
Change in availability of cannabis

The frequent drug users reported the availability of cannabis had been 'stable/more difficult' over the previous six months in 2016 (Table 8.2). The availability of cannabis was more likely to be described as declining from 2006 to 2016 (down from 2.0 to 1.8, $p<0.0001$), and from 2015 to 2016 (down from 1.9 to 1.8, $p=0.0052$) (Figure 8.3).

Table 8.2 Change in availability of cannabis by combined frequent drug users, 2006-2016

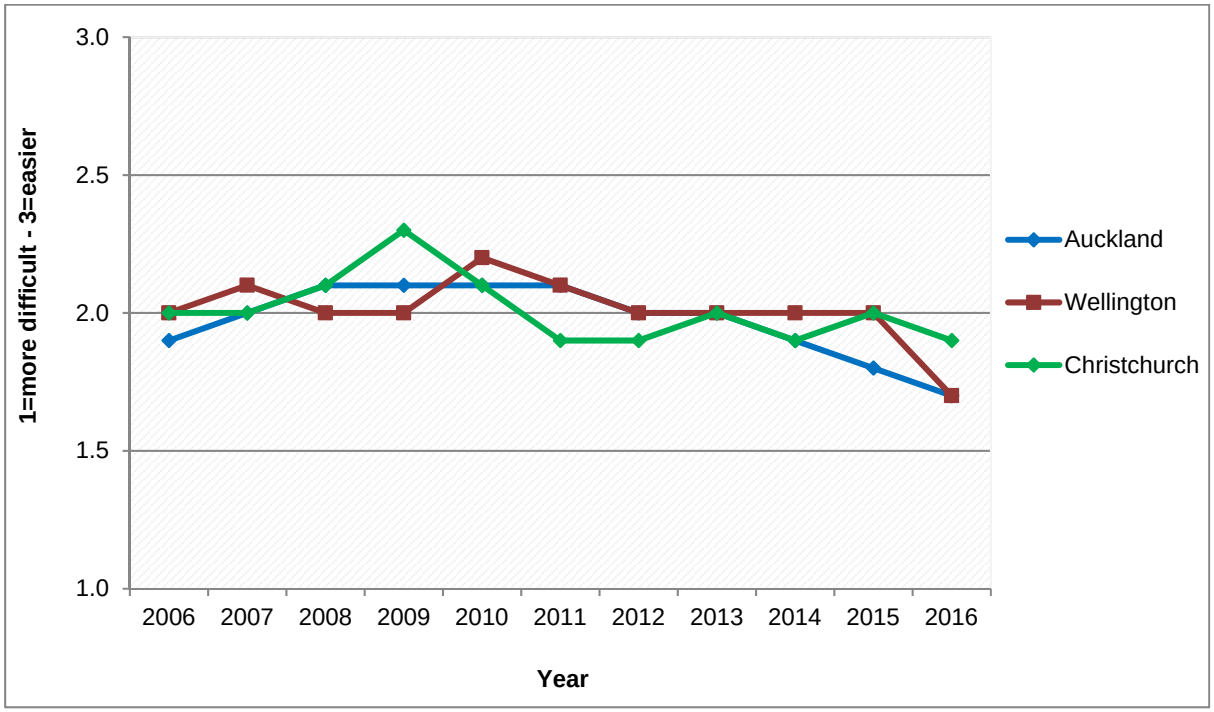
Change in availability of cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=274)	Combined modules (n=261)	Combined modules (n=318)	Combined modules (n=242)	Combined modules (n=337)	Combined modules (n=311)	Combined modules (n=279)	Combined modules (n=257)	Combined modules (n=226)	Combined modules (n=239	Combined modules (n=240)
Easier [3]	7%	11%	14%	18%	16%	16%	13%	9%	8%	7	10
Stable [2]	68%	72%	71%	66%	67%	61%	61%	70%	58%	60	42
Fluctuates [2]	16%	8%	9%	10%	11%	12%	12%	12%	19%	17	15
More difficult [1]	9%	9%	6%	5%	6%	12%	14%	10%	15%	17	34
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	1.8
Overall recent change	Stable/ fluctuates	Stable	Stable	Stable / easier	Stable / easier	Stable / easier	Stable / more difficult	Stable	Stable / fluctuates	Stable / fluctuates	Stable / more difficult

Figure 8.3 Change in availability of cannabis by combined frequent drug users, 2006-2016



The availability of cannabis was more likely to be described as declining from 2006 to 2016 in Christchurch (down from 2.04 to 1.90, p<0.0001), Auckland (down from 1.9 to 1.7, p<0.0001) and Wellington (down from 2.0 to 1.7, p=0.0010) (Figure 8.4). The availability of cannabis also declined in Wellington from 2015 to 2016 (down from 2.0 to 1.7, p=0.0039).

Figure 8.4 Change in availability of cannabis by location, 2006-2016



8.4 Price of cannabis

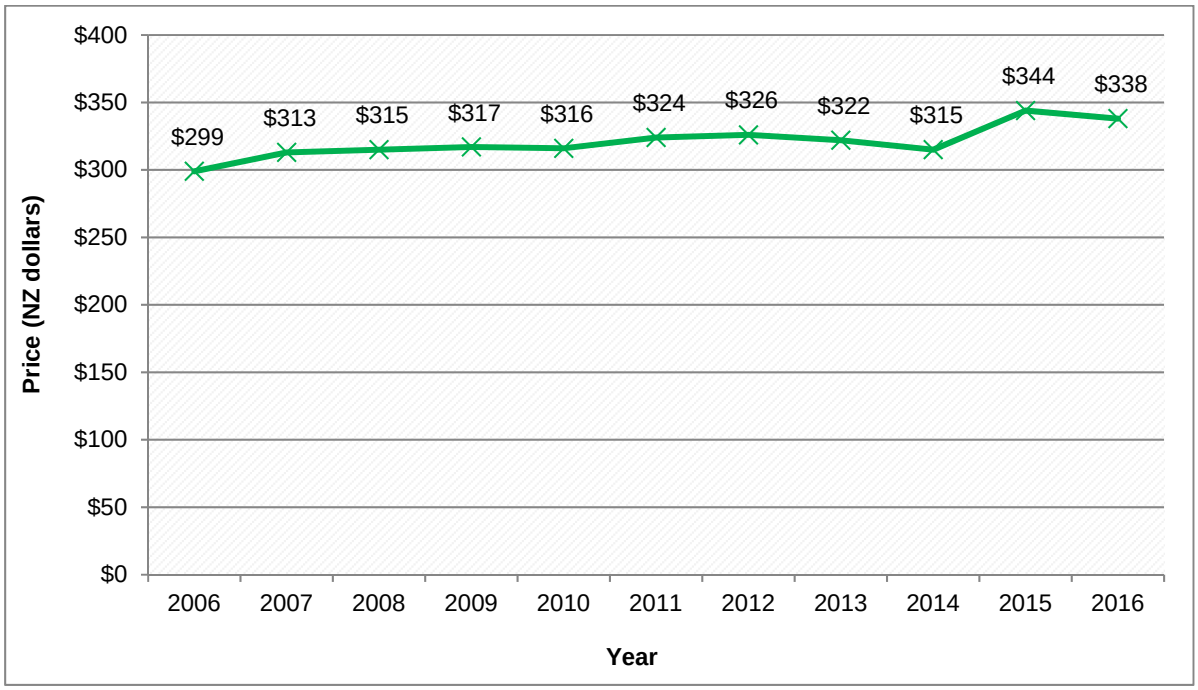
Current price of cannabis

The current median price of a 'tinny' of cannabis (approximately 1.5 grams) was $20 in 2016, and the median price of an ounce of cannabis (approximately 28 grams) was $350 in 2016 (Table 8.3). There was an increase in the mean price of an ounce of cannabis from $299 in 2006 to $338 in 2016 ($p<0.0001$) (Figure 8.5). The mean price of a pound of cannabis also increased from $3,046 in 2006 to $4,041 in 2016 ($p=0.0032$).

Table 8.3 Current price of cannabis (NZD) by combined frequent drug users, 2006-2016

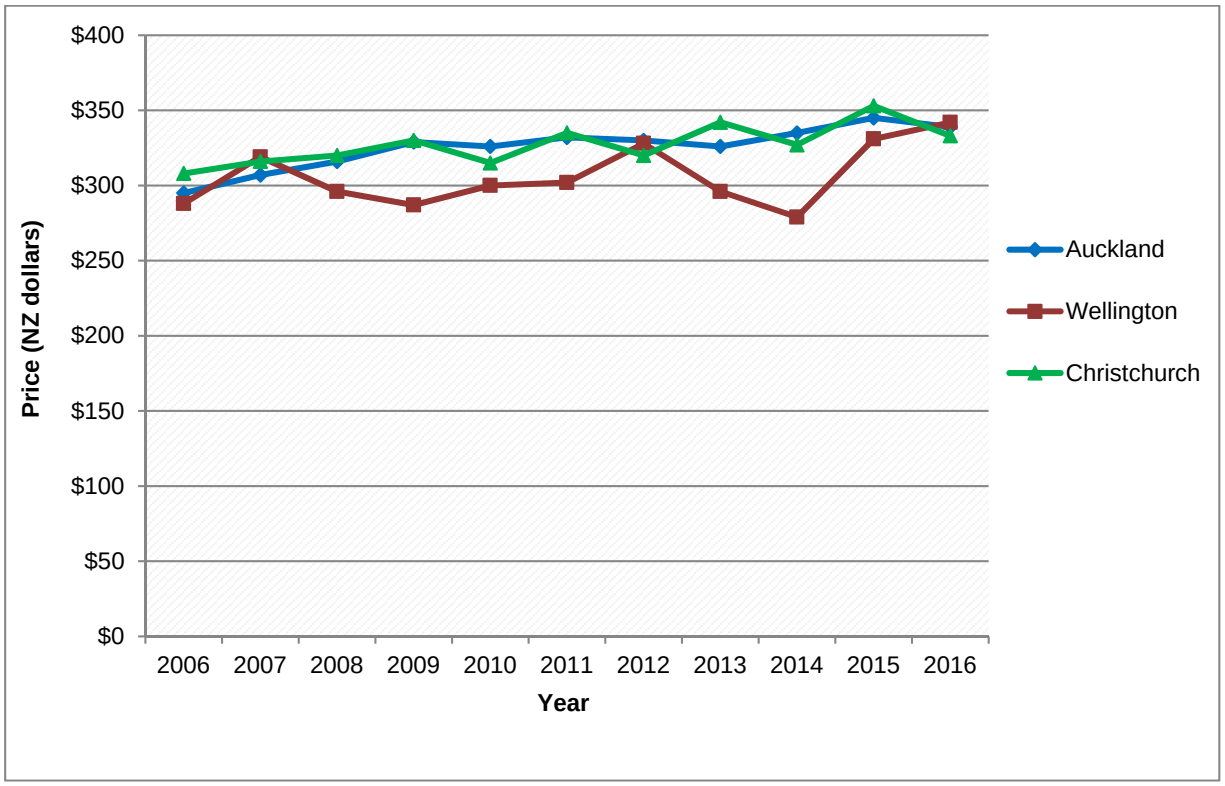
Current price of cannabis ($)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules	Combined modules
Number with knowledge	n=229	n=207	n=281	n=195	n=306	n=293	n=248	n=229	n =207	n=215	n=223
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)	$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	n=138
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)	$350 ($338)
Number with knowledge	-	-	n=33	n=24	n=26	n=36	n=40	n=30	n=36	n=32	n=48
Median (mean) price for an pound (16 ounces)	-	-	$3000 ($3046)	$3500 ($3389)	$3000 ($2832)	$3000 ($3020)	$3500 ($3587)	4000 ($4079)	$3500 ($3492)	$4000 ($3645)	$4000 ($4041)

Figure 8.5 Price of an ounce of cannabis by combined frequent drug users, 2006-2016



The mean price of an ounce of cannabis increased from 2006 to 2016 in Auckland (up from $295 in to $339, p<0.0001), Wellington (up from $288 to $342, p=0.0033) and Christchurch (up from $308 to $333, p<0.0001). However, the price of an ounce of cannabis declined in Christchurch from $353 in 2015 to $333 in 2016 (p=0.0048) (Figure 8.6).

Figure 8.6 Mean price paid for an ounce of cannabis by location, 2006-2016



Change in price of cannabis

Overall, the price of cannabis was reported to have been 'stable' in the past six months in 2016. Seventy-two percent of frequent drug users described the price of cannabis as 'stable' in 2016 (Table 8.4). The frequent drug users were more likely to describe the price of cannabis as increasing from 2006 to 2016 (up from 2.1 to 2.2, p=0.0004), and from 2015 to 2016 (up from 2.0 to 2.2, p<0.0001). The price of cannabis in Auckland was reported to be increasing from 2006 to 2016 (up from 1.9 to 2.3, p=0.0015), and from 2015 to 2016 (up from 2.0 to 2.3, p<0.0001). The price of cannabis in Wellington was also reported to be increasing from 2015 to 2016 (up from 2.1 to 2.2, p=0.0136).

Table 8.4 Change in the price of cannabis in the past six months by combined frequent drug users, 2006-2016

Change in price of cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=240)
Increasing [3]	11%	9%	8%	6%	10%	10%	9%	9%	7%	5%	23%
Fluctuating [2]	10%	4%	7%	4%	6%	8%	2%	4%	7%	7%	5%
Stable [2]	75%	82%	84%	89%	81%	81%	88%	86%	85%	86%	72%
Decreasing [1]	4%	4%	1%	1%	3%	2%	1%	2%	<1%	2%	<1%
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	2.2
Overall recent change	Stable	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 2016 (Table 8.5). There was a very small increase in the current strength of cannabis from 2006 to 2016 (up from 2.42 to 2.45, p=0.0218).

Table 8.5 Current strength of cannabis by combined frequent drug users, 2006-2016

Current strength of cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=237)
High [3]	46%	51%	49%	52%	37%	38%	48%	40%	37%	43%	48%
Medium [2]	17%	13%	21%	21%	23%	24%	26%	29%	25%	26%	26%
Fluctuates [2]	33%	33%	28%	26%	38%	35%	23%	29%	36%	25%	23%
Low [1]	4%	2%	2%	1%	2%	4%	3%	3%	2%	6%	3%
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	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	High/ medium

Change in strength of cannabis

The strength of cannabis was reported to be 'stable/fluctuating' in the previous six months in 2016 (Table 8.6). An increasing proportion of the frequent drug users described the strength of cannabis as stable from 2006 to 2016 (down from 2.13 to 2.05, p=0.0001).

Table 8.6 Change in strength of cannabis by combined frequent drug users, 2006-2016

Change in strength of cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=231)
Increasing [3]	18%	17%	14%	19%	16%	15%	14%	14%	8%	8%	12%
Stable [2]	46%	49%	45%	51%	45%	51%	61%	60%	60%	62%	59%
Fluctuating [2]	31%	30%	39%	26%	34%	30%	19%	24%	30%	24%	22%
Decreasing [1]	5%	4%	3%	4%	5%	4%	6%	2%	2%	6%	7%
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	2.1
Overall recent change	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates	Stable/ fluctuates

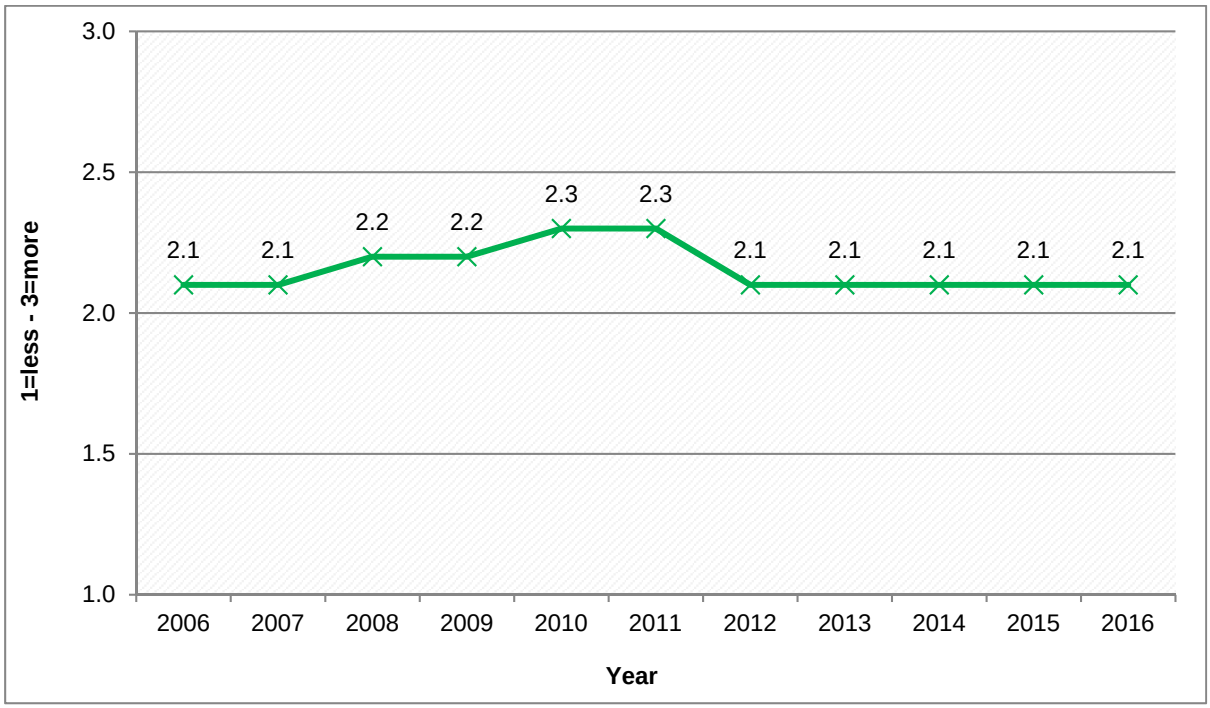
8.6 Perceptions of the number of people using cannabis

The number of people perceived to be using cannabis was reported to be the 'same/more' in the previous six months in 2016 (Table 8.7). There was no statistically significant change in perceptions of the number of people using cannabis from 2006 to 2016 (Figure 8.7).

Table 8.7 Perceptions of the number of people using cannabis by combined frequent drug users, 2006-2016

Number of people using cannabis (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=238)
More [3]	17%	22%	25%	26%	32%	35%	21%	23%	21%	23%	24%
Same [2]	73%	66%	68%	69%	61%	57%	71%	65%	70%	66%	60%
Less [1]	10%	11%	7%	4%	7%	8%	8%	12%	10%	11%	17%
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	2.1
Overall recent change	Same	Same/ more	Same/ more	Same/ more	Same/ more	Same/ more	Same	Same/ more	Same	Same/ more	Same/ more

Figure 8.7 Perceptions of the number of people using cannabis by combined frequent drug users, 2006-2016



8.7 Purchase of cannabis

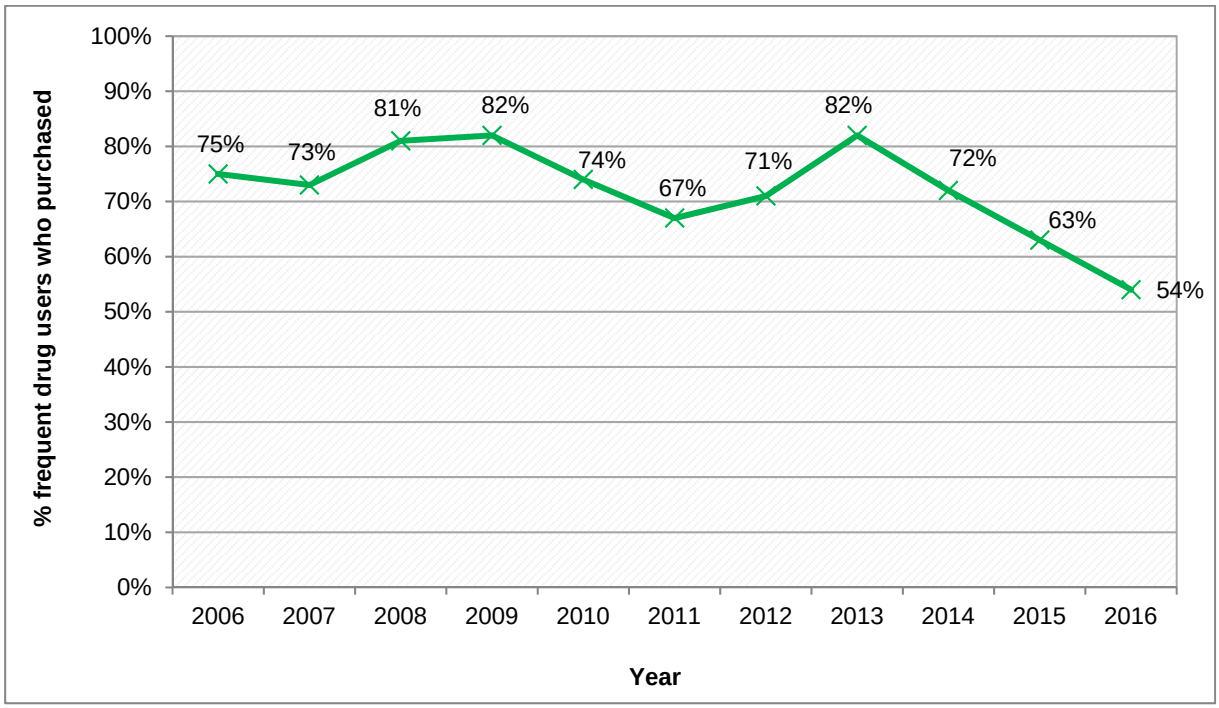
Time taken to purchase cannabis

Fifty-four percent of the frequent drug users were able to purchase cannabis in one hour or less in the past six months in 2016 (Table 8.8). The proportion of frequent drug users who could purchase cannabis in one hour or less decreased from 75% in 2006 to 54% in 2016 ($p<0.0001$) (Figure 8.8).

