

Victoria

C. Aitken, B. Lloyd and P. Dietze

VICTORIAN DRUG TRENDS 2016
Findings from the
Illicit Drug Reporting System (IDRS)

Australian Drug Trends Series No. 166

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Findings from the Illicit Drug Reporting System (IDRS)

Campbell Aitken, Belinda Lloyd and Paul Dietze

Burnet Institute

Australian Drug Trends Series No. 166

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Abbreviations and acronyms

ABS	Australian Bureau of Statistics
ACBPS	Australian Customs and Border Protection Service
ACC	Australian Crime Commission
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AGDH	Australian Government Department of Health
AGDHA	Australian Government Department of Health and Ageing
AIHW	Australian Institute of Health and Welfare
AIVL	Australian Injecting and Illicit Drug Users' League
ANSPS	Australian Needle and Syringe Program Survey
AOD	Alcohol and other drugs
ATS	Amphetamine-type stimulants
AUDIT-C	Alcohol Use Disorders Identification Test–Consumption
AV	Ambulance Victoria
BBVI	Blood-borne viral infection
CAPi	Computer Assisted Personal Interviewing
CPH	Centre for Population Health
CPR	cardiopulmonary resuscitation
DPMP	Drug Policy Modelling Project
ED	Emergency department
EDRS	Ecstasy and related Drugs Reporting System
GHB	Gamma-hydroxybutyrate
GP	General Practitioner
HRPS	Harm Reduction and Pharmacotherapy Services
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
IDRS	Illicit Drug Reporting System
IDU	Injecting drug use
IRID	Injection-related injury and disease
KE	Key expert(s)
K10	Kessler Psychological Distress Scale
LE	Law enforcement
LSD	Lysergic acid diethylamide
MDMA	3,4-methylenedioxymethamphetamine
MSM ¹	¹ Male to male sexual activity
MSM ²	² Methylsulfonylmethane
MVA	Motor vehicle accident
NCIS	National Coroner's Information Service
NDARC	National Drug and Alcohol Research Centre

NDSHS	National Drug Strategy Household Survey
NFOD	Non-fatal overdose
NHMD	National Hospital Morbidity Database
NHS	National Health Survey
NOPSAD	National Opioid Pharmacotherapy Statistics Annual Data
NPS	New psychoactive substances
NRCH	North Richmond Community Health
NSP	Needle and Syringe Program(s)
OST	Opioid substitution treatment
OTC	Over the counter
PBS	Pharmaceutical Benefits Scheme
PCR ¹	¹ Patient care record
PCR ²	² Polymerase chain reaction
PDI	Party Drugs Initiative
PPA	Price, and purity and availability
PTSD	Post-traumatic stress disorder
PWID	People who inject drugs
QDS™	Questionnaire Development System
ROA	Route of administration
RPU	Regular psychostimulant user
SD	Standard deviation
SDS	Severity of Dependence Scale
SEADS	South East Alcohol and Drug Services
SF-12	Short Form 12 Health Survey
SHARPS	Southern Hepatitis/HIV/AIDS Resource and Prevention Service
STI	Sexually transmitted infection
TGA	Therapeutic Goods Administration
THN	Take-home naloxone
UNSW	University of New South Wales
VACIS	Victorian Ambulance Clinical Information System
VDH	Victorian Department of Health
VDHHS	Victorian Department of Health and Human Services
VIFM	Victorian Institute of Forensic Medicine

Glossary of Terms

Cap	Small amount of heroin, typically enough for one injection.
Homebake	Illicit preparation of heroin from pharmaceutical preparations containing codeine or morphine.
Illicit/non-prescribed pharmaceuticals	Pharmaceutical drugs (e.g. antidepressants, antipsychotics, benzodiazepines, morphine, oxycodone, methadone, buprenorphine) obtained from a prescription in someone else's name, or through buying them from a dealer or obtaining them from a friend or partner etc. This definition does not take into account the inappropriate use of prescribed pharmaceuticals such as the injection of buprenorphine or morphine.
Licit/prescribed pharmaceuticals	Pharmaceutical drugs obtained by a prescription in the user's name. This definition does not take into account 'doctor shopping' practices; however, it differentiates between prescriptions for self as opposed to pharmaceutical drugs purchased through a dealer or prescribed to a friend or partner etc.
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—injecting, smoking, snorting or swallowing.
Point	0.1 gram of drug (usually heroin, speed or ice), although may also be used as a term referring to an amount for one injection (similar to 'cap'; see above).
Recent injection	Injection (typically intravenous) during the six months preceding interview.
Recent use	Use during the six months preceding interview via one or more of the following routes of administration—injecting, smoking, snorting or swallowing.
Session	A single continuous period of drug use.
Use	Use via one or more of the following routes of administration—injecting, smoking (inhalation), snorting (insufflation) or swallowing (oral ingestion).

Guide to days of use/injection

180 days	Daily use/injection* during the preceding six months
90 days	Use/injection* every second day during the preceding six months
24 days	Weekly use/injection* during the preceding six months
12 days	Fortnightly use/injection* during the preceding six months
6 days	Monthly use/injection* during the preceding six months

*As appropriate

Executive Summary

Background

In 1998, the Australian Government Department of Health and (AGDHA) commissioned the National Drug and Alcohol Research Centre (NDARC) to implement a national Illicit Drug Reporting System (IDRS) to monitor emerging trends related to the use of heroin, methamphetamine, cocaine and cannabis in the Australian community. The IDRS study provides nationally comparable data with respect to patterns of injecting drug use (IDU) and related harms and informs future policy and research initiatives.

The majority of available data related to patterns of illicit drug use and associated morbidity and mortality are *lag indicators*, meaning the most recent data available may be up to 12 months old and therefore insufficient for strategic early warning purposes on their own. The IDRS serves as a strategic early warning mechanism because it supplements available secondary indicator data sources with *lead indicators*, such as direct surveys with groups of people who inject drugs (PWID) and key experts (KE) from each capital city in Australia. Findings from successive IDRS studies conducted in metropolitan Melbourne have informed health, law enforcement (LE) and community sector responses to illicit drugs in Victoria since 1997. Some recent examples of use of the IDRS methodology and/or Victorian data are:

- Policy development and review activities and inquiries conducted by the Victorian Government (Law Reform Drugs and Crime Prevention Committee, 2014);
- The annual *Victorian Drug Statistics Handbook* (Victorian Department of Health, 2013c);
- Research into the self-reported wellbeing of PWID (Dietze et al., 2010);
- Research examining the use of alprazolam among PWID in Melbourne (Horyniak, Reddel, Quinn, & Dietze, 2012);
- Research into the relationship between age and risky injecting behaviours and age-related differences in patterns of criminal involvement among successive national samples (Horyniak et al., 2014; Horyniak et al., 2013);
- Research exploring the prevalence and correlates of quetiapine use (Reddel et al., 2014);
- Research to better understand dental care access and the oral health-related quality of life among PWID (Truong et al., in press);
- Research that builds on previous work examining health and social differences between homeless and stably housed people who use drugs (Whittaker et al., in press);
- An evaluation of measures of needle and syringe program coverage (McCormack et al., in press) and
- Research examining Victorian trends in methamphetamine use (Lim, Cogger, Quinn, Hellard, & Dietze, 2015).

Victorian IDRS data have also been disseminated widely at conferences and community forums, as well as through posters, quarterly bulletins, magazine articles and peer-reviewed publications.

Summary of 2016 Victorian IDRS methodology

The Centre for Population Health (CPH) at the Burnet Institute conducted the Victorian arm of the 2016 IDRS study between June and November 2016. The project consisted of:

1. A structured survey of 150 PWID recruited from six sites across metropolitan Melbourne;

2. Semi-structured interviews with 16 KE from various professional settings, selected according to their knowledge about illicit drug use and level of contact with PWID during the six months preceding the survey; and
3. Analyses of Victorian and national secondary indicator data related to illicit drug use.

Data collected via these three methods were analysed in order to identify illicit drug-related trends in Melbourne for the 2015/16 financial year. Where appropriate, these data were also compared to IDRS findings from 2000 to 2015.

Demographics of the sample

The 2016 Victorian IDRS sample consisted of 150 PWID. Participants' demographic characteristics were largely unchanged from previous surveys. Ten per cent identified as Indigenous. At the time of interview, 90% were unemployed and 91% received a government pension, allowance or benefit, with a mean weekly income of \$443 reported. The percentage of participants in drug treatment at the time of interview decreased substantially to 45% (from 60% in 2014), and 58% (up from 50% in 2015) reported a prison history.

Consumption patterns

Current patterns of use

In 2016, the mean age at which participants first injected was 19 years; a smaller percentage reported first injecting methamphetamine (41%) than heroin (53%). As in previous years, heroin was the most common drug of choice (68%), drug injected most in the past month (66%) and last drug injected (60%). Forty-seven per cent reported injecting at least once per day.

Heroin

Patterns of heroin use in 2016 were very similar to previous years. The prevalence of recent heroin use (73%) has remained stable for the past eight years, whereas prevalence of recent injection rose (non-significantly) in 2016 (79%). Frequency of heroin use was stable at a median of 96 days use in the past six months (about four times per week), as was the percentage of daily users (27%). Among recent users, white or off-white rock was the form of heroin used most (67%).

Methamphetamine

The IDRS collects information on the use and market characteristics of speed, crystal methamphetamine (ice), and base methamphetamine—the three main forms of methamphetamine available in Australia. In 2016, 19% nominated methamphetamine as their drug of choice. From 2015 to 2016 lifetime (97%) and recent (74%) methamphetamine use (any form) were essentially stable. Frequency of use was similar to 2015, with recent methamphetamine users reporting a median of 14 days use (approximates to fortnightly use) in the preceding six months.

Cocaine

Between 2015 and 2016 there was no significant change in the prevalence of lifetime or recent cocaine use (67% and 9%) and injection (47% and 7%). Only 2% of the sample nominated cocaine as their drug of choice. Use was infrequent, occurring on a median of four days in the past six months. Five per cent reported recent insufflation (snorting). Recent users reported using powder cocaine most often (64%).

Cannabis

In 2016, cannabis was the second most common illicit drug used by Victorian IDRS participants after heroin (79%), just ahead of methamphetamine (74%). While 93% reported lifetime use, 76% reported recent use. Median frequency of recent cannabis use was 180 days in 2016 (approximately daily; 125 days in 2015); prevalence of daily smoking fell non-significantly (41%). Recent users reported smoking hydroponically grown cannabis most often. In the last session of use, 63% reported smoking a median of 10 cones and 13% a median of 2.5 joints.

Opioid substitution treatment (OST) medications

Methadone

In 2016 the prevalence of recent methadone use was 45%, about the same as in 2015; the median frequency of use fell slightly to 170 days in the past six months. Few reports of recent Physeptone® use were received. Prevalence of recent *prescribed* methadone use (38%) did not change significantly, nor did recent non-prescribed use (11%). Consistent with previous years, the median frequency of recent non-prescribed use was low at four days in the past six months. Six per cent of participants reported a median of 15 days of methadone injection in the preceding six months.

Buprenorphine

From 2015 to 2016, there was a non-significant decrease in lifetime buprenorphine use (to 59%). Prevalence of recent use fell significantly (7%), and median frequency of use fell from 60 to 12 days in the preceding six months. Lifetime prevalence of *non-prescribed* use fell in 2016 (33%), and *recent non-prescribed* use fell from 12% to 6%. There were five reports of recent *prescribed* buprenorphine use; among recent users, median frequency of use in the last six months increased to 30 days. Prevalence of recent buprenorphine injection fell (6%).

Buprenorphine-naloxone tablets

The prevalence of recent buprenorphine-naloxone tablet use was stable at 3% in 2016. Median frequency of use was 30 days in the past six months. Two participants reported recent *prescribed* use, and four reported recent *non-prescribed* tablet use on a median of 14 days. Recent tablet injection rose non-significantly, from 3% in 2015 to 12% in 2016, occurring on a median of 21 days in the past six months.

Pharmaceutical opioids

Morphine

Over the past 10 years there has been an overall trend of declining morphine use among Victorian IDRS participants. Between 2015 and 2016 lifetime prevalence of morphine use fell to 55%, but recent use (12%) was stable. Use was infrequent: *non-prescribed* injection was reported by 9% of participants on five days (median) in the past six months. Forty-three per cent of recent users reported using MS Contin® most often, while 29% used Kapanol® most.

Oxycodone

In 2016, the prevalence of lifetime oxycodone use (55%) was well down from 2015 (75%), and recent use likewise (15% vs 24%). Median frequency of use was three days (about once every two months) in the past six months. *Non-prescribed* injection prevalence (16%) was lower than in 2015; the median frequency was two days of injecting in the past six months. Of five recent users, three reported using Endone® most often and one each using OxyNorm® and OxyContin® most.

Fentanyl

Prevalences of fentanyl use were low: lifetime use and injection were 18% and 11%. Two participants reported recent injection, on a median of six days in the past six months.

Other opioids (not elsewhere classified)

Between 2015 and 2016 the prevalence of use of extra-medical opioids (other than those listed above) was unchanged (27%), and recent use very similar (9%). No respondents reported recent injection. Panadeine Forte® was the most commonly used brand.

Over-the-counter (OTC) codeine

Lifetime extra-medical use of OTC codeine was reported by 23%; recent use was reported by 9%. Median frequency of use was 10 days in the past six months. No participants reported OTC codeine injection.

Benzodiazepines

Benzodiazepines (other than alprazolam)

In 2016 lifetime use of benzodiazepines other than alprazolam was 84%, similar to 2015. Recent use decreased significantly to 37%. Recent users reported using diazepam (80%) most, followed by oxazepam (11%). Recent *prescribed* use prevalence was stable (42%), while *non-prescribed* use fell non-significantly (39%). The median frequency of non-prescribed use was four days in the preceding six months.

Alprazolam

Prevalences of lifetime and recent alprazolam use fell between 2015 (83% and 29%) and 2016 (63% and 7%). Alprazolam was rescheduled from a Schedule 4 to Schedule 8 drug in February 2014 (meaning that treatment permit applications are authorised for specialist short-term indications only, making the drug harder to access). Unlike other benzodiazepines, lifetime (54%) and recent (15%) *non-prescribed* use was higher than *prescribed* lifetime (28%) and recent use (4%). A median frequency of three days non-prescribed use was reported.

Other drugs

Quetiapine

In 2016, prevalences of lifetime and recent use of quetiapine were stable (63% and 25%). Median frequency of use was 180 days in the past six months. Only two reports of recent injection were received. The prevalences of recent *prescribed* (16%) and *non-prescribed* (13%) use were not significantly different, but prescribed users reported daily use (median, 180 days) and non-prescribed users reported a median of two days use.

Pharmaceutical stimulants

Prevalence of lifetime pharmaceutical stimulant use (46%) and injection (29%) not significantly different from 2015; few (1%) reported recent injection. Recent use (5%) did not change significantly, with a median of three days use reported.

Ecstasy

Lifetime and recent ecstasy use prevalences were similar to previous years (63% and 7%); recent users reported a median frequency of four days use. Over time, recent ecstasy use has fallen considerably among Victorian IDRS participants. Only 2% reported recent injection.

Hallucinogens

Few participants reported recent hallucinogenic drug use: 3% reported a median of one day of use in the past six months. No reports of recent injection were received.

Inhalants

The lifetime prevalence of inhalant use fell to 17% in 2016 and no participants reported recent use.

Steroids

In 2016, 7% of IDRS participants reported lifetime steroid use and 1% reported recent use.

Alcohol, tobacco and e-cigarettes

From 2015 to 2016 recent alcohol use fell significantly (from 71% to 57%). Oral consumption was the only ROA reported, occurring on a median of 24 days (about once per week) in the past six months. By contrast, the prevalence of tobacco smoking was similar to previous years: 92% reported daily tobacco

use in the past six months. Lifetime prevalence of use of e-cigarettes was 33% and recent use 14%, but use was very infrequent (median three days in the past six months).

New psychoactive substances (NPS) and synthetic cannabinoids

For the fourth time, in 2016 participants were asked about their use of NPS and synthetic cannabinoids. Six per cent reported lifetime NPS use; 1% reported recent use (median, two days). Lifetime use of synthetic cannabinoids fell non-significantly (23%), as did recent use (13%). Recent synthetic cannabinoid users reported smoking synthetic cannabinoids on two days (median) in the past six months.

Drug market: Price, purity, availability and purchasing patterns

Heroin

In 2016 median prices for heroin were consistent with previous years, with the exception of the price paid for 1.0 gram, which decreased by \$20. Participants most commonly reported purchasing 0.5 gram and paying \$150. Almost all (97%) reported that heroin was very easy or easy to obtain; 88% reported no recent changes to availability. Heroin was most commonly sourced from a known dealer (61%), at an agreed public location (47%), from a dealer's home (19%), or via home delivery (13%). The overall average purity of heroin seized in 2014/15 was 26%, the same as in 2015.

Methamphetamine

In 2016, only two participants reported purchasing speed, and no participants reported purchasing *base*. Participants most commonly reported purchasing 0.5 gram of *ice* for \$250 (median), the same price as in 2015. *Ice* was reported as easy or very easy (99%) to obtain; 83% reported no recent changes to availability. *Ice* purity was reported as high (29%) or medium (37%). In 2015/16, the overall average purity of methamphetamine seized was high and unchanged from 2014/15 (75%). By contrast, purity of amphetamine seizures was low (7%).

Cocaine

In 2016 very few participants reported on the price of cocaine, so median price is not reported. Reports about cocaine availability and purity were conflicting. In 2014/15 the overall average purity of cocaine seized was 48%, similar to previous periods.

Cannabis

Median reported prices for 1.0 gram and 1.0 ounce of hydroponically grown cannabis were consistent with previous years, while the price of 0.25 ounce fell slightly; 85% of respondents reported no recent price changes. Most (91%) reported that hydroponic cannabis was very easy or easy to obtain and 90% reported no recent changes to availability. Seven per cent reported last purchasing bush-grown cannabis; 86% reported it was very easy or easy to obtain. Friends and known dealers were the most common sources for both hydroponic and bush-grown cannabis. Hydroponic cannabis potency was reported as high (55%) to medium (38%) and 82% reported no recent changes. Bush-grown cannabis potency was most commonly reported as medium (57%).

