

New South Wales

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**NSW TRENDS IN ECSTASY AND RELATED
DRUG MARKETS 2014
Findings from the
Ecstasy and Related Drugs Reporting System
(EDRS)**

Australian Drug Trends Series No. 137

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**NEW SOUTH WALES
TRENDS IN ECSTASY AND RELATED
DRUG MARKETS
2014**



**Findings from the
Ecstasy and Related Drugs Reporting
System (EDRS)**

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National Drug and Alcohol Research Centre
University of New South Wales

Australian Drug Trends Series No. 137

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ABBREVIATIONS

1,4-B	1,4-butanediol
25I-NBOMe	2-4-iodo-2,5-dimethoxyphenyl- <i>N</i> -2-methoxyphenylmethylethanamine
2C-B	4-bromo-2,5-dimethoxyphenethylamine
2C-E	2,5-dimethoxy-4-ethylphenethylamine
2C-I	2,5-dimethoxy-4-iodophenethylamine
5-IAI	5-Iodo-2-aminoindane
5-MeO-DMT	5-methoxy-dimethyltryptamine
ABCI	Australian Bureau of Criminal Intelligence
ABS	Australian Bureau of Statistics
ACC	Australian Crime Commission
ACON	AIDS Council of NSW
ACPR	Australasian Centre for Policing Research
ACT	Australian Capital Territory
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
Health	Australian Government Department of Health
AIHW	Australian Institute of Health and Welfare
ATS	amphetamine type stimulant
ATSI	Aboriginal and/or Torres Strait Islander
AUDIT	Alcohol Use Disorders Identification Test
BBVI	blood-borne viral infections
BOCSAR	Bureau of Crime Statistics and Research
BZP	1-benzylpiperazine
CNS	central nervous system
DASSA	Drug and Alcohol Services South Australia
DMT	dimethyl tryptamine
DOB	2,5-dimethoxy-4-bromoamphetamine
DOI	death on impact; 2,5-dimethoxy-4-iodoamphetamine
DOM	2,5-dimethoxy-4-methylamphetamine
DXM	dextromethorphan
EDRS	Ecstasy and Related Drug Reporting System
ERD	ecstasy and related drugs
FDS	Family Drug Support
GBL	gamma-butyrolactone
GHB	gamma-hydroxybutyrate
GLBT	gay/lesbian/bisexual/transgender

GP	General practitioner
HBV	hepatitis B virus
HCV	hepatitis C virus
HIV	human immunodeficiency virus
HPV	Human papillomavirus
IDRS	Illicit Drug Reporting System
IDU	injecting drug user(s)
IPS	illicit psychostimulant
K10	Kessler Psychological Distress Scale
KE	key expert(s)
LBQ	lesbian, bisexual and queer
LSD	<i>l</i> -lysergic acid diethylamide
MDA	3,4-methylenedioxymphetamine
MDAI	5,6-methylenedioxy-2-aminoindane
MDEA	3,4-methylenedioxyethylamphetamine
MDMA	3,4-methylenedioxymethamphetamine
MDPV	3,4-methylenedioxypropylone; ivory wave
MDS AODTS	Minimum Data Set for Alcohol and Other Drug Treatment Services
MPTP	1-methyl-4-phenyl-1,2,5,6-tetrahydropyridine
MXE	methoxetamine
N	(or n) number of participants
NDARC	National Drug and Alcohol Research Centre
NDLRF	National Drug Law Enforcement Research Fund
NDSHS	National Drug Strategy Household Survey
NHMD	National Hospital Morbidity Database
NIDIP	National Illicit Drug Indicators Project
NNDSS	National Notifiable Diseases Surveillance System
NPS	new psychoactive substances
NSP	needle and syringe program(s)
NSW	New South Wales
NT	Northern Territory
OD	overdose
OCD	obsessive compulsive disorder
OTC	over the counter
PASW	Predictive Analytics Software
PDI	Party Drugs Initiative
PIED	performance and image enhancing drugs

PMA	para-methoxyamphetamine
PNS	peripheral nervous system
PPA	price, purity and availability
QLD	Queensland
QOL	quality of life
RBT	random breath test
REU	regular ecstasy users
ROA	route of administration
RPU	regular psychostimulant user(s)
SA	South Australia
SDS	Severity of Dependence Scale
SNOMED CT	Systematized Nomenclature of Medicine Clinical Terms
SPSS	Statistical Package for the Social Sciences
STI	sexually transmitted infection(s)
SWASH	Sydney Women and Sexual Health Survey
TAS	Tasmania
THC	delta-9-tetrahydro-cannabinol
TMA	3,4,5-trimethoxyamphetamine
VIC	Victoria
WA	Western Australia
WHO	World Health Organisation

GLOSSARY OF TERMS

25I-NBOMe	A psychedelic drug and derivative of the substituted phenethylamine psychedelic 2C-I
2C-B	Street term for 4-bromo-2,5-dimethoxyphenethylamine. It is a synthetic psychedelic of moderate duration
2C-I	Street term for 2,5-dimethoxy-4-iodophenethylamine. It is a short-acting synthetic psychedelic
Binge	Use over 48 hours without sleep
Bump	A bump refers to a small amount of powder, typically measured and snorted from the end of a key, the corner of a plastic card or a 'bumper'
Bumper	A bumper is a small glass nasal inhaler, purchased from tobacconists, used to store and administer powdered substances such as ketamine
Cap	Capsule
Cocaine	A central nervous system stimulant, obtained from the cocoa plant. Cocaine hydrochloride, the salt, is the more common form used in Australia. The freebase form is called 'crack'; little or no crack is available or used in Australia
Crystal	Street term for crystal methamphetamine, a potent form of methamphetamine. Also known as 'ice'
Daily use	Use occurring on each day in the past six months, based on a maximum of 180 days
Ecstasy	Street term for MDMA (3,4-methylenedioxymethamphetamine), which may contain a range of other substances. It is a hallucinogenic amphetamine
Eightball	3.5 grams
GBL	Acronym for gamma-butyrolactone. It is a GHB precursor and substitute, which metabolises into GHB in the stomach
GHB	Acronym for gamma-hydroxy butyrate. It is a central nervous system depressant. Other known terms include 'GBH' and 'liquid ecstasy'; however, the latter is misleading as GHB is a depressant, not a stimulant
Halfweight	0.5 gram
Illicit	Illicit refers to pharmaceuticals obtained from a prescription in someone else's name, e.g. through buying them from a dealer or obtaining them from a friend or partner

Indicator data	Sources of secondary data used in the EDRS (see Method section for further details)
Ketamine	It is a dissociative psychedelic used as a veterinary and human anaesthetic
Key expert(s)	Also referred to as KE; persons participating in the Key Expert Survey component of the EDRS (see Method section for further details)
Licit	Licit refers to pharmaceuticals (e.g. benzodiazepines, antidepressants and opioids such as methadone, buprenorphine, morphine and oxycodone) obtained by a prescription in the user's name. This definition does not take account of 'doctor shopping' practices; however, it differentiates between prescriptions for self as opposed to pharmaceuticals bought on the street or those prescribed to a friend or partner
Lifetime injection	Injection (typically intravenous) on at least one occasion in the participant's lifetime
Lifetime use	Use on at least one occasion in the participant's lifetime via one or more of the following routes of administration: inject; smoke; snort; swallow; and/or shaft/shelve
LSD	Acronym for <i>l</i> -lysergic acid diethylamide. It is a powerful hallucinogen
MDA	Acronym for 3,4-methylenedioxymphetamine. It is classed as a stimulant hallucinogen. It is closely related to MDMA (and is sometimes found in ecstasy tablets); however, its effects are said to be slightly more psychedelic
Mephedrone	Mephedrone (2-methylamino-1-p-tolylpropane-1-one), also known as 4-methylmethcathinone (4-MMC) or 4-methylephedrone, is a stimulant and entactogen drug of the phenethylamine, amphetamine, and cathinone chemical classes
Methamphetamine	An analogue of amphetamine, it is a central nervous system stimulant. The three main forms of methamphetamine in Australia are methamphetamine powder ('speed'), methamphetamine base ('base') and crystalline methamphetamine ('crystal', 'ice')
Opiates	Opiates are derived directly from the opium poppy by extracting and purifying the various chemicals in the poppy
Opioids	Opioids include all opiates but also include chemicals that have been synthesised in some way; e.g. heroin is an opioid but not an opiate, morphine is both an opiate and opioid
PMA	Acronym for para-methoxyamphetamine. It is an amphetamine-type drug with both stimulant and hallucinogenic properties
Point	0.1 gram although may also be used as a term referring to an amount for one injection
Recent injection	Injection (typically intravenous) in the last six months

Recent use Use in the last six months via one or more of the following routes of administration: inject; smoke; snort; swallow; and/or shaft/shelve

Shelving/shafting Use via insertion into vagina (shelving) or the rectum (shafting)

Use Use via one or more of the following routes of administration: injecting; smoking; snorting; shafting/shelving and/or swallowing

Guide to days of use/injection

180 days daily use/injection over preceding six months

90 days use/injection every second day

24 days weekly use/injection

12 days fortnightly use/injection

6 days monthly use/injection

EXECUTIVE SUMMARY

The 2014 NSW Trends in Ecstasy and Related Drug Markets report represents the fifteenth year in which data has been collected in NSW on the markets for ecstasy and related drugs (ERD). The Ecstasy and related Drugs Reporting System (EDRS; formerly the Party Drugs Initiative, or PDI) is the most comprehensive and detailed study of ERD markets in NSW.

Using a similar methodology to the Illicit Drug Reporting System (IDRS), the EDRS monitors the price, purity and availability of 'ecstasy' (3,4-methylenedioxymethamphetamine; MDMA) and other related drugs such as methamphetamine, cocaine, gamma-hydroxybutyrate (GHB), d-lysergic acid diethylamide (LSD) and ketamine. It also examines trends in the use and harms of these drugs. It utilises data from three sources: a) surveys with regular psychostimulant users (RPU); b) surveys with key experts (KE) who have contact with RPU through the nature of their work; and c) the analysis of existing data sources that contain information on ecstasy and other drugs. RPU are recruited because they are considered a sentinel group to detect illicit drug trends. The information from RPU is, therefore, not representative of ecstasy and other drug users in the general population, but is indicative of emerging trends that may warrant further monitoring.

The findings from each year not only provide a snapshot of the drug markets in NSW, but also help to provide an evidence base for policy decisions, inform harm reduction messages, and provide directions for further investigation when issues of concern are detected. Continued monitoring of the ERD markets in NSW will help add to our understanding of the use of these drugs; the price, purity and availability of these drugs and how these may impact on each other; and the associated harms which may stem from the use of these drugs.

Executive Summary snapshot

Demographics

- 100 RPU were sampled in the 2014 EDRS (71 male and 29 female).
- Participants were young (mean age = 24 years), reasonably well educated and most commonly spoke English as their first language.
- Very few participants reported being currently in drug treatment (3%).
- These demographics have remained relatively stable over time, with the exception of a drop in those reporting unemployment (6%).

Drug use history and current drug use

- Participants had experience with a wide range of drugs, having used an average of 12 different drug types during their lifetimes and 7 different drug types over the past six months.
- Ecstasy was the main drug of choice for two-fifths of the sample.
- Eleven percent reported having ever injected a drug.
- Reductions were seen in the lifetime and recent use of cocaine.
- One-fifth of the group had recently binged on ERD. Those who had recently binged had done so on a median of two times in the past six months.

Ecstasy

Consumption patterns

- Ecstasy was used on a median of 16 days over the past six months (i.e. slightly more than fortnightly).
- Participants had used a median of 2 tablets during a 'typical' occasion of use (range 1-8).
- Swallowing was the main route of administration (93%).
- There was a significant decrease in the use of pills and a significant increase in the use of the crystalline form from 2013 to 2014.
- The majority of RPU (89%) reported using other drugs in combination with ecstasy the last time they used it, most commonly tobacco, cannabis, alcohol and cocaine.
- Three-fifths (62%) of participants used other drugs to help them come down from ecstasy the last time they used it (most commonly cannabis, alcohol and benzodiazepines).
- Ecstasy was most commonly last used at a nightclub (28%) and other public venues.
- KE noted the constant worry of unknown contents in pills and a lack of health concern around drug-taking practices.

Market characteristics

Pills, powder and capsules:

- *Price:* \$25 per tablet.
- *Purity:* Currently medium and stable.
- *Availability:* Currently easy to very easy to obtain and stable.

Crystal MDMA

- *Price:* \$35 per point
- *Purity:* Currently high and stable.
- *Availability:* Currently easy and stable.

Methamphetamine

Consumption patterns

Speed

- Fifty percent of RPU had ever used speed and one-fifth had done so recently.
- Speed was used on a median of 2 days over the preceding six months and was primarily snorted (71%).
- The frequency and quantity of use appeared to be stable from 2012 to 2013.

Base

- One-quarter of the sample had ever used base and 6% had done so recently.
- Base was used on a median of 4.5 days over the preceding six months and was primarily swallowed (n=5).
- The frequency of use appeared to be stable from 2013 to 2014.

Crystal

- Under one-quarter of the sample had ever used crystal and 13% had done so recently.
- Crystal was used on a median of 10 days over the preceding six months and was primarily smoked (85%).
- The frequency and quantity of use appeared to be stable from 2013 to 2014.
- The use of methamphetamine among the NSW general population remained stable from 2010 (2.1%) to 2013 (2.1%).
- KE reported that methamphetamine use was not specific to a particular demographic and that there were more health issues with younger methamphetamine users.

Market characteristics

Speed

- *Price:* \$150 per gram, which is stable from 2013.
- *Purity:* Currently high, appeared to be stable.
- *Availability:* Reports variable.

Base

- *Price:* \$100 per gram.
- *Availability:* Current reports variable, stable over time.

Crystal

- *Price:* \$50 per point and reportedly stable.
- *Purity:* Reports variable for current purity and stability.
- *Availability:* Current reports variable, stable over time.

Cocaine

Consumption patterns

- The majority of the group (89%) had tried cocaine at least once, and 67% had used it recently, both significant increases from 2013.
- Cocaine was used on a median of 3 days over the preceding six months and the main route of administration was snorting (97%).
- Recent use of cocaine among the general population remained stable at 2.1% in 2013.
- KE reported a slight increase in the use of cocaine in the past year.

Market characteristics

- *Price:* \$300 per gram, stable.
- *Purity:* Variable, however stable over time.
- *Availability:* Currently easy to obtain, stable.
- KE reported a price range of \$250-400 per gram.

Ketamine

Consumption patterns

- Over two-fifths of the sample had tried ketamine at least once and under a quarter had used it recently.

- Ketamine was used on a median of 2 days over the preceding six months and a majority of users reported snorting as the route of administration (78%).
- Recent use of ketamine among the NSW general population remained low and stable.
- KE reported that ketamine was highly linked to the Sydney music festivals.

Market characteristics

- *Price:* \$180 per gram, variable.
- *Purity:* Medium to high, stable.
- *Availability:* Variable reports currently and over time.

GHB

Consumption patterns

- Under one-quarter of the sample had tried GHB at least once and 12% had used it recently.
- GHB was used on a median of 1.5 days over the preceding six months.
- The frequency and quantity of use of GHB remained stable from 2013 to 2014.
- Recent use of GHB among the general population remained low and stable.

Market characteristics

- *Price:* \$10 per mL.
- KE reported a median of \$3-8 per mL.

LSD

Consumption patterns

- Two-thirds of the sample had tried LSD at least once and over two-thirds had used it recently.
- LSD was used on a median of 2 days over the preceding six months.
- Unlike most other drugs, LSD was often used in outdoor settings.
- The use of LSD among the sample increased from 2008 to 2014.
- KE had various comments on the impact of NBOMe on the LSD market.

Market characteristics

- *Price:* \$25 per tab, stable.
- *Purity:* High, stable.
- *Availability:* Currently easy to very easy to obtain, stable.

Cannabis

Consumption patterns

- Almost every participant had tried cannabis at least once and the vast majority had used it recently.
- Cannabis was used on a median of 30 days (i.e. more than weekly) over the preceding six months.
- The use of cannabis had remained relatively stable over time.
- The use of cannabis among the general population remained stable at 10.2% in 2013.

- KE reported a younger age of initiation for cannabis and heavier users presenting more cases of psychosis, anxiety and depression.

Market characteristics

Hydro

- *Price:* \$20 per gram; \$300 per ounce, stable.
- *Potency:* Currently medium, stable.
- *Availability:* Currently very easy to obtain, stable.
- KE reported a shift to larger industrial sites for hydro cannabis.

Bush

- *Price:* \$20 per gram; \$280 per ounce, stable.
- *Potency:* Currently medium, stable.
- *Availability:* Varying reports of current availability, stable.

Other drug use

Alcohol

- All of the 2014 NSW RPU reported recent use of alcohol
- KE made mixed comments about alcohol and harms and reported that alcohol was much more dangerous when combined with other drugs.

Tobacco

- Almost all RPU had used tobacco at least once (92%) and 80% had smoked within the past six months.

Benzodiazepines

- Half of the group had recently used benzodiazepines. Illicit use was more common than licit use.

Antidepressants

- One-fifth of RPU had recently used antidepressants. Licit use was more common than illicit use.

Inhalants

- Amyl nitrite was used more commonly used among RPU (65%) than nitrous oxide (43%) over the six months preceding interview.
- The recent use of nitrous oxide has slightly risen from 2012 to 2014.

MDA

- One-fifth of the sample reported using MDA in the past six months.
- There was an increase in recent use of MDA from 2010-2013, and a drop in recent use in 2014.

Heroin and other opiates

- Eight RPU reported recent heroin use. Nine participants reported the using of illicitly obtained other opiates.

Psilocybin Mushrooms

- Just under half the sample had ever tried mushrooms and one-fifth had used mushrooms recently.

Pharmaceutical stimulants

- One-quarter of the group had recently used pharmaceutical stimulants. Illicit use was more common than licit use.
- The recent use of illicit pharmaceutical stimulants has steadily increased since 2009, however there was a drop in use in 2014.

Over the counter (OTC) drugs

- Nineteen percent reported recent use of OTC codeine-containing products for non-pain use, and 6% reported recent use of OTC stimulants for non-medicinal use.

New psychoactive substance (NPS) use

- In 2014, the proportion of EDRS participants that have consumed an NPS in the previous six month period was 38%.
- There was a significant decrease in the proportion reporting the use of synthetic cannabis from 2013 to 2014.
- The most commonly used psychoactive substances were 2C-B, NBOMe and DMT.
- KE reported that many NPS were being sold as traditional drugs, however people who intentionally used NPS were older, more experienced users.

Health-related harms associated with ecstasy and related drug use

Overdose, deaths and hospital admissions

- One-third of participants reported having overdosed on a stimulant drug throughout their lifetime.
- One-third reported having ever overdosed on a depressant drug.
- Deaths associated with ecstasy, methamphetamine, cocaine, ketamine and cannabis have remained stable in the past year. A slight increase was observed in deaths associated with methamphetamines in 2011/12; however, this has returned to levels previously in 2013/14.
- Hospital admissions in which cocaine and cannabis was the principal diagnosis appears to be increasing over time in NSW.

Service usage

- Only 10% of respondents reported that they had recently accessed a medical or health service in relation to their drug use, a downward trend since 2010.
- Calls to help lines regarding crystal methamphetamine and cocaine have gradually increased from 2012 onwards.

Mental health

- Participants commonly reported that their drug use caused repeated social problems (23%), resulted in exposure to risk of injury (33%) and/or interfered with responsibilities (27%). Recurrent drug-related legal problems were uncommon (4%).
- One-third of the group had recently experienced a mental health problem. Mood and anxiety disorders were most commonly reported.
- Participants completed the K10. One-fifth of the group fell into the 'high' or 'very high' distress categories.

Risk behaviour

- Eleven participants had ever injected a drug and five had done so recently.
- Over half of the sample had recently had penetrative sex with a casual partner. Forty percent of participants did not use a sexual barrier on the last occasion, when intoxicated, and 38% did not when sober. The main reasons were either that the other partner was using contraception, participants didn't want to or it was agreed not to.
- Participants completed the Alcohol Use Disorders Identification Test (AUDIT). Over two-thirds (69%) of the group fell in the 'harmful drinking' range.

Law enforcement-related trends associated with ERD use

- Eleven percent of RPU had reportedly been arrested over the past year.
- Over one-third of RPU had committed a crime within the past month; most commonly drug dealing and property crimes.
- The number of arrests for ecstasy, amphetamines and cocaine has increased in the last two years.

Special topics of interest

Use of Dark Web Marketplaces

- Twelve percent of participants had purchased a drug online.
- Ecstasy was most commonly purchased followed by LSD.

NPS Health Policy

- A large proportion of participants were unsure about the legal status of NPS.
- Ninety-eight percent reported that the criminalisation of NPS would not stop them from taking these substances in the future.

Implications

The NSW branch of the EDRS aims ultimately to monitor trends in the Sydney ecstasy and related drug (ERD) markets and to investigate harms associated with ERD use. The 2014 NSW EDRS revealed ongoing changes in drug markets and indications of drug related harms which are discussed below.

Return of ecstasy use to pre-2009 levels

Since the destruction of ecstasy precursor stockpiles in South-East Asia (ACC, 2009), we have seen a drop in the purity rating of ecstasy from RPU. Other data reinforce this. For example, looking at the NSW police phenethylamine seizures that were tested, there was a drop in median purity from 22% in 2008/09 to 10% in 2010/11. Although caution must be taken when considering this data, it still provides an indication of the fluctuation of the ecstasy market in NSW (and in Australia) during this time period.

Despite this data, NSW still managed to recruit 100 regular ecstasy users every year during this time period and there has been no change in the availability of ecstasy as reported by RPU from 2009-2014. However, since 2009, the proportion of RPU that reported ecstasy as their drug of choice notably fluctuated and at the same time there has been a steady increase in the proportion of RPU reporting cannabis or alcohol as their drug of choice. Anecdotal reports from various KE suggested that due to the low purity of ecstasy, individuals were turning to other drugs, although this has not been reflected in the NSW EDRS.

Nonetheless, indicator data suggests that ecstasy is now close to pre-2009 levels. Another indication of this change is the advent of crystal MDMA in Australia which is considered in the next paragraph.

The rise of crystal MDMA in NSW

As the name suggests, MDMA crystal is the purer crystalline form of 3,4-methylenedioxy-*N*-methylamphetamine. The absorption of crystals in the digestive system is higher compared to pills or powder MDMA. Thus users experience a stronger 'peak' effect and longer lasting after effects.

It is unclear when this new form was introduced to Australian markets; however, notable numbers of RPU first reported its use in the 2012 EDRS survey. As a result, MDMA crystals were included in the 2013 EDRS survey and we have two years of data on its use.

In the 2014 NSW EDRS, participants reported a significant decline in the use of ecstasy pills and a significant increase in the use of crystal MDMA from 2013-2014. Although pills are still the most widely used form used by RPU, the increase in the use of crystal MDMA and the large proportion that reported its use in 2014 reflects the importance of monitoring harms associated with its use.

Due to its recent introduction into ecstasy markets in Australia, the potential differing effects of crystal MDMA versus other forms of ecstasy is unclear and warrants further investigation.

New psychoactive substance use and the impact of policy in NSW

In October 2013, the NSW Parliament passed the *Drugs and Poisons Legislation Amendment (New Psychoactive and Other Substances) Act 2013*. As a result of this act, it has become illegal in NSW to possess any new psychoactive substance (or NPS) other than those manufactured by licenced or authorised manufacturers.

In the 2013 NPS, we asked RPU about the pleasures of NPS highs, the negatives and whether or not they would take it again. 2C-I, 2C-B and DMT were rated as extremely pleasurable and participants were likely to take them again. The reverse was true for synthetic cannabinoids. The 2014 survey confirmed these figures.

Looking at NPS use in NSW, there was a significant decline in the use of synthetic cannabinoids; however, the use of NPS has remained stable from 2013 to 2014. 2C-B and DMT remained the most prominently used NPS in 2014; additionally, this was the first year the EDRS reported the use of NBOMe, of which 9% of the NSW sample reported its use.

The 2014 EDRS also added questions looking at the knowledge that RPU had about NPS legality after the change of legislation in 2013. The four substances we asked about were 2C-B, 2C-I, DMT and Mephedrone, the possession of which was illegal in NSW as of October 2013. Although a large number of participants were right about the illegality of these drugs, there were significant proportions of individuals who were unsure.

The EDRS also asked the following questions: 'If all NPS became illegal in the future, would that stop you either using or starting to use them?' The vast majority said that illegality would not stop them from using NPS. However, this is not surprising given that the EDRS works with a sample of illicit drug users.

Although the Drugs and Poisons Legislation Amendment was only recently introduced in NSW, data from the EDRS can provide an insight into the outcome of this amendment. In relation to users groups, it seems that, in the short term, NPS use has not changed and participants are indifferent to the legality of these substances.

Alcohol and tobacco use

As in past years, alcohol and tobacco use continued to be highly prevalent amongst the NSW RPU cohort in 2014. Given this, focused interventions to reduce the harms associated with high risk alcohol (including binge drinking) and tobacco use remain a priority.

Hazardous alcohol consumption is a concern in this population, particularly as a large group of RPU scored in the harmful range for alcohol consumption, which may be indicative of alcohol related disorders and dependence. Of particular concern was the proportion of RPU who reported bingeing on alcohol whilst consuming ecstasy.

There is emerging evidence from animal studies to suggest that the interaction between these two drugs dramatically alters the pharmacology of MDMA in the brain, which in turn may exacerbate neurological harms or other associated problems, such as dependence. Furthermore, there is increased risk of dehydration when both alcohol and ecstasy are consumed, and individuals may end up consuming large quantities of alcohol because the immediate effects of intoxication are delayed when ecstasy has been consumed. Continued dissemination of harm reduction messages to reduce and prevent the use of alcohol at harmful levels is recommended.

With the vast majority of RPU also reporting recent tobacco use, and about one-third smoking daily, there is a clear need to focus interventions targeting tobacco use amongst this population. Further research is required to determine whether traditional interventions (e.g. nicotine gum) are a suitable fit for this group, or whether novel tailored interventions would have more success in reducing tobacco use.

Polydrug use and awareness of associated risks

Given that the NSW EDRS sample typically consumed ecstasy in combination with other drugs, it is clear that polydrug use and its related harms are an issue of concern for this cohort. Simultaneous consumption of different drugs may have harmful and unpredictable consequences, such as intoxication being enhanced due to the drug interactions arising from the concoction of drugs consumed. Research into the interactions of drugs, and treatment approaches and harm reduction interventions, are warranted to better understand safe consumption patterns and overdose risks.

It is also critical that information regarding polydrug use is widely disseminated amongst this cohort. Continued use by RPU of combinations of multiple drugs warrants continued education regarding the high risk of unpredictable harms associated with such behaviour.

LSD and NBOMe confusion

Since 2008, there has been a significant increase in the proportions of RPU in NSW reporting the recent use of LSD, and since 2010 this figure has remained fairly consistent with 43% of the sample reporting its use in 2014. At the same time, data from the IDDR (ACC, 2014) reports significant increases in the number and weight of hallucinogenic inducing tryptamines seized at the border, the number of seizures in Australia and the number of people caught for possession and supply of tryptamines. Given this, it is important to monitor and explore the potential harms surrounding these substances.

Health issues and health service utilisation

As with previous years, there is a vast array of health issues surrounding the RPU in NSW. Of these RPU in 2014, 31% were daily smokers, 19% reported a stimulant dependence, 29% reported a mental health problem, 60% reported high psychological distress and 69% were risky drinkers. Twenty-six percent of RPU reported a recent stimulant overdose, 20% reported a recent depressant overdose and 52% reported a drug use problem (social, legal, risk or responsibility problems).

Despite this, only 10% of RPU sought help for a drug use problem and only a further 7% had thought about contacting a service. Given these high rates of health issues and low rates of health service utilisation, it is imperative that recreational drug users are provided with information about available health services and education about the harms and risks of drug use.

1 INTRODUCTION

The Ecstasy and Related Drugs Reporting System (EDRS) is an ongoing monitoring system funded in 2014 by the Australian Government under the Substance Misuse Prevention and Service Improvement Grants Fund. It is run in a similar manner to the Illicit Drug Reporting System (IDRS), another ongoing data collection system funded by the Australian Government under the Substance Misuse Prevention and Service Improvement Grants Fund. The IDRS provides a coordinated approach to the monitoring of the markets of heroin, methamphetamine, cannabis and cocaine. It was identified that the IDRS did not capture the use of ecstasy and related drugs (ERD), as these were used infrequently among the target population of the IDRS – injecting drug users (IDU).

In June 2000, the National Drug Law Enforcement Research Fund (NDLERF), administered by the Australasian Centre for Policing Research (ACPR), funded a two-year, two state trial in New South Wales (NSW) and Queensland (QLD) of the feasibility of monitoring emerging trends in the markets for ecstasy and other related drugs using the extant IDRS methodology. In addition, Drug and Alcohol Services South Australia (DASSA) (formerly known as the Drug and Alcohol Services Council) agreed to provide funding for two years to allow the trial to proceed in this state. The results of this trial are presented elsewhere (see Topp et al., 2004). Regular psychostimulant users (RPU) were identified as an appropriate sentinel population to investigate ERD markets.

The term 'ecstasy and related drugs' includes any drug routinely used in the context of entertainment venues such as nightclubs or dance parties. ERD refers to drugs such as ecstasy (3,4-methylenedioxymethamphetamine – MDMA), methamphetamine, LSD (*d*-lysergic acid diethylamide), ketamine, MDA (3,4-methylenedioxyamphetamine) and GHB (gamma-hydroxybutyrate).

As with the IDRS, the EDRS involves the collection and analysis of three data components: a) a survey of current regular 'psychostimulant' users (RPU), who represent a sentinel population of regular psychostimulant users likely to be aware of trends in illicit drug markets; b) interviews with key experts (KE) – professionals and volunteers who work with, or have regular contact with, regular psychostimulant users; and c) the analysis of secondary indicator data sources, such as existing databases of customs seizures, police drug-related arrests, and drug information telephone services. The three data sources are triangulated against each other in order to minimise the biases and weaknesses inherent in each one, ensuring that only valid emerging trends are documented.

The 2014 NSW Trends in Ecstasy and Related Drug Markets report provides information regarding ecstasy and related drug trends in Sydney.

1.1 Aims

The aims of the 2014 NSW EDRS were:

1. to describe the demographic characteristics of a sample of current ecstasy users interviewed in Sydney in 2014;
2. to examine the patterns of ecstasy and related drug use of this sample, including lifetime and recent use of over 20 licit and illicit drugs;
3. to document the current price, purity and availability of ecstasy and related drugs in Sydney, including locations and persons scored from and locations of use;
4. to examine participants' perceptions of the incidence and nature of ecstasy and other drug-related harms, including health-related harms, as well as financial, occupational, social and legal harms;
5. to identify emerging trends in the ecstasy and related drug market that may require further investigation; and
6. to compare key findings of this study with those reported in previous years (2008-2014).

2 METHOD

The 2014 EDRS used the methodology trialled in the feasibility study (Topp et al., 2004) to monitor trends in the markets for ERD. The three main sources of information used to document trends were:

1. face-to-face interviews with current RPU recruited in Sydney;
2. telephone interviews with KE who, through the nature of their work, have regular contact with users of ecstasy and/or other related drugs, or knowledge of the markets for these drugs in Sydney; and
3. indicator data sources such as the purity of seizures of ecstasy analysed in NSW, calls to drug support and information lines, and treatment services data.

These three data sources were triangulated to provide an indication of emerging trends in drug use and ecstasy and related drug markets.

2.1 Survey of regular psychostimulant users (RPU)

The sentinel population chosen to monitor trends in ecstasy and related drug (ERD) markets consisted of people who engaged in the regular use of tablets sold as 'ecstasy'. Although a range of drugs fall into the category 'ecstasy and related drugs', ecstasy is a drug that can be considered one of the main illicit drugs used in Australia. It is the second most widely used illicit drug after cannabis, with 3% of the population aged 14 years or older reporting recent use of ecstasy in the 2013 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2014).

The ecstasy (tablets sold purporting to contain MDMA) market has existed here for more than two decades. In contrast, other drugs that fall into the class of ERD have either declined in popularity since the appearance of ecstasy in this country (e.g. MDA), have fluctuated widely in availability (e.g. ketamine and LSD), or are relatively new in the market and are not as widely used as ecstasy (e.g. GHB). It has been suggested that it would be difficult to identify a regular user of GHB or ketamine who was not also an experienced user of ecstasy, whereas the reverse will often be the case (Topp & Darke, 2001). Ecstasy may be the first illicit drug with which many young Australians who choose to use illicit drugs will experiment with, and a minority of these users will go on to experiment with the less common related drugs such as ketamine, LSD and GHB.

The entrenchment of ecstasy in Australia's illicit drug markets, relative to other related drugs, underpinned the decision that regular use of ecstasy could be considered the defining characteristic of the target population – regular ecstasy users (REU, Topp and Darke, 2001). A sample of this population was successfully recruited and interviewed in the two-year feasibility trial, and was able to provide the data that were sought. However, as will become evident in the report, it is apparent that the ecstasy market and the regularity of its consumption and type of consumers may be changing. More discussion on this issue is in section 4.10: New psychoactive substance use. Beginning in 2012, due to difficulty in smaller jurisdictions in recruiting REU, regular psychostimulant users (RPU) were also recruited to provide information on ERD markets. In 2014, the RPU criteria were adopted for all states. Interestingly, in NSW all participants had used ecstasy and only 10% of participants had not used ecstasy regularly in accordance with REU criteria. To summarise,

only 10% of the NSW 2014 sample were not REU, suggesting that EDRS results still comprise a large amount of data from regular ecstasy users.

A total of 100 RPU residing in the Sydney metropolitan region were interviewed for the 2014 NSW EDRS. Participants were recruited through a purposive sampling strategy (Kerlinger, 1986), which included advertisements in entertainment street press, gay and lesbian newspapers, social media, interviewer contacts, and 'snowball' procedures (Biernacki & Waldorf, 1981). 'Snowballing' is a means of sampling 'hidden' populations which relies on peer referral, and is widely used to access illicit drug users both in Australian (Boys, Lenton & Norcross, 1997; Ovendon & Loxley, 1996; Solowij, Hall & Lee, 1992) and international studies (Dalgarno & Shewan, 1996; Forsyth, 1996; Peters, Davies & Richardson, 1997). Initial contact was established through newspaper advertisements or interviewers' personal contacts. On completion of the interview, participants were requested to mention the study to friends who might be willing and able to participate and were handed cards containing the researcher's contact details to distribute to their peers.

2.1.1 Procedure

Participants contacted the researchers by telephone and were screened for eligibility. To meet entry criteria, they had to be at least 17 years of age (due to ethical constraints), have used ecstasy at least six times during the preceding six months, and have been a resident of the Sydney metropolitan region for the past 12 months. As in the IDRS, the focus was on the capital city, as new trends in illicit drug markets are more likely to emerge in urban rather than in remote or regional areas.

Participants were informed that all information provided was strictly confidential and anonymous, and that the study would involve a face-to-face interview that would take approximately 45 minutes. All respondents were volunteers who were reimbursed \$40 for their participation. Interviews took place in a location negotiated with participants, predominantly at the National Drug and Alcohol Research Centre (NDARC) or in coffee shops, and were conducted by the NSW coordinator and a small group of casual interviewers. The nature and purpose of the study was explained to participants before informed consent was obtained.

2.1.2 Measures

Participants were administered a structured interview schedule based on a national study of ecstasy users conducted by NDARC in 1997 (Topp et al., 1998, Topp et al., 2000), which incorporated items from a number of previous NDARC studies of users of ecstasy (Solowij et al., 1992) and powder amphetamine/methamphetamine (Darke et al., 1994; Hando and Hall, 1993, Hando et al., 1997). The interview focused primarily on the preceding six months, and assessed:

- demographic characteristics;
- patterns of ERD use, including frequency and quantity of use and routes of administration;
- drug market characteristics: the price, purity and availability of different ERD;
- risk behaviours (such as injecting, sexual behaviour, driving under the influence of alcohol and other drugs);
- help-seeking behaviour;
- mental and physical health, personal health and wellbeing;
- self-reported criminal activity;
- ecstasy-related problems, including relationship, legal and occupational problems;

- general trends in ERD markets, such as new drug types, new drug users and perceptions of police activity; and
- areas of special interest including online marketplaces and new psychoactive substance health effects and policy.

2.1.3 Data analysis

The EDRS participant survey results are used as the primary basis on which to estimate drug trends. These participants provide the most comparable information on drug price, availability and use patterns in all jurisdictions and over time. However, purity of drug seizures data provided by the Australian Crime Commission (ACC) are an objective indicator of drug purity, and data are also presented in this report. Other indicator data are reported to provide a broader overview and a basis against which trends in EDRS participant data may be contextualised. Key expert data are discussed within the individual jurisdictional reports to provide a context around the quantitative data from the EDRS surveys.

For continuous, normally distributed variables, *t*-tests were employed and means reported. Where continuous variables were skewed, medians were reported and the Mann-Whitney *U*-test, a non-parametric analogue of the *t*-test (Siegel & Castellan, 1988), was employed. Categorical variables were analysed using χ^2 . To investigate differences between states/territories, dummy variables were created and an individual state/territory was compared against all the other states/territories combined. All analyses were conducted using SPSS for Windows, Version 20.0 (SPSS Inc, 2011). More detailed analyses on specific issues may be found in other literature, including quarterly bulletins and peer-reviewed articles produced by the project, details of which may be found on the NDARC website.¹

2.2 Survey of key experts (KE)

The main eligibility criterion for KE participation in the EDRS was regular contact with a range of RPU in the preceding six months. A small number of KE who did not have regular contact with RPU were also included because they had a special area of expertise which helped contribute to the 2014 EDRS report. Regular contact was defined as average weekly contact and/or contact with 10 or more RPU throughout the past six months. KE were recruited either through professional networks of project staff or recommendations, and in some instances through 'cold calls'.²

A total of 20 KE were interviewed in 2014. KE were administered a qualitative interview schedule derived from a previous study of cocaine use (Hando, Flaherty & Rutter, 1997), with the focus dependent on the KE's area of expertise. In general, KE were interviewed on topics relating to patterns of illicit drug use among the RPU/RPU they had had contact with in the past six months. The KE interviewed for the 2014 EDRS came from a wide range of occupations which fell into three major categories: law enforcement; health care provision; and hospitality industry workers.

¹ See www.ndarc.med.unsw.edu.au for details (click on 'Drug Trends').

² People who were thought suitable to act as KE were contacted and invited to participate in a key expert (semi-structured) interview.

2.3 Other indicators

To complement and validate data collected from RPU surveys and KE interviews, a range of secondary data sources were examined. These included health and law enforcement data. The pilot study for the IDRS recommended that such data should be available at least annually, include 50 or more cases, be brief, and be collected in the main study site (i.e. Sydney or NSW) (Hando et al., 1997).

Data sources that have been included in this report are:

- National Drug Strategy Household Survey;
- Australian Crime Commission – purity data from police seizures;
- Australian Institute of Health and Welfare – inpatient hospital admissions;
- NSW Ministry of Health – drug-related visits to emergency departments, number of treatment episodes by drug type and gender, overdoses and toxicology data from suspected drug users in which drugs were detected;
- NSW Bureau of Crime Statistics and Research – drug possession/use and deal/traffic incidents;
- Alcohol and Drug Information Service – calls regarding problematic drug use;
- Family Drug Support – telephone support service for family members affected by problematic drug use and for users themselves;
- Sydney Gay Community Periodic Survey;
- Sydney Women and Sexual Health Survey; and
- NSW Police Force – clandestine methamphetamine and MDMA laboratories.

3 DEMOGRAPHICS

Summary:

- 100 RPU were sampled in the 2014 EDRS (71 male and 29 female).
- Participants were young (mean age = 24 years), reasonably well educated and most commonly spoke English as their first language.
- Very few participants reported being currently in drug treatment (3%).
- These demographics have remained relatively stable over time, with the exception of a drop in those reporting unemployment (6%).

3.1 Overview of the EDRS participant sample

There were 100 RPU sampled in the 2014 NSW EDRS. Table 1 presents the demographics of the sample across time. The mean age of the 2014 sample was 24 years (median 21, range 17-64). A majority (71%) of the participants interviewed were male; however, there were no significant differences in age when comparing males and females ($p > .05$ CI [-5.49, 1.95]).

The vast majority (97%) spoke English as their first language and were born in Australia (80%). A minority (2%) identified as being of Aboriginal and/or Torres Strait Islander (ATSI) descent. Most participants identified as heterosexual (85%), followed by 6% as a gay man, 2% as a lesbian and 7% as a bisexual. Most participants reported being currently single (58%) and were residing in their parents' or family's house (53%) or rental accommodation (38%).

The median number of years of school education completed was 12 years (range 10-12), and 89% had completed high school education (year 12 or above). Many had completed either a trade or technical qualification (13%) or a university or college degree (26%), and 51% were currently engaged in some form of study. One-fifth (21%) of the sample reported being currently employed on a full-time basis, while 6% of participants were currently unemployed. Median weekly income for this group was \$400 per week (range \$0-\$2,500), and wage or salary was reported as the main source of income in the last month for the majority of participants (72%). Very few participants reported that they were currently in any form of drug treatment (3%).

Demographic characteristics of this sample have remained mostly stable from 2013 to 2014. However there was a significant decrease in the proportion of individuals reporting unemployment (16% in 2013 to 6% in 2014; $p < .05$). It is noted that the 2014 sample comprised of a greater proportion of males.

Table 1: Demographic characteristics of RPU, NSW 2008-2014

Variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Mean age (years)	8	22	26	4	5	23	24
Male (%)	68	64	74	77	64	75	71
English-speaking background (%)	98	94	91	98	98	96	97
A&TSI (%)	3	0	1	1	2	1	2
Heterosexual (%)	63	91	78	76	82	78	85
Mean number of school years	12	12	12	12	12	12	12
Tertiary qualifications (%)	72	33	51	40	39	33	39
Employed full-time (%)	54	21	28	26	27	19	21
Full-time students (%) [*]	10	13	6	11	10	40	38
Unemployed (%)	11	13	16	25	17	16	6
Median weekly income (\$) (range)	Data not available until 2009	400 (50-2,115)	500 (0 - 4,231)	350 (67 - 2,400)	350 (0 - 1,700)	300 (0-2,500)	400 (0-2,500)
Prison history (%)	2	3	6	n/a	4	1	3
Currently in drug treatment (%)	3	4	5	3	3	1	3

Source: EDRS regular psychostimulant user interviews 2008-2014^{*}Only those in full-time education

4 CONSUMPTION PATTERN RESULTS

4.1 Drug use history and current drug use

Summary:

- Participants had experience with a wide range of drugs, having used an average of 12 different drug types during their lifetimes and 7 different drug types over the past six months.
- Ecstasy was the main drug of choice for two-fifths of the sample.
- Eleven percent reported having ever injected a drug.
- Reductions were seen in the lifetime and recent use of cocaine.
- One-fifth of the group had recently binged on ERD. Those who had recently binged had done so on a median of two times in the past six months.

Participants were asked about their lifetime and recent use of over 20 different drug types.³ Experience with a broad range of drugs was very common. An increase in the average number of drugs used within the lifetime (12, SD 4) was noted in the 2014 sample; however, this figure was not significantly different to that recorded in 2013. The average number of drugs used recently (7, SD 2) continues to remain remarkably stable over time (Table 2). Only 11 RPU reported having ever injected a drug; however, the proportion of injecting drug users seems to fluctuate substantially across the years. A more thorough analysis of injecting drug use behaviours amongst this sample can be found in section 7.1 'Injecting risk behaviour'.

Table 2 presents the proportion of RPU reporting lifetime and recent drug use across time. There was only one significant change from 2013 to 2014:

- a significant increase in the proportion reporting lifetime ($p < .01$) and recent ($p < .01$) use of cocaine.

³ 'Lifetime' usage refers to drugs that have ever been used. 'Recent' usage refers to drugs that had been used in the six months prior to the interview.

Table 2: Lifetime and recent polydrug use among RPU, NSW 2008-2014

Variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Mean no. drug types ever used	11	11	11	11	15	10	12
Mean no. drug types used recently	6	7	7	7	7	8	7
Ever inject any drug (%)	19	9	22	13	20	8	11
<i>Alcohol</i>							
ever used (%)	99	100	100	100	98	100	100
used last 6 mths (%)	95	100	97	99	95	94	100
<i>Cannabis</i>							
ever used (%)	93	98	98	97	99	97	98
used last 6 mths (%)	71	83	78	83	86	90	85
<i>Tobacco</i>							
ever used (%)	95	95	92	95	96	95	92
used last 6 mths (%)	63	84	76	92	91	84	80
<i>Methamphetamine powder (speed)</i>							
ever used (%)	92	83	79	67	67	56	48
used last 6 mths (%)	48	37	29	32	31	25	21
<i>Methamphetamine base (base)</i>							
ever used (%)	53	51	53	41	38	21	25
used last 6 mths (%)	17	23	18	16	9	4	6
<i>Methamphetamine crystal (ice)</i>							
ever used (%)	52	29	44	37	32	21	23
used last 6 mths (%)	33	9	21	19	18	11	13
<i>Cocaine</i>							
ever used (%)	90	85	88	84	81	64	89
used last 6 mths (%)	51	64	60	59	57	42	67
<i>LSD</i>							
ever used (%)							
used last 6 mths (%)	57	62	77	75	84	71	67
	18	37	44	46	43	51	43

Table 2: Lifetime and recent polydrug use of RPU, NSW 2008-2014 (continued)

Variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
<i>MDA</i>							
ever used (%)	30	13	21	22	28	28	21
used last 6 mths (%)	5	2	2	8	16	23	12
<i>Ketamine</i>							
ever used %	65	53	64	56	48	36	43
used last 6 mths (%)	30	19	24	39	24	24	23
<i>GHB</i>							
ever used (%)	37	24	42	30	22	21	23
used last 6 mths (%)	24	6	17	16	11	11	12
<i>Amyl nitrite</i>							
ever used (%)	72	74	78	75	70	64	65
used last 6 mths (%)	37	38	46	40	37	45	46
<i>Nitrous oxide</i>							
ever used (%)	34	27	45	41	46	38	43
used last 6 mths (%)	8	5	15	13	12	20	26
<i>Benzodiazepines*</i>							
ever used (%)	52*	47	64	57	57	45	50
used last 6 mths (%)	29*	24	38	34	30	25	35
<i>Antidepressants*</i>							
ever used (%)	26*	20	26	27	24	19	20
used last 6 mths (%)	10*	10	12	9	11	9	8
<i>Pharmaceutical stimulants*</i>							
ever used (%)	38	52	48	50	62	59	54
used last 6 mths (%)	10	14	16	20	25	35	24
<i>Mushrooms</i>							
ever used (%)	35	48	60	58	57	48	48
used last 6 mths (%)	9	21	10	25	21	25	21

Table 2: Lifetime and recent polydrug use of RPU, NSW 2008-2014 (continued)

Variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
<i>Heroin</i>							
ever used (%)	11	11	23	13	14	9	8
used last 6 mths (%)	3	3	12	2	9	3	2
<i>Methadone</i>							
ever used (%)	7	1	8	5	11	6	2
used last 6 mths (%)	3	0	4	2	8	4	-
<i>Buprenorphine</i>							
ever used (%)	5	2	4	3	4	2	2
used last 6 mths (%)	1	1	2	1	2	1	1
<i>OTC codeine*</i>							
ever used (%)	Data not available until 2009						
used last 6 mths (%)		77	69	57	26**	18**	19
		55	46	39	12**	9**	11
<i>OTC stimulants*</i>							
ever used (%)							
used last 6 mths (%)	38	60	50	43	18**	12**	6
	10	34	27	27	4**	3**	2
<i>Other opiates*</i>							
ever used (%)	23	27	39	34	17	26	25
used last 6 mths (%)	8	2	8	14	5	11	12

Source: EDRS regular psychostimulant user interviews 2008-2014

Note: OTC (over the counter)

* Includes licitly and illicitly obtained

** For non-pain use only

Participants also reported having used other drugs such as 2C-B (4-bromo-2,5-dimethoxyphenethylamine), DMT (dimethyl tryptamine) and synthetic cannabinoids. In 2010, the EDRS began to systematically investigate these other, less commonly used, drugs. This information can be found in section 4.10 'New psychoactive substance (NPS) use'.

In 2014, approximately two-fifths (39%) of participants reported that ecstasy was their main drug of choice. Other commonly reported drugs were cannabis (31%) and alcohol (15%). Smaller proportions of the sample nominated other drugs such as LSD (4%), cocaine (2%) and crystal methamphetamine (2%).

One-fifth (19%) of participants reported bingeing on ERD over the past six months. Bingeing is defined as using the drug on a continuous basis for more than 48 hours without sleep (Ovendon & Loxley, 1996). Participants who had binged had done so on a median of 2 occasions over the preceding six months. The median length of the longest binge was 60 hours (range 48-120). Among those who had recently binged, the majority (79%) had used cannabis during a binge episode. Similarly large proportions had used ecstasy (74%) or more than five standard drinks of alcohol (74%) during a binge episode.

Other drugs used during binge episodes included tobacco (63%), energy drinks (26%), LSD (26%), cocaine (26%), crystal meth (21%), speed (16%), benzodiazepines (16%), pharmaceutical stimulants (11%), amyl nitrite (11%), 2C-B (11%), less than five standard drinks of alcohol (5%), ketamine (5%) and base (5%).

4.2 Ecstasy use

Summary:

- Ecstasy was used on a median of 16 days over the past six months (i.e. slightly more than fortnightly).
- Participants had used a median of 2 tablets during a 'typical' occasion of use (range 1-8).
- Swallowing was the main route of administration (93%).
- There was a significant decrease in the use of pills and a significant increase in the use of the crystalline form from 2013 to 2014.
- The majority of RPU (89%) reported using other drugs in combination with ecstasy the last time they used it, most commonly tobacco, cannabis, alcohol and cocaine.
- Three-fifths (62%) of participants used other drugs to help them come down from ecstasy the last time they used it (most commonly cannabis, alcohol and benzodiazepines).
- Ecstasy was most commonly last used at a nightclub (28%) and other public venues.
- KE noted the constant worry of unknown contents in pills and a lack of health concern around drug-taking practices.