Table 8.8 Time taken to purchase cannabis by combined frequent drug users, 2006-2016

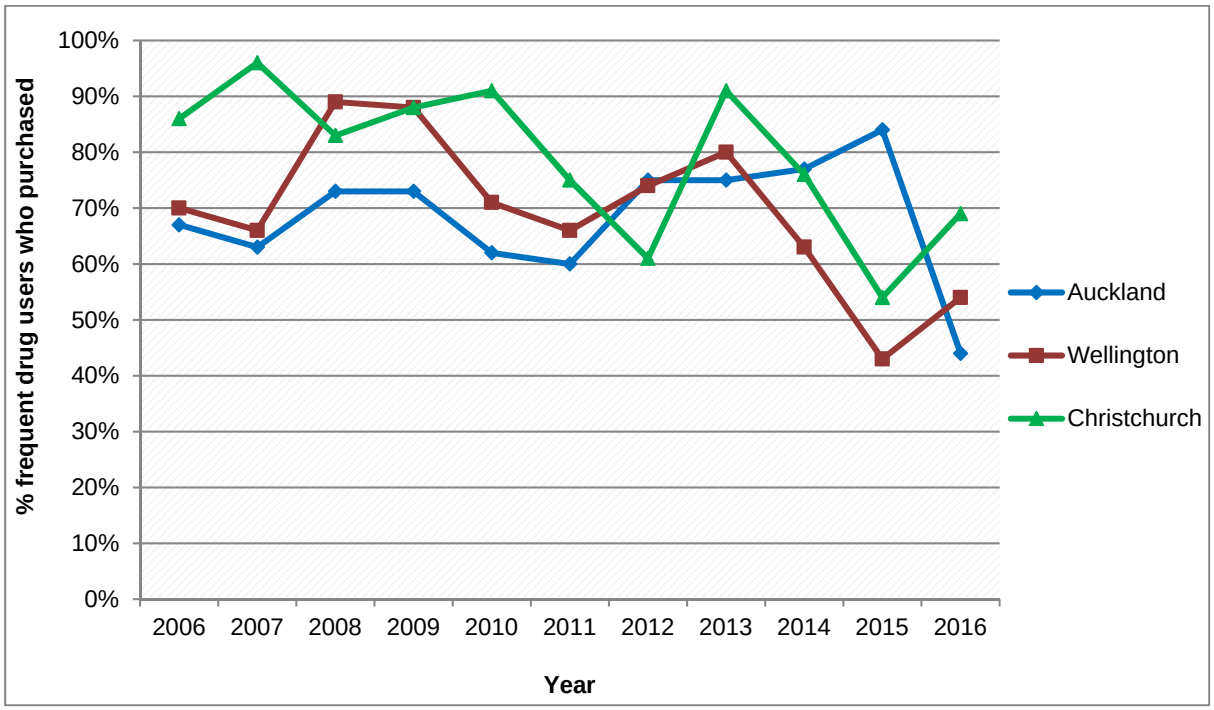
Time to purchase (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=203)	Combined modules (n=202)	Combined modules (n=283)	Combined modules (n=193)	Combined modules (n=272)	Combined modules (n=250)	Combined modules (n=227)	Combined modules (n=226)	Combined modules (n=189)	Combined modules (n=190)	Combined modules (n=191)
Months	0	0	0	0	0	0	0	0.3	0	0	0
Weeks	0	0	0	0	1	1	1	0	0	3	7
Days	4	4	1	3	2	3	5	4	4	9	8
About one day	7	6	6	8	10	12	11	6	6	9	11
Hours	14	17	11	7	14	17	13	8	17	16	20
1 Hour	30	26	28	29	19	26	25	38	36	25	26
Less than 20 mins	45	47	53	53	55	41	45	44	36	38	29

Figure 8.8 Proportion of frequent drug users who could purchase cannabis in one hour or less, 2006-2016



The proportion of frequent drug users in Christchurch who could purchase cannabis in one hour or less declined from 86% in 2006 to 69% in 2016 ($p<0.0001$) (Figure 8.9). The proportion of frequent drug users in Wellington who could purchase cannabis in one hour or less also decreased from 70% in 2006 to 54% in 2016 ($p=0.0001$). The proportion of frequent drug users from Auckland who could purchase cannabis in one hour or less decreased from 84% in 2015 to 44% in 2016 ($p<0.0001$). In 2016, the proportion of frequent drug users who could purchase cannabis in one hour or less was higher in Christchurch than in Auckland (69% vs. 44%, $p<0.0001$).

Figure 8.9 Proportion of frequent drug users who could purchase cannabis in one hour or less by location, 2006-2016



Location of purchase of cannabis

In 2016, 90% of the frequent drug users had purchased cannabis from a 'private house', 50% from an 'agreed public location', 43% from a 'tinny house', and 32% from 'public area like a park' (Table 8.9). A higher proportion of the frequent drug users purchased cannabis from an 'agreed public location' (up from 29% in 2009 to 50% in 2016, $p<0.0001$), a 'public area like a park' (up from 13% in 2009 to 32% in 2016, $p<0.0001$), an 'educational institute' (up from 2% in 2009 to 8% in 2016, $p=0.0322$), a 'street drug market' (up from 12% in 2009 to 16% in 2016, $p=0.0182$) and from a 'private house' (up from 81% in 2015 to 90% in 2016, $p=0.0363$). The proportion of frequent drug users who purchased cannabis from the 'internet' increased from 1% in 2009 to 10% in 2016 ($p=0.0010$), and from 2% in 2015 to 10% in 2016 ($p=0.0111$).

Table 8 9 Location from which cannabis purchased in the past six months by combined frequent drug users, 2009-2016

Location (%)	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=194)
Private house	85	79	72	86	82	77	81	90
Agreed public location	29	29	29	38	33	36	41	50
'Tinny' house	44	51	38	46	49	51	45	43
Public area (e.g. park)	12	12	15	24	27	25	33	32
Pub/bar/club	10	12	9	14	17	12	13	17
Street drug market	12	8	13	21	13	15	16	16
Work	11	7	11	8	9	10	11	15
Internet	1	2	2	6	3	2	2	10
Educational institute	2	6	7	8	8	12	5	8

Types of sellers of cannabis

In 2016, 82% of the frequent drug users had purchased cannabis from a 'friend', 71% from a 'social acquaintance' and 67% from a 'drug dealer' (Table 8.10). A higher proportion of frequent drug users purchased cannabis from a 'gang member' (up from 19% in 2009 to 40% in 2016, $p<0.0001$), 'friend' (up from 74% in 2009 to 82% in 2016, $p=0.0396$) and from a 'social acquaintance' (up from 46% in 2009 to 71% in 2016, $p<0.0001$).

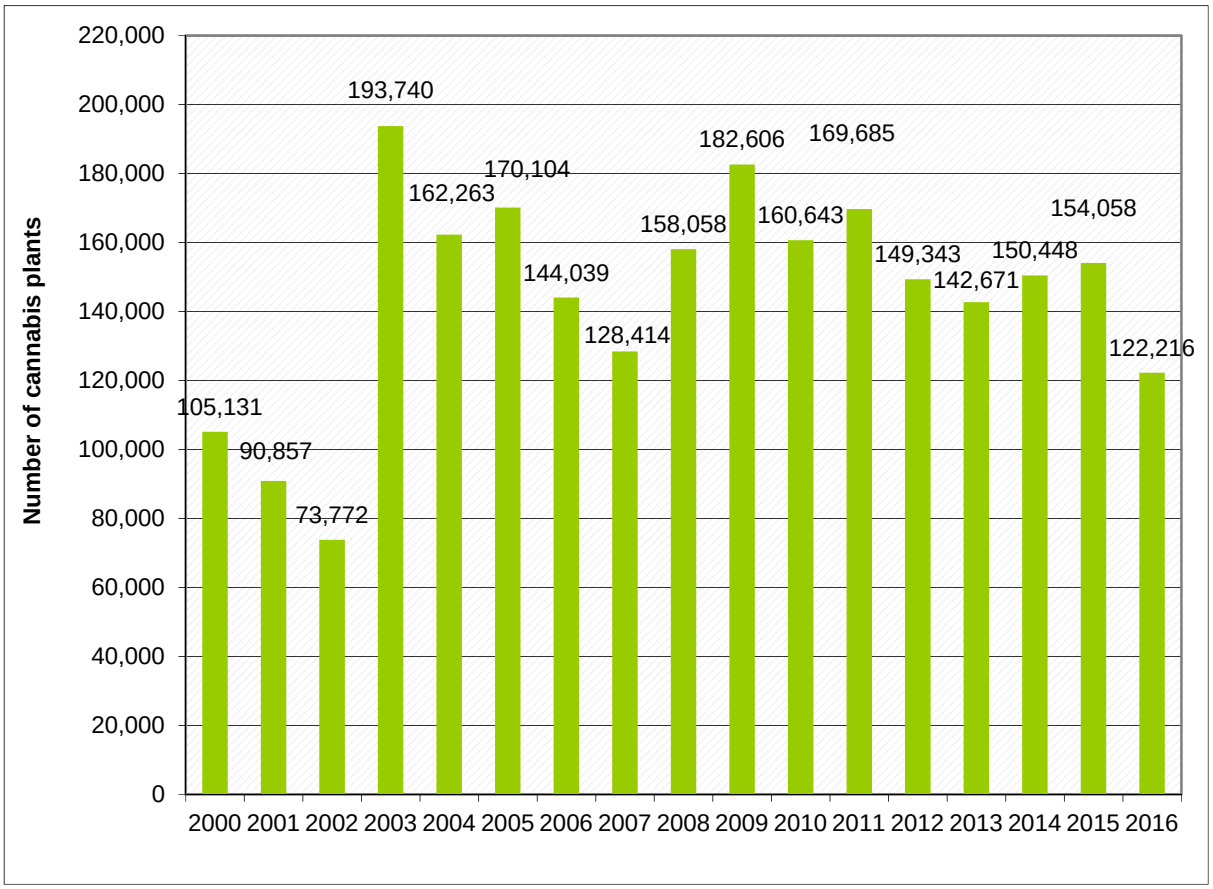
Table 8 10 People from whom cannabis purchased in the past six months by combined frequent drug users, 2009-2016

Type of person (%)	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=194)
Friend	74	73	74	79	71	75	80	82
Social acquaintance	46	54	45	55	57	56	58	71
Drug dealer	67	55	45	63	61	65	63	67
Gang member/ associate	19	25	21	27	35	34	34	40
Partner/ family member	19	23	18	22	21	13	23	30

8.8 Seizures of cannabis plants

In recent years the annual cannabis crop recovery operation has evolved into the National Cannabis Crime Operation (NCCO), with a greater focus on organised criminal groups involved in cannabis cultivation and related criminal offending. In 2016, 122,216 plants were seized as part of these operations and routine policing.

Figure 8.10 Annual number of cannabis plants destroyed in New Zealand, 2000-2016



Source: NDIB, 2017

8.9 Summary of cannabis trends

- The current availability of cannabis was reported to be 'very easy/easy' in 2016
- The current availability of cannabis declined from 2006 to 2016
- The current availability of cannabis declined in Auckland, Wellington and Christchurch from 2006 to 2016
- The change in availability of cannabis was described as 'stable/more difficult in 2016
- In 2016, 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 increased from $299 in 2006 to $338 in 2016
- The mean price of an ounce of cannabis increased in Auckland from $295 in 2006 to $339 in 2016, and in Wellington from $288 in 2006 to $342 in 2016
- Overall, the mean price of an ounce of cannabis increased in Christchurch from $308 in 2006 to $333 in 2016, but decreased from $353 in 2015 to $333 in 2016
- The current strength of cannabis was described as 'high/medium' in 2016
- Overall, there was no change in perceptions of the number of people using cannabis from 2006 to 2016, with the frequent drug users largely saying the 'same/more' people were using the drug
- The proportion of frequent drug users who could purchase cannabis in one hour or less declined from 75% in 2006 to 54% in 2016
- The proportion of frequent drug users who could purchase cannabis in hour or less declined in Wellington (from 70% in 2006 to 54% in 2016), Christchurch (down from 86% in 2006 to 69% in 2016) and Auckland (down from 84% in 2015 to 44% in 2016)
- An increasing proportion of the frequent drug users had purchased cannabis from an 'agreed public location' (up from 29% in 2009 to 50% in 2016), a 'public area like a park' (up from 13% in 2009 to 32% in 2016), an 'educational institute' (up from 2% in 2009 to 8% in 2016), a 'street drug market' (up from 12% in 2009 to 16% in 2016), a 'private house' (up from 81% in 2015 to 90% in 2016) and from the 'internet' (up from 1% in 2009 to 10% in 2016)
- There was an increase in the proportion of frequent drug users who purchased cannabis from a 'gang member' (up from 19% in 2009 to 40% in 2016), a 'friend' (up from 74% in 2009 to 82% in 2016) and from a 'social acquaintance' (up from 46% in 2009 to 71% in 2016)

9. Synthetic Cannabinoids

9.1 Introduction

Synthetic cannabinoids are among the most widely used new psychoactive substances (NPS) around the world, including in New Zealand and Australia (EMCDDA, 2017; Munro & Wilkins, 2014; UNODC, 2017; Wilkins, et al., 2015). Synthetic cannabinoids are typically smokable products consisting of plant matter which has been infused with a synthetic cannabinoid compound. They are often sold as "legal alternatives" to natural cannabis although they are increasingly prohibited under national laws, and have diverse adverse effects which are different from natural cannabis, depending on the synthetic cannabinoid in question (UNODC, 2015a, 2017). There are dozens of synthetic cannabinoid compounds many of which are many times more potent than the THC found in natural cannabis (UNODC, 2017). The use of synthetic cannabinoids has been associated with vomiting, agitation, seizures, psychotic episodes and acute overdose (Every-Palmer, 2010; Schep, 2016; Wilkins, et al., 2015).

The passage of the *Psychoactive Substances Act 2013* (PSA) established a legal regulated market for 'low risk' psychoactive products ("legal highs") in New Zealand (Wilkins, 2014a). Under the interim PSA regime, the number of psychoactive 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 PSA market was brought to an abrupt halt in May 2014, following public concerns about the health risks of products and social disruption around outlets, effectively prohibiting all "legal high" products (Ministry of Health, 2014). 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 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.

9.2 Knowledge of synthetic cannabinoids trends

Eighteen percent of the frequent drug users interviewed for the 2016 IDMS (n=34) indicated they felt confident enough to comment on the price, strength and availability of synthetic cannabinoids in the previous six months.

9.3 Availability of synthetic cannabinoids

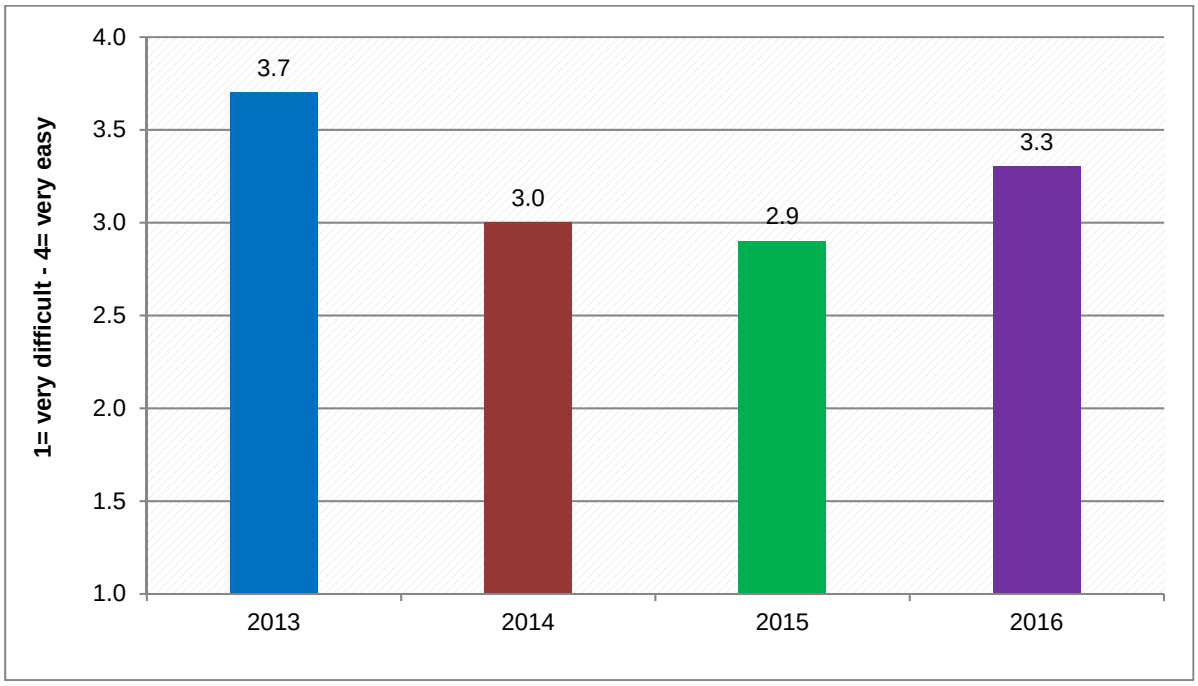
Current availability of synthetic cannabinoids

The frequent drug users described the current availability of synthetic cannabinoids as 'easy/very easy' in 2016 (Table 9.1). Overall, the current availability of synthetic cannabinoids declined from 2013 to 2016 (down from 3.7 to 3.3, p=0.0018) (Figure 9.1).

Table 9.8 Current availability of synthetic cannabinoids, 2013-2016

Current availability (%)	2013 (n=67)	2014 (n=29)	2015 (n=32)	2016 (n=53)
Very easy [4]	73%	36%	38%	41%
Easy [3]	20%	38%	28%	47%
Difficult [2]	7%	20%	25%	12%
Very difficult [1]	0%	6%	9%	0%
Average availability score (1=very difficult - 4=very easy)	3.7	3.0	2.9	3.3
Overall recent change	Stable	Easy/very easy	Very easy/easy	Easy/very easy

Figure 9.1 Mean score of the current availability of synthetic cannabinoids, 2013-2016



Change in availability of synthetic cannabinoids

The availability of synthetic cannabinoids was reported to have been 'stable/easier' over the previous six months in 2016. There was no statistically significant difference in the change in the availability of synthetic cannabinoids from 2013 to 2016.

Table 9.2 Change in availability of synthetic cannabinoids by location, 2013-2016

Change in availability (%)	2013 (n=65)	2014 (n=29)	2015 (n=30)	2016 (n=50)
Easier [3]	9%	11%	16%	31%
Stable [2]	70%	29%	56%	44%
Fluctuates [2]	2%	3%	3%	1%
More difficult [1]	19%	57%	26%	24%
Average change in availability score (1=more difficult – 3=easier)	1.9	1.5	1.9	2.1
Overall recent change	Stable	More difficult/ stable	Stable/ more difficult	Stable / easier

9.4 Price of synthetic cannabinoids

Change in price of synthetic cannabinoids

The price of synthetic cannabinoids was reported to have been 'stable' over the past six months in 2016 (Table 9.3). Seventy-one percent of the frequent drug users described the price as 'stable'. There was no statistically significant difference in the change in price of synthetic cannabinoids from 2013 to 2016.

Table 9.3 Change in the price of synthetic cannabinoids, 2013-2016

Change in price (%)	2013 (n=59)	2014 (n=26)	2015 (n=23)	2016 (n=46)
Increasing [3]	31%	53%	42%	21%
Fluctuating [2]	6%	7%	0%	4%
Stable [2]	50%	27%	50%	71%
Decreasing [1]	13%	13%	8%	3%
Average change in price score (1=decreasing – 3=increasing)	2.2	2.4	2.3	2.2
Overall recent change	Stable/ increasing	Increasing/ stable	Stable/ increasing	Stable

9.5 Strength of synthetic cannabinoids

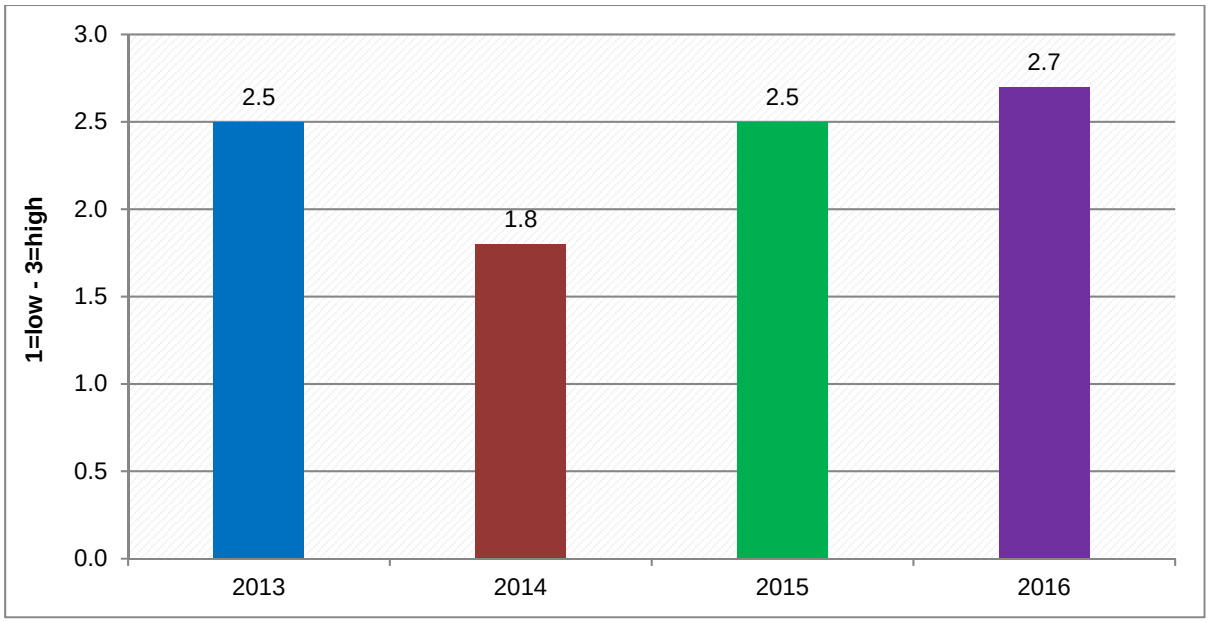
Current strength of synthetic cannabinoids

In 2016, 72% of frequent drug users described the current strength of synthetic cannabinoids as 'high' (Table 9.4). There was an increase in the current strength of synthetic cannabinoids from 2013 to 2016 (up from 2.5 to 2.7, p=0.0320) (Figure 9.2).

Table 9.4 Current strength of synthetic cannabinoids, 2013-2016

Current strength (%)	2013 (n=65)	2014 (n=28)	2015 (n=33)	2016 (n=53)
High [3]	57%	14%	59%	72%
Medium [2]	23%	37%	25%	15%
Fluctuates [2]	8%	16%	7%	12%
Low [1]	12%	33%	10%	1%
Average strength score (1=low – 3=high)	2.5	1.8	2.5	2.7
Overall current status	High/ medium	Medium/low	High/ medium	High

Figure 9.2 Mean score of the current strength of synthetic cannabinoids, 2013-2016



Change in strength of synthetic cannabinoids

The strength of synthetic cannabinoids was reported to be 'stable/increasing' in the previous six months in 2016 (Table 9.5). There was no statistically significant difference in the change in the strength of synthetic cannabinoids from 2013 to 2016.

Table 9.5 Change in strength of synthetic cannabinoids, 2013-2016

Change in strength (%)	2013 (n=62)	2014 (n=27)	2015 (n=30)	2016 (n=48)
Increasing [3]	16%	6%	22%	27%
Stable [2]	54%	16%	53%	37%
Fluctuating [2]	14%	11%	6%	25%
Decreasing [1]	16%	66%	18%	11%
Average change in strength score (1=decreasing 3=increasing)	2.0	1.4	2.0	2.2
Overall recent change	Stable/ decreasing/ increasing	Decreasing/ stable	Stable/ increasing	Stable/ increasing

9.6 Perceptions of the number of people using synthetic cannabinoids

In 2016, 39% of the frequent drug users reported that 'more' people were using synthetic cannabinoids, while conversely 36% reported that 'less' people were using synthetic cannabinoids (Table 9.6). There was no statistically significant difference in the change in the number of people using synthetic cannabinoids from 2013 to 2016.

Table 9.6 Perceptions of the number of people using synthetic cannabinoids, 2013-2016

Number of people using (%)	2013 (n=63)	2014 (n=29)	2015 (n=33)	2016 (n=53)
More [3]	45%	14%	45%	39%
Same [2]	19%	15%	15%	25%
Less [1]	36%	70%	41%	36%
Average number of people using score (1=less – 3=more)	2.1	1.4	2.0	2.0
Overall recent change	More/ less	Less	More/less	More/less

9.7 Purchase of synthetic cannabinoids

Time taken to purchase synthetic cannabinoids

Eighty-four percent of the frequent drug users were able to purchase synthetic cannabinoids in one hour or less in 2016 (Table 9.7). There was no statistically significant change in the time taken to purchase synthetic cannabinoids from 2013 to 2016.