Methadone

Only one participant commented on the market characteristics of non-prescribed methadone, so price data are not reported. This participant suggested that non-prescribed methadone was easy to obtain.

Buprenorphine

In 2016, only one participant commented on the market characteristics of non-prescribed buprenorphine, and no prices were reported. This participant reported that non-prescribed buprenorphine was very easy to obtain.

Buprenorphine-naloxone

Three participants commented on the market characteristics of non-prescribed buprenorphine-naloxone film. One paid \$2.50 for 2 mg film and \$10 for 8 mg film; another paid \$20 for 8 mg film. Prices were described as stable in the past six months. No participants commented on the market characteristics of non-prescribed buprenorphine-naloxone tablets in 2016.

Morphine

In 2015, only one participant commented on the market characteristics of morphine, and no price information was supplied.

Oxycodone

Only one report was received regarding the market characteristics of oxycodone. This participant reported that oxycodone was easy to obtain.

Alprazolam

In 2016, 28% of participants reported ever using prescribed alprazolam, and 64% ever using non-prescribed alprazolam. The median frequency of recent non-prescribed (illicit) alprazolam use was three days, the same as in 2015. Six per cent and four per cent of participants reported ever injecting licit and illicit alprazolam respectively, but none reported injecting the drug in the six months before interview.

Health-related trends associated with drug use

Overdose and drug-related fatalities

In 2016, the prevalence of reported lifetime accidental heroin overdose (56%) was similar to previous years; the median number of lifetime overdoses was two. Among those with a history of overdose, the past year prevalence was 32%, significantly higher than in 2015. Forty-eight per cent of this group reported receiving naloxone, 65% reported ambulance attendance. Most did not seek further treatment and/or information. In 2015, Ambulance Victoria (AV) attended 1104 non-fatal heroin overdoses in Melbourne, 19% more than the estimated 928 overdoses attended in 2014. In 2014 and 2015, 115 and 80 deaths respectively were officially defined as heroin-related, and 61 to date have been recorded as such for 2015 (an underestimate given the likelihood of unresolved ongoing cases).

Drug treatment

Drug treatment access among participants

In 2016, 45% of participants were in drug treatment at interview, most commonly methadone (31%) and Suboxone® (10%). Forty-five per cent reported receiving drug treatment in the six months before interview, most commonly methadone or buprenorphine-naloxone. Fifteen per cent reported being turned away from treatment.

Specialist alcohol and other drug (AOD) treatment services

During 2015/16, 57,986 courses of treatment were delivered to an estimated 38,454 clients¹ in Victorian specialist alcohol and drug treatment services². In 2015/16, alcohol was the most commonly cited drug of concern (followed by amphetamine, cannabis, and heroin), comprising 25% of all clients and 30% of courses of treatment. Amphetamine was cited as a drug of concern in 11,247 courses of treatment delivered to 6,874 clients, increases of 25% and 20% respectively over 2014/15.

DirectLine

In 2015 DirectLine responded to 33,722 alcohol and drug-related calls, with a drug of concern³ identified in just over three quarters. Between 2014 and 2015, calls to DirectLine decreased by 8%, largely due to the introduction of a separate dedicated 'ice' line (IceAdvice). Heroin was nominated as a drug of concern in 7% of all drug-identified calls, whereas pharmaceutical opioids were nominated in 15%.

Pharmacotherapy consumers

As at July 2015, 14,122 people were dispensed pharmacotherapy treatment in Victoria, a decrease of 1% from 2014. Almost two-thirds (66%) were dispensed methadone and almost one-third (31%) were dispensed buprenorphine-naloxone (Suboxone®). Only 3% of pharmacotherapy consumers were dispensed buprenorphine (Subutex®).

Hospital admissions

Between 2013/14 and 2014/15 there was a 4% increase in opioid-related hospital admissions in Victoria to 1433, 23% of the Australian total. Hospital admissions with a cannabis-related primary diagnosis increased by 34% between 2013/14 and 2014/15 to 789, now comprising 25% of the Australian total. Admissions with an amphetamine-related primary diagnosis in Victoria increased by 68% between 2013/14 and 2014/15 to 2029, accounting for 32% of the Australian total. Cocaine-related hospital admissions remain relatively low in Victoria as a proportion of population, despite an increase from 40 to 78 admissions between 2013/14 and 2014/15.

¹ Clients in specialist alcohol and drug services include both drug users and non-users. Non-users may include partners, family or friends.

² Federal and state government funded.

³ A caller or user may have more than one drug of concern and totals have been adjusted for multiple drugs of concern.

Injecting risk behaviours

Injecting equipment access, reuse, access and related problems

Similar to previous years, 13% reported borrowing a used needle in the past month, typically on one or two occasions, and most commonly from a sex partner. In 2016, 20% reported lending a used needle to someone else in the preceding month, and 44% reported reusing their own needle. Almost all (97%) reported accessing a Needle and Syringe Program (NSP) in the past month, yet 8% reported trouble obtaining sterile injecting equipment when they needed it. Most (71%) reported last injecting into their arm; few reported injecting into their hand or wrist (11%), neck (8%), leg (3%), groin (5%), or foot (1%). Sixty-six per cent reported injecting in private locations, 17 in a street or park. Seventy per cent reported injection-related health problems.

Blood-borne viral infections (BBVI)

In 2015 eight new human immunodeficiency virus (HIV) diagnoses in which IDU was the likely exposure were notified, comprising 2.9% of all new Victorian infections for the year. There were another 10 HIV notifications in which the likely exposures were male-to-male sexual activity (MSM) and IDU. The hepatitis C virus (HCV) continues to be a serious public health problem; in 2015 the estimated prevalence of HCV (antibodies) was 72% among Victorian Australian Needle and Syringe Program Survey (ANSPS) participants, significantly higher than in the national ANSPS sample (57%).

Alcohol Use Disorders Identification Test-Consumption (AUDIT-C)

The AUDIT-C is a reliable measure of alcohol dependence, alcohol use disorder and risky consumption; a cut-off of five or more indicates a need for further assessment. In 2016, the mean AUDIT-C score was 5.9, not significantly different from in 2015. Fifty-one per cent of those who reported alcohol consumption in the past year scored five or more on the AUDIT-C, the lowest figure yet recorded. The mean score for men was almost the same as for women (6.0 vs. 5.9).

Mental health problems and psychological distress

Self-reported mental health problems

In 2016, 61% of Victorian IDRS participants reported experiencing a mental health problem in the past six months. Among these, the prevalence of depression was 73% and anxiety 59%. The most common problems of lower prevalence were schizophrenia (19%, vs. 8% in 2015), bipolar affective disorder (10%) and post-traumatic stress disorder (PTSD) (11%). Of those with a self-reported mental health problem, 70% reported attending a health professional, most commonly a GP, a psychiatrist or a psychologist. Psychotropic medication was prescribed to 65% of those with mental health issues, most commonly benzodiazepines, antipsychotics and antidepressants. Very few were prescribed mood stabilisers.

Kessler Psychological Distress Scale (K10)

According to the K10, the prevalence of psychological distress was very high in the 2015 sample; 71% of the sample was classified as having high or very high psychological distress in the four weeks prior to interview. By comparison, only 10% of the 2007/08 National Health Survey (NHS) sample was classified as having high or very high psychological distress in the preceding four weeks.

Short Form 12 Health Survey (SF-12) self-rated overall health

In 2016, participants were administered the first question of the SF-12, which asks respondents to self-rate their overall health during the past four weeks. More than one quarter rated their health as fair (26%) and nearly half (46%) as good, a significant improvement on the figures in 2015.

Driving risk behaviour

In 2016, 29% reported driving a car, motorcycle, or other vehicle in the preceding six months, significantly fewer than in 2015 (41%, $p < 0.05$). Five per cent of recent drivers ($n=44$) reported driving under the influence of alcohol; 80% reported using illicit drugs before driving. The median frequency of

'drug driving' occasions among this group (n=35) was once per month in the past six months. Participants who drove after consuming drugs most commonly reported driving after using heroin (n=27), cannabis (n=21) and crystal/ice (n=12).

Law enforcement-related trends associated with drug use

Self-reported criminal involvement

In 2016, 38% reported an arrest in the past twelve months, as in 2015. Among these, the main reasons reported for arrest were property crime (40%), violence (18%) and use and/or possession of drugs (21%). Thirty-eight per cent reported that they were involved in crime in the month prior to interview, slightly lower than in 2015 (44%). Of the whole sample, 18% reported selling drugs for profit and 23% reported involvement in property crime.

Consumer and provider arrests

In 2014–15, consumer arrests outnumbered arrests of providers for all drug types both in Victoria and across Australia. For instance, in Victoria consumer arrests accounted for 71% of all heroin and other opioid-related arrests, 75% of all ATS-related arrests, 68% of all cocaine-related arrests and 88% of all cannabis-related arrests.

Expenditure on illicit drugs

Nearly two-thirds (65%) of the 2016 Victorian IDRS sample reported purchasing illicit drugs on the day prior to interview, with a median reported spend of \$100.

Special topics of interest

Naloxone

Since 2013 the IDRS has included questions about participants' knowledge of and attitudes to naloxone, the short-acting opioid antagonist, and take-home naloxone (THN) in particular. Among the Victorian sample in 2016, 86% had heard of naloxone. Between 2015 and 2016, the percentage of participants who had heard of naloxone and who indicated that it was used to reverse the effects of heroin fell to 60%, and the percentage of participants who had heard of THN decreased to 49%.

Blood donations

Of national IDRS participants, 12% reported that they had given blood in their lifetime. One-third of those that had given blood reported that they had commenced injecting drug use before donating blood.

In Victoria, 11% had donated blood and 38% injected before donation.

Opioid and stimulant dependence

The Severity of Dependence Scale (SDS) is designed to measure psychological dependence on a range of substances. A cut-off score of four indicates methamphetamine dependence and a cut-off of five indicates dependence on heroin. In 2016 the SDS was administered to 127 recent heroin and other opioid users; the mean SDS score was 7.4, with 79% of participants meeting the cut-off for dependence. The SDS was also administered to 99 recent methamphetamine and other stimulant users, yielding a mean score of 3.2; 38% met the cut-off for stimulant dependence (overwhelmingly methamphetamine).

Homelessness

The lifetime prevalence of homelessness among the 2016 national IDRS sample was 80%; 25% were homeless at interview, much higher than in the general Australian population (estimated at 0.5%).

Unfair treatment

Discrimination is a common experience for people who inject illicit drugs. Eighty-three per cent of national IDRS participants reported unfair treatment in the previous 12 months –from family, the police, when getting help for physical health problems, and people in the neighbourhood.

Conclusions

The results of the 2016 Victorian IDRS indicate that, while illicit drug markets in Melbourne remained stable during the preceding twelve months in most respects, a few changes occurred.

Key findings from the 2016 IDRS include:

- Stable and high prevalence of heroin use among 10 consecutive Victorian IDRS samples and, although median frequency of use increased to approximately four days per week in 2016, little change was reported in relation to market characteristics for the drug, other than the median price for one gram decreasing by \$20. Overall heroin purity remains low according to Victoria Police seizure data (26%) and participant subjective reports. However, AV data show an increase (19%) in the rate of non-fatal overdose (NFOD) ambulance attendances between 2014 and 2015. NCIS data suggest heroin-related deaths are slowly declining. Forty-five per cent of participants reported being in drug treatment at interview, most commonly methadone and buprenorphine-naloxone OST, a substantial decrease from the 60% recorded in 2015. Hospital admissions with an opioid-related primary diagnosis in Victoria increased 4% over 2013/14 to the highest since 2000/01.
- The prevalence of lifetime and recent methamphetamine use among IDRS participants changed little between 2015 and 2016, with three-quarters reporting using the drug in the past six months. Despite high use prevalence, only 19% nominated methamphetamine as their preferred drug. Frequency of use did not change: median days approximated to fortnightly use. However, data from successive years show that from 2011, Victorian IDRS samples have “switched” from lower potency speed to higher potency ice, which recent research shows is decreasing in price relative to purity (Scott, Caulkins, Ritter, Quinn, & Dietze, 2015), making it more cost-effective to use for people who (historically) prefer heroin. Most 2016 KE nominated methamphetamine as the “most problematic” drug. Indeed, Victorian LE agency data also show that purity of seized methamphetamine has been significantly higher during the last five financial years. Victorian ADIS drug treatment data show that amphetamine overtook cannabis to become the second most commonly cited drug of concern in 2015/16, behind alcohol. AV attended an estimated 105% more ‘ice’-related events in Melbourne in 2015 than in 2014, and an estimated 165% more such events in regional Victoria over the same period. In 2014/15, amphetamine-related hospital admissions increased by 68%.
- For the past 11 years, there has been a trend of declining morphine use and injection among Victorian IDRS participants. After several years of stability, IDRS participants’ oxycodone use and injection prevalences fell substantially between 2015 and 2016. Relative to heroin, in the IDRS low frequency patterns of use and cheaper prices suggest that pharmaceutical opioids are used opportunistically by PWID in Victoria as a substitute for heroin.
- Recent use of benzodiazepines (other than alprazolam) fell significantly, as did prevalences of alprazolam use. The drug was rescheduled from a Schedule 4 to Schedule 8 poison in February 2014, restricting access to specialist short-term indications only. More commonly, IDRS participants are prescribed benzodiazepines other than alprazolam, whereas alprazolam is typically obtained from non-prescribed sources. According to the 2016 IDRS, the median frequency of non-prescribed use of benzodiazepines (other than alprazolam) was four days in the previous six months, as opposed to three in 2015.
- Levels of naloxone awareness among IDRS participants remain high (86%), although the percentage of participants who reported awareness of THN decreased.

On the basis of these findings, we recommend:

1. **Continued monitoring of illicit drug markets** for changes in trends in the prevalence and patterns of drug use and injection, and price, purity and availability, and continued monitoring of related health and social outcomes among the ageing cohort of PWID in Melbourne. Monitoring should be extended to cover current gaps such as young PWID (particularly young initiates to

heroin injection) and non-injectors of all ages (e.g. methamphetamine smokers) through novel recruitment methods given the relatively hidden nature of these populations.

2. **Commissioning research to examine the prevalence and patterns of methamphetamine use**, injection and inhalation not only in Melbourne, but particularly in regional Victoria. Funding research to develop an evidence base for better access and support for effective treatment options for people who use this drug, focusing on long-term treatment options. Credible harm reduction education campaigns delivered by credible voices targeted to users pointing to the harms associated with heavy and dependent use. Reducing the negative impacts of stigma associated with ice use in the Victorian media.
3. **Continued expansion of OST programs across Victoria**, as well as ongoing consideration of full subsidisation of the OST system, even if (in the short term) only for vulnerable populations of PWID, such as pregnant women, ex-prisoners, and people living with HIV, in line with the Victorian pharmacotherapy review (King, Ritter, & Berends, 2011). Initiatives should include incentives for GPs to become pharmacotherapy prescribers.
4. **Continued monitoring of the prevalence, patterns and sources of prescribed and non-prescribed alprazolam and other benzodiazepine use**, given the rescheduling of alprazolam from Schedule 4 to Schedule 8 in February 2014. Research that examines the positive and negative outcomes associated with this policy change, including any unintended consequences such as increases in other types of benzodiazepine and/or psychotropic medication use.
5. **Continued support to increase access to THN programs for PWID.**

1. Introduction

In 1998 the Australian Government Department of Health and Ageing (AGDHA) commissioned the National Drug and Alcohol Research Centre (NDARC) to implement a national Illicit Drug Reporting System (IDRS), following a successful pilot study in Sydney in 1996 and a multi-state trial in 1997 (Hando & Darke, 1998; Hando, Darke, Degenhardt, Cormack, & Rumbold, 1998; Hando, O'Brien, Darke, Maher, & Hall, 1997). The 1998 IDRS study was conducted in New South Wales (NSW), Victoria and South Australia (SA) (McKetin, Darke, Hayes, & Rumbold, 1999), with each jurisdiction undertaking a survey of people who inject drugs (PWID), a key expert (KE) survey and analyses of available secondary indicator data. In 1999 the IDRS study was replicated in NSW, Victoria and SA, with all other remaining states and territories participating through the collection of secondary indicator data and completion of KE interviews. In 2000 the IDRS became a truly national drug trend monitoring system when all states and territories conducted the study using the same methodology. 2015 is the 18th year that the IDRS has been conducted in Melbourne.

The aim of the IDRS is to monitor emerging trends related to the use of heroin, methamphetamine, cocaine and cannabis. The IDRS provides nationally comparable data in relation to patterns of illicit and injecting drug use (IDU) and associated harms and inform future policy and research initiatives.

The *Victorian Drug Trends 2016* report summarises data collected during the months of June through October 2016 as part of the Melbourne arm of the 2016 IDRS. The findings contained herein pertain to the 2015/16 financial year unless otherwise indicated. The report outlines the methods used to collect data for this period and then presents an overview of the socio-demographic characteristics and recent drug use of participating PWID. The report then presents main findings for recent trends in the use of heroin, methamphetamine, cocaine, cannabis and other drugs, including pharmaceutical opioids. Following this, drug-related harms, general health and other issues are examined.

For interactive statistics and mapping on alcohol, illicit and pharmaceutical drug use among the broader Victorian population, readers should refer to the AODstats website (www.aodstats.org.au), which replaces the annual *Victorian Drug Statistics Handbook* series (Turning Point Eastern Health, 2014). Readers are also referred to the forthcoming *Australian Drug Trends 2016* monograph for national IDRS data and jurisdictional comparisons (Stafford & Burns, 2016).