'Ecstasy' is a street term for a number of substances related to MDMA or 3,4-methylenedioxymethamphetamine. MDMA is classed as a hallucinogenic amphetamine. Tablets sold as ecstasy may contain a range of substances that do not include MDMA, and are more likely to contain methamphetamine, perhaps in combination with a hallucinogenic such as ketamine. They may also contain illegal chemicals like 3,4-methylenedioxyamphetamine (MDA), para-methoxyamphetamine (PMA) or 3,4-methylenedioxyethylamphetamine (MDEA) or substances such as caffeine or paracetamol or nothing at all. The results presented in this section relate to the participants' use and knowledge of tablets/powder/crystal/caps sold as 'ecstasy'.

All participants in the 2014 NSW EDRS sample had ever used ecstasy and all except for one had used ecstasy in the six months prior to survey. However, a lower proportion (90%) had used ecstasy regularly (roughly monthly usage) in the prior six months. On average, participants had used ecstasy for the first time at 19 years of age (median 18, range 13-59). Participants reported first using ecstasy regularly (roughly monthly usage) at a mean age of 20 years (median 19, range 15-60).

4.2.1 Ecstasy use among RPU

Table 3 presents an outline of patterns of use of ecstasy among RPU. Ecstasy was used on a median of 16 days (range 3-81) over the preceding six months which was substantially higher compared to 2013 (12 days, range 2-48), however not significant ($p > .05$). More than one-quarter of the sample had used ecstasy between monthly and fortnightly (27%), under

two-fifths (37%) had used it between fortnightly and weekly and one-quarter (26%) had used ecstasy more than once a week over the preceding six months.

The majority (71%) of respondents commonly used more than one tablet during a session. RPU had used a median of 2 tablets during a 'typical' occasion of use (range 1-8) over the preceding six months. The median number of tablets consumed in the 'heaviest' session over the preceding six months was 4 (range 1-15).

Almost all RPU reported that swallowing was their main route of administration (93%) for ecstasy; however, 6% reported mainly snorting it. Participants were asked to identify each method of administration they had used over the preceding six months for ecstasy 'pills'. Swallowing (87%) and snorting (38%) were by far the most common methods of administration, although a smaller proportion had smoked (3%).

Table 3: Patterns of ecstasy use among RPU, NSW 2008-2014

Ecstasy variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Mean age first used ecstasy (years)	20	17	18	18	18	18	19
Ecstasy 'favourite' drug (%)	30	45	32	32	38	34	39
Median days used ecstasy last 6 mths	12	15	12	13	12.5	12	16
Use ecstasy weekly or more (%)	19	24	18	26	18	21	26
Median ecstasy tablets in 'typical' session	2	2.5	2	2	2	2	2
Typically use >1 tablet (%)	82	91	84	85	76.5	79	71
Recently binged on ecstasy (%)	30	33	26	31	24	25	14
Ever injected ecstasy (%)	8	5	11	2	8	4	2
Mainly swallowed ecstasy last 6 mths (%)	100	96	92	93	92	97	93
Mainly snorted ecstasy last 6 mths (%)	-	3	7	7	7	3	6
Mainly injected ecstasy last 6 mths (%)	-	1	1	-	1	-	-

Source: EDRS regular psychostimulant user interviews 2008-2014

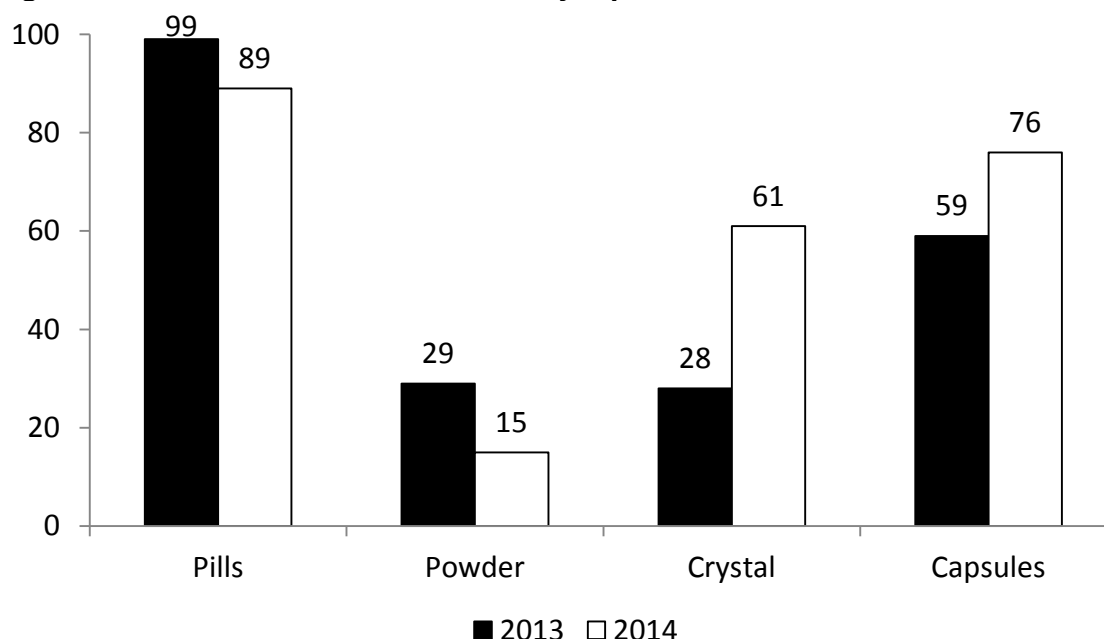
Participants were asked about their use of different forms of ecstasy (tablets, powder, capsules and crystals; Figure 1. A majority of participants (89%) reported having used ecstasy tablets ('pills') during the preceding six months. Over one-quarter (27%) reported having ever used ecstasy powder, and 15% had done so recently. A majority (86%) reported having ever used ecstasy capsules ('caps') and three-quarters (76%) had used them over the preceding six months. Over two-thirds (69%) reported having ever used MDMA crystals, and three-fifths (61%) had done so over the preceding six months. Pills were first used at a

median age of 18 years (range 13-59), powder at 20 years (range 16-41), caps at 19 years (16-61) and crystals at 20 years (range 16-30).

Using a critical value of 0.0125 (Bonferroni correction for four comparisons), two comparisons were significant from 2013 to 2014 (Figure 1):

- significant decrease in the proportion of participants reporting the use of pills and;
- significant increase in the proportions reporting the use of crystal MDMA.

Figure 1: Use of the four forms of ecstasy reported in NSW, 2013 and 2014.



Source: EDRS regular psychostimulant user interviews 2014

The vast majority of RPU (92%) reported using other drugs in combination with ecstasy the last time they used it. The drugs most commonly used with ecstasy were tobacco (63%), cannabis (55%), alcohol (more than five standard drinks, 52%; less than five standard drinks, 32%) and cocaine (13%).

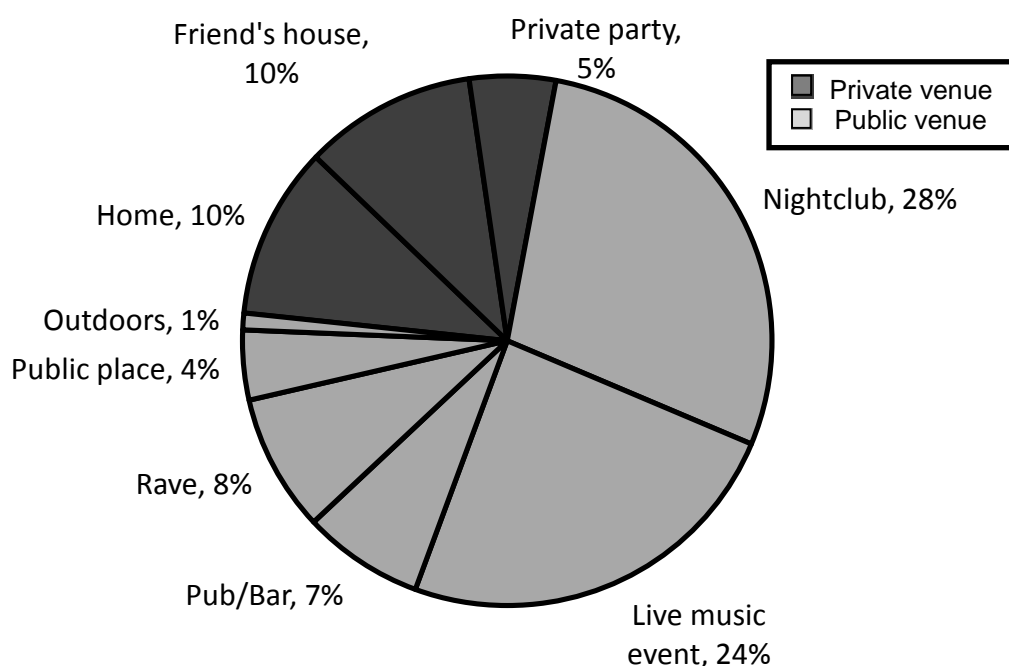
Three-fifths (62%) of RPU reported using other drugs to come down from ecstasy the last time they used it. The drugs most commonly used to come down from ecstasy were cannabis (87%), alcohol (13%), benzodiazepines (13%) and tobacco (6%).

More-than-half of the group reported that most (56%) of their friends had used ecstasy over the last six months. One-quarter (25%) reported that 'about half', 16% reported that 'a few' of their friends and 5% reported that 'all' of their friends had used ecstasy recently. Similar to 2013, no participants reported that they were the only person in their social network that had recently used ecstasy.

4.2.2 Locations of ecstasy use

Participants were asked where they spent the most time while intoxicated the last time they used ecstasy (Figure 2). Ecstasy was most commonly last used in public venues (74%) although one-quarter of participants reported last using ecstasy in private venues (25%). The majority of participants last used ecstasy at a nightclub (28%).

Figure 2: Location of last ecstasy use among RPU, NSW 2014



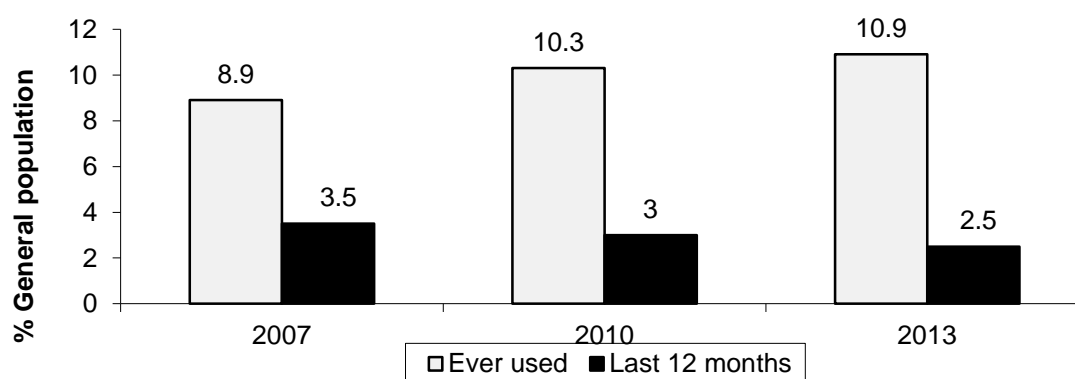
Source: EDRS regular psychostimulant user interviews 2014

4.2.3 Use of ecstasy in other populations

General population

Figure 3 presents data collected for the National Drug Strategy Household Survey (NDSHS) from 2007 to 2013. Over this time, the reported lifetime prevalence of ecstasy use among the general Australian population (aged 14 years and over) increased from 8.9% to 10.9%. However, in 2013 the NDSHS recorded a significant decline in the proportion of the general Australian population who reported having used ecstasy within the past year (Australian Institute of Health and Welfare, 2014). Data for recent use of ecstasy in NSW (2.4%) was comparable with the national figure.

Figure 3: Percentage of sample reporting lifetime and recent ecstasy use in the NSW general population, 2007-2013



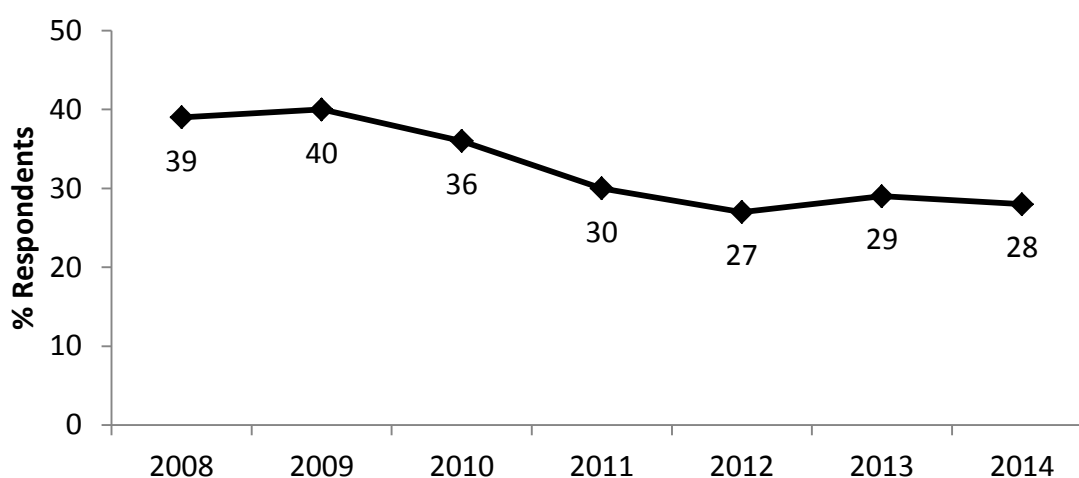
Source: Australian Institute of Health and Welfare (2008b, 2011, 2014)

Sydney Gay Community Periodic Survey

The Sydney Gay Community Periodic Survey is an annual cross-sectional survey of gay and homosexually active men. The first survey was conducted in February 1996 and the most recently published survey was completed in 2014, with 2,222 men participating. The major aim of the survey is to provide data on levels of sexual-, STI- and HIV-related practices, though the survey also asks about drug use in the past six months.

Figure 4 shows the proportion of men surveyed who had used ecstasy in the past six months. In 2014, approximately one-quarter (28%) of the sample reported having recently used ecstasy. The authors reported that, since the 2010 survey, there had been a significant decline in the reported use of ecstasy; however, there was not a significant difference between 2013 and 2014 (Hull et al., 2014).

Figure 4: Proportion of gay men in Sydney reporting recent ecstasy use, 2008-2014

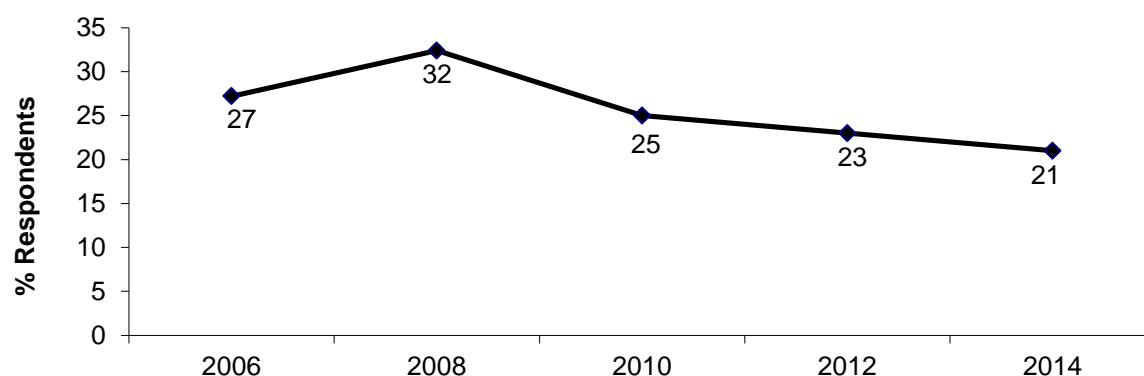


Source: Sydney Gay Community Periodic Survey 2008-2014

Sydney Women and Sexual Health Survey

First conducted in Sydney in 1996 and run every two years since, the Sydney Women and Sexual Health survey (SWASH) is the longest running and only regular survey of lesbian, bisexual and queer (LBQ) women's health and well-being in Australia (Mooney-Somers, Deacon, Richters & Parkhill, 2015). SWASH is a unique and important source of health-related information pertaining to Australian LBQ women. The most recently published survey was completed in 2014 with 1100 women participating. There shows the proportion of women surveyed who had used ecstasy in the past six months. In 2014, one-fifth (21%) of the sample reported having recently used ecstasy. There has been a downward trend in ecstasy use from 2008 to 2014.

Figure 5: Proportion of LBQ women in Sydney reporting recent ecstasy use, 2006-2014



Source: Sydney Women and Sexual Health Survey 2006-2014

Illicit Drug Reporting System

A separate monitoring system investigating trends in the use of ecstasy in injecting drug users has been conducted in NSW since 1996, in Victoria (VIC) and South Australia (SA) since 1997 and nationally since 2000. This is called the Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the NDARC website (<http://ndarc.med.unsw.edu.au/project/illicit-drug-reporting-system-idrs>).

Key expert comments

The key experts who were exposed to ecstasy users on a regular basis were of the opinion that ecstasy was a problematic drug. However, this wasn't due to the intrinsic nature of MDMA, but rather the issues surrounding unknown chemicals contained in pills and caps.

One health key expert working across many Sydney music festivals commented that many people were unsure of the contents of the pills they had ingested and displayed inconsistent symptoms to a normal ecstasy high. Two service professionals working in the nightlife scenes across all of Sydney also reported people having inconsistent symptoms after taking pills, such as stronger hallucinogenic effects and intense 'bad trips'. One of these individuals was of the opinion that synthetic or research chemicals were easier to produce and thus more favourable to sell by manufacturers or dealers.

Another common theme reported in current MDMA users was apathy or lack of health concern. Health KE thought people in the most recent festival period were more careless with their drug taking and engaged in riskier behaviours. At the same time, another KE from the service field reported ecstasy users recently are more likely to 'try out' new drugs such as the synthetics.

All key experts were in agreement with the demographic characteristics of ecstasy users and provided an age range of 18-25; however, regular users can be as old as early 30s. They were also functional users who were either university students or young workers.

KE from law enforcement reported that of all ecstasy seizures in NSW, 51% were tablets. These came from mostly drug dog detections and also general person searches and search warrants. In late 2013 and early 2014, there were slightly lower detections of ecstasy; however, this might be due to the higher number of detections being captures as NPS seizures instead.

According to this KE, the number of seizures in NSW currently is fluctuating around levels seen before the 2009 global MDMA shortage and the top four areas in terms of detections were Surry Hills, the CBD, the Eastern Suburbs and Flemington.

4.3 Methamphetamine use

Summary:

Speed

- Fifty percent of RPU had ever used speed and one-fifth had done so recently.
- Speed was used on a median of 2 days over the preceding six months and was primarily snorted (71%).
- The frequency and quantity of use appeared to be stable from 2012 to 2013.

Base

- One-quarter of the sample had ever used base and 6% had done so recently.
- Base was used on a median of 4.5 days over the preceding six months and was primarily swallowed (n=5).
- The frequency of use appeared to be stable from 2013 to 2014.

Crystal

- Under one-quarter of the sample had ever used crystal and 13% had done so recently.
- Crystal was used on a median of 10 days over the preceding six months and was primarily smoked (85%).
- The frequency and quantity of use appeared to be stable from 2013 to 2014.
- The use of methamphetamine among the NSW general population remained stable from 2010 (2.1%) to 2013 (2.1%).
- KE reported that methamphetamine use was not specific to a particular demographic and that there were more health issues with younger methamphetamine users.

4.3.1 Methamphetamine use among RPU

In 2013, it was reported that RPU reported lower average lifetime and recent use of all three types of methamphetamine. It seems as if these proportions have remained stable in 2014, with no significant changes from 2013.

Methamphetamine powder (speed)

Under half of participants (48%) had ever used speed and one-fifth (21%) of the sample had used it during the preceding six months. Speed was first used at a median age of 19 years (range 14-50). Speed was used on a median of 2 days (range 1-15) over the preceding six months. The majority (76%) of those who had recently used speed had done so on a less than monthly basis.

Most recent users quantified their use in terms of 'grams' (n=7) or 'lines' (n=5). The median amount used in a 'typical' or 'average' use episode in the preceding six months was either 1 gram (range 0.25-2) or 1.5 lines (range 1-2). The median amount used in the 'heaviest' use episode was very similar, either 2 grams (range 0.25-3.5) or 2.5 lines (range 1.5-3). The most common route of administration for speed users in the preceding six months was snorting (71%); however, other routes of administration included swallowing (62%) and injecting (5%).

There was no significant change in the proportions reporting the lifetime or recent use of speed from 2013 to 2014. Reported frequency of use also appears stable (Table 4).

Table 4: Patterns of speed use among RPU, NSW 2008-2014

Speed variable	2008 (N =100)	2009 (N=100)	2010 (N=100)	2011 (N =100)	2012 (N =100)	2013 (N=100)	2014 (N=100)
Ever used (%)	92	83	79	67	67	56	48
Used last six months (%)	48	37	29	32	31	25	21
<i>Of those who had used:</i>							
Median days used last 6 mths (range)	4 (1-120)	3 (1-30)	2 (1-30)	3 (1-40)	2 (1-180)	2 (1-12)	2 (1-15)
<i>Median quantities used (grams):</i>							
Typical (range)	1 (0.2-2)	1 (0.2-2)	1 (0.3-2)	0.5 (0.2-1.5)	1 (0.25-2)	0.5 (0.05-1)	1 (0.25-2)
Heavy (range)	1 (0.2-4)	1 (0.25-3.5)	1 (0.3-7)	0.6 (0.25-6)	1.25 (0.25-4)	1 (0.5-3)	2 (0.25-3.5)

Source: EDRS regular psychostimulant user interviews 2008-2014

Methamphetamine base

One-quarter (25%) of the sample had ever used base and only six individuals had used it over the preceding six months. The median age at which base was first used was 19 years

(range 14-40). Base had been used on a median of 4.5 days (range 1-10) over the preceding six months. Three users (50%) who had recently used base had done so less than monthly whilst the other three users had done so between monthly and fortnightly. Of the six individuals that had used base over the preceding six months, three quantified their use in terms of grams, one in terms of lines and two in terms of points. Because the number of respondents in 2014 was so low, average quantities used in a session was not reported. Five of the six participants had reported swallowing base, three had smoked base and one had snorted base over the preceding six-months.

The proportions reporting the lifetime use of base has remained stable from 2013 to 2014 (Table 5), as have the frequency and quantities used.

Table 5: Patterns of base use among RPU, NSW 2008-2014

Base variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Ever used (%)	53	51	53	41	38	21	25
Used last six months (%)	17	23	18	16	9	4	6
<i>Of those who had used:</i>							
Median days used last 6 mths (range)	2 (1-120)	2 (1-96)	2 (1-18)	2 (1-20)	2 (1-30)	1 (1-5)	4.5 (1-10)
<i>Median quantities used (points):</i>							
Typical (range)	2 (1-5)	2 (0.3-4)	1 (0.5-2)	2 (0.1-5)	1 (0.1-2)	N/A [^]	N/A*
Heavy (range)	2 (1-5)	2 (0.5-6)	1.25 (0.5-3)	2 (0.1-10)	2 (0.5-3)	N/A [^]	N/A*

Source: EDRS regular psychostimulant user interviews 2008-2014

[^]Data not reported as n<5.

Crystal methamphetamine

Just under one-quarter (23%) of the sample had ever used crystal, and 13% had used it over the six months prior to the interview. The median age of first use of crystal was 20 years (range 17-61). Crystal was used on a median of 10 days (range 1-150) over the preceding six months. Of the 13 individuals who had used crystal over the preceding six months, four had done so less than monthly (31%), four had done so between monthly and fortnightly (31%), two individuals had used crystal between fortnightly and weekly (15%) and the remaining three had used crystal weekly or more (23%).

All respondents quantified their use in terms of 'points' (generally believed to be 0.1 grams). These participants reported using a median of 1 point (range 0.4-2) during 'typical' sessions of use and a median of 2 points (range 0.5-5) during 'heavy' sessions. As in previous years, smoking was the most common route of administration for crystal (85%), followed by swallowing (23%) and one participant reported snorting (8%).

The proportions reporting the use of crystal have remained relatively stable from 2013 to 2014 (use of crystal methamphetamine).

Table 6). It is worth noting that 2014 is the first year since 2010 that the NSW EDRS has seen an increase in the lifetime or recent use of crystal methamphetamine.

Table 6: Patterns of crystal use among RPU, NSW 2008-2014

Crystal variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Ever used (%)	52	29	44	37	32	21	23
Used last 6 mths (%)	33	9	21	19	18	11	13
<i>Of those who had used:</i>							
Median days used last 6 mths (range)	6 (1-170)	12 (1-48)	3 (1-20)	6 (1-96)	8 (1-96)	4 (1-48)	10 (1-150)
<i>Median quantities used (points):</i>							
Typical (range)	1.75 (0.5-3)	1 (1-5)	1 (0.5-7)	2 (0.5-6)	1.25 (0.25-3)	2 (0.5-4)	1 (0.4-2)
Heavy (range)	2 (1-6)	3.5 (1-5)	3 (0.5-10)	3 (0.5-12)	3 (0.3-5)	2 (0.5-4)	2 (0.5-5)

Source: EDRS regular psychostimulant user interviews 2008-2014

4.3.2 Locations of methamphetamine use

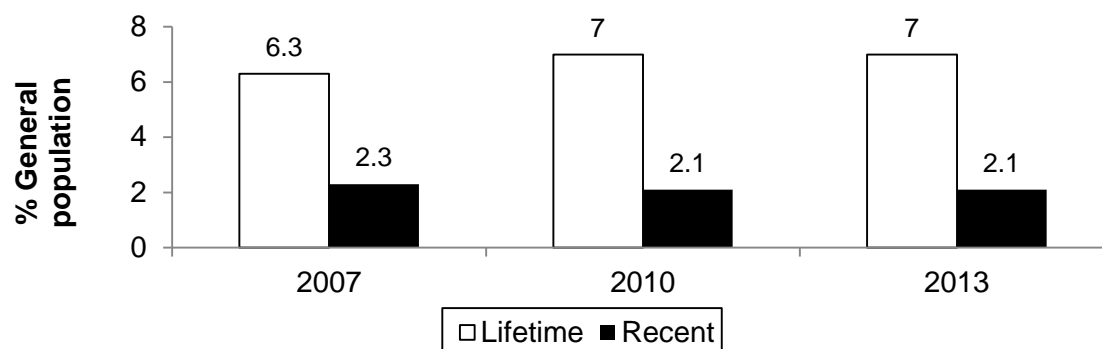
Because comments on the location of methamphetamine use were quite low (n=13 for powder, n=5 for base and n=9 for crystal), this data was not reported for 2014.

4.3.3 Methamphetamine use in other populations

General population

Figure 6 shows the proportion of the general population in NSW (aged 14 years and over) who reported having recently used any form of methamphetamine. There were no significant differences in the proportion of the Australian population who had ever used methamphetamines from 2010 to 2013 (Australian Institute of Health and Welfare, 2014).

Figure 6: Percentage of sample reporting recent* and lifetime methamphetamine use in the general population, 2007-2013



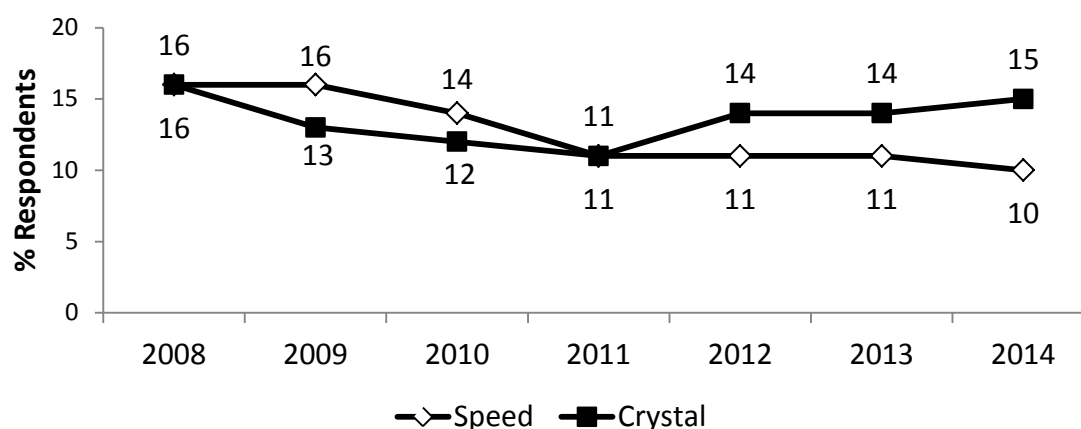
Source: Australian Institute of Health and Welfare 2008a, 2011, 2014)

* Used in the last 12 months

Sydney Gay Community Periodic Survey

The Sydney Gay Community Periodic Survey shows the proportion of gay men surveyed who had used speed and crystal in the past six months (Figure 7). In 2014, 10% of men interviewed had used speed and 15% had used crystal. The 2014 survey shows no changes in speed or crystal use since 2013; however, the authors reported an overall significant decline in the use of speed and an overall significant increase in the proportion of participants reporting the use of crystal methamphetamine since 2010 (Hull et al., 2014).

Figure 7: Proportion of gay men in Sydney reporting recent speed and crystal use, 2008-2014

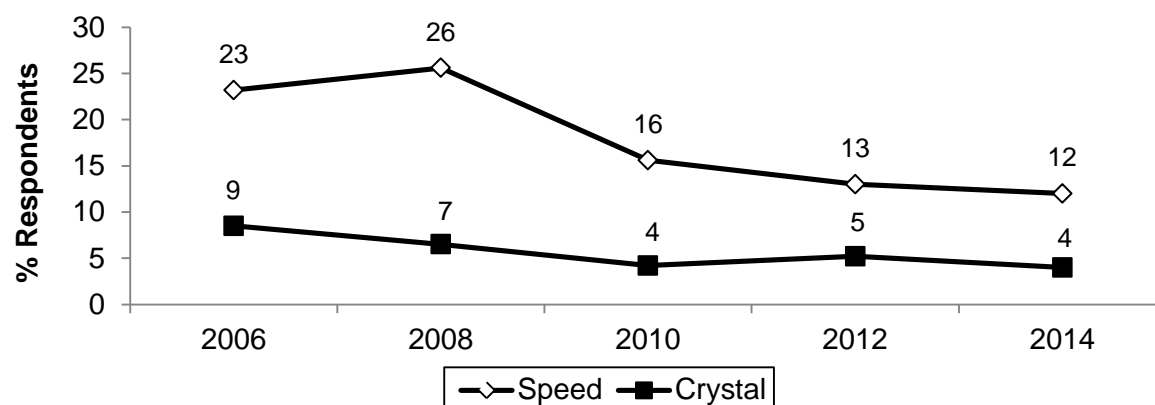


Source: Sydney Gay Community Periodic Survey 2008-2014

Sydney Women and Sexual Health Survey

The Sydney Women and Sexual Health Survey (Figure 8) showed the proportion of LBQ women surveyed who had used speed and crystal in the past six months. In 2014, 12% of women interviewed had used speed and 4% had used crystal. These figures appear to have remained relatively stable since 2010 (Mooney-Somers, Deacon, Richters & Parkhill, 2015).

Figure 8: Proportion of LBQ women in Sydney reporting recent speed and crystal use, 2006-2014



Source: Sydney Women and Sexual Health Survey 2006-2014

Illicit Drug Reporting System

A separate monitoring system investigating trends in the use of methamphetamine in injecting drug users has been conducted in NSW since 1996, in Victoria (VIC) and South Australia (SA) since 1997 and nationally since 2000. This is called the Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the NDARC website (<http://ndarc.med.unsw.edu.au/project/illicit-drug-reporting-system-idrs>).

Key expert comments

The general consensus across KEs who commented on methamphetamine use was that meth users were a diffuse population that could not be classified under a discrete demographic.

One KE working in health commented on meth use in GLBT populations and commented that most of these people were injectors whilst the remaining smoked ice.

One KE reported noticed an increase in the number of professional or functional users who were using crystal methamphetamine. in the last 6 to 12 months

Not many KEs could comment on methamphetamine use in younger populations or for non-injecting drug users. For those who could comment, they reported the use of speed as opposed to the other forms reported (base and ice).

One KE working in the service industry reported an increase in the use of speed and gas (liquid form) as it provides more stimulation compared to a pure MDMA pill which was preferred for many individuals.

Another KE from law enforcement reported that there are a lot more problems surrounding ice use in recreational samples compared to chronic users, such as drug induced psychosis and unwillingness to cooperate with police officers.

Two health KEs working with younger users reported that younger meth users were characterised by a higher chance of dropping out of school, and poor mental health

4.4 Cocaine use

Summary:

- The majority of the group (89%) had tried cocaine at least once, and 67% had used it recently, both significant increases from 2013.
- Cocaine was used on a median of 3 days over the preceding six months and the main route of administration was snorting (97%).
- Recent use of cocaine among the general population remained stable at 2.1% in 2013.
- KE reported a slight increase in the use of cocaine in the past year.

Cocaine is a stimulant, like methamphetamine. Cocaine is a colourless or white crystalline alkaloid. Cocaine hydrochloride, a salt derived from the cocoa plant, is the most common form of cocaine available in Australia. 'Crack' is a form of freebase cocaine (hydrochloride removed) which is particularly pure; however, it is infrequently encountered in this country (Australian Crime Commission, 2014).

Street cocaine is usually 'cut' or diluted with other substances, some of which mimic the taste or appearance of cocaine. There is not a great deal of information on the adulterants found in street cocaine, but lidocaine, glucose, lactose, baking soda and even talcum powder have been found.

The vast majority (89%) of regular psychostimulant users in 2014 had ever used cocaine, and more-than-half (67%) had used it during the six months prior to the interview. The median age at which cocaine was first used was 19 years (range 14-55).

4.4.1 Cocaine use among RPU

Participants who had used cocaine over the preceding six months had done so on a median of 3 days (range 1-60). More-than-half (67%) of participants had used cocaine on a less than monthly basis, 22% had done so between monthly and fortnightly, 8% had done so between fortnightly and weekly and the remaining participants (3%) had used cocaine more than weekly. More-than-half (57%) of recent cocaine users quantified their use in terms of grams. The median amount used during a 'typical' occasion of use was 0.65 grams (range 0.05-1.5) and the median amount used on the heaviest occasion was 1 gram (range 0.05-4). Twenty-four recent users quantified their use of cocaine according to 'lines'. These participants reported using a median of 2 lines (range 1-7) in a 'typical' session and a median of 3 lines (1-12) on the heaviest occasion. The vast majority (97%) of recent users of cocaine reported having snorted it over the preceding six months. In addition, a notable proportion of recent users had reported swallowing it (40%), and one participant reported smoking cocaine.

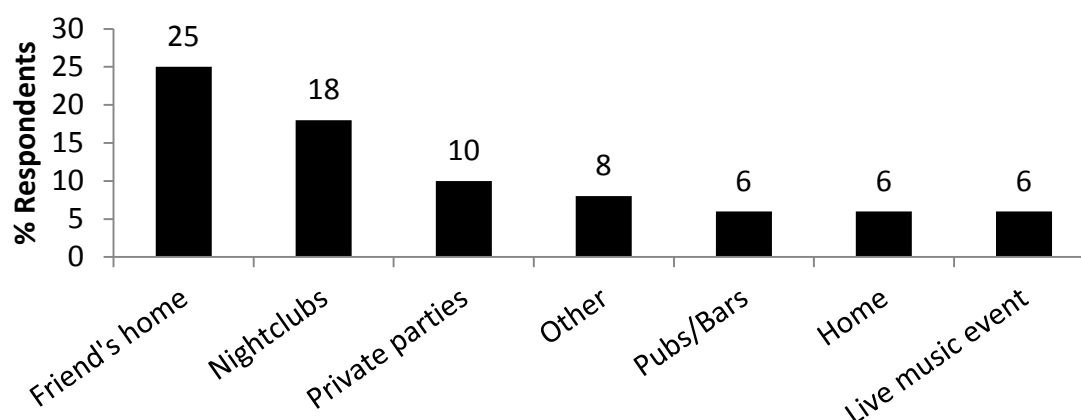
Table 7 presents data across time on the prevalence, frequency and quantity of cocaine use among RPU interviewed in NSW. There were significant increases in both the lifetime ($p < .05$) and recent ($p < .05$) use of cocaine from 2013 to 2014. The frequencies of use and quantities used have remained remarkably stable.

Table 7: Patterns of cocaine use among RPU, NSW 2008-2014

Cocaine variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Ever used %	90	85	88	84	81	64	89
Used last 6 mths %	51	64	60	59	57	42	67
<i>Of those who had used:</i>							
Median days used last 6 mths (range)	5 (1-90)	3 (1-30)	5 (1-100)	4 (1-120)	3 (1-90)	2 (1-10)	3 (1-60)
<i>Median quantities used (grams):</i>							
Typical (range)	0.5 (0.25-2)	0.5 (0.1-2.5)	0.5 (0.2-3)	0.5 (0.1-3)	0.5 (0.1-1)	0.5 (0.1-2)	0.65 (0.05-1.5)
Heavy (range)	1 (0.5-5)	1 (0.25-5)	1 (0.25-7)	1 (0.1-6.5)	1 (0.1-5)	0.5 (0.1-6)	1 (0.05-4)

Source: EDRS regular psychostimulant user interviews 2008-2014

Among those who commented (n=49, Figure 9), the largest portions reported last using cocaine at a friend's house (25%) or a nightclub (18%). However, a smaller portion of respondents reported last using cocaine at private parties (10%).

Figure 9: Last location of cocaine use among RPU, NSW 2014

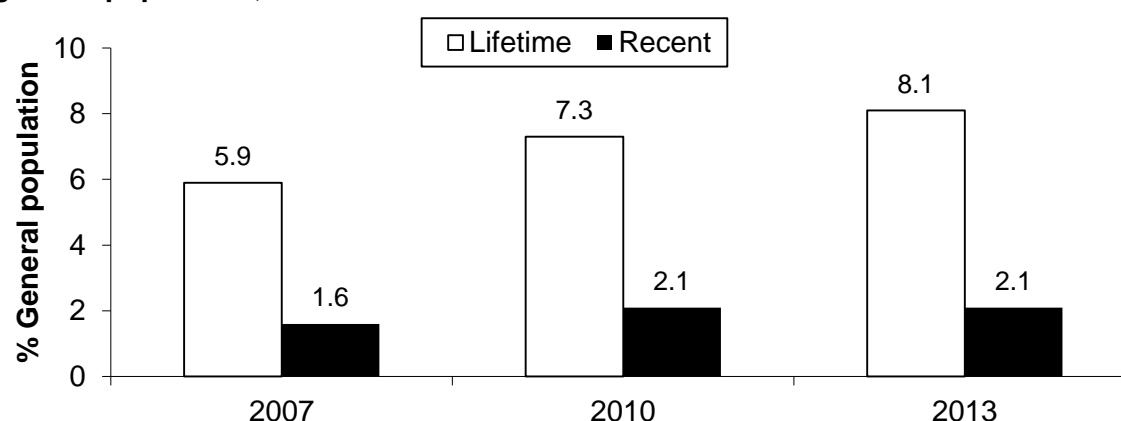
Source: EDRS regular psychostimulant user interviews 2014

4.4.2 Cocaine use in other populations

General population

Reported lifetime use of cocaine trended upward from 2007 to 2013 (Figure 10). However, the proportion of individuals who had reported recent use of cocaine has remained the same. (Australian Institute of Health and Welfare, 2014).

Figure 10: Percentage of sample reporting recent* and lifetime cocaine use in the NSW general population, 2007-2013



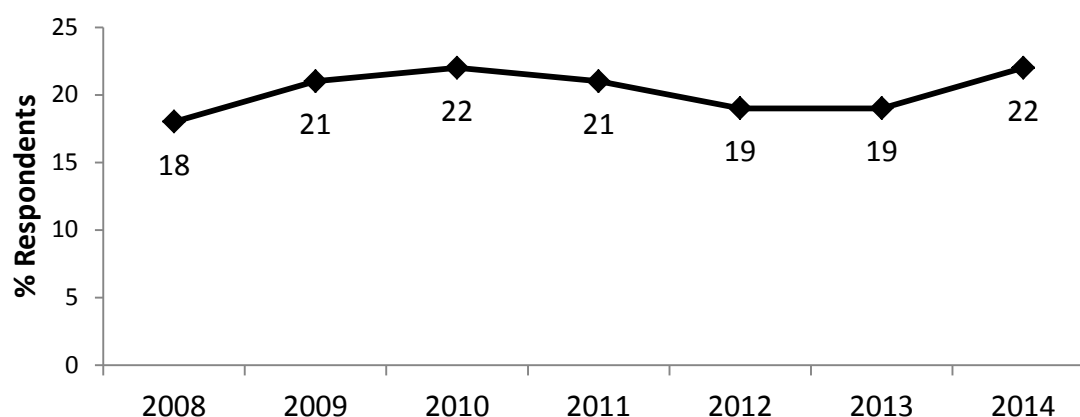
Source: Australian Institute of Health and Welfare (2008a, 2011, 2014)

* Used in the last 12 months

Sydney Gay Community Periodic Survey

In 2014, just over one-fifth of gay men interviewed for the survey reported the recent use of cocaine (Figure 11). The authors reported a significant increase in the proportions of participants that used cocaine in the six months prior to interview from 2013 to 2014. However, there was no significant linear trend since 2010 (Hull et al., 2014).

Figure 11: Proportion of gay men in Sydney reporting recent cocaine use, 2008-2014



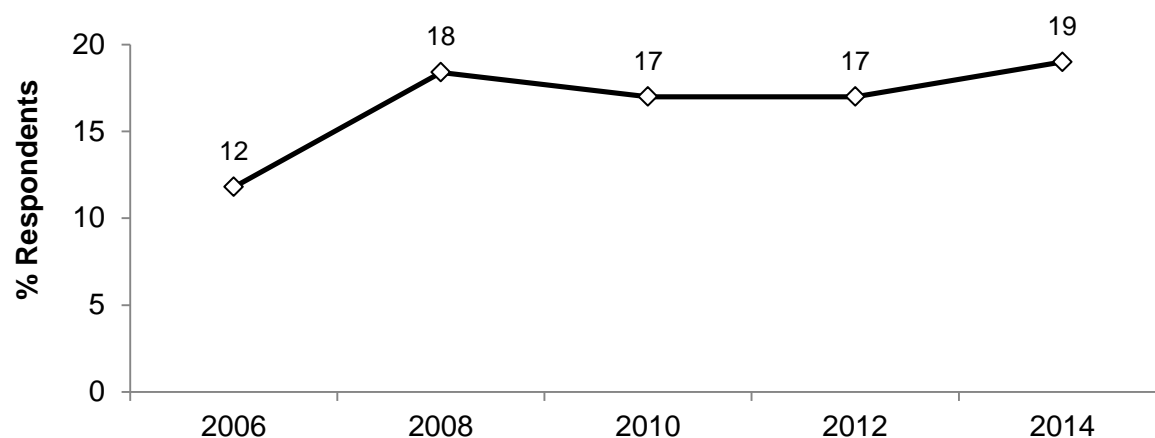
Source: Sydney Gay Community Periodic Survey 2008-2014

Sydney Women and Sexual Health Survey

The Sydney Women and Sexual Health Survey (Figure 12) reports the proportion of LBQ women surveyed who had used cocaine in the past six months. In 2014, one-fifth of LBQ

women had recently used cocaine (Mooney-Somers, Deacon, Richters & Parkhill, 2015). Since 2008, it seems like cocaine use has remained stable.

Figure 12: Proportion of LBQ women in Sydney reporting recent cocaine use, 2006-2014



Source: Sydney Women and Sexual Health Survey 2006-2014

Illicit Drug Reporting System

A separate monitoring system investigating trends in the use of cocaine in injecting drug users has been conducted in NSW since 1996, in Victoria (VIC) and South Australia (SA) since 1997 and nationally since 2000. This is called the Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the NDARC website (<http://ndarc.med.unsw.edu.au/project/illicit-drug-reporting-system-idrs>).

Key expert comments

Only four KE could comment on cocaine use.

Two KE from health fields reported a slight increase in the use of cocaine amongst festival goers and young adults.

Another health KE was of the opinion that cocaine was very much a Sydney drug.

One KE , reported that there has been a consistent increase in cocaine seizures and arrests for cocaine possession since the 2009-10 period; however, this is the case for all drug types (excluding heroin) and thus it is not unexpected.

4.5 Ketamine use

Summary:

- Over two-fifths of the sample had tried ketamine at least once and under a quarter had used it recently.
- Ketamine was used on a median of 2 days over the preceding six months and a majority of users reported snorting as the route of administration (78%).
- Recent use of ketamine among the NSW general population remained low and stable.
- KE reported that ketamine was highly linked to the Sydney music festivals.

Ketamine is a rapid acting, dissociative anaesthetic that is used in veterinary surgery and less commonly in human surgery. Ketamine is a liquid that can be injected for legitimate use. It is typically converted into a fine powder through evaporation, and is typically snorted. Ketamine can also be made into tablets, capsules and tabs (liquid-soaked blotter paper) which are usually swallowed. Common names for ketamine include K, special K or vitamin K.

Ketamine produces a dissociative state in the user, commonly eliciting an out-of-body experience. It has a combination of stimulant, depressant, hallucinogenic and analgesic properties. Too much ketamine can result in the user having a 'near death experience' or falling into a 'K hole'.

As ketamine is complicated to manufacture, and precursor chemicals are difficult to obtain, it is unlikely that it is produced in clandestine laboratories. The majority of ketamine used by RPU is probably diverted from veterinary sources or imported from overseas, making supply irregular compared with other illicit substances (Australian Crime Commission, 2008, 2009, 2010).

Just over two-thirds (43%) of the 2014 sample of regular psychostimulant users reported having ever used ketamine and under one-quarter (23%) had done so recently. Ketamine was first used at a median age of 20 years (range 16-60).

4.5.1 Ketamine use among RPU

Ketamine had been used on a median of 2 days (range 1-32) by RPU who had recently used ketamine. Of these RPU, 83% had used ketamine on a less than monthly basis, 13% had done so between monthly and fortnightly and the remaining participant had used ketamine more than weekly. Eleven recent users of ketamine reported their use in terms of 'bumps'.⁴ They reported using a median of 2 bumps on both a typical occasion (range 1-5) and 2

⁴ A bump refers to a small amount of powder, typically measured and snorted from the end of a key, the corner of a plastic card or a 'bumper'. A bumper is a small glass nasal inhaler, purchased from tobacconists, used to store and administer powdered substances such as ketamine.

bumps on the heaviest occasion (range 1-6) over the preceding six months. There were no other common units of measurement.

The most common route of administration for ketamine was snorting (78%), followed by swallowing (30%) over the past six months. Eight participants commented on the location of ketamine use. Ketamine was most commonly last used at either a nightclub (38%). The remaining four participants reported using ketamine in various private locations.

Table 8 presents data across time regarding patterns of ketamine use among RPU interviewed in the EDRS. The proportions reporting recent use of ketamine remained stable from 2013 to 2014. The frequency of use also remained fairly stable.

Table 8: Patterns of ketamine use among RPU, NSW 2008-2014

Ketamine variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Ever used (%)	65	53	64	56	48	36	43
Used last 6 mths (%)	30	19	24	39	24	24	23
<i>Of those who had used:</i>							
Median days used last 6 mths (range)	3 (1-12)	2 (1-8)	2.5 (1-30)	2 (1-100)	3 (1-12)	2 (1-10)	2 (1-32)
<i>Median quantities used (bumps):</i>							
Typical (range)	2 (1-4)	4 (1-7)	3 (1-12)	2 (1-10)	2 (1-10)	2 (1-5)	2 (1-5)
Heavy (range)	2 (1-10)	4.5 (1-8)	3 (1-12)	3 (1-10)	2 (1-12)	2 (1-10)	2 (1-6)

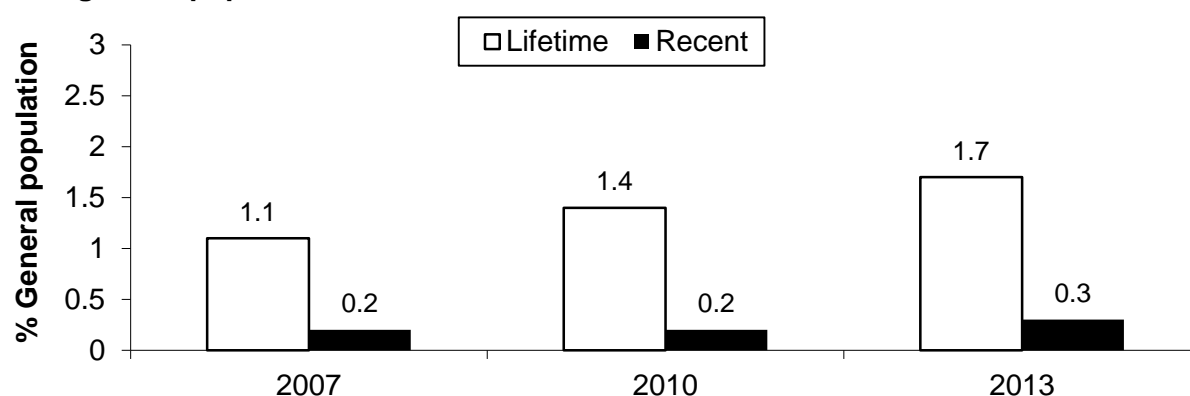
Source: EDRS regular psychostimulant user interviews 2008-2014

4.5.2 Ketamine use in other populations

General population

Ketamine was first included in the National Drug Strategy Household Survey in 2004 (Australian Institute of Health and Welfare, 2005a). While there was a significant increase in the proportions reporting lifetime ketamine use, the proportions reporting use within the past year remained low and stable (Figure 13) (Australian Institute of Health and Welfare, 2014).