Table 9.7 Time taken to purchase synthetic cannabinoids, 2013-2016

Time taken to purchase	2013 (n=39)	2014 (n=19)	2015 (n=16)	2016 (n=28)
Months	0	0	0	0
Weeks	0	8	0	0
Days	3	5	4	0
About one day	4	13	8	9
Hours	3	15	13	7
1 Hour	13	19	5	26
Less than 20 mins	78	42	71	58

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 2016. The proportion who purchased synthetic cannabinoids from a 'legal shop' decreased from 91% in 2013 to 20% in 2016 ($p<0.0001$) (Table 9.8). However, there were sharp increases in the proportion of frequent drug users who now purchased synthetic cannabinoids from a range of semi-public black market locations, such as a 'tinny house' (up from 2% in 2013 to 53% in 2016, $p<0.0001$), 'public area like a park' (up from 2% in 2013 to 21% in 2016, $p=0.0133$), 'street drug market' (up from 0% in 2013 to 30% in 2016, $p=0.0008$), 'agreed public location' (up from 0% in 2014 to 25% in 2016, $p=0.0006$) and from the 'internet' (up from 0% in 2014 to 35% in 2016, $p=0.0035$).

Table 9.8 Location from which synthetic cannabinoids were purchased in the past six months, 2013-2016

Location of purchase (%)	2013 (n=41)	2014 (n=16)	2015 (n=16)	2016 (n=28)
'Tinny' house	2	9	17	53
Private house	9	23	25	47
Internet	0	0	8	35
Street drug market	0	26	32	30
Agreed public location	0	0	36	25
Public area (e.g. park)	2	26	30	21
Legal shop	91	63	47	20
Pub/bar/club	0	0	30	14
Work	0	0	8	4
Educational institute	0	0	0	0

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 2016. The proportion who had purchased synthetic cannabinoids from a 'legal retailer' decreased from 94% in 2013 to 25% in 2016 ($p<0.0001$) (Table 9.9). Conversely, there were sharp increases in the proportions of synthetic cannabinoids purchased from a 'friend' (up from 6% in 2013 to 44% in 2016, $p<0.0001$), 'social acquaintance' (up from 6% in 2013 to 39% in 2016, $p<0.0001$), 'drug dealer' (up from 6% in 2013 to 58% in 2016, $p<0.0001$) and 'gang member or gang associate' (up from 0% in 2013 to 56% in 2016, $p<0.0001$).

Table 9.9 People from whom synthetic cannabinoids were purchased in the past six months, 2013-2016

Type of person (%)	2013 (n=41)	2014 (n=13)	2015 (n=17)	2016 (n=28)
Drug dealer	6	7	41	58
Gang member/gang associate	0	7	32	56
Friend	6	7	32	44
Social acquaintance	6	7	50	39
Legal retailer	94	71	46	25
Partner/family member	0	0	15	14

9.8 Summary of synthetic cannabinoid trends

- The interim PSA regime was ended in May 2014, effectively making all psychoactive products illegal
- Overall, the current availability of synthetic cannabinoids declined from 2013 to 2016
- In 2016, 72% of frequent drug users described the current strength of synthetic cannabinoids as 'high'
- The current strength of synthetic cannabinoids increased from 2013 to 2016
- In 2016, 39% of the frequent drug users reported that 'more' people were using synthetic cannabinoids compared to the previous six months
- The proportion of frequent drug users who purchased synthetic cannabinoids from a 'legal shop' decreased from 91% in 2013 to 20% in 2016
- There were increases in the proportions of frequent drug users who had purchased synthetic cannabinoids from a range of semi-public black market locations, such as a 'tinny house', a 'public area like a park' and 'street drug market'
- The proportion of frequent drug users who purchased synthetic cannabinoids from the 'internet' increased from 0% in 2014 to 35% in 2016
- The proportion of frequent drug users who purchased synthetic cannabinoids from a 'legal retailer' decreased from 94% in 2013 to 25% in 2016
- Conversely, there were sharp increases in the proportions who purchased synthetic cannabinoids from a 'friend', 'social acquaintance', 'drug dealer' and 'gang member/associate'

10. LSD

10.1 Introduction

Lysergic acid diethylamide or LSD is a hallucinogen which is taken in minute amounts dissolved into everyday materials, such as small pieces of blotting paper (known as 'tabs'). In recent years a number of new hallucinogens have emerged which are often sold as LSD, including the NBOMe family of compounds (e.g. 25I-NBOMe, 25C-NBOMe) (EMCDDA, 2015; UNODC, 2015b). NBOMe compounds are many times more potent than LSD (i.e. active in sub-milligram doses), and consequently it is much easier to unintentionally overdose due to user or manufacturer miscalculation (EMCDDA, 2015; EMCDDA & Europol, 2013). Users of NBOMe have reported severe agitation and confusion, including auditory and visual hallucinations, aggression and violent episodes (EMCDDA, 2014). NBOMe and other hallucinogens are available from encrypted 'dark websites' (EMCDDA, 2014), and this may be facilitating availability in Australia and New Zealand (Van Buskirk, et al., 2015). There were more than 220 seizures of LSD/NBOMes in New Zealand in 2014, involving close to 27,000 tabs (Dunne, 2015). The 2012 IDMS provided early indications of the emergence of NBOMes (Wilkins, et al., 2013; Wilkins, et al., 2014). As a result, the IDMS interview section on the LSD market was expanded to include 'LSD and *other synthetic psychedelics*'.

10.2 Knowledge of LSD and other synthetic psychedelics trends

Thirty-one percent of the frequent drug users interviewed for the 2016 IDMS (n=77) indicated they felt confident enough to comment on the price, purity and availability of LSD and other psychedelics in the previous six months. This figure comprised 52% of the frequent ecstasy users (n=35), 23% of the frequent methamphetamine users (n=34) and 9% of the frequent injecting drug users (n=8).

10.3 Availability of LSD and other synthetic psychedelics

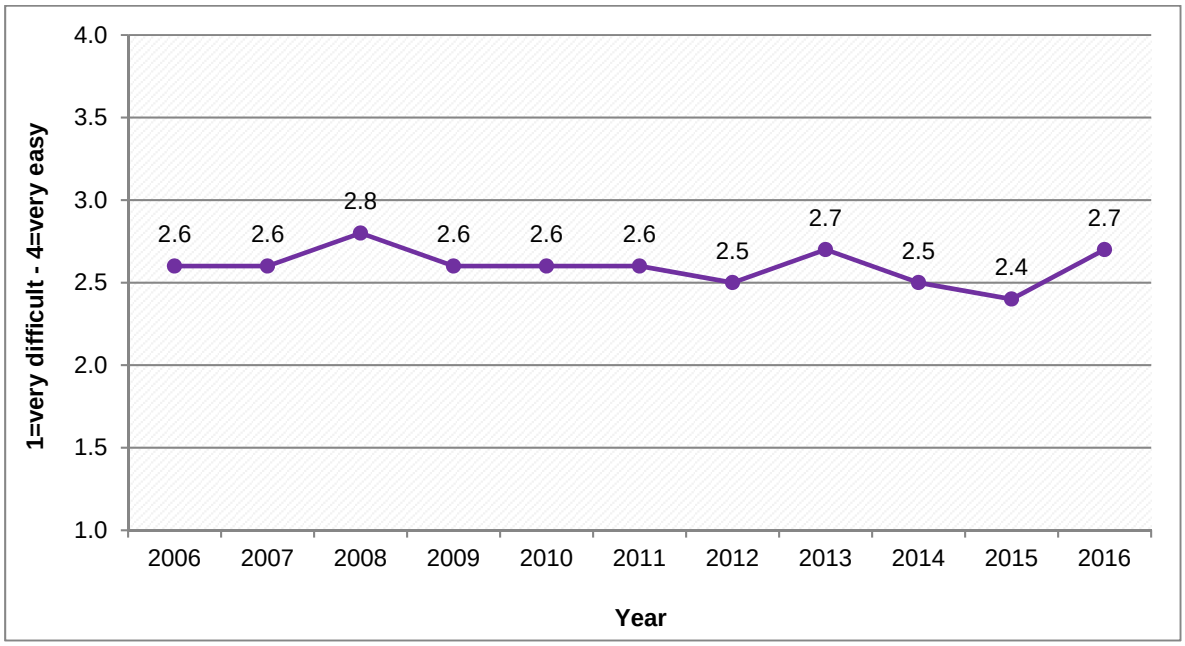
Current availability

The frequent drug users reported the current availability of LSD was 'easy/difficult' in 2016 (Table 10.1). The frequent drug users reported an increase in the availability of LSD from 2015 to 2016 (up from 2.4 to 2.7), and this increase was very close to being statistically significant (p=0.0523).

Table 10.1 Current availability of LSD by combined frequent drug users, 2006-2016

Current availability of LSD (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=124)	Combined modules (n=102)	Combined modules (n=111)	Combined modules (n=97)	Combined modules (n=113)	Combined modules (n=93)	Combined modules (n=96)	Combined modules (n=88)	Combined modules (n=78)	Combined modules (n=74)	Combined modules (n=75)
Very easy [4]	9%	16%	19%	9%	12%	10%	13%	19%	6%	11%	11%
Easy [3]	46%	34%	48%	49%	43%	39%	33%	35%	42%	28%	49%
Difficult [2]	38%	42%	32%	36%	36%	48%	48%	43%	43%	54%	36%
Very difficult [1]	7%	8%	2%	7%	9%	2%	6%	3%	9%	7%	3%
Average availability score (1=very difficult – 4=very easy)	2.6	2.6	2.8	2.6	2.6	2.6	2.5	2.7	2.5	2.4	2.7
Overall current status	Easy/ difficult	Difficult/ easy	Easy/ difficult	Easy/ difficult	Easy/ difficult	Difficult/ easy	Difficult/ easy	Difficult/ easy	Difficult/ easy	Difficult/ easy	Easy/ difficult

Figure 10.1 Mean score of the current availability of LSD by combined frequent drug users, 2006-2016



Change in availability

The frequent drug users described the availability of LSD as 'stable/easier' over the previous six months in 2016 (Table 10.2). There was no statistically significant trend for change in the availability of LSD from 2006 to 2016.

Table 10.2 Change in availability of LSD by combined frequent drug users, 2006-2016

Change in availability of LSD (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=119)	Combined modules (n=96)	Combined modules (n=107)	Combined modules (n=90)	Combined modules (n=110)	Combined modules (n=94)	Combined modules (n=96)	Combined modules (n=81)	Combined modules (n=72)	Combined modules (n=67)	Combined modules (n=69)
Easier [3]	16%	20%	17%	24%	12%	17%	13%	17%	16%	18%	22%
Stable [2]	33%	41%	53%	41%	35%	45%	37%	52%	48%	51%	59%
Fluctuates [2]	32%	20%	20%	12%	25%	21%	27%	13%	18%	14%	7%
More difficult [1]	19%	20%	10%	23%	29%	18%	24%	19%	18%	16%	10%
Average change in availability score (1=more difficult – 3=easier)	2.0	2.0	2.1	2.0	1.8	2.0	1.9	2.0	2.0	2.0	2.1
Overall recent change	Stable/ fluctuates	Stable/ easier	Stable/ fluctuates	Stable/ easier	Stable/ more difficult	Stable/ fluctuates	Stable/ fluctuates	Stable/ more difficult	Stable/ fluctuates / more difficult	Stable/ easier	Stable/ easier

10.4 Price of LSD and other synthetic psychedelics

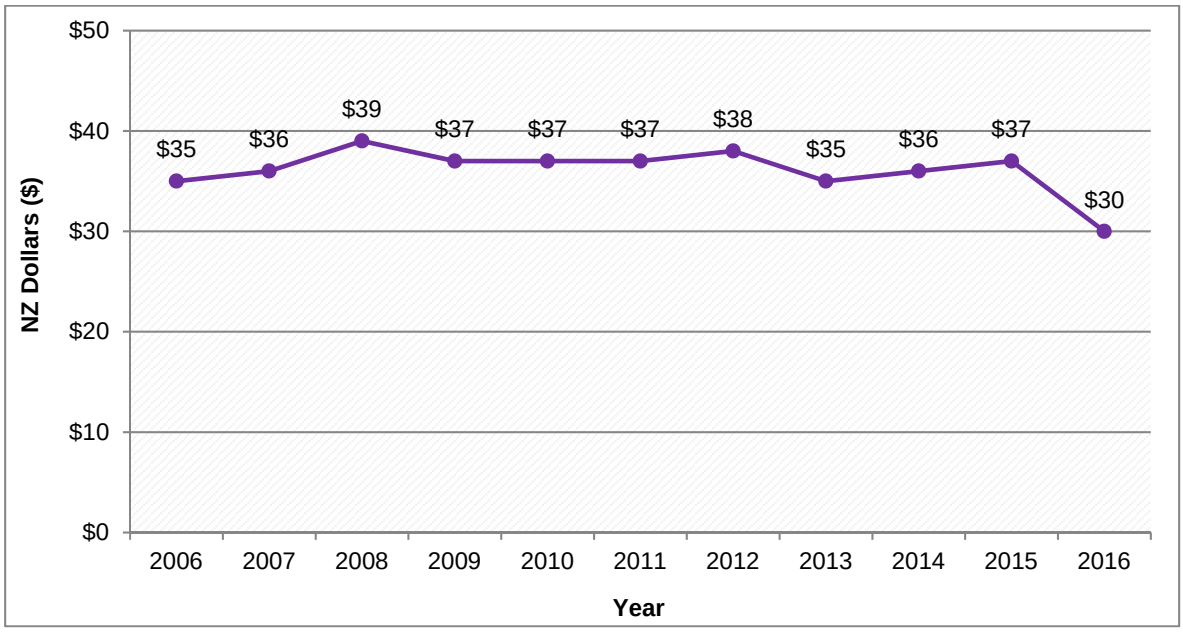
Current price

The median price of a 'tab' of LSD was $30 in 2016 (mean $30) (Table 10.3). The mean price of a 'tab' of LSD declined from $35 in 2006 to $30 in 2016 (p=0.0055) and from $37 in 2015 to $30 in 2016 (p=0.0022) (Figure 10.2).

Table 10.3 Current median (mean) price for LSD (NZD) by combined frequent drug users, 2006-2016

Current price of LSD ($)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=117)	Combined modules (n=75)	Combined modules (n=79)	Combined modules (n=77)	Combined modules (n=88)	Combined modules (n=81)	Combined modules (n=80)	Combined modules (n= 72)	Combined modules (n= 61)	Combined modules (n= 61)	Combined modules (n= 54)
Median (mean) price for a 'tab'	$35 ($35)	$40 ($36)	$40 ($39)	$40 ($37)	$40 ($37)	$40 ($37)	$40 ($38)	$40 ($35)	$35 ($36)	$40 ($37)	$30 ($30)

Figure 10.2 Mean price of a 'tab' of LSD by combined frequent drug users, 2006-2016



Change in price

The price of LSD was reported to be 'stable' over the previous six months in 2016 (Table 10.4). Seventy-two percent of the frequent drug users described the price as 'stable'. There was no statistically significant difference in the reported change in the price of LSD from 2006 to 2016.

Table 10.4 Change in the price of LSD in the past six months by combined frequent drug users, 2006-2016

Change in price of LSD (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=117)	Combined modules (n=96)	Combined modules (n=103)	Combined modules (n=88)	Combined modules (n=107)	Combined modules (n=91)	Combined modules (n=87)	Combined modules (n=80)	Combined modules (n=70)	Combined modules (n=59)	Combined modules (n=69)
Increasing [3]	11%	13%	6%	7%	13%	12%	14%	8%	5%	5%	4%
Fluctuating [2]	10%	11%	10%	13%	16%	13%	8%	12%	13%	14%	18%
Stable [2]	70%	70%	73%	71%	58%	68%	73%	72%	76%	74%	72%
Decreasing [1]	10%	6%	11%	9%	13%	7%	5%	8%	6%	7%	6%
Average change in price score (1=decreasing – 3=increasing)	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0
Overall recent change	Stable	Stable	Stable	Stable	Stable/ fluctuating	Stable/ fluctuating	Stable	Stable	Stable	Stable	Stable

10.5 Strength of LSD and other synthetic psychedelics

Current strength

The current strength of LSD was reported to be 'high/medium' in 2016 (Table 10.5).

Table 10.5 Current strength of LSD by combined frequent drug users, 2006-2016

Current strength of LSD (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=121)	Combined modules (n=92)	Combined modules (n=99)	Combined modules (n=90)	Combined modules (n=106)	Combined modules (n=84)	Combined modules (n=90)	Combined modules (n=82)	Combined modules (n=71)	Combined modules (n=69)	Combined modules (n=72)
High [3]	25%	35%	31%	38%	16%	24%	26%	31%	27%	35%	44%
Medium [2]	41%	23%	35%	33%	34%	34%	47%	33%	25%	44%	34%
Fluctuates [2]	25%	27%	27%	17%	37%	31%	21%	22%	26%	11%	16%
Low [1]	8%	16%	8%	13%	13%	11%	7%	15%	22%	10%	5%
Average purity score (1=low – 3=high)	2.2	2.2	2.2	2.3	2	2.1	2.2	2.2	2.1	2.3	2.4
Overall current status	Medium/ fluctuates	High/ fluctuates	Medium/ high	High/ medium	Fluctuates / medium	Medium/ fluctuates	Medium/ high	Medium/ high	High/ fluctuates	Medium/ high	High/ medium

Change in strength

The strength of LSD was reported to be 'stable/fluctuating' in the previous six months in 2016 (Table 10.6). Sixty-five percent of frequent drug users reported the strength of LSD as 'stable'. There was no statistically significant change in the strength of LSD from 2006 to 2016.

Table 10.6 Change in strength of LSD by combined frequent drug users, 2006-2016

Change in strength of LSD (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=109)	Combined modules (n=85)	Combined modules (n=91)	Combined modules (n=81)	Combined modules (n=95)	Combined modules (n=76)	Combined modules (n=82)	Combined modules (n=74)	Combined modules (n=62)	Combined modules (n=51)	Combined modules (n=65)
Increasing [3]	15%	15%	10%	10%	9%	9%	3%	12%	11%	4%	8%
Stable [2]	44%	38%	42%	55%	36%	24%	51%	44%	36%	60%	65%
Fluctuating [2]	29%	30%	34%	24%	37%	46%	25%	26%	26%	28%	22%
Decreasing [1]	12%	17%	13%	12%	18%	21%	21%	18%	27%	8%	6%
Average change in purity score (1=decreasing – 3=increasing)	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.9	1.8	2.0	2.0
Overall recent change	Stable/ fluctuating	Stable/ fluctuating	Stable/ fluctuating	Stable/ fluctuating	Fluctuating/ stable	Fluctuating/ stable	Stable/ fluctuating	Stable/ fluctuating	Stable/ decreasing	Stable/ fluctuating	Stable/ fluctuating

10.6 Perceptions of the number of people using LSD and other synthetic psychedelics

The number of people perceived to be using LSD in 2016 was reported to be the 'same/more' compared to six months ago. There was a statistically significant increase in the number of people perceived to be using LSD from 2006 to 2016 ($p=0.0255$), and from 2015 to 2016 ($p=0.0383$).

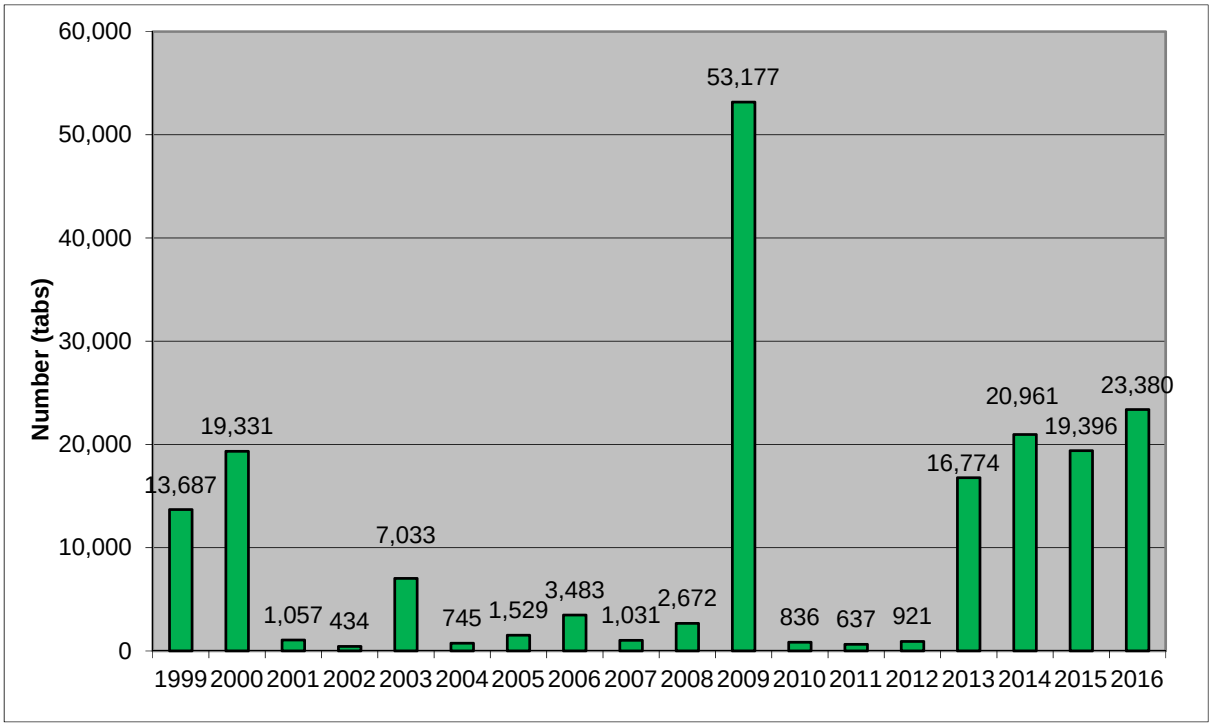
Table 10.7 Perceptions of the number of people using LSD by combined frequent drug users, 2006-2016

Number of people using LSD (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=125)	Combined modules (n=101)	Combined modules (n=111)	Combined modules (n=99)	Combined modules (n=111)	Combined modules (n=92)	Combined modules (n=93)	Combined modules (n=85)	Combined modules (n=68)	Combined modules (n=69)	Combined modules (n=73)
More [3]	22%	27%	26%	28%	30%	25%	20%	17%	34%	24%	38%
Same [2]	50%	51%	57%	55%	42%	54%	53%	66%	43%	58%	53%
Less [1]	28%	22%	17%	17%	26%	22%	27%	18%	23%	18%	9%
Average number of people using score (1=less – 3=more)	1.9	2.0	2.1	2.1	2	2	1.9	2.0	2.1	2.1	2.3
Overall recent change	Same/ less	Same/ more	Same/ more	Same /more	same/ more	same/ more	Same/ less	Same/ less	Same/ more	Same/ more	Same/ more

10.7 Seizures of LSD

LSD is a particularly difficult drug to detect as only a minute quantity is required for a typical dose. Seizures of LSD were low in New Zealand from 2001 to 2008, perhaps reflecting the emergence of ecstasy and methamphetamine (Figure 10.3). This changed dramatically in 2009 when a record 53,177 tabs were seized. This figure was largely made up of a single large seizure of 50,000 tabs in November 2009. Collating seizures of LSD has become more difficult in recent years with the emergence of new hallucinogens, such as the NBOMe compounds. As a consequence, the 2013 seizure figure included LSD and *other synthetic psychedelics* for the first time (NDIB, 2014). All subsequent years include this combined category. The total number of tabs seized in 2016 was 21% higher than the amount seized in 2015.