1.1. Study aims

The primary aims of the 2016 Victorian IDRS were:

- To document patterns of heroin, methamphetamine, cocaine and cannabis use, and illicit drug market characteristics (i.e. price, purity, and availability) among PWID in Victoria;
- To identify drug-related harms and relevant trends among this population; and
- To detect emerging drug trends of national significance that may require further in-depth investigation.

2. Method

The 2016 IDRS replicates the methodology used for the study each year since 1997 and incorporates a quantitative survey of PWID (i.e. the participants), semi-structured interviews with KE recruited from a variety of professional settings in Melbourne, and analyses of indicator data related to the use of illicit drugs in Victoria. Information provided through the triangulation of these three data sources is used to identify emerging trends in drug use and illicit drug markets in Melbourne.

2.1. Survey of people who regularly inject drugs

Structured face-to-face interviews were conducted with 150 PWID recruited from metropolitan Melbourne in June and July 2016. To be eligible to participate in the study, participants were required to have injected drugs at least monthly in the six months preceding interview and to have resided in Melbourne for the duration of the previous 12 months. Convenience sampling was facilitated by recruitment notices at NSP, staff at these services advising potential participants of the research, and snowballing (i.e. the recruitment of participants' friends and associates via word-of-mouth).

Six agencies assisted the 2016 IDRS team with recruitment and provided interview sites for the PWID survey component of the research:

- Access Health (Salvation Army), St Kilda;
- InnerSpace (North Yarra Community Health), Collingwood;
- NRCH NSP (North Richmond Community Health), North Richmond;
- South East Alcohol and Drug Services (SEADS, Monash Health), Dandenong;
- Southern Hepatitis/HIV/AIDS Resource and Prevention Service (SHARPS, Peninsula Health), Frankston; and
- 131B (Dr Sherman's rooms), Footscray.

The structured interview schedule administered to participants in 2016 comprised core questions used in previous IDRS studies conducted in Melbourne, as well as other measures detailed in Chapter 8 (Special Topics of Interest). Survey items included questions covering participants' socio-demographic characteristics, drug use history, perceptions of drug market characteristics (including price, and purity and availability (PPA)) for the main illicit drugs under investigation, as well as criminal involvement, risk behaviours, mental and physical health. The average duration of each interview was approximately 50 minutes (range=30–100 minutes) and survey participants were reimbursed \$40 for their time, expertise and out-of-pocket expenses. Ethics approval was obtained from the Alfred Hospital Human Research Ethics Committee and the Victoria Police Human Research Ethics Committee.

2.2. Survey of key experts

Sixteen KE participated in interviews between October and December 2016. Most were recruited from a pool of KE who had previously taken part in the IDRS. Other KE drawn from the same or similar agencies on the basis of referrals received from professionals in the sector were recruited as replacements for, or alternatives to, previous participants or as individuals representing agencies not previously surveyed.

The KE who participated in the 2016 IDRS consisted of 13 direct health workers: primary health care/NSP worker (n = 4), medical officer/first-aid worker/drug treatment manager/addiction medicine specialist/OST prescriber (n = 6), community health worker/outreach worker (n=2), drug user group representative (n = 1); and three LE personnel, all investigators. Excluding LE personnel, participants

were selected on the basis of having had at least weekly contact with PWID during the preceding six months, and/or contact with 10 or more PWID during that same period, and/or expert knowledge in one or more areas relating to the use, possession, manufacture and/or trafficking of illicit substances.

To allow KE to consider whether they would be able to address the research questions, some were sent a copy of the KE interview schedule from the previous year. The schedule included sections eliciting information on the group characteristics of people currently involved in the illicit drug market, the characteristics of the market itself, and recent observed trends in IDU and related harms.

As per previous years, the 2016 survey asked KE to focus on the drug(s) perceived to be 'most problematic' at the time of interview. To put these responses into context, the main drugs with which 2016 KE had the most contact in regards to their work were (multiple responses allowed) methamphetamine (n = 12), heroin (n = 7), cannabis (n = 7), hallucinogens (n = 4), ecstasy (n = 4) and benzodiazepines (n = 3). By comparison, the drugs 2016 KE cited as the 'most problematic' in relation to their work with PWID were methamphetamine (ice) (n = 13), alcohol (n = 2), and heroin (n = 1).

2.3. Other indicators

Information collected from both the PWID and KE interviews was supplemented by data obtained from secondary indicator sources. Data relating to trends for the 2015/16 financial year are reported unless otherwise indicated. For secondary indicators, where current data were unavailable, the most recently available data are included.

Indicator data sources presented in this report include:

Surveys reporting on the prevalence of illicit drug use in Victoria

- Data on the prevalence of drug use in the general community are typically derived from large-scale population surveys. The most recent population survey providing estimates on the prevalence of illicit drug use within the Australian community is the 2013 National Drug Strategy Household Survey (NDSHS) (Australian Institute of Health and Welfare, 2014b).

Drug seizure purity levels

- The Drug Analysis Branch of the Victoria Police Forensic Services Department conducts analyses of purity for all drug seizures made by the Victoria Police. Since 2001, the Victoria Police Forensic Services Department has provided drug purity data for inclusion in the Victorian IDRS report. This report presents data for the 2014/15 financial year.

Drug-related arrest data

- Information pertaining to drug-related arrests in Victoria has been obtained from the Australian Crime Commission (ACC). The Victoria Police and the Australian Federal Police (AFP) provide arrest data to the ACC for the Illicit Drug Data Report. This report presents drug-related arrest data for the 2014/15 financial year (Australian Crime Commission, 2015).

Specialist drug treatment presentations

- The Victorian Department of Health and Human Services (VDHHS—formerly the Department of Health) funds community-based agencies to provide specialist alcohol and drug treatment services across the state. The collection of client information is a mandatory requirement and occurs via a formalised data collection system called the Alcohol and Drug Information System (ADIS). The ADIS data presented in this report represents courses of treatment and client numbers for the 2015/16 financial year.
- The Harm Reduction and Pharmacotherapy Services (HRPS) unit at the VDHHS maintains a database that records all methadone, buprenorphine and buprenorphine-naloxone permits in

Victoria. This database is the primary source of information regarding the characteristics of consumers attending Victorian pharmacotherapy programs for the treatment of opioid dependence. Data from the quarterly census showing the number of clients in treatment for the period January 2000 to June 2016 are presented in this report.

- DirectLine is a Victorian 24-hour specialist telephone service managed by HealthLink (a program of Turning Point, Eastern Health) that provides information on drug use and related issues, referrals and counselling to callers who are concerned about their own drug use or use by significant others. All calls are logged into an electronic database that provides aggregated information about callers' drug(s) of concern, and whether the call relates to the caller or a significant other. Data for the period 2000 to 2015 are presented in this report.

Ambulance attendances at non-fatal drug overdoses (NFOD) and other drug-related events

- In collaboration with AV, Turning Point, Eastern Health manages an electronic database of drug-related ambulance attendances in Victoria that comprises information obtained from electronic patient care records (PCRs) using the clinical information system VACIS[®], as well as information previously extracted and coded from paper-based PCRs (for data prior to October 2006). Reliable data are available from June 1998 (Lloyd, 2013). Data for the period 2008 to 2015 are presented in this report.

National Hospital Morbidity Database

- The National Hospital Morbidity Database (NHMD) is compiled by the Australian Institute of Health and Welfare (AIHW). It is a collection of electronic records for admitted patients in public and private hospitals in Australia. *Principal diagnosis* (the diagnosis established after examination that is chiefly responsible for occasioning the patient's episode of care in hospital) has been reported. This report presents drug-related (opioid, amphetamine, cocaine and cannabis) hospital admissions for Victoria and Australia, from 1999/2000 to 2014/2015.

Heroin-related fatalities

- Mortality information from heroin-related deaths was obtained from data collated by the VDHHS from the National Coronial Information System. This report presents data from 1991 to 2015.

Blood-borne viral infections surveillance data

- Blood-borne viral infections (BBVI) such as HIV, hepatitis B virus (HBV) and HCV are a major health risk for PWID. The Communicable Diseases Section, Public Health Branch at the VDH records newly diagnosed and unspecified notifications of infectious disease in Victoria. Surveillance data relating to HIV, HBV and HCV are presented in this report from 2000 to 2015.
- The Australian Needle and Syringe Program Survey (ANSPS) has been conducted annually by the Kirby Institute (formerly known as the National Centre in HIV Epidemiology and Clinical Research) since 1995. The survey is designed to supplement sentinel BBVI surveillance data via a self-completed short questionnaire on the demographic and behavioural characteristics of voluntary NSP clients together with serological testing of their finger-prick blood samples. Information from the 2008 to 2015 ANSPS data collections is presented in this report (Iversen, Chow, & Maher, 2014; Iversen & Maher, 2015a).

2.4. Data analysis

Distributions of response frequencies are presented as percentages in tables, figures and within text. Medians, interquartile ranges (IQR) and/or ranges are the reported statistics for continuous, non-parametric variables among the full sample (N = 150) and in subsamples in which they were relevant (e.g. median days). Where appropriate, *t*-tests were employed for selected continuous, normally

distributed variables⁴, with the mean and standard deviation (SD) reported. Selected categorical variables were analysed using χ^2 tests for percentages. Comparisons of prevalence data for 2015 and 2016 were performed using a one-sided test of proportions (prtesti). Analyses of 2016 Victorian IDRS data were conducted using IBM SPSS Statistics 20.0 (IBM Corp, 2011) and Stata 13.0 (StataCorp, 2013). *P* levels of less than 0.05 denote statistical significance. Content analysis was used for the open-ended response data provided by the qualitative KE interviews (Kellehear, 1993).

⁴ Typically, continuous variables among convenience samples are non-parametrically dispersed (or not normally distributed). Hence, these data are best suited to presentation as medians with interquartile ranges (or ranges) and, depending on sampling and methodology, analysis using non-parametric statistical tests.

3. Demographics

3.1. Overview of the 2016 IDRS participant sample

In 2016, we interviewed 150 people who regularly inject drugs (PWID) for the Victorian IDRS. Twenty-five participants were recruited from each of six sites across Melbourne: Collingwood, Dandenong, Footscray, Frankston, North Richmond and St Kilda. Table 1 summarises the demographic characteristics of Victorian IDRS participants from 2012 to 2016.

The ageing of the cohort seen across previous years did not continue in 2016. Between 2015 and 2016 there was a non-significant decrease in the mean age of participants, from 42 to 41 years ($p = 0.365$). As in previous years, almost three-quarters of the sample were men. About a quarter reported residing in unstable accommodation, including participants who reported being homeless at the time of interview (15%). The proportion reporting boarding house accommodation fell from 17% to just 5% and the number reporting no fixed address more than doubled to 15%, probably reflecting the recent closure of several long-time boarding establishments. In 2016, 10% of participants identified as Indigenous Australian, not significantly different from 2015 (Table 1).

As per previous years, most participants were unemployed at the time of interview. Ninety-one per cent reported a government pension, allowance or benefit as their main source of income in the past month. Participants ($n = 147$) reported receiving a mean weekly income of \$442.82 (SD 342.05, median \$400.00, IQR \$275.00–\$473.88) before tax.

Forty-five per cent of participants reported being in drug treatment at the time of interview, significantly fewer than in 2015 (60%, $p = 0.010$) (see section 6.2 for more detail).

In 2016, over half (58%, $n = 84$) reported a history of imprisonment, not significantly different from 2015 (50%, $p = 0.194$) and fewer than in some previous years (Table 1). Unlike in previous surveys, a history of incarceration was not significantly more common among male than female participants (59.0% vs. 53.7%, $p = 0.554$).

Key Expert comments: Characteristics

The descriptions of the characteristics of PWID in Melbourne by 2016 KE coincided with those provided in previous years. KE gave widely differing details about the age and gender profiles of the PWID with whom they had contact during the past six to 12 months: some reported seeing mostly people aged 16–21 years, others 18–35, others still 39–49; some still reported seeing PWID of all ages.

Only two KE reported that they had interacted with PWID of other than Anglo-Australian, Australian-born and English-speaking backgrounds. One KE reported contact with ATSI populations, one mentioned ethnic Vietnamese.

KE reported high levels of disadvantage and unemployment, and all KE referred to the high prevalence of mental health problems among their cohorts. Reference was also made to PWID's high rate of criminal justice system involvement and contact with police.

Table 1: Demographic characteristics of participants, Victoria, 2012–2016

	2012 (N=150)	2013 (N=150)	2014 (N=150)	2015 (N=150)	2016 (N=150)
Mean age in years (SD)	38 (8.1)	40 (7.9) [#]	40 (8.8)	42 (7.7)	41 (8.8)
Male (%)	70	71	75	71	71
Heterosexual (%)	93	91	89	91	89
Indigenous (%)	11	13	13	16	10
Accommodation (%)					
Own house/flat (includes rental) [^]	41	54	57	63	61
Parents'/family house	11	5	10	5	10
Boarding house/hostel	27	25	11	17	5
Shelter/refuge	4	0	1	1	3
No fixed address/homeless	15	15	19	7	15
Other	3	1	2	5	4
Employment (%)					
Not employed	92	90	89	85	90
Full-time	2	2	1	3	3
Part-time/casual	5	3	5	7	6
Home duties	1	4	1	1	1
Other	1	1	3	4	
Mean years of school education (IQR)	9.6 (8–11)	9.6 (9–11)	9.9 (9–11)	9.9 (9–11)	9.9 (9–11)
Tertiary education (%)					
None	55	61	54	44	56
Trade/technical	41	33	43	48	38
University/college	5	5	3	8	6
Government pension, allowance or benefit (%)	95	94	87	88	91
Current drug treatment* (%)	60	52	66	60	45
Prison history[†] (%)	60	64 [#]	64	50 [#]	58

Source: IDRS participant interviews

[^] Includes private rental and public housing

* Includes all types of OST and drug counselling. Data missing for one participant (n = 149) in 2015. See Section 6.2 for more detailed information

[#] Data missing for one participant (n = 149) in 2013, and two participants (n = 148) in 2015

[†] Data missing for four participants (n = 146) in 2016

4. Consumption patterns

Victorian IDRS participants' IDU history and patterns of use in the month preceding interview, from 2012 to 2016, are shown in Table 2. In 2016, the mean reported age of injection to initiation was 19.2 years (median 17, IQR 15–22 years), not significantly different from that in 2015 (19.1 years, $p = 0.970$). Fewer participants in 2016 reported that their first injection was methamphetamine (41%, vs 51% in 2015, $p = 0.082$), and more reported that it was heroin (53% vs. 44% in 2015, $p = 0.106$), but these differences were not significant. Heroin was the most commonly cited drug of choice (68%), drug injected most in the past month (66%), and last drug injected (60%). For the 40 participants who reported injecting a different drug most in the last month to their drug of choice, availability (30%) was the most common reason for doing so. In 2016, the distribution of injection frequency in the past month was similar to distributions in previous years, other than for a high percentage of people reporting injecting two or three times a day (Table 2).

Table 2: IDU history and patterns of use in the last month, Victoria, 2012–2016

	2012 (N=150)	2013 (N=150)	2014 (N=150)	2015 (N=150)	2016 (N=150)
Mean age in years at first injection (SD)	18 (5.1)	19 (5.9)	19 (5.9)	19 (6.6)	19 (5.8)
First drug injected (%)					
Heroin	47	47	45	44	53
Methamphetamine	45	49	50	51	41
Other drugs	7	4	5	6	6
Drug of choice (%)					
Heroin	74	71	65	70	68
Methamphetamine	13	18	23	20	19
Cannabis	4	6	5	4	7
Morphine	2	1	1	1	1
Cocaine	1	2	2	1	2
Other drugs	5	2	4	5	3
Drug injected most in last month (%)					
Heroin	72	69	63	60	66
Methamphetamine	17	20	28	29	30
Buprenorphine/buprenorphine-naloxone	7	7	4	8	1
Morphine	2	2	1	1	1
Other drugs	2	2	4	2	2
Last drug injected (%)					
Heroin	73	69	62	56	60
Methamphetamine	15	20	27	31	33
Morphine	1	2	1	1	2
Cocaine	0	1	1	0	1
Buprenorphine/buprenorphine-naloxone	8	7	5	9	3
Other drugs	3	2	4	2	1
Frequency of injecting in last month (%)					
Weekly or less	23	23	28	19	23
More than weekly, less than daily	35	32	35	40	31
Once a day	19	21	12	11	13
Two to three times per day	18	17	17	20	27
More than three times per day	5	6	7	9	7

Source: IDRS participant interviews

4.1. Current drug use

Table 3 summarises the self-reported patterns of lifetime and recent⁵ drug use among 2016 Victorian IDRS participants. In 2016, lifetime use of heroin (97%), various methamphetamine forms (97%), tobacco (97%), alcohol (95%) and cannabis (93%) was ubiquitous in the sample, as was lifetime use of prescribed and/or non-prescribed benzodiazepines (93%, including alprazolam) and methadone use (87%). These results were similar to previous years.

The same proportions of participants reported most commonly injecting heroin (73%) and methamphetamine (73%) in the six months preceding interview.

The illicit drugs participants most commonly reported recently smoking were cannabis (76%) and methamphetamine (30%), most commonly crystal methamphetamine (ice). Insufflation (snorting) was very uncommon, with only 4% reporting recent cocaine use via this route of administration (ROA). Excluding alcohol (71%), in 2015 the drugs most commonly ingested orally by participants in the six months prior to interview were prescribed and/or non-prescribed benzodiazepines (69%) and methadone (47%), followed by buprenorphine-naloxone (26%) and the antipsychotic medication quetiapine (26%, Table 3).

⁵ In this context, 'recent' refers to use via any route of administration during the preceding six months. See page xi.