Figure 13: Percentage of sample reporting recent* and lifetime ketamine use in the NSW general population, 2007-2013



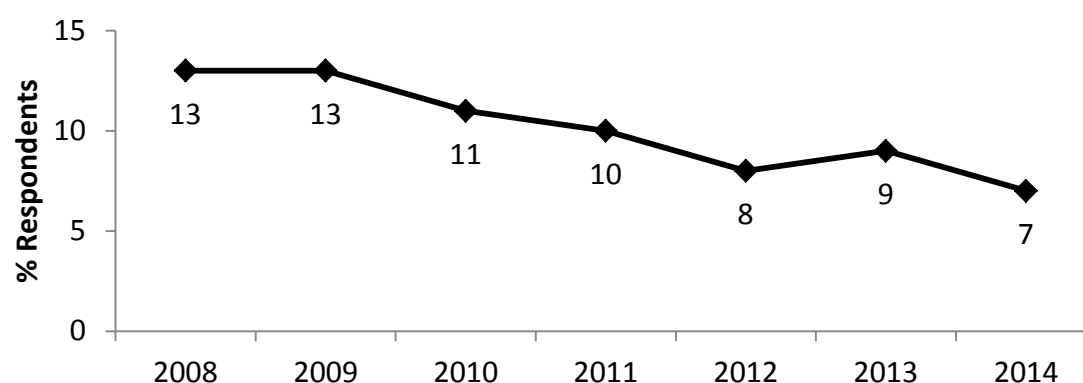
Source: Australian Institute of Health and Welfare (2008b, 2011, 2014)

*Used in the last 12 months

Sydney Gay Community Periodic Survey

Figure 14 shows the proportion of men surveyed who had used ketamine in the past six months. This figure had remained relatively stable from 2013 to 2014 at less than one-tenth of the group. The authors reported a significant decline in the use of ketamine among their sample from 2010 to 2014 (Hull et al., 2014).

Figure 14: Proportion of gay men in Sydney reporting recent ketamine use, 2008-2014

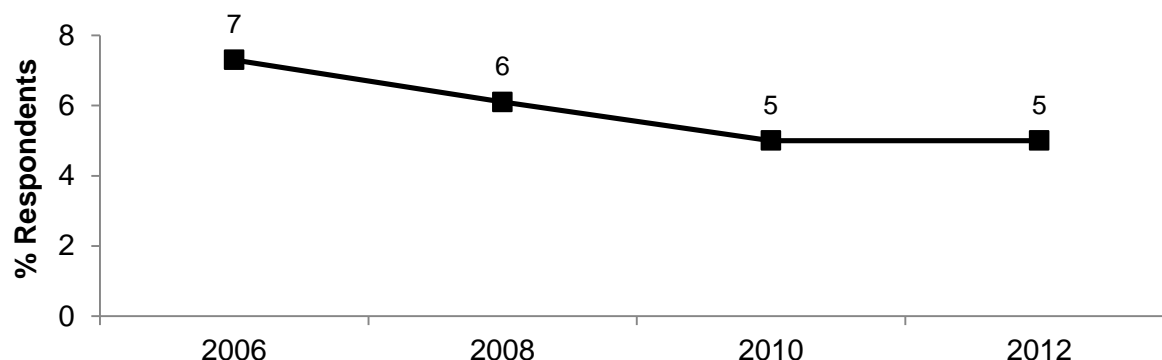


Source: Sydney Gay Community Periodic Survey 2008-2014

Sydney Women and Sexual Health Survey

Figure 15 shows the proportion of women surveyed who had used ketamine in the past six months. In 2014, 5% of this group reported recent use of ketamine, which has remained relatively stable since 2006 (Mooney-Somers, Deacon, Richters & Parkhill, 2015).

Figure 15: Proportion of LBQ women in Sydney reporting recent ketamine use, 2006-2014



Source: Sydney Women and Sexual Health Survey 2006-2014

Key expert comments

One KE from the service industry reported no change in the number of people using ketamine.

Another KE from law enforcement reported the majority of seizures in NSW were linked to the party/festival scene and usually detected along with other drugs (e.g. MDMA). This KE noted that ketamine was more popular amongst the GLBT population and in the eastern suburbs.

4.6 GHB use

Summary:

- Approximately one-quarter of the sample had tried GHB at least once and 12% had used it recently.
- GHB was used on a median of 1.5 days over the preceding six months.
- The frequency and quantity of use of GHB remained stable from 2013 to 2014.
- Recent use of GHB among the general population remained low and stable.

Gamma-hydroxybutyrate (GHB) has been researched and used for a number of clinical purposes including as an anaesthetic (Kam & Yoong, 1998; Nicholson & Balster, 2001). In 1964, GHB was introduced in Europe as an anaesthetic agent particularly for children (Laborit, 1964; Vickers, 1968), but was not widely used due to the incidence of vomiting and seizures (Hunter, Long & Ryrie, 1971). Research has also examined the effectiveness of GHB as a treatment for narcolepsy (Chin, Kreutzer & Dyer, 1992; Mack, 1993; Mamelak, 1989) and for alcohol dependence and opioid withdrawal (Kam & Yoong, 1998; Nicholson & Balster, 2001).

In recent years, there has been documentation of the use of GHB as a recreational drug, in a range of countries around the world. Common street names for GHB in Australia include 'liquid ecstasy', 'fantasy', 'GBH', 'grievous bodily harm' and 'blue nitro'. Following restrictions on the availability of GHB, there have been reports of the production of GHB from its precursor, gamma-butyrolactone (GBL). The use of GBL, and a similar chemical, 1,4-butanediol (1,4-B), has also been documented (Ingels et al., 2000). GBL and 1,4-B are metabolised into GHB in the body. They may be used as substitutes for GHB, but are known to be pharmacologically different.

Approximately one-quarter (23%) of the sample had ever used GHB and about one-in-ten (12%) RPU reported having done so recently. GHB was first used at a median of 24 years (range 16-60).

4.6.1 GHB use among RPU

GHB had been used on a median of 1.5 days (range 1-10) over the past six months. More than four-fifths (83%) of those who had recently used GHB had done so on a less than monthly basis, and the remaining two participants used GHB between monthly and fortnightly.

Seven participants reported their use of GHB in mLs. These participants reported using a median of 2mL (range 1-5) in an average episode of use and 2mL (range 1.5-6) in their heaviest episode of use over the past six months. All recent users of GHB had swallowed it. Five participants commented on where they had last used GHB. The majority had used GHB last at home (50%).

From 2013 to 2014 the proportion reporting the lifetime and recent use of GHB remained stable (Table 9). Figures regarding the frequencies and quantities of use of GHB also appear to have remained stable, although caution should be used when examining the data given the small numbers of participants who were able to report on this data.

Table 9: Patterns of GHB use among RPU, NSW 2008-2014

GHB variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Ever used (%)	37	24	42	30	22	21	23
Used last 6 mths (%)	24	6	17	16	11	11	12
<i>Of those who had used:</i>							
Median days used last 6 mths (range)	2.5 (1-48)	4 [^] (1-72)	3 (1-10)	2 (1-4)	2 (1-90)	1 (1-30)	1.5 (1-10)
<i>Median quantities used (mL):</i>							
Typical (range)	3 (1-20)	7 [^] (5.5-10)	3.5 (1-10)	2 [^] (1-4)	2 [^] (2-30)	4 [^] (2-8)	2[^] (1-5)
Heavy (range)	6 (1-20)	8 [^] (5.5-15)	5 (1-50)	4 [^] (1-10)	4.5 [^] (2-80)	4.5 [^] (2-10)	2[^] (1.5-6)

Source: EDRS regular psychostimulant user interviews 2008-2014

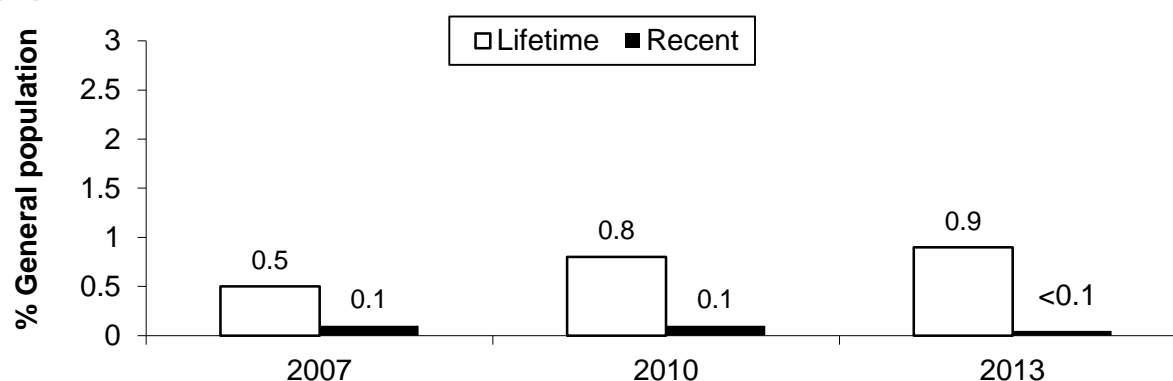
[^] Small numbers reporting, interpret with caution

4.6.2 GHB use in other populations

General population

The 2004 National Drug Strategy Household Survey was the first to include GHB as a separate drug class (Australian Institute of Health and Welfare, 2005a). From 2010 to 2013 the recent use of GHB among the general population aged 14 years and over significantly decreased to under 0.1%, while the proportions reporting lifetime use remained stable at 0.9% (Figure 16) (Australian Institute of Health and Welfare, 2014).

Figure 16: Percentage of sample reporting recent* and lifetime GHB use in the general population, 2007-2013



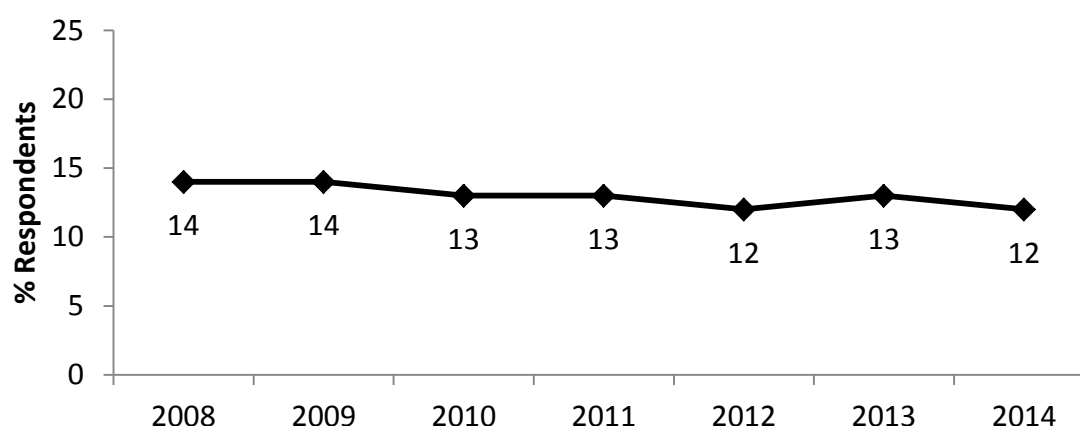
Source: Australian Institute of Health and Welfare (2008b, 2011, 2014)

* Used in the last 12 months

Sydney Gay Community Periodic Survey

Figure 17 shows the proportion of gay men surveyed who had used GHB in the past six months. Since 2008, GHB use has remained stable and there were no significant differences between 2013 and 2014 (Hull et al., 2014).

Figure 17: Proportion of gay men in Sydney reporting recent GHB use, 2008-2014

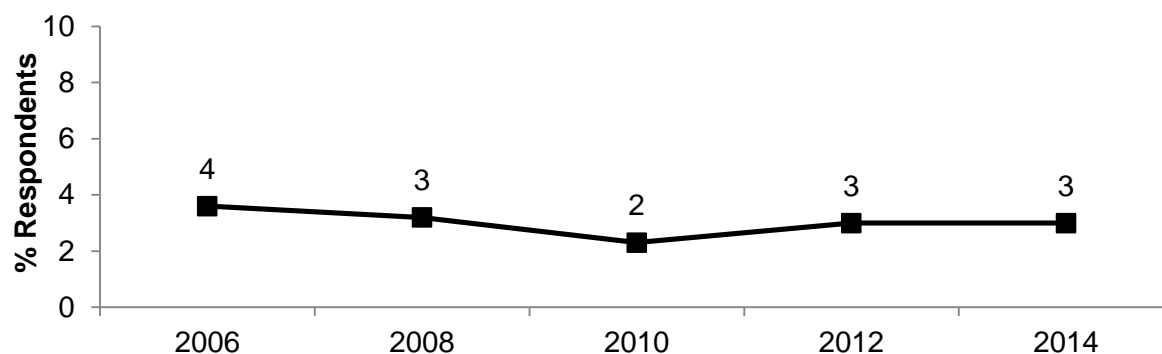


Source: Sydney Gay Community Periodic Survey 2008-2014

Sydney Women and Sexual Health Survey

Figure 18 shows the proportion of women surveyed who had recently used GHB. This figure had remained relatively stable across time, with 3% reporting recent GHB use in 2014 (Mooney-Somers, Deacon, Richters & Parkhill, 2015).

Figure 18: Proportion of LBQ women in Sydney reporting recent GHB use, 2006-2014



Source: Sydney Women and Sexual Health Survey 2006-2014

Key expert comments

Only one KE from law enforcement was able to comment on GHB use. This person noted that seizures increased during at Mardi Gras,. There were also detections in of people converting GBL to GHB.

4.7 LSD use

Summary:

- Two-thirds of the sample had tried LSD at least once and over two-thirds had used it recently.
- LSD was used on a median of 2 days over the preceding six months.
- Unlike most other drugs, LSD was often used in outdoor settings.
- The use of LSD among the sample increased from 2008 to 2014.
- KE had various comments on the impact of NBOMe on the LSD market.

Lysergic acid diethylamide is commonly known as LSD, 'trips' or 'acid'. It is a powerful hallucinogen which can produce significant changes in perception, mood and thought. Only a small amount is needed to cause visual hallucinations and distortions. These experiences are known as 'trips'. Unpleasant reactions to LSD include fear, anxiety and depression. LSD is manufactured in illicit laboratories and the majority of LSD is believed to be imported from overseas.

LSD is usually adhered to perforated sheets. Small paper squares ('tabs') are detached from these sheets and usually decorated with designs which can often be culturally specific to the user groups. LSD is potent, so trips are often cut into halves or quarters and shared with others.

4.7.1 LSD use among RPU

Table 10 presents data across time on patterns of LSD use among RPU. Two-thirds (67%) of the sample had ever used LSD and over two-fifths (43%) had used it recently. Respondents had first used LSD at a median age of 19 years (range 13-60). In NSW there has been an upward trend in the recent use of LSD from 2008, peaking in 2012. However, in 2013 a significant decline was reported and in 2014 this number dropped yet again (although not significant). LSD was used on a median of 2 days (range 1-50) over the preceding six months.

Of those who had used LSD, over four-fifths (84%) had done so on a less than monthly basis, over one-tenth (12%) had used it between monthly and fortnightly, one participant had used it between fortnightly and weekly and one participant had used LSD more than weekly.

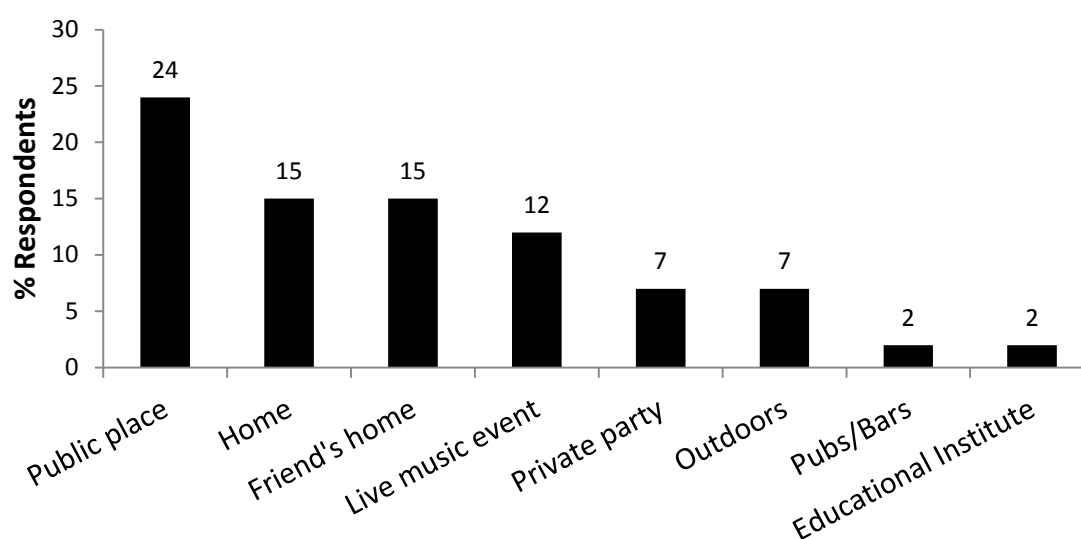
Almost all respondents quantified their use in terms of tabs. They reported having used a median of 1 tab (range 0.5-4) during a 'typical' episode of use, and 1 tab (range 0.5-5) during the heaviest episode of use in the preceding six months. All recent users of LSD had swallowed it.

Table 10: Patterns of LSD use among RPU, NSW 2008-2014

LSD variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Ever used (%)	57	62	77	75	84	71	67
Used last 6 mths (%)	18	37	44	46	43	51	43
<i>Of those who had used:</i>							
Median days used last 6 mths (range)	2 (1-20)	2 (1-25)	3 (1-25)	2 (1-48)	3 (1-24)	2 (1-24)	2 (1-50)
<i>Median quantities used (tabs):</i>							
Typical (range)	1 (0.25-2.5)	1 (0.5-3)	1 (0.5-3)	1 (0.25-5)	1 (0.5-2)	1 (0.25-7.5)	1 (0.5-4)
Heavy (range)	1.75 (0.5-3)	1 (0.5-3.5)	1 (0.5-6)	1 (0.25-20)	1 (0.5-5)	1.5 (0.5-10)	1 (0.5-5)

Source: EDRS regular psychostimulant user interviews 2008-2014

Figure 19 presents the location of last LSD use. In contrast to many of the other drugs reported herein, LSD had been most often used at a public place such as a street or park (24%), at home (15%) and at a friend's house (15%). However, respondents had also recently used it at a live music event (12%), and, less commonly, in other venues.

Figure 19: Last location of LSD use among RPU, NSW 2014

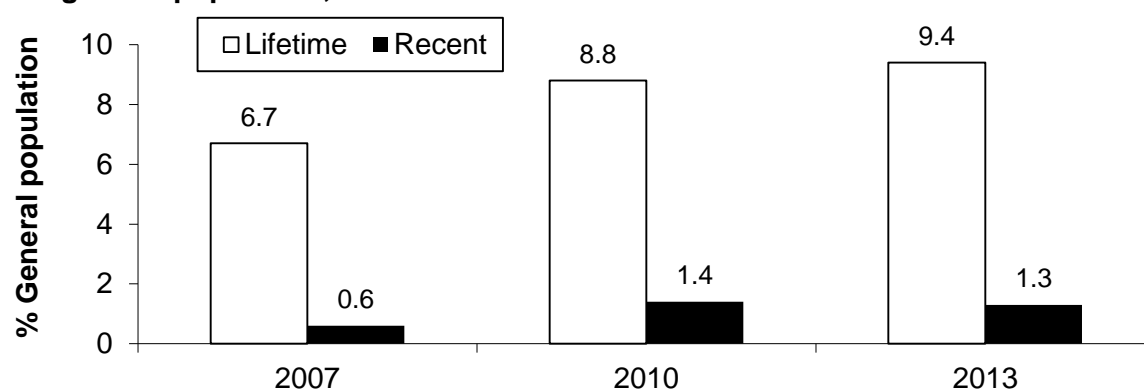
Source: EDRS regular psychostimulant user interviews 2014

4.7.2 Hallucinogen use in other populations

General population

Figure 19 presents data across time on the recent use of hallucinogens in the NSW general population among participants aged 14 years or over. The authors reported no significant differences in the proportions reporting both lifetime and past year use of hallucinogens from 2010 to 2013 (Australian Institute of Health and Welfare, 2014).

Figure 20: Percentage of sample reporting recent* and lifetime hallucinogen use in the NSW general population, 2007-2013



Source: Australian Institute of Health and Welfare (2008b, 2011, 2014)

*Used in the last 12 months

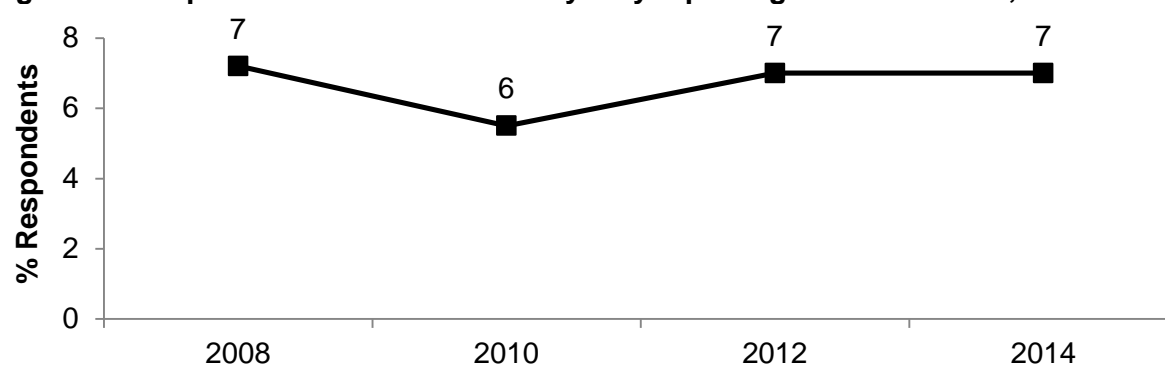
Sydney Gay Community Periodic Survey

LSD was omitted from the questionnaire for the Sydney Gay Community Periodic Survey in 2011. The most recent data available is from 2010 where 6% reported recently using LSD/trips.

Sydney Women and Sexual Health Survey

Figure 21 shows the proportion of women surveyed who had used LSD in the past six months. This figure had remained relatively stable since 2008, with 7% of the group reporting recent LSD use (Mooney-Somers, Deacon, Richters & Parkhill, 2015).

Figure 21: Proportion of LBQ women in Sydney reporting recent LSD use, 2008-2014



Source: Sydney Women and Sexual Health Survey 2008-2014

Note: LSD use was not recorded in the 2006 survey

Illicit Drug Reporting System

A separate monitoring system investigating trends in the use of hallucinogens in injecting drug users has been conducted in NSW since 1996, in Victoria (VIC) and South Australia

(SA) since 1997 and nationally since 2000. This is called the Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the NDARC website (<http://ndarc.med.unsw.edu.au/project/illicit-drug-reporting-system-idrs>).

Key expert comments

KEs from the service industry reported that many synthetic products such as 25I-NBOMe are being sold as LSD at the same price (or lower) but at different concentrations. One was of the opinion that LSD has been harder to obtain because of this reason.

KE from law enforcement reported a decline in the number of seizures in the last year; however, they reported that this may be due to resources being elsewhere. Most seizures were found at festivals.

4.8 Cannabis use

Summary:

- Almost every participant had tried cannabis at least once and the vast majority had used it recently.
- Cannabis was used on a median of 30 days (i.e. more than weekly) over the preceding six months.
- The use of cannabis had remained relatively stable over time.
- The use of cannabis among the general population remained stable at 10.2% in 2013.
- KE reported a younger age of initiation for cannabis and heavier users presenting more cases of psychosis, anxiety and depression.

Cannabis is derived from the cannabis plant (*Cannabis sativa*). While cannabis can be grown in almost any climate, it is being increasingly cultivated by means of indoor hydroponic technology. The main active ingredient in cannabis is delta-9-tetrahydrocannabinol (THC). Cannabis is used recreationally in three main forms: marijuana ('bush' or 'hydro' – see below for a description of these forms of marijuana); hashish ('hash'); and hash oil (National Drug and Alcohol Research Centre, 2008). Cannabis remains the dominant illicit drug in Australia in terms of arrests, seizures and use (Australian Crime Commission, 2014).

Almost every participant in the 2014 EDRS (98%) had ever used cannabis and the majority (85%) reported having done so over the six months preceding the interview (Table 11). Cannabis was first used at a median age of 16 years (range 11-55).

4.8.1 Cannabis use among RPU

Recent cannabis users reported having used it on a median of 30 days (range 1-180). While approximately one-fifth of users (19%) had used cannabis on a less than monthly basis and 13% had used on a monthly to fortnightly basis, substantial proportions had used it more than fortnightly (68%), more than weekly (49%) and on a daily basis (11%). The majority of cannabis users (98%) had smoked it over the past six months about one-third (38%) reported having recently ingested it and just under one-third reported inhaling cannabis using a vaporiser (35%).

Recent users of cannabis were asked how much they had smoked on their last occasion of use. Thirty participants quantified their last use in terms of grams and reported having used a median of 1 gram (range 0.1-4) on their last occasion of use. Twenty-eight RPU quantified their use in terms of joints and reported having used a median of 1 joint (range 0.5-4) on their last occasion of use. Twenty-five participants quantified their last use in terms of cones and reported having smoked a median of 2 cones (range 1-40) on their last occasion of use.

Trends in the use of cannabis are presented in Table 11. There was no significant change in the proportions reporting the lifetime or recent use of cannabis or in the number of days of use from 2013 to 2014.

Table 11: Patterns of cannabis use among RPU, NSW 2008-2014

Cannabis variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Ever used (%)	93	98	98	97	99	97	98
Used last 6 mths (%)	71	83	78	83	86	90	85
<i>Of those who had used:</i>							
Median days used last 6 mths	24	25.5	49	48	48	40	30
(range)	(1-180)	(1-180)	(1-180)	(1-180)	(1-180)	(1-180)	(1-180)

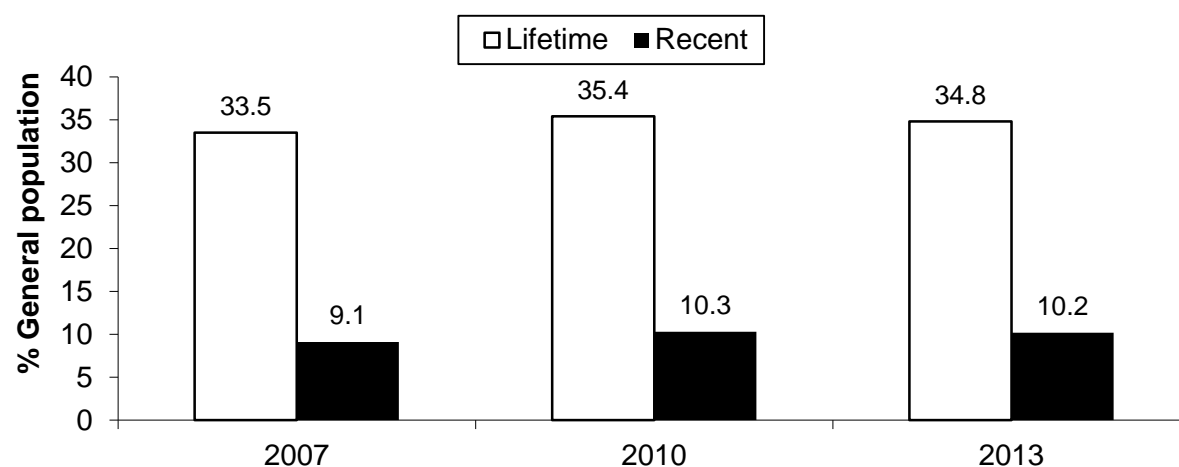
Source: EDRS regular psychostimulant user interviews 2008-2014

4.8.2 Cannabis use in other populations

General population

The proportion of the general population aged 14 years or over reporting recent use of cannabis remained stable at 10.2% in 2013 and the proportions reporting lifetime use has also remained stable at 24.8% in 2013 (Figure 22) (Australian Institute of Health and Welfare, 2014).

Figure 22: Percentage of sample reporting recent* and lifetime cannabis use in the general population, 2007-2013



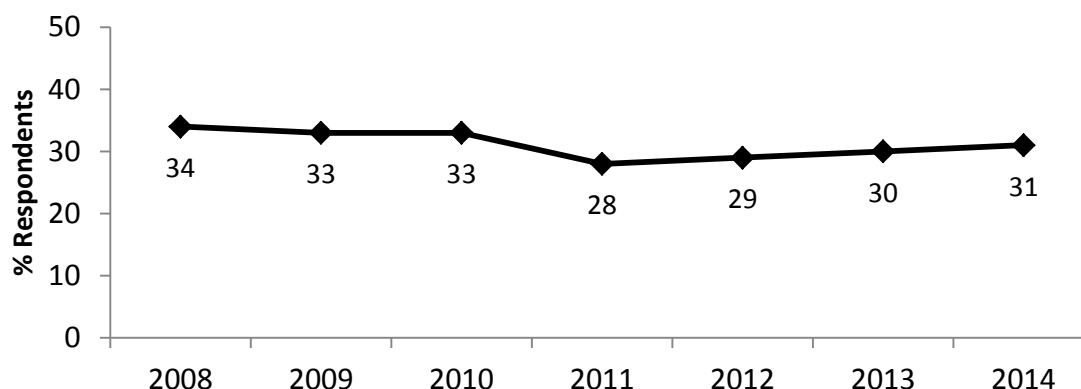
Source: Australian Institute of Health and Welfare (2008b, 2011, 2014)

* Used in the last 12 months

Sydney Gay Community Periodic Survey

Figure 23 shows the proportion of gay men surveyed that had used cannabis in the past six months. About one-third of the men who participated had recently used cannabis. The authors reported no significant decreases in the use of cannabis over time since 2010 or from 2013 to 2014 (Hull et al., 2014).

Figure 23: Proportion of gay men in Sydney reporting recent cannabis use, 2008-2014

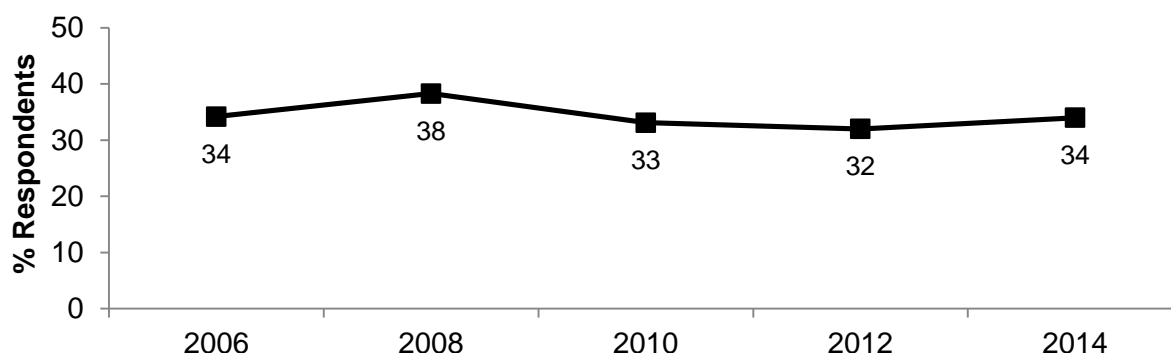


Source: Sydney Gay Community Periodic Survey 2008-2014

Sydney Women and Sexual Health Survey

Figure 24 shows the proportion of women surveyed who had used cannabis in the past six months. This figure had remained relatively stable over time at approximately one-third of the group (Mooney-Somers, Deacon, Richters & Parkhill, 2015).

Figure 24: Proportion of LBQ women in Sydney reporting recent cannabis use, 2006-2014



Source: Sydney Women and Sexual Health Survey 2006-2014

Illicit Drug Reporting System

A separate monitoring system investigating trends in the use of cannabis in injecting drug users has been conducted in NSW since 1996, in Victoria (VIC) and South Australia (SA) since 1997 and nationally since 2000. This is called the Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the NDARC website (<http://ndarc.med.unsw.edu.au/project/illicit-drug-reporting-system-idrs>).

Key expert comments

One KE reported that cannabis was easier than alcohol to obtain. As such, the age of initiation seems to be earlier and there is a temptation to earn money by selling cannabis at a young age. Another health KE reported young cannabis users as being heavy users, experiencing psychosis and severe anxiety and depression scores and engaging in polydrug use at earlier ages.

It's important not to include statements that can be interpreted as stigmatising one particular group – remember that these are just the views of a few people

4.9 Other drug use

Summary:

Alcohol

- All of the 2014 NSW RPU reported recent use of alcohol.
- KE made mixed comments about alcohol and harms and reported that alcohol was much more dangerous when combined with other drugs.

Tobacco

- Almost all RPU had used tobacco at least once (92%) and 80% had smoked within the past six months.

Benzodiazepines

- Half of the group had recently used benzodiazepines. Illicit use was more common than licit use.

Antidepressants

- One-fifth of RPU had recently used antidepressants. Licit use was more common than illicit use.

Inhalants

- Amyl nitrite was used more commonly among RPU (65%) than nitrous oxide (43%) over the six months preceding interview.
- The recent use of nitrous oxide has slightly risen from 2012 to 2014.

MDA

- One-fifth of the sample reported using MDA in the past six months.
- There was a notable increase in recent use of MDA from 2010-2013; however, there was a notable drop in recent use in 2014.

Heroin and other opiates

- Eight RPU reported recent heroin use. Nine participants reported the using of illicitly obtained other opiates.

Psilocybin Mushrooms

- Just under half the sample had ever tried mushrooms and one-fifth had used mushrooms recently.

Pharmaceutical stimulants

- One-quarter of the group had recently used pharmaceutical stimulants. Illicit use was more common than licit use.
- The recent use of illicit pharmaceutical stimulants has steadily increased since 2009; however, there was a notable drop in use in 2014.

Over the counter (OTC) drugs

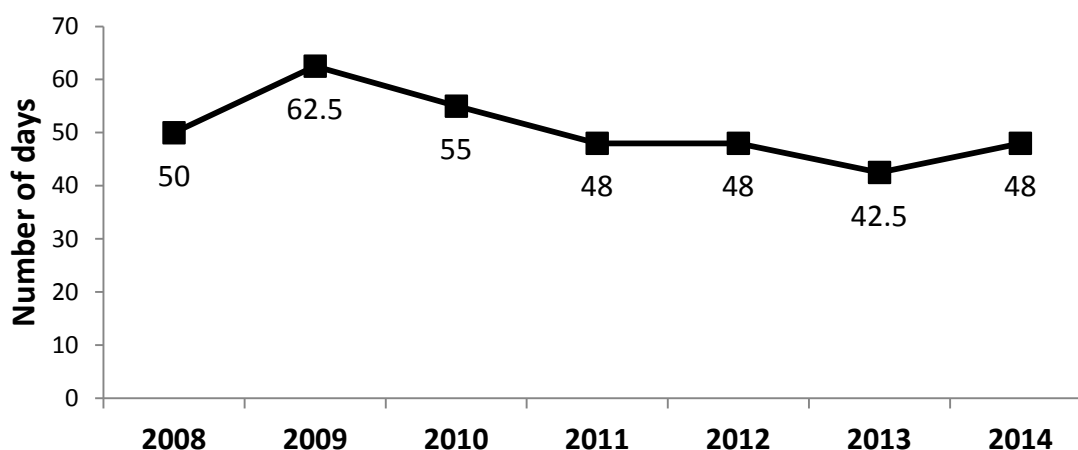
- Nineteen percent reported recent use of OTC codeine-containing products for non-pain use, and 6% reported recent use of OTC stimulants for non-medicinal use.

4.9.1 Alcohol

The entire 2014 sample of RPU reported having used alcohol during the past six months (100%). Participants had first used alcohol at a median age of 14 years (range 5-19). Participants reported having consumed alcohol on a median of 48 days (range 1-174) over the preceding six months and the majority of RPU had used alcohol on a weekly to monthly basis (23%) or greater than weekly basis (25%).

Figure 25 presents the median days of use of alcohol by RPU within the six months preceding the interview across time. 2014 is the first year since 2009 that NSW participants have not reported a decline in the number of days used in the previous six months. See section 7.3 'Problematic alcohol use among RPU' for a discussion of harmful alcohol use among RPU in NSW.

Figure 25: Days of alcohol use among RPU in the last six months, NSW 2008-2014



Source: EDRS regular psychostimulant user interviews 2008-2014

Key expert comments

Alcohol was considered by most health professionals to be the most problematic substance. One major issue surrounding alcohol use in festivals was preloading spirits such as vodka.

Another KE working with younger adolescents noted that alcohol users tended to be the individuals that were becoming disengaged with the education system.

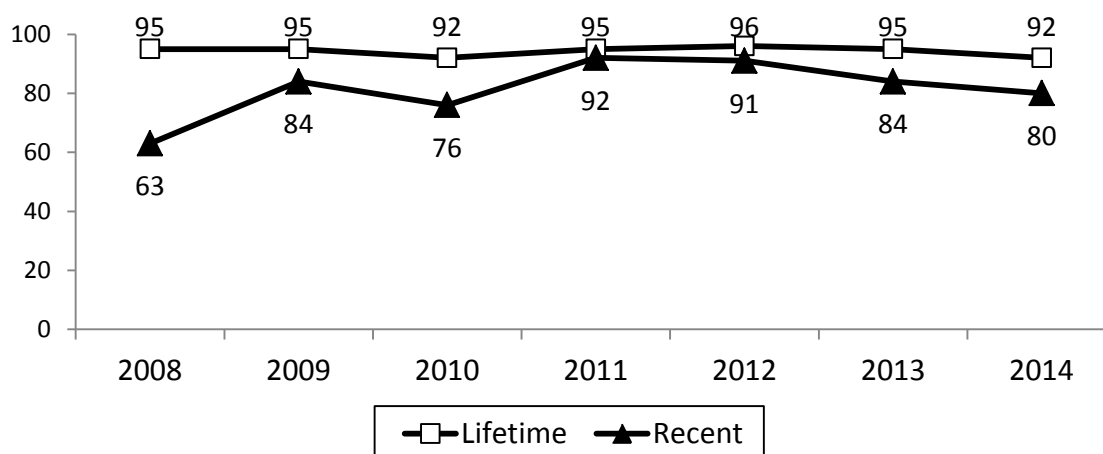
Two KE working in the service industry commented on lock-out laws that were recently applied and noted increased binge drinking in as these people have less time on an night out and thus use the same amount of drugs and alcohol but over a shorter time period.

4.9.2 Tobacco

The vast majority (92%) of RPU interviewed in 2013 had used tobacco at some point and most (80%) reported having done so over the preceding six months. Tobacco was first used at a median age of 15 years (range 9-23). Tobacco had been used on a median of 77.5 days (range 1-180) over the preceding six months and roughly two-fifths (39%) of those who had recently used tobacco were daily smokers. The proportion of RPU using tobacco in their lifetime and over the past six months has remained relatively stable from 2012 to 2013 (

Figure 26).

Figure 26: Proportion of RPU reporting lifetime and recent tobacco use, NSW 2008-2014



Source: EDRS regular psychostimulant user interviews 2008-2014

4.9.3 Benzodiazepines

Half (50%) of the sample reported having ever used any benzodiazepines and over one-third (35%) reported having done so recently. Lifetime and recent use of benzodiazepines remained relatively stable from 2013 to 2014 on a less than monthly basis (Figure 27).

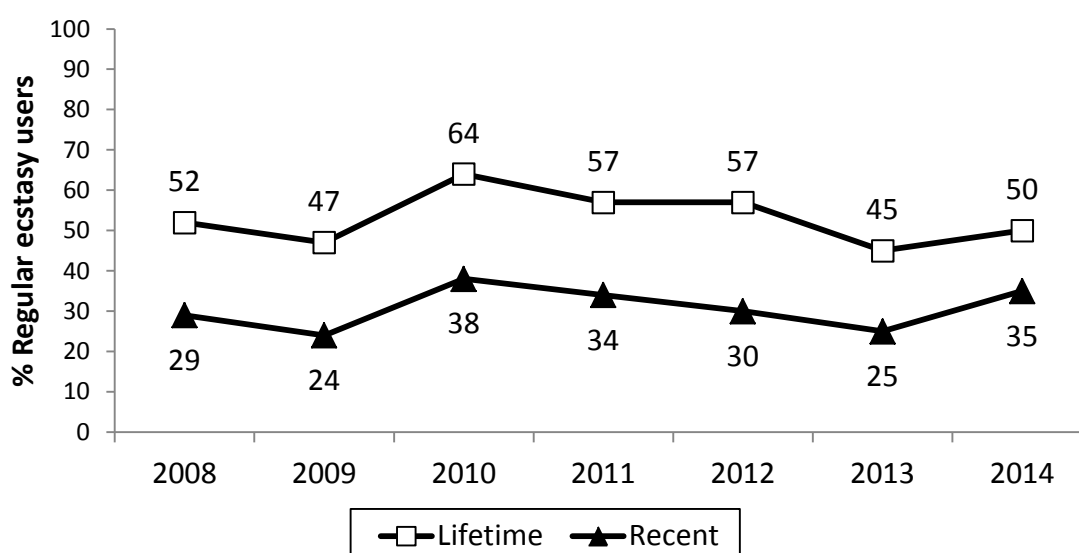
Licit benzodiazepines

Over one-tenth (14%) of RPU reported having ever used licitly obtained benzodiazepines and 7% had done so recently. Licit benzodiazepines were first used at a median age of 20.5 years (range 17-50). They had been used on a median of 6 days (range 2-49) over the six months prior to the interview. The majority reported using licitly obtained benzodiazepines less than monthly (43%) and between monthly and fortnightly (29%). All seven participants reported swallowing as the route of administration of licitly obtained benzodiazepines over this period.

Illicit benzodiazepines

Under half (45%) the sample of RPU had ever used illicitly obtained benzodiazepines, and under one-third (29%) had done so over the preceding six months. They were first used at a median age of 20 years (range 16-61) and were reported by all RPU as being swallowed; however, two participants reported snorting illicit benzodiazepines in the last six months. Illicit benzodiazepines had been used on a median of 2 days (range 1-48) by recent users, with the majority (69%) reporting that they had used illicitly obtained benzodiazepines on a less than monthly basis.

Figure 27: Proportion of RPU reporting lifetime and recent benzodiazepine use, NSW 2008-2014



Source: EDRS regular psychostimulant user interviews 2008-2014

4.9.4 Antidepressants

One-fifth (20%) of participants reported having ever used antidepressants and 8% had done so over the preceding six months. Lifetime and recent use of antidepressants remained relatively stable from 2013 to 2014 (Figure 28).

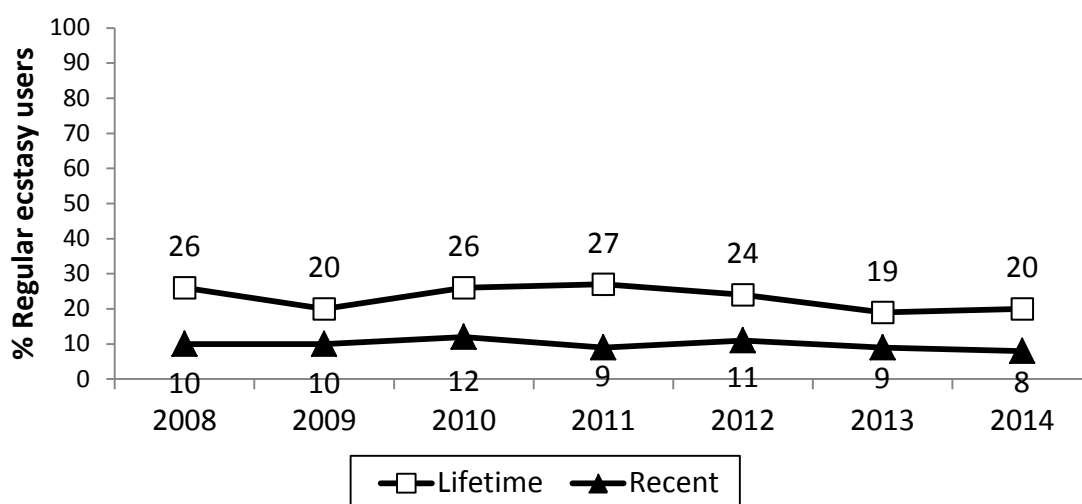
Licit antidepressants

Sixteen percent of the sample had ever used licitly obtained antidepressants and only five participants had done so over the preceding six months. Licit antidepressants were first used at a median age of 19.5 years (range 14-37). They had been used on a median of 180 days (range 90-180), with all five participants reporting that they had used licitly obtained antidepressants at least every second day.

Illicit antidepressants

Seven participants reported having ever used illicit antidepressants and three participants reported having used them over the past six months. Illicit antidepressants were first used at a median age of 18 years (range 14-26). Given the small sample who had recently used illicitly obtained antidepressants (n=3), data on routes of administration and the median days of use are not presented here.

Figure 28: Proportion of RPU reporting lifetime and recent antidepressant use, NSW 2008-2014



Source: EDRS regular psychostimulant user interviews 2008-2014

4.9.1 Inhalants

Amyl nitrite

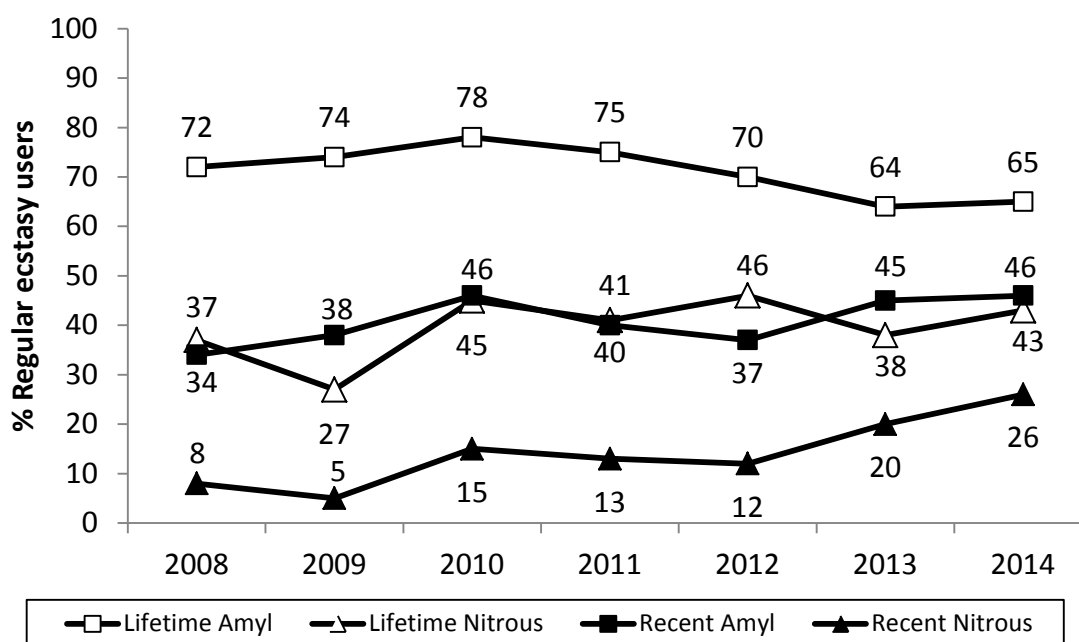
Roughly two-thirds (65%) of RPU interviewed had ever used amyl nitrite and under half of the sample (46%) had used it over the preceding six months. Amyl nitrite was first used at a median age of 18 years (range 16-44). Those who had recently used it had done so on a median of 3 days (range 1-30) over the preceding six months. The majority of recent users of amyl nitrite (72%) used it on a less than monthly basis or between monthly and weekly (17%).

Nitrous oxide

Over two-fifths (43%) of the sample reported having ever used nitrous oxide and one-quarter (26%) had done so recently. Nitrous oxide was first used at a median age of 19 years (range 14-40). Among those who had used it over the last six months, nitrous oxide had been used on a median of 2.5 days (range 1-30) during this time, with the majority reporting that they used it on a less than monthly basis (85%).

Figure 29 presents trends across time of the proportions of the EDRS samples that had ever used, and had recently used, both amyl nitrite and nitrous oxide. The proportions reporting recent and lifetime use of both drugs remained stable from 2013 to 2014. However, there seems to be a notable increase in the use of nitrous oxide from 2012-2014.

Figure 29: Proportion of RPU reporting lifetime and recent amyl nitrite and nitrous oxide use, NSW 2008-2014



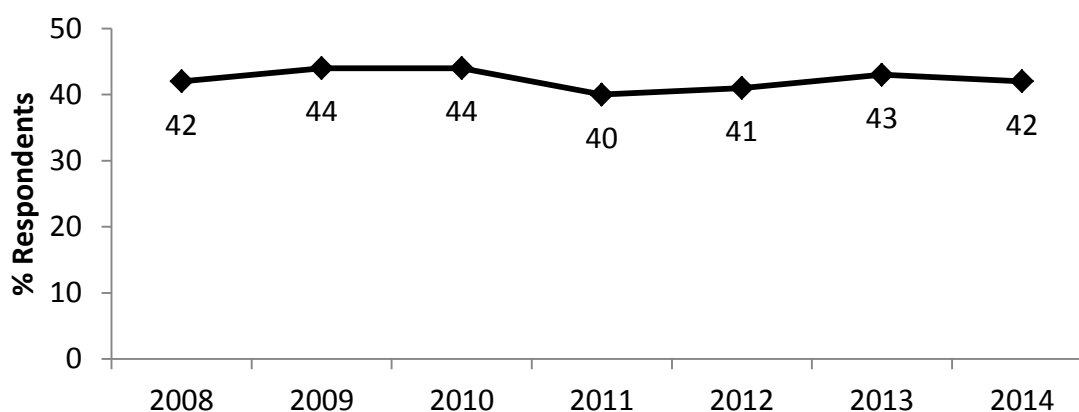
Source: EDRS regular psychostimulant user interviews 2008-2014

Inhalant use in other populations

The recent use of inhalants in the general population aged 14 years and older has remained low at 0.8% in 2013, and lifetime use has remained stable at 3.8% in 2013 (AIHW, 2014).