Figure 10.3 Number of tabs of LSD and other synthetic psychedelics seized in New Zealand, 1999-2015



Source : NDIB, 2017

10.8 Summary of LSD trends

- The current availability of LSD was reported to be ‘easy/difficult’ in 2016
- The median price of a ‘tab’ of LSD declined from $37 in 2015 to $30 in 2016
- The current strength of LSD was described as ‘high/medium’ in 2016
- The number of people perceived to be using LSD increased from 2006 to 2016
- The number of tabs of LSD and other synthetic psychedelics seized in 2016 is 21% higher than the amount seized in 2015

11. Street Morphine

11.1 Introduction

Morphine is a potent opioid analgesic which acts directly on the central nervous system and has a high dependency potential. Pharmaceutical morphine diverted from the medical system 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., 2011a). Other sources of opioids include 'homebake heroin/morphine' (i.e. morphine made by users from diverted codeine in make-shift 'kitchen' laboratories) and 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., 2013), 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). Consistent with this market recovery, the strength of street morphine increased in Christchurch in 2015 (Wilkins, et al., 2017b). There was also evidence that gangs were playing a growing part in the recovery of the opioid market. The proportion of frequent drug users from Christchurch who purchased street morphine from a 'gang member' increased from 7% in 2012 to 44% in 2015 (Wilkins, et al., 2017b).

11.2 Knowledge of street morphine

Thirty-two percent of the frequent drug users interviewed for the 2016 IDMS (n=135) indicated they felt confident enough to comment on the price, strength and availability of 'street' morphine in the previous six months. This included 83% of the frequent injecting drug users (n=95), 24% of the frequent methamphetamine users (n=35) and 7% of the frequent ecstasy users (n=5). In 2016, the majority of frequent drug users commenting on morphine trends came from Christchurch (63%, n=57) and Wellington (29%, n=26), while fairly small numbers came from Auckland (13%, n=18). The low numbers of respondents from some locations makes comparisons within sites over time problematic, and consequently we largely focus on trends in Christchurch.

11.3 Availability of street morphine

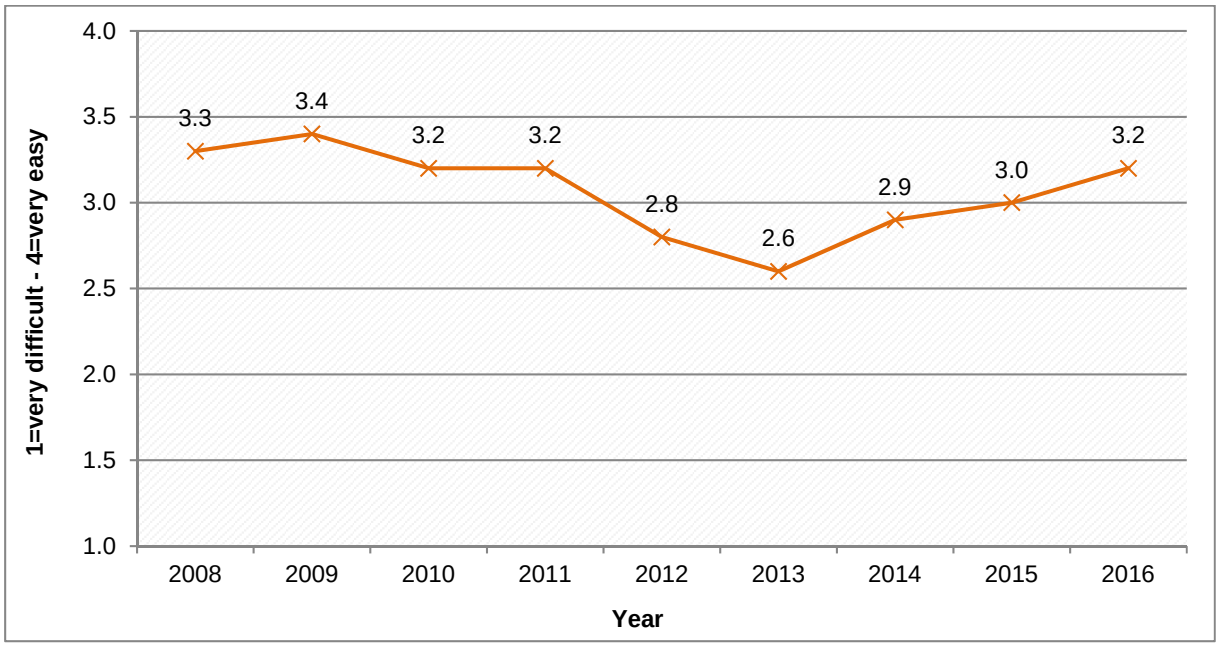
Current availability of street morphine

The frequent drug users reported the current availability of street morphine to be 'easy/very easy' in 2016 (Table 11.1). Overall, the current availability of street morphine declined slightly from 2008 to 2016 (down from 3.3 to 3.2, $p<0.0001$), but increased from 2015 to 2016 (up from 3.0 to 3.2, $p=0.0425$) (Figure 11.1).

Table 11.1 Current availability of street morphine by combined frequent drug users, 2008-2016

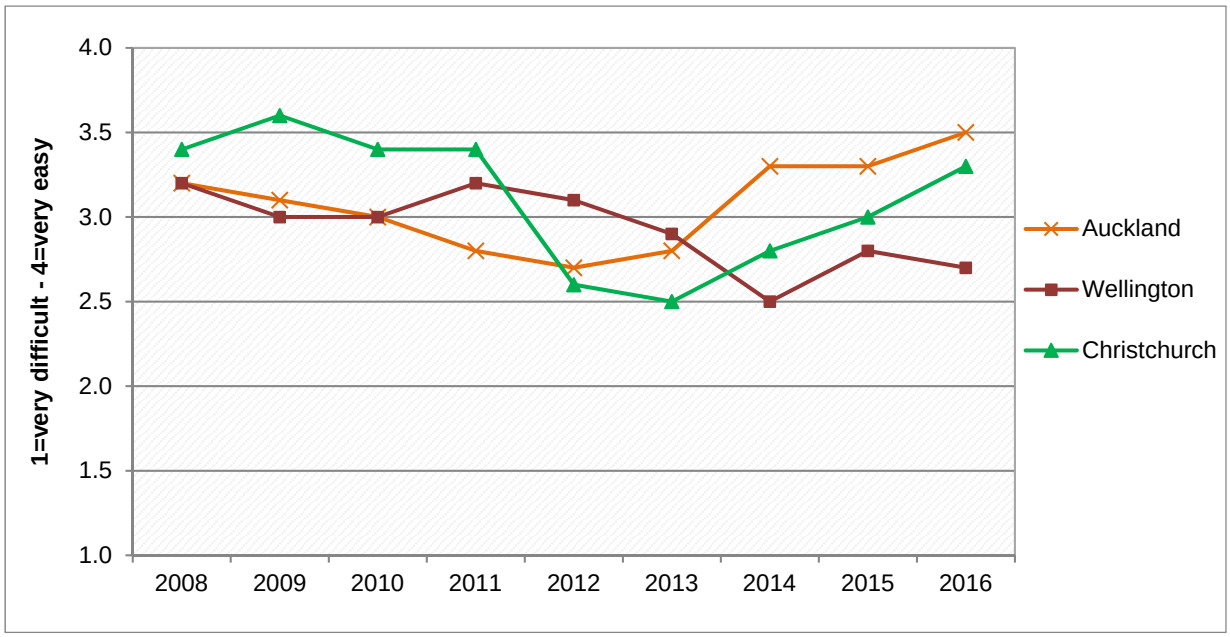
Current availability of street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=110)	Combined modules (n=108)	Combined modules (n=116)	Combined modules (n=96)	Combined modules (n=97)	Combined modules (n=95)	Combined modules (n=90)	Combined modules (n=102)	Combined modules (n=133)
Very easy [4]	40%	50%	33%	40%	23%	23%	21%	25%	36%
Easy [3]	52%	40%	54%	41%	32%	29%	48%	49%	49%
Difficult [2]	7%	9%	12%	17%	45%	35%	27%	26%	13%
Very difficult [1]	1%	1%	1%	1%	0%	13%	4%	0%	2%
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	3.2
Overall current status	Easy/ very easy	Very easy /easy	Easy/ very easy	Easy/ very easy	Difficult/ easy	Difficult/ easy	Easy/difficult	Easy/difficult	Easy/ very easy

Figure 11.1 Current availability of street morphine by combined frequent drug users, 2008-2016



Overall, the current availability of street morphine increased in Auckland from 2008 to 2016 (up from 3.2 to 3.5, p=0.0449). The current availability of street morphine in Christchurch slightly declined from 2008 to 2016 (down from 3.4 to 3.3, p<0.0001), but increased from 2015 to 2016 (up from 3.0 to 3.3, p=0.0037) (Figure 11.2). The current availability of street morphine in Wellington declined from 2008 to 2016 (down from 3.2 to 2.7, p=0.0048).

Figure 11.2 Current availability of street morphine by location, 2008-2016



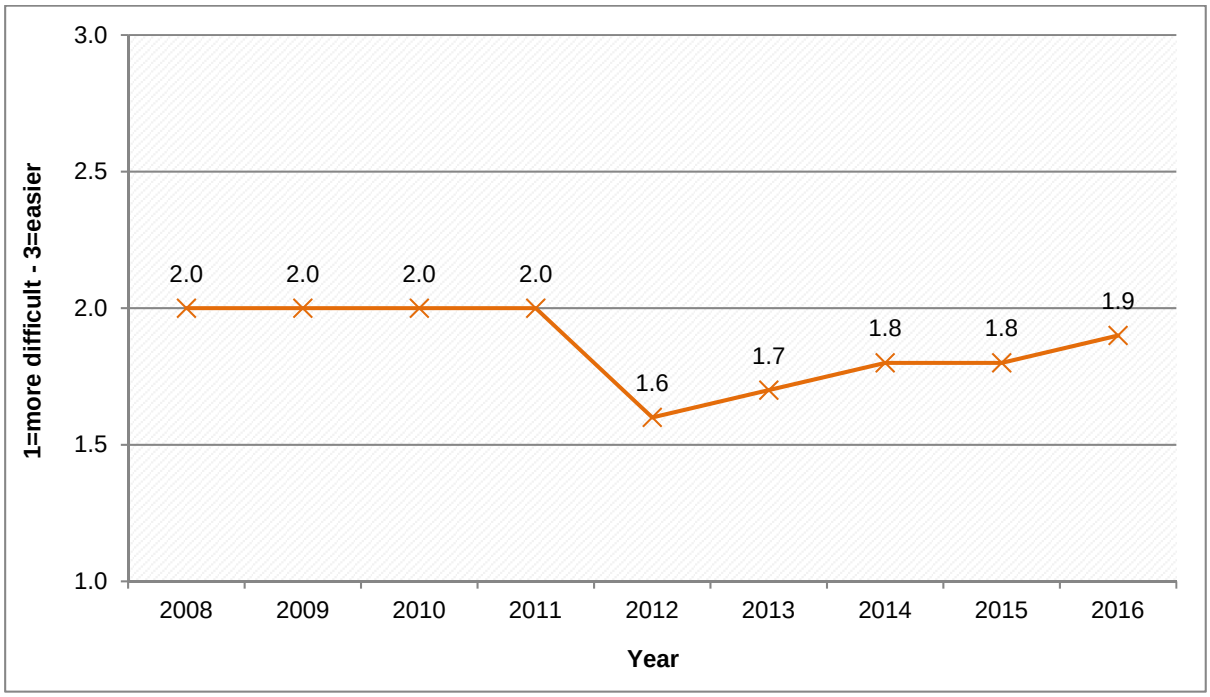
Change in availability of street morphine

The frequent drug users reported the availability of street morphine had been 'stable/more difficult' over the past six months in 2016 (Table 11.2). A greater proportion of frequent drug users reported that street morphine was 'more difficult' to obtain from 2008 to 2016 (up from 11% to 23%, $p<0.0001$) (Figure 11.3).

Table 11.2 Change in availability of street morphine by combined frequent drug users, 2008-2016

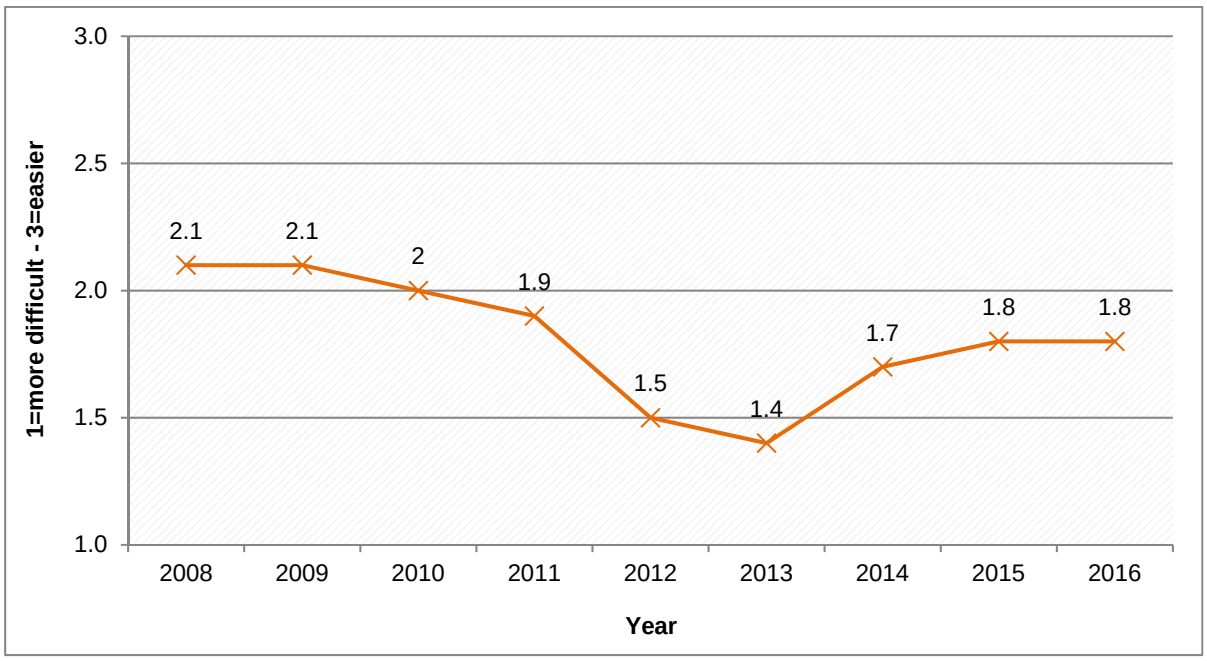
Change in availability of street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=110)	Combined modules (n=109)	Combined modules (n=113)	Combined modules (n=93)	Combined modules (n=97)	Combined modules (n=96)	Combined modules (n=89)	Combined modules (n=100)	Combined modules (n=129)
Easier [3]	13%	16%	16%	7%	1%	12%	5%	8%	12%
Stable [2]	62%	60%	53%	65%	44%	26%	43%	57%	54%
Fluctuates [2]	14%	7%	12%	16%	18%	18%	25%	11%	11%
More difficult [1]	11%	17%	19%	12%	37%	44%	27%	24%	23%
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	1.9
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	Stable/ more difficult

Figure 11.3 Change in availability of street morphine by combined frequent drug users, 2008-2016



Overall, the availability of street morphine in Christchurch had declined from 2008 to 2016 (down from 2.1 to 1.8, $p<0.0001$) (Figure 11.4). Conversely, the availability of street morphine in Wellington showed a statistically significantly increase from 2008 to 2016 (up from 1.7 to 2.0, $p=0.0238$).

Figure 11.4 Change in availability of street morphine in Christchurch, 2008-2016



11.4 Price of street morphine

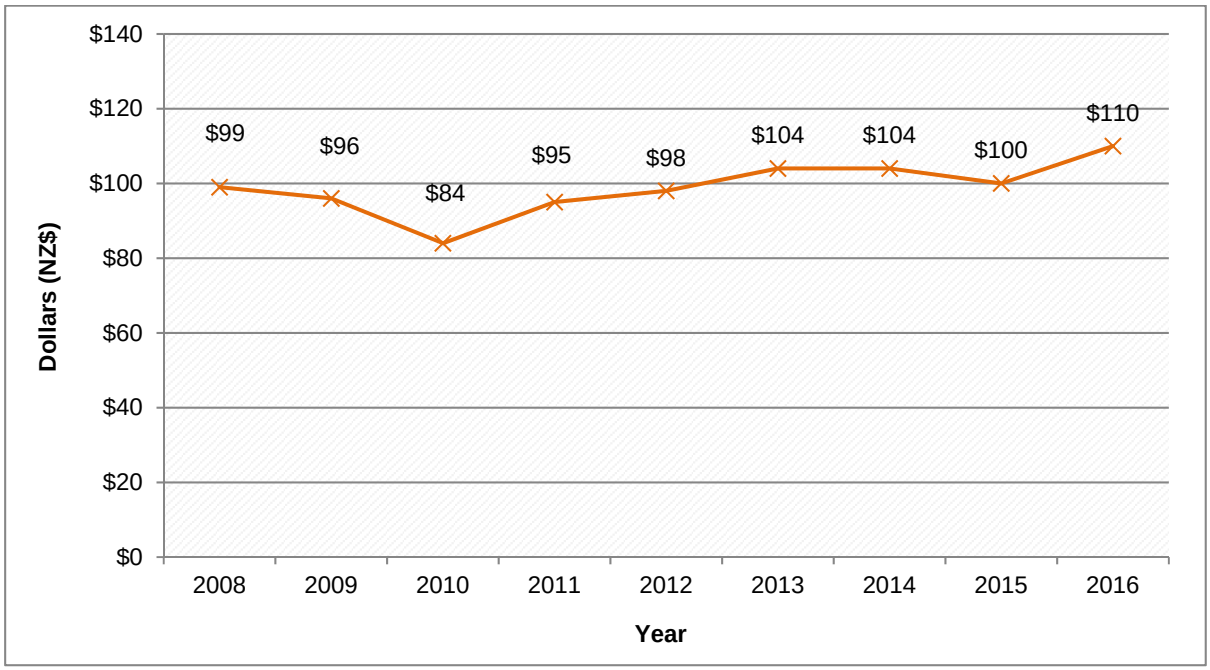
Current price of street morphine

The current median price for one milligram of street morphine was $1 (or $100 per 100 milligrams) in 2016 (Table 11.3). Overall, the mean price of 100 milligrams of street morphine increased from $99 in 2008 to $110 in 2016 ($p<0.0001$) (Figure 11.5).

Table 11.3 Current median (mean) price for street morphine (NZD) by combined frequent drug users, 2008-2016

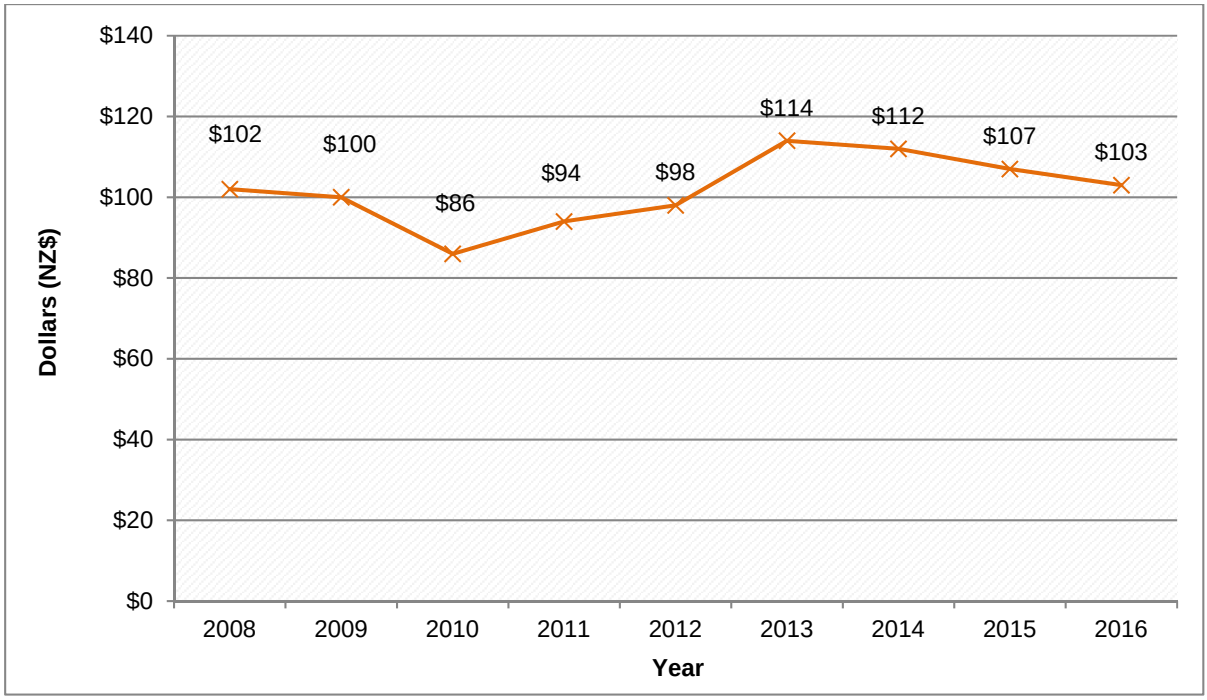
Current price of street morphine ($)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Combined modules (n=103)	Combined modules (n=109)	Combined modules (n=109)	Combined modules (n=84)	Combined modules (n=93)	Combined modules (n=87)	Combined modules (n=79)	Combined modules (n=89)	Combined modules (n=120)
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)	$1.00 ($1.10)

Figure 11.5 Current mean price paid for 100 milligrams of street morphine (NZD), 2008-2016



The price of morphine in Christchurch increased slightly from $102 in 2008 to $103 in 2016 ($p<0.0001$), but decreased from $107 in 2015 to $103 in 2016 ($p=0.0204$) (Figure 11.6). There was also an increase in the price of street morphine in Wellington, from $110 in 2008 to $118 in 2016 ($p=0.0331$).

Figure 11.6 Current mean price paid for 100 milligrams of street morphine in Christchurch (NZD), 2008-2016



Change in price of street morphine

The price of street morphine was described as 'stable' over the past six months in 2016 (Table 11.4). Eighty percent of the frequent drug users described the price of street morphine as 'stable'. Overall, a slightly higher proportion of frequent drug users thought the price of street morphine was 'increasing' from 2008 to 2016 (up from 1.9 to 2.0, $p<0.0001$).