Table 3: Drug use history and patterns of drug use in the preceding six months, Victoria, 2016

	Ever used (%)	Ever injected (%)	Injected last 6 months (%)	Median days injected last 6 months	Smoked last 6 months (%)	Snorted last 6 months (%)	Swallow last 6 months ⁺ (%)	Used [^] last 6 months (%)	Median days used [^] last 6 months ⁺
Heroin	97	97	79	93	1	1	1	79	96
Home bake heroin	4	18	4	5	1	1	0	4	5
Any heroin	97	97	79	93	6	1	1	79	96
Methadone (prescribed)	74	18	3	40			37	38	178
Methadone (not prescribed)	33	9	2	10			10	11	4
Physeptone (prescribed)	11	3	1	3	0	0	4	4	13
Physeptone (not prescribed)	10	4	1	4	0	0	1	1	4
Any methadone/physeptone	78	25	6	15	0	0	45	45	170
Buprenorphine (prescribed)	43	24	2	160 [†]	0	0	3	5	30
Buprenorphine (not prescribed)	33	28	4	10	0	0	1	6	10
Any buprenorphine	59	41	6	12	0	0	8	7	12
Buprenorphine-naloxone tablets (prescribed)	57	21	4	5	0	0	15	1	60
Buprenorphine-naloxone tablets (not prescribed)	35	23	9	21	0	0	5	3	14
Any buprenorphine-naloxone tablets	69	34	12	21	0	0	15	3	30
Any buprenorphine-naloxone**	69	42	12	21	0	0	26	27	30
Morphine (prescribed)	15	9	1	91 [‡]	0	0	1	1	180 [§]
Morphine (not prescribed)	49	46	9	5	0	0	3	11	5
Any morphine	55	49	10	5	0	0	2	13	5

Table 3: Drug use history and patterns of drug use in the preceding six months, Victoria, 2016 (continued)

	Ever used (%)	Ever injected (%)	Injected last 6 months (%)	Median days injected last 6 months	Smoked last 6 months (%)	Snorted last 6 months (%)	Swallow last 6 months ⁺ (%)	Used [^] last 6 months (%)	Median days used [^] last 6 months ⁺
Oxycodone, generic (prescribed)	11	8	1	45‡	0	0	2	3	100 [*]
Oxycodone, generic (not prescribed)	26	24	5	2	0	0	2	6	2
Any oxycodone	55	46	10	3	0	0	3	15	3
Fentanyl	18	11	1	6§	0	1	0	2	1 [†]
Over-the-counter codeine	23	0	0	28	0	0	9	9	10
Other opioids (not elsewhere classified)	27	3	0	46	0	0	9	9	10
Speed powder	85	78	11	3	1	1	1	9	3
Amphetamine liquid	27	26	1	5			0	1	20
Base methamphetamine	23	22	4	6	0	0	0	0	6
Crystal meth (ice)	89	87	71	12	30	1	1	72	15
Any methamphetamine	97	91	73	12	30	1	3	74	14
Pharmaceutical stimulants (prescribed)	8	2	0	0	0	0	2	2	180 [†]
Pharmaceutical stimulants (not prescribed)	29	15	1	1	0	0	3	3	2 [*]
Any pharmaceutical stimulants	46	16	1	1	0	0	3	3	3
Cocaine	67	39	7	4	2	5	0	9	4
Hallucinogens	61	7	0	0	1	0	3	3	1
Ecstasy	63	31	2	3	0	0	7	7	4
Alprazolam (prescribed)	28	6	0	0	0	0	4	4	180
Alprazolam (not prescribed)	54	4	0	0	0	0	15	15	3
Any alprazolam	63	6	0	0	0	0	7	7	

Table 3: Drug use history and patterns of drug use in the preceding six months, Victoria, 2016 (continued)

	Ever used (%)	Ever injected (%)	Injected last 6 months (%)	Median days injected* last 6 months	Smoked last 6 months (%)	Snorted last 6 months (%)	Swallow last 6 months+ (%)	Used^ last 6 months (%)	Median days used^ last 6 months*
Other benzodiazepines (prescribed)	67	11	0	4	1	0	42	42	90
Other benzodiazepines (not prescribed)	59	11	0	2	1	0	39	39	4
Any benzodiazepines	85	19	0	0	1	0	69	13	86
Quetiapine (prescribed)	33	1	0	14	0	0	16	16	180
Quetiapine (not prescribed)	39	1	0	14	0	0	13	13	2
Any quetiapine	63	1	0	28	0	0	26	25	180
Alcohol	89	7	0	0			57	57	24
Cannabis	93				75		3	76	90
Inhalants	17							1	3‡
Tobacco	99							97	180
E-cigarette	33							14	3
Steroids	7	7	1	28§	0	0	0	1	28§
NPS	6	5	3	2	1	01	0	4	4
Synthetic cannabinoids	23	1			13		0	13	2

Source: IDRS participant interviews

^ Refers to any route of administration (injecting, smoking, swallowing and/or snorting)

* Among participants who reported any use or injection in the preceding six months

** Includes use of buprenorphine-naloxone film

+ Also refers to the sublingual administration of buprenorphine tablets and buprenorphine-naloxone tablets and/or film

¥ based on four cases

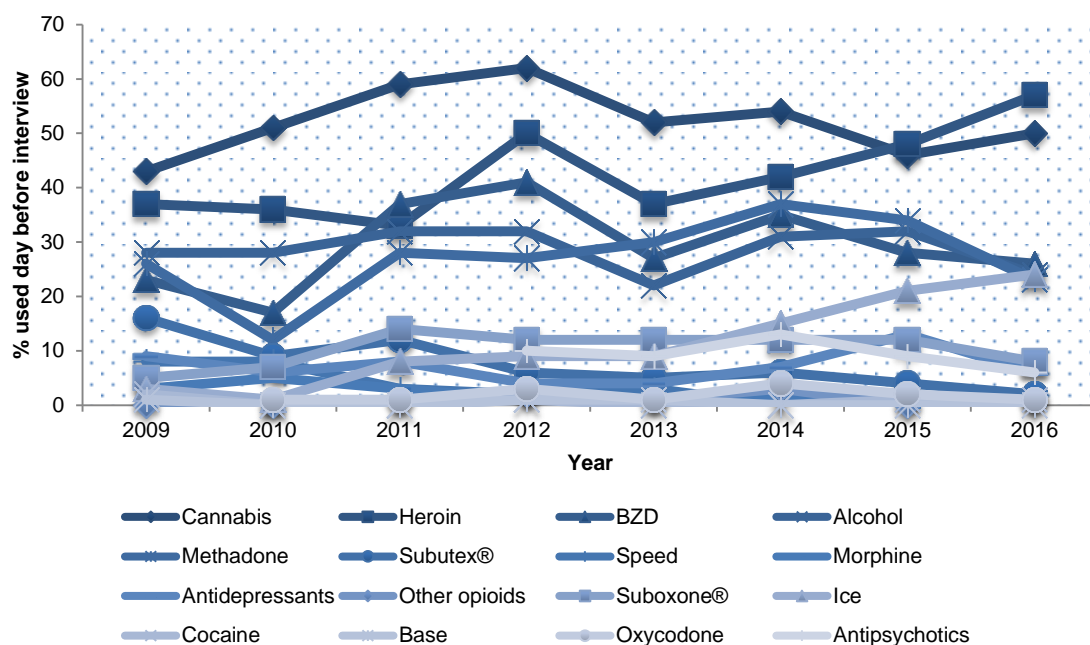
† based on three cases

‡ based on two cases

§ based on one case

Figure 1 shows the drug types Victorian IDRS participants reported using on the day prior to interview from 2009 to 2016. Multiple responses were allowed and prescribed drug use was included. In 2016, almost all participants (94%) reported the use of at least one drug on the day before interview, with heroin (57%), cannabis (50%), benzodiazepines (26%) and ice (24%) most commonly used (Figure 1).

Figure 1: Drugs used on the day prior to interview, Victoria, 2009–2016*



Source: IDRS participant interviews

* In 2014, data were missing for one participant and two participants reported no substance use on the day before interview. In 2015, eight participants reported no substance use on the day before interview, and nine did so in 2016.

The median drug quantities participants reported using in a session in the six months preceding interview are shown in Table 4. Quantities are shown in grams by drug type for (i) the average amount reportedly used in a session (i.e. a period of continuous use), (ii) the largest amount used in a session, and (iii) the average amount used over the course of a day. For cannabis, instead of grams the median number of cones and joints are shown. Among heroin users in the past six months, for instance, the median quantity reportedly used in a session was 0.3 gram, whereas 0.5 gram was the median quantity used most.

Table 4: Median drug quantities used in the preceding six months, Victoria, 2016

	Median amount used in a day Grams (IQR)
Heroin (n = 116)	0.5 (0.2–0.5)
Speed (n=13)	0.5 (0.2–1.0)
Ice (n=105)	0.1 (0.1–0.2)
Cocaine (n=9)	0.4 (0.1–1.0)
Cannabis (n=112)	
Joints (n=14)	2.5 (1–5)
Cones (n=72)	10.0 (6–20)

Source: IDRS participant interviews

4.2. Heroin

Key points

- In 2016, 79% of participants reported recent heroin use and injection, a non-significant increase from the prevalence in 2015 (74%).
- The median frequency of heroin use was stable between 2015 and 2016 at 96 days.
- The percentage of daily heroin users was stable between 2015 and 2016 at 27%.
- White or off-white rock was the form of heroin used most by recent users in 2016 (75%).

4.2.1. Prevalence of heroin use

For the eight years to 2014 the prevalence of heroin use remained the same among Victorian IDRS participants, with 83% of participants in consecutive samples reporting recent use and injection. However, in 2015 the prevalence of recent use and injection fell (non-significantly) from 83% to 74% ($p = 0.058$). In 2016, prevalence of recent use and injection rose again (non-significantly) to 79% ($p = 0.275$). Lifetime use was reported by 97% ($n = 146$) of the sample. Sixty-eight per cent nominated heroin as their drug of choice, similar to 2015 (70%, $p = 0.708$). Sixty per cent of 2016 participants reported heroin as the last drug injected, compared with 56% in 2015 ($p = 0.483$).

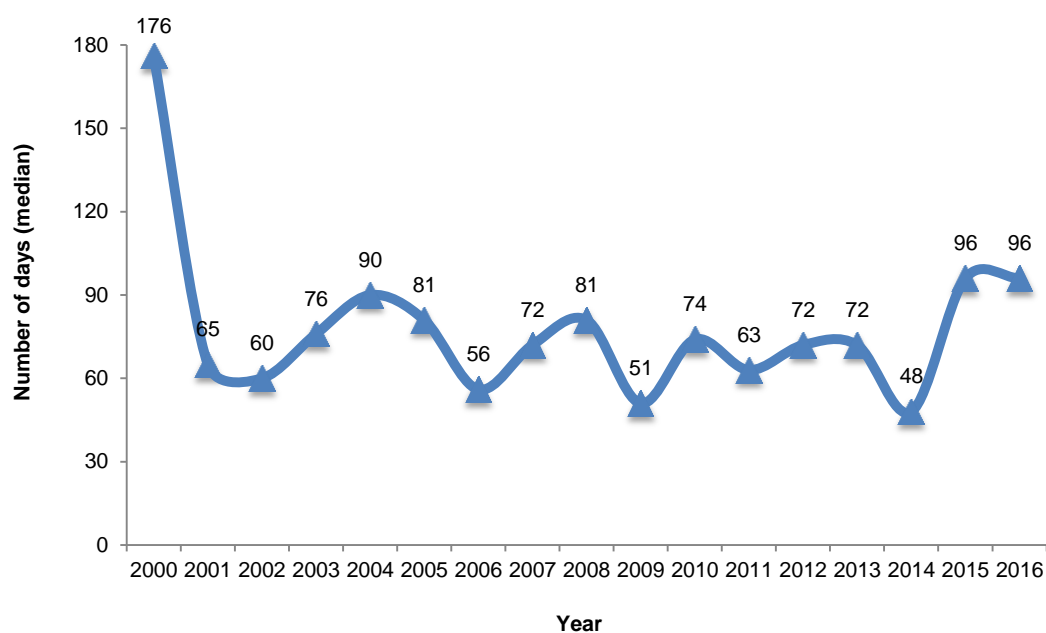
This figure (60%) was not significantly different from that reported in the 2015 ANSPS, in which 52% of Victorian ANSPS participants nominated heroin as the last drug injected before survey (Memedovic et al., 2016).

4.2.2. Current patterns of heroin use

As in previous years, of the 118 IDRS participants who reported recent heroin use, all reported recent heroin injection. Only 1% reported recently smoking heroin (i.e. heating the drug and inhaling the vapours) and 1% respectively reported oral ingestion and insufflation (snorting). These results are similar to findings in 2015.

Figure 2 illustrates the median days of heroin use, from 2000 to 2016, by Victorian participants who reported use in the preceding six months. In 2016, heroin was used on a median of 96 days (range 1–180 days) in the six months before interview, or about four days per week. This was double the median days of use reported by participants in 2014 (48 days, or about two days of use per week). Since 2001, the reported frequency of recent heroin use by Victorian IDRS participants has fluctuated between approximately two and four days per week (Figure 2). In 2016, 27% of recent heroin users reported daily use, the same as in 2015.

Figure 2: Median days of heroin use in the past six months, Victoria, 2000–2016



Source: IDRS participant interviews

4.2.3. Forms of heroin used

As in previous years, in 2016 Victorian IDRS participants who reported recent heroin use were asked to nominate the types of heroin used in the six months preceding interview, and whether heat or citric acid was used to prepare the drug for their most recent injection. White/off-white heroin (diamorphine hydrochloride) dissolves easily in water and is prepared for injection without heat or acid, while brown/beige heroin (diamorphine base) typically requires heating with citric acid so that the preparation is soluble for injection (Warhaft, 2008).

Table 5 presents the forms of heroin used by IDRS participants from 2012 to 2016, and the forms of heroin participants reported using most. Among recent heroin users ($n = 118$) in 2016, 67% reported using white/off-white rock in the preceding six months, a near-significant decrease from the 2015 figure ($p = 0.053$) and lower than figures for the preceding three years. Reports of recent use of white/off-white powder increased significantly from 19% in 2013 to 37% in 2014 ($p < 0.01$) but only since fluctuated only slightly (41% in 2015 and 39% in 2016). Reported use of brown/beige powder changed little between 2015 and 2016 (20% and 17% respectively), as did use of brown/beige rock (31% vs. 30% respectively) (Table 5).

For years, Victorian IDRS participants have reported that most of the heroin available in Melbourne is white/off-white rock. Consistent with this, in 2016 75% of recent heroin injectors reported using white/off-white rock most often in the preceding six months, more than in 2015 (68%) but similar to 2014 (76%). The percentage of recent heroin injectors reporting use of brown/beige rock most often increased, but non-significantly (6% in 2015 vs. 9% in 2016) (Table 5).

Table 5: Forms of heroin used in the preceding six months, Victoria, 2012–2016

	Forms used*					Form used most				
	2012 (n=126)	2013 (n=124)	2014 (n=125)	2015 (n=111)	2016 [†] (n=118)	2012 (n=125)	2013 (n=124)	2014 [†] (n=122)	2015 (n=111)	2016 [†] (n=118)
White/off-white heroin (%)										
Powder	44	19	37	41	39	10	5	9	19	15
Rock	87	82	72	78	67	82	83	76	68	75
Brown/beige heroin (%)										
Powder	24	7	11	20	17	3	1	1	5	1
Rock	29	37	33	31	30	5	11	10	6	9
Other colour heroin (%)										
Powder	1	1	3	1	1	0	0	2	0	--
Rock	3	1	2	2	4	1	0	2	2	1
Homebake heroin (%)										
	1	1	3	5	1	--	--	1	0	1

Source: IDRS participant interviews

* Multiple responses allowed

[†] Data missing for three participants

[†] Data missing for one participant

-- No reports received

Key Expert comments: Heroin

Seven KE reported that heroin was the main illicit drug they had come into contact with during the course of their work with PWID, and one reported perceiving heroin as the “most problematic” drug in 2016. This health KE nominated heroin as most problematic because overdose rates were not decreasing and harm reduction efforts were not adequate to deal with the issue.

4.3. Methamphetamine

Key points

- In 2016 the prevalence of recent methamphetamine use was 74% and recent injection 73%, identical to 2015. The median frequency of methamphetamine use was 15 days in the preceding six months (fortnightly use), higher than in 2015 (10).
- Nineteen per cent nominated methamphetamine as their drug of choice (20% in 2015).
- The prevalence of recent *ice* use (72%) was almost identical to that in 2015. Prevalence of ice smoking was stable at 30%. Median frequency of *ice* use was 15 days in the preceding six months.
- Prevalence of recent *speed* use was significantly lower in 2016 (9%) than in 2014 (18%). Median frequency of *speed* use was three days in the preceding six months.
- No recent *base methamphetamine* use was reported in 2016.

4.3.1. Prevalence of methamphetamine use

Several forms of methamphetamine are currently available in Australia: crystal methamphetamine (ice) is most common, followed by speed powder and base methamphetamine. The IDRS collects information on the prevalence of methamphetamine use among PWID, as well as information on the price, purity and availability of these three main forms (see Chapter 6). Information is also collected on the use of amphetamine liquid and pharmaceutical stimulants such as dexamphetamine and methylphenidate.

According to the most recent population-based survey, the 2013 NDSHS, the estimated prevalence of past year methamphetamine use among the Victorian general population (aged 14 years and over) was 1.9%, a decline from 2.3% in 2010 (Australian Institute of Health and Welfare, 2014a). In comparison, between 2015 and 2016 prevalence of lifetime methamphetamine use was stable at 97%, and prevalence of lifetime methamphetamine injection declined from 96% to 91% ($p = 0.066$) among Victorian IDRS participants. Recent use (any ROA) of methamphetamine was stable between 2015 and 2016 at 74%, as was recent injection at 73%. Table 2 shows no significant change between 2015 and 2016 in the percentage of participants who nominated methamphetamine as their primary drug of choice (20% vs. 19%, $p = 0.862$).