Data collected across time from the Sydney Gay Community Periodic Survey has shown that large proportions of men reported the use of amyl nitrite in the past six months (Figure 30). Two-fifths (42%) of participants in 2013 reported recently using amyl nitrite, which has remained stable across time (Hull et al., 2014).

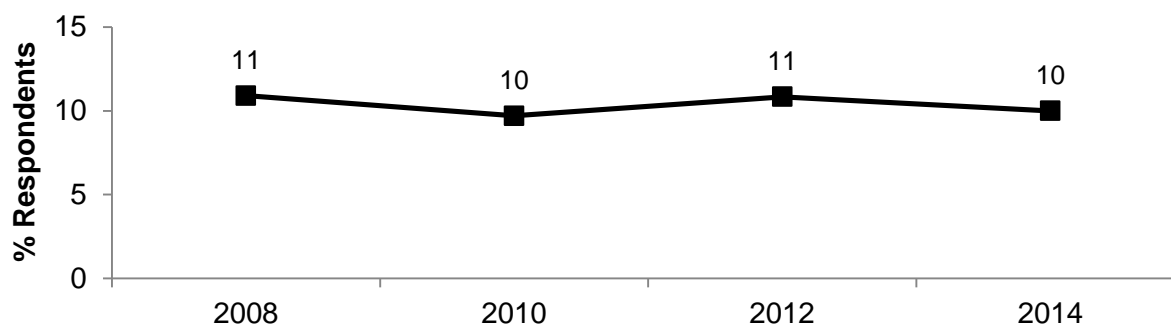
Figure 30: Proportion of gay men in Sydney reporting recent amyl nitrite use, 2008-2014



Source: Sydney Gay Community Periodic Survey 2008-2014

In the 2014 Sydney Women and Sexual Health Survey, one-tenth of LBQ participants reported recent use of amyl nitrite (Figure 31). These figures have remained stable over the past four years (Mooney-Somers, Deacon, Richters & Parkhill, 2015).

Figure 31: Proportion of LBQ women in Sydney reporting recent amyl nitrite use, 2008-2014

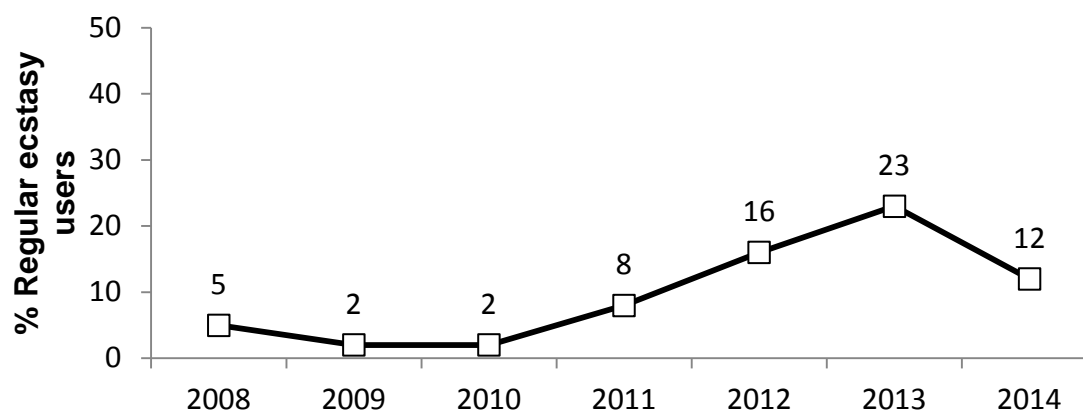


Source: Sydney Women and Sexual Health Survey 2008-2014

4.9.5 MDA

One-fifth (21%) of participants in the 2014 EDRS reported having ever used MDA, and 12% reported they had used it over the preceding six months. MDA was first used at a median age of 19 years (range 16-48). Recent users reported using MDA on a median of 2.5 days (range 1-30). The proportion of individuals reporting using MDA in the six months prior to interview has notably decreased from 23% in 2013 to 12% in 2014 (Figure 32).

Figure 32: Proportion of RPU reporting recent MDA use, 2008-2014



Source: EDRS regular psychostimulant user interviews 2008-2014

4.9.6 Heroin and other opiates

Heroin

Eight participants reported that they had ever used heroin and two reported using it in the preceding six months. The median age that heroin was first used was 20 years (range 15-41). Given such a small sample of recent users, details regarding frequency and quantity of use are not presented.

Methadone and buprenorphine

Two participants reported the lifetime use of methadone and none had reported using it over the preceding six months. Two participants reported lifetime use of buprenorphine and only

one had used it within the past six-months. Once again given such a small sample of recent users, details regarding frequency and quantity of use are not presented.

Other opiates

While 13% of respondents had ever used a licitly obtained opiate (other than heroin, methadone or buprenorphine), only four participants had used a licitly obtained opiate recently. Under one-fifth (17%) of the sample reported having ever used other illicitly obtained opiates and nine participants had used them over the six months prior to the interview.

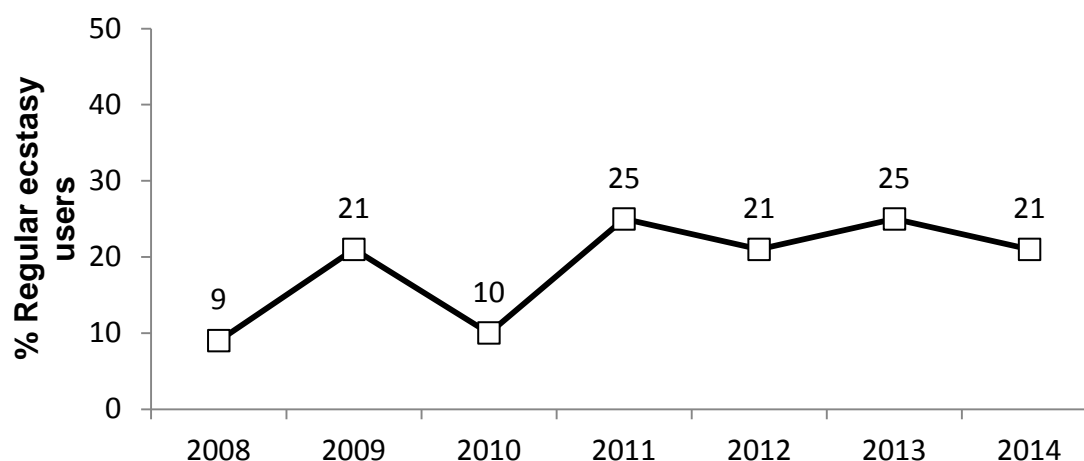
Illicit Drug Reporting System

A separate monitoring system investigating trends in the use of heroin and other opiates in injecting drug users has been conducted in NSW since 1996, in Victoria (VIC) and South Australia (SA) since 1997 and nationally since 2000. This is called the Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the NDARC website (<http://ndarc.med.unsw.edu.au/project/illicit-drug-reporting-system-idrs>).

4.9.7 Psilocybin Mushrooms

Just under half (48%) of the RPU interviewed in 2014 reported having ever used mushrooms and one-fifth (21%) had done so over the preceding six months. Mushrooms were first used at a median age of 19 years (range 14-62). The majority (95%) of participants who had recently used mushrooms had done so on a less than monthly basis and all participants reported only swallowing as the main route of administration. Recent use of mushrooms appears to have remained relatively stable from 2011 to 2014 (Figure 33).

Figure 33: Proportion of RPU reporting recent mushroom use, 2008-2014



Source: EDRS regular psychostimulant user interviews 2008-2014

4.9.8 Pharmaceutical stimulants

Over half (54%) of the participants in 2014 reported having ever used pharmaceutical stimulants and one-quarter (24%) had done so within the six months preceding the interview. The lifetime use of pharmaceutical stimulants had remained mostly stable from 2013 to 2014 (Figure 34).

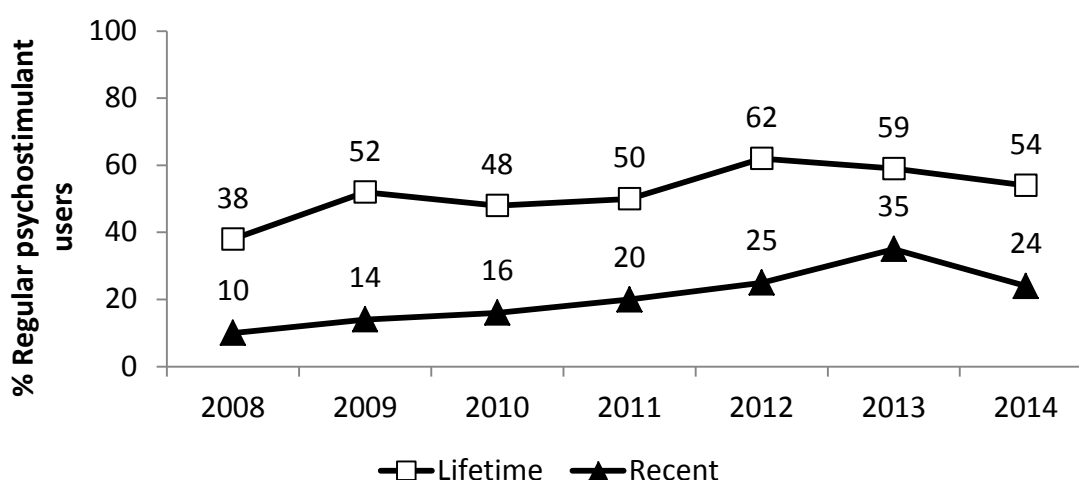
Licit pharmaceutical stimulants

While nine participants reported having used licitly obtained pharmaceutical stimulants, only two RPU had used them recently. Licitly obtained pharmaceutical stimulants were first used at a median age of 17 years (range 4-19).

Illicit pharmaceutical stimulants

Half of the sample (51%) had ever used illicitly obtained pharmaceuticals and under one-quarter (23%) had done so over the preceding six months. From 2008 to 2013 there has been a steady increase in the use of illicitly obtained pharmaceutical stimulants; however, there was a notable drop in 2014. Illicit pharmaceutical stimulants were first used at a median age of 18 years (range 14-40). Those who had recently used them had done so on a median of 2 days (range 1-10) over the preceding six months. While the majority of those who had recently used illicitly obtained pharmaceutical stimulants had swallowed them (87%), one-quarter of this group had also recently snorted them (26%).

Figure 34: Proportion of RPU reporting lifetime and recent pharmaceutical stimulant use, 2008-2014



Source: EDRS regular psychostimulant user interviews 2008-2014

4.9.9 Over the counter drugs

Codeine

One-fifth (19%) of the sample reported having ever used over the counter codeine-containing products for non-pain use and 11% reported having done so over the preceding six months. These products were first used at a median age of 19 years (range 13-30). Swallowing was the only route of administration.

Stimulants

Six participants reported having ever used over the counter stimulants (such as Sudafed and Codral) for non-medicinal use and only two participants had used them recently.

4.9.10 Performance and image enhancing drugs (PIED)

In the 2014 NSW RPU sample, six participants reported lifetime use of steroids and only two reported steroid use in the preceding six months.

Key expert comments

In the 2013-14 financial year, there was a slight increase in the number of detections compared to 2012-13. However, after a change in legislation along with the 'one-punch laws', there was a rescheduling of many common steroids which may have caused the slight increase. Seized steroids are usually found in vials (liquid). There was no change in the characteristics of users, mean age 27-28.

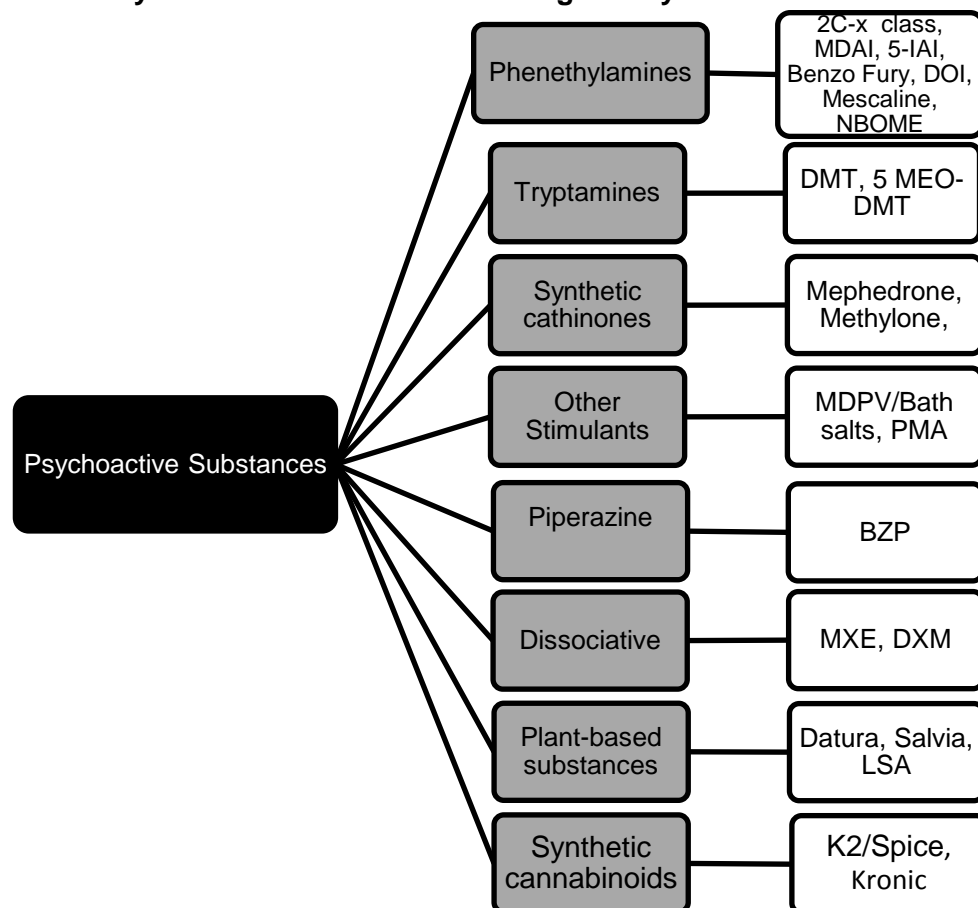
4.10 New psychoactive substance (NPS) use

Summary:

- In 2014, the number of EDRS participants that have consumed an NPS in the previous six month period was 38%.
- There was a significant decrease in the proportion reporting the use of synthetic cannabis from 2013 to 2014.
- The most commonly used psychoactive substances were 2C-B, NBOMe and DMT.
- KE reported that many NPS were being sold as traditional drugs, however people who intentionally used NPS were older, more experienced users.

From 2010 onward, the EDRS began to systematically investigate a group of new drugs known as 'psychoactive substances' (also known as research chemicals, analogues, legal highs, herbal highs, party pills). These drugs can be classified as outlined in Figure 35.

Figure 35: Psychoactive substances investigated by the EDRS



Psychedelic refers to “a mental state of enlarged consciousness, involving a sense of aesthetic joy and increased perception transcending verbal concepts” or “denoting or relating to any of a group of drugs inducing such a state, especially LSD” (Macquarie Dictionary).

Phenethylamine is a neurotransmitter that is an amine resembling amphetamine in structure and pharmacological properties. Derivatives of phenethylamine are referred to as phenethylamines (Merriam-Websters Medical Dictionary). Tryptamine is a crystalline amine derived from tryptophan. Substituted derivatives of this amine, some of which are significantly hallucinogenic or neurotoxic, are known as 'tryptamines' (Merriam-Websters Medical Dictionary).

Table 12 provides a very brief introduction to these drugs to provide a rough guide for interpreting trends data. Interested readers are directed toward online sources such as Erowid (<http://www.erowid.org/splash.php>) and Drugscope (<http://www.drugscope.org.uk/>) for more comprehensive information on these drugs.

Table 12: New psychoactive substances

Street name	Chemical name	Information on drug	Information on use and effects
<i>Phenethylamines</i>			
2C-I	2,5-dimethoxy-4-iodophenethylamine	A psychedelic drug with stimulant effects	Recent reports suggest that 2C-I is slightly more potent than the closely related 2C-B. A standard oral dose of 2C-I is between 10-25mg.
2C-B	4-Bromo-2,5-dimethoxyphenethylamine	A psychedelic drug with stimulant effects	2C-B is sold as a white powder sometimes pressed in tablets or gel caps. The dosage range is listed as 16-24mg. Commonly taken orally but can also be snorted.
2C-E	2,5-dimethoxy-4-ethylphenethylamine	A psychedelic drug with stimulant effects	Mostly taken orally and is highly dose-sensitive. 2C-E is commonly active in the 10-20mg range.
25I-NBOMe	4-iodo-2,5-dimethoxy-N-2-methoxybenzylphenethylamine	A psychedelic drug with stimulant effects	Chemically related to 2C-I, 25I-NBOMe is a potent psychedelic available in powder, tablet and liquid formulations.
DOI (death on impact)	2,5-dimethoxy-4-iodoamphetamine	A psychedelic phenethylamine	Requires only very small doses to produce full effects. It is uncommon as a substance for human ingestion but common in research. Has been found on blotting paper and may be sold as LSD ⁵ .
Mescaline	3,4,5-trimethoxyphenethylamine	A hallucinogenic alkaloid	First isolated in 1896 from the peyote cactus of northern Mexico. A standard dose for oral mescaline use ranges from 200-500mg.
5-IAI	5-iodo-2-aminoindan	A psychedelic drug with stimulant effects	Not much is known about 5-IAI other than it is a substitute for MDMA.
Benzo Fury	6-2-aminopropylben	A psychedelic drug with stimulant effects	6-APB is a synthetic chemical that became available via online vendors in

⁵ Erowid: <http://www.erowid.org/chemicals/doi/doi.shtml>

	zofuran; 1-1-benzofuran- 6-ylpropan-2- amine		2010. Little is known about its effects, which are presumed to include stimulation and euphoria, though not enough reliable human data has been recorded to say much with certainty.
<i>Tryptamines</i>			
DMT	Dimethyl tryptamine	A hallucinogenic drug in the tryptamine family	Similar to LSD, though its effects are said to be more powerful. Pure DMT is usually found in crystal form but has been reportedly sold in powder form ⁶ .
5-MeO-DMT	5-methoxy-N,N- dimethyltryptami ne	A naturally occurring psychedelic tryptamine present in numerous plants and in the venom of the <i>Bufo alvarius</i> toad	5-MeO-DMT is comparable in effects to DMT; however, it is substantially more potent. It can be injected, smoked or sniffed and the effects rarely last more than two hours. 5-MeO-DMT is mostly seen in crystalline form ⁷ but has been reportedly sold in powder form.
<i>Synthetic cathinones</i>			
Mephedrone	4-methyl- methcathin- one	A stimulant which is closely chemically related to amphetamines	Reportedly produces a similar experience to drugs like amphetamines, ecstasy or cocaine. Mephedrone is a white, off-white or yellowish powder although it may also appear in pill or capsule form. Mephedrone is probably the most well known of a group of drugs derived from cathinone (a chemical found in the plant called khat) ⁸ .
Methylone	3,4- methylenedioxy- N- methylcathinone	An entactogen and stimulant of the phenethylamine, amphetamine, and cathinone classes	Reported dosages range from 100-250mg orally. Effects are primarily psychostimulant in nature.
<i>Other stimulants</i>			
Ivory wave/ MDPV	Methylenedioxy pyrovalerone (3,4- methylenedioxy)	A cathinone derivative	More potent than other cathinones. Lidocaine (a common local anesthetic) is frequently used as a cutting agent, to give users the numbing sensation in the mouth or nose which is associated with drugs of high purity (e.g. high-purity cocaine) ⁹ .
PMA	Paramethoxyam phetamine; 4-	A synthetic hallucinogen that has stimulant	Ingesting a dose of less than 50mg (usually one pill or capsule) without

⁶ Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/dmt>

⁷ Erowid: http://www.erowid.org/chemicals/5meo_dmt/5meo_dmt.shtml

⁸ Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/mephedrone>

⁹ Drugscope: http://www.drugscope.org.uk/Media/Press+office/pressreleases/ivory_wave_MDPV

	methoxy-amphetamine	effects	other drugs or alcohol induces symptoms reminiscent of MDMA, although PMA is more toxic than MDMA. Doses over 50mg are considered potentially lethal (due to the risk of overheating). Pure PMA is a white powder, but street products can also be beige, pink or yellowish. Today it is usually made into pressed pills ¹⁰ .
<i>Piperazine</i>			
BZP	1-benzylpiperazine	A piperazine; a CNS stimulant.	Gained popularity in some countries in the early 2000s as a legal alternative to amphetamines and ecstasy. One of the more common piperazines, providing stimulant effects which people describe as noticeably different than those of amphetamines. Not particularly popular as many people find that it has more unpleasant side effects than amphetamines. BZP is used orally at doses of between 70-150mg and effects are reported to last 6-8 hours ¹¹ .
<i>Dissociative</i>			
Methoxetamine (MXE)		Chemical analog of ketamine. Dissociative with sedative properties	The use of methoxetamine was first publicly reported in 2010. Its effects are described by some as similar to ketamine or high-dose DXM while others report not finding it similar to those substances.
DXM	Dextromethorphan	A semisynthetic opiate derivative which is legally available over the counter in the US	Commonly found in cough suppressants, especially those with 'DM' or 'Tuss' in their names. It is a dissociative drug that is almost always used orally, although pure DXM powder is occasionally snorted. Recreational doses range from 100-1200mg or more ¹² .
<i>Plant Based Substances</i>			
Datura	Commonly <i>Datura innoxia</i> and <i>Datura stramonium</i> . Contains	Atropine is a potent anticholinergic agent. Scopolamine is a CNS depressant and has antimuscarinic properties	The plant's effects make the user feel drowsy, drunk-like and detached from things around them. They can also bring on hallucinations. Doses are difficult to judge and can cause unconsciousness and death ¹³ .

¹⁰ Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/pma>

¹¹ Erowid: http://www.erowid.org/chemicals/bzp/bzp_basics.shtml

¹² Erowid: http://www.erowid.org/chemicals/dxm/dxm_basics.shtml

¹³ Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/datura>

	Atropine and Scopolamine. Also known as Angel's Trumpet		
Salvia	<i>Salvia divinorum</i> (contains Salvinorin A)	Salvia is derived from the American plant <i>Salvia divinorum</i> , a member of the mint family	At low doses (200-500mcg) salvia produces profound hallucinations that last from 30 minutes to an hour or so. In higher doses the hallucinations last longer and are more intense ¹⁴ .
LSA	<i>d</i> -lysergic acid amide	A naturally occurring psychedelic found in plants such as Morning Glory and Hawaiian Baby Woodrose seeds	LSA has some similarities in effect to LSD, but is generally considered much less stimulating and can be sedating in larger doses.
<i>Synthetic cannabinoids</i>			
Kronic	Synthetic cannabinoid	Usually sold as loose, generic plant material with a mix of chemicals on it (containing synthetic cannabinoids)	A psychoactive herbal and chemical product that, when consumed, mimics the effects of cannabis.
K2/Spice	Synthetic cannabinoid	Usually sold as loose, generic plant material with a mix of chemicals on it (containing synthetic cannabinoids)	A psychoactive herbal and chemical product that, when consumed, mimics the effects of cannabis.

Amongst the 2014 NSW EDRS sample, 59% reported having ever used NPS and 38% reported using NPS in the last six months. The most common psychoactive substances used among Sydney RPU in the preceding six months were 2C-B (21%), NBOMe (9%) and DMT (11%). Additionally, 29% reported having ever used a synthetic cannabinoid and 3% reported using them in the last 6 months, a significant decrease from 25% in 2013.

Table 13 presents the proportion of RPU reporting lifetime and recent NPS use across time. There were no significant changes in the lifetime or recent use of any NPS from 2013 to 2014. It is worth noting that DMT, methyline and PMA were the only NPS that had an increase both in lifetime and recent use for 2013 to 2014.

¹⁴ Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/salvia>

Table 13: New psychoactive substance use among RPU, NSW 2010-2014

New psychoactive substances	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Phenethylamines					
2C-I					
ever used (%)	4	5	4	11	9
used last 6 mths (%)	1	1	1	6	3
2C-B					
ever used (%)	16	22	35	37	40
used last 6 mths (%)	2	9	17	25	21
2C-E					
ever used (%)	2	10	2	3	6
used last 6 mths (%)	2	8	2	1	1
NBOMe					
ever used (%)	Data not available until 2013			5 ^{&}	10
used last 6 mths (%)				4 ^{&}	9
DOI (Death on Impact)					
ever used (%)	-	1	-	-	-
used last 6 mths (%)	-	1	-	-	-
Mescaline					
ever used (%)	8	13	8	10	4
used last 6 mths (%)	1	4	1	2	-
5-IAI					
ever used (%)	Data not available until 2012		1	-	-
used last 6 mths (%)			-	-	-
Benzo Fury / 6-APB					
ever used (%)	Data not available until 2012		1	3	-
used last 6 mths (%)			1	1	-
MDAI					
ever used (%)	Data not available until 2012		2	2	-
used last 6 mths (%)			-	-	-
Tryptamines					
DMT					
ever used (%)	18	21	15	16	21
used last 6 mths (%)	7	8	11	9	11
5-MeO-DMT					
ever used (%)	1	4	-	2	1
used last 6 mths (%)	-	1	-	1	1

[&]Numbers of 25I-NBOMe in 2013 were tallied from individuals who marked 25I-NBOMe in the 'other' NPS category. NBOMe was introduced as a separate category in the 2014 survey.

Table 13: New psychoactive substance use among RPU, NSW 2010-2014 (continued)

New psychoactive substances	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
<i>Synthetic cathinones</i>					
<i>Mephedrone</i>					
ever used (%)	4	17	4	11	7
used last 6 mths (%)	4	4	-	1	-
<i>Methylone</i>					
ever used (%)	Data not available until 2011	4	10	3	8
used last 6 mths (%)		3	8	1	3
<i>Other stimulants</i>					
<i>MDPV / Ivory Wave</i>					
ever used (%)	-	-	-	1	1
used last 6 mths (%)	-	-	-	-	1
<i>PMA</i>					
ever used (%)	2	5	3	2	4
used last 6 mths (%)	-	2	-	-	3
<i>Piperazine</i>					
<i>BZP</i>					
ever used (%)	2	11	4	5	-
used last 6 mths (%)	-	2	-	-	-
<i>Dissociatives</i>					
<i>Methoxetamine / MXE</i>					
ever used (%)	Data not available until 2012		2	-	1
used last 6 mths (%)			2	-	-
<i>DXM</i>					
ever used (%)	2	13	10	11	1
used last 6 mths (%)	-	6	2	7	-
<i>Plant based substances</i>					
<i>Datura</i>					
ever used (%)	1	9	6	3	1
used last 6 mths (%)	-	1	-	1	-
<i>Salvia</i>					
ever used (%)	n/a	15	10	7	5
used last 6 mths (%)		1	1	1	-
<i>LSA</i>					
ever used (%)	Data not available until 2011	5	3	10	2
used last 6 mths (%)		1	-	2	1

Table 13: New psychoactive substance use among RPU, NSW 2010-2014 (continued)

New psychoactive substances	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
<i>Synthetic cannabinoids</i>					
Kronic ever used (%)	Data not available until 2012			19	14
used last 6 mths (%)				8	2
<i>K2 / Spice</i> ever used (%)	Data not available until 2011	1	Refer to synthetic cannabinoids	17	9
used last 6 mths (%)		1		8	1
<i>Other synthetic cannabinoids</i> ever used (%)	Data not available until 2011	3 [^]	23 [#]	46 [*]	12
used last 6 mths (%)		3 [^]	12 [#]	25 [*]	-
<i>Other</i>					
<i>Capsule (contents unknown)</i> ever used (%)	Data not available until 2012		14	27	14
used last 6 mths (%)			8	9	5
<i>Herbal high</i> ever used (%)	Data not available until 2012		26	35	16
used last 6 mths (%)			13	13	4

Source: EDRS regular psychostimulant user interviews 2010-2013[^] In 2011, 'K2 / Spice' and 'Other synthetic cannabinoids' were separate categories.[#] In 2012, 'synthetic cannabinoids' incorporated both 'K2 / Spice' and 'Other synthetic cannabinoids' categories.^{*} In 2013, 'Synthetic cannabinoids' incorporated 'Kronic', 'K2 / Spice' and 'Other synthetic cannabinoids' categories. Kronic and K2 / Spice were coded separately in 2013.

Key expert comments

KE reported the four most commonly detected NPS in NSW (of those that were detected) were MDA, 2CB, NND-MA and synthetic cannabinoids.

Additionally NBOMe, (usually found in blotter form), was detected in tablet form. People were sold NPS as another common recreational drug (such as ecstasy) and many were aware that they possessed an NPS but still decided to take it. Many anecdotal reports revealed that the NPS being sold at the moment possessed many unexpected hallucinogenic side-effects. One example being 25I-NBOMe which has been sold as LSD.

According to these KE, the type of individuals who use NPS are slightly older, heavier ravers and people with a greater experience using more traditional recreational drugs such as MDMA. These people also tend to be slightly more aggressive and engage in riskier drug taking practices such as bingeing.

One of these KE was of the opinion that many people had turned to NPS because of the lower quality of MDMA over the last year.

At the same time, a law enforcement KE reported that less people are using NPS.

5 DRUG MARKET: PRICE, PURITY, AVAILABILITY AND SUPPLY

5.1 Ecstasy/MDMA

Summary:

Pills, powder and capsules:

- *Price:* \$25 per tablet.
- *Purity:* Currently medium and stable.
- *Availability:* Currently easy to very easy to obtain and stable.

Crystal MDMA

- *Price:* \$35 per point.
- *Purity:* Currently high and stable.
- *Availability:* Currently easy and stable.

5.1.1 Price

Ecstasy pills, powder and caps

Almost all (96%) participants were able to comment on the price of ecstasy tablets in Sydney. The median price was reported by users to be \$25 per tablet (range 12-35) (Table 14). Over half (54%) reported that the price of ecstasy tablets had remained stable; however, one-tenth (10%) reported that this price had decreased over the six months preceding the interview and under one-fifth (16%) reported that the price had fluctuated.

Three-quarters (75%) of the sample was able to comment on the price of ecstasy capsules (commonly referred to as caps). Caps were reportedly \$30 each (range \$15-60). As only ten participants were able to comment on the price of ecstasy powder this data will not be presented here.

Table 14: Price of ecstasy purchased by RPU, NSW 2008-2014

Ecstasy variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Median price/tablet (\$)	30	20	25	25	25	25	25
(range)	(15-50)	(11-40)	(10-50)	(7-50)	(5-50)	(20-50)	(11-60)
<i>Price change:</i>							
Increased (%)	5	6	20	28	24	7	10
Stable (%)	68	58	61	58	56	77	54
Decreased (%)	17	27	15	8	8	13	6
Fluctuated (%)	3	4	4	6	12	3	16
Don't know (%)	7	5	-	-	-	-	14

Source: EDRS regular psychostimulant user interviews 2008-2014

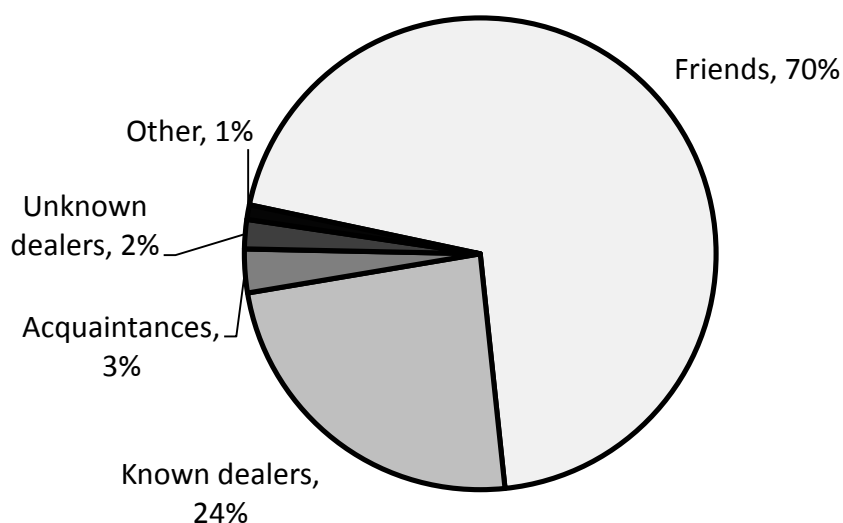
Note: Response option 'don't know' was removed from analyses from 2010 until 2013

Participants were asked questions regarding their purchasing of ecstasy over the last six months. Participants reported that they had purchased ecstasy from a median of 3 people (range 1-20). While two-fifths (39%) of the sample usually purchased ecstasy for themselves only, three-fifths of the sample (58%) had purchased ecstasy for themselves and others. When asked about how frequently they purchased ecstasy, the majority of participants reported that they had bought ecstasy monthly or less (51%) or fortnightly or less (35%). A smaller proportion reported that they purchased ecstasy weekly or less (13%) or more than weekly (2%). The majority (51%) of participants purchased pills/tablets in their last ecstasy transaction; the median number of pills purchased in the last transaction was 4 (range 1-200).

Source person and source location of last purchase

Participants were asked to describe the types of person they had last purchased ecstasy from (Figure 36). The majority of the group reported that they had last purchased ecstasy from a friend (70%) although one-quarter (24%) had last bought it from a dealer (who was previously known to them). Smaller proportions purchased ecstasy from acquaintances and unknown dealers.

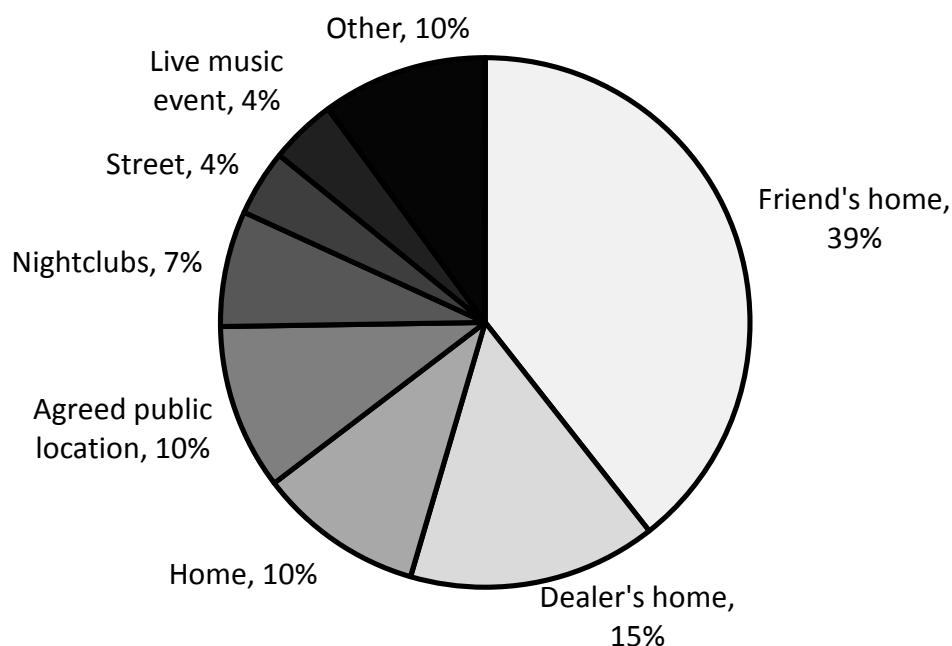
Figure 36: People from whom ecstasy was last purchased by RPU, NSW 2014



Source: EDRS regular psychostimulant user interviews 2014

Ecstasy was most often obtained at a friend's home (39%). Other common locations for purchasing ecstasy were at a dealer's house (15%), at home or an agreed public location (10% respectively), or at nightclubs (7%). Compared to 2013, significantly lower proportions in 2014 reported purchasing ecstasy in a nightclub (22% in 2013 to 7% in 2014; $p < .05$). Smaller proportions also reported purchasing ecstasy on the street (6%) or at a live music event such as a concert or festival (4%; Figure 37).

Figure 37: Locations at which ecstasy was last purchased* among RPU, NSW 2014



Source: EDRS regular psychostimulant user interviews 2014

* Locations with <4% response were included in 'other'

Crystal/Rock MDMA

Half of the participants (49%) were able to comment on the price of crystal MDMA in Sydney. The median price was reported by users to be \$250 per gram (range 60-300; n=19) or \$35 per point (range 25-80; n=35). Almost two-thirds (64%) reported that the price of crystal MDMA had remained stable; however, 18% reported that the price had increased over the six months preceding interview.

Participants were asked to describe the type of person they had last purchased crystal MDMA from. The majority of the group reported that they had last purchased ecstasy from a friend (67%) and a smaller proportion reported obtaining from known dealers (17%). Crystal MDMA was most often obtained at a friend's home (41%) with smaller proportions obtaining it from an agreed public location (13%), a dealer's home (11%) or they had it delivered to their home (11%).

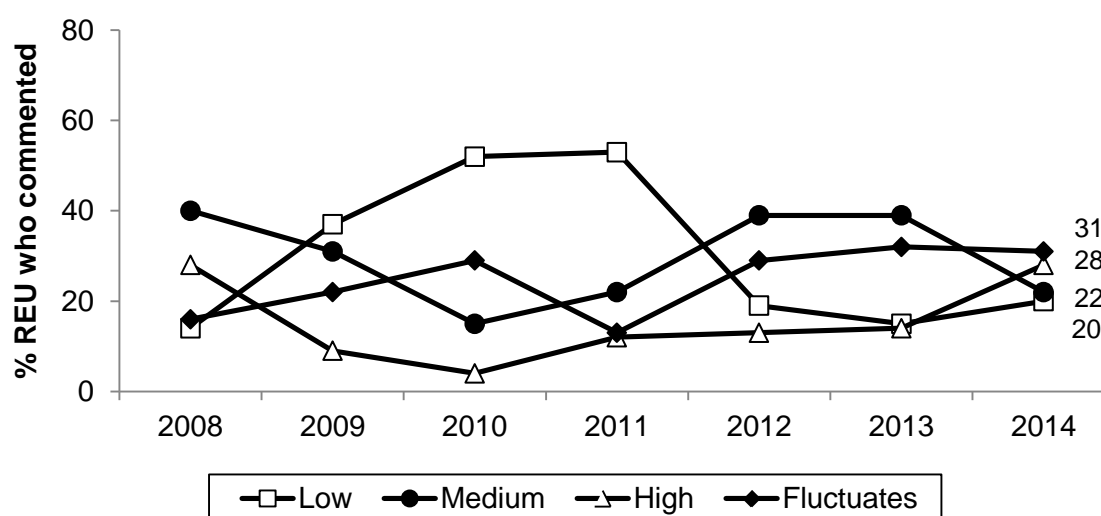
5.1.2 Purity

Ecstasy pills, powder and caps

Current purity

Figure 38 presents RPU reports of ecstasy purity across time. In 2014, the majority of the sample reported that the current purity of ecstasy either 'fluctuated' (31%) or that it is 'high' (28%). Comparable proportions reported ecstasy purity as being 'medium' (22%) or 'low' (20%). These figures have remained relatively stable since 2013.

Figure 38: RPU reports of current ecstasy purity, NSW 2008-2014



Source: EDRS regular psychostimulant user interviews 2008-2014

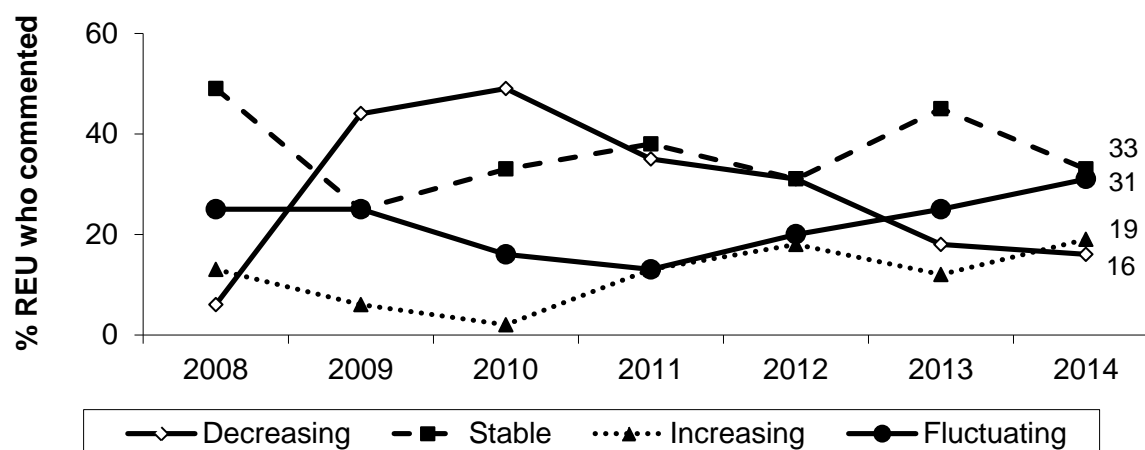
Note: Response option 'don't know' was removed from analyses from 2010 onwards.

Purity change

Figure 39 presents RPU reports of changes in the purity of ecstasy over the six months prior to the interview. One-third (33%) of the sample reported that the purity of ecstasy remained stable and under one-third had reported that the purity of ecstasy has fluctuated (31%). An additional 19% reported that purity of ecstasy had increased, and the remaining 16% reported that purity had decreased. Since 2010 there has been a notable downward trend in the proportion of individuals who rated ecstasy purity as 'decreasing'; however, since 2011

there has also been an increase in the proportion of people who rated ecstasy purity as 'fluctuating'.

Figure 39: RPU reports of change in ecstasy purity in the past six months, NSW 2008-2014



Source: EDRS regular psychostimulant user interviews 2008-2014

Note: Response option 'don't know' was removed from analyses from 2010 onward.

Estimates of purity are necessarily subjective and depend, among other factors, on users' tolerance levels. Laboratory analyses of the purity of seizures of ecstasy provide objective evidence regarding purity changes, and should, therefore, be more highly regarded than the reports of users. However, it is also important to note the limitation of the purity figures calculated by forensic agencies. Not all illicit drugs seized by Australia's law enforcement agencies are analysed for purity. In some instances, seized drugs will be analysed only in a contested court matter. The purity figures, therefore, relate to an unrepresentative sample of the illicit drugs available in Australia. Notwithstanding this limitation, it remains the case that the purity figures provided by forensic agencies remain the most objective measure of changes in purity levels available in Australia.

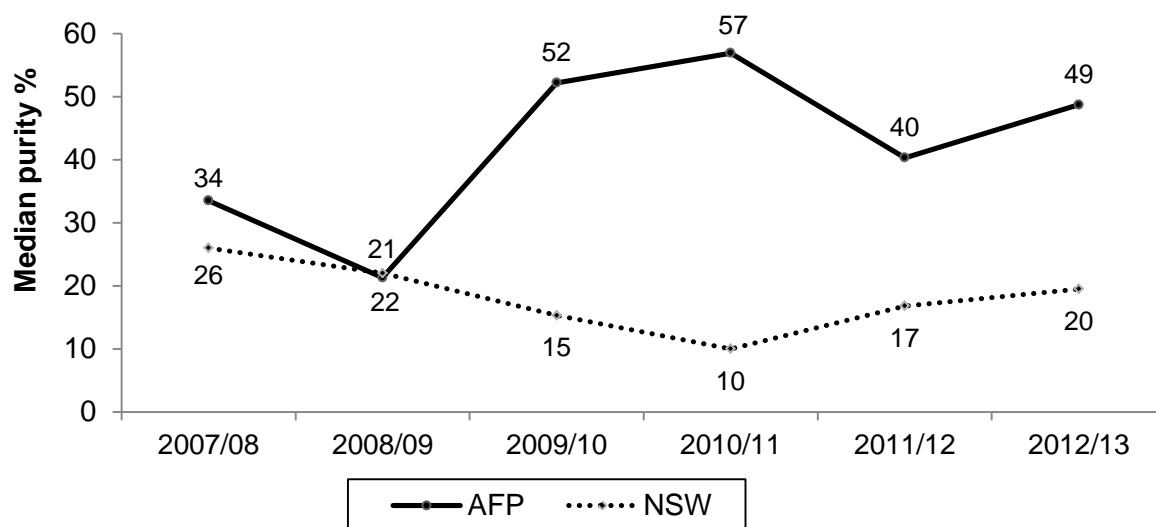
The purity data presented in this report were provided by the Australian Crime Commission (ACC), formerly the Australian Bureau of Criminal Intelligence (ABCI). The ACC reports both federal and state police seizure data, including number and weight of seizures. In 1999/00, the purity was reported as 'ecstasy' seizures. Since 2000/01, ecstasy seizures have been reported under phenethylamines. Ecstasy belongs to the phenethylamine family of drugs. Other drugs such as DOB (2,5-dimethoxy-4-bromoamphetamine), DOM (2,5-dimethoxy-4-methylamphetamine), MDA, MDEA, mescaline, PMA and TMA (3,4,5-trimethoxyamphetamine) also belong to the phenethylamine family (Australian Crime Commission, 2003) and seizures of these drugs are included in the seizure data from 2000/01.

Figure 40 presents the median purity of phenethylamines seizures analysed by the NSW Police and Australian Federal Police (AFP) from 2007/08 to 2012/13. There were increases in the purity of both AFP and NSW police phenethylamine seizures from 2011/12 to 2012/13.

It should be noted that figures do not represent the purity levels of all seizures – only those that have been analysed at a forensic laboratory. In addition, the period between the date of seizure by police and the date of receipt at the laboratory can vary greatly, and no adjustment has been made to account for double-counting joint operations between the AFP

and NSW Police. Further, patterns of arrest and police operations change over time; for example, targeting of higher-level suppliers versus street dealers, and this, in turn, can influence the purity of the drug seized.

Figure 40: Median purity of phenethylamines seizures analysed in NSW, 2007/08-2012/13*

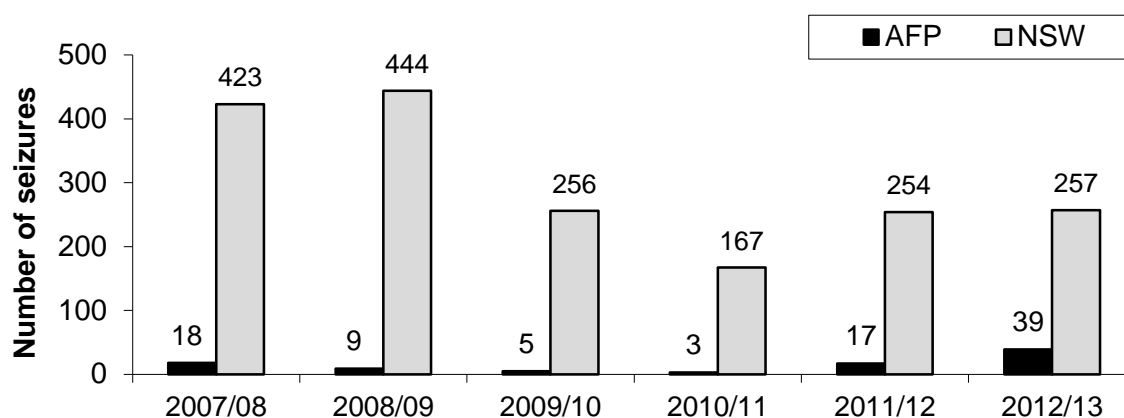


Source: Australian Crime Commission (2009, 2010, 2011, 2012, 2013, 2014)

* Data for 2013/14 were unavailable at time of publication

Following the decline in phenethylamine seizures made by the NSW Police from 2008/09 to 2010/11, there was an increase in the number of seizures reported in 2011/12 (Figure 41). These figures have remained stable during the 2012/13 period. Caution should be used when interpreting this increase in the number of seizures analysed from 2012/13 when compared with previous years as this may reflect an increased police attention toward phenethylamines rather than an increased availability of these drugs.

Figure 41: Number of phenethylamines seizures analysed in NSW, 2007/08-2012/13*



Source: Australian Crime Commission (2009, 2010, 2011, 2012, 2013, 2014)

* Data for 2013/14 were unavailable at time of publication

Crystal/Rock MDMA

In 2014, two-thirds (67%) of respondents reported that the current purity of crystal MDMA is high, while three participants rated it as 'low' (7%), six as 'medium' (14%) and five participants rated it as 'fluctuating' (12%).

Thirty-three participants commented on the change of crystal MDMA purity over the six months prior to interview. Of these, 19 reported the purity as remaining 'stable'. Smaller numbers reported it as 'increasing' (n=7), 'decreasing' (n=2) or 'fluctuating' (n=5).

5.1.3 Availability

Ecstasy pills, powder and capsules

The large majority (91%) of RPU interviewed in 2014 reported that it was currently 'easy' or 'very easy' to obtain ecstasy (Table 15). Over half (55%) of respondents indicated that the availability of ecstasy had remained 'stable' over the preceding six months. Compared to 2013 there were less individuals in 2014 who reported ecstasy as easier to obtain (17%).

Table 15: Reports of availability of ecstasy in the past six months by RPU, NSW 2008-2014

Ecstasy variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
<i>Current availability:</i>							
Very easy (%)	74	52	41	51	42	50	46
Easy (%)	22	44	41	37	46	41	47
<i>Availability change:</i>							
Stable (%)	73	61	59	72	62	58	61
Easier (%)	16	22	10	13	18	32	18

Source: EDRS regular psychostimulant user interviews 2008-2014

Note: Response option 'don't know' was removed from analyses from 2010 onwards.

Crystal/Rock MDMA

Of those who commented on the current availability of crystal MDMA (45%), two-thirds (67%) reported it is 'easy' or 'very easy' to obtain. Finally, of those who could comment on the changing availability of crystal MDMA in the last 6 months (36%), three-fifths reported that availability has remained 'stable' (58%).

Key expert comments

According to one law enforcement KE, MDMA in the past year has sold for \$20-50 per pill and the purity has increased slightly since the 2012-13 year.

Another law enforcement KE reported that the demographics of users and suppliers in the Kings Cross area were very much the same; often users buy in bulk and sell to others.