Table 11.4 Change in the price of street morphine in the past six months by combined frequent drug users, 2008-2016

Change in price of street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=130)
Increasing [3]	2%	2%	12%	7%	30%	41%	12%	1%	6%
Fluctuating [2]	6%	4%	8%	3%	5%	14%	7%	5%	7%
Stable [2]	80%	77%	70%	80%	62%	40%	77%	93%	80%
Decreasing [1]	12%	18%	10%	8%	4%	5%	4%	2%	7%
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	2.0
Overall recent change	Stable	Stable	Stable	Stable	Stable/ increasing	Increasing/ stable	Stable	Stable	Stable

Overall, the frequent drug users in Christchurch were also more likely to describe the price as 'increasing' from 2008 to 2016 ($p<0.0001$).

11.5 Strength of street morphine

Current strength of street morphine

The current strength of street morphine was considered to be 'high/medium' in 2016 (Table 11.5). Overall, there was no statistical significantly change in the strength of street morphine in 2016 compared to previous years.

Table 11.5 Current strength of street morphine by combined frequent drug users, 2008-2016

Current strength of street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=121)
High [3]	57%	40%	44%	41%	74%	33%	25%	42%	47%
Medium [2]	29%	41%	33%	42%	21%	54%	66%	41%	32%
Fluctuates [2]	11%	9%	18%	17%	4%	13%	5%	13%	13%
Low [1]	4%	10%	5%	0%	1%	0%	4%	4%	8%
Average strength score (1=low – 3=high)	2.5	2.3	2.4	2.4	2.7	2.3	2.2	2.4	2.4
Overall current status	High/medium	Medium/high	High/medium	Medium/high	High	Medium/high	Medium/high	High/medium	High/medium

The frequent drug users also reported no change in the strength of street morphine in Christchurch from 2008 to 2016. The current strength of street morphine increased in Auckland from 2008 to 2016 (up from 2.2 to 2.6, p=0.0063), whereas the current strength of street morphine in Wellington declined from 2.9 in 2008 to 2.1 in 2016 (down from 2.9 to 2.1, p<0.0001).

Change in strength of street morphine

The strength of street morphine was reported to have been 'stable' in the past six months in 2016 (Table 11.6). Ninety-two percent described the strength as 'stable'. There was no difference in perceptions of the change in strength of street morphine from 2008 to 2016 (2.0 in all the years).

Table 11.6 Change in strength of street morphine by combined frequent drug users, 2008-2016

Change in strength of street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=130)
Increasing [3]	2%	3%	2%	2%	0%	3%	0%	3%	2%
Stable [2]	88%	89%	88%	86%	97%	91%	96%	91%	92%
Fluctuating [2]	6%	5%	8%	10%	3%	5%	4%	4%	4%
Decreasing [1]	5%	3%	3%	2%	0%	1%	0%	2%	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	2.0
Overall recent change	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable

11.6 Perceptions of the number of people using street morphine

The number of people using street morphine was reported to be the 'same/less' in 2016 (Table 11.7). There was no statistically significant change in the number of people using street morphine from 2008 to 2016. There was also no change in perceptions of the number of people using street morphine in Christchurch.

Table 11.7 Perceptions of the number of people using street morphine, 2008-2016

Number of people using street morphine (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=128)
More [3]	22%	18%	26%	29%	15%	27%	15%	19%	18%
Same [2]	59%	62%	54%	46%	61%	59%	73%	63%	60%
Less [1]	19%	19%	20%	25%	23%	14%	12%	17%	22%
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	2.0
Overall recent change	Same/more	Same/less	Same/more	Same/more	Same/less	Same/more	Same	Same/more	Same/less

11.7 Purchase of street morphine

Time taken to purchase street morphine

Seventy-five percent of the frequent drug users could purchase street morphine in one hour or less in 2016 (Table 11.8). 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 2016.

Table 11.8 Time taken to purchase street morphine by combined frequent drug users, 2008-2016

Time to purchase (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=110)
Months	0	0	1	0	0	0	0	0	0
Weeks	0	0	3	0	1	0	2	0	3
Days	2	1	2	1	6	5	0	4	2
About one day	17	4	15	6	12	2	4	3	5
Hours	14	11	14	16	15	12	18	19	15
1 Hour	38	39	20	37	30	51	47	46	39
Less than 20 mins	29	44	44	40	36	30	29	28	36

Location of purchase of street morphine

In 2016, 92% of the frequent drug users had purchased street morphine from a 'private house', 47% had purchased from an 'agreed public location', and 27% from a 'public area' such as a park (Table 11.9). There were increases in the proportion who had purchased street morphine from a 'public area like a park' (up from 11% in 2009 to 27% in 2016, $p<0.0001$) and from an 'agreed public location' (up from 22% in 2009 to 47% in 2016, $p<0.0001$). The proportion who had purchased street morphine from a 'street drug market' also increased from 2% in 2015 to 11% in 2016 ($p=0.0261$).

Table 11.9 Location from which street morphine purchased in the past six months by combined frequent drug users, 2016

Location (%)	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=111)
Private house	89	90	78	91	95	90	88	92
Agreed public location	22	27	26	25	51	55	40	47
Public area (e.g. park)	11	4	18	15	27	23	23	27
Work	0	0	1	4	7	13	12	14
Pub/bar/club	2	5	11	6	18	24	15	12
Street drug market	3	6	16	5	3	6	2	11
'Tinny' house	2	4	6	5	9	9	7	6
Educational institute	1	2	1	0	1	3	2	1
Internet	0	1	1	0	0	0	2	1

Types of sellers of street morphine

In 2016, 73% of the frequent drug users had purchased street morphine from a 'drug dealer', 72% had purchased from a 'friend', 65% had purchased from a 'social acquaintance' and 25% had purchased from a 'gang member or gang associate' (Table 11.10). 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 73% in 2016, p=0.0001), a 'friend' (up from 53% in 2009 to 72% in 2016, p=0.0176) and from 'partner or family member' (up from 3% in 2009 to 14% in 2016, p=0.0038). The proportion of frequent drug users who purchased morphine from a 'gang member or gang associate' increased from 10% in 2009 to 25% in 2016 (p<0.0001), but decreased from 41% in 2015 to 25% in 2016 (p=0.0249).

The proportion of frequent drug users from Christchurch who purchased street morphine from a 'gang member or gang associate' increased from 11% in 2009 to 41% in 2016 (p<0.0001) (Figure 11.7). There was also an increase in the proportion of frequent drug users from Christchurch who purchased morphine from 'drug dealer' (up from 64% in 2009 to 78% in 2016, p<0.0001), a 'friend' (up from 49%

in 2009 to 68% in 2016, p=0.0188), 'social acquaintance' (up from 51% in 2009 to 70% in 2016, p=0.0299) and from 'partner or family member' (up from 6% in 2009 to 19% in 2016, p=0.0024).

Figure 11.7 Proportion of frequent drug users from Christchurch who purchased street morphine from a 'gang member or gang associate' or 'drug dealer', 2009-2016

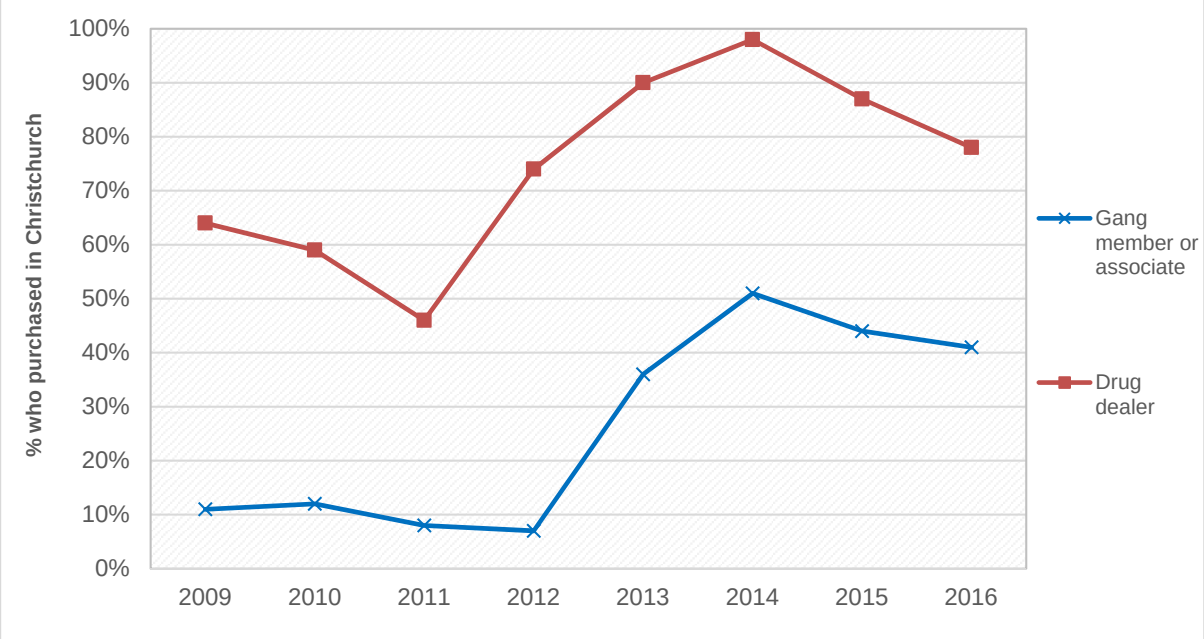


Table 11.10 People from whom street morphine was purchased in the past six months by combined frequent drug users, 2008-2016

Type of person (%)	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=111)
Drug dealer	67	57	49	75	71	87	80	73
Friend	53	57	51	56	46	57	62	72
Social acquaintance	51	42	45	49	56	25	56	65
Gang member/associate	10	13	11	10	32	38	41	25
Partner/family member	3	9	8	4	18	0	22	14

11.8 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 11.11 is a summary of the opioid products seized from 2009-2014, from 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 11.11 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

11.9 Summary of street morphine trends

- As in previous years, the majority of those commenting on the street morphine market were from Christchurch (63%, n=57)
- Overall, the current availability of street morphine was described as 'easy/very easy' in 2016
- The current availability of street morphine declined from 2008 to 2016, but increased from 2015 to 2016
- The current median price paid for street morphine was $1 per milligram (or $100 per 100 milligrams) in 2016
- The price of street morphine increased from $99 in 2008 to $110 in 2016
- The price of street morphine in Christchurch increased slightly from $102 in 2008 to $103 in 2016, but decreased from $107 in 2015 to $103 in 2016
- The current strength of street morphine was described as 'high/medium' in 2016
- Overall, the number of people using street morphine was reported to be the 'same/less' in 2016
- There were increases in the proportion of frequent drug users who had purchased street morphine from a 'public area like a park' (up from 11% in 2009 to 27% in 2016), an 'agreed public location' (up from 22% in 2009 to 47% in 2016) and from a 'street drug market' (up from 2% in 2015 to 11% in 2016)
- 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 73% in 2016), a 'friend' (up from 53% in 2009 to 72% in 2016) and from 'partner or family member' (up from 3% in 2009 to 14% in 2016)
- The proportion who purchased street morphine from a 'gang member or gang associate' showed an overall increase from 10% in 2009 to 25% in 2016, but decreased from 41% in 2015 to 25% in 2016

12. Cocaine

12.1 Introduction

Cocaine is an illegal drug commonly used in many countries around the world, including North America and Europe (EMCDDA, 2016; UNODC, 2016). Historically, cocaine use in New Zealand has been rare and thought to be largely confined to a minority affluent social milieu (Field & Casswell, 1999; NDIB, 2015; Wilkins & Sweetsur, 2008). Large seizures of cocaine have been made in New Zealand, but generally occur 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. 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, and consequently the IDMS has continued to monitor the cocaine market in New Zealand.

12.2 Knowledge of cocaine trends

Only 7% of the frequent drug users interviewed for the 2016 IDMS (n=21) indicated they felt confident enough to comment on the price, purity and availability of cocaine in the previous six months. This included 7% of the frequent methamphetamine users (n=10), 9% of the frequent ecstasy users (n=6) and 5% of the frequent injecting drug users (n=5). The low number of frequent drug users answering this section indicates the findings should be interpreted with caution.

12.3 Availability of cocaine

Current availability of cocaine

The current availability of cocaine was reported to be 'very difficult/difficult' in 2016 (Table 12.1). Forty-three 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 2016 (Figure 12.1).

Figure 12.1 Mean score of the current availability of cocaine by combined frequent drug users, 2006-2016

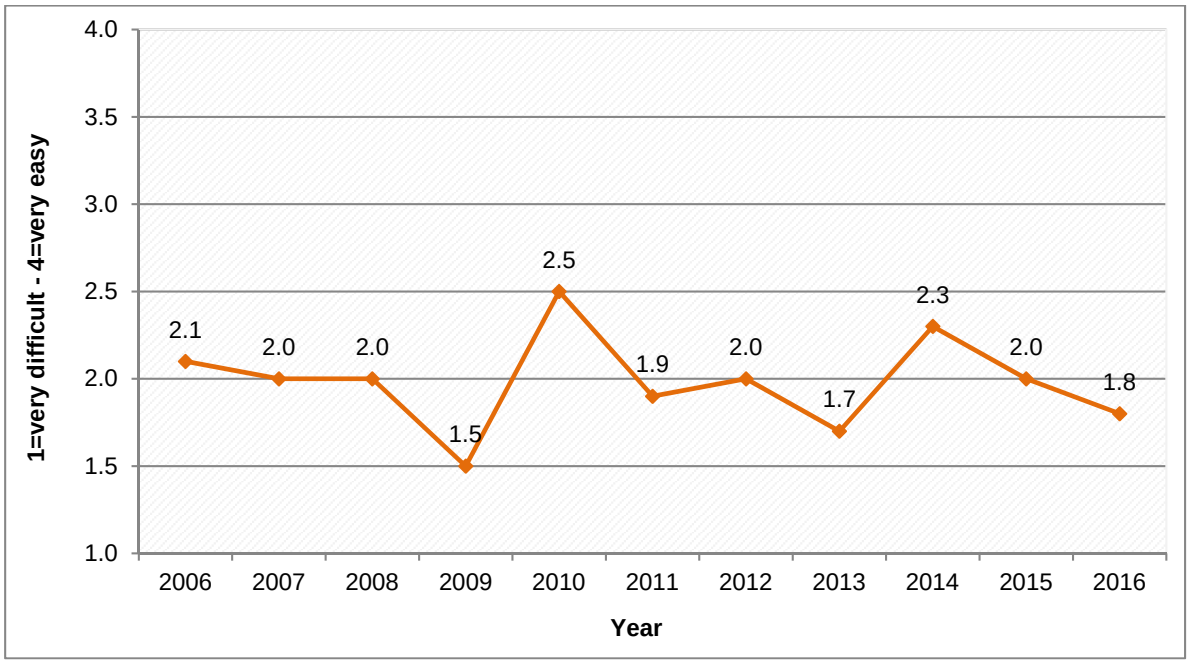


Table 12.1 Current availability of cocaine by combined frequent drug users, 2006-2016

Current availability of cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=22)
Very easy [4]	10%	3%	12%	0%	24%	0%	13%	9%	5%	18%	4%
Easy [3]	18%	16%	10%	9%	22%	16%	8%	10%	33%	8%	15%
Difficult [2]	47%	52%	42%	35%	31%	57%	40%	24%	50%	27%	38%
Very difficult [1]	25%	28%	37%	56%	23%	27%	39%	57%	12%	47%	43%
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	1.8
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	Very difficult /difficult

Change in availability of cocaine

The frequent drug users reported the availability of cocaine had been ‘stable/easier’ in the previous six months in 2016 (Table 12.2). Sixty-two 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 2016.

Table 12.2 Change in availability of cocaine by combined frequent drug users, 2006-2016

Change in availability of cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=20)
Easier [3]	7%	0%	27%	0%	21%	5%	13%	9%	29%	6%	20%
Stable [2]	56%	65%	55%	56%	38%	61%	47%	65%	31%	75%	62%
Fluctuates [2]	13%	14%	3%	12%	18%	12%	7%	14%	26%	4%	6%
More difficult [1]	23%	21%	15%	32%	22%	22%	33%	12%	14%	15%	13%
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	2.1
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	Stable/ easier

12.4 Price of cocaine

Current price of cocaine

The median price paid for a gram of cocaine in 2016 was $350 (Table 12.3). There was no statistically significant change in the price of cocaine from 2006 to 2016. The number of respondents reporting prices for cocaine has been low in recent years (i.e. 14=2013, 13=2014, 18=2015, 14=2016). Consequently these results should be treated with some caution.

Table 12.3 Current price of cocaine (NZD) by combined frequent drug users, 2006-2016

Current price of cocaine ($)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=14)
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)	$350 ($289)

Change in price of cocaine

The price of cocaine was reported to have been 'stable/increasing' over the previous six months in 2016 (Table 12.4). Sixty-nine percent of the frequent drug users described the price as 'stable'. There was no statistically significant change in the price of cocaine from 2006 to 2016.

Table 12.4 Change in the price of cocaine in the past six months by combined frequent drug users, 2006-2016

Change in price of cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=10)
Increasing [3]	8%	18%	4%	32%	18%	46%	25%	36%	0%	6%	16%
Fluctuating [2]	20%	9%	15%	12%	17%	16%	0%	6%	16%	10%	0%
Stable [2]	64%	69%	65%	50%	65%	29%	44%	58%	72%	84%	69%
Decreasing [1]	9%	4%	16%	6%	0%	9%	31%	0%	12%	0%	15%
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	2.0
Overall recent change	Stable/ fluctuating	Stable/ increasing	Stable/ decreasing	Stable/ increasing	Stable/ increasing	Increasing/ stable	Stable/ decreasing	Stable/ increasing	Stable	Stable	Stable/ increasing

12.5 Strength of cocaine

Current strength of cocaine

The current strength of cocaine was described as ‘medium/high’ in 2016 (Table 12.5). There was no statistically significant change in the purity of cocaine from 2006 to 2016.

Table 12.5 Current strength of cocaine by combined frequent drug users, 2006-2016

Current strength of cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=16)
High [3]	13%	26%	28%	24%	35%	40%	15%	24%	32%	37%	29%
Medium [2]	21%	27%	25%	24%	27%	40%	38%	28%	13%	27%	57%
Fluctuates [2]	17%	16%	25%	6%	17%	8%	4%	5%	32%	8%	0%
Low [1]	49%	31%	23%	46%	21%	12%	42%	43%	23%	28%	14%
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	2.2
Overall current status	Low/ medium	Low/ medium	High/ medium	Low/ medium	High/ medium	High/ medium	Low/ medium	Low/ medium	Fluctuates/ high	High/ low	Medium / high

Change in strength of cocaine

The strength of cocaine was described as ‘stable/fluctuating’ in the previous six months in 2016 (Table 12.6). There was no statistically significant difference for the change in strength of cocaine from 2006 to 2016.

Table 12.6 Change in strength of cocaine by combined frequent drug users, 2006-2016

Change in strength of cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=13)
Increasing [3]	5%	4%	18%	7%	9%	3%	14%	0%	6%	16%	22%
Stable [2]	36%	48%	37%	58%	54%	52%	62%	77%	49%	36%	39%
Fluctuating [2]	24%	31%	23%	14%	28%	23%	0%	8%	32%	26%	26%
Decreasing [1]	35%	17%	21%	21%	9%	22%	24%	15%	13%	22%	13%
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	2.1
Overall recent change	Stable/ decreasing	Stable/ fluctuating	Stable/ fluctuating	Stable/ decreasing	Stable/ fluctuating	Stable/ fluctuating	Stable/ decreasing	Stable	Stable/ fluctuating	Stable/ fluctuating	Stable/ fluctuating

12.6 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 2016 (Table 12.7). The number of people perceived to be using cocaine increased from 2006 to 2016 (p=0.0448). In 2016, more people were using cocaine in Auckland compared to Wellington (3.0 vs. 2.3, p=0.0472) and Christchurch (3.0 vs. 1.5, p=0.0017).

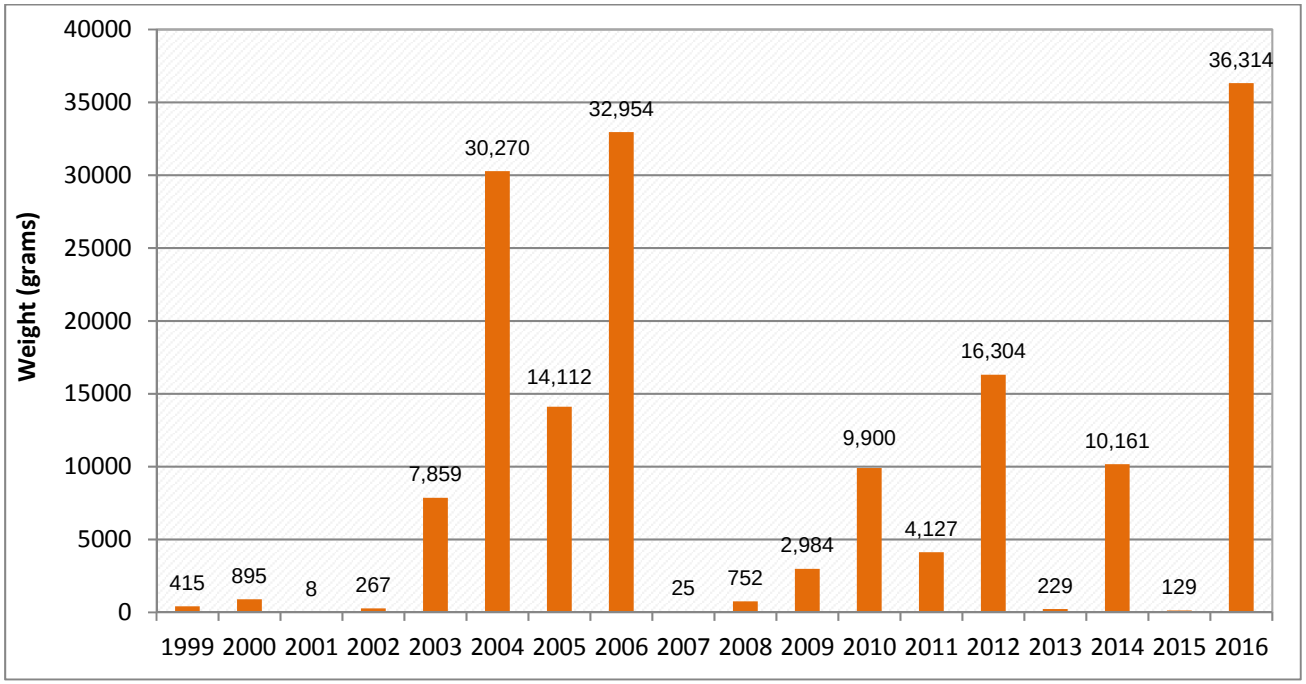
Table 12.7 Perceptions of the number of people using cocaine by combined frequent drug users, 2006-2016

Number of people using cocaine (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=17)
More [3]	23%	16%	30%	17%	16%	18%	19%	23%	30%	44%	56%
Same [2]	47%	57%	62%	51%	70%	29%	47%	69%	27%	42%	29%
Less [1]	29%	27%	8%	32%	14%	53%	34%	7%	43%	14%	15%
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	2.4
Overall recent change	Same/ less	Same/ less	Same/ more	Same/ less	Same	Less/ same	Same/ less	Same/ less	Less/ more	More/ same	More/ same

12.7 Seizures of cocaine

There has been considerable variation in the quantity of cocaine seized from year to year over the past eighteen years (Figure 12.2). Large seizures of cocaine were made in 2004 (30,270 grams), 2006 (32,954 grams), 2012 (16,304 grams) and most recently in 2016 (i.e. 36,134 grams).