The percentages of Victorian IDRS participants who reported ever injecting various methamphetamine forms fell to various degrees between 2015 and 2016. Lifetime prevalence of *ice* injection was 90% in 2015 and 87% in 2016; the lifetime prevalence of *speed powder* injection was 89% in 2015 and 78% in 2016 ($p = 0.013$). In 2016, lifetime prevalence of *base methamphetamine* injection was lower than in 2015 (22% vs. 30%, $p = 0.114$). The lifetime prevalence of *amphetamine liquid* injection fell from 30% in 2015 to 26% in 2016 ($p = 0.440$).

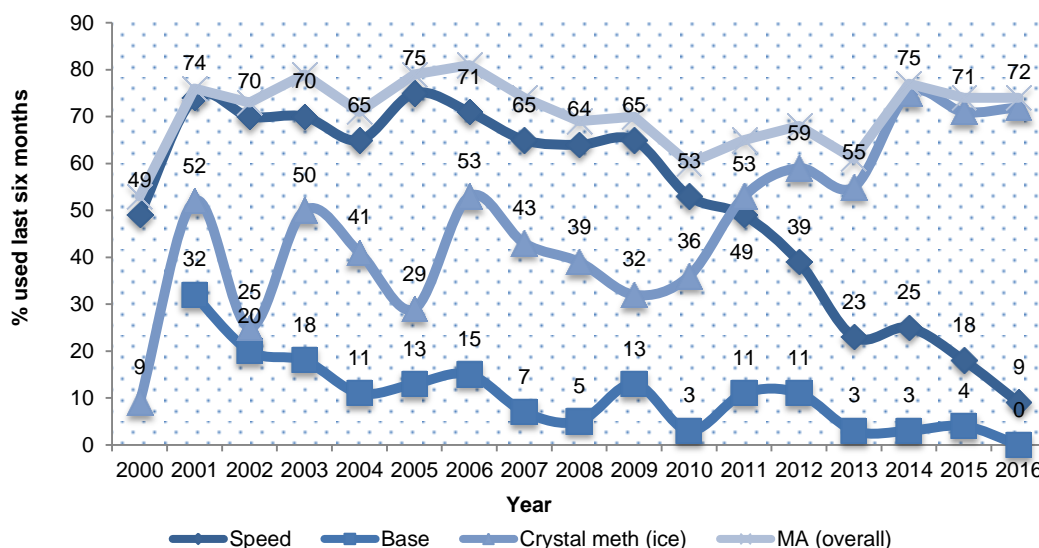
In 2016 the percentage of participants who reported injecting methamphetamine most often in the month preceding interview was 30%, not significantly different from the 29% recorded in 2015 ($p = 0.899$) (Table 2). Thirty-three per cent reported that methamphetamine was the last drug injected (vs. 31% in 2015, $p = 0.711$). Among the 448 Victorian NSP attendees surveyed for the 2013 ANSPS, 21% reported that methamphetamine was the last drug injected (Iversen et al., 2014).

4.3.2. Current patterns of methamphetamine use

The percentage of Victorian IDRS participants reporting methamphetamine use in the preceding six months, from 2000 to 2016, is shown in Figure 3 by methamphetamine type. In 2016 participants

most commonly reported recently using *crystal methamphetamine* or *ice* (72%), not significantly different from 2015 (71%, $p = 0.898$) and underpinning the high prevalence of methamphetamine use overall (74%). There was a significant fall in the prevalence of recent *speed* use from 2015 to 2016 (18% vs. 9%, $p = 0.029$), and the prevalence of recent *base methamphetamine* use fell from 4% to zero. Figure 3 shows that since 2011 there has been a switch from *speed powder* to *ice* use among Victorian IDRS participants.

Figure 3: Percentage of participants reporting methamphetamine use in the past six months, Victoria, 2000–2016



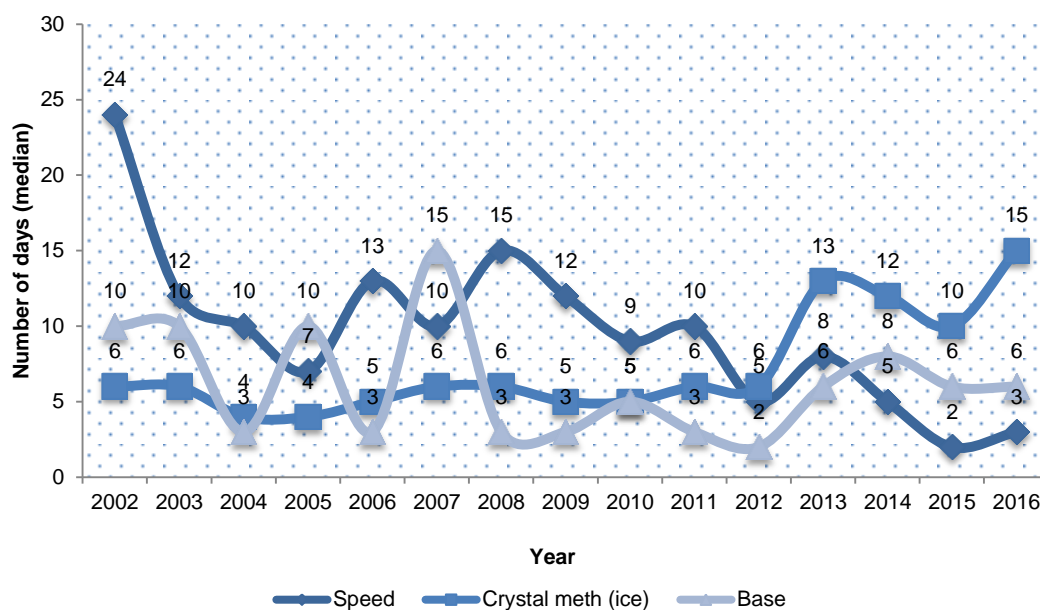
Source: IDRS participant interviews

Consistent with previous years, in 2016 the most common recent methamphetamine ROA among Victorian IDRS participants was injection; 71% reported recent *ice* injection (the same as in 2015). The prevalence of recent *speed* injection fell non-significantly (17% in 2015 vs. 11% in 2016, $p = 0.145$). Prevalences of recent injection of *base methamphetamine* and *amphetamine liquid* were very low (4% and 1%, respectively). One per cent reported the recent injection of *pharmaceutical stimulants* (prescribed or non-prescribed), down from 6% in 2015.

Reports of recent *ice* smoking were stable, with 30% of participants in 2016 indicating they had smoked the drug in the preceding six months, the same as in 2015.

Figure 4 illustrates the median days of methamphetamine use among Victorian IDRS participants who reported recent use, from 2002 to 2016, according to methamphetamine type. In 2016 recent users mostly reported using the drug at similar frequencies to 2015. In 2016, recent *ice* users ($n = 108$) reported use about once per fortnight (median 15 days, IQR 5–57 days) in the preceding six months, compared with 10 days in 2015. Recent *speed* users ($n = 13$) reported use on a median of three days (IQR 2–6 days), compared with two days in 2015. No participants reported recent use of *base* in 2016. Overall, in 2016 the 109 Victorian IDRS participants who reported the recent use of any methamphetamine used on a median of 14 days (IQR 5–61 days) in the preceding six months, or on about two days per month.

Figure 4: Median days of methamphetamine use in the past six months, Victoria, 2002–2016



Source: IDRS participant interviews

* Data were not available for base methamphetamine prior to 2002. Fluctuations are likely due to small numbers reporting

Key Expert comments: Methamphetamine

Thirteen of 16 KE nominated methamphetamine (or more specifically, ice) as the “most problematic” drug in 2016, a much higher proportion than in 2015. Participants’ reasons for nominating ice were consistent, with most KE citing the mental and behavioural consequences associated with methamphetamine use as the biggest concern. Aggression and violence—attributed to low prices, high potency and high availability, sleep deprivation and experiences of agitation—were reported by KE working in NSP, ED, and general practice and policing. KE also referred to ice causing family breakdown and homelessness, and as lacking any effective pharmacotherapy.

4.4. Cocaine

Key Points

- The estimated prevalence of cocaine use among the Victorian general population in 2013 was 2.1%.
- In 2016, the lifetime prevalence of cocaine use among IDRS participants was 67%, and lifetime prevalence of cocaine injection was 39%.
- Recent use was reported by 7% and recent injection was reported by 7%.
- Only three respondents (2%) nominated cocaine as their drug of choice.
- Frequency of use was very low at a median of four days in the previous six months.

According to the 2013 NDSHS, the estimated prevalence of past-year cocaine use among the Victorian general population (aged 14 years and over) was 2.1% (Australian Institute of Health and Welfare, 2014a). In 2016, 100 Victorian IDRS participants (67%) reported lifetime cocaine use and 9% reported using cocaine in the preceding six months, the same as in 2015. In 2016, only three participants (2%) nominated cocaine as their drug of choice. The prevalence of lifetime cocaine injection was 39%, whereas in 2015 lifetime prevalence was 47% ($p = 0.163$). Despite a reasonably high prevalence of lifetime injection, only 10 participants (7%) reported cocaine injection in the preceding six months, the same as in 2015.

Consistent with previous years, in 2016 injection remained IDRS participants' most commonly reported lifetime and recent ROA for cocaine. Only 5% ($n = 6$) reported recent use via insufflation (snorting), and 2% via smoking. No other recent ROA were reported.

As in previous years, the frequency of recent cocaine use was low. The median frequency of recent cocaine use (any ROA) was four days (IQR 2–6 days) in the preceding six months, as was the median frequency of injection (IQR 1–1 days).

All 14 recent cocaine users provided information on the forms of the drug they had used most in the past six months. Nine participants (64%) reported using powder cocaine, four (29%) reported using rock cocaine, and one (7%) reported using crack most often.

4.5. Cannabis

Key Points

- In 2016, the prevalence of cannabis use among the IDRS sample was almost the same as 2015; lifetime use was reported by 93% and recent use was reported by 75%. Daily use was reported by 41% of recent users. Median frequency of use was 90 days, translating to use on approximately four days per week.
- Seven per cent of participants nominated cannabis as their drug of choice.
- Among recent users, hydroponically grown cannabis was smoked most.
- During the most recent session of use, 63% of recent users reported smoking a median of 10 cones, while 13% reported smoking a median of 2.5 joints.

Cannabis is the most widely used illicit drug among the Victorian general population. According to the 2013 NDSHS, the estimated prevalence of use among those aged 14 years and over in the past year was 9.1% (vs. 9.4% in 2010) (Australian Institute of Health and Welfare, 2014a). Cannabis use is very common among Victorian IDRS participants, with prevalences of lifetime and recent use among the 2016 sample very similar to those in 2015. In 2016 almost all participants (93%) reported lifetime use, the same as the figure in 2015. A significant majority (75%) reported recently using cannabis. Despite a high prevalence of cannabis use in 2016, only 7% nominated cannabis as their primary drug of choice.

In 2016, the IDRS sample was asked again to respond to separate questions relating to hydroponically grown cannabis, bush-grown cannabis and hashish/hashish oil. Of recent users (n = 114), 105 (92%) provided responses about the cannabis types used during the past six months. Of these, 94% reported recently using hydroponically grown cannabis and 44% reported recently using bush-grown cannabis; 4% reported the recent use of hashish and 2% hashish oil. Regarding the form of cannabis used most during the preceding six months (n = 103), 88% reported using hydroponically grown cannabis most, while 12% reported using bush-grown cannabis most.

4.5.1. Current patterns of cannabis use

In 2016, recent cannabis users (n = 114) reported a median frequency of 90 days (IQR 24–180 days) use in the preceding six months, lower than in 2015 (median 125 days). Ninety days of use equates to use on approximately four days per week. Of recent users, 41% reported daily cannabis use, similar to previous years.

All recent users provided information on the amount of cannabis used during their most recent session of use. Of these, 63% reported smoking a median of 10 cones (IQR 6–20 cones), while 13% reported smoking a median of 2.5 joints (IQR 1–5 joints).

4.6. OST medications

Key Points

Methadone

- In recent years levels of lifetime and recent OST medication use among Victorian IDRS participants have fluctuated.
- In 2016, the prevalence of recent methadone use was 45%, down from 49% in 2015. Median frequency of use was stable at 170 days.
- Very few participants reported recent *prescribed* (4%) and *non-prescribed* (1%) Physeptone® use.

Buprenorphine

- In 2016 the prevalence of recent buprenorphine use was 7%, down from 15% in 2015.
- Recent buprenorphine use occurred at a median frequency of 12 days. Recent injection was reported by 6%.

Buprenorphine-naloxone

- Lifetime buprenorphine-naloxone tablet use increased significantly between 2015 and 2016. Prevalence of recent use was stable at 3%; median frequency of recent use rose from 12 days in 2015 to 30 days in 2016.
- Nineteen per cent reported recent injection of any buprenorphine-naloxone formulation, on a median of 36 days (about three times per fortnight) in the preceding six months.

4.6.1. Methadone

For the purposes of the IDRS, the classification ‘any methadone’ includes the oral liquid preparations Methadone Syrup® and Biodone Forte® and the tablet preparation Physeptone®, as well as prescription and non-prescription use. As in previous years, 2016 IDRS participants were asked to respond to separate questions regarding *prescribed* and *non-prescribed* use of both the oral liquid preparations and the tablets.

Among the 2016 Victorian IDRS sample, 78% (n = 117) reported lifetime use of methadone (*prescribed* and *non-prescribed*), significantly fewer than in 2015 (87%, $p = 0.049$). Forty-five per cent (n = 71) reported recent use, not significantly different to the percentage in 2015 (49%, $p = 0.489$). Recent users of methadone reported a median frequency of 170 days (IQR 21–180 days) use in the previous six months, or a median of approximately daily use.

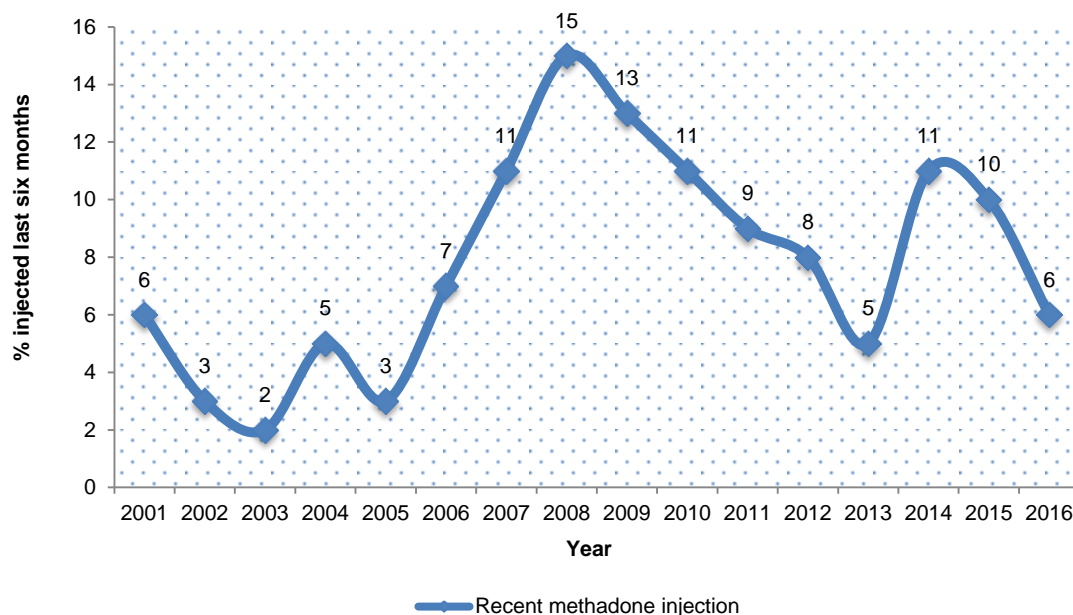
In 2016, 74% (n = 111) reported lifetime use of *prescribed* methadone, with 38% (n = 55) reporting use on a median of 178 days (IQR 90–180 days) in the preceding six months. As in previous years, reports of lifetime and recent use of *non-prescribed* illicitly sourced methadone (i.e. methadone not prescribed to the participant) were less frequent. In 2016, the lifetime prevalence of illicit use was 33%, much lower than in 2015 (47%, $p = 0.014$). Recent illicit use declined (non-significantly) from 13% in 2015 to 11% in 2016 ($p = 0.598$). The median number of days of non-prescribed methadone use was four (five in 2014).

Use of both prescription and non-prescription Physeptone® remains uncommon among Victorian IDRS participants, but in 2016 11% of participants (n = 16) reported lifetime *prescribed* use (vs. 12% in 2015, $p = 0.716$), with 10% (n = 15) reporting lifetime *non-prescribed* use (non-significantly lower

than in 2015, $p = 0.065$). Only 4% of the sample reported recent *prescribed* use, while 1% reported recent *non-prescribed* use.

In 2016 lifetime prevalence of (*prescribed and non-prescribed*) methadone injection was 25%, a significant decrease from 2015 (38%, $p = 0.018$). Figure 5 shows the prevalence of recent methadone injection from 2001 to 2016, with a declining trend evident from 2008. In 2016, the percentage of participants reporting recent methadone injection (6%) was similar to 2013 and pre-2007. Among the nine participants who reported injection in 2016, the median frequency was 15 days (IQR 5–91 days) in the preceding six months.