Two KE from the service industry noted a drop in purity of MDMA in 2014 and, although many people are selling ecstasy-type substances, it is very hard to find real MDMA.

5.2 Methamphetamine

Summary:

Speed

- *Price:* \$150 per gram, which is stable from 2013.
- *Purity:* Currently high, appeared to be stable.
- *Availability:* Reports variable.

Base

- *Price:* \$100 per gram.
- *Availability:* Current reports variable, stable over time.

Crystal

- *Price:* \$50 per point and reportedly stable.
- *Purity:* Reports variable for current purity and stability.
- *Availability:* Current reports variable, stable over time.

Given the low proportion of amphetamine/methamphetamine users in the 2014 sample, only a small proportion were confident in answering questions on price, purity and availability for each of the three forms — speed, base and crystal.

5.2.1 Price

Speed

Six participants reported on the price of speed over the six months prior to the interview (Table 16). The median price reported the last time speed was purchased was \$150 a gram (range \$30-500), which is stable from 2013. It should be noted that the lowest number of participants reported the price of speed in 2013 and 2014 and thus these numbers should be interpreted with caution.

Of the participants who commented (n=13), six believed the price of speed had remained stable over the preceding six months while the remaining participants were unsure.

Base

Only one participant was able to report on the price of base overall, thus these figures must be interpreted with caution. This participants had last purchased base by the gram and reported a price of \$100 per gram (Table 16).

Given the small number of commenters, data is not included for the change in base price over the preceding six months.

Crystal

Seven participants were able to comment on the price of crystal over the preceding six months. The median price for a point of crystal was \$50 (range \$35-60), and this price has remained stable from 2013 (Table 16).

Of those who commented (n=9), seven individuals reported that the price of crystal has remained stable over the last 6 months.

Table 16: Price of various methamphetamine forms purchased by RPU, NSW 2008-2014

Median price	2008	2009	2010	2011	2012	2013	2014
Speed	n=27	n=18	n=14	n=27	n=21	n=6	n=6
Point (\$) (range)	-	-	-	32.5^ (15-50)	35^ (20-50)	50^ (-)	50^ (-)
Gram (\$) (range)	50 (20-100)	47.5 (10-100)	55 (30-150)	80 (20-280)	75^ (20-450)	150^ (50-300)	150^ (30-500)
Base	n=13	n=13	n=16	n=12	n=7	n=2	n=1
Point (\$) (range)	42.5 (20-70)	30^ (20-60)	20^ (10-50)	-	50^ (40-60)	-	-
Gram (\$) (range)	150^ (120-300)	150^ (100-200)	200^ (60-450)	100^ (60-150)	170^ (160-180)	70^ (60-80)	100^ (-)
Crystal	n=27	n=9	n=18	n=16	n=15	n=7	n=7
Point (\$) (range)	50 (40-60)	50^ (50-80)	50 (40-90)	60 (16-100)	50 (40-100)	50^ (50-75)	50^ (35-60)
Gram (\$) (range)	300^ (-)	-	-	-	500^ (-)	400^ (300-500)	450^ (400-500)

Source: EDRS regular psychostimulant user interviews 2008-2014

^ Small numbers reporting, interpret with caution

5.2.2 Purity

Speed

Thirteen individuals commented on the current purity of speed, six of which rated it as having a 'high' purity, and three rated it as having a 'medium' purity. Six participants reported that the purity of speed has remained stable in the six months prior to interview.

Base

Given the low numbers of commenters (n=5), ratings of the purity of base are not included in this report.

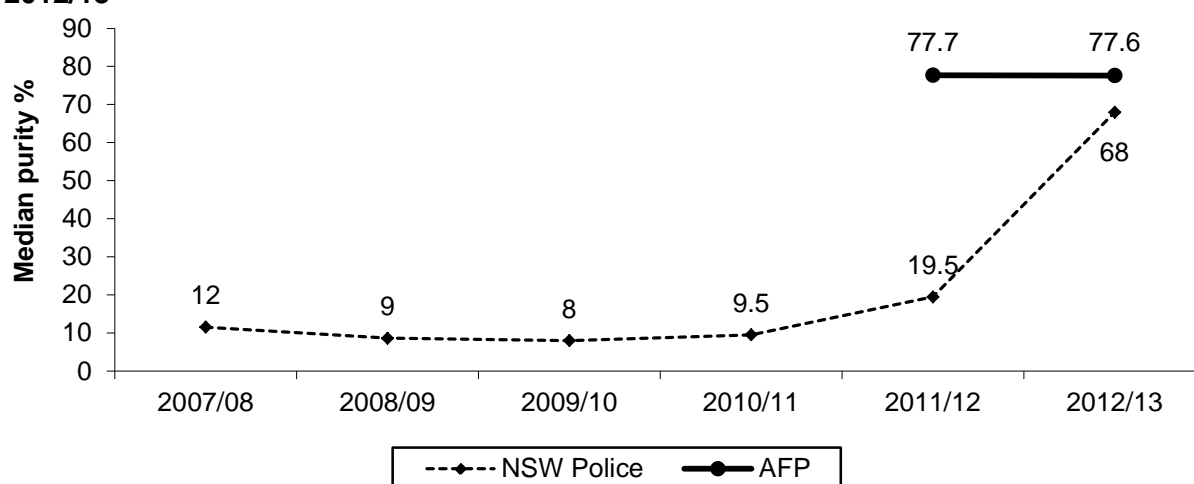
Crystal

Nine participants commented on the current purity of crystal as well as the change in purity over the preceding six months. Four participants reported crystal as having a 'fluctuating' purity, two reported crystal currently having a 'high' purity and two reported that the purity is 'low'. In relation to the change in purity over the last six months, five of the nine participants rated the purity of crystal as fluctuating while three participants reported a decrease in purity in the last six months.

Figure 42 shows the median purity of methylamphetamine seizures analysed in NSW for the period July 2007 to June 2013. According to data gathered by NSW Police, the median purity of methylamphetamine seizures analysed has drastically increased from 19.5% in 2011/12 to 68% in 2012/13, which is close to the purity levels seized by the AFP. The AFP reported a median purity of 77.6% across the 2012/13 period which is stable compared to the 2011/12 period.

It should be noted that figures do not represent the purity levels of all methylamphetamine seizures, only those that have been analysed at a forensic laboratory. In addition, the period between the date of seizure by police and the date of receipt at the laboratory can vary greatly, and no adjustment has been made to account for double-counting joint operations between the AFP and NSW Police.

Figure 42: Median purity of methylamphetamine seizures analysed in NSW, 2007/08-2012/13



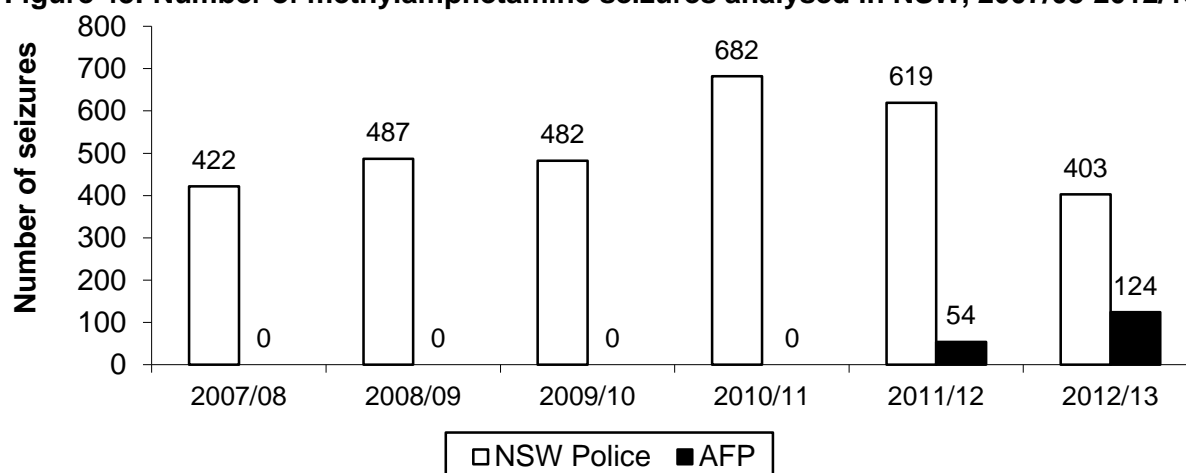
Source: Australian Crime Commission (2009, 2010, 2011, 2012, 2013, 2014)

Note: Data for 2013/14 were unavailable at time of publication

Figure 43 shows the number of methylamphetamine seizures upon which the above purity figures are based. The number of seizures analysed in NSW appears to have decreased

over the last two years. However, there was a notable increase in the number of seizures analysed by the AFP from 2011/12 to 2012/13.

Figure 43: Number of methylamphetamine seizures analysed in NSW, 2007/08-2012/13



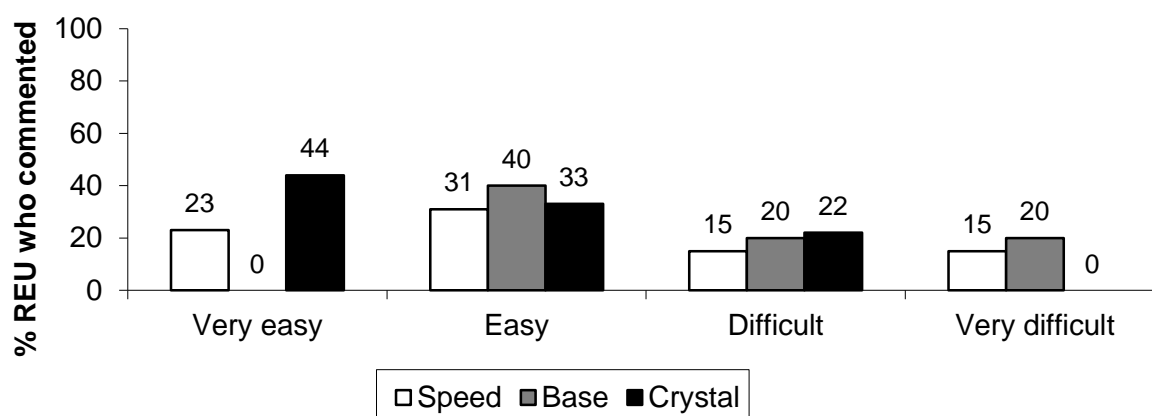
Source: Australian Crime Commission (2009, 2010, 2011, 2012, 2013, 2014)

Note: Data for 2013/14 were unavailable at time of publication

5.2.3 Availability

Poor agreement was found among participants commenting on the current availability of speed. Of the thirteen individuals that commented, seven reported that speed was 'easy' or 'very easy' to obtain and four reported it as 'difficult' or 'very difficult' to obtain. Of the five participants that commented on base, two reported it as 'easy' to obtain and one reported it as 'difficult' and 'very difficult' to obtain respectively. Finally, of the thirteen who commented on crystal meth, the majority (n=7) reported crystal as 'easy' or 'very easy' to obtain (Figure 44).

Figure 44: RPU reports of current availability of methamphetamine forms*, NSW 2014

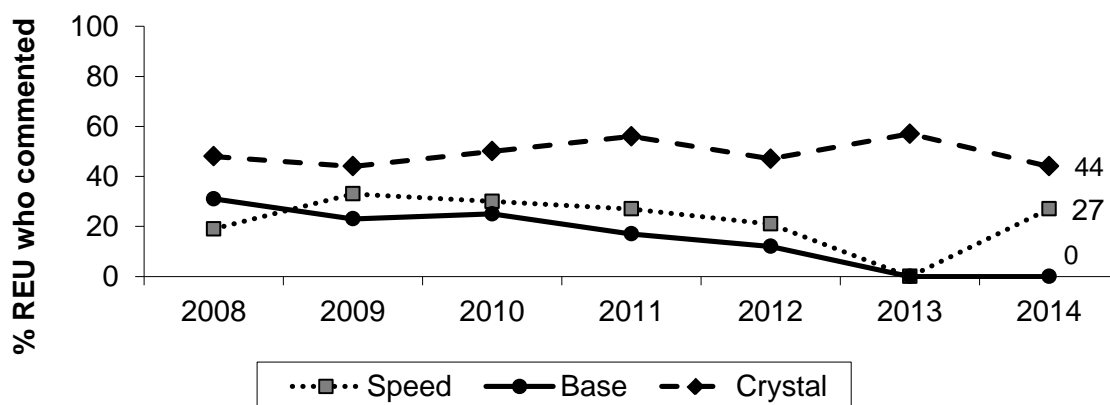


Source: EDRS regular psychostimulant user interviews 2014

* Of those who commented (speed n=13; base n=5; crystal n=9)

Figure 45 shows the proportion of RPU reporting the availability of the three forms of methamphetamine as 'very easy' to obtain over time. Due to low proportions of respondents in 2013 and 2014, users did not rate speed or base as 'very easy' to obtain. Additionally it is difficult to comment on trends in availability given such low responding in 2014.

Figure 45: Proportion of RPU reporting methamphetamine as 'very easy' to obtain across time, NSW 2008-2014

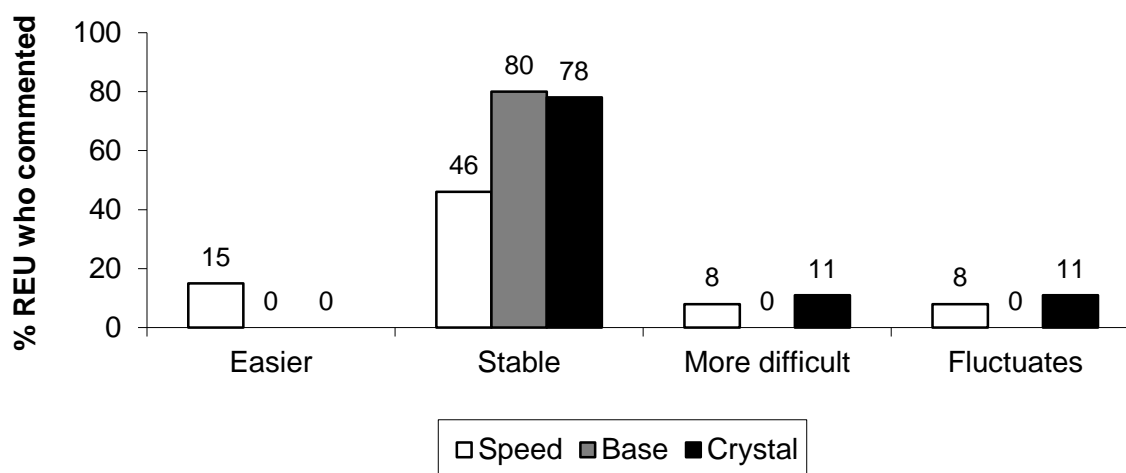


Source: EDRS regular psychostimulant user interviews 2008-2014

Note: Response option 'don't know' was removed from analyses from 2010 onwards.

Figure 46 presents the perceived change in availability of speed, base and crystal over the six months prior to interviewing. Most participants who commented believed that the availability of speed (46%), base (80%) and crystal (78%) had remained stable. Once again, given the small number of respondents, it is difficult to comment on accurate changes in the availability of methamphetamine.

Figure 46: RPU reports of changes in the availability of various forms of methamphetamine in the past six months*, NSW 2014



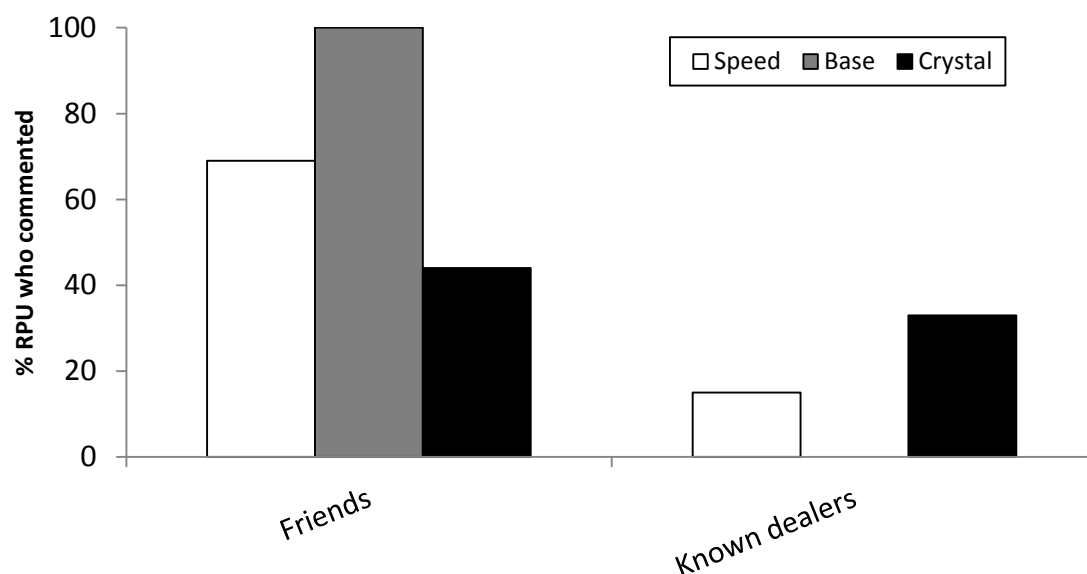
Source: EDRS regular psychostimulant user interviews 2014

* Of those who commented (speed n=13; base n=5; crystal n=9)

Source person and source location

Overall, methamphetamines were most commonly purchased from friends followed by known dealers (Figure 47).

Figure 47: People from whom methamphetamine was last purchased* by RPU, NSW 2014

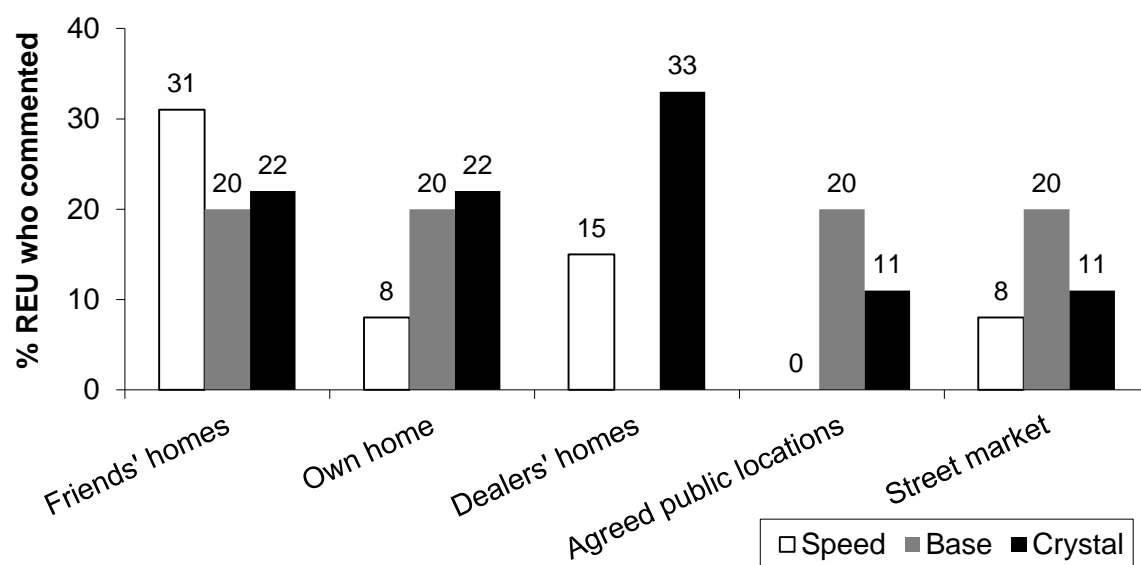


Source: EDRS regular psychostimulant user interviews 2014

*Of those who commented (speed n=13; base n=5; crystal n=9)

Figure 48 compares locations of last purchase across the three forms of methamphetamine. There were a variety of locations in which methamphetamine was purchased.

Figure 48: Locations at which methamphetamine was last purchased* among RPU, NSW 2014



Source: EDRS regular psychostimulant user interviews 2014

*Of those who commented (speed n=13; base n=5; crystal n=9)

Key expert comments

KE from law enforcement stated that the price of meth has decreased and costs \$50-100 per gram depending on the purity. The purity of meth is quite high as it isn't cut with other substances, unlike ecstasy or heroin.

5.3 Cocaine

Summary:

- *Price*: \$300 per gram, stable.
- *Purity*: Variable, however stable over time.
- *Availability*: Currently easy to obtain, stable.
- KE reported a price range of \$250-400 per gram.

5.3.1 Price

Twenty-nine participants were able to comment on the price of cocaine. The median price per gram was \$300 (range \$40-400). This figure has continued to remain stable for the past seven years (Table 17).

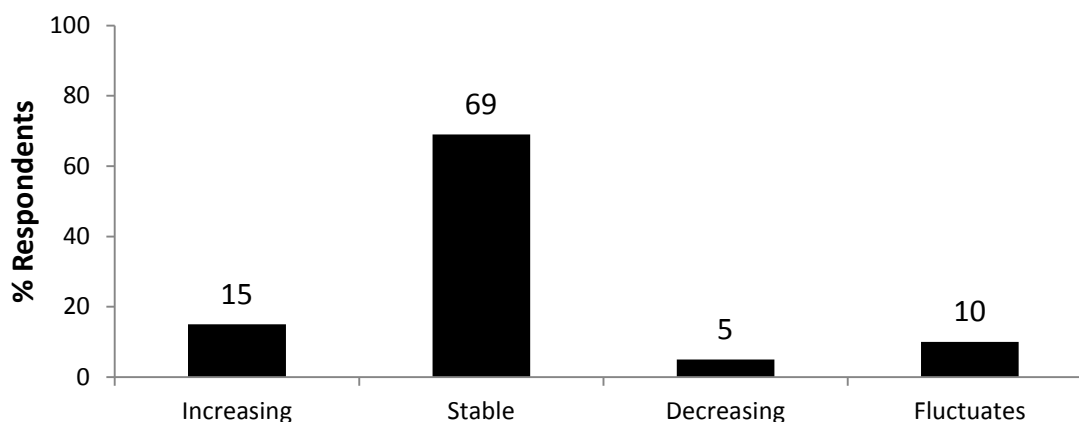
Table 17: Price of cocaine purchased by RPU, NSW 2008-2014

Cocaine variable	2008 (n=41)	2009 (n=34)	2010 (n=38)	2011 (n=37)	2012 (n=33)	2013 (n=29)	2014 (n=35)
Median price per gram (\$) (range)	300 (250-400)	300 (120-400)	300 (200-450)	300 (80-1,000)	300 (220-350)	300 (200-370)	300 (40-400)

Source: EDRS regular psychostimulant user interviews 2008-2014

The majority (69%) of those who commented on the price of cocaine believed it had remained stable over the preceding six months (Figure 49).

Figure 49: Recent changes in price of cocaine purchased among RPU, NSW 2014



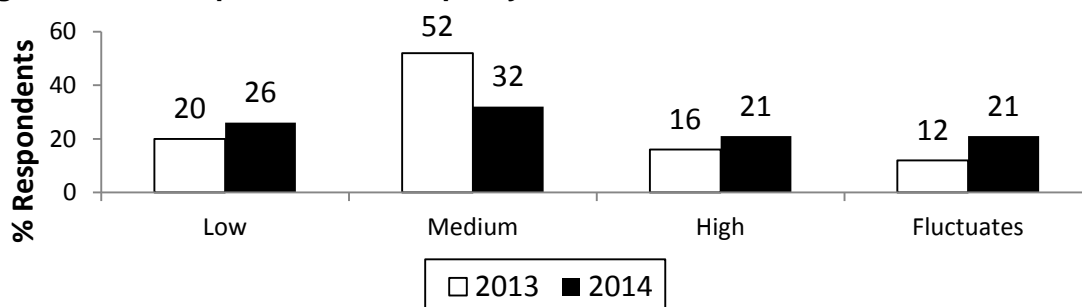
Source: EDRS regular psychostimulant user interviews 2014

Note: Response option 'don't know' was removed from analyses

5.3.2 Purity

Thirty-eight RPU were able to comment on the purity of cocaine. There was less agreement on the current purity of cocaine compared to 2013 participant ratings. The largest portion of participants rated cocaine purity as 'medium' (32%), followed by 'low' (26%) and 'high' (21%) (Figure 50). These data together suggest that the current purity of cocaine is variable but possibly more towards medium to low purity.

Figure 50: RPU reports of current purity of cocaine, NSW 2013 and 2014

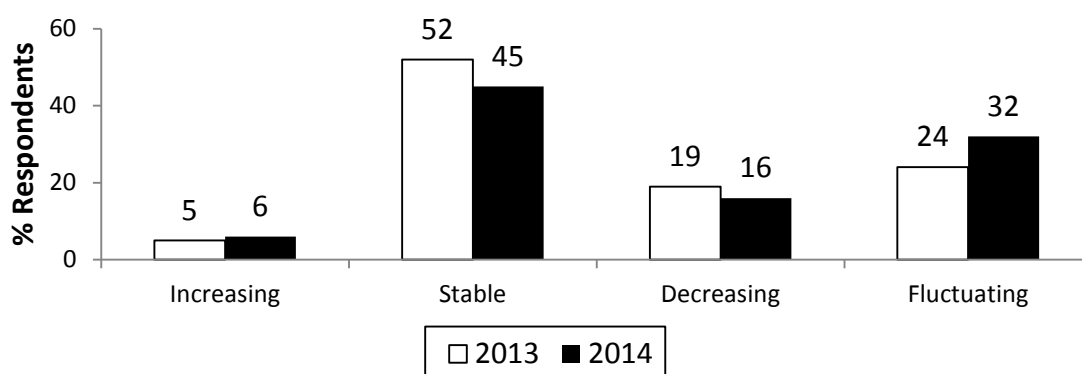


Source: EDRS regular psychostimulant user interviews 2013 and 2014

Note: Response option 'don't know' was removed from analyses

Ratings of the change in cocaine purity over the preceding six months have remained stable from 2013 to 2014. The largest proportion of the participants reported the purity of cocaine as remaining 'stable' in the last six months (45%).

Figure 51: RPU reports of change in cocaine purity in the past six months, NSW 2013 and 2014



Source: EDRS regular psychostimulant user interviews 2013 and 2014

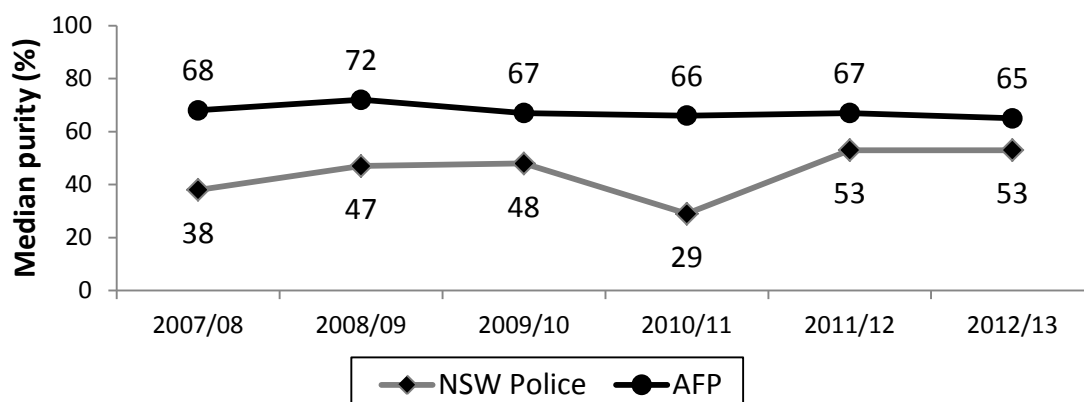
Note: Response option 'don't know' was removed from analyses

Figure 52 presents data on the purity of cocaine seizures analysed in NSW by the AFP and NSW Police between July 2007 and June 2013. The purity of cocaine samples analysed by the AFP appears to have remained relatively stable over time. The purity of seizures analysed by NSW police continued to be substantially lower than those analysed by the AFP; however, these too have remained relatively stable over time.

It should also be noted that figures do not represent the purity levels of all cocaine seizures – only those that have been analysed at a forensic laboratory. The period between the date of seizure by police and the date of receipt at the laboratory can vary greatly. No adjustment

has been made to account for double-counting joint operations between the AFP and state/territory police.

Figure 52: Median purity of cocaine seizures analysed in NSW, 2007/08-2012/13

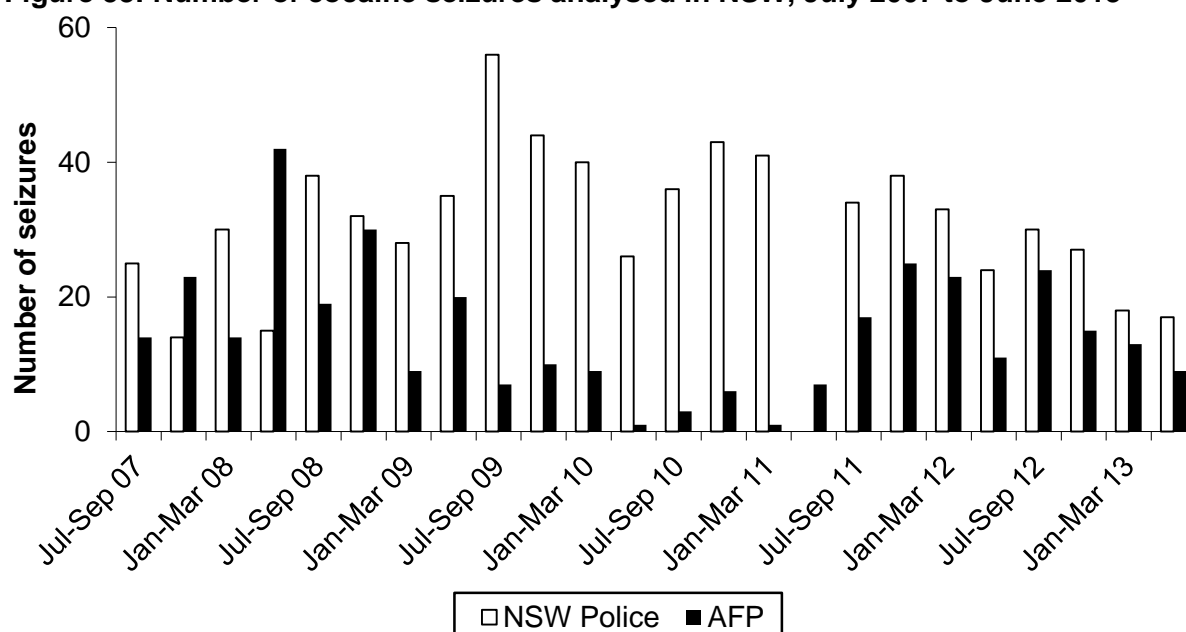


Source: Australian Crime Commission (2008, 2009, 2010, 2011, 2012, 2013, 2014)

Note: Data for 2013/14 were unavailable at time of publication

Figure 53 shows the number of seizures analysed in NSW between July 2007 and June 2013. The number of seizures made by the NSW Police peaked in mid- to late-2009, and seems to have dropped recently from 2011 to 2013. The number of seizures analysed by the AFP has remained lower than the rates observed for NSW Police; however, the AFP reported low numbers of seizures from 2010 to 2011 which has returned to levels comparable to 2007-2009.

Figure 53: Number of cocaine seizures analysed in NSW, July 2007 to June 2013



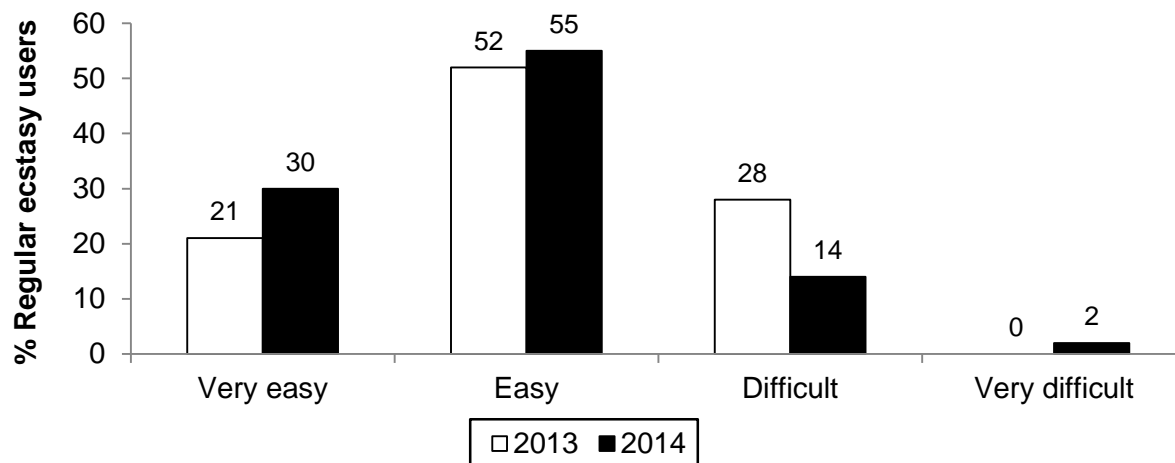
Source: Australian Crime Commission (2008, 2009, 2010, 2011, 2012, 2013, 2014)

Note: Data for 2013/14 were unavailable at time of publication

5.3.3 Availability

Twenty-nine participants were able to comment on the availability of cocaine. Of these, the majority (85%) believed cocaine was currently either 'easy' or 'very easy' to obtain. Only 14% reported that it was currently 'difficult' to obtain. These figures have remained comparable with those from 2013 (Figure 54).

Figure 54: RPU reports of current availability of cocaine, NSW 2013 and 2014

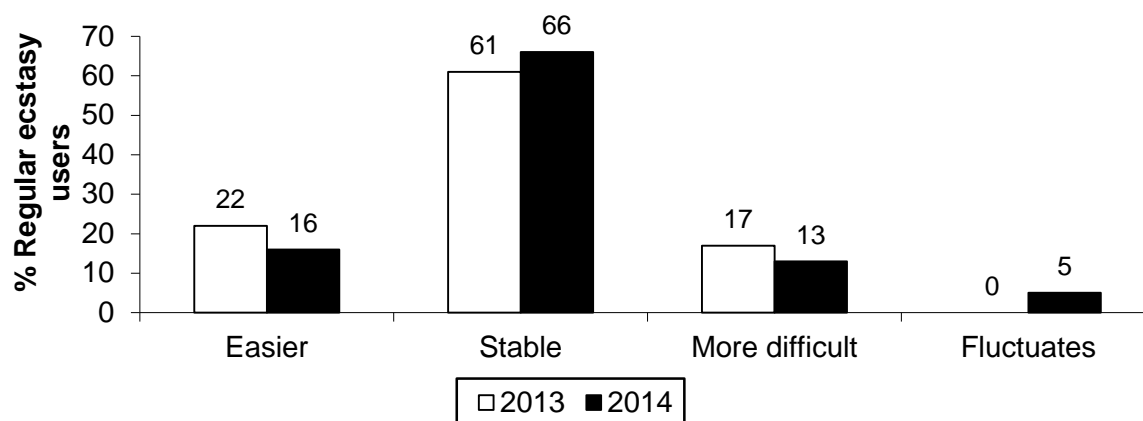


Source: EDRS regular psychostimulant user interviews 2013 and 2014

Note: Response option 'don't know' was removed from analyses

Two-thirds (66%) of those who commented stated that the availability of cocaine had remained stable over the preceding six months (Figure 55) with low proportions reporting cocaine as being 'easier' (16%) or 'more difficult' to obtain (13%) over the preceding six months. These figure were similar to that reported in 2013.

Figure 55: RPU reports of change in the availability of cocaine in the past six months, NSW 2013 and 2014



Source: EDRS regular psychostimulant user interviews 2013 and 2014

Note: Response option 'don't know' was removed from analyses

Source person and source location

Of those who commented on purchasing cocaine over the preceding six months (n=39), the majority had purchased it from a friend (67%) or a known dealer (18%). The most common location of last purchase was at a friend's home (36%) followed by either their own home or an agreed public location (13% respectively). Smaller proportions purchased cocaine at other varied locations.

Key expert comments

One KE working in the service industry reported that the quality of cocaine has reduced in the last 6-12 months.

Two other key experts (one health, one law enforcement) reported similar numbers for price estimates, at \$250-400 per gram. The law enforcement KE reported that the locations of detections hasn't changed much, the locations being in affluent areas.

5.4 Ketamine

Summary:

- *Price:* \$180 per gram, variable.
- *Purity:* Medium to high, stable.
- *Availability:* Variable reports currently and over time.

5.4.1 Price

The reported price of ketamine has slightly decreased from \$200 per gram to \$180 (Table 18). However, from 2008-2014 the price range has been quite large, possibly indicating that the street price can be variable. Of the five RPU who commented, three reported that the price of ketamine had remained stable over the preceding six months.

Table 18: Price of ketamine purchased by RPU, NSW 2008-2014

Ketamine variable	2008 (n=13)	2009 (n=6)	2010 (n=7)	2011 (n=14)	2012 (n=8)	2013 (n=5)	2014 (n=7)
Median price per gram (\$) (range)	150 (40-250)	150 (140-170)	150 (100-280)	150 (50-200)	150 (20-180)	200 (15-200)	180 (10-230)

Source: EDRS regular psychostimulant user interviews 2008-2014

5.4.2 Purity

Four participants were able to comment on the current purity of ketamine. Of these participants, two reported that ketamine was currently of 'high' purity while the remaining two reported the current purity of ketamine as 'medium'. All four participants who commented on the change of purity of ketamine in the last six months, reported it as 'stable'.

5.4.3 Availability

Six participants commented on the availability of ketamine, with three participants reporting ketamine as 'easy' to obtain and one reported it as 'very easy' to obtain. The remaining two reported that ketamine was 'difficult' to obtain. When asked about changes in the availability of ketamine over the preceding six months, only four participants could comment, three of whom reporting that ketamine availability has remained 'stable'. The remaining individual reported ketamine as more difficult to obtain over the preceding six months.

Source person and source location

Of the seven RPU who commented, two reported that on the last occasion they purchased ketamine from a friend, known dealer and unknown dealer respectively. The remaining participant reported purchasing from an acquaintance. When asked about the venue in which they obtained ketamine, three reported obtaining at a public location and two reported obtaining it at a nightclub. The remaining two obtained ketamine at a dealer's home or a private party.

5.5 GHB

Summary:

- Price: \$10 per mL.
- KE reported a median of \$3-8 per mL.

5.5.1 Price

Given the confusion regarding the size of vials in which GHB is typically purchased and the uncertainty around what constitutes a typical dose, it is not surprising that there is wide variation and seemingly inconsistent reports of the price of GHB between years.

In 2014, four participants commented on the price of GHB, three of which reported in mLs. The median price of 1mL was \$10 (range \$8-35). This is marginally lower than the price recorded in 2012 (\$11.5 per mL; range \$4-25); however, due to small sample numbers, this should be interpreted cautiously. Anecdotally, participants often commented that a 'fish' of GHB usually contains 2mL and this was a very common quantity purchased. One participant reported purchasing a 'fish' for \$10. Only one respondent could comment on the change of price of GHB and reported it as decreased. Again, since such small numbers comment on the price of GHB, it is difficult to identify trends and draw strong conclusions from this data and it is presented as an indicator of the market only.

5.5.2 Purity

Two participants were able to comment on the current purity of GHB and both participants rated it as 'high'. When asked about changes to the purity of GHB over the preceding six months, one participant reported it as 'increasing' whilst the other participant reported it as 'fluctuating'.

5.5.3 Availability

Four participants were able to comment on the availability of GHB, three of which reported it as 'difficult' to obtain while the remaining one reported it as 'easy'. Of those who commented on the change in availability of ketamine in the six months prior to survey, one reported it as 'stable' and the other as 'fluctuating'.

Source person and source location

GHB had been last purchased from either friends (n=2), acquaintances (n=2) or a known dealer (n=1). The last venue that GHB was purchased was a friend's home (n=3), at an acquaintance's house (n=1) or an agreed public location (n=1).

5.6 LSD

Summary:

- *Price*: \$25 per tab, stable.
- *Purity*: High, stable.
- *Availability*: Currently easy to very easy to obtain, stable.
- KE reported that none of the LSD tested was classified as NBOMe.

5.6.1 Price

Thirty-eight participants reported on the price of LSD (Table 19). The median price last paid for a tab of LSD was \$25 (range \$8-40), which has remained stable over the last four years. The majority of those who commented (71%) reported that the price had remained stable over the preceding six months, with only a small portion reporting that the price was increasing (21%), decreasing (4%) or fluctuating (4%).

Table 19: Price of LSD purchased by RPU, NSW 2008-2014

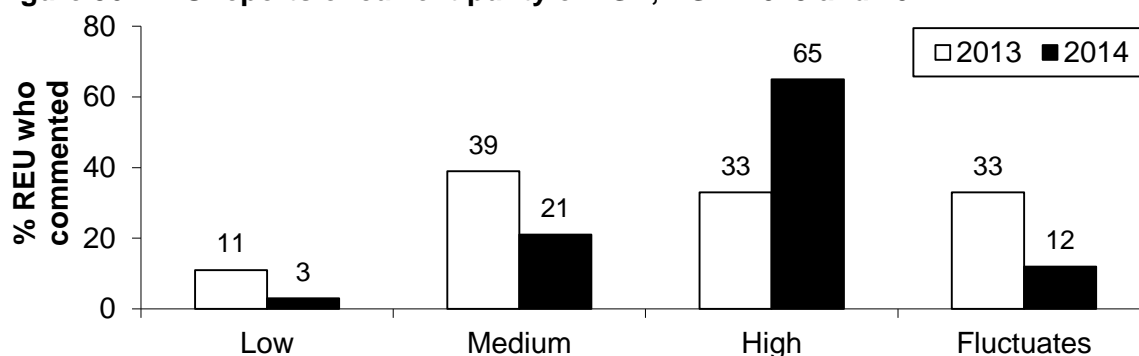
LSD variable	2008 (n=12)	2009 (n=30)	2010 (n=31)	2011 (n=34)	2012 (n=37)	2013 (n=52)	2014 (n=38)
Median price per tab (\$) (range)	15 (10-50)	20 (10-40)	20 (2-30)	20 (6-30)	20 (12-40)	20 (8-50)	25 (8-40)

Source: EDRS regular psychostimulant user interviews 2008-2014

5.6.2 Purity

Thirty-four participants commented on the current purity of LSD. The majority (65%) reported that LSD was currently of 'high' purity which is a notable increase from 33% in 2013. Lower proportions reported the current purity of LSD as 'medium' (21%), 'fluctuating' (12%) and low (3%). Of the RPU that commented, 55% reported that the purity of LSD had remained stable over the past six months. However, a significant proportion (18%) reported that it had increased.

Figure 56: RPU reports of current purity of LSD, NSW 2013 and 2014



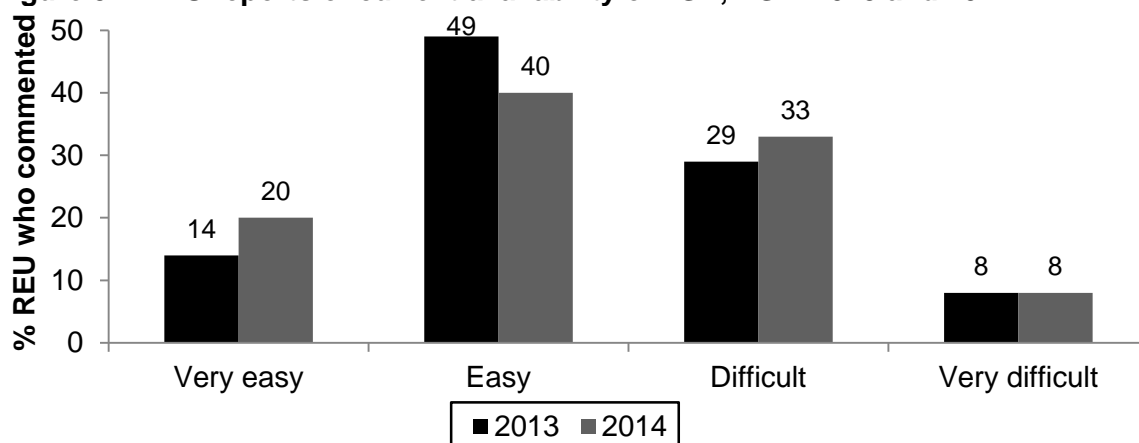
Source: EDRS regular psychostimulant user interviews 2013 and 2014

Note: Response option 'don't know' was removed from analyses

5.6.3 Availability

Forty participants commented on the availability of LSD. The majority of respondents (60%) believed that LSD was currently 'easy' or 'very easy' to obtain; however, 33% reported that it was 'difficult' (Figure 57). These figures remained comparable with those from 2013. The majority of those who commented on availability of LSD reported that it had remained stable (67%) and one-fifth (20%) reported that it had become more difficult to obtain.

Figure 57: RPU reports of current availability of LSD, NSW 2013 and 2014



Source: EDRS regular psychostimulant user interviews 2013 and 2014

Note: Response option 'don't know' was removed from analyses

Source person and source location

LSD was most commonly purchased from friends (61%) or known dealers (19%) and most commonly at a friend's home (39%) or at a dealer's home (19%).

Key expert comments

Key experts noted that much of the market is not actually LSD, but the chemical NBOMe. However, of the samples that were analysed in NSW, all samples were reported to be LSD which suggests that the presence of NBOMe in the market may not be as large as first suggested.

5.7 Cannabis

Summary:

Hydro

- *Price*: \$20 per gram; \$300 per ounce, stable.
- *Potency*: Currently medium, stable.
- *Availability*: Currently very easy to obtain, stable.
- KE reported a shift to larger industrial sites for hydro cannabis.

Bush

- *Price*: \$20 per gram; \$280 per ounce, stable.
- *Potency*: Currently medium, stable.
- *Availability*: Varying reports of current availability, stable.

From 2006, the EDRS included a more detailed section about cannabis and made a distinction between indoor-cultivated ‘hydroponic’ cannabis (hydro) and outdoor-cultivated ‘bush’ cannabis for price, potency and availability. In 2014, only participants who were able to distinguish between hydro and bush provided information about the price, purity and availability of cannabis.

5.7.1 Price

Table 20 presents the reported price for one ounce and one gram of hydro and bush cannabis.¹⁵ Prices for hydro and bush have remained relatively stable from 2012 to 2013.

¹⁵ Data regarding the price of hash or hash oil is not presented here due to small numbers reporting.

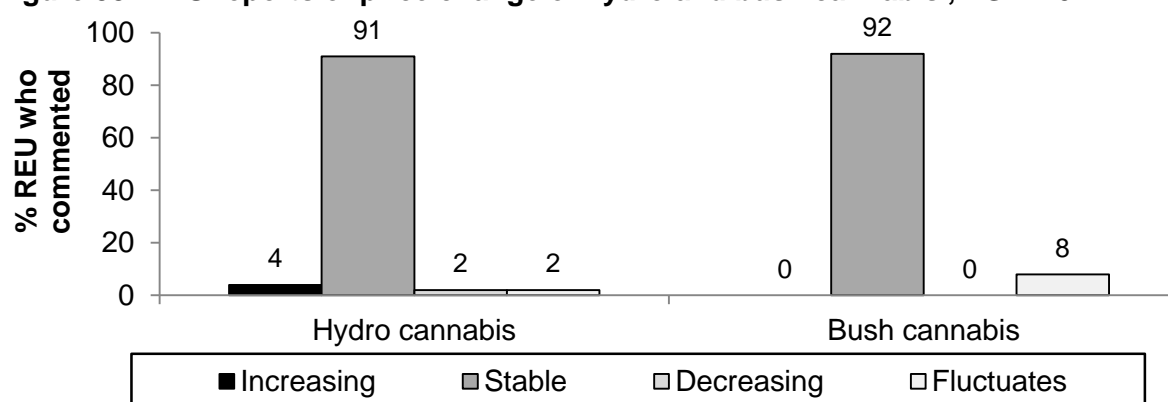
Table 20: Price of hydroponic and bush cannabis purchased by RPU, NSW 2010-2014

Cannabis variable	2010	2011	2012	2013	2014
<i>Hydro</i>	n=40	n=46	n=39	n=37	n=31
Median price per ounce (\$)	300	300	290	300	300
(range)	(150-450)	(230-400)	(160-350)	(250-450)	(250-320)
Median price per gram (\$)	20	20	20	20	20
(range)	(20)	(10-20)	(10-25)	(10-100)	(10-20)
<i>Bush</i>	n=19	n=19	n=27	n=16	n=29
Median price per ounce (\$)	235	290	265	300	280
(range)	(150-300)^	(200-300)^	(150-300)^	(200-400)	(200-360)
Median price per gram (\$)	20	20	20	20	20
(range)	(5-25)	(10-20)	(10-20)	(10-25)	(10-25)

Source: EDRS regular psychostimulant user interviews 2010-2014

^ Small numbers reporting, interpret with caution

Participants were asked about changes to the price of hydro and bush over the preceding six months. The vast majority reported that it had been stable both for hydro (91%) and bush (92%).

Figure 58: RPU reports of price change of hydro and bush cannabis*, NSW 2014

Source: EDRS regular psychostimulant user interviews 2014

Note: Don't know responses removed from analyses

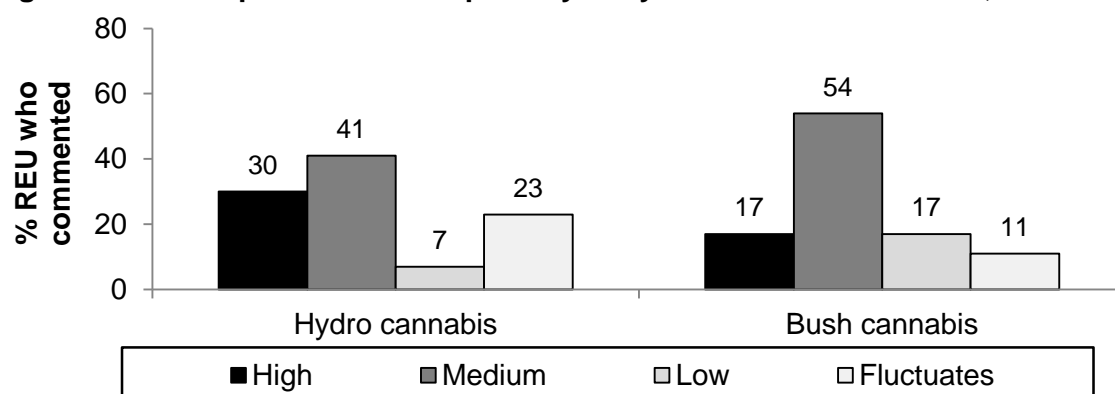
* Of those who commented (n=45 for hydro, n=26 for bush)

5.7.2 Potency

Figure 59 presents participants' perceptions of the current potency of hydro and bush cannabis. Two-fifths (41%) of those who commented reported that hydro was currently of

'medium' potency. Over half (54%) of commenters rated bush as also having a 'medium' potency.