Figure 12.2 Grams of cocaine seized in New Zealand, 1999-2016



Source: NDIB, 2017

12.8 Summary of cocaine trends

- The low number of frequent drug users answering the cocaine section (n=21) indicates the findings should be interpreted with caution
- The current availability of cocaine was reported to be 'very difficult/difficult' in 2016
- The availability of cocaine was described as 'stable/easier' in the previous six months in 2016
- The median price paid for a gram of cocaine in 2016 was $350
- The frequent drug users were more likely to report the price of cocaine had been 'stable/increasing' in 2016
- The current strength of cocaine was reported to be 'medium/high' in 2016
- There was an increase in the number of people perceived to be using cocaine from 2006 to 2016

13. Heroin

13.1 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 pharmaceutical 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., 2011a). However, some heroin continues to be available in New Zealand and there remains a risk of a larger heroin market developing if international supply conditions improve (New Zealand Customs Service, 2002).

13.2 Knowledge of heroin trends

Only 9% of the frequent drug users interviewed for the 2016 IDMS (n=39) indicated they felt confident enough to comment on the price, purity and availability of heroin in the previous six months. This included 18% of the frequent injecting drug users (n=17), 12% of the frequent methamphetamine users (n=20) 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.

13.3 Availability of heroin

Current availability of heroin

Twenty-seven percent of the frequent drug users described the current availability of heroin as 'very difficult' in 2016. Conversely, 25% described the current availability as 'easy' (Table 13.1). There was no statistically significant trend in the availability of heroin from 2008 to 2016.

Table 13.1 Current availability of heroin by combined frequent drug users, 2008-2016

Current availability of heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=37)
Very easy [4]	20%	27%	18%	26%	30%	31%	17%	31%	25%
Easy [3]	23%	22%	38%	18%	25%	10%	37%	25%	25%
Difficult [2]	27%	23%	28%	37%	35%	25%	16%	18%	22%
Very difficult [1]	30%	29%	16%	20%	10%	34%	26%	26%	27%
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	2.5
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	Very difficult/ Easy

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 2016 (Table 13.2). There was no statistically significant difference in the change in availability of heroin from 2008 to 2016 (Figure 13.1).

Table 13.1 Change in availability of heroin by combined frequent drug users, 2006-2016

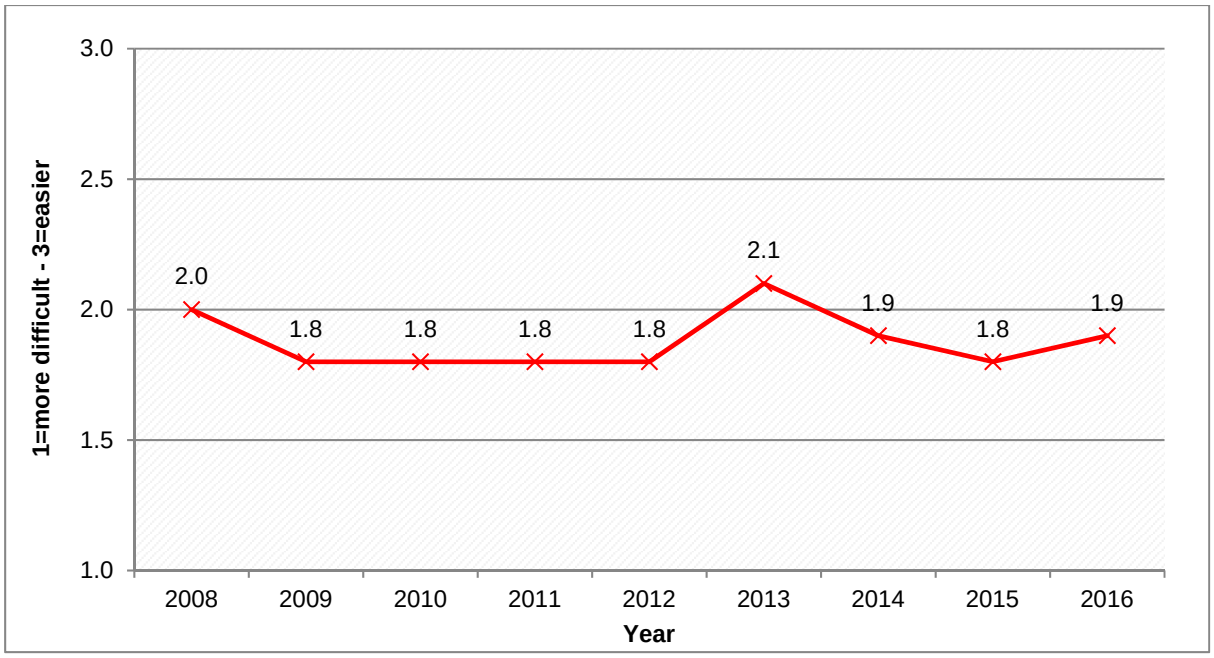


Table 13.2 Change in availability of heroin by combined frequent drug users, 2008-2016

Change in availability of heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=34)
Easier [3]	17%	7%	11%	11%	6%	30%	12%	8%	13%
Stable [2]	62%	55%	43%	46%	49%	44%	56%	66%	52%
Fluctuates [2]	7%	7%	13%	17%	21%	6%	8%	0%	11%
More difficult [1]	14%	30%	33%	26%	24%	20%	24%	26%	24%
Average change in availability score (1=more difficult – 3=easier)	2.0	1.8	1.8	1.8	1.8	2.1	1.9	1.8	1.9
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	Stable/ more difficult

13.4 Price of heroin

Current price of heroin

The median price of a milligram of heroin was $1 in 2016 (or $100 per 100 milligrams) (Table 13.3). The low number of respondents answering the heroin price question in 2016 (n=25) indicates these results should be treated with caution.

Table 13.3 Current median (mean) price of heroin (NZD) by combined frequent drug users, 2008-2016

Current price of heroin ($)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=25)
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)	$1.00 ($1.44)

Change in price of heroin

The price of heroin was reported to have been 'stable' over the past six months in 2016 (Table 13.4). There was no statistically significant difference in perceptions of the change in the price of heroin from 2008 to 2016.

Table 13.4 Change in the price of heroin in the past six months by combined frequent drug users, 2008-2016

Change in price of heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=23)
Increasing [3]	20%	8%	13%	26%	4%	0%	3%	10%	3%
Fluctuating [2]	7%	0%	5%	2%	11%	0%	19%	0%	9%
Stable [2]	60%	77%	73%	64%	81%	73%	64%	90%	81%
Decreasing [1]	13%	16%	8%	8%	5%	27%	15%	0%	7%
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	2.0
Overall recent change	Stable/ increasing	Stable	Stable	Stable/ increasing	Stable	Stable	Stable/ fluctuating	Stable	Stable

13.5 Purity of heroin

Current purity of heroin

The current purity of heroin was described as 'high/medium' in 2016 (Table 13.5). There was no statistically significant difference in the purity of heroin from 2008 to 2016.

Table 13.5 Current purity of heroin by combined frequent drug users, 2008-2016

Current purity of heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=29)
High [4]	55%	38%	32%	30%	38%	29%	14%	40%	48%
Medium [3]	17%	42%	18%	45%	34%	16%	42%	18%	34%
Fluctuates [2]	11%	11%	42%	17%	22%	45%	30%	35%	16%
Low [1]	17%	8%	8%	8%	6%	10%	15%	7%	3%
Average purity score (1=low – 4=high)	2.4	2.3	2.2	2.2	2.3	2.2	2.0	2.3	2.5
Overall current status	High/ medium/ low	Medium/ high	Fluctuate /high	Medium/ high	High/ medium	Fluctuate /high	Medium/ fluctuates	High/ fluctuates	High/ medium

Change in purity of heroin

The purity of heroin was described as 'stable/fluctuating' over the past six months in 2016 (Table 13.6).

Table 13.6 Change in purity of heroin by combined frequent drug users, 2008-2016

Change in purity of heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=28)
Increasing [3]	16%	14%	5%	9%	0%	16%	9%	4%	10%
Stable [2]	61%	67%	70%	53%	64%	65%	51%	77%	59%
Fluctuating [2]	23%	6%	22%	29%	23%	12%	28%	19%	21%
Decreasing [1]	0%	13%	3%	10%	12%	8%	11%	0%	10%
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	2.0
Overall recent change	Stable/ fluctuating	Stable/ increasing	Stable	Stable/ fluctuating	Stable/ fluctuating	Stable/ increasing	Stable/ fluctuating	Stable	Stable/ fluctuating

13.6 Perceptions of the number of people using heroin

The number of people using heroin was described as 'same/more' compared to six months ago in 2016 (Table 13.7). The frequent drug users believed an increasing number of people were using heroin from 2008 to 2016 (up from 1.9 to 2.2, p=0.0026). The low number of respondents answering the question in 2016 (n=36) indicates these result should be treated with some caution.

Table 13.7 Perceptions of the number of people using heroin by combined frequent drug users, 2008-2016

Number of people using heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=36)
More [3]	22%	7%	23%	44%	15%	61%	28%	51%	33%
Same [2]	45%	59%	46%	23%	63%	27%	43%	29%	51%
Less [1]	33%	34%	31%	33%	22%	12%	28%	20%	16%
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	2.2
Overall recent change	Same/ less	Same/ less	Same/ less	More/ less	Same/ less	More/ same	Same/ more/ less	More/ same	Same/ more

13.7 Summary of heroin trends

- The low number of frequent drug users reporting knowledge of heroin trends (i.e. 39=2016) indicates the findings in this chapter should be treated with caution
- The current availability of heroin was described as 'very difficult/easy' in 2016
- The availability of heroin was reported to have been 'stable/more difficult' in 2016
- The median price of a milligram of heroin was $1 (or $100 per 100 milligrams) in 2016
- The price of heroin was reported to have been 'stable' in the past six months in 2016
- The frequent drug users believed an increasing number of people were using heroin from 2008 to 2016

14. Homebake morphine/heroin

14.1 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 dismantling of the 'Mr Asia' heroin smuggling network (Newbold, 2000).

14.2 Knowledge of homebake morphine/heroin trends

Fifteen percent of the frequent drug users interviewed for the 2016 IDMS (n=56) indicated they felt confident enough to comment on the price, purity and availability of homebake morphine/heroin in the previous six months. This included 29% of the frequent injecting drug users (n=30), 18% of the frequent methamphetamine users (n=23) and 4% 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) compromises the ability of the statistical tests to establish reliable trends over time.

14.3 Availability of homebake morphine/heroin

Current availability of homebake morphine/ heroin

The frequent drug users described the current availability of homebake morphine/heroin as 'difficult/easy' in 2016 (Table 14.1). There was an increase in the current availability of homebake morphine/heroin from 2015 to 2016 (up from 2.3 to 2.7), and this increase was close to being statistically significant (p=0.0754).

Figure 14.1 Mean score of the current availability of homebake morphine/heroin by combined frequent drug users, 2006-2016

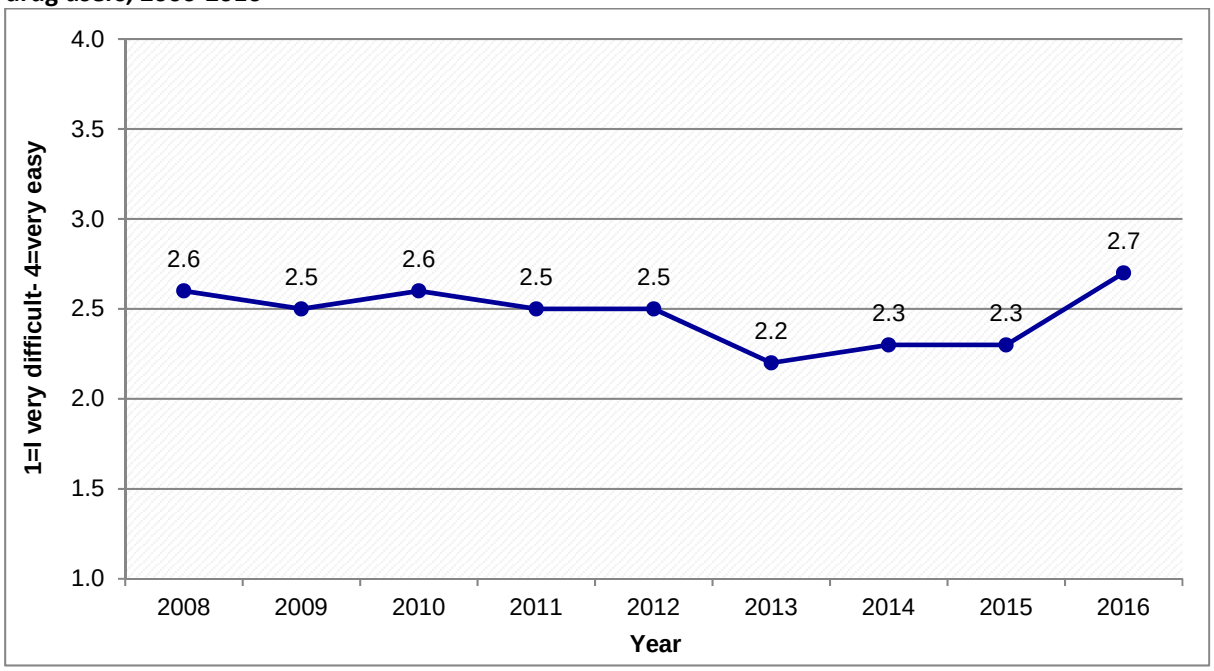


Table 14.1 Current availability of homebake morphine/heroin by combined frequent drug users, 2008-2016

Current availability of homebake morphine/heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=52)
Very easy [4]	19%	6%	20%	19%	21%	22%	16%	14%	27%
Easy [3]	30%	43%	32%	33%	33%	16%	32%	33%	29%
Difficult [2]	44%	43%	37%	33%	22%	18%	20%	23%	31%
Very difficult [1]	7%	8%	11%	15%	24%	43%	32%	30%	13%
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	2.7
Overall current status	Difficult/ easy	Easy/ difficult	Difficult/ easy	Easy/ difficult	Easy/very difficult	Very difficult/ very easy	Easy/ very difficult /difficult	Easy/very difficult	Difficult/ easy

Change in availability of homebake morphine/heroin

The frequent drug users reported the availability of homebake morphine/heroin had been 'stable/more difficult' in the previous six months in 2016 (Table 14.2). There was no statistically significant difference in assessments of the change in availability of homebake morphine/heroin from 2008 to 2016.

Table 14.2 Change in availability of homebake morphine/heroin by combined frequent drug users, 2008-2016

Change in availability of homebake morphine/heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=52)
Easier 3]	11%	4%	11%	6%	11%	12%	9%	12%	15%
Stable [2]	38%	46%	46%	58%	49%	32%	38%	36%	51%
Fluctuates [2]	9%	9%	4%	10%	10%	7%	12%	9%	6%
More difficult [1]	42%	41%	39%	25%	30%	49%	40%	43%	28%
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	1.9
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	Stable/ more difficult

14.4 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 2016 (Table 14.3).

Table 14.3 Perceptions of the number of people using homebake morphine/ heroin by combined frequent drug users, 2008-2016

Number of people using homebake morphine/heroin (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016
	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)	Combined modules (n=53)
More [3]	32%	15%	16%	29%	21%	31%	23%	19%	24%
Same [2]	46%	53%	50%	49%	50%	25%	41%	37%	36%
Less [1]	22%	31%	34%	21%	34%	45%	36%	44%	40%
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	1.8
Overall recent change	Same/ more	Same/ less	Same/ less	Same/ more	Same/ less	Less/ more	Same/ less	Less/ same	Less/ same

14.3 Summary of homebake morphine/heroin trends

- The current availability of homebake morphine/heroin was described as 'difficult/easy' in 2016
- There was an increase in the current availability of homebake morphine/heroin from 2015 to 2016
- The frequent drug users described the number of people using homebake morphine/heroin as the 'less/same' in 2016

15. Health risks and the social harm of drug use

15.1 Introduction

Drug and alcohol use is associated with a range of health and social problems including mental illness, drug dependency, relationship breakdown, poor educational achievement, violence, sexual assault, dangerous driving and social welfare dependency (Ministry of Health, 2015). A number of vulnerable groups are particularly 'at risk' for drug related harm including adolescents, those suffering from mental illness, marginalised ethnic groups, lower socio-economic groups, and those from dysfunctional family environments (Ministry of Health, 2015).

15.2 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'*. In 2016, the frequent methamphetamine users commonly reported 'no money for luxuries' (83%), 'arguing with others' (79%), 'losing their temper' (74%), 'getting into debt' (73%), 'upsetting a family relationship' (67%), and 'damaging a friendship' (64%) as a result of their drug use (Table 15.1).

Table 15.1 Drug-related incidents by frequent drug user group, 2016

Drug related incident (%)	Methamphetamine users	Ecstasy users (MDMA)	Intravenous drug users (IDU)
	(n=131)	(n=64)	(n=110)
No money for luxuries	83	36	87
Got into debt/owing money	73	32	84
Argued with others	79	31	74
No money for food or rent	55	17	66
Lost your temper	74	26	68
Damaged a friendship	64	25	64
Did something under the influence of drugs and later regretted it	63	40	65
Upset a family relationship	67	27	67

Physically hurt yourself	33	34	36
Were verbally or physically threatened (yourself)	61	20	45
Had reduced work/study performance	48	70	39
Passed out	38	34	43
Ended a personal relationship	47	19	46
Got arrested	47	3	27
Took sick leave/did not attend classes	37	53	35
Couldn't remember what happened the night before	42	61	41
Stole property (you)	33	11	35
Damaged property (you)	39	8	27
Were physically assaulted	42	5	30
Spent some nights sleeping rough (i.e. living on the streets)	46	5	28
Had unprotected sex	47	40	33
Physically hurt someone else	33	9	29
Was kicked out of where I was living	31	0	26
Overdosed on drugs	13	3	27
Sacked/lose business/quit study course	21	10	19
Were sexually harassed	18	7	18
Someone gave you a drug without your knowledge	21	16	19
Had sex and later regretted it	33	21	30
Were sexually assaulted	11	2	14
Someone spiked your drink	13	9	8

The frequent injecting drug users commonly reported that as a result of their drug use they had 'no money for luxuries' (87%), 'got into debt' (84%), 'argued with others' (74%), 'lost their temper' (68%), 'upset family relationship' (67%), 'had no money for food or rent' (66%), 'did something under the influence of drugs and later regretted it' (65%) and 'damaged a friendship' (64%).

The frequent ecstasy users commonly reported that as a result of their drug use they had 'reduced work/study performance' (70%), 'couldn't remember what happened the night before' (61%), 'took sick leave or did not attend classes' (53%), and 'had unprotected sex' (40%).

15.3 Drug type responsible for drug-related life impacts

The frequent drug users who had experienced a harmful drug related 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 15.2 presents the findings for each of the three groups of frequent drug users for 2016. The overwhelming majority of methamphetamine users nominated methamphetamine (80%) as the drug type mainly responsible for their drug-related problems, followed by alcohol (8%) and cannabis (3%). The frequent injecting drug users nominated morphine (57%), methylphenidate (Ritalin™) (18%), 'homebake' heroin' (7%) and methadone (6%) as responsible for their drug related problems. The frequent ecstasy users named three drug types as responsible for their drug-related problems; alcohol (43%), ecstasy (33%), and cannabis (14%).

Table 15.2 Drug types mainly responsible for drug related incidents by frequent drug user group, 2016

Drug type (%)	Methamphetamine users	Ecstasy users (MDMA)	Intravenous drug users (IDU)
	(n=130)	(n=63)	(n=106)
Methamphetamine	80	0	<1
Alcohol	8	43	2
Cannabis	3	14	0
Methylphenidate (Ritalin)	2	2	18
Morphine	2	<1	57
Crystal methamphetamine	<1	0	0
Benzodiazepines	<1	0	3
Heroin	<1	0	3
Homebake heroin	1	0	7
Cocaine	1	0	<1
Salvia divinorum	<1	0	0
Amphetamine	0	2	0
LSD	0	7	0
Synthetic cannabis	0	2	0
Methadone	0	0	6
Ecstasy (MDMA)	0	33	<1
Amyl nitrate	0	0	0
Oxycodone	0	0	0
Codeine	0	0	0
Tobacco	0	0	0
Mephedrone	0	0	0
Street BZP	0	0	0
Non-BZP party pills	0	2	0
Tramadol	0	0	0
Other	0	0	2
Steroids	0	0	0
Zopiclone	0	0	0
Mushrooms	0	0	0

15.4 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 2016. 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 2016 were a 'needle exchange' (90%), 'pharmacy' (60%), 'General Practitioner' (i.e. medical doctor) (58%) and 'drug and alcohol worker' (51%) (Table 15.3). There were increases in the proportion of frequent injecting drug users who had accessed a 'counsellor' (up from 11% in 2006 to 34% in 2016, $p<0.0001$), 'social worker' (up from 4% in 2006 to 25% in 2016, $p<0.0001$), a 'psychologist' (up from 6% in 2006 to 14% in 2016, $p=0.0228$), 'First Aid' (up from 9% in 2006 to 18% in 2016, $p=0.0103$) and 'drug and alcohol worker' (up from 39% in 2006 to 51% in 2016,$p=0.0262$).

Table 15.3 Proportion of frequent injecting drug users who had accessed medical and health services in relation to drug use in the past six months, 2006-2016

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)	2016 (n=111)
Needle exchange	-	93	69	87	83	87	89	82	90	89	90
Pharmacy	-	58	49	52	62	55	46	39	48	54	60
General Practitioner	36	35	43	52	56	44	49	32	37	46	58
Drug and Alcohol worker	39	54	29	42	46	37	39	51	43	58	51
Electronic needle dispenser	-	47	46	44	40	28	41	48	54	43	37
Counsellor	11	21	24	31	33	32	22	50	34	43	34
Social worker	4	11	13	12	9	15	16	36	28	22	25
Accident and Emergency	13	10	11	9	19	11	20	10	11	13	19
First Aid	9	7	6	5	13	13	4	13	13	12	18
Hospital (admitted)	9	9	10	6	13	14	14	6	10	10	15
Psychologist	6	10	10	10	8	7	8	18	12	15	14
Ambulance	12	9	6	6	13	15	11	6	8	13	12
Alcohol and Drug Helpline	-	-	-	-	6	6	5	12	9	10	9
Psychiatrist	8	11	13	8	7	8	14	13	8	13	8
Meth-Help or Drug-Help websites	-	-	-	-	2	6	6	4	11	4	2

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 2016 were 'drug and alcohol worker' (47%), 'needle exchange' (41%) and 'General Practitioner' (41%) (Table 15.4). There was an increase in the proportion of frequent methamphetamine users who had accessed a 'needle exchange' (up from 36% in 2007 to 41% in 2016, p=0.0012), 'needle dispenser' (up from 19% in 2007 to 25% in 2016, p=0.0146), 'ambulance service' (up from 3% in 2007 to 18% in 2016, p=0.0070), 'hospital' (up from 4% in 2006 to 21% in 2016,

p=0.0096), 'social worker' (up from 7% in 2006 to 20% in 2016, p=0.0004), 'psychiatrist' (up from 4% in 2015 to 14% in 2016, p=0.0143), 'accident and emergency' (up from 7% in 2015 to 23% in 2016, p=0.0017), 'General Practitioner' (up from 19% in 2015 to 41% in 2016, p=0.0004) and 'drug and alcohol worker' (up from 30% in 2015 to 47% in 2016, p=0.0100).