Figure 5: Percentage of participants reporting any methadone injection in the past six months, Victoria, 2001–2016



Source: IDRS participant interviews

4.6.2. Buprenorphine

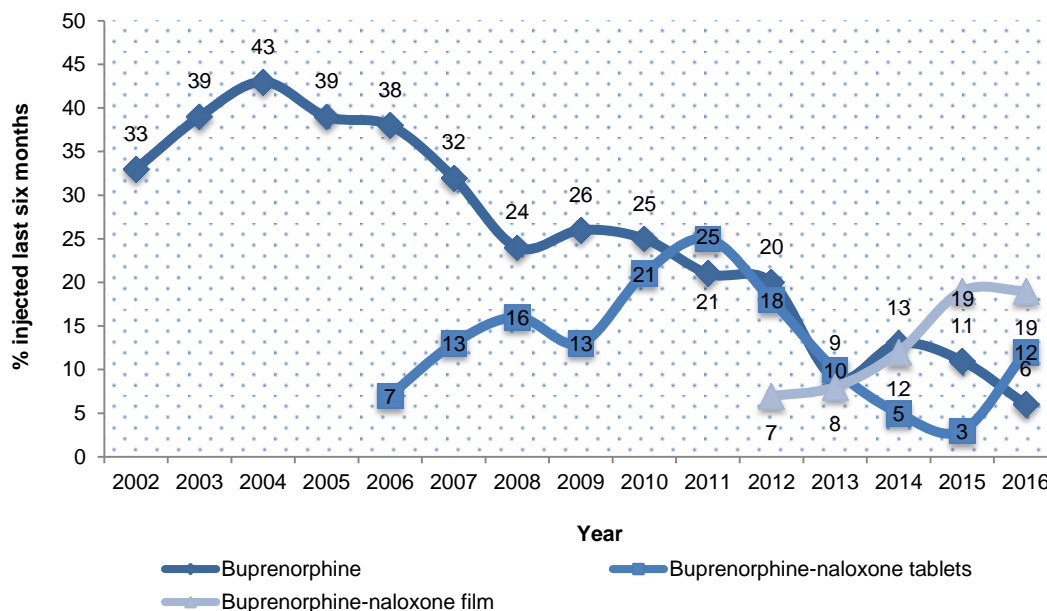
In 2016 the lifetime prevalence of buprenorphine use (Subutex®, *prescribed and non-prescribed*) was 59%, a non-significant decline from 2015 (63%, $p = 0.479$). Between 2015 and 2016, prevalence of recent buprenorphine use fell (from 15% to 7%, $p = 0.029$). Among recent users ($n = 11$), median frequency of use was 12 days (IQR 3–90 days). Lifetime prevalence of buprenorphine injection (*prescribed or non-prescribed*) did not change significantly (41% in 2016 vs. 49% in 2015, $p = 0.164$). As in previous years, the 2016 sample was asked to provide responses to separate questions about the use of *prescribed* and *non-prescribed* buprenorphine.

In 2016 the lifetime prevalence of *prescribed* buprenorphine use was 43%, little different from 2015 (47%, $p = 0.487$). There were five reports of recent *prescribed* use in 2016 (3%). Lifetime prevalence of *non-prescribed* buprenorphine use was 33% in 2016, a non-significant decrease from 2015 (42%, $p = 0.121$), and the prevalence of recent use fell similarly (from 12% in 2015 to 6% in 2016, $p = 0.069$). Among the six participants who reported recent illicit use, the median frequency was 30 days (IQR 3–33 days) in the past six months, compared with 20 days in 2015.

Figure 6 shows the prevalence of recent buprenorphine and buprenorphine-naloxone tablet and film injection (see section 4.6.3) from 2002 to 2016. Between 2015 and 2016 the prevalence of recent buprenorphine injection fell (11% vs. 6%, $p = 0.101$) (Figure 6). The decline over time in recent *prescribed* and *non-prescribed* buprenorphine use and injection among consecutive Victorian IDRS samples is a product of the 2005 introduction of the combination product buprenorphine-naloxone (i.e.

Suboxone®) and declining availability of buprenorphine to pharmacotherapy consumers (King et al., 2011; Lintzeris et al., 2006).

Figure 6: Percentage of participants reporting any buprenorphine and buprenorphine-naloxone* tablet and film injection in the past six months, Victoria, 2002–2016



Source: IDRS participant interviews

Note: Data refer to prescribed and non-prescribed injection of all preparations.

* Data were not available for buprenorphine-naloxone tablets prior to 2006 and buprenorphine-naloxone film prior to 2012

4.6.3. Buprenorphine-naloxone

As mentioned in section 4.6.2, in 2005 buprenorphine-naloxone (Suboxone®) was approved by the Therapeutic Goods Administration (TGA) and by 2006 was available on the Pharmaceutical Benefits Scheme (PBS) (Lintzeris et al., 2006; Minister for Health and Ageing, 2006). Buprenorphine-naloxone was developed to limit the abuse liability of buprenorphine by reducing the potential for injection, particularly by opioid-dependent users who were not in treatment (Lintzeris et al., 2006). In 2011, a new formulation of buprenorphine-naloxone, the Suboxone® sublingual film preparation, was approved by the TGA and released on the PBS to improve consumers' dosing experience (Dunlop & Jordens, 2011). The greatest advantage of buprenorphine-naloxone is the potential for unsupervised dosing.

4.6.3.1. Buprenorphine-naloxone tablets

Between 2015 and 2016, lifetime prevalence of *prescribed* or *non-prescribed* buprenorphine-naloxone tablet use among Victorian IDRS participants increased significantly (50% vs. 69%, $p < 0.001$). In contrast, prevalence of recent tablet use was stable, with 3% reporting use in 2015 and 2016. The median frequency of use was 30 days in 2016, versus 12 days in 2015. The low prevalence of recent buprenorphine-naloxone tablet use is probably related to the rising numbers of PWID accessing the Suboxone® sublingual film preparation, as well as the decline in availability of the tablet formulation. The IDRS will continue monitoring this trend in 2017.

In 2016, lifetime prevalence of *prescribed* buprenorphine-naloxone tablet use was 57%, and lifetime prevalence of *non-prescribed* illicit tablet use was 35%. Two participants (1%) reported *prescribed* use, on a median of 60 days in the past six months, while four (3%) reported *non-prescribed* use on a median of 14 days.

Lifetime prevalence of buprenorphine-naloxone tablet injection (*prescribed* and *non-prescribed*) was 34% in 2016, up non-significantly, $p = 0.210$) from 27% in 2015. In 2016, 12% of participants reported injection in the preceding six months, as shown in Figure 6, compared with 3% in 2015 ($p < 0.005$). Recent buprenorphine-naloxone tablet injectors ($n = 18$) reported doing so on a median of 21 days.

4.7. Other opioids

Key Points

- Between 2015 and 2016 prevalence of lifetime (55%) and recent (12%) morphine use decreased. Forty-three per cent of recent users reported using MS Contin® most, and 29% reported using Kapanol® and generic morphine most.
- The prevalence of lifetime oxycodone use fell from 75% to 55%. Prevalence of recent use fell from 24% to 15%, with median reported frequency of use at three days.
- Of five recent users, three reported using Endone® most.
- Prevalence of recent oxycodone injection (15%) did not change significantly from 2015, and occurred on a median of three days in the previous six months.
- Lifetime and recent injection of fentanyl were low at 18% and 11% respectively. Median frequency of injection was one days in the past six months.

4.7.1. Morphine

Consistent with previous years, lifetime use of pharmaceutical morphine (e.g. MS Contin® and Kapanol®) was reported by the majority of the 2016 Victorian IDRS sample (55%, $n = 82$), but prevalence was down from the 2015 figure of 64% ($p = 0.099$).

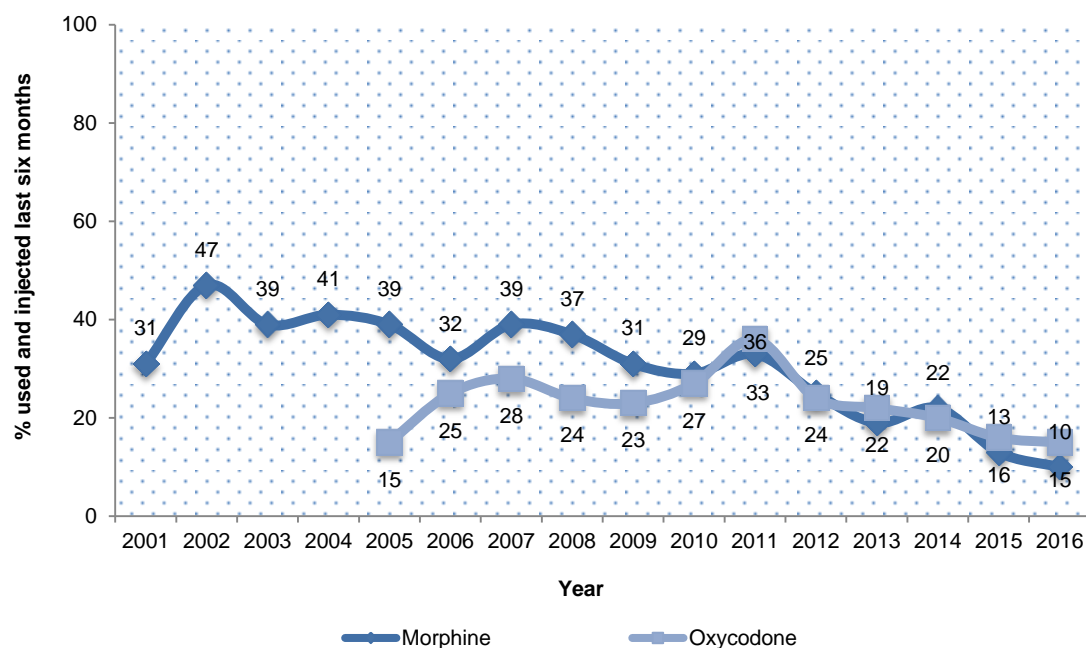
In 2016 the prevalence of recent morphine use was 12%, almost identical to the 13% recorded in 2015 ($p = 0.729$). Median frequency of use in the past six months was five days (IQR 2–6 days). Of 18 recent users, 14 specified the brand of morphine used most in the past six months: 43% reported using MS Contin® most, and 29% reported using Kapanol® and generic morphine most.

As with other pharmaceutical opioids, in 2016 participants were asked separate questions distinguishing between prescribed and non-prescribed morphine use. With regards to *prescribed* morphine, in 2016 15% ($n = 22$) reported lifetime use. One per cent (two participants) reported recent prescribed use, at a median frequency of 180 days in the past six months. In contrast, 49% of participants reported lifetime use of *non-prescribed* or illicitly sourced morphine, down significantly from 61% in 2015 ($p = 0.037$); recent illicit use fell slightly (13% in 2015 vs. 11% in 2016, $p = 0.477$). In 2016, recent non-prescribed users ($n = 16$) reported a median frequency of five days (IQR 2–6 days) use in the preceding six months.

Between 2015 and 2016, lifetime prevalence of any pharmaceutical morphine injection fell significantly, from 59% to 49% ($p = 0.020$). Figure 7 shows the prevalence of recent morphine injection among Victorian IDRS participants, from 2001 to 2016. As in previous years, in 2016 injection was the most commonly reported route of recent morphine administration among recent users. Ten per cent ($n = 15$) reported any recent morphine injection in 2016, compared with 13% in 2015 ($p = 0.369$) (Figure 7). Among these participants, morphine injection occurred on a median of five days (IQR=2–6 days) in the preceding six months.

As in previous years, in 2016 reports of lifetime *non-prescribed* morphine injection were significantly more common than reports of lifetime *prescribed* morphine injection (46% vs. 9%, $p < 0.001$). Recent injection of *non-prescribed* morphine was reported by 9% of participants, and recent *prescribed* morphine injection by 1%. Illicitly sourced morphine was reportedly injected by recent users on a median of five days (IQR 2–6 days) in the preceding six months.

Figure 7: Percentage of participants reporting morphine and oxycodone* injection in the past six months, Victoria, 2001–2016



Source: IDRS participant interviews

Note: Data refer to prescribed and non-prescribed injection of all preparations.

* Data were not available for oxycodone injection prior to 2005

4.7.2. Oxycodone

Lifetime oxycodone use (prescribed and non-prescribed) was reported by 55% (n = 83) of 2016 Victorian IDRS participants, significantly fewer than in 2015 (75%, $p < 0.001$). Fifteen per cent (n = 22) reported recent use, significantly down from 2015 (24%, $p = 0.041$). The median frequency of use was three days (IQR=1–13 days) in the past six months, declining from 2015 when a median of five days use was reported. Five users provided information on the brand of oxycodone used most in the preceding six months; three reported using Endone® most, and one each reported using OxyNorm® and OxyContin® most.

As in previous years, participants in 2016 were asked separate questions about the use of prescribed and non-prescribed oxycodone. In 2016, lifetime prevalence of *prescribed* oxycodone use was 11%, versus 25% in 2015 ($p = 0.002$). Three per cent reported recent prescribed use, on a median of two days in the preceding six months, many fewer than the 21 days recorded in 2015. Similarly, in 2015 lifetime prevalence of *non-prescribed* oxycodone use was 26%, well below prevalence in 2015 (67%). Prevalence of recent non-prescribed use declined non-significantly from 2015 to 2016 (15% vs. 6%). The median frequency of non-prescribed use was two days in the previous six months.

From 2015 to 2016, lifetime prevalence of (prescribed and non-prescribed) oxycodone injection fell significantly (63% vs. 46%, $p = 0.003$). Injection was the most commonly reported recent ROA: 10% of participants reported injecting oxycodone on a median of three days in the preceding six months. Figure 7 shows that the prevalence of recent oxycodone injection has declined each year since 2011.

As in previous years and similar to findings for morphine, in 2015 prevalence of lifetime *non-prescribed* oxycodone injection was significantly higher than prevalence of lifetime *prescribed* injection (24% vs. 8%, $p < 0.001$). Recent *non-prescribed* oxycodone injection also remains significantly more common than recent *prescribed* injection (5% vs. 1%, $p = 0.054$). However, *non-*

prescribed oxycodone was injected at a median frequency of two days, and *prescribed* oxycodone (based on four participants) at a frequency of 100 days, in the preceding six months.

4.7.3. Fentanyl

In 2016, for the fourth time, IDRS participants were asked about their history of fentanyl use; as in 2015, prevalence of use was low in Victoria. Lifetime prevalences of use and injection were 18% and 11% respectively. Two per cent reported recent use and one per cent recent injection. The median frequency of use was one day in the preceding six months.

4.7.4. Other opioids (not elsewhere classified)

In 2016, lifetime prevalence of use of extra-medical opioids (other than those listed above) was 27%, the same as in 2015. The prevalence of recent use was 9%, very close to the 10% recorded in 2015. Lifetime prevalence of injection was 3%, and no participants reported recent injection. Among recent users (n = 13), Panadeine Forte® (n = 11) was the most common brand used.

4.7.5. Over the counter (OTC) codeine

In 2016, lifetime prevalence of extra-medical OTC codeine use was 23% (n = 35) and recent extra-medical use was reported by 9% (n = 14). Participants who reported recent use of these medications reported a median frequency of 10 days (IQR 3–20 days) use in the preceding six months. No participants reported recent OTC codeine injection (see Table 3).

4.8. Benzodiazepines

Key Points

- In 2016, prevalence of lifetime benzodiazepine use (other than alprazolam) did not change significantly (84%)
- Prevalence of recent benzodiazepine use decreased significantly, from 65% in 2015 to 37% in 2016.
- Between 2015 and 2016 the prevalence of lifetime alprazolam use fell significantly (from 83% to 63%, as did the prevalence of recent use (from 29% to 7%). Prescribed users typically used daily, whereas non-prescribed users typically used less than monthly.

4.8.1. Benzodiazepines other than alprazolam

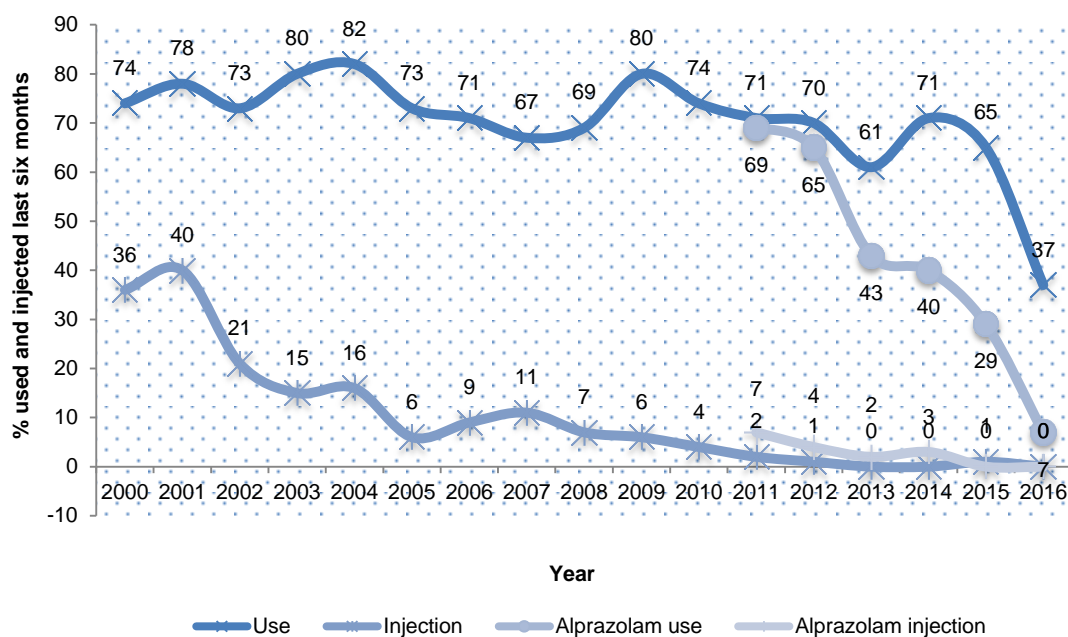
Since 2011, Victorian IDRS participants have been asked to respond to separate questions distinguishing between use of prescribed and non-prescribed alprazolam (Xanax®) and the use of other benzodiazepines such as diazepam (Valium®). This change to the participant survey may have reduced the prevalence of reports regarding the use of benzodiazepines other than alprazolam. In this section, patterns of general benzodiazepine use are addressed first, followed by patterns of alprazolam use, addressed in section 4.8.2.

In 2016, prevalence of lifetime use of benzodiazepines other than alprazolam (*prescribed* and *non-prescribed*) was 84%, not significantly different from 2015 (90%, $p = 0.122$). Recent use decreased significantly to 37% ($n = 56$) in 2016 (from 65% in 2015; $p < 0.001$), after a long period of stability from 2000 to 2015, as shown in Figure 8.