Figure 59: RPU reports of current potency of hydro and bush cannabis*, NSW 2014

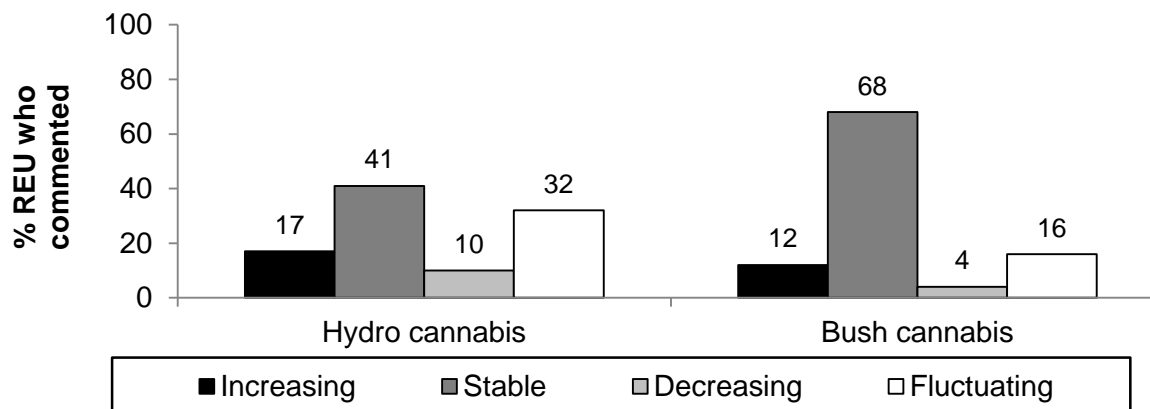


Source: EDRS regular psychostimulant user interviews 2014

*Of those who commented (n=44 for hydro, n=35 for bush)

Participants were asked to comment on changes in the potency of cannabis over the preceding six months. There was less consensus on the change in potency for hydro with two-fifths (41%) reporting hydro as stable in the last six months compared to 63% in 2013. There were much higher reports that bush was stable in the previous six months (Figure 60).

Figure 60: RPU reports of change in potency of hydro and bush cannabis over the last six months*, NSW 2014



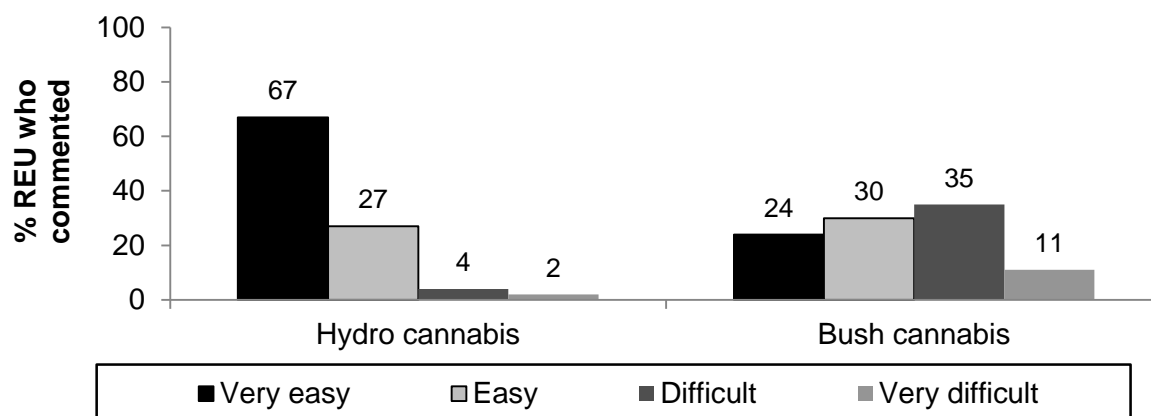
Source: EDRS regular psychostimulant user interviews 2014

*Of those who commented (n=41 for hydro, n=25 for bush)

5.7.3 Availability

Figure 61 presents data on the RPU-reported current availability of hydro and bush. The vast majority of respondents (94%) believed that hydro was currently 'very easy' or 'easy' to obtain. Reporting of bush availability was more distributed; although over half (54%) reported bush cannabis as being 'very easy' or 'easy' to obtain, there was still a significant proportion that reported it as being 'difficult' to obtain.

Figure 61: RPU reports of current availability of hydro and bush cannabis*, NSW 2014

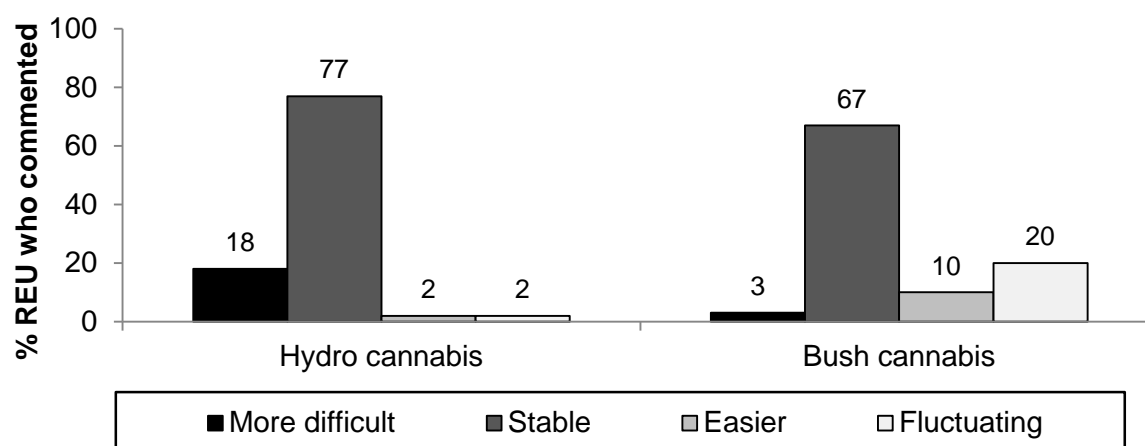


Source: EDRS regular psychostimulant user interviews 2014

* Of those who commented (n=49 for hydro, n=37 for bush)

The majority of those who commented reported that the availability of both hydro (77%) and bush (67%) had remained stable over the preceding six months (Figure 62). However, there was a notable drop in the proportions reporting availability of hydro as low from 18% in 2013 to 2% in 2014 and the same drop for the availability of bush from 28% in 2013 to 10% in 2014.

Figure 62: RPU reports of change in availability of hydro and bush cannabis over the last six months*, NSW 2014



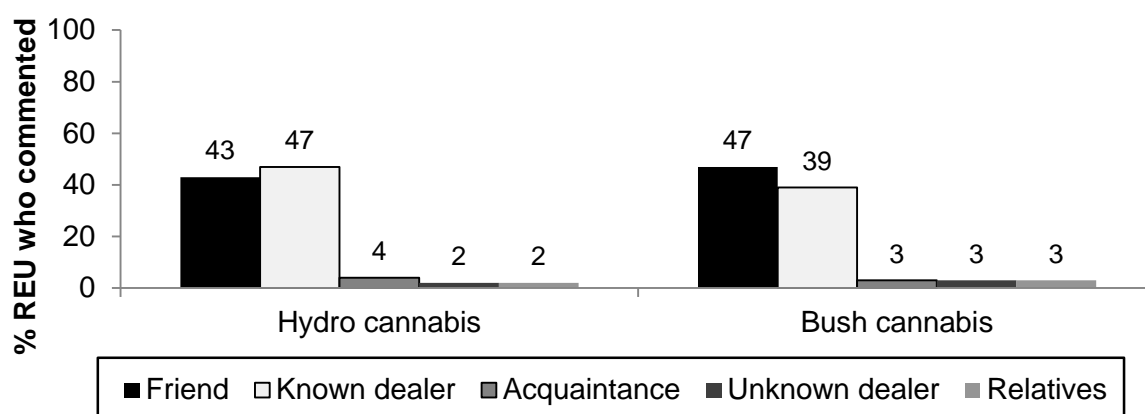
Source: EDRS regular psychostimulant user interviews 2014

* Of those who commented (n=44 for hydro, n=30 for bush)

Source person and source location

RPU were asked to comment on purchasing cannabis over the six months prior to the interview. Hydro was most commonly purchased from known dealers (47%) and a significant proportion also purchased from friends (43%). Bush was most commonly purchased from friend's (47%) and a significant proportion also purchased from known dealers (39%; Figure 63).

Figure 63: People from whom hydro and bush cannabis was last purchased* by RPU, NSW 2014

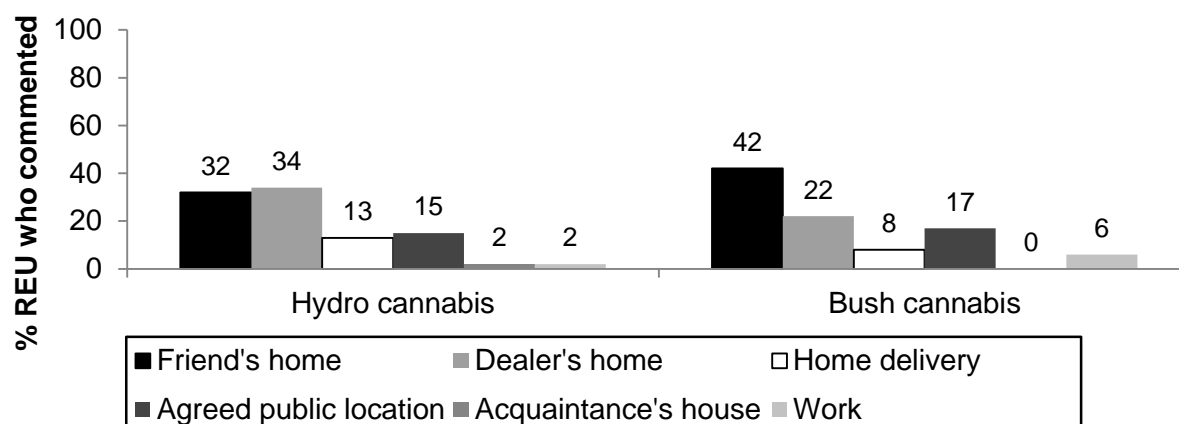


Source: EDRS regular psychostimulant user interviews 2014

*Of those who commented (n=47 for hydro, n=36 for bush)

Both forms of cannabis were most commonly purchased at a friend's home or dealer's home; however, respondents also often purchased at an agreed public location or had it delivered to their own home (Figure 64).

Figure 64: Locations at which hydro and bush cannabis was last purchased* among RPU, NSW 2014



Source: EDRS regular psychostimulant user interviews 2014

*Of those who commented (n=47 for hydro, n=36 for bush)

Key expert comments

There was noted to be little change in Sydney cannabis markets.

One KE from law enforcement reported that in the 2013-14 financial period, one anomaly noticed was the shift towards larger industrial sites to cultivate hydro cannabis. Asian cultivators traditionally used residential sites to cultivate hydro; however, they have been so heavily targeted and police were often tipped off by community sources. Renting a larger industrial unit means they can grow more plants (anywhere from 300-1000, compared to 200 in a residential site) and it means that they have less neighbours etc to notice/report any suspicious behaviour. Since they are larger sites, it also means that they cut down the number of different locations they have. Geographical locations vary, but it is mostly happening in the south-west metropolitan region. According to this KE, there has been no change in the bush market with the exception of slight variation in the strain of Indica. Outdoor crops are obviously more dominant in northern regions, but there are also some crops on the south coast.

6 HEALTH-RELATED TRENDS ASSOCIATED WITH ERD USE

Summary:

Overdose, deaths and hospital admissions

- One-third of participants reported having overdosed on a stimulant drug throughout their lifetime.
- One-third reported having ever overdosed on a depressant drug.
- Deaths associated with ecstasy, methamphetamine, cocaine, ketamine and cannabis have remained stable in the past year. A slight increase was observed in deaths associated with methamphetamines in 2011/12; however, this has returned to levels previously in 2013/14.
- Hospital admissions in which cocaine and cannabis was the principal diagnosis appears to be increasing over time in NSW.

Service usage

- Only 10% of respondents reported that they had recently accessed a medical or health service in relation to their drug use, a downward trend since 2010.
- Calls to ADIS and FDS regarding crystal methamphetamine alone and cocaine have gradually increased from 2012 onwards.

Mental health

- Participants commonly reported that their drug use caused repeated social problems (23%), resulted in exposure to risk of injury (33%) and/or interfered with responsibilities (27%). Recurrent drug-related legal problems were uncommon (4%).
- One-third of the group had recently experienced a mental health problem. Mood and anxiety disorders were most commonly reported.
- Participants completed the K10. One-fifth of the group fell into the 'high' or 'very high' distress categories.

6.1 Stimulant dependence

It has been traditionally believed that dependence on MDMA (the active ingredient in ecstasy) is unlikely given the relatively infrequent use patterns exhibited by ecstasy users (i.e. fortnightly or weekly). However, there is nonetheless evidence from animal research of a dependence potential for MDMA which is relatively attenuated and displays unique

characteristics compared with other drugs. Little work has been done to characterise a dependence syndrome among ecstasy users (Bruno et al., 2009).

Up until 2014, participants were asked questions from the Severity of Dependence Scale (SDS) adapted to investigate ecstasy dependence. The SDS is a five-item questionnaire designed to measure the degree of dependence on a variety of drugs. The SDS focuses on the psychological aspects of dependence, including impaired control of drug use, and preoccupation with, and anxiety about, use. The SDS appears to be a reliable measure of the dependence construct. It has demonstrated good psychometric properties with heroin, cocaine, amphetamine and methadone maintenance patients across five samples in Sydney and London (Dawe et al., 2002). A total score was created by summing responses to each of the five questions. Possible scores range from 0 to 15.

In 2014, the SDS was broadened to include any stimulant such as cocaine, methamphetamines and pharmaceutical stimulants (stimulant SDS). The reason for this change was that in previous years the EDRS could not measure dependence of these other substances. It was additionally included to maintain consistency with the sister project, the Illicit Drug Reporting System (IDRS: <http://ndarc.med.unsw.edu.au/project/illicit-drug-reporting-system-idrs>), which included the stimulant SDS to look at dependence in a high methamphetamine using population. Participants in the 2014 EDRS questionnaire were asked the same questions as previous years; however, they were also asked which stimulant they were relating to when they answered these questions.

Despite the broadened criteria, the majority of individuals in NSW answered the SDS questions in relation to ecstasy (63%). Nonetheless, notable proportions answered the SDS in relation to methamphetamine (10%) and cocaine (5%). Two participants answered about pharmaceutical stimulants and the remaining participants (20%) were not referring to a particular type of stimulant.

6.1.1 Ecstasy dependence

Two cut-off scores are presented below of 3 or more and 4 or more. A cut-off score of 3 or more was used as these scores have been recently found in the literature to be a good balance between sensitivity and specificity for identifying problematic dependent ecstasy use (Bruno, Gomez & Matthews, 2011). Twenty-one percent of RPU recorded a score of 3 and above. The cut off of 4 and above is a more conservative estimate which has been used previously in the literature as a validated cut-off for methamphetamine dependence (Topp & Mattick, 1997; Bruno et al., 2009). Ten percent of EDRS participants scored 4 or above.

Of those who referred to ecstasy (63%), the median SDS score was 1 (range 0-6). One-quarter of these participants (25%) obtained a score of zero on the SDS and just under one-third (32%) obtained a score of 1 on the scale; that is, the majority of respondents reported no or few symptoms of dependence in relation to ecstasy use. These findings are supported by responses of the majority of these participants (73%) reporting 'never or almost never' thinking that their use of ecstasy was out of control and 81% reporting that they would find it 'not difficult to stop or miss a prospective dose of ecstasy'.

6.1.2 Other stimulant dependence

Methamphetamine

A cut-off score of 4 or more has been shown to be a good indicator of amphetamine dependence as defined by the DSM-IV (Topp & Mattick, 1997). Of the ten individuals who

answered the questions in relation to methamphetamine, three participants reported a cut-off score of 4 or more.

Cocaine

A cut off score of 3 or more on the SDS has been shown to be a good indicator of cocaine dependence as defined by the DSM-IV (Kaye & Darke, 2002). Of the five individuals who answered the questions in relation to cocaine, one participant reported a cut-off score of 3 or more.

6.2 Overdose and drug-related fatalities

Participants were asked if they had ever overdosed on a stimulant drug or a depressant drug. In both instances, 'overdose' was defined as presenting with symptoms consistent with either stimulant toxicity (e.g. nausea and vomiting, chest pains, tremors, increased body temperature or heart rate, seizure, extreme paranoia, anxiety, panic or agitation, hallucinations, excited delirium) or symptoms consistent with a depressant overdose (e.g. reduced level of consciousness, respiratory depression, turning blue, collapsing). As such, the following sections are based on participants' understanding of these definitions and their opinions as to whether they had overdosed.

6.2.1 Stimulant overdose

Approximately one-third (35%) of participants reported having overdosed on a stimulant drug throughout their lifetime. Participants reported having experienced a median of 2 overdoses (range 1-50), and that their last overdose had occurred a median of 3.5 months ago (range 1-60). One-quarter (26%) of participants reported having overdosed on a stimulant drug within the preceding 12 months. Among these, the most common location of their last overdose was at a live music event (19%) or at home (19%). Smaller proportions reported having overdosed in other locations. Overall, stimulant overdoses occurred more frequently in public (38%) than private (62%) settings. The majority of participants (54%) believed that they did not have a sober person present to assist them the last time they overdosed on a stimulant drug.

Those who had recently overdosed (i.e. within the last year) were asked to identify the main drug to which they attributed their last overdose and also to identify other drugs they had used. Ecstasy was the drug most commonly reported to have caused the overdose (69%) with smaller proportions reporting cocaine (n=2) or crystal methamphetamine (n=2). Most participants (89%) who had recently experienced a stimulant overdose had been using multiple drugs on that occasion. The most common additional drug used was alcohol (n=16), followed by cannabis (n=10) and ecstasy (n=4).

Amongst those who overdosed within the preceding year, the most common symptoms reported included visual hallucinations (n=5), vomiting (n=4), paranoia (n=4) and increased heart rate (n=3). Over one-third (35%) of those who had recently overdosed on a stimulant drug did not receive any treatment. The majority of remaining participants were watched or monitored by their friends (94%) and the remaining participant was attended to by an ambulance (n=1). Only one participant reported seeking information about stimulant overdose or treatment after their most recent stimulant overdose and received information from friends or acquaintances.

Participants were asked how long they had been partying prior to overdosing on the last occasion. The median number of hours participants had been partying was 5 (range 1-48).

The majority of participants reported that the overdose had occurred on a heavy session (88%) rather than during a normal night out.

6.2.2 Depressant overdose

Approximately one-third (34%) of the current sample of RPU reported having ever overdosed on a depressant drug, which was significantly higher than 2013 (16%, $p < .001$). Those who had overdosed reported having done so on a median of 3 occasions (range 1-30) with the most recent having occurred a median of 8.5 months prior to the interview (range 1-168). Twenty participants reported having overdosed on a depressant drug within the year preceding the interview.

Of those who overdosed on a depressant drug within the 12 months prior to being interviewed, 18 participants attributed their most recent overdose to alcohol and the remaining participants attributed their overdose to GHB and benzodiazepines. Six of these individuals reported not having used any other drugs on that occasion. Among those who had used other drugs, eight individuals had used cannabis, five individuals had used ecstasy and single participants had used a range of other drugs.

Participants were asked where they were when they last overdosed within the past 12 months. Most participants had overdosed at home ($n=5$) or a private party ($n=4$), with smaller proportions reporting overdosing at home ($n=3$) or at a pub or bar ($n=3$). Eight of the twenty participants reported that there had not been a sober person present at the time of overdose who was able to assist them.

The most commonly reported symptoms of a depressant overdose among this group were losing consciousness (50%) and vomiting (40%). Most participants ($n=18$) that had recently experienced a depressant overdose reported that they did not receive any formal treatment or care on the last occasion. Those who had received assistance were monitored or watched by friends ($n=17$). None of the participants sought information about drug overdose or treatment following their depressant overdose.

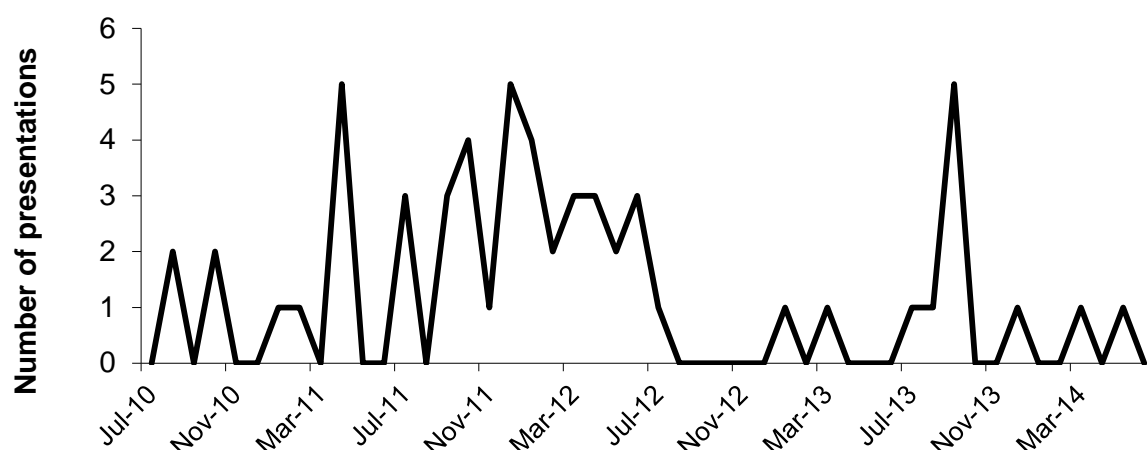
Participants reported that on their last occasion of overdosing on a depressant drug, they had been partying for a median of 6 hours (range 1-120). A majority of the participants who commented reported that the overdose had occurred on a heavy session ($n=17$) rather than on a normal night out ($n=3$).

6.2.3 Ecstasy

Since the introduction of the Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) coding structure in Australia, it is now possible to extract the number of emergency department presentations for ecstasy poisonings in NSW. These would previously have been coded under amphetamine type stimulants presentations. In 2013/14, there were 10 emergency department presentations for ecstasy poisonings.

The total number of ecstasy overdose presentations to NSW emergency departments has fluctuated over time; however, there seems to be a lower number of cases from November 2012 onward, compared to previous years (Figure 65).

Figure 65: Ecstasy overdose presentations to NSW emergency departments July 2010 to June 2014

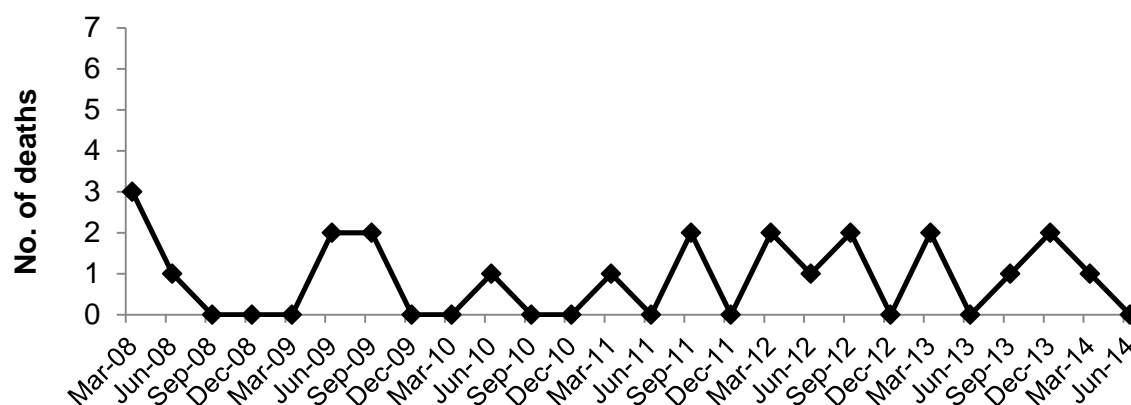


Source: Emergency Department Information System, NSW Ministry of Health

Note: Figures refer to overdose only and do not include presentations for use disorders

The number of suspected drug-related deaths where ecstasy was detected was low and appeared to have remained relatively stable over time, generally fluctuating between one or two each quarter (Figure 66). The detection of MDMA, however, does not imply that MDMA was causally related to the death, as there may have been other drugs present post-mortem.

Figure 66: Number of deaths of individuals suspected of drug use, in which MDMA was detected post-mortem, March 2008 to June 2014



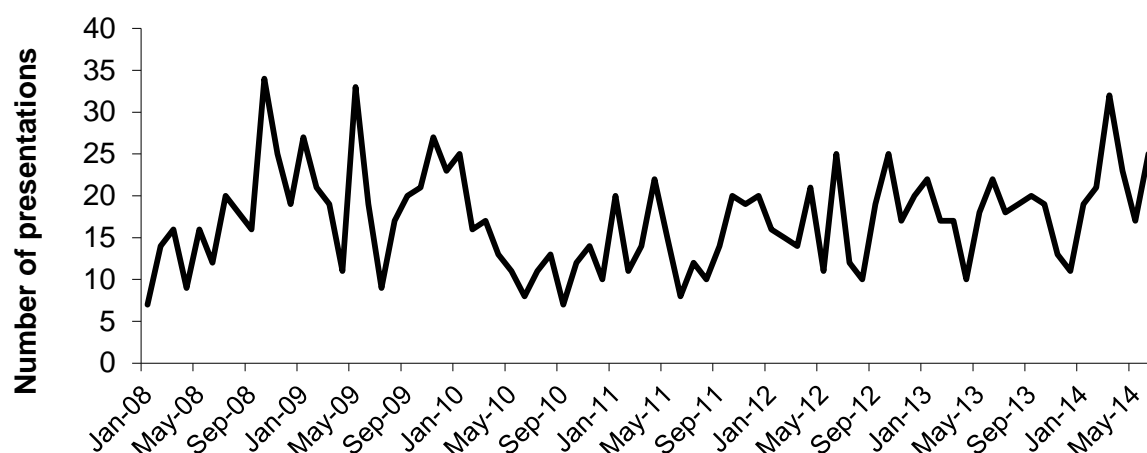
Source: Forensic Toxicology Laboratory database, Division of Analytical Laboratories

Note: These numbers relate to deaths in which ecstasy was detected; however, there may have also been other drugs present

6.2.4 Methamphetamine

While the total number of amphetamine overdose presentations to NSW emergency departments has fluctuated over time, there appeared to be a small but increasing trend from January 2011 onwards.

Figure 67: Amphetamine overdose presentations to NSW emergency departments, January 2008 to June 2014

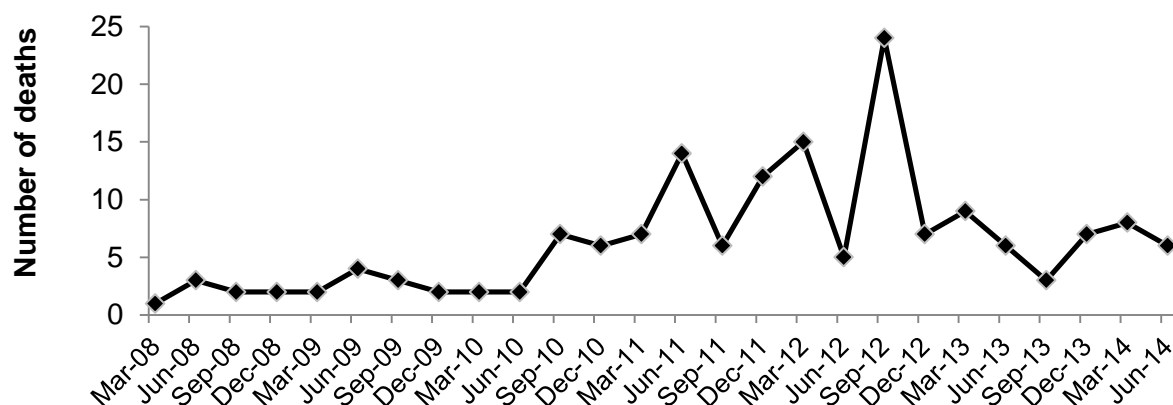


Source: Emergency Department Information System, NSW Ministry of Health

Note: Figures refer to overdose only and do not include presentations for use disorders

The number of deaths of individuals suspected of drug use where amphetamines were detected post-mortem in NSW appears to have increased from late-2010 onward; however, apart from mid-to-late 2012, data remains under 20 per quarter (Figure 68). These figures do not include methylenedioxymethamphetamine, methylenedioxyamphetamine, or p-methoxyamphetamine. Also excluded are pseudoephedrine and ephedrine, as only deaths related to illicit amphetamines are presented.

Figure 68: Number of deaths of individuals suspected of drug use, in which illicit amphetamines were detected post-mortem, March 2007 to June 2013



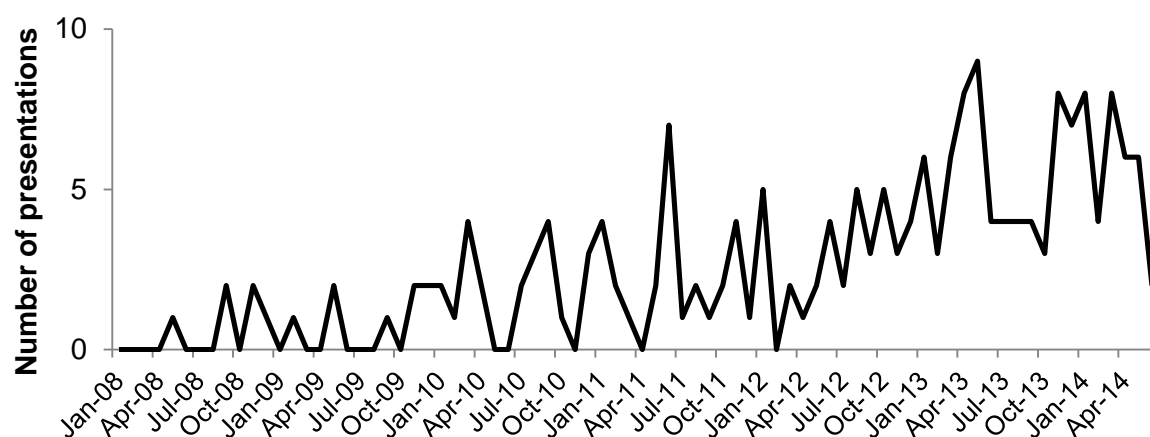
Source: Forensic Toxicology Laboratory database, Division of Analytical Laboratories

Note: These numbers relate to deaths in which amphetamines, including methamphetamine, were detected; however, there may have also been other drugs present

6.2.5 Cocaine

Since mid-2008, there has been an upward trend in the number of cocaine overdose presentations to NSW emergency departments since 2008 with 64 presentations in the 2013/14 financial year (Figure 69).

Figure 69: Cocaine overdose presentations to NSW emergency departments, January 2008 to June 2014

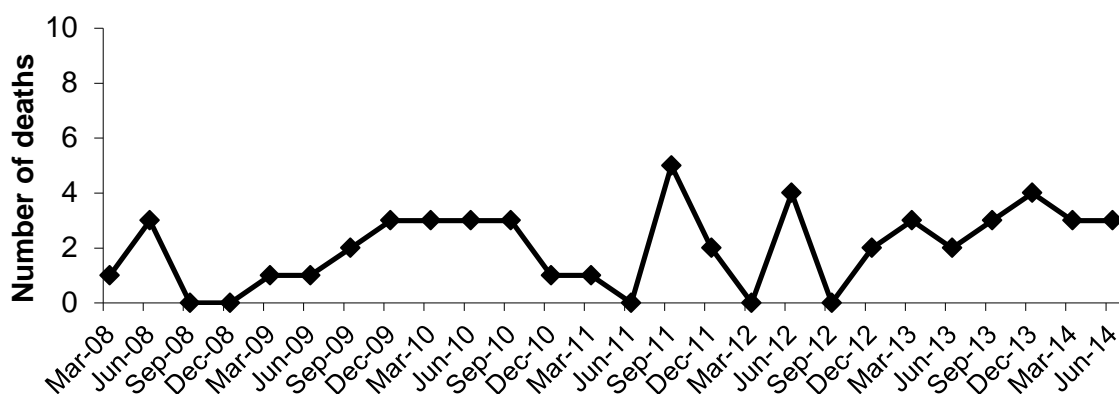


Source: Emergency Department Information System, NSW Ministry of Health

Note: Figures refer to overdose only and do not include presentations for use disorders

The number of deaths of suspected drug users where cocaine was detected post-mortem has remained low over time (Figure 70).

Figure 70: Number of deaths of individuals suspected of drug use, in which cocaine was detected post-mortem, March 2007 to June 2013



Source: Forensic Toxicology Laboratory database, Division of Analytical Laboratories

Note: These numbers relate to deaths in which cocaine was detected; however, there may have also been other drugs present

6.2.6 Ketamine

Deaths of suspected drug users where ketamine was detected post-mortem remain very low. Data from the Forensic Toxicology Laboratory Database at the Division of Analytical Laboratories showed that 2 of these deaths had occurred between July 2013 and June 2014.

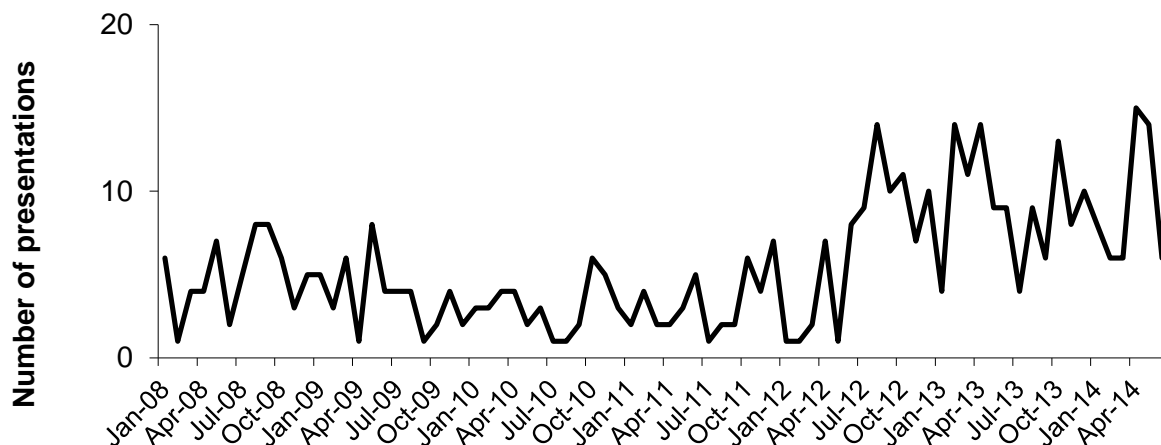
6.2.7 GHB

Data from the Forensic Toxicology Laboratory Database at the Division of Analytical Laboratories showed that, since 2000, no deaths had occurred where GHB was detected post-mortem between July 2013 and June 2014.

6.2.8 Cannabis

The number of cannabis toxicity presentations to emergency departments have remained relatively low; however, since July 2012, the number of presentations has notably increased and remained relatively stable until June 2014 (Figure 71).

Figure 71: Cannabis toxicity presentations to NSW emergency departments, January 2008 to June 2014



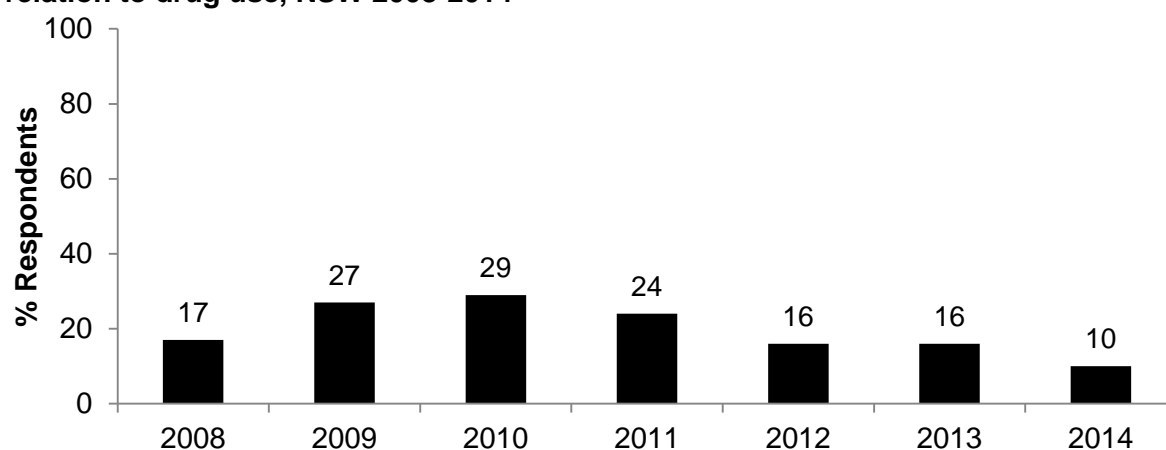
Source: Emergency Department Information System, NSW Ministry of Health

Note: Figures refer to overdose only and do not include presentations for use disorders

6.3 Help-seeking behaviour

Participants were asked if they had accessed any medical or health services in relation to their alcohol and/or drug use in the last six months. Ten percent of RPU interviewed in 2014 reported that they had done so. It is concerning to note that the 2014 sample had the lowest recorded proportion of RPU who recently accessed medical or health services in the last seven years (Figure 72).

Figure 72: Proportion of RPU who recently accessed a medical/health service in relation to drug use, NSW 2008-2014

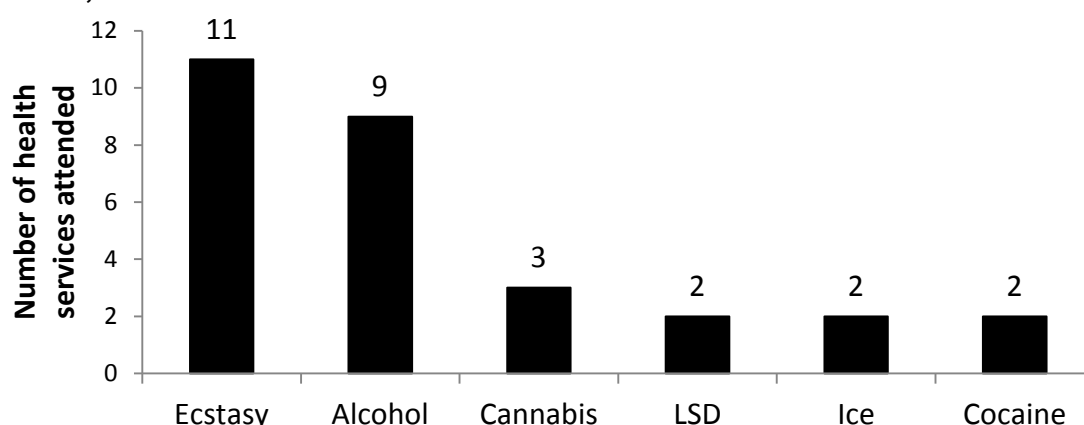


Source: EDRS regular psychostimulant user interviews 2008-2014

Seven individuals reported they had thought about contacting services or health professionals for reasons related to drug use. When asked why they did not contact a service or health professional, two participants worked it out on their own, whilst the other five participants listed various other reasons.

Participants were asked if they have attended any health services in the past six-months. For those who attended a health service for a drug concern, the most frequent drug concern was ecstasy (n=11) followed closely by alcohol (n=9). Lower numbers were reported for cannabis (n=3), LSD (n=2), crystal methamphetamine (n=2) and cocaine (n=2) (Figure 73).

Figure 73: Medical/health services visited by RPU in relation to the specific drugs of concern, NSW 2014[^]



Source: EDRS regular psychostimulant user interviews 2014

[^]Drugs with less than one recorded visits are not presented in the graph.

Note: Participants were able to provide multiple answers.

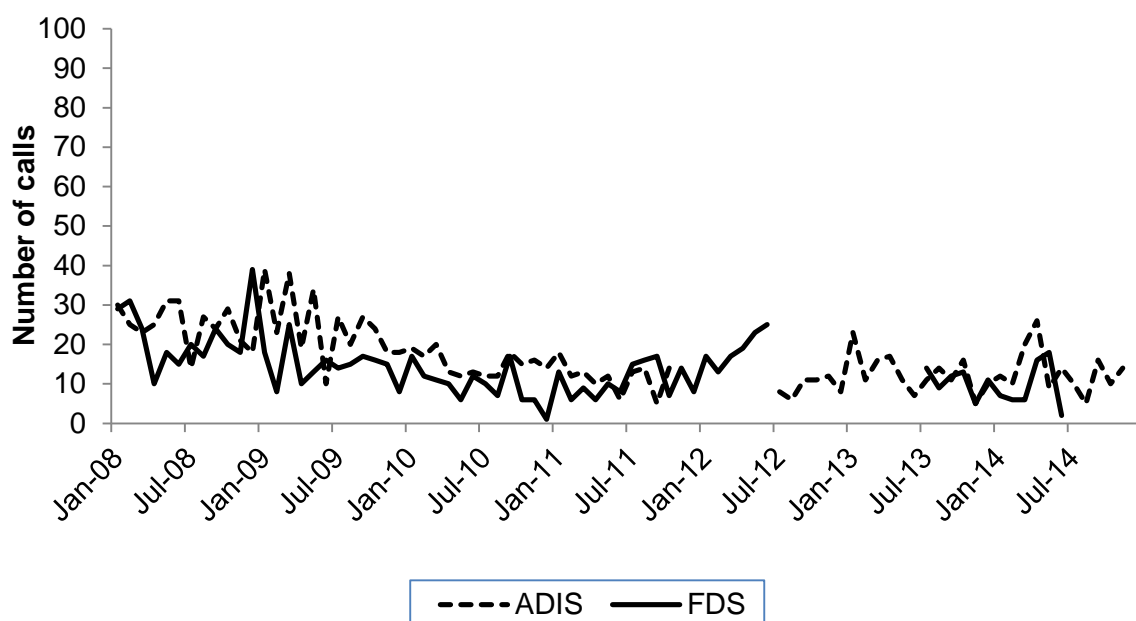
6.4 Drug treatment

6.4.1 Ecstasy

The NSW Alcohol and Drug Information Service (ADIS) provides a telephone information and referral service in NSW. ADIS data reflect calls in which ecstasy was the primary drug of concern. Similarly, the NSW Family Drug Support (FDS) provides over-the-phone support and referrals. FDS data represent all calls in which ecstasy was mentioned.

Figure 74 shows the number of calls received by ADIS and FDS regarding ecstasy from January 2006. There appears to be a downward trend in the number of inquiries from January 2008 to early 2011 which seems to have remained stable until December 2014.

Figure 74: Number of inquiries regarding ecstasy received by ADIS and FDS, January 2008 to December 2014

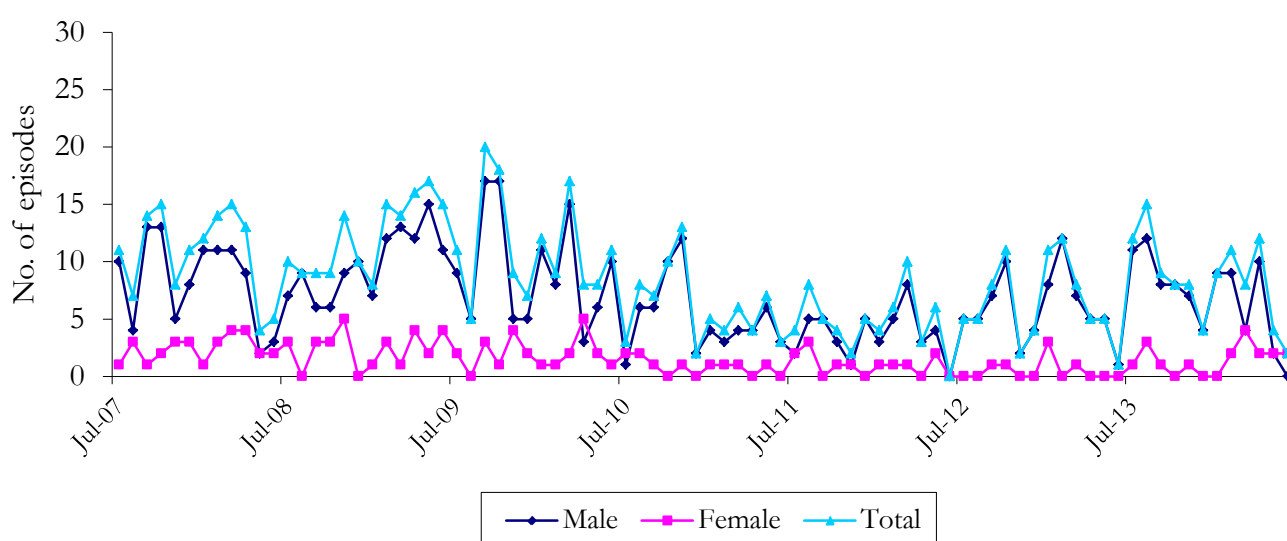


Source: NSW Alcohol and Drug Information Service and NSW Family Drug Support

Note: ADIS data after October 2011 were not available. FDS data from July 2012 to June 2013 and after July 2014 were not available.

The number of closed treatment episodes based on the date of commencement where the principal drug of concern was ecstasy has been declining since late-2009 (Figure 75), however this number has fluctuated from July 2012. Men accounted for most of the treatment episodes.

Figure 75: Number of ecstasy treatment episodes by gender, NSW July 2007 to June 2014



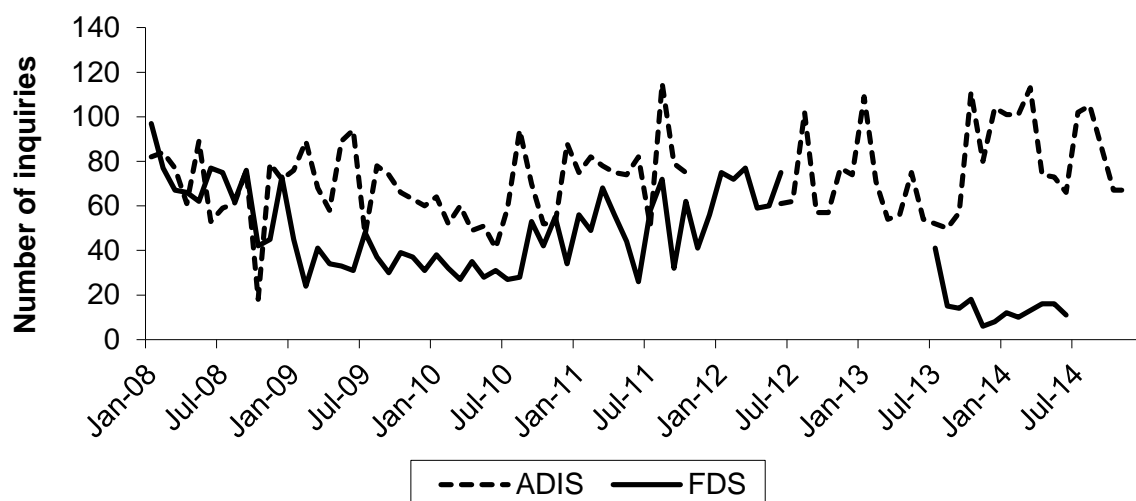
Source: NSW MDS AODTS, NSW Department of Health.

NB: The NSW MDS AODTS is based on closed treatment episodes and so some episodes may be excluded if they did not finish in the given period. Figures are presented by the commencement date for treatment.

6.4.2 Methamphetamine

Figure 76 shows the number of calls to the ADIS and FDS lines regarding methamphetamines. The number of enquiries to both ADIS and FDS appears to have remained stable since early-2010.

Figure 76: Number of inquiries to ADIS and FDS regarding amphetamines, January 2008 to December 2014

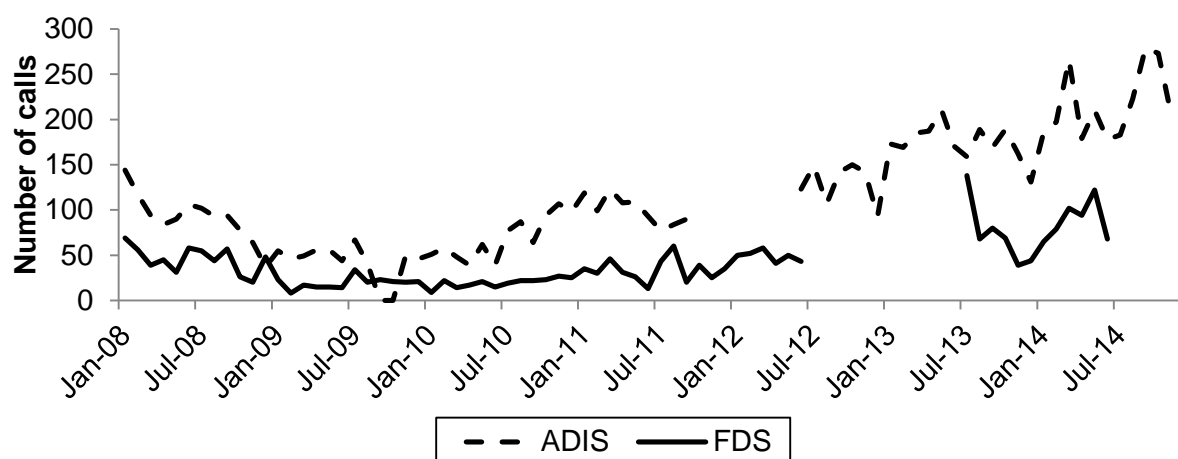


Source: NSW Alcohol and Drug Information Service and Family Drug Support

Note: FDS data refer to calls where any mention of amphetamines was made. ADIS data refer to the number of calls where amphetamines were mentioned as any drug of concern. ADIS data for October 2011 to May 2012 were not available. FDS data from July 2012 to June 2013 and after July 2014 were not available.