Table 15.4 Proportion of frequent methamphetamine users who had accessed medical and health services in relation to drug use in the past six months, 2006-2016

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)	2016 (n=133)
Drug and Alcohol worker	37	36	25	33	33	29	26	36	23	30	47
Needle exchange	-	36	22	29	31	27	26	20	46	44	41
General Practitioner	27	38	22	26	22	29	32	37	22	20	41
Counsellor	34	40	24	31	29	30	29	28	19	27	33
Pharmacy	-	27	15	20	29	23	25	16	19	20	31
Electronic needle dispenser	-	19	10	17	16	10	15	17	18	21	25
Accident and Emergency	6	17	11	10	18	15	10	23	7	7	23
Hospital (admitted)	4	12	5	8	19	22	9	17	7	7	21
Social worker	7	13	6	11	12	7	14	18	10	16	20
Ambulance	3	15	7	9	10	14	12	15	9	10	18
Psychiatrist	9	10	7	8	6	10	8	15	7	4	14
Psychologist	9	14	3	4	7	12	5	17	11	8	12
First Aid	2	7	9	3	16	22	12	10	4	7	12
Alcohol and Drug Helpline	-	-	-	-	5	13	7	22	6	6	12
Meth-Help or Drug-Help websites	-	-	-	-	5	8	10	12	9	7	11

The frequent ecstasy users had lower levels of contact with medical and other health services compared to the injecting drug users and methamphetamine users. The services which they most commonly accessed in relation to their drug use in 2016 were a 'counsellor' (14%), 'General Practitioner' (9%), 'accident and emergency' (7%) and 'needle exchange' (7%) (Table 15.5).

Table 15.5 Proportion of frequent ecstasy users who had accessed medical and health services in relation to drug use in the past six months, 2006-2016

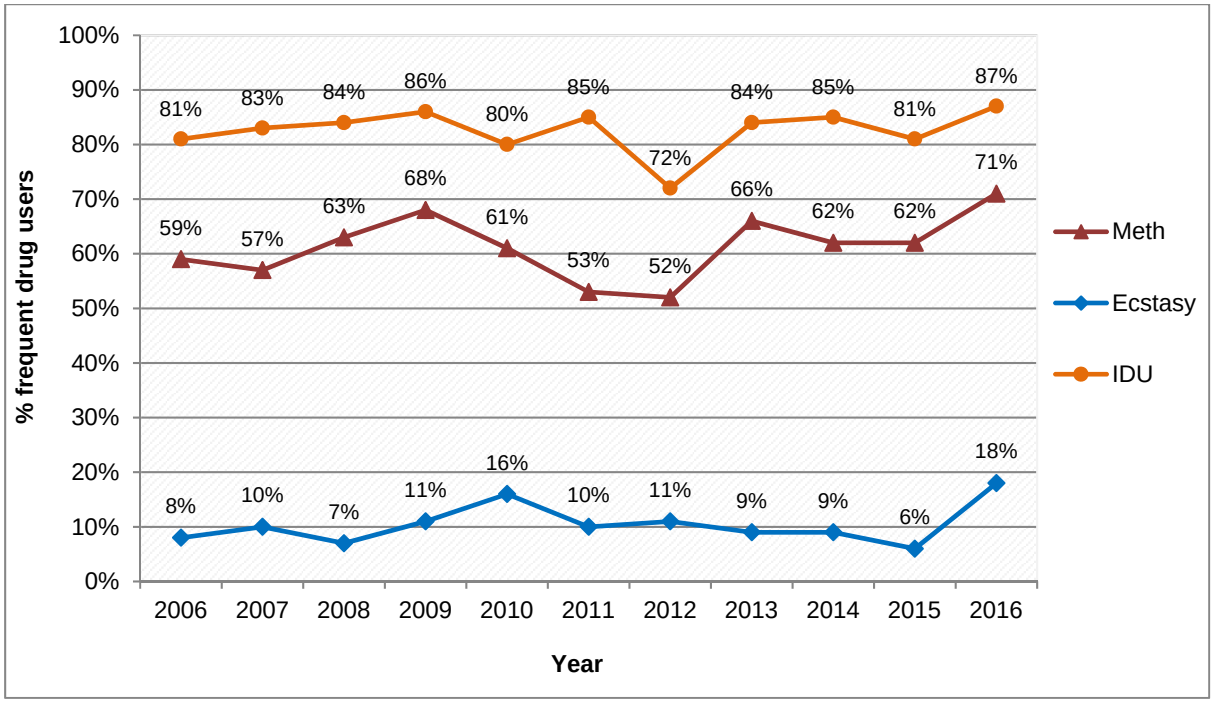
Medical and health service (%)	2006 (n=111)	2007 (n=105)	2008 (n=135)	2009 (n=111)	2010 (n=153)	2011 (n=160)	2012 (n=126)	2013 (n=118)	2014 (n=109)	2015 (n=118)	2016 (n=65)
Counsellor	5	8	7	3	9	6	11	6	8	6	14
General Practitioner	4	5	6	9	9	8	11	11	8	7	9
Accident and Emergency	8	5	6	11	5	5	9	6	6	7	7
Needle exchange	-	6	1	3	1	3	1	3	5	2	7
First Aid	2	7	5	8	6	6	10	8	11	4	6
Ambulance	4	3	4	6	5	4	7	5	7	2	5
Electronic needle dispenser	-	5	1	2	1	1	1	1	3	1	5
Psychiatrist	0	2	1	0	3	2	1	2	1	2	3
Hospital (admitted)	2	1	3	6	3	3	7	2	4	1	3
Alcohol and Drug Helpline	-	-	-	-	3	1	6	1	2	0	3
Pharmacy	-	12	4	5	3	5	8	8	7	7	2
Drug and Alcohol worker	2	6	4	3	6	3	6	6	4	6	2
Psychologist	0	2	2	0	3	2	3	5	1	3	2
Social worker	0	2	1	1	4	1	3	4	2	1	<1
Meth-Help or Drug-Help websites	-	-	-	-	3	0	6	1	0	1	0

15.5 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 with a combined score of four or more for the five 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).

In 2016, 87% of the frequent injecting drug users, 71% of the frequent methamphetamine users and 18% of the frequent ecstasy users were assessed to be drug dependent (Figure 15.1).

Figure 15.1 Proportion of frequent drug user groups who were assessed as drug dependent using the Short Dependency Scale, 2006-2016



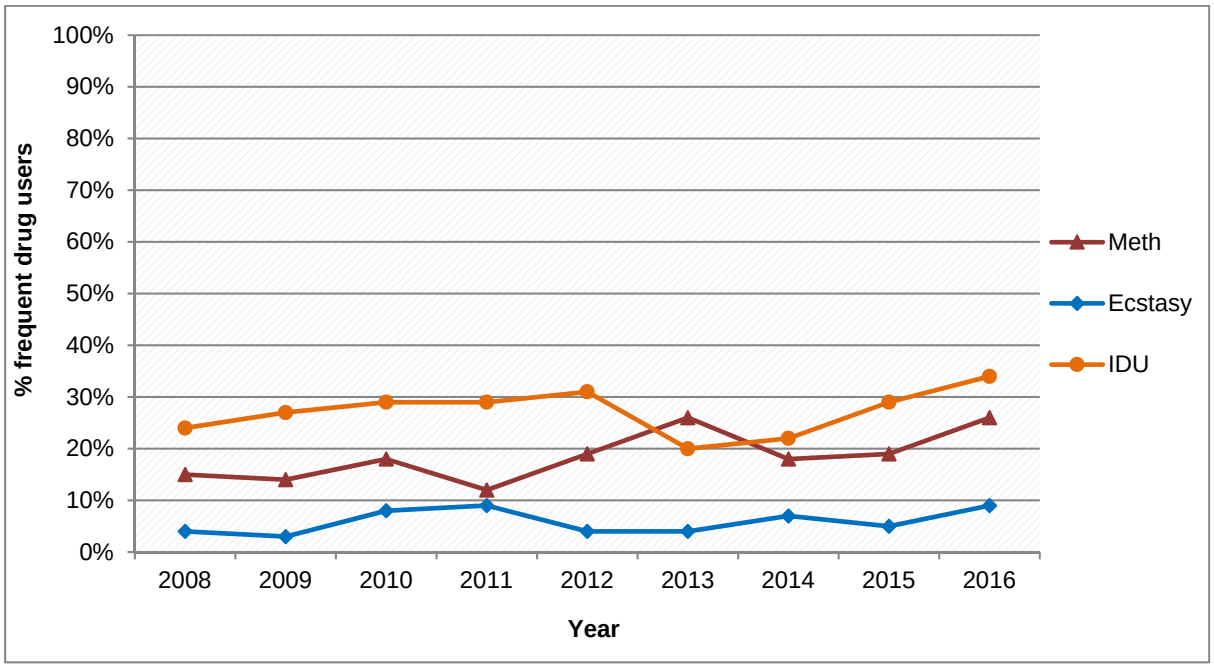
15.6 Mental illness

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-nine percent of the injecting drug users, 61% of

the methamphetamine users and 30% of the ecstasy users had suffered from a mental illness at some point in their lives. The proportion of frequent methamphetamine users who had suffered from a mental illness increased from 41% in 2008 to 61% in 2016 (p=0.0052), and from 45% in 2015 to 61% in 2016 (p=0.0158). Similarly, there was an increase in the proportion of ecstasy users who had suffered from a mental illness, from 19% in 2008 to 30% in 2016 (p=0.0181).

In 2016, 34% of injecting drug users, 26% of methamphetamine users and 9% of ecstasy users were currently receiving treatment for a mental illness. The proportion of frequent methamphetamine users currently receiving treatment for a mental illness increased from 15% in 2008 to 26% in 2016 (p=0.0071) (Figure 16.2).

Figure 15.2 Proportion of frequent drug user group who are currently receiving treatment for a mental illness, 2008-2016



Twenty-six percent of the frequent injecting drug users, 26% of the frequent methamphetamine users and 8% of ecstasy users had spent at least one night in a mental health facility in 2016. The proportion of frequent methamphetamine users who had spent at least one night in a mental health facility increased from 7% in 2008 to 26% in 2016 (p=0.0048) and from 8% in 2015 to 26% in 2016 (p=0.0008). The frequent ecstasy users who had spent at least one night in a mental health facility also increased from 3% in 2008 to 8% in 2016 (p=0.0218).

15.7 Summary of health risks and social harm from drug use

- The frequent injecting drug users commonly reported they had 'no money for luxuries' (87%), 'got into debt' (84%), 'argued with others' (74%), 'lost their temper' (68%), 'upset a family relationship' (67%), had 'no money for food or rent' (66%), 'did something under the influence of drugs and later regretted it' (65%) and 'damaged a friendship' (64%) as a result of their drug use
- The frequent methamphetamine users commonly reported they had 'no money for luxuries' (83%), 'argued with others' (79%), 'lost their temper' (74%), 'got into debt' (73%), 'upset a family relationship'(67%), and 'damaged a friendship' (64%) as a result of their drug use
- The frequent ecstasy users commonly reported they were had 'reduced work/study performance' (70%), 'couldn't remember what happened the night before' (61%), 'took sick leave or did not attend classes' (53%), and 'had unprotected sex' (40%) as a result of their drug use
- The overwhelming majority of methamphetamine users nominated methamphetamine (80%) as the drug type mainly responsible for their drug-related problems, followed by alcohol (8%) and cannabis (3%)
- The frequent injecting drug users nominated morphine (57%), methylphenidate (Ritalin™) (18%), 'homebake heroin' (7%) and methadone (6%) as responsible for their drug related problems
- The frequent ecstasy users named three drug types as responsible for their drug-related problems; alcohol (43%), ecstasy (33%), and cannabis (14%)
- Eighty-seven percent of the frequent injecting drug users, 71% of the frequent methamphetamine users and 18% of the frequent ecstasy users were assessed to be drug dependent
- The health services most commonly accessed by the injecting drug users in 2016 were a 'needle exchange' (90%), 'pharmacy' (60%), 'General Practitioner' (58%), and 'drug and alcohol worker' (51%)
- An increasing proportion of frequent injecting drug users had accessed a 'counsellor' (up from 11% in 2006 to 34% in 2016), 'social worker' (up from 4% in 2006 to 25% in 2016), 'first aid' (up from 9% in 2006 to 18% in 2016) and 'drug and alcohol worker' (up from 54% in 2007 to 51% in 2016) in relation to their drug use
- The health services which the frequent methamphetamine users had most commonly accessed in 2016 were 'drug and alcohol worker' (47%), 'needle exchange' (41%), and 'General Practitioner' (41%)
- There were increases in the proportion of frequent methamphetamine users who had accessed an 'ambulance service' (up from 3% in 2007 to 18% in 2016), 'hospital' (up from 4% in 2007 to 21% in 2016), and 'accident and emergency' (up from 7% in 2015 to 23% in 2016) in relation to their drug use

- The services which the frequent ecstasy users most commonly accessed in relation to their drug use in 2016 were a 'counsellor' (14%), 'General Practitioner' (9%), 'accident and emergency' (7%), 'needle exchange' (7%) and 'First Aid' (6%)
- Sixty-nine percent of the injecting drug users, 61% of the methamphetamine users and 30% of the ecstasy users had suffered from a mental illness at some point in their lifetime
- In 2016, 34% of injecting drug users, 26% of methamphetamine users and 9% of ecstasy users were currently receiving treatment for a mental illness
- The proportion of frequent methamphetamine users currently receiving treatment for a mental illness increased from 15% in 2008 to 26% in 2016

16. Drug and alcohol treatment

16.1 Introduction

Drug and alcohol treatment provides a means for dependant substance users to stop their substance use and rebuild their lives. The benefits of successful drug treatment extend beyond the user to include their partners, children, extended family, friends, work colleagues and local the community (Babor et al., 2010). Drug treatment can also play a part in reducing demand for illegal drugs by removing the heaviest users who also are often involved in spreading drug use by selling drugs to others to pay for their own 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).

16.2 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. Fifty-one percent of the frequent injecting drug users and 28% of the frequent methamphetamine users reported they needed ‘a lot’ of help to reduce their drug use in 2016 (Table 16.1). In contrast, 67% of the frequent ecstasy users believed they needed ‘no help at all’ to reduce their drug use.

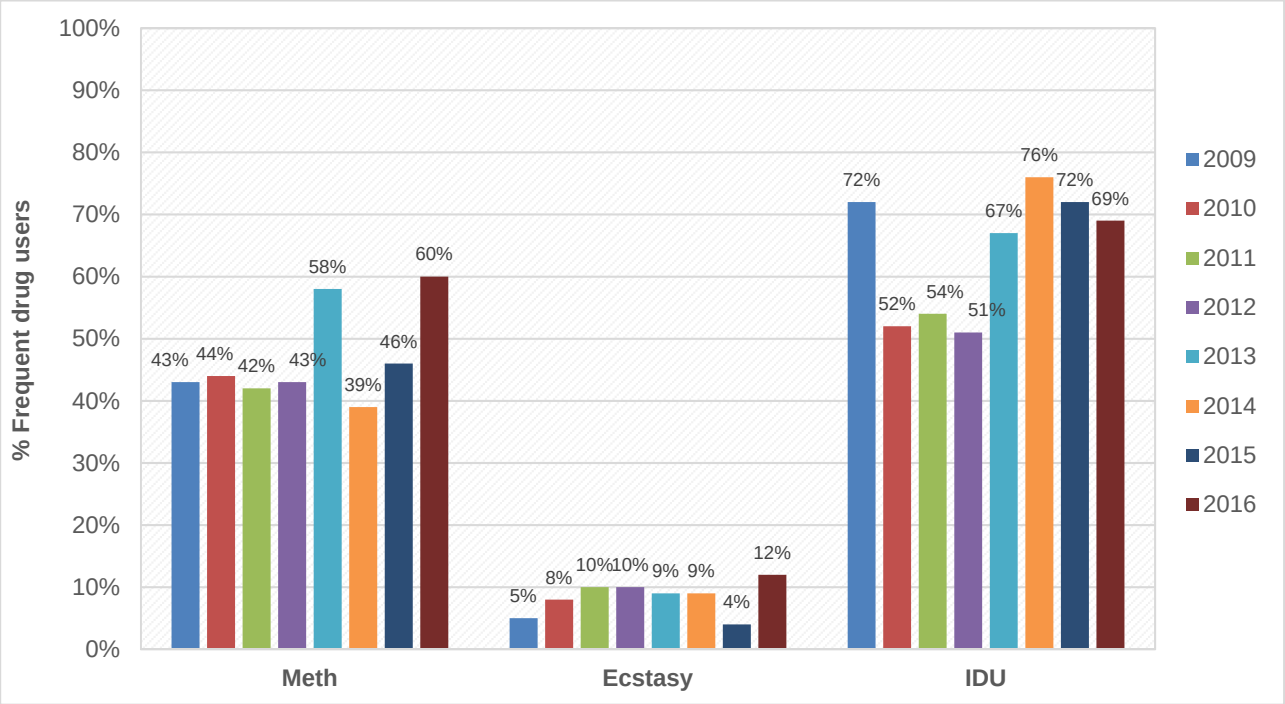
Table 16.1 Extent to which the frequent drug users felt they needed help to reduce their drug use by frequent drug user group, 2009-2016

Extent felt needed help (%)			A lot of help [3]	Some help [2]	A little help [1]	No help at all [0]	Mean score (0='no help' - 3= 'a lot of help'
Methamphetamine users	2009	(n=105)	25%	18%	18%	39%	1.3
	2010	(n=124)	22%	22%	20%	37%	1.3
	2011	(n=101)	29%	12%	17%	41%	1.3
	2012	(n=100)	25%	18%	22%	36%	1.3
	2013	(n=92)	29%	29%	25%	16%	1.7
	2014	(n=96)	20%	19%	34%	27%	1.3
	2015	(n=67)	26%	20%	23%	32%	1.4
	2016	(n=132)	28%	32%	17%	23%	1.6
Ecstasy users	2009	(n=111)	2%	3%	18%	77%	0.3
	2010	(n=151)	3%	5%	18%	74%	0.4
	2011	(n=159)	3%	7%	17%	72%	0.4
	2012	(n=125)	5%	5%	17%	72%	0.4
	2013	(n=117)	4%	5%	18%	73%	0.4
	2014	(n=109)	3%	6%	12%	79%	0.3
	2015	(n=118)	2%	2%	25%	71%	0.3

	2016	(n=66)	2%	10%	22%	67%	0.5
Intravenous drug users	2009	(n=99)	46%	26%	14%	14%	2.0
	2010	(n=125)	28%	24%	25%	23%	1.6
	2011	(n=91)	20%	34%	13%	32%	1.4
	2012	(n=104)	27%	24%	14%	35%	1.4
	2013	(n=99)	45%	22%	8%	25%	1.9
	2014	(n=102)	53%	23%	9%	14%	2.2
	2015	(n=111)	49%	23%	12%	16%	2.0
	2016	(n=109)	51%	18%	16%	14%	2.1

The frequent methamphetamine users were more likely to feel they needed help to reduce their drug use from 2009 to 2016 (up from 1.3 to 1.6, p=0.0183). The frequent injecting drug users were also more likely to believe they needed help to reduce their drug use from 2009 to 2016 (p=0.0005) (Table16.1 and Figure 16.1).

Figure 16.1 Proportion of the frequent drug users who felt they needed at least some help to reduce their drug use by frequent drug user group, 2009-2016



16.3 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'. In 2016, 46% of the frequent injecting drug users, 37% of the frequent methamphetamine users, and 17% of the frequent ecstasy users said they had wanted help but 'had not got it' (Table 16.2). The proportion of frequent methamphetamine users who wanted help but did not get it increased slightly from 32% in 2007 to 37% in 2016 (p=0.0062). There was also an increase in the proportion of frequent ecstasy users who wanted help but did not get it from 10% in 2007 to 17% in 2016 (p=0.0076).

Table 16.2 Proportion of frequent drug users who had wanted help to reduce their drug use in the previous six months but had not got it, 2007-2016

	Methamphetamine 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%
2016	n=129	n=66	n=109
	37%	17%	46%

16.4 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 since 2007 in previous IDMS waves.

The frequent methamphetamine users had experienced a mean of four barriers to finding help in 2016 (median 4, range 0-12). The barriers they most often experienced were 'social pressure to keep using' (69%), 'fear of what might happen after made contact with a service' (56%), 'fear of losing friends' (39%), 'fear of police' (38%), 'didn't know where to go' (31%), 'long waiting list' (30%), 'couldn't get an appointment at a suitable time' (25%), 'no transport to get there' (25%), 'fear of Child Youth and Family (CYF) or other social welfare agency' (24%), 'concern about career / job prospect' (23%), 'costs too much' (23%) and 'service not appropriate for my drug use/problems' (23%) (Table 16.3).

Table 16.3 Barriers experienced by the frequent methamphetamine users when trying to find help to reduce drug use (of those who were unable to find help), 2007-2016

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)	2016 (n=50)
Social pressure to keep using	48	36	19	39	48	30	40	28	40	69
Fear of what might happen after make contact with service	53	45	15	26	33	21	39	31	28	56
Fear of losing friends	36	34	14	16	27	21	15	23	14	39
Fear of police	43	27	10	25	20	24	34	25	28	38
Didn't know where to go	38	21	22	32	21	27	31	23	26	31
Long waiting lists	38	14	18	19	33	32	38	14	14	30
Couldn't get appointment at suitable time	35	10	22	22	20	18	24	8	21	25
No transport to get there	26	11	9	25	14	23	24	17	14	25
Fear of CYFs or other social welfare agency	22	14	4	9	20	23	27	20	21	24
Concern about impact on job/career	36	8	4	23	23	30	27	25	19	23
Costs too much	26	5	14	23	21	21	20	11	19	23
Service not appropriate for my drug use/problems	27	7	18	12	6	18	17	10	14	23
No local service available	27	4	13	13	5	23	11	6	5	15
No after-hours service	20	8	9	10	10	9	9	6	7	9
Lack of childcare	8	0	0	10	3	3	6	6	7	4

There were increases in the proportion of frequent methamphetamine users who nominated 'social pressure to keep using' (up from 40% in 2015 to 69% in 2016, p=0.0101), 'fear of what might happen' (up from 28% in 2015 to 56% in 2016, p=0.0123) and 'fear of losing friends' (up from 14% in 2015 to 39% in 2016, p=0.0137) as a barrier to finding help.

The frequent injecting drug users reported a mean of four barriers to finding help to reduce their drug use in 2016 (median 4, range 0-12). The barriers most often experienced were 'fear of what might happen after contact with service' (49%), 'service not appropriate for my drug use/problem' (47%), 'long waiting list' (46%), 'couldn't get appointment at suitable time' (42%), 'no transport to get there' (39%), 'social pressure to keep using' (31%), 'fear of police' (30%), 'fear of CYFs or other social welfare agencies' (30%) and 'fear of losing friends (25%) (Table 16.4).