There were no reports of recent benzodiazepine (other than alprazolam) injection in 2016. The reduction over time in benzodiazepine injection continues to reflect the withdrawal of temazepam gel capsule preparations from the market in 2004 (Breen, Degenhardt, Bruno, Roxburgh, & Jenkinson, 2004; Dobbin, 2002; Wilce, 2004) and subsequent increased awareness among Victorian PWID regarding the harms associated with tablet injection.

In 2016 prevalence of both lifetime and recent use of *prescribed* and *non-prescribed* benzodiazepines (other than alprazolam) was similar (lifetime: 69% vs. 59%, $p = 0.071$, recent: 42% vs. 39%, $p = 0.638$). Between 2015 and 2016, the prevalence of lifetime prescribed use fell (78% to 69%, $p = 0.088$) and lifetime non-prescribed use fell significantly (72% to 59%, $p = 0.021$). The prevalence of recent prescribed use was almost identical (41% to 42%, $p = 0.907$), whereas recent non-prescribed use fell (47% to 39%, $p = 0.162$). *Prescribed* users reported a median frequency of 90 days (IQR 25–180 days) use in the preceding six months, while *non-prescribed* users reported a median of 3.5 days (IQR 2–8 days) use. Among recent users who reported brands ($n = 19$), 80% reported using diazepam most (e.g. Valium, $n = 10$) and 11% reported using oxazepam (e.g. Serapax®) most.

Figure 8: Percentage of participants reporting use and injection of Alprazolam, and any benzodiazepine other than Alprazolam, in the past six months, Victoria, 2000–2016



Source: IDRS participant interviews

Note: Data refer to prescribed and non-prescribed injection of all preparations. Since 2011, participants have been asked separate questions distinguishing between alprazolam use and use of other benzodiazepines; therefore separate data for alprazolam use and injection are presented from 2011.

4.8.2. Alprazolam

From 2015 to 2016, there was a significant fall in lifetime prevalence of any (*prescribed* and *non-prescribed*) alprazolam use (83% to 63%, $p < 0.001$). As shown in Figure 8, recent use continued to fall, with prevalence at 7% in 2016 compared to 29% in 2015 ($p < 0.001$). No participants reported alprazolam injection in the preceding six months. In February 2014, alprazolam was rescheduled from a Schedule 4 to Schedule 8 poison (Victorian Department of Health, 2013a), restricting access to the drug.

Unlike other benzodiazepines, in 2016 lifetime prevalence of *non-prescribed* alprazolam use continued to be significantly higher than lifetime prevalence of *prescribed* alprazolam use (54% vs. 28%, $p < 0.001$). Recent *non-prescribed* use was also higher than *prescribed* use (15% vs. 4%, $p = 0.001$). In 2016, recent users of *prescribed* alprazolam reported a median frequency of 180 days use (IQR 33–180 days) in the past six months, whereas *non-prescribed* users reported a median of one day of use.

4.9. Other drugs

Key Points

- Prevalence of lifetime quetiapine use did not change significantly (63%), nor did prevalence of recent use (25%). Recent quetiapine users reported a median of 180 days of use in the past six months (daily).
- Prevalence of lifetime pharmaceutical stimulant use (46%) was identical to the 2015 figure, but prevalence of lifetime injection was 16%, much lower than in 2015. Recent use was reported by 5% on a median of three days in the past six months. One per cent reported recent injection.
- The prevalence of recent ecstasy use was 7% (vs. 6% in 2015).
- Three per cent reported recent hallucinogen use. Seven per cent reported lifetime injection, but none reported recent injection.
- No participants reported recent inhalant use.
- Thirteen participants reported recent steroid use.
- The prevalence of recent alcohol use (57%) was significantly lower than in 2015 (7%). Median frequency of use was 24 days (approximately once per week) in the past six months.
- Prevalence of recent tobacco use (97%) was consistent with previous years. Fourteen per cent reported recent e-cigarette use, on a median of three days in the past six months.
- Two per cent reported recent NPS use on a median of four days in the six months before interview.
- Lifetime prevalence of synthetic cannabinoid use fell non-significantly to 23%, with recent use non-significantly decreasing to 13%. Recent use occurred on a median of two days in the preceding six months.

4.9.1. Quetiapine

Since 2011 the antipsychotic medication quetiapine (Seroquel®) has been included as a distinct category in the IDRS participant survey due to reports of an emerging street market for the drug among PWID in Melbourne. As with other pharmaceutical drug preparations, in 2016 participants responded to questions distinguishing between prescribed and non-prescribed use.

Between 2015 and 2016, lifetime prevalence of any (prescribed and non-prescribed) quetiapine use did not change significantly (65% to 63%, $p = 0.718$). Prevalence of recent use was 25% in 2016, not significantly different from the 26% reported in 2015 ($p = 0.895$), at a median frequency of 180 days use (IQR 95–180 days) in the preceding six months. Similar to previous years, lifetime quetiapine injection was reported by a very small proportion (1%) of the sample. No reports of recent injection were received.

In 2016 lifetime *non-prescribed* quetiapine use was (non-significantly) higher than lifetime *prescribed* quetiapine use (39% vs. 33%, $p = 0.280$), but recent non-prescribed use was lower than recent prescribed use (13% vs. 16%, $p = 0.514$). *Prescribed* quetiapine users ($n = 24$) reported a median frequency of daily use of 180 days (IQR 95–180 days), while *non-prescribed* users ($n = 24$) reported a median frequency of two days use (IQR 1–7 days) in the preceding six months.

4.9.2. Pharmaceutical stimulants

In 2016, lifetime prevalence of pharmaceutical stimulant use (e.g. dexamphetamine and methylphenidate, prescribed and non-prescribed) was 46%, the same as in 2015. However, lifetime

injection prevalence in 2016 was 16%, significantly lower than in 2015 (29%, $p = 0.006$). Few (1%) reported recent injection. Prevalence of recent use did not change significantly from 2015 to 2016 (7% to 5%, $p = 0.477$); median frequency of use was three days (IQR 1–180 days) in the preceding six months. Only one participant reported a brand (Dexedrine®).

As with most other pharmaceutical preparations, in 2016 lifetime prevalence of *non-prescribed* pharmaceutical stimulant use was significantly higher than *prescribed* use (29% vs. 8%, $p < 0.001$). Recent illicit use was slightly higher than recent prescribed use (3% vs. 2%, $p < 0.474$). *Non-prescribed* users reported use on a median of two days (IQR 1–3 days) in the preceding six months.

4.9.3. Ecstasy

Similar to previous years, 63% ($n = 95$) of the 2016 Victorian IDRS sample reported lifetime ecstasy (3,4-methylenedioxymethamphetamine/MDMA) use. Seven per cent reported use in the preceding six months, a non-significant increase from 2015 (6%, $p = 0.643$). Over time, the prevalence of recent ecstasy use has declined considerably among IDRS participants, from about two-fifths of the sample in 2001. In 2016, the median frequency of use was four days (IQR 2–6 days) in the past six months. Between 2015 and 2016, prevalence of reported lifetime injection of ecstasy changed little (31% and 28% respectively) and only 2% reported recent injection in 2016.

A more comprehensive picture of ecstasy and hallucinogen use is provided by other sentinel groups of drug users such as regular psychostimulant users (RPU). The Ecstasy and related Drugs Reporting System (EDRS) employs a similar methodology to the IDRS and has been conducted in each Australian jurisdiction for the past 11 years. One component involves data collection from approximately 100 RPU on their patterns of use and perceptions of market characteristics of 'party' drugs, including ecstasy, GHB (gamma-hydroxybutyrate) and ketamine. Results from the 2016 Victorian EDRS are available in early 2017 (Truong, Dietze, & Lloyd, 2016).

4.9.4. Hallucinogens

In 2016, lifetime prevalence of hallucinogenic drug use (e.g. LSD (lysergic acid diethylamide) and 'magic mushrooms' (psilocybin mushrooms)) was 61%, slightly below the 65% of 2015 ($p = 0.472$), but the same as in 2014. Three per cent reported recent use, at a median frequency of one day (IQR 1–9 days) in the past six months. Seven per cent reported lifetime injection and none reported recent injection.

4.9.5. Inhalants

Between 2015 and 2016 the lifetime prevalence of inhalant use fell significantly (from 28% to 17%, $p = 0.027$). In 2016 no participants reported recent use.

4.9.6. Steroids

In 2016 lifetime prevalence of steroid use was 7%, not significantly different from the 5% in 2015 ($p = 0.477$). One per cent of participants reported recent use.

4.9.7. Alcohol, tobacco and e-cigarettes

Lifetime prevalence of alcohol use was 89% in 2016, a near-significant fall from the 2015 figure (95%, $p = 0.051$). Prevalence of recent use was 57%, significantly lower than the 71% recorded in 2015 ($p = 0.011$). All recent alcohol users ($n = 86$) reported oral consumption at a median frequency of 24 days (IQR 10–153 days) in the past six months, translating to an approximate pattern of weekly use. Twenty-three per cent of recent users consumed alcohol daily.

In 2016, lifetime prevalence of tobacco use was 99%, similar to previous years. Recent use was reported by 97%. Among recent smokers, the prevalence of daily tobacco smoking was 92% and the median frequency of use was 180 days (IQR 180–180 days) in the preceding six months. Lifetime

prevalence of e-cigarette use was 33% (vs 37% in 2015, $p = 0.469$) and in 2016, 14% of participants reported recent use (down from 22%, $p = 0.071$) at a median frequency of three days (IQR 1–13 days) in the preceding six months.

4.9.8. NPS and synthetic cannabinoids

In 2016, for the fourth time, Victorian IDRS participants were asked to provide information about their experiences using NPS and synthetic cannabinoids. No reports were received from participants regarding NPS use in 2013, and in 2014 5% reported lifetime use, with 2% reporting recent use. In 2015 7% reported lifetime use, and 1% recent use. In 2016, 6% reported lifetime use, and 4% recent use at a median frequency of four days (IQR 1–33 days) in the preceding six months.

Between 2015 and 2016 lifetime prevalence of synthetic cannabinoid use fell non-significantly, from 29% to 23% ($p = 0.198$). Recent use went from 16% to 13% ($p = 0.514$). The median frequency of use in the past six months was two days (IQR 1–9 days).

Key Expert comments: Drugs other than heroin and methamphetamine

Alcohol was the only drug other than heroin and ice/crystal mentioned as problematic by KE. Both health KE who mentioned alcohol as problematic justified their concern by stating that alcohol was dangerous because it was not seen as a drug, and that Australian culture glorified drinking to excess.

5. Drug market: Price, purity, availability and purchasing patterns

5.1. Heroin

Key Points

Price

- In 2016, the median reported price for 1.0 g of heroin fell to \$220, and for 0.25 g to \$80. Prices for other amounts were consistent with previous years.
- Participants most commonly reported purchasing 0.5 g of heroin and paying \$150.

Availability

- Almost all (97%) reported that heroin was very easy or easy to obtain, with 88% reporting that the heroin market was stable in the past six months. Six per cent reported heroin was more difficult to obtain.
- Heroin was primarily sourced from known dealers (61%) or friends (22%), from an agreed public location (47%), a dealer's home (19%), home-delivered (13%) or a street market (11%).

Purity

- Participants reported that heroin was typically of low (44%) to medium (30%) purity. Forty-one per cent reported that purity was stable in the six months before interview, and 16% reported a decrease.
- In 2015/16, the average purity of heroin seizures was low: 26% for < 1 gram (vs in 22% in 2014/15), and 27% for > 1 gram (vs 30% in 2015/15).

5.1.1. Price

In 2016, 71% (n = 106) of the Victorian IDRS sample reported confidence in their knowledge of the heroin market in Melbourne and provided information pertaining to the price, purity and availability of heroin during the past six months. Table 6 presents Victorian IDRS participants' reports of the median price paid for their most recent heroin purchase, from 2012 to 2016, according to weight. Median heroin prices were estimated from participants' most recent heroin purchase. In 2016, participants (n = 49) most commonly reported recently purchasing 0.5 gram of heroin; the median price paid on the last purchase occasion was \$150 (IQR \$130–150). Forty-six participants reported most recently purchasing 1.7 grams of heroin (a standard amount of heroin sold on the streets of Melbourne), and 46 participants reported most recently purchasing a cap/0.1 gram (Table 6).

Table 6: Median prices paid for last heroin purchase, according to weight, Victoria, 2012–2016

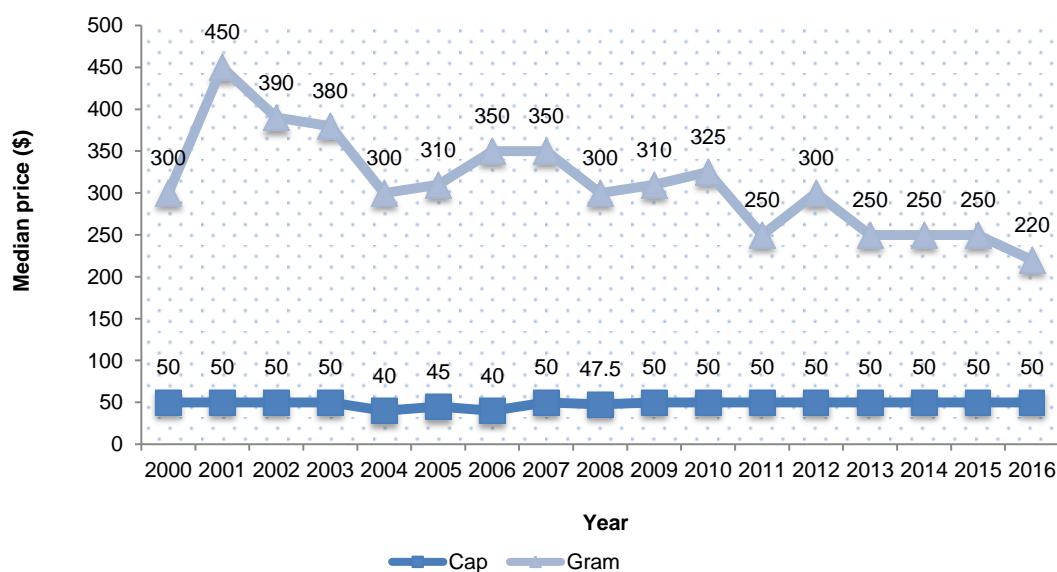
	2012 \$	2013 \$	2014 \$	2015 \$	2016 \$
Cap/0.1 g (range)	50 (30–100)	50 (35–80)	50 (20–300)	50 (25–150)	50 (20–70)
0.25 g (range)	110 (70–150)	100 (50–120)^	100 (50–150)	100 (50–500)	80 (50–500)
0.5 g (range)	150 (120–300)	150 (100–300)	150 (100–250)	150 (30–600)	150 (100–350)
1.0 g (range)	300 (200–350)	250 (160–700)	250 (50–480)	250 (135–450)	220 (150–320)
1.7 g (range)	350 (250–500)	300 (100–1000)	350 (180–400)	300 (50–500)	300 (200–400)

Source: IDRS participant interviews

^ Small numbers reporting (<10) – please interpret with caution

Figure 9 shows the median prices of a cap (about 0.1 gram) and 1.0 gram of heroin from 2000 to 2016, estimated from Victorian IDRS participants' most recent purchases. Median prices of a cap have remained stable at between \$40 and \$50 since 2000. The median price per gram of heroin has fluctuated over the years, peaking at \$450 in 2001 following the heroin 'glut' (Dietze & Fitzgerald, 2002). From 2004 to 2010 the median price remained stable, between \$300 and \$350, after which it declined. In 2016, the reported median price of a gram was \$220, a fall from the median over the previous three years (Figure 9).

Figure 9: Median prices of a cap and a gram of heroin estimated from participants' purchases, Victoria, 2000–2016



Source: IDRS participant interviews

In 2016, 102 participants provided information on changes to the price of heroin during the preceding six months. Stable heroin prices were reported by 65%, while 22% reported that the price of heroin decreased and 2% reported that the price increased. Twelve per cent reported that the price of heroin fluctuated during the preceding six months.

5.1.2. Availability

One hundred and five participants commented on perceptions of current heroin availability. Most reported that heroin was very easy (63%) or easy (34%) to obtain; 3% reported that obtaining heroin

at the time of interview was difficult. Most participants reported no changes to recent heroin availability; 88% reported that the market was stable in the past six months, 6% reported that heroin had become more difficult to obtain, while 3% reported it was easier. Four per cent reported fluctuating availability in past six months.

As in previous years, participants were asked to nominate the source of their last heroin purchase; 98 participants provided comment. On the last purchase occasion, 61% reported sourcing heroin from known dealers, while 22% reported sourcing it through friends. Smaller proportions reported last sourcing heroin from a street dealer (13%) and an acquaintance (1%), unknown dealer (1%) or mobile dealer (1%). Participants most commonly reported sourcing their last purchase from an agreed public location (47%), from a dealer's home (19%), having it home-delivered (13%), a street market (11%) or a friend's home (10%).