Figure 77 presents calls to ADIS and FDS coded as those where ice/crystal specifically had been mentioned. Calls to ADIS have been increasing from mid-2009 onward.

Figure 77: Number of enquiries to ADIS and FDS regarding ice/crystal alone, January 2008 to December 2014

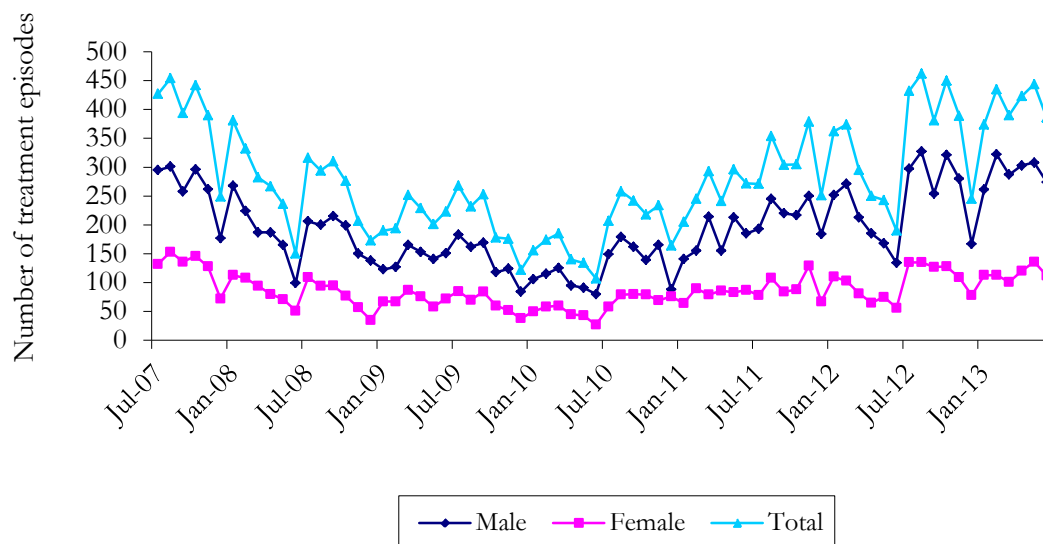


Source: NSW Alcohol and Drug Information Service and Family Drug Support

Note: Data is presented on calls coded as relating to crystal. Calls may not fall exclusively into either category and it is possible that there is some overlap. ADIS data for October 2011 to May 2012 were not available. FDS data from July 2012 to June 2013 and after July 2014 were not available.

The number of closed treatment episodes based on date of commencement where amphetamine was the principal drug of concern has remained relatively stable from mid-2010 onward (Figure 78). There appeared to be a rise in the number of treatment episodes reported since mid-2011. Men continued to account for a greater proportion of these treatment episodes compared to women.

Figure 78: Number of ATS treatment episodes by gender, NSW July 2007 to June 2014



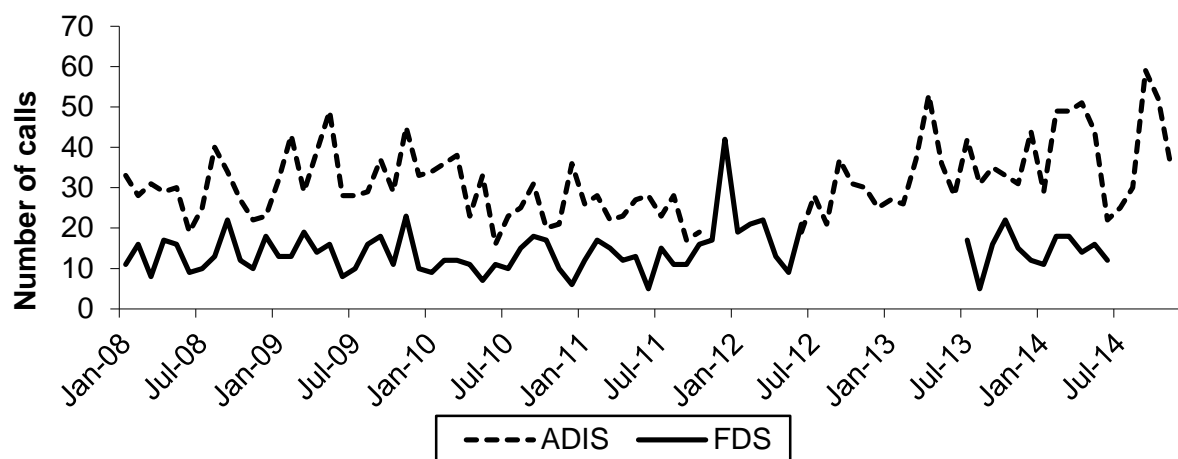
Source: NSW MDS AODTS, NSW Department of Health

NB: The NSW MDS AODTS is based on closed treatment episodes and so some episodes may be excluded if they did not finish in the given period. Figures are presented by the commencement date for treatment.

6.4.3 Cocaine

Figure 79 shows the number of calls to the ADIS and FDS lines regarding cocaine. Calls to both ADIS and FDS appear to have remained relatively stable from early-2008; however, there has been an upward trend in the number of ADIS calls from mid-2012.

Figure 79: Number of inquiries to ADIS and FDS regarding cocaine, January 2008 to December 2014

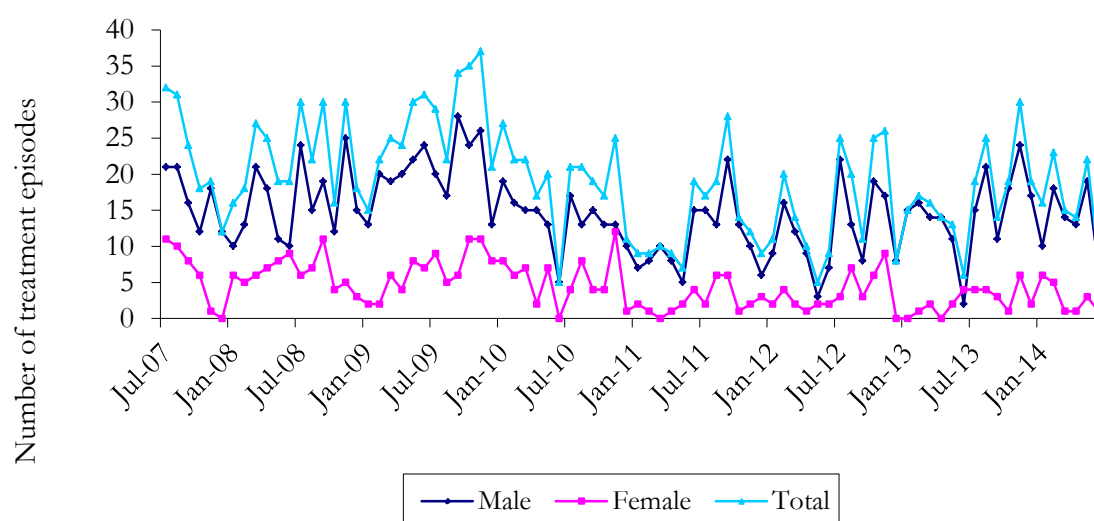


Source: NSW Alcohol and Drug Information Service and Family Drug Support

Note: FDS data refer to calls where any mention of cocaine was made. FDS is based in NSW but data may include some calls from interstate. ADIS data include calls made in NSW and ACT and refer to the number of calls where cocaine was mentioned as any drug of concern. ADIS data for October 2011 to May 2012 were not available. FDS data from July 2012 to June 2013 and after July 2014 were not available.

The number of closed treatment episodes based on date of commencement where cocaine was the principal drug of concern appeared to fluctuate from mid-2011 to mid-2014 (Figure 80). Males continued to account for the vast majority of all treatment episodes.

Figure 80: Number of cocaine treatment episodes by gender, NSW July 2007 to June 2014



Source: NSW MDS AODTS, NSW Ministry of Health

NB: The NSW MDS AODTS is based on closed treatment episodes and so some episodes may be excluded if they did not finish in the given period. Figures are presented by the commencement date for treatment.

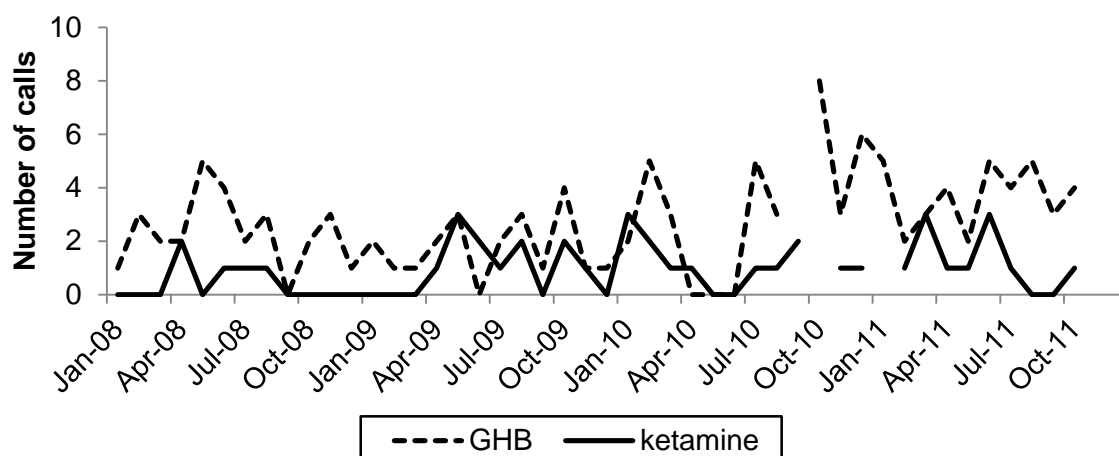
6.4.4 Ketamine

Treatment-seeking for problems with ketamine use is low compared to other drugs. Data from the NSW Minimum Dataset show during the period 2002 – 2014 there were twenty two closed treatment episodes based on the date of commencement where the principal drug of concern was ketamine (NSW MDS AODTS, NSW Department of Health). The NSW MDS is based on closed treatment episodes and so some episodes may be excluded if they did not finish in the given period.

Calls to telephone helplines

The number of calls to ADIS where ketamine was mentioned as a drug of concern continued to be low at less than 5 calls per month (Figure 81).

Figure 81: Number of inquiries to ADIS regarding ketamine and GHB, January 2008 to December 2014



Source: NSW Alcohol and Drug Information Service and Family Drug Support

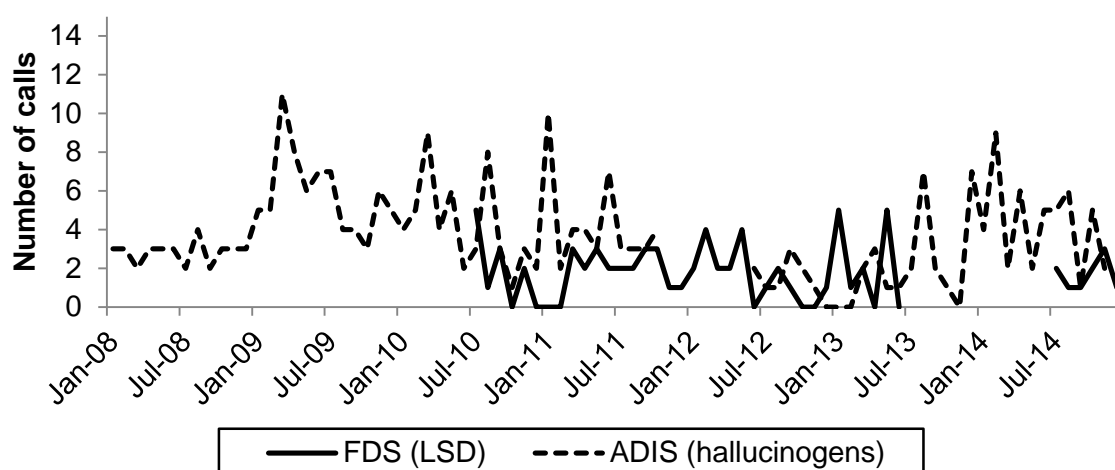
Note: ADIS data include calls made in NSW and ACT and refer to the number of calls where ketamine or GHB was mentioned as any drug of concern. ADIS data for October 2011 to May 2012 were not available.

6.4.5 LSD

Calls to telephone helplines

Calls to ADIS and FDS where hallucinogens were mentioned as a drug of concern has fluctuated over time, although these figures have remained low at generally less than ten calls per month.

Figure 82: Number of inquiries to ADIS and FDS regarding hallucinogens, January 2008 to December 2014



Source: NSW Alcohol and Drug Information Service and Family Drug Support

Note: FDS data refer to calls where any mention of cocaine was made. FDS is based in NSW but data may include some calls from interstate. ADIS data include calls made in NSW and ACT and refer to the number of calls where hallucinogens were mentioned as any drug of concern. ADIS data for October 2011 to May 2012 were not available. ADIS data for 2012/13 incorporates data for both hallucinogens and LSD. FDS data from July 2012 to June 2013 and after July 2014 were not available.

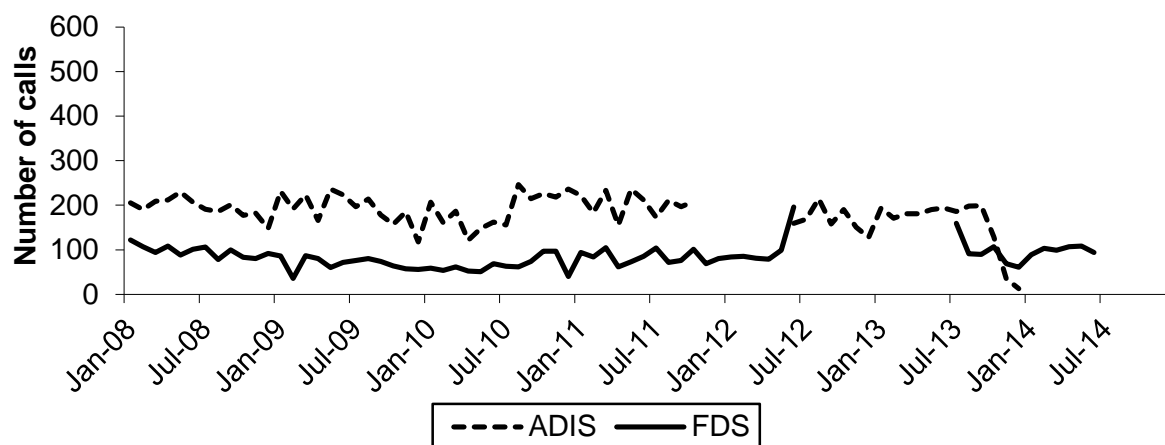
6.4.6 GHB

Data from the NSW Minimum Dataset show that during the period 2002 - 2014 there have been fifty eight treatment episodes where GHB was the principal drug of concern (NSW MDS DATS, NSW Department of Health). There were no GHB episodes recorded in the 2012/13 period. The NSW MDS is based on closed treatment episodes and so some episodes may be excluded if they did not finish in the given period.

6.4.7 Cannabis

Figure 83 presents data on calls to the ADIS and FDS services where cannabis was mentioned as a drug of concern. The numbers of calls to ADIS and FDS have remained fairly stable since 2009.

Figure 83: Number of enquiries to ADIS and FDS regarding cannabis, January 2008 to December 2014

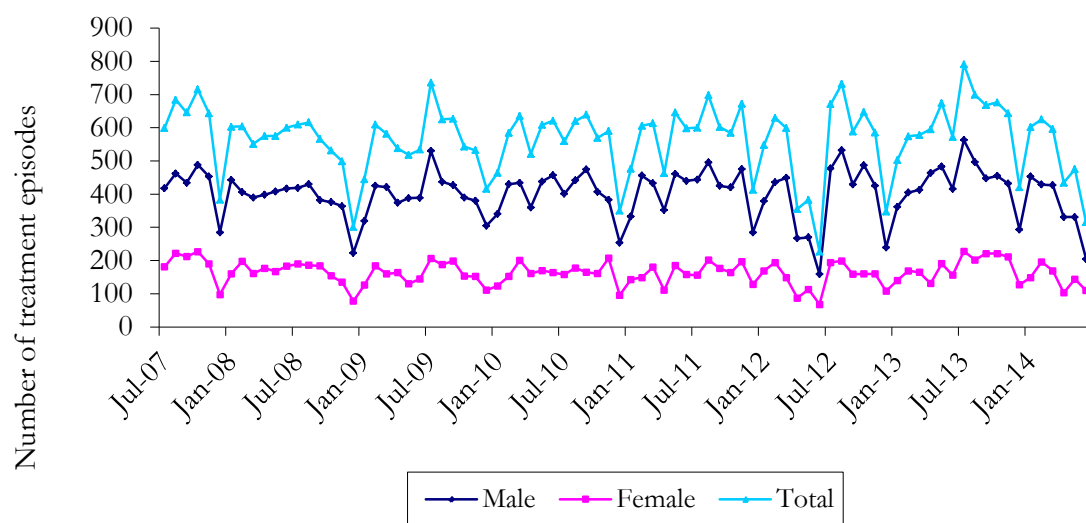


Source: NSW Alcohol and Drug Information Service and Family Drug Support

Note: FDS data refer to calls where any mention of cocaine was made. FDS is based in NSW but data may include some calls from interstate. ADIS data include calls made in NSW and ACT and refer to the number of calls where hallucinogens were mentioned as any drug of concern. ADIS data for October 2011 to May 2012 were not available. FDS data from July 2012 to June 2013 and after July 2014 were not available.

Figure 84 shows the number of closed treatment episodes based on the date of commencement where the principal drug of concern was cannabis, by gender. These data remained relatively stable since 2007 and declined throughout early to mid-2012.

Figure 84: Number of cannabis treatment episodes by treatment type, NSW July 2007 to June 2014



Source: NSW MDS AODTS, NSW Ministry of Health

NB: The NSW MDS AODTS is based on closed treatment episodes and so some episodes may be excluded if they did not finish in the given period. Figures are presented by the commencement date for treatment.

6.5 Other self-reported problems associated with ERD use

Participants were asked about a range of other problems associated with their drug use. Participants were asked if, in the past six months, their drug use had caused repeated problems with family, friends or people at work or school; if they had any recurrent drug-related legal problems; if they had recurrently found themselves in situations where they were under the influence of any drug and could have gotten themselves or others hurt, or put themselves or others at risk; or if their drug use had recurrently interfered with their responsibilities at home, work or school (Table 21).

- Just under one-quarter (23%) reported that their use of drugs had caused repeated problems with family, friends or people at work or school in the six months prior to the interview. Cannabis was the drug most commonly identified as causing these problems, followed by ecstasy, alcohol and crystal methamphetamine.
- Only 4% of participants reported experiencing recurring legal problems due to drug use. These were primarily attributed to ecstasy.
- One-third (33%) of the sample reported recurrently finding themselves in situations where they were under the influence of a drug and could have caused injury either to themselves or others, or put themselves or others at risk. Respondents most commonly identified alcohol as the main drug causing these problems followed by ecstasy and LSD.
- Over one-quarter of the 2014 sample (27%) reported that their drug use had recurrently interfered with their responsibilities at home, at work or at school. Cannabis was the drug most commonly associated with these problems followed by alcohol and ecstasy.

Table 21: Self-reported drug-related problems among RPU, NSW 2014

Problems in the following areas (last 6 mths):	Any drug (N=100)	Alcohol	Cannabis	Ecstasy	Crystal	Cocaine	LSD
Social (%)	23	17	48	17	9	4	4
Legal (%)	4	25	25	50	-	-	-
Risk (%)	33	42	9	24	3	6	12
Responsibility (%)	27	26	44	22	7	-	-

Source: EDRS regular psychostimulant user interviews 2014

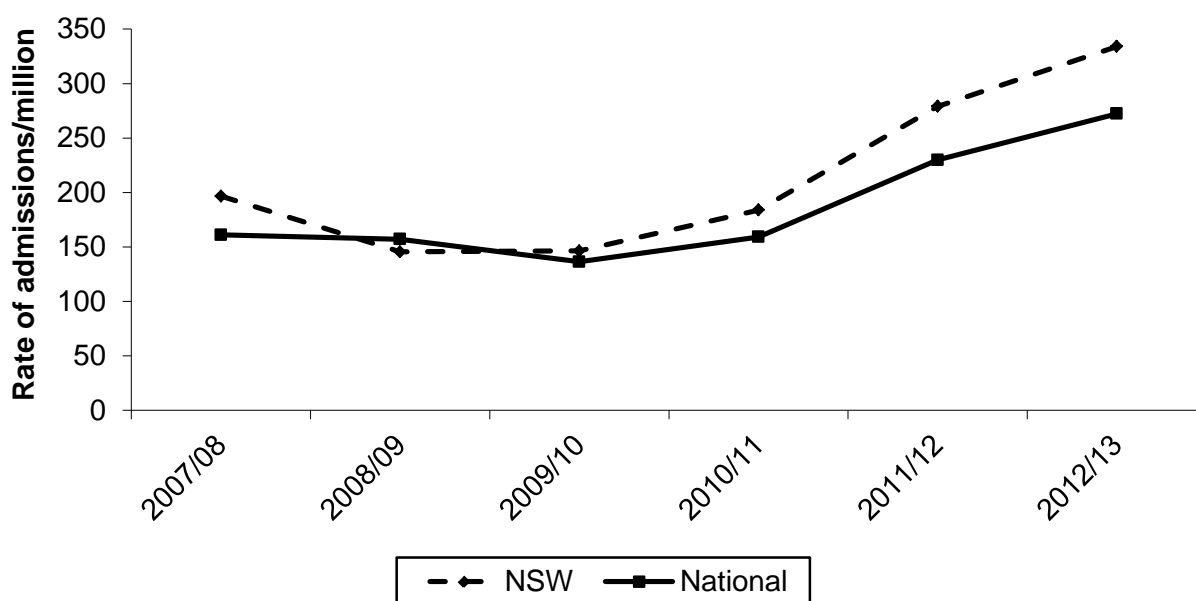
Overall, 52% of RPU experienced problems associated with their drug use and that these were most commonly associated with the use of cannabis, alcohol and ecstasy. In 2013 it was reported that cannabis had replaced alcohol as the most commonly reported drug associated with these problems. This has remained stable in 2014.

6.6 Hospital admissions

6.6.1 Methamphetamine

The rate per million of inpatient hospital admissions among persons aged 15-54 years in which amphetamines were the principal diagnosis is shown below. A principal diagnosis is defined as having been chiefly responsible for occasioning the patient's episode of care in hospital. Both NSW and national rates have increased from 2009/10 to 2012/13.

Figure 85: Number per million persons of principal amphetamine-related hospital admissions among persons aged 15-54, NSW and nationally, 2007/08-2012/13*



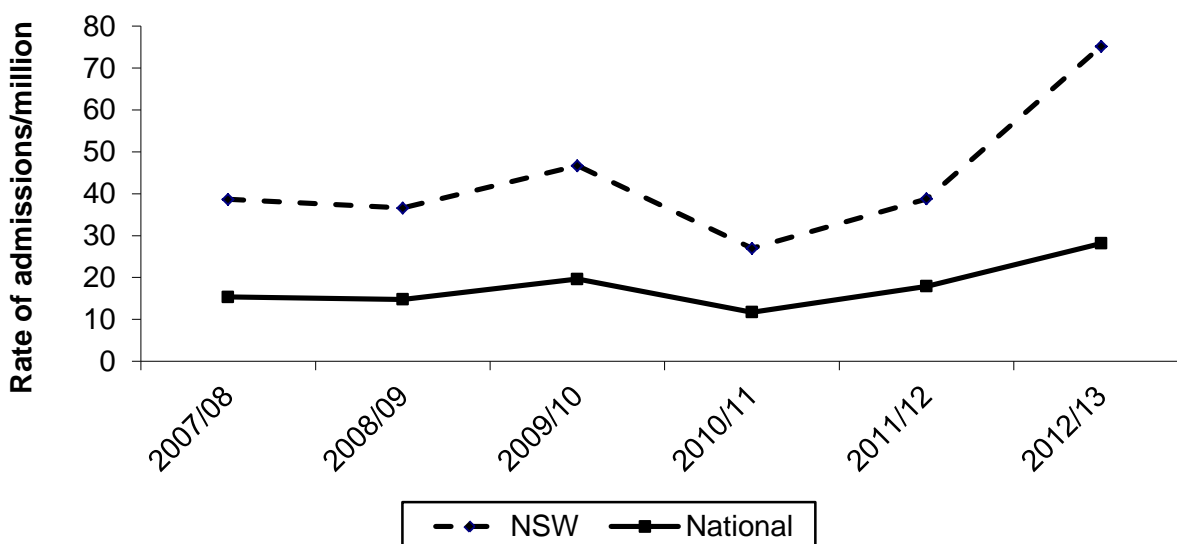
Source: National Hospital Morbidity Database, AIHW; Roxburgh & Burns (in press)

*Data for 2013/14 were unavailable at time of publication

6.6.2 Cocaine

The rates of inpatient hospital admissions where cocaine was the principal diagnosis per million people aged 15-54 years are shown in Figure 86. National rates appear to have remained stable; however, NSW rates appear to have increased from 2010/11 to 2012/13.

Figure 86: Number per million persons of principal cocaine-related hospital admissions among persons aged 15-54, NSW and nationally, 2007/08-2012/13*



Source: National Hospital Morbidity Database, AIHW; Roxburgh & Burns (in press)

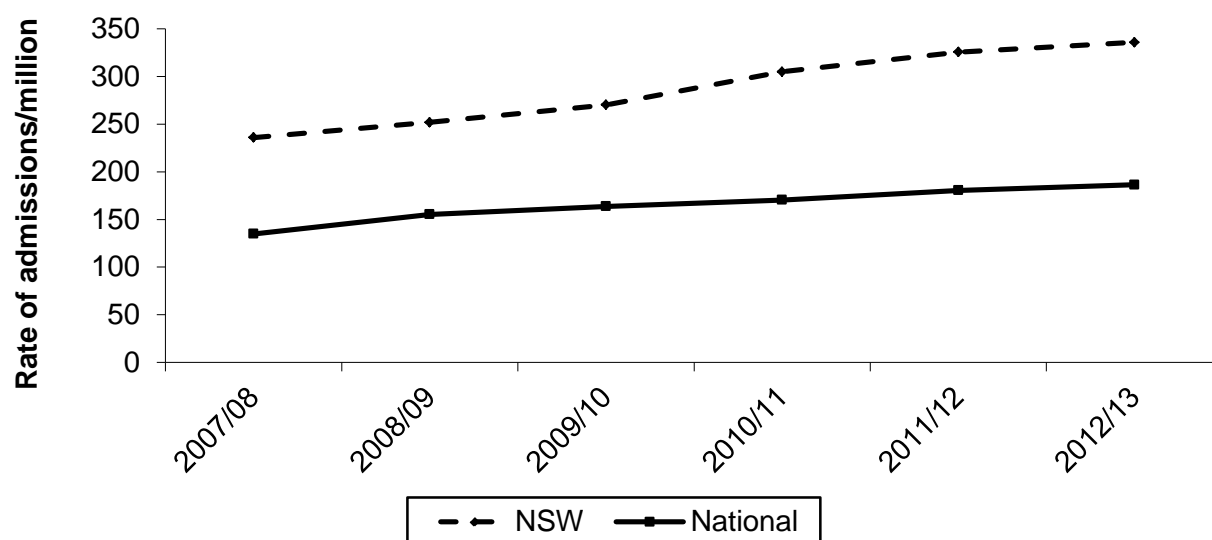
*Data for 2012/13 were unavailable at time of publication

6.6.3 Cannabis

Figure 87 shows the rates of hospital admissions where cannabis was the principal diagnosis per million people aged 15-54 years. Rates in NSW remained higher than

nationally, and had been so for the duration of the study. Since 2000/01, NSW accounted for between 50-60% of Australian inpatient hospital admissions where cannabis was the principal diagnosis. These rates appear to be rising over time.

Figure 87: Number per million persons of inpatient hospital admissions where cannabis was the principal diagnosis aged 15-54 years, NSW and nationally, 2007/08-2012/13*



Source: National Hospital Morbidity Database, AIHW; Roxburgh & Burns (in press)

* Data for 2012/13 were unavailable at time of publication

6.7 Mental health and psychological distress

6.7.1 Self-reported mental health

Participants were asked whether they had experienced any mental health problems over the previous six months (Table 22). Between one-quarter and one-third (29%) of the group had recently experienced a mental health problem, a figure which is slightly higher than that recorded among the general population of a similar age range (16-24 years (26%) and 25-34 years (25%)) (Australian Bureau of Statistics, 2007). Mood and anxiety disorders were those most commonly reported by far. Over one-half (55%) of those who experienced a mental health problem sought assistance from a health professional, and almost two-fifths (38%) had been prescribed medication (most commonly antidepressants).

Trends over time in self-reported mental health problems and help-seeking behaviours around these are presented in Table 22. Overall, these figures appear relatively stable from 2013 to 2014; however there are two points worth noting. Firstly in 2014 we have seen the lowest proportion of respondents seeking help from a health professional for a mental health problem since 2010 despite the prevalence of self-reported mental health problems remaining relatively stable. Secondly, there was a notable decrease in the proportion of participants reporting having experienced paranoia in the six months prior to survey, returning to similar proportions of 2012 and prior.

It is worth noting that a few participants reported other mental health problems; five participants reported having ADHD, two reported insomnia and single participants reported autism, anger management issues and memory loss.

Table 22: Mental health problems among RPU, NSW 2010-2014

Variable	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Any mental health problem recently (%)	22	26	30	30	29
<i>Of these (%):</i>					
Depression	55	73	53	67	69
Anxiety	46	46	47	70	79
Panic	-	4	7	10	-
Bipolar Disorder	9	8	7	-	-
Mania	-	-	7	-	-
Paranoia	-	8	3	23	7
Personality Disorder	-	-	3	-	-
Schizophrenia	-	4	-	-	-
Drug-Induced Psychosis	-	4	-	3	-
Obsessive Compulsive Disorder	5	-	-	-	3
Sought help from health professional [^] (%)	62	62	67	63	55
Prescribed medication [^] (%)	45	35	73	32	38

Source: EDRS regular psychostimulant user interviews 2010-2014

[^] Percentage of all of those who had recently experienced a mental health problem

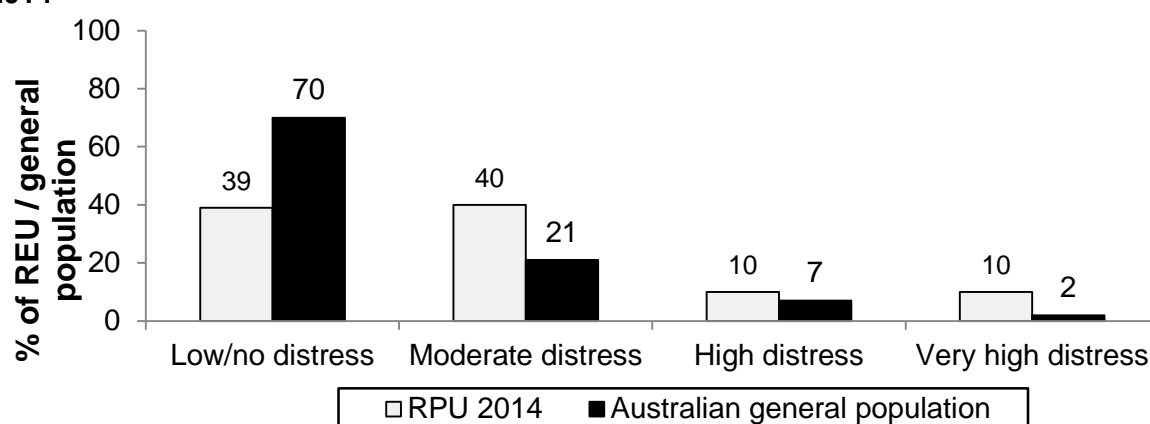
6.7.2 Kessler Psychological Distress Scale (K10)

From 2006, the EDRS has included the 10-item Kessler Psychological Distress Scale (K10) (Kessler et al., 2002), which is a questionnaire designed to measure the level of distress and severity associated with psychological symptoms in population surveys. The minimum score is 10 and the maximum is 50. Scores ranging from 10-15 are classified as 'low/no distress', 16-21 'moderate distress', 22-29 'high distress' and 30-50 'very high distress' (Australian Institute of Health and Welfare, 2008a).

The median score for participants was 17 (range 10-35). The majority of participants' scores fell into the 'low/no distress' (39%) and 'moderate distress' (40%) categories. However, the remaining one-fifth fell into the 'high distress' (10%) or 'very high distress' (10%) categories (Figure 88).

Figure 88 compares the spread of RPU scores across these four categories with those of the general Australian population. While more than two-thirds of the general population fell into the low/no distress category, only 39% of RPU in the current sample fell into this category. This places a much higher proportion of RPU into the categories indicative of at least some level of psychological distress. Overall, RPU appear to experience a higher level of psychological distress than the wider Australian public.

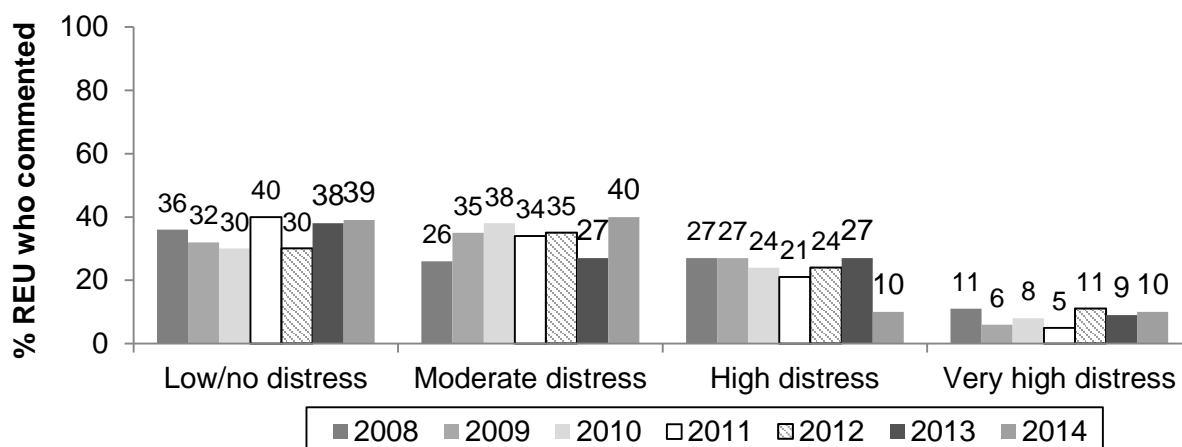
Figure 88: K10 scores for RPU compared with the general Australian population, NSW 2014



Source: EDRS regular psychostimulant user interviews 2014; Australian Institute of Health and Welfare (2011)

Figure 89 presents data across time on the proportions of each sample from 2008 to 2014 that fell into each distress category. While data appear to have remained relatively stable over time, there was a notable increase in the proportion of respondents scoring 'moderate distress' in 2014 compared to prior years and a notable decrease in the proportion of respondents scoring in the 'high distress' category.

Figure 89: K10 scores across time for RPU, NSW 2008-2014



Source: EDRS regular psychostimulant user interviews 2008-2014

Key expert comments

Health KE working in Sydney festivals reported that distress and dehydration were the most common issues seen; however, they were less critical compared to the 2012-13 festival period. Other symptoms included overheating, sweating, anxiety, teeth grinding and paranoia.

Health KE working with adolescent populations reported the following health issues surrounding these user groups: abuse of pharmaceutical medication such as ADHD medication, psychosis, drug-induced schizophrenia, chaotic polydrug use, suicidality, problems with health and hygiene, eating disorders (mostly females) and issues surrounding the family environment.

7 RISK BEHAVIOUR

Summary:

- Eleven participants had ever injected a drug and five had done so recently.
- Over half of the sample had recently had penetrative sex with a casual partner. Forty percent of participants did not use a sexual barrier on the last occasion, when intoxicated, and 38% did not when sober. The main reasons were either that the other partner was using contraception, participants didn't want to or it was agreed not to.
- Participants completed the Alcohol Use Disorders Identification Test (AUDIT). Over two-thirds (69%) of the group fell in the 'harmful drinking' range.

7.1 Injecting risk behaviour

Eleven participants had ever injected a drug and only five had done so within the past six months (Table 23).

Table 23: Injecting risk behaviour among RPU, NSW 2010-2014

Variable	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Ever injected (%)	22	13	20	8	11
Injected last 6 mths (%)	15	8	13	6	5

Source: EDRS regular psychostimulant user interviews 2010-2014

7.1.1 Lifetime injectors

Patterns of lifetime injecting drug use

The median age of initiation for respondents who had ever injected was 19 years (range 15-41). A wide range of drug types had ever been injected; however, those most frequently reported were crystal, heroin, cocaine and speed, base and ecstasy pills (Table 24). The most common drug first injected was heroin (n=3). Respondents also reported first injecting ecstasy, speed, crystal, cocaine and ketamine (n=1 respectively).

Table 24: Injecting drug use history among RPU injectors, NSW 2012-2014

Drug variable	Ever injected (%)			Ever injected (n)		
	2012	2013	2014	2012	2013	2014
Crystal Meth	75	63	27	15	5	3
Heroin	60	63		12	2	
Cocaine	60	50	27	12	1	3
Speed	65	50	18	13	-	2
Base	45	50	9	9	-	1
Ecstasy pills	40	50	18	8	1	2
Ecstasy powder	15	-	9	3	-	1
MDMA crystal	N/A	N/A	9	N/A	N/A	1
Ecstasy caps	N/A	-	9	N/A	-	1
Methadone	15	-	9	3	-	1
Other opiates	25	13	18	5	-	2
LSD	-	13	9	-	-	1
Ketamine	30	25	9	6	-	1
MDA	5	-		1	-	
Buprenorphine	15	13		3	1	
Benzodiazepines (licit)	5	-	9	1	-	1
Benzodiazepines (illicit)	5	13	9	1	-	1
Pharmaceutical stimulants (illicit)	10	-		2	-	
Antidepressants (licit)	5	-	-	1	-	-
Steroids	-	-	36	-	-	4

Source: EDRS regular psychostimulant user interviews 2012-2014

7.1.2 Recent injectors

Patterns of recent injecting drug use

Participants who had injected a drug in the six months prior to the interview (n=5) reported having injected any drug a median of 4 times (range 1-180) over this period. Participants were asked about the last time they had injected a drug. Each participant had last injected a different drug: crystal methamphetamine, speed, heroin, other opiates and somatotrophic hormone. Most participants who had injected recently had done so in their own home (n=3); the remaining two reported injecting in a car or a public toilet.

Injecting risk behaviour

No respondents reported having used a needle after someone else in the past six months. One participant had used spoons/mixing containers, filters, water and swabs after someone else.

Context of injecting

Three participants reported usually injecting with close friends during the last six months. Two of the five recent injectors had injected while under the influence of ecstasy and other drugs over the past six months and none had injected while 'coming down' from ecstasy or related drugs.

Obtaining needles

Respondents were asked to identify where they had obtained needles from over the preceding six months. Needles were obtained from needle and syringe programs (NSP) (n=2), NSP vending machines (n=1), a chemist (n=1) or a friend (n=1).

7.1.3 Injecting drug use in other populations

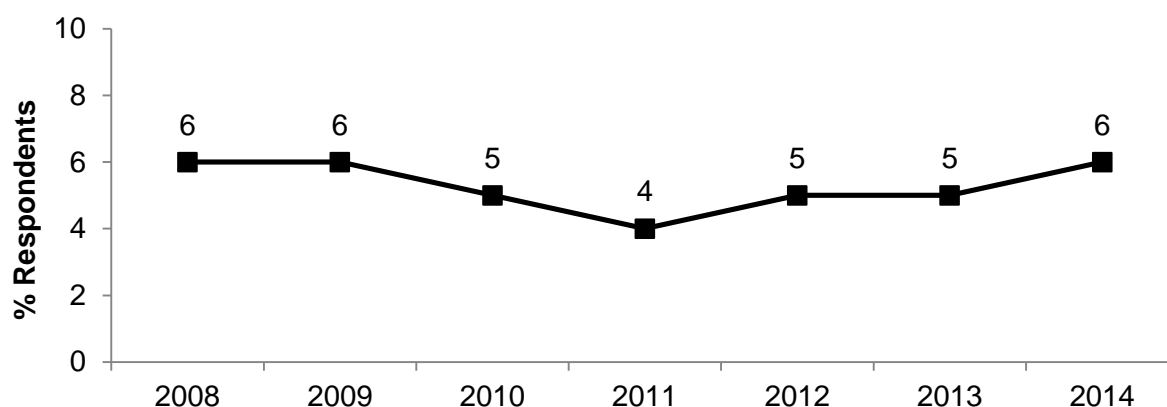
General population

The 2013 National Drug Strategy Household Survey report indicates that the proportion of the general population in NSW aged 14 years or over who had injected a drug in the past 12 months had significantly dropped to 0.3% in 2013 (versus 0.4% in 2010).

Sydney Gay Community Periodic Survey

Data collected from the Sydney Gay Community Periodic Survey showed that, across sampling years, less than one-in-ten had injected any drug in the six months prior to interview (Figure 90). In 2014, 6% of the sample had recently injected any drug. According to the authors, this was a significant increase from 2013 and represents a significant trend over time (Hull et al., 2014).

Figure 90: Proportion of gay men in Sydney reporting recent injecting drug use, 2008-2014

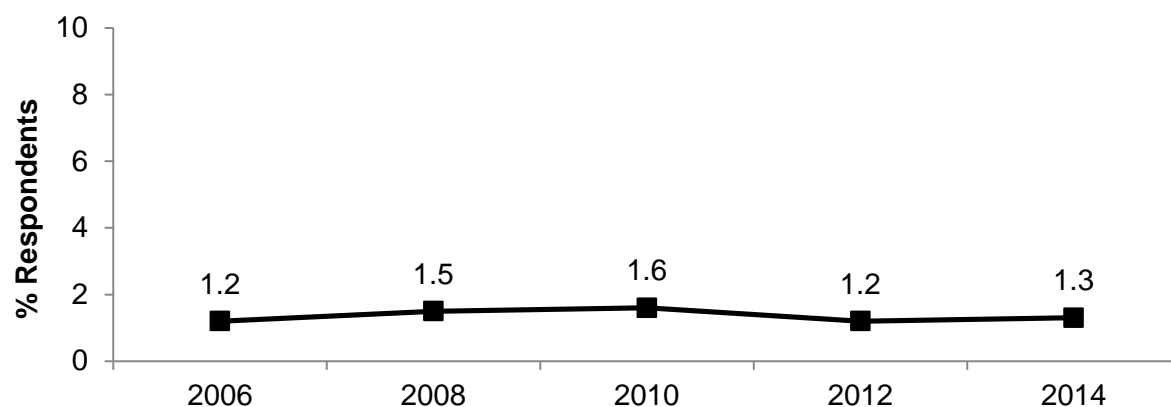


Source: Sydney Gay Community Periodic Survey 2008-2014

Sydney Women and Sexual Health Survey

Data collected from the Sydney Women and Sexual Health Survey showed that recent injecting drug use is relatively low and stable among this group, with 1.3% of the sample injecting any drug in the six months prior to interview (Figure 91) (Mooney-Somers, Deacon, Richters & Parkhill, 2015).

Figure 91: Proportion of LBQ women in Sydney reporting recent injecting drug use, 2006-2014



Source: Sydney Women and Sexual Health Survey 2006-2014

7.2 Sexual risk behaviour

Participants were asked questions about their recent sexual activity, particularly with regards to penetrative sex. This was defined as 'penetration by penis or fist of the vagina or anus'. Given the sensitive nature of these questions, participants were given the option of self-completing this section of the questionnaire.

Just over half (52%) of the sample reported having had penetrative sex with at least one casual partner (i.e. someone who was not a regular partner) over the preceding six months. Of the 52 participants who reported penetrative sex with a casual partner, 45 participants (87%) reported having done so while under the influence of alcohol or drugs (Table 25). The drugs most commonly used were alcohol, ecstasy, cannabis and cocaine.

Table 25: Trends in sexual activity with casual partners in the past six months among RPU, NSW 2011-2014

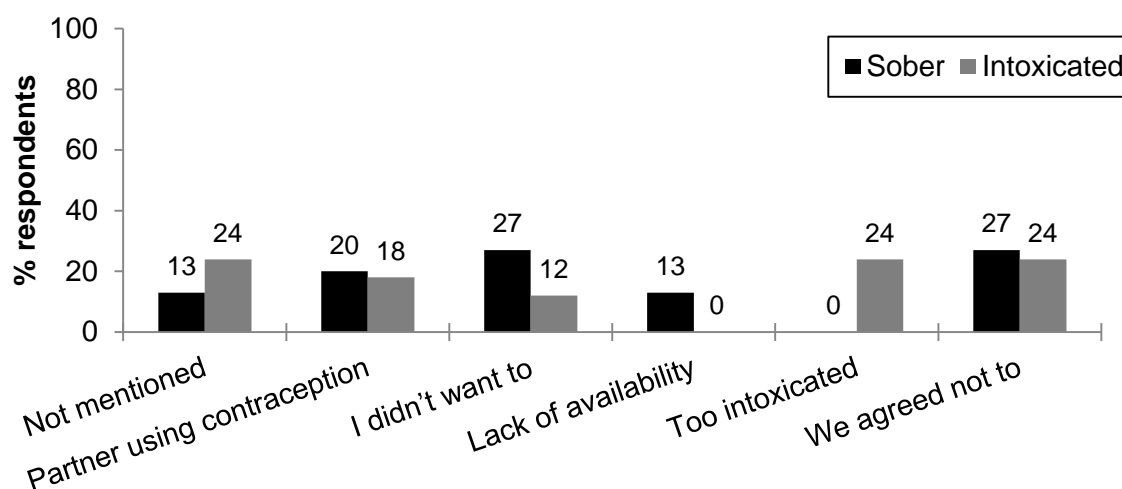
Variable	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Casual penetrative sex (%)	73	71	57	52
<i>No. of sexual partners (%):*</i>				
1 person	18	19	30	27
2 people	19	17	18	35
3-5 people	41	24	33	21
6-10 people	12	7	16	13
10+ people	8	4	4	4
Penetrative sex with casual partner while on drugs	n=64	n=65	n=46	n=45
<i>Drugs used (%):</i>				
Ecstasy	48	63	63	44
Alcohol	81	48	57	78
Cannabis	48	43	35	24
Cocaine	23	17	9	18
Crystal meth	14	9	-	7
LSD	9	3	11	-
Amyl nitrite	5	6	13	4
Ketamine	5	6	4	2
Speed	5	6	2	9
GHB	3	5	2	-
Base	2	-	-	2
Benzodiazepines	2	5	-	2
Pharmaceutical stimulants	-	5	-	2
Heroin	2	2	-	-

Source: EDRS regular psychostimulant user interviews 2011-2014

* Of those who had penetrative sex in the last 6 months

Participants were also asked whether they had used a protective sexual barrier the last time they had penetrative sex with a casual partner. The majority of the sample had done so when they were sober (62%) and while under the influence of drugs or alcohol (60%). The major reasons for not using protection were that the sexual partner was using contraception, participants did not want to or it was agreed not to (Figure 92).

Figure 92: Reasons for not using protective barriers among RPU, NSW 2014



Source: EDRS regular psychostimulant user interviews 2014

7.3 Problematic alcohol use among RPU

7.3.1 Alcohol Use Disorders Identification Test (AUDIT)

The Alcohol Use Disorders Identification Test (AUDIT) (Saunders et al., 1993) was designed by the World Health Organization as a brief screening scale to identify individuals with alcohol problems, including those in early stages. It is a 10-item scale, designed to assess three conceptual domains: alcohol intake; dependence; and adverse consequences (Reinert & Allen, 2002).

Total scores of 8 or more are recommended as indicators of hazardous and harmful alcohol use, as well as possible alcohol dependence (Babor et al., 1992). Higher scores indicate greater likelihood of hazardous and harmful drinking; higher scores may also reflect greater severity of alcohol problems and dependence, as well as a greater need for more intensive treatment (Babor et al., 1992).

The mean score on the AUDIT for the NSW 2014 sample was 11.6 (SD 6.4). The majority (69%) of RPU scored in the harmful range (i.e. total score of 8 or more). There was no significant difference between male and female mean scores (10.8 versus 11.9). The AUDIT guidelines (Babor et al., 2001) indicate four 'zones' into which total scores on the test can be divided. In the current sample (Table 26), under one-third (31%) scored in zone 1 (low risk drinking or abstinence), over two-fifths (42%) scored in zone 2 (alcohol in excess of low-risk guidelines), 14% scored in zone 3 (harmful or hazardous drinking) and the remaining 13% scored in zone 4 (possible alcohol dependence – may be referred for evaluation and possible treatment).

Table 26: AUDIT total scores and proportion of RPU scoring above recommended levels indicative of hazardous alcohol intake, NSW 2010-2014.

Variables	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
Mean AUDIT total score (SD)	14.35 (7.9)	14.33 (7.2)	13.3 (7.2)	10.6 (6.1)	11.6 (6.4)
Score 8 or above (%)	81	80	78	66	69
Zone 1	18	20	21	34	31
Zone 2	38	39	42	48	42
Zone 3	17	17	19	10	14
Zone 4	24	24	17	8	13

Source: EDRS regular psychostimulant user interviews 2010-2014

Note: Zone 1 refers to low risk drinking or abstinence; Zone 2 consists of alcohol use in excess of low-risk guidelines; Zone 3 may refer to harmful or hazardous drinking; and Zone 4 may be indicative of those warranting evaluation or treatment for alcohol dependence.