Table 16.4 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), 2007-2016

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)	2016 (n=52)
Fear of what might happen after contact with service	52	32	20	22	29	49	35	46	64	49
Service not appropriate for my drug use/problems	31	13	13	23	34	28	39	25	35	47
Long waiting lists	52	32	33	36	21	41	47	36	36	46
Couldn't get appointment at suitable time	41	22	24	18	20	24	37	32	26	42
No transport to get there	23	22	4	12	29	43	31	25	37	39
Social pressure to keep using	28	14	4	8	20	9	22	14	26	31
Fear of police	14	24	4	10	25	26	7	14	39	30
Fear of CYFs or other social welfare agency	19	16	4	8	29	24	21	18	35	30
Fear of losing friends	14	21	4	2	13	19	7	5	17	25
No after-hours service	22	9	8	10	8	13	22	10	30	19
No local service available	18	15	9	5	13	20	8	2	6	19
Concern about impact on job/career	21	10	0	9	28	7	10	28	22	17
Costs too much	20	26	5	16	17	16	7	6	11	17
Didn't know where to go	7	17	4	15	28	27	18	9	17	16
Lack of childcare	0	7	0	8	4	3	7	10	4	8

There were increases in the proportion of frequent injecting drug users who reported having 'fear of police' (up from 14% in 2007 to 30% in 2016, p=0.0401), 'no transport' (up from 23% in 2007 to 39% in 2016, p=0.0060), 'service not appropriate for type of drug use' (up from 31% in 2007 to 47% in 2016, p=0.0054) and 'fear of CYFs or other social welfare agency' (up from 19% in 2007 to 30% in 2016, p=0.0173).

Only a very small number of the frequent ecstasy users had 'wanted help for their drug use but not got it' over the previous nine years (i.e. 2007=9; 2008=13; 2009=3; 2010=12; 2011=23; 2012=16; 2013=17; 2014=12; 2015=11; 2016=13), and this prevented any meaningful statistical comparison over time (Table 16.5).

Table 16.5 Barriers experienced by frequent ecstasy users when trying to find help to reduce drug use (of those who were unable to find help), 2010-2016

Barriers to trying to get help (%)	2007 (n=9)	2008 (n=13)	2009 (n=3)	2010 (n=12)	2011 (n=23)	2012 (n=16)	2013 (n=17)	2014 (n=12)	2015 (n=12)	2016 (n=13)
Concern about impact on job/career	33	26	0	25	20	45	19	25	42	44
Fear of police	44	7	36	8	7	32	28	16	15	44
Fear of losing friends	35	17	36	18	27	20	14	44	18	42
Fear of what might happen after contact with service	32	34	36	24	9	49	36	44	18	39
Didn't know where to go	11	24	36	41	4	32	27	25	20	38
Costs too much	33	10	72	25	17	40	19	0	20	34
Social pressure to keep using	44	40	36	34	52	31	63	44	25	33
Fear of CYFs or social welfare agencies	11	0	0	0	4	19	9	6	9	33
Service not appropriate for my drug use/problems	56	24	28	8	26	25	9	6	18	24
No transport to get there	11	0	0	8	9	32	19	6	9	19
Couldn't get appointment at good time	33	24	26	8	7	13	0	9	9	9
Long waiting lists	23	7	36	16	9	45	0	16	0	9
No after-hours service	11	10	0	8	9	20	5	6	11	5
Lack of childcare	0	0	0	0	5	7	0	0	0	5
No local service available	11	0	36	8	0	19	9	0	20	0

16.5 Summary of drug treatment

- In 2016, 51% of the frequent injecting drug users and 28% of the frequent methamphetamine users indicated they needed 'a lot' of help to reduce their drug use
- In contrast, only 3% of the frequent ecstasy users felt they needed 'a lot' of help to reduce their drug use in 2016
- Both the frequent methamphetamine users and injecting drug users were more likely to believe they needed help to reduce their drug use from 2010 to 2016
- In 2016, 46% of the frequent injecting drug users, 37% of the frequent methamphetamine users and 17% of the frequent ecstasy users had sought help to reduce their drug use 'but not got it'
- The barriers to finding help most often experienced by the frequent methamphetamine users in 2016 were 'social pressure to keep using' (69%), 'fear of what might happen after contact with a service' (56%), 'fear of losing friends' (39%), 'fear of police' (38%), 'didn't know where to go' (31%) and 'long waiting list' (30%)
- There were increases in the proportion of frequent methamphetamine users who nominated the following barrier to finding help: 'social pressure to keep using' (up from 40% in 2015 to 69% in 2016), 'fear of what might happen after contact with service' (up from 28% in 2015 to 56% in 2016) and 'fear of losing friends' (up from 14% in 2015 to 39% in 2016)
- The barriers to finding help most often experienced by frequent injecting drug users in 2016 were: 'fear of what might happen after contact with service' (49%), 'service not appropriate for my drug use/problem' (47%), 'long waiting list' (46%), 'couldn't get appointment at suitable time' (42%), 'no transport to get there' (39%), 'social pressure to keep using' (31%), 'fear of police' (30%), and 'fear of CYFs or other social welfare agencies' (30%)
- There were increases in the proportion of frequent injecting drug users who reported 'fear of police' (up from 14% in 2007 to 30% in 2016), 'no transport to get there' (up from 23% in 2007 to 39% in 2016), 'service not appropriate for type of drug use' (up from 31% in 2007 to 47% in 2016) and 'fear of CYFs or other social welfare agency' (up from 19% in 2007 to 30% in 2016)

17. Drug enforcement

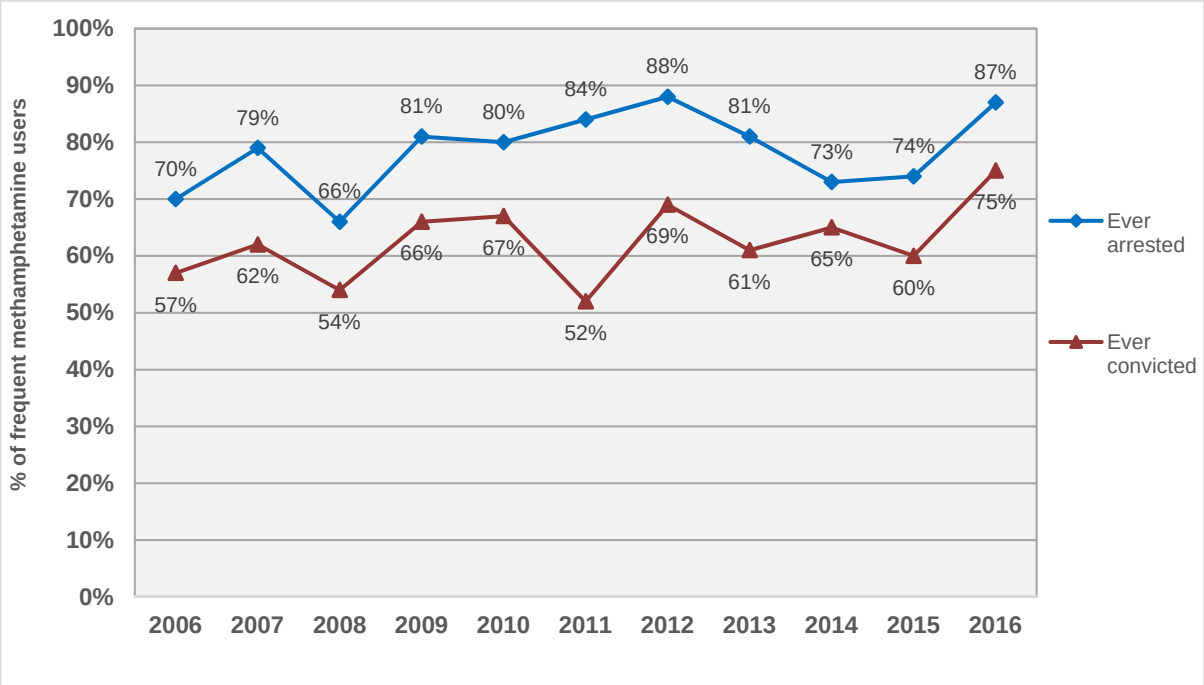
17.1 Introduction

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, violence, property or driving offences. This high contact with the criminal justice system is increasingly seen as an opportunity to address an offender's alcohol and drug use if it is a driver of their offending (Caulkins & Reuter, 2009; Hough, 1996). This is the rationale for speciality drug courts, the provision of drug treatment in prison, and for including participation in drug treatment as a condition of parole. In New Zealand, two pilot Alcohol and Drug Treatment Courts have been established in Auckland and drug treatment programmes have been expanded in prisons.

17.2 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-six percent of injecting drug users, 87% of the frequent methamphetamine users and 35% of the frequent ecstasy users had been arrested at some point in their lives. The proportion of methamphetamine users who had ever been arrested increased from 70% in 2006 to 87% in 2016 ($p=0.0125$), and from 74% in 2015 to 87% in 2016 ($p=0.0189$). Similarly, there was also an increase in the proportion of frequent methamphetamine users who had ever been convicted of a crime, up from 57% in 2006 to 75% in 2016 ($p=0.0196$), and up from 60% in 2015 to 75% in 2016 ($p=0.0195$).

Figure 17.1 Proportion of frequent methamphetamine users who had ever been arrested or ever convicted of a crime, 2006-2016



There was no change in the proportion of frequent injecting drug users or frequent ecstasy users who had ever been arrested or convicted of a crime from 2006 to 2016.

17.3 Drug treatment as part of sentencing

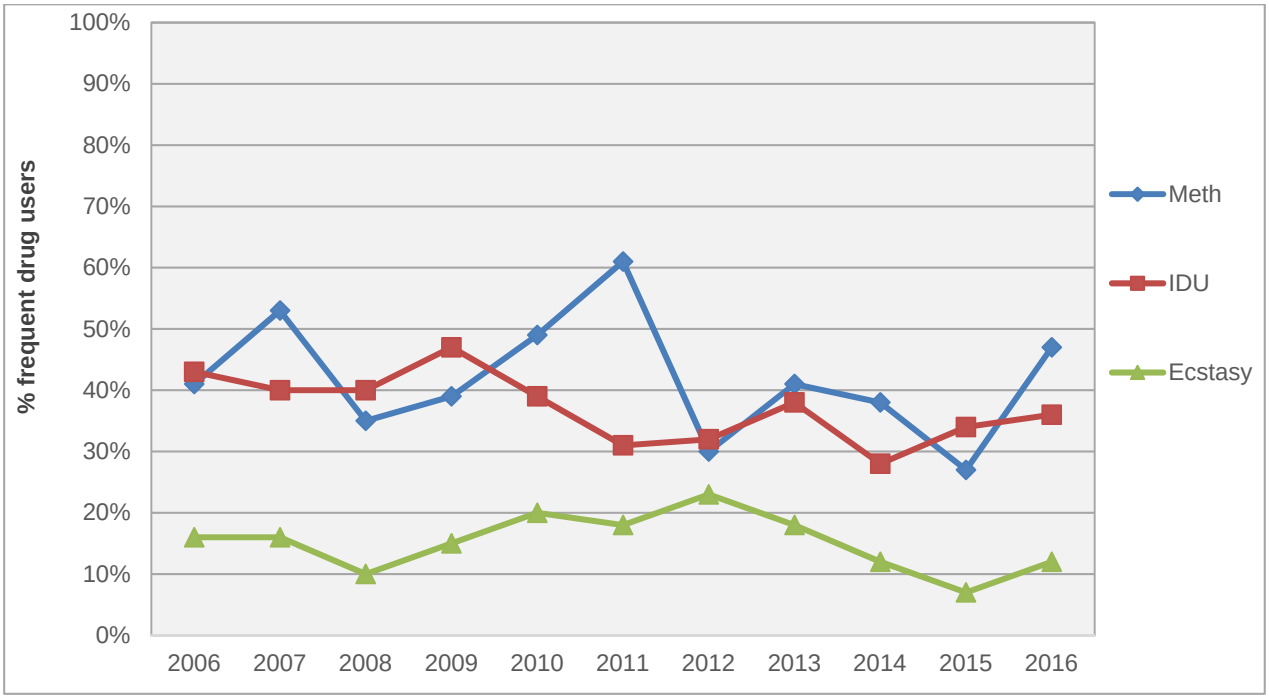
Those frequent drug users who had been convicted of a crime were asked whether they had received any treatment for alcohol and drug issues as part of their sentence. Fifty-three percent of the frequent methamphetamine users, 44% of the frequent injecting drug users, and 44% of the frequent ecstasy users who had been convicted received alcohol and drug treatment as a part of their sentence in 2016. The proportion of frequent methamphetamine users who had received alcohol and drug treatment as part of their sentence increased from 32% in 2009 to 53% in 2016 (p=0.0014).

17.4 Recent arrest and imprisonment

The frequent drug users were also asked if they had been arrested or imprisoned in the previous 12 months. Forty-seven percent of the frequent methamphetamine users, 36% of the frequent injecting drug users and 12% of the frequent ecstasy users had been arrested in the past year in 2016. The

proportion of frequent methamphetamine users who had been arrested in the previous year increased sharply from 27% in 2015 to 47% in 2016 (p=0.0021) (Figure 17.2). The proportion of frequent injecting drug users who had been arrested in the previous year declined from 43% in 2006 to 36% in 2016 (p=0.0179). There was no change in the proportion of frequent ecstasy users who had recently been arrested from 2006 to 2016.

Figure 17.2 Proportion of frequent methamphetamine, injecting drug users and ecstasy users who had been arrested in the previous 12 months, 2006-2016



17.5 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 17.1 presents the offences the frequent drug users had been arrested for across the entire sample (not just the ones arrested), to provide an indication of offending behaviour across the whole group of frequent drug users. The offences the frequent methamphetamine users had most commonly been arrested for in 2016 were 'other offences' (22%), 'property crime' (18%), 'possession or use of drugs' (14%), 'violence' (6%), 'disorderly behaviour' (5%), and 'drink driving' (5%). '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 17.1 Proportion of frequent drug users who were arrested for different criminal offences in the past 12 months by frequent drug user group, 2016

Criminal offences in past 12 months (%)	Methamphetamine users	Ecstasy users (MDMA)	Intravenous drug users (IDU)
	(n=130)	(n=65)	(n=110)
Other offences	22%	2%	15%
Use/possession drugs	14%	4%	4%
Property crime	18%	1%	10%
Disorderly behaviour	5%	6%	2%
Violent crime	6%	0%	6%
Drink driving	5%	0%	1%
Other driving offence	3%	0%	5%
Drug driving	1%	2%	2%
Fraud	4%	0%	0%
Drug manufacturing	1%	0%	1%
Dealing drugs	4%	2%	0%

17.6 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 over the past six months. Among those who had noticed police activity towards drug users, 43% of the frequent methamphetamine users, 47% of the frequent injecting drug users and 63% of the frequent ecstasy users reported noticing 'more' police activity in the previous six months in 2016.

There was a decline in the proportion of frequent methamphetamine users who reported 'more' police activity toward drug users from 2006 to 2016 (p=0.0001) (Table 17.2 and Figure 17.3). There was also a decline in the proportion of frequent injecting drug users who reported 'more' police activity towards drug users from 2006 to 2016 (p=0.0081) (Table 17.4). The frequent ecstasy users reported a sharp increase in police activity toward drug users from 2015 to 2016 (p=0.0256).

Table 17.2 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), 2006-2016

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)	2016 (n=91)
More [3]	72	63	67	48	72	68	61	53	50	43	43
Stable [2]	20	32	30	49	27	30	35	40	48	57	51
Less [1]	7	5	3	3	1	4	5	7	3	0	6
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	2.4
Overall recent change	More	More/ stable	More/ stable	Stable /more	More	More/ stable	More/ stable	More/ stable	More/ stable	Stable /more	Stable /more

Figure 17.3 Mean score of change in police activity toward drug users in the past six months for frequent drug users, 2006-2016

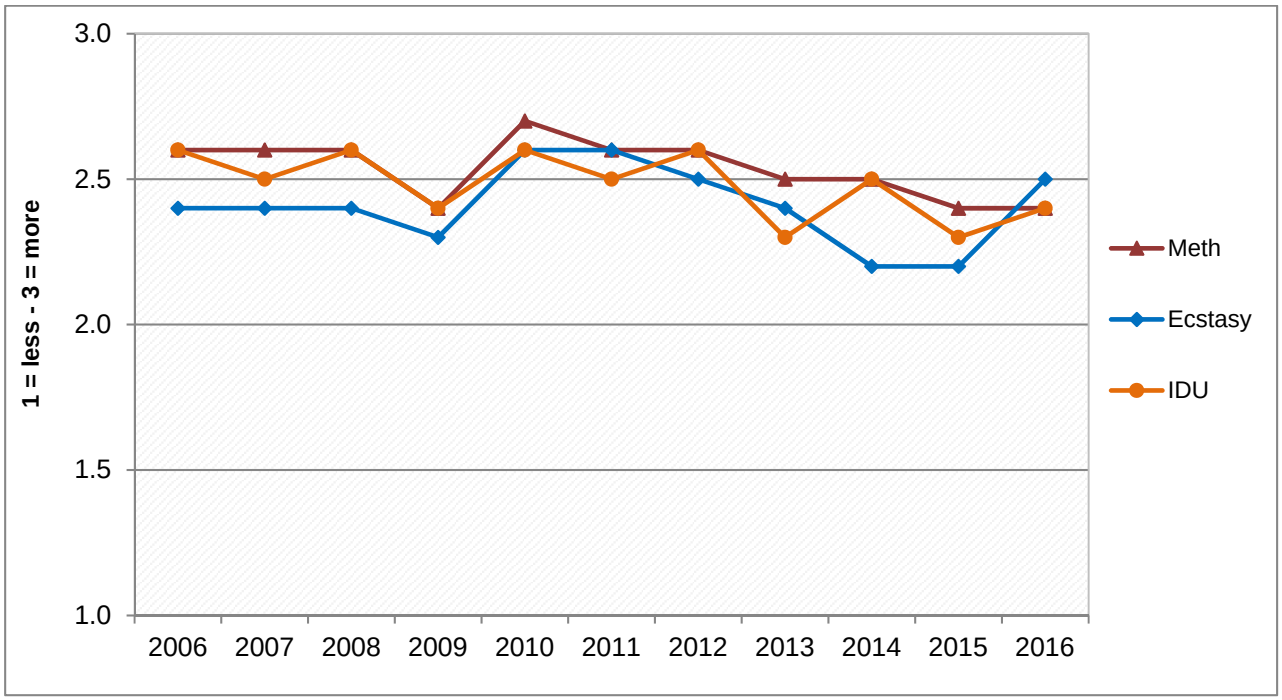


Table 17.3 Frequent ecstasy users' perceptions of the change in police activity in relation to drug users in the past six months (of those who noticed any change in police activity), 2006-2016

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)	2016 (n=30)
More [3]	50	52	48	33	61	67	48	42	24	30	63
Stable [2]	45	39	47	67	34	26	49	54	69	58	27
Less [1]	5	8	5	0	4	7	3	4	7	12	10
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	2.5
Overall recent change	More/ stable	More/ stable	More/ stable	Stable/ more	More/ stable	More/ stable	Stable/ more	Stable/ more	Stable/ more	Stable/ more	More/ stable

Table 17.4 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), 2006-2016

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)	2016 (n=65)
More [3]	62	53	70	44	60	55	63	34	46	41	47
Stable [2]	32	40	25	49	39	41	34	64	53	52	42
Less [1]	5	6	5	6	1	4	3	2	0	7	11
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	2.4
Overall recent change	More/ stable	More/ stable	More	Stable /more	More/ stable	More/ stable	More/ stable	Stable /more	Stable /more	Stable /more	More/ stable

17.7 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. In 2016, 29% of the frequent injecting drug users, 26% of the frequent ecstasy users and 21% of the frequent methamphetamine users reported that police activity had

indeed made it 'more difficult' for them to obtain drugs (Table 17.5). 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 29% in 2016 (p=0.0008) (Figure 17.4).

Figure 17.10 Proportion of frequent drug users who thought police activity had made it 'more difficult' for them to obtain drugs in the past six months, 2006-2016

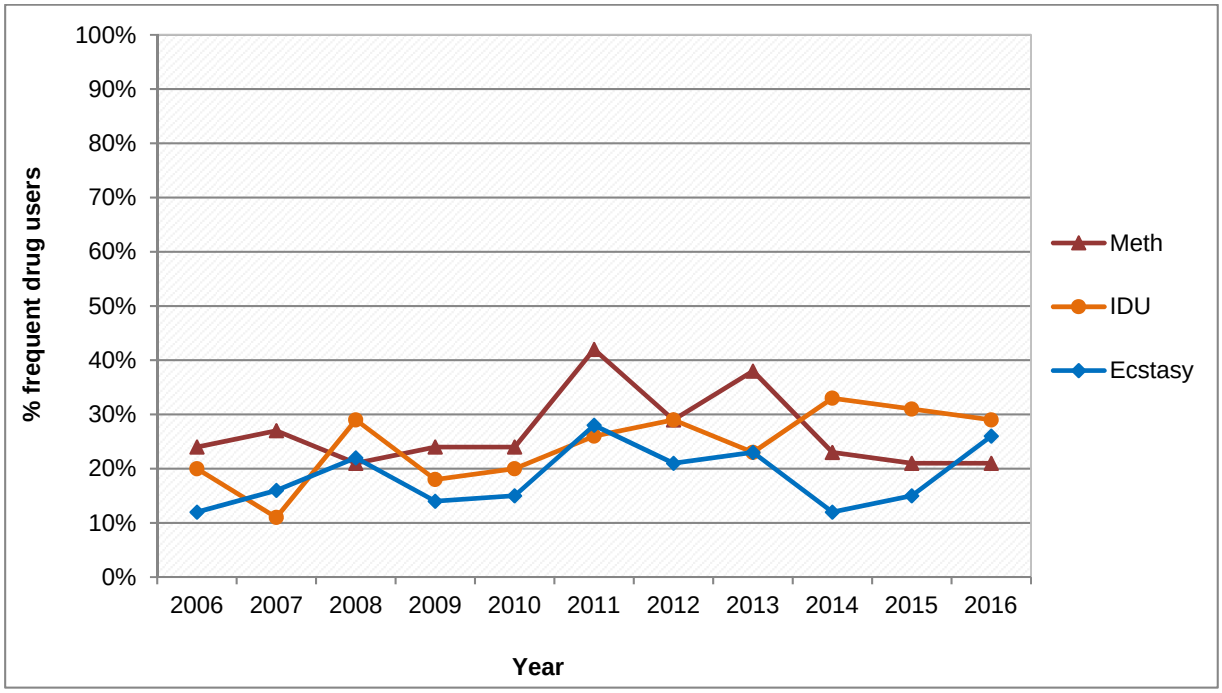


Table 17.5 Proportion of frequent drug users who thought police activity had made it 'more difficult' for them to obtain drugs in the past six months, 2006-2016

Police made it more difficult to obtain drugs (%)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Meth users	(n=112)	(n=110)	(n=133)	(n=100)	(n=120)	(n=94)	(n=98)	(n= 90)	(n=97)	(n=65)	(n=126)
	24%	27%	21%	24%	24%	42%	29%	38%	23%	21%	21%
Injecting drug users	(n=92)	(n=107)	(n=127)	(n=99)	(n=124)	(n=86)	(n=102)	(n=93)	(n=96)	(n=104)	(n=106)
	20%	11%	29%	18%	20%	26%	29%	23%	33%	31%	29%
Ecstasy users	(n=106)	(n=100)	(n=122)	(n=101)	(n=149)	(n=141)	(n=122)	(n=102)	(n=85)	(n=98)	(n=54)
	12%	16%	22%	14%	15%	28%	21%	23%	12%	15%	26%

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