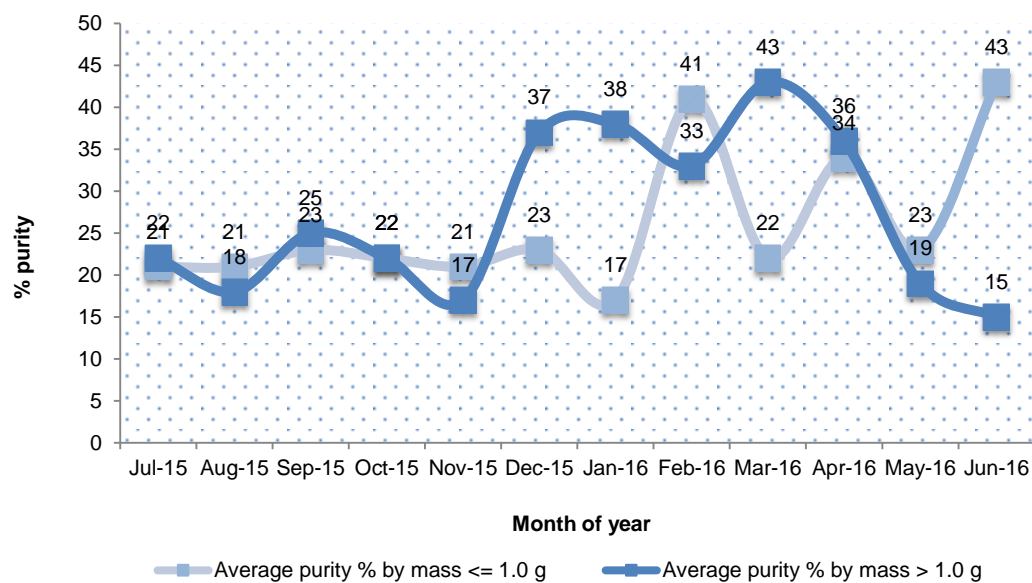
5.1.3. Purity

In 2016, 105 participants provided information on their perceptions of current heroin purity. Forty-four per cent – almost the same as in 2015 – reported that heroin purity was low, and 30% reported it was medium. Only 11% reported purity as high at the time of interview and 15% reported it as fluctuating, identical to 2015.

One hundred and three participants commented on their perceptions of changes to heroin purity in the past six months. Of these, 41% reported that purity was stable, 29% reported fluctuating purity, 16% reported a decrease and 15% reported an increase.

Figure 10 shows the average purity of heroin seizures made by Victorian LE agencies during 2015/16. The average monthly purity of the heroin seizures under 1 gram was 26% (range 17–43%), higher than in the 2014/15 financial year (22%). The average purity of seizures weighing more than 1.0 gram was slightly higher (27%, range 15–43%), but lower than in 2014/15 (30%). Compared with the average purity of seizures during the height of heroin supply in Melbourne from 1998 to 2001, overall purity in 2015/16 was considerably lower (Cogger et al., 2013; Quinn, 2009).

Figure 10: Average purity of heroin seizures by Victorian law enforcement, July 2015 to June 2016



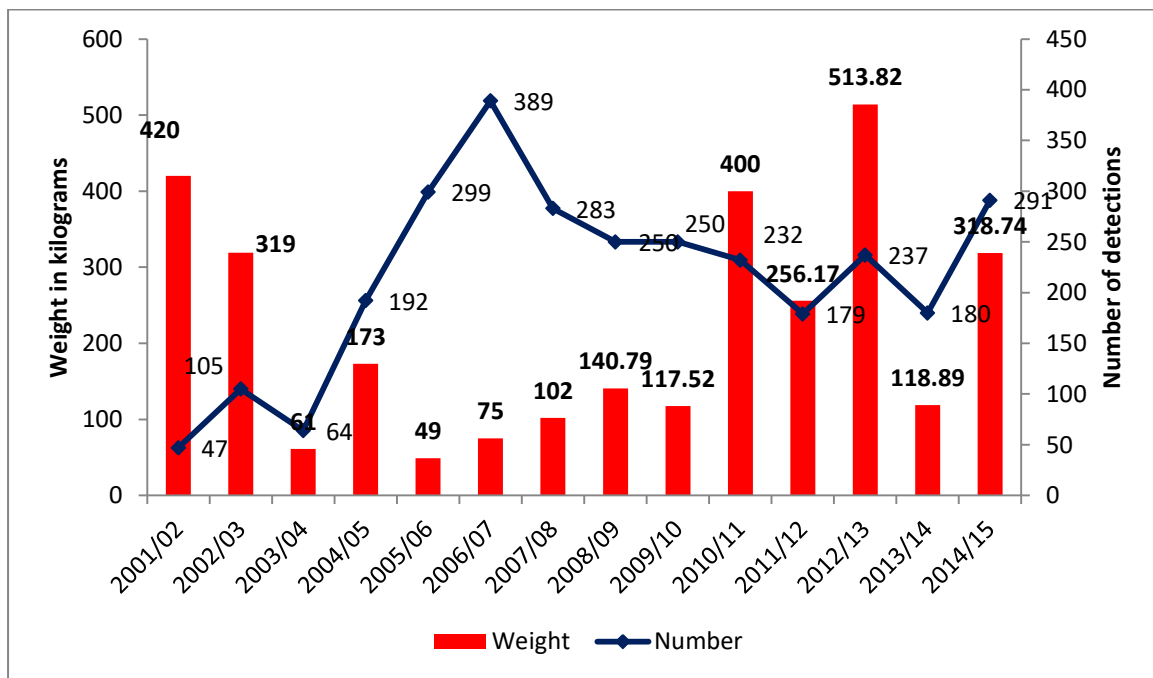
Source: Forensic Drug Branch, Victoria Police Forensic Services Department

5.1.4. Heroin detected at the Australian border

Customs drug seizure data for 2015/16 were not received in time to be included in this report. This section repeats the data presented in the 2015 IDRS report.

Figure 11 shows the number and weight of heroin shipments seized at the border by the Australian Customs and Border Protection Service (ACBPS) from 2001/02 to 2014/15. The weight of heroin seizures increased sharply between 2013/14 and 2014/15, but this followed an even sharper decline between 2012/13 and 2013/14, so seizure weight returned to a level similar to that in 2011/12. The number of heroin seizures has declined overall since 2006/07, but in 2014/15 291 seizures were made, the highest number since 2006/07 (n = 389; n = 283 in 2007/08) (Figure 11).

Figure 11: Number and weight of heroin shipments seized at the border by the Australian Customs and Border Protection Service, 2001/02-2014/15



Source: ACBPS

5.2. Methamphetamine

Key Points

Price

- In 2016, only two IDRS participants reported purchasing speed. Participants (n = 21) most commonly reported purchasing 0.5 gram of ice for \$250, the same price as in 2015. Median reported prices for 0.1 gram and 1.0 gram were also unchanged from 2015.

Availability

- One participant reported that speed was easy and the other that it was very easy to obtain; both reported no change in availability in the past six months.
- Ice was described as easy or very easy to obtain (99%). Eighty-three per cent reported no change in availability in the past six months; 10% reported access was easier.

Purity

- In 2016, one participant reported speed purity was high, the other that it was fluctuating. One reported no recent changes in purity, and the other reported that purity was fluctuating.
- Twenty-nine per cent reported that ice purity was high, 37% reported it was medium, 20% low. Thirty-eight per cent reported that purity was stable in the six months before interview, 35% reported a decrease, 19% fluctuation and 7 increasing.
- In 2015/16 the overall average purity of methamphetamine seizures was stable, at 75%. By contrast, the overall average purity of amphetamine seizures was only 7%, down from 17% in 2014/15.

5.2.1. Price

5.2.1.1. Speed powder

In 2016, only two Victorian IDRS participants reported confidence in their knowledge of the Melbourne speed market and provided information about price in the past six months. Median speed prices were estimated from participant reports of the price paid for their most recent purchase, detailed in Table 7. Two participants reported last purchasing 0.1 gram of speed, and one participant reported purchasing 1.0 gram. Table 7 shows median prices for speed powder between 2015 and 2016. No participants provided information on changes to the price of speed in the preceding six months.

5.2.1.2. Crystal methamphetamine (ice)

Table 7 also shows the median prices participants paid for their most recent ice purchase from 2013 to 2016. As with speed, median prices were estimated from participants' reports of the last price paid. In 2016, 56 participants reported confidence in their knowledge of the ice market. Of these, most (n = 21) reported last purchasing 0.5 gram of ice. Three participants reported purchasing 0.25 gram, and three participants reported purchasing an eighth of a gram (Table 7). Seventy participants provided information on changes to the price in the six months before interview: 57% reported it was stable, 37% reported that it was decreasing, 2% reported fluctuating prices and 3% increasing prices.

Table 7: Median prices paid for last speed and crystal methamphetamine* purchase, according to weight, Victoria, 2013–2016

	Speed				Crystal methamphetamine			
	2013 \$	2014 \$	2015 \$	2016 \$	2013 \$	2014 \$	2015 \$	2016 \$
0.1 g (range)	50 (25–100)^	50 (50–100)	55 (20–200)^	40 (20–60)^	100 (20–100)	100 (50–100)	50 (25–100)	50 (25–100)
0.5 g (range)	100 (100–100)^	100 (100–300)^	90 (90–90)^	--	350 (150–370)	300 (200–500)	250 (120–350)	250 (120–350)
1.0 g (range)	160 (100–240)^	175 (90–800)	100 (100–100)^	110 [†]	300 (100–600)^	500 (300–800)	350 (220–600)	350 (220–600)

Source: IDRS participant interviews

^ Small numbers reporting (<10) – please interpret with caution

† only one participant

* Base methamphetamine prices are not shown due to very few participants reporting recent purchases from 2011

-- Not reported

5.2.1.3. Base methamphetamine

In 2016, no participants provided information on the price of base methamphetamine.

5.2.2. Availability

5.2.2.1. Speed powder

In 2016, two participants commented on their perceptions of speed availability. One reported that speed was very easy and the other that it was easy to obtain. With regards to perceptions of recent changes to speed availability, both reported the market was stable. The sources of their most recent speed purchases were known dealers.

5.2.2.2. Crystal methamphetamine (ice)

In 2016, 72 Victorian IDRS participants provided information on their perceptions of ice availability. Most participants reported that ice was very easy (64%, vs. 63% in 2015) or easy (35%, vs. 34% in 2015) to obtain; 1% reported it was difficult. Regarding participants' (n = 71) perceptions of recent changes to availability, 83% reported the market was stable, 10% reported that ice was easier to obtain, 6% reported more difficulty, and 1% stated that it fluctuated.

Participants were asked to nominate the source of their last ice purchase and, in 2016, 70 did. At the last purchase, the most common sources were known dealers (37%), friends (37%), acquaintances (17%) and street dealers (9%). Participants (n = 69) reported that the most common source locations were an agreed public location (28%), a friend's home (17%), home delivery (16%), a dealer's home (18%) and a street market (11%).

5.2.2.3. Base methamphetamine

No participants commented on the market characteristics for base methamphetamine in 2016.

5.2.3. Purity

5.2.3.1. Speed powder

In 2016, two Victorian IDRS participants provided information on their perceptions of speed purity. One reported that speed purity was high, the other that it was fluctuating. Both commented on recent changes to purity: one reported purity was stable, the other reported it was fluctuating.

5.2.3.2. Crystal methamphetamine (ice)

In 2016, 69 participants provided information on their perceptions of ice purity at the time of interview. Of these, 29% reported purity was high, 37% reported it was medium, 20% reported it was low and 13% reported it was fluctuating. Sixty-eight participants commented on perceived recent changes to ice purity. Of these, 38% reported no changes in the past six months, 35% reported that ice purity was decreasing, 19% fluctuating, and 7% increasing.

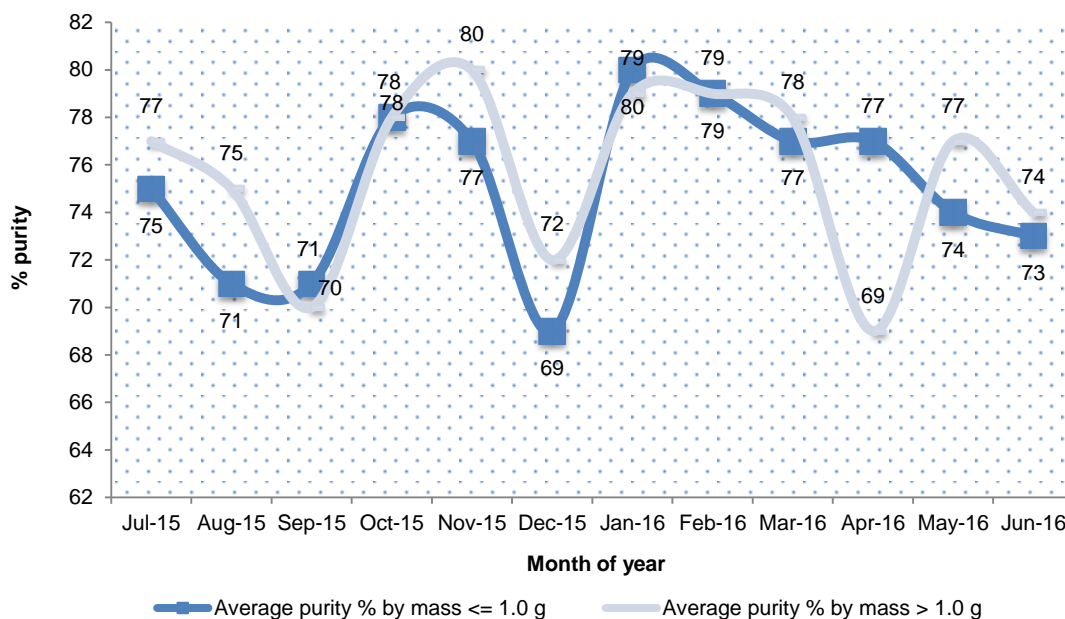
5.2.3.3. Base methamphetamine

No participants commented on the purity of base methamphetamine in 2016.

Figure 12 shows the average purity of methamphetamine seized by Victorian LE agencies during 2015/16. Overall, the average monthly purity of methamphetamine seizures analysed was 75% (range 69–80%), the same as in 2014/15. Note that the overall average purity of methamphetamine seizures during the last three financial years has been significantly higher than overall average purity prior to 2011/12 (Cogger et al., 2013). In 2015/16, seizures weighing 1.0 gram or less had an average monthly purity of 75% (range 69–80%), slightly higher than the average purity of smaller seizures in 2014/15 (74%). The average purity of seizures of more than 1.0 gram was 76% (range 69–80%), the same as mean purity in 2014/15.

As per previous years, Victorian LE agencies made fewer amphetamine than methamphetamine seizures during 2015/16 and, in comparison with methamphetamine, the purity of amphetamine seizures was low. Overall average monthly purity was 7% (range 4–44%), a large reduction from 2014/15 (17%). In 2015/16, amphetamine seizures weighing 1.0 gram or less had an average purity of 7% (range 4–18%), whereas seizures of more than 1.0 gram had an average purity of 6% (range 4–44%).

Figure 12: Average purity of methamphetamine seizures by Victorian law enforcement, July 2015 to June 2016



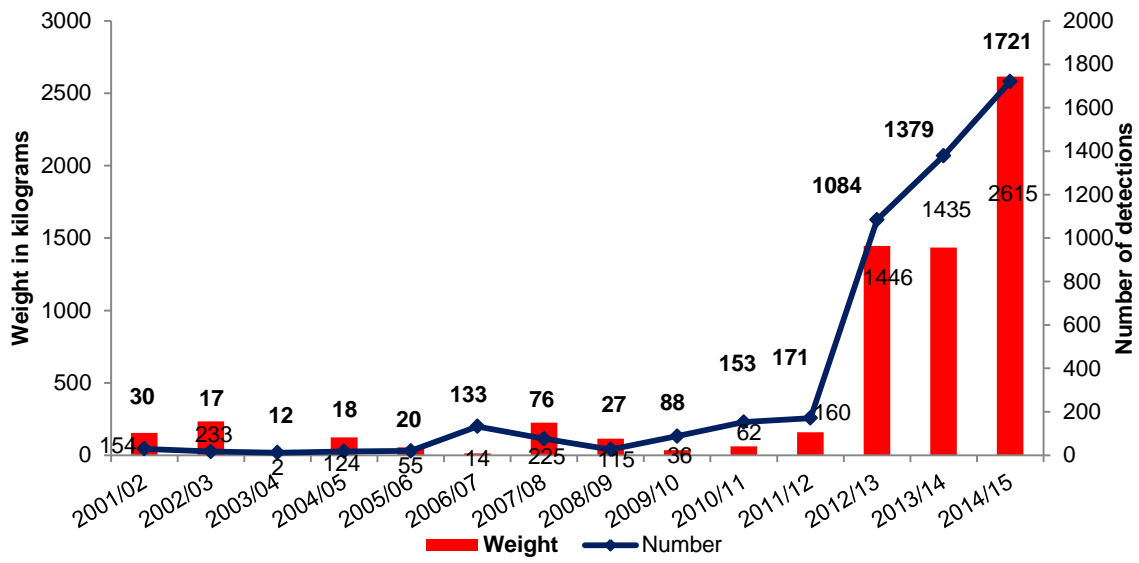
Source: Forensic Drug Branch, Victoria Police Forensic Services Department

5.2.4. Crystal methamphetamine detected at the Australian border

Customs drug seizure data for 2015/16 were not received in time to be included in this report. This section repeats the data presented in the 2015 IDRS report.

Figure 13 shows the number and weight of crystal methamphetamine shipments the ACBPS seized at the border from 2001/02 to 2015/16. The weight of crystal methamphetamine seizures increased substantially between 2011/12 and 2012/13, declined marginally to 2013/14, rose markedly again in 2014/15. The number of seizures increased rapidly during the same period. The highest number of crystal methamphetamine seizures was made in 2014/15 (n = 1,721), weighing 2,615 kilograms (Figure 13).

Figure 13: Number and weight of crystalline methamphetamine* shipments seized at the border by the Australian Customs and Border Protection Service, 2001/02-2015/6



Source: ACBPS

* Includes only the crystalline variety of methamphetamine called 'ice'. Excludes MDMA (ecstasy)

5.3. Cocaine

Key Points

- In 2016 too few participants provided information on their last cocaine purchase, so median prices are not reported.
- Only two participants reported on cocaine availability, one suggesting it was easy and the other difficult to obtain.
- One participant suggested purity was medium, the other high.
- In 2015/16, the overall average purity of cocaine seizures was moderate (48%). Seizures weighing more than 1.0 gram had an average purity of 51%.

5.3.1. Price

In 2016, only one participant provided information about the price of their last cocaine purchase in the past six months. Median prices are therefore not reported. Two participants said that prices were stable.

5.3.2. Availability