8 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH ERD USE

Summary:

- Eleven percent of RPU had reportedly been arrested over the past year.
- Over one-third of RPU had committed a crime within the past month; most commonly drug dealing and property crimes.
- The number of arrests for ecstasy, amphetamines and cocaine has increased in the last two years.

8.1 Reports of criminal activity among RPU

Over one-tenth (11%) of RPU interviewed in 2014 had reportedly been arrested over the preceding 12 months. There had been five arrests for use/possession of illicit substances, two for the use of alcohol and driving, and single participant arrests for use/possession of weapons, property crime, drunk and disorderly behaviour and the use of other drugs and driving.

Under one-third (29%) of participants had dealt drugs in the month leading up to the interview. Of these, the majority of respondents (n=17) had done so less than once a week. Over one-tenth (12%) of RPU had committed a property crime over the last month; again, mostly less than once per week (n=7). Four participants engaged in violent crime in the past month, three of which did so on less than a weekly basis and two participants reported engaging in fraud in the last month, less than weekly.

Table 27 presents data across time on both self-reported criminal activity and arrests among samples of RPU. In 2014, under two-fifths of participants reported having committed any crime in the month preceding the interview. Drug dealing has been the most commonly reported crime, consistently across time (with the exception of 2013), followed by property crime.

Table 27: Criminal activity reported by RPU, NSW 2008-2014

Variable	2008 (N=100)	2009 (N=99)	2010 (N=100)	2011 (N=100)	2012 (N=100)	2013 (N=100)	2014 (N=100)
<i>Any criminal activity in the last month</i>	24	36	35	44	33	27	37
Drug dealing	15	21	26	26	20	18	29
Property crime	11	18	18	26	18	22	12
Fraud	2	3	4	1	4	-	4
Violent crime	1	8	4	5	4	3	2
<i>Arrested last 12 months</i>	5	11	24	14	14	8	11

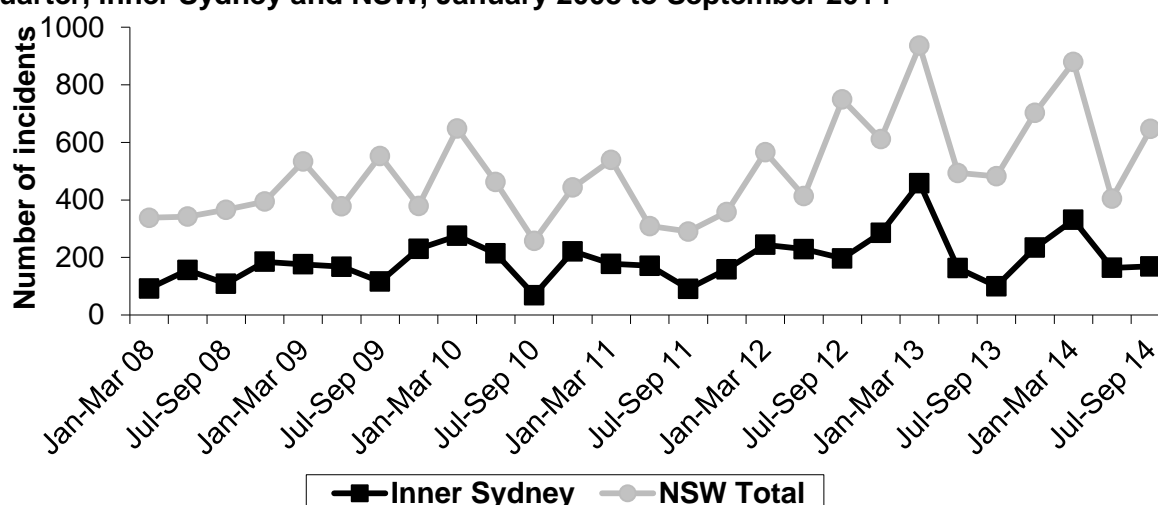
Source: EDRS regular psychostimulant user interviews 2008-2014

8.2 Arrests

8.2.1 Ecstasy

Figure 93 presents the number of police-recorded criminal incidents for ecstasy possession and use in inner Sydney and NSW. While number of incidents per month was highly variable, in the previous 12 months there appeared to be an increasing trend in the total number of NSW possession and use.

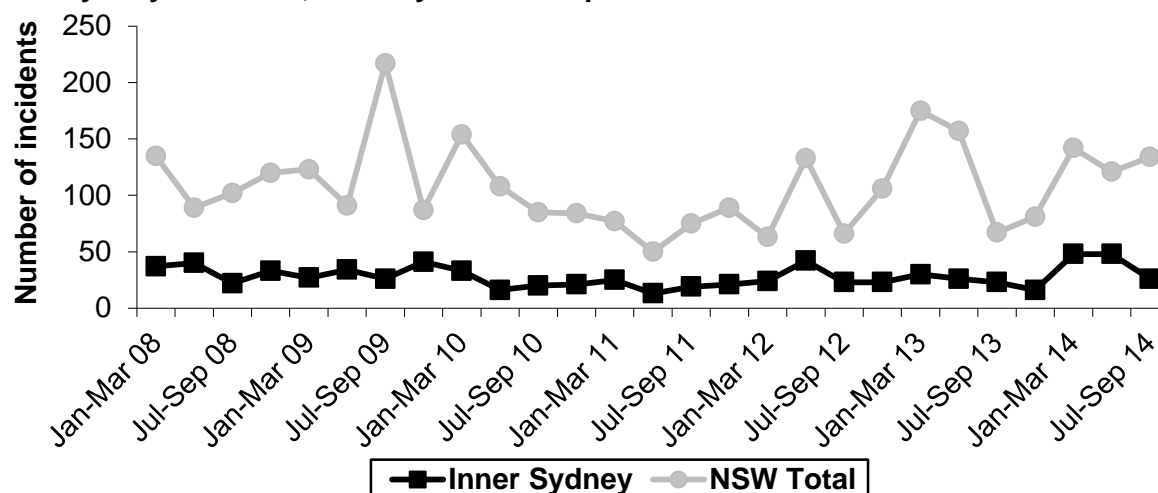
Figure 93: Number of police incidents recorded for ecstasy possession/use per quarter, inner Sydney and NSW, January 2008 to September 2014



Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

Figure 94 presents the number of police-recorded incidents for ecstasy dealing and trafficking for inner Sydney and NSW. The number of incidents involving dealing or trafficking of ecstasy has been fluctuating and no noticeable trends can be seen in the past seven years.

Figure 94: Number of police incidents recorded for ecstasy deal/traffic per quarter, inner Sydney and NSW, January 2008 to September 2014

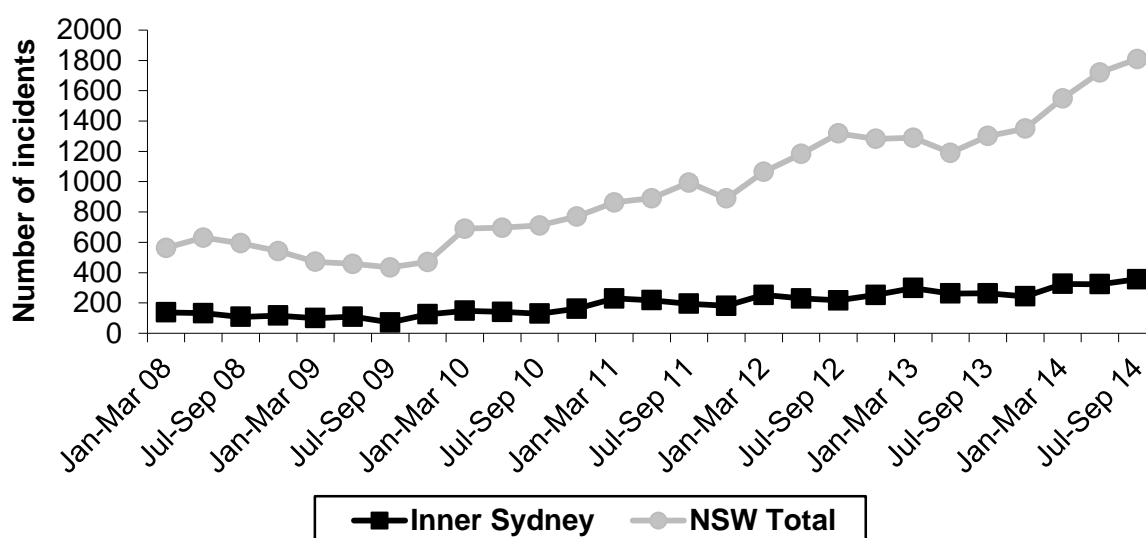


Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

8.2.2 Methamphetamine

Figure 95 shows the recorded incidents of amphetamine possession or use for inner Sydney and NSW. There appears to have been an increase in the number of arrests in NSW from late 2009 onward. Figures for the inner Sydney region also show a slight increasing trend over this time.

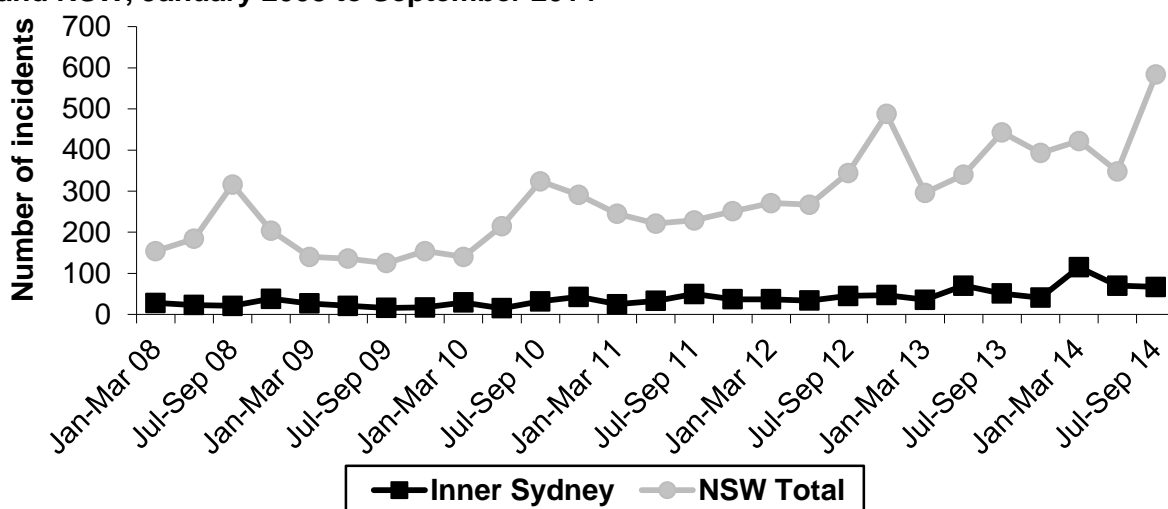
Figure 95: Recorded incidents of amphetamine possession/use per quarter, inner Sydney and NSW, January 2008 to September 2014



Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

Figure 96 shows the number of police-recorded criminal incidents for amphetamine dealing or trafficking in inner Sydney and NSW. After increasing from mid-2009 to late-2010, these figures began to fall slightly in 2011, but have increased in NSW in the last 12 months. In contrast, figures have remained relatively stable in the inner Sydney region over this time.

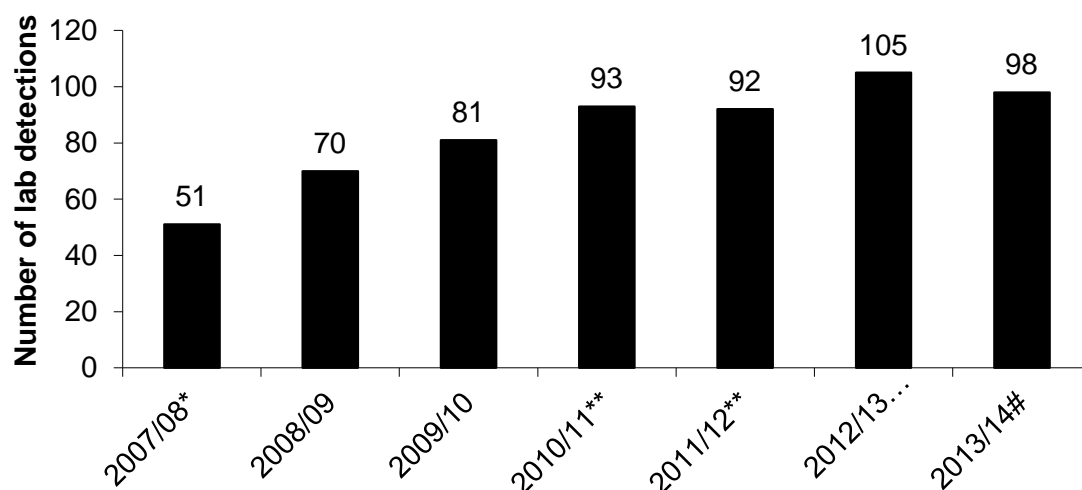
Figure 96: Recorded incidents of amphetamine deal/traffic per quarter, inner Sydney and NSW, January 2008 to September 2014



Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

The number of clandestine methamphetamine and MDMA laboratories detected in NSW has trended upwards from 2007/08 to 2013/14. In the 2013/14 financial year, there were 98 detections in NSW (Figure 97).

Figure 97: Number of clandestine methamphetamine and MDMA laboratories detected by NSW police 2006/07-2013/14



Source: NSW Police Force

Note: Data may include active, non-active and historical laboratories as well as storage sites.

* Includes 2 para-methoxyamphetamine (PMA) laboratories

**Includes 1 PMA laboratories

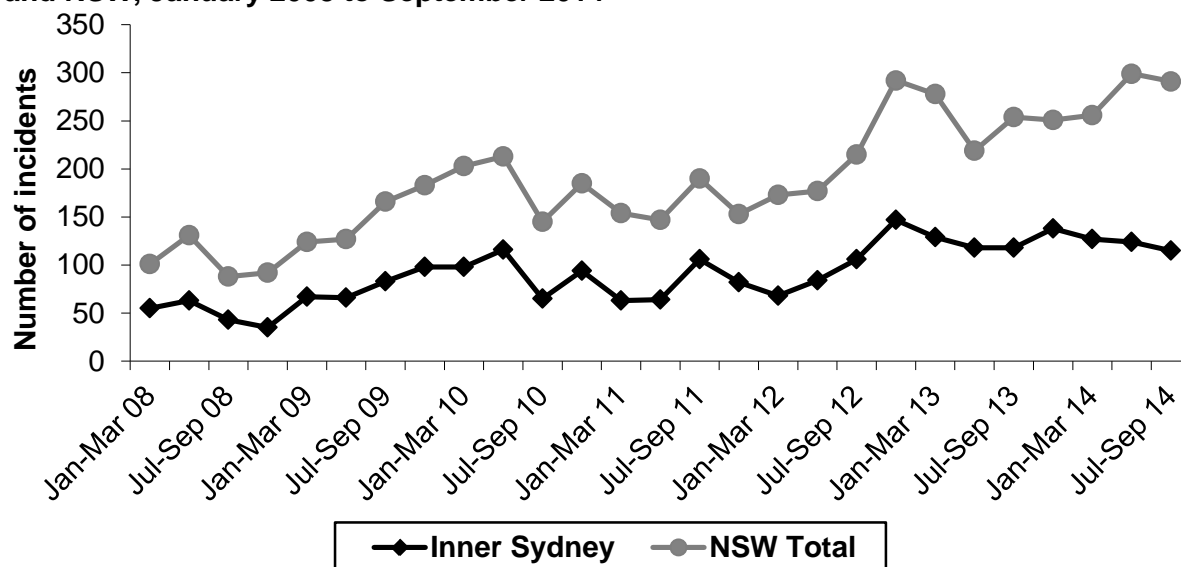
***Includes two 2-CB labs

Includes two synthetic cannabinoid labs

8.2.3 Cocaine

The number of police-recorded incidents for cocaine possession/use has been increasing since approximately mid-2007 (Figure 98). Incidents reported in inner Sydney represent approximately half of all incidents recorded in NSW, and have continued to do so over time.

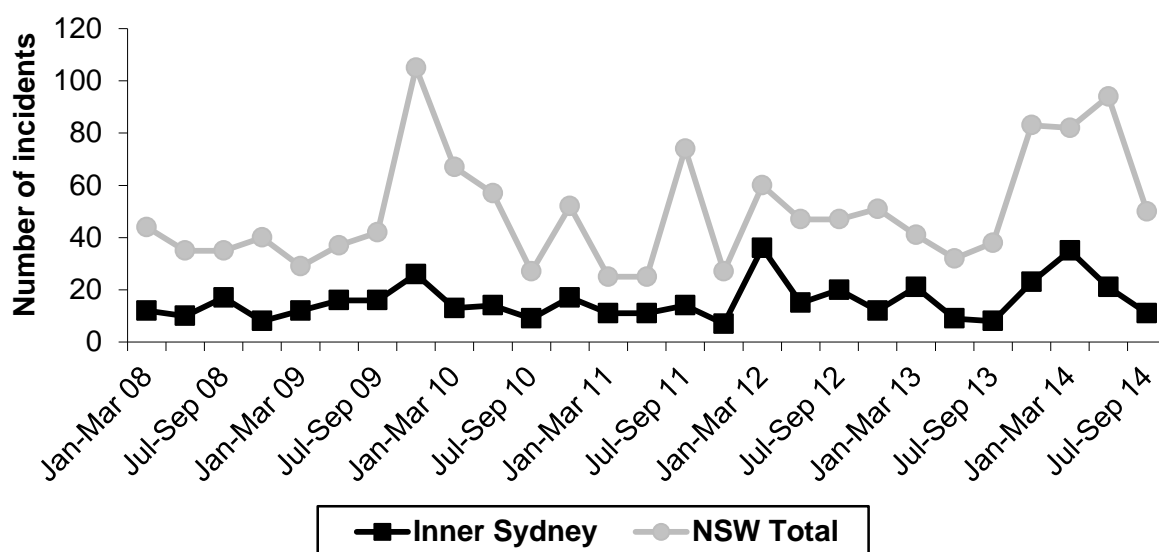
Figure 98: Recorded incidents of cocaine possession/use per quarter, inner Sydney and NSW, January 2008 to September 2014



Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

Figure 99 shows the number of police-recorded criminal incidents for cocaine dealing or trafficking in the inner Sydney region and NSW. There appeared to be a spike in the number of arrests made in NSW in late-2009; however, these figures returned to prior levels by mid-to late-2010 and continued to remain relatively stable into 2012. In late 2013 to mid 2014 there was a notable spike in the number of arrests in NSW.

Figure 99: Recorded incidents of cocaine deal/traffic per quarter, inner Sydney and NSW, January 2008 to September 2014



Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

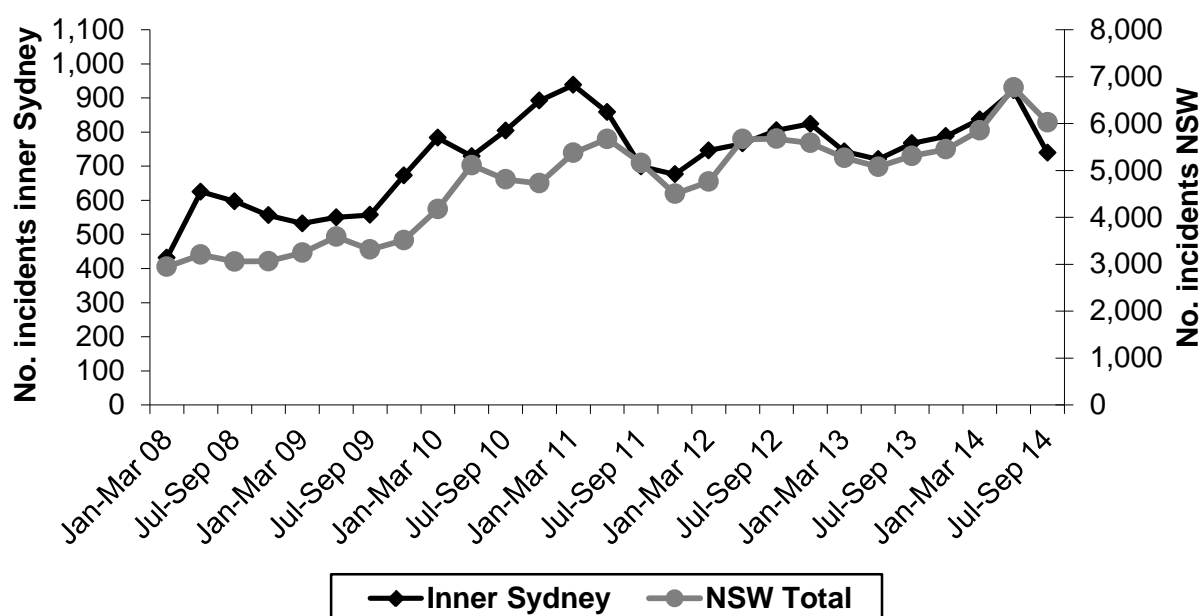
8.2.4 Ketamine

Although it is an offence in jurisdictions such as NSW to be in possession of ketamine for personal use or in amounts suggesting an individual is supplying others, ketamine is not separately recorded in police databases. Therefore, no data were available on the number of police apprehensions for possession or supply of this controlled substance.

8.2.5 Cannabis

Figure 100 shows the number of police-recorded incidents of cannabis possession/use per quarter in the inner Sydney region and NSW. The number of incidents reported in inner Sydney appeared to increase from mid-2007 to early-2011, reflecting a general increase noted across the same timeframe in NSW as a whole. However, both inner Sydney and state-wide figures appeared to decline mid-2011, which was followed by an increase in 2012. Between 2013 and mid-2014 there appears to be a slight increase in incidents.

Figure 100: Recorded incidents of cannabis possession/use per quarter, inner Sydney and NSW, January 2008 to September 2014



Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

8.2.6 2C-B

There were no NSW data available on the number of possession or supply offences of 2C-B or other NPS. However, it has been confirmed that four 2C-B labs have been detected in recent years (one in 2008/09, one in 2011/12 and two in 2012/13).

9 SPECIAL TOPICS OF INTEREST

Summary:

Use of dark web marketplaces

- Twelve percent of participants had purchased a drug online.
- Ecstasy was most commonly purchased substance, followed by LSD.

NPS health policy

- A large proportion of participants were unsure about the legal status of NPS.
- Ninety-eight percent reported that the criminalisation of NPS would not stop them from taking these substances in the future.

9.1 Use of dark web marketplaces

The rise of the Internet as an integral part of daily life has globalised retail marketing. This extends to web stores offering a range of substances that mimic the effects of traditional illicit substances such as ecstasy, amphetamines and cannabis (termed here new psychoactive substances, or NPS). This market is also highly dynamic, with websites closing or altering available stock as legislation changes (Bruno, Poesiat, & Matthews, 2013; Van Buskirk, Roxburgh, Farrell, & Burns, 2014).

In addition to the surface web, readily accessible by search engines such as Google, new marketplaces have emerged located on the 'dark web', that offer a range of illicit and pharmaceutical drugs for sale (Van Buskirk, Roxburgh, Bruno, & Burns, 2013). The 'dark web' refers to a collection of domains accessible only through an anonymised routed connection and specially configured browser. As such, these dark web marketplaces are not overt and are susceptible to closure due to changes in legislation (Barratt, 2012). The marketplaces on the 'dark web' have proliferated in the past three years, retailing not only NPS, but also traditional illicit substances including marijuana and pharmaceuticals such as benzodiazepines and prescription opioids (Van Buskirk et al., 2013). The Silk Road is one such marketplace operating on the 'dark web' that has received a large amount of attention from law enforcement, media and researchers. Until its closure on the 2nd of October 2013, the Silk Road marketplace served to greatly expand the availability of both illicit and NPS online.

On both the dark web and the surface web, there exist both 'webstores' and 'online marketplaces' from which to purchase substances. Webstores refer to websites that sell products or services and typically have an online shopping cart associated with it. Online marketplaces, however, refer to a type of online community where products are traded by

users of the website instead of being sold by the owner or moderator of the website. Products on online marketplaces are sold by retailers either based in Australia, or internationally. Prices from international retailers are typically lower but carry with them a greater risk of detection by law enforcement during importation (Van Buskirk et al., 2013).

While it is apparent that availability of illicit drugs and NPS has increased since the arrival of dark web marketplaces, it is not clear to what extent consumers utilise these marketplaces for the purchase of drugs. The aim of this model is therefore to ascertain how often EDRS participants utilise online marketplaces and webstores for the purchase of drugs, as well as what substances are commonly bought and the positives and negatives of using these marketplaces and stores over traditional street markets.

Participants were asked what proportion of their friends had ever purchased a drug online. Two-thirds (66%) responded that 'a few' of their friends had purchased online before, while 7% said that 'about half' had purchased online, with only one participant responding that 'most' of his/her friends had ever purchased substances online. Twelve percent of participants responded that they themselves had ever purchased online, most commonly from the Silk Road (50%), followed by internationally-based webstores (25%), other dark web marketplaces (17%) and surface web marketplaces (e.g. eBay or Gumtree; 17%). Among those purchasing from dark web marketplaces (n=7), 43% bought only from retailers based outside of Australia, 29% bought only from Australian retailers, and 29% bought from both.

Ten participants (10% of the total sample) had purchased a substance online in the past year, with an equal proportion (40%) purchasing 'once' in the last year and '3-5 times' in the last year, and an equal proportion (10%) purchasing 'twice' in the last year and 'more than 5 times' in the last year. Half of these participants (50%) purchased from the Silk Road, 30% from an international webstore, 20% from dark web marketplaces other than the Silk Road, and 20% from a surface web marketplace. Of those using dark web marketplaces (n=6), an equal number (n=2) bought from only Australian retailers as from only international retailers and from both international and Australian retailers.

Table 28 details the specific substances purchased by EDRS participants in the past year.

Table 28: Substances purchased online in the past year by NSW RPU, 2014

Illicit Drugs	NSW n=10	%	New Psychoactive Substances	NSW n=10	%
Ecstasy (any form)	4	40%	Mephedrone	-	-
Methamphetamine (any form)	-	-	Methylone/bk-MDMA	-	-
Pharmaceutical stimulants	1	10%	MDPV / Ivory Wave	-	-
Cocaine	-	-	MDAI	-	-
LSD (acid)	3	30%	5-IAI	-	-
Mushrooms	2	20%	Benzo Fury (6-APB)	-	-
MDA	-	-	BZP	-	-
Ketamine (special K)	-	-	PMA	-	-
GHB/GBL, 1, 4B (liquid E)	-	-	Methoxetamine (MXE)	-	-
Amyl nitrite (rush)			2C-x (2C-B, 2C-I, 2C-E)	-	-

Nitrous oxide			DMT	-	-
Cannabis	2	20%	5-MeO-DMT	-	-
Tobacco			LSA (Hawaiian Baby Woodrose)	1	10%
Opioids (e.g. heroin, opium)	-	-	DOI (Death on impact)	-	-
Pharmaceutical opioids (e.g. oxycodone, morphine)	-	-	Mescaline	-	-
Antidepressants	-	-	Salvia divinorum	-	-
Benzodiazepines	1	10%	Datura (Angel's trumpet)	-	-
(e.g. Valium / Serepax / Xanax)			DXM (cough syrup)	-	-
Steroids or PIEDs	-	-	NBOMe (25I, 25B, 25C)	-	-
Antipsychotics (e.g. Seroquel)	-	-	Synthetic Cannabinoids	-	-
			Other	1	10%

Source: EDRS interviews, 2014

All respondents (n=10) indicated that their online purchases were for 'themselves and others' with no participants indicating purchasing solely for themselves. Nine of the ten respondents indicated that their last ordered package arrived as expected, with the remaining participant indication that 'nothing arrived'. ng online.

Table 29 illustrates the motivating factors respondents gave for purchasing online, as well as nominated positives and negatives of purchasing online.

Table 29: Motivating factors, as well as positive and negatives for purchasing online, RPU 2014

	NSW (n=10)	%
Main motivation for purchasing online		
Drugs I wanted weren't available on the street	4	40
Drugs were cheaper online	2	20
Convenience	1	10
Drugs are better quality online	2	20
Other	1	10
Positives of purchasing online		
No positives	0	0
Accessed drugs I couldn't get on the street	7	70
Drugs were cheaper online	4	40
Avoided contact with dealers	3	30
Convenience	6	60
Drugs were better quality online	3	30
Less legal risk buying online	2	20
Other	0	0
Negatives of purchasing online		
No negatives	2	20
Difficult process	4	40
Slow process	2	20
More legal risk purchasing online	2	20
Poorer quality of drugs	0	0
More expensive	1	10
Packages didn't arrive	2	20
Other*	1	10

Source: EDRS interviews, 2014

Note: *Other response included 'having to provide credit card details'.

Six of the ten participants indicated that they would ‘definitely’ purchase online again in the future, with three of the remaining four indicating a likelihood of five or greater out of ten.

9.2 NPS health policy

In October 2013, the NSW Parliament passed the *Drugs and Poisons Legislation Amendment (New Psychoactive and Other Substances) Act 2013*. As a result of this Act, it has become illegal in NSW to possess any new psychoactive substance other than those manufactured by licenced or authorised individuals as covered by the *Therapeutic Goods Act 1966*.

As this change is quite recent, we are interested in finding out what people understand the law to be at the moment and whether a change in drug law has an effect on people’s usage of these substances.

The drugs we asked about in the 2014 survey were 2CB, 2CI, DMT and Mephedrone, all of which are illegal in NSW with varying legality in the other states. These substances were selected as they were the most commonly reported in the 2012 EDRS (Table 30).

Table 30: Participant knowledge of the legality of NPS in NSW, RPU 2014

	NSW (n=100)
2CB	
Legal	3
Illegal	56
Unsure	41
2CI	
Legal	-
Illegal	37
Unsure	63
DMT	
Legal	1
Illegal	73
Unsure	26
Mephedrone	
Legal	2
Illegal	42
Unsure	56

Source: EDRS interviews 2014

Participants were also asked if whether a change to the legality of all NPS in the future, making them all illegal, would impact on their use of those substances. Ninety-eight percent reported that making NPS illegal would not make them stop taking them and the remaining 2% reported that it would make them stop or not start using NPS.

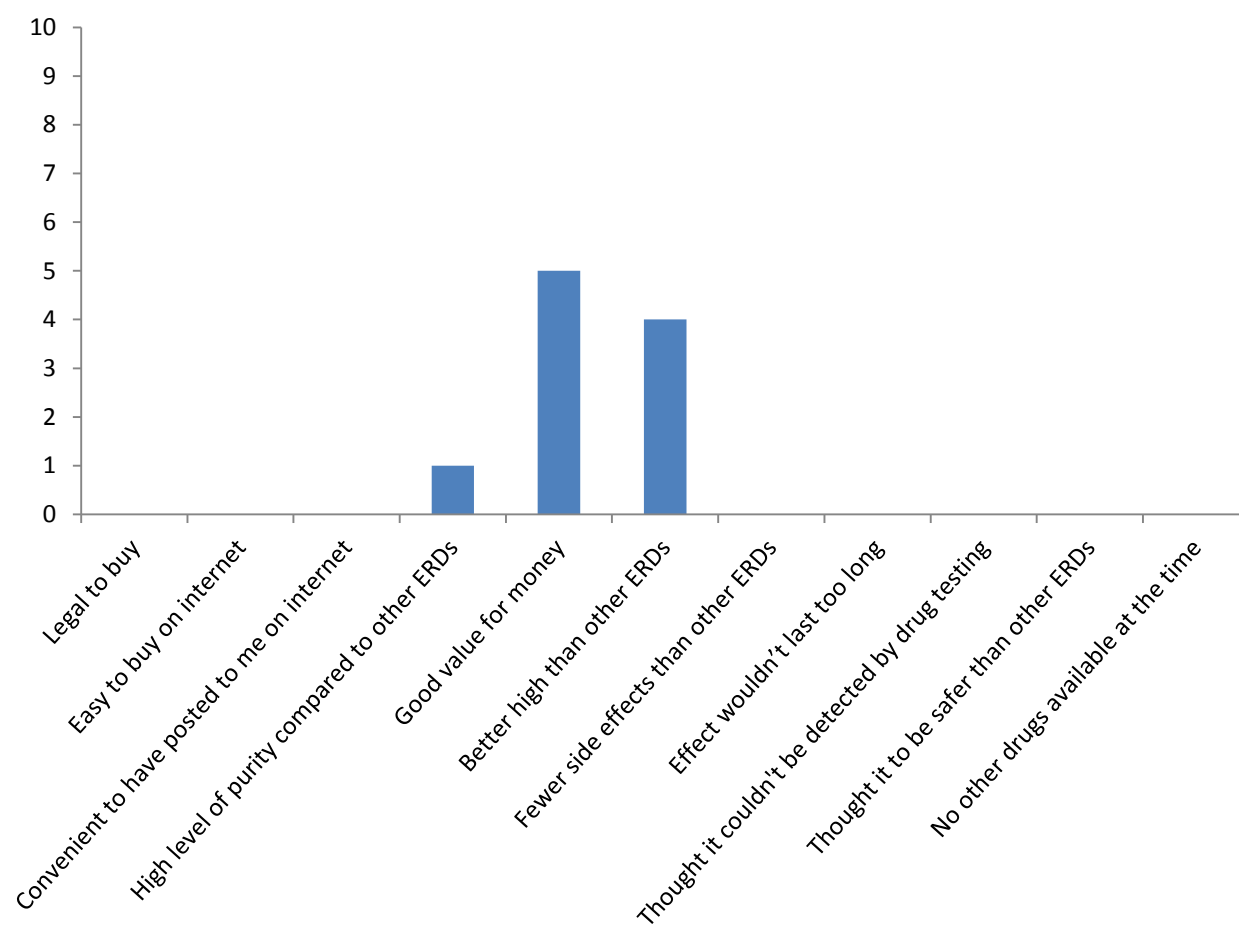
Table 31: Last NPS used, NSW 2014

	NSW (n=100)
Last NPS use	
Mephedrone	2
Methylone	2
PMA	1
2CX	23
DMT	11
LSA	1
Mescaline	1
Salvia	1
NBOMe	6
Synth. Cann.	10
Other	3
Days ago (Median; range)	2 (2-7)
Weeks ago (Median; range)	2 (1-4)
Months ago (Median; range)	6 (1-49)

Source: EDRS interviews, 2014

For those that had ever used an NPS, they were asked to rate (from 0-10, whereby 0 is no influence and 10 is maximum influence) how motivating the following factors were in using their last NPS. Median ratings were reported below (Figure 101). Of the 11 factors, only three factors were rated as having a median greater than zero, NPS was considered to have a 'high level of purity compared to other ecstasy or related drugs', it was 'good value for money' or it had a 'better high than other ecstasy or related drugs'.

Figure 101: National median ratings of motivating factors for using NPS, 2014



Source: EDRS interviews, 2014

10 REFERENCES

- Agrawal, A., Budney, A. J., Lynskey, M. T. (2012). The co-occurring use and misuse of cannabis and tobacco: A Review. *Addiction*, 107, 1221-1233.
- Australian Bureau of Criminal Intelligence (2001). *Australian Illicit Drug Report 1999-2000*. Canberra: Australian Bureau of Criminal Intelligence.
- Australian Bureau of Statistics (2007). *National Survey of Mental Health and Wellbeing: Summary of Results*. Canberra: Australian Bureau of Statistics.
- Australian Bureau of Statistics (2010). *National Health Survey: Summary of Results, 2007-2008*. Canberra: Australian Bureau of Statistics.
- Australian Crime Commission (2003). *Illicit Drug Data Report 2001-02*. Canberra: Australian Crime Commission.
- Australian Crime Commission (2007). *Illicit Drug Data Report 2005-06*. Canberra: Australian Crime Commission.
- Australian Crime Commission (2008). *Illicit Drug Data Report 2006-07*. Canberra: Australian Crime Commission.
- Australian Crime Commission (2009). *Illicit Drug Data Report 2007-08*. Canberra: Australian Crime Commission.
- Australian Crime Commission (2010). *Illicit Drug Data Report 2008-09*. Canberra: Australian Crime Commission.
- Australian Crime Commission (2011). *Illicit Drug Data Report 2009-10*. Canberra: Australian Crime Commission.
- Australian Crime Commission (2012). *Illicit Drug Data Report 2010-11*. Canberra: Australian Crime Commission.
- Australian Crime Commission (2013). *Illicit Drug Data Report 2011-12*. Canberra: Australian Crime Commission.
- Australian Crime Commission (2014). *Illicit Drug Data Report 2012-13*. Canberra: Australian Crime Commission.
- Australian Institute of Health and Welfare (2005a). *2004 National Drug Strategy Household Survey: State and Territory Supplement*. Canberra: Australian Institute of Health and Welfare.
- Australian Institute of Health and Welfare (2005b). *National Drug Strategy Household Survey 2004: Detailed Findings*. Canberra: Australian Institute of Health and Welfare.
- Australian Institute of Health and Welfare (2008a). *2007 National Drug Strategy Household Survey: First results*. Canberra: Australian Institute of Health and Welfare.
- Australian Institute of Health and Welfare (2008b). *2007 National Drug Strategy Household Survey: State and Territory Supplement*. Canberra: Australian Institute of Health and Welfare.
- Australian Institute of Health and Welfare (2011). *2010 National Drug Strategy Household Survey Report*. Canberra: Australian Institute of Health and Welfare.
- Australian Institute of Health and Welfare (2014). *2013 National Drug Strategy Household Survey Detailed Report*. Canberra: Australian Institute of Health and Welfare.
- Babor, T., de la Fuente, J., Saunders, J., & Grant, M. (1992). *The Alcohol Use Disorders Identification Test: Guidelines for use in Primary Health Care*. Geneva: World Health Organization.
- Babor, T., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). *AUDIT: The Alcohol Use Disorders Identification Test - Guidelines for Use in Primary Care* (Second ed.). Geneva: World Health Organisation, Department of Mental Health and Substance Dependence.
- Barratt, M. J. (2012). Silk Road: eBay for drugs. *Addiction*, 107(3), 683. doi: 10.1111/j.1360-0443.2011.03709.x
- Biernacki, P., & Waldorf, D. (1981). Snowball sampling: Problems, techniques and chain referral sampling. *Sociological Methods for Research*, 10(2), 141-163.
- Boys, A., Lenton, S., & Norcoss, K. (1997). Polydrug use at raves by a Western Australian sample. *Drug and Alcohol Review*, 16(3), 227-234.

- Bruno, R., Poesiat, R., & Matthews, A. J. (2013). Internet monitoring for EPS. *Drug and Alcohol Review*, 32(5), 541-544.
- Bruno, R., Gomez, R., & Matthews, A. (2011). Choosing a cut-off on the Severity of Dependence Scale for Ecstasy use. *The Open Addiction Journal*, 4, 13-14.
- Bruno, R., Matthews, A., Topp, L., Degenhardt, L., Gomez, R., & Dunn, M. (2009). Can the Severity of Dependence Scale be usefully applied to 'Ecstasy'? *Neuropsychobiology*, 60(3-4), 137-147.
- Chesher, G. B. (1993). Pharmacology of the sympathomimetic psychostimulants. In D. Burrows, B. Flaherty & M. MacAvoy (Eds.), *Illicit Psychostimulant Use in Australia* (pp. 9-30). Canberra: Australian Government Publishing Service.
- Chin, M., Kreutzer, R., & Dyer, J. (1992). Acute poisoning from gamma-hydroxybutyrate overdose. *Annals of Emergency Medicine*, 31(6), 716-722.
- Dalgarno, P. J., & Shewan, D. (1996). Illicit use of ketamine in Scotland. *Journal of Psychoactive Drugs*, 28(2), 191-199.
- Darke, S., Cohen, J., Ross, J., Hando, J., & Hall, W. (1994). Transitions between routes of administration of regular amphetamine users. *Addiction*, 89(12), 1683-1690.
- Dawe, S., Loxton, N. J., Hides, L., Kavanagh, D. J., & Mattick, R. P. (2002). *Review of diagnostic screening instruments for alcohol and other drug use and other psychiatric disorders* (Second ed.). Canberra: Commonwealth Department of Health and Ageing.
- Forsyth, A. J. M. (1996). Places and patterns of drug use in the Scottish dance scene. *Addiction*, 91(4), 511-521.
- Hando, J., Flaherty, B., & Rutter, S. (1997). An Australian profile on the use of cocaine. *Addiction*, 92(2), 173-182.
- Hando, J., & Hall, W. (1993). *Amphetamine use among young adults in Sydney, Australia* (Research Grant Report No. B93/2; NSW Drug & Alcohol Directorate). Sydney: NSW Health Department.
- Hando, J., O'Brien, S., Darke, S., Maher, L., & Hall, W. (1997). *The Illicit Drug Reporting System Trial: Final Report. Monograph Number 31*. Sydney: National Drug and Alcohol Research Centre, University of New South Wales.
- Hull, P., Mao, L., Kao, S.-C., Edwards, B., Prestage, G., Zablotska, I., de Wit, J., & Holt, M. (2012). *Gay Community Periodic Survey: Sydney, February 2012*. Sydney: National Centre in HIV Social Research, The University of New South Wales. Available at <http://nchsr.arts.unsw.edu.au/publications/>
- Hull, P., Mao, L., Kao, S.-C., Edwards, B., Prestage, G., Zablotska, I., de Wit, J., & Holt, M. (2013). *Gay Community Periodic Survey: Sydney 2013*. Sydney: National Centre in HIV Social Research, The University of New South Wales. Available at <http://nchsr.arts.unsw.edu.au/publications/>
- Hull, P., Mao, L., Kolstee, J., Duck, T., Prestage, G., Zablotska, I., de Wit, J., & Holt, M. (2014). *Gay Community Periodic Survey: Sydney 2014*. Sydney: Centre for Social Research in Health, The University of New South Wales. Available at https://csrh.arts.unsw.edu.au/media/CSRHFile/GCPS_Sydney_2014_report.pdf
- Hunter, A., Long, W., & Ryrie, C. (1971). An evaluation of gamma hydroxybutyric acid in paediatric practice. *British Journal of Anaesthesia*, 43, 620-627.
- Ingels, M., Rangan, C., Bellezo, J., & Clark, R. (2000). Coma and respiratory depression following the ingestion of GHB and its precursors: Three cases. *Journal of Emergency Medicine*, 19(1), 47-50.
- Kam, P., & Yoong, F. (1998). Gamma-hydroxybutyric acid: An emerging recreational drug. *Anaesthesia*, 53, 1195-1198.
- Kaye, S., & Darke, S. (2002). Determining a diagnostic cut-off on the Severity of Dependence Scale (SDS) for cocaine dependence. *Addiction*, 97, 727-731.
- Kerlinger, F. N. (1986). *Foundations of Behavioral Research* (Third ed.). Japan: CBS Publishing Limited.
- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S.-L. T., Walters, E. E., & Zaslavsky, A. M. (2002). Short screening scales to monitor

- population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32(6), 959-976.
- Laborit, H. (1964). Sodium 4 hydroxybutyrate. *International Journal of Neuropsychopharmacology*, 43, 433-452.
- Lee, E., Holt, M., Mao, L., Zablotska, I., Prestage, G., Wong, S., Lake, R., Honnor, G., & de Wit, J. (2010). *Gay Community Periodic Survey, Sydney February 2010*. Sydney: National Center in HIV Social Research, National Center in HIV Epidemiology and Clinical Research, ACON (Aids Council of NSW), University of New South Wales.
- Mack, R. (1993). Love potion number 8 1/2. *North Carolina Medical Journal*, 54(5), 232-233.
- Macquarie Dictionary. *Psychedelic* (n.d.). Retrieved 9 January 2011 from: <http://www.macquariedictionary.com.au/149.171.0.0.16@929FF976057802/-/p/dict/5ed.html>
- Mamelak, M. (1989). Gammahydroxybutyrate: An endogenous regulator of energy metabolism. *Neuroscience and Biobehavior Review*, 13(4), 187-198.
- McKetin, R., McLaren, J., & Kelly, E. (2005). The Sydney methamphetamine market: Patterns of supply, use, personal harms and social consequences. *NDLRF Monograph No. 13*. Sydney: National Drug and Alcohol Research Centre, University of New South Wales.
- Merriam-Websters Medical Dictionary. *Phenylethylamine*. Retrieved 9 January 2011 from: <http://dictionary.reference.com/browse/Phenylethylamine?s=t>
- Merriam-Websters Medical Dictionary. *Tryptamine*. Retrieved 9 January 2011 from: <http://dictionary.reference.com/browse/Tryptamine>
- Mooney-Somers, J., Deacon, RM, Richters, J, Parkhill, N (2015) *Women in contact with the gay and lesbian community in Sydney: Report of the Sydney Women and Sexual Health (SWASH) Survey 2006, 2008, 2010, 2012, 2014*. Sydney: ACON & VELiM, University of Sydney.
- Mooney-Somers, J., Deacon, RM, Comfort, J, Richters, J, Parkhill, N (2013). *Women in contact with the gay and lesbian community in Sydney: Report of the Sydney Women and Sexual Health (SWASH) Survey 2006, 2008, 2010 and 2012*. Sydney: ACON & VELiM, University of Sydney.
- Nasirzadeh, M., Eslami, A. A., Sharifirad, G., & Hasanzadeh, A. (2013). The mental health and substance abuse among youths aged 18 to 29: A comparative study. *Journal of Education and Health Promotion*, 2, 34.
- National Drug and Alcohol Research Centre (2008). *Fact Sheet-Cannabis*. Retrieved 8 January 2009 from: <http://ndarc.med.unsw.edu.au/NDARCWeb.nsf/page/Fact%20Sheets>
- Nicholson, K., & Balster, R. (2001). GHB: A new and novel drug of abuse. *Drug and Alcohol Dependence*, 63(1), 1-22.
- Ovendon, C., & Loxley, W. (1996). Bingeing on psychostimulants in Australia: Do we know what it means (and does it matter)? *Addiction Research*, 4(1), 33-43.
- PASW (2009). *PASW Statistics 18 (Version 18)*. Chicago: PASW Inc.
- Peters, A., Davies, T., & Richardson, A. (1997). Increasing popularity of injection as the route of administration of amphetamine in Edinburgh. *Drug and Alcohol Dependence*, 48, 227-237.
- Reinert, D. F., & Allen, J. P. (2002). The Alcohol Use Disorders Identification Test (AUDIT): A review of the recent research. *Alcoholism: Clinical & Experimental Research*, 26(2), 272-279.
- Roxburgh, A. and Burns, L. (in press) Drug-related hospital stays in Australia, 1993 – 2012.
- Roxburgh, A., and Burns, L (2013). Cocaine and methamphetamine related drug-induced deaths in Australia, 2009. Sydney: National Drug and Alcohol Research Centre.
- Saunders, J. B., Aasland, O. G., Babor, T. F., de la Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption. *Addiction*, 88(6), 791-804.

- Seiden, L. S., Sobol, K. E., & Ricaurte, G. A. (1993). Amphetamine: Effects on catecholamine systems and behaviour. *Annual Review Pharmacology and Toxicology*, 33, 639-674.
- Siegel, S., & Castellan, N. J. (1988). *Nonparametric Statistics for the Behavioural Sciences* (Second ed.). Singapore: McGraw-Hill.
- Sindicich, N. & Burns, L. (2015). Australian Trends in Ecstasy and related Drug Markets 2014. Findings from the Ecstasy and Related Drugs Reporting System (EDRS). *Australian Drug Trends Series No. 136*. Sydney, National Drug and Alcohol Research Centre, UNSW Australia.
- Solowij, N., Hall, W., & Lee, N. (1992). Recreational MDMA use in Sydney: A profile of 'Ecstasy' users and their experiences with the drug. *British Journal of Addiction*, 87(8), 1161-1172.
- Tandberg, D. *Improved confidence intervals for the difference between two proportions and the number needed to treat (NNT) Version 1.49*. Retrieved from: <http://www.cebm.net/index.aspx?o=1023>
- Topp, L., Breen, C., Kaye, S., & Darke, S. (2004). Adapting the Illicit Drug Reporting System (IDRS) methodology to examine the feasibility of monitoring trends in party drug markets. *Drug and Alcohol Dependence*, 73(2), 189-197.
- Topp, L., & Churchill, A. (2002). Australia's dynamic methamphetamine market. *Drug Trends Bulletin*, June.
- Topp, L., & Darke, S. (2001). NSW Party Drug Trends 2000: Findings of the Illicit Drug Reporting System Party Drugs Module, *NDARC Technical Report Number No. 113*, Sydney: National Drug and Alcohol Research Centre, University of New South Wales.
- Topp, L., Hando, J., Degenhardt, L., Dillon, P., Roche, A., & Solowij, N. (1998). Ecstasy Use in Australia, *NDARC Monograph No. 39*, Sydney: National Drug and Alcohol Research Centre, University of New South Wales.
- Topp, L., Hando, J., Dillon, P., Roche, A., & Solowij, N. (2000). Ecstasy use in Australia: Patterns of use and associated harms. *Drug and Alcohol Dependence*, 55, 105-115.
- Topp, L., & Mattick, R. (1997). Choosing a cut-off on the Severity of Dependence Scale (SDS) for amphetamine users. *Addiction*, 92(7), 839-845.
- Vickers, M. (1968). Gammahydroxybutyric acid. *Proceedings of the Royal Society of Medicine*, 61, 821-823.
- Wu, L., Ringwalt, C. L., Weiss, R. D., & Blazer, D. G. (2009). Hallucinogen-related disorders in a national sample of adolescents: The influence of ecstasy/MDMA use. *Drug Alcohol Dependence*, 104, 156-166.
- Van Buskirk, J., Roxburgh, A., Bruno, R., & Burns, L. (2013). *Drugs and the Internet (Vol. 1)*. Sydney: National Drug and Alcohol Research Centre.
- Van Buskirk, J., Roxburgh, A., Farrell, M., & Burns, L. (2014). The closure of the Silk Road: what has this meant for online drug trading? *Addiction*, 109(4), 517-518. doi: 10.1111/add.12422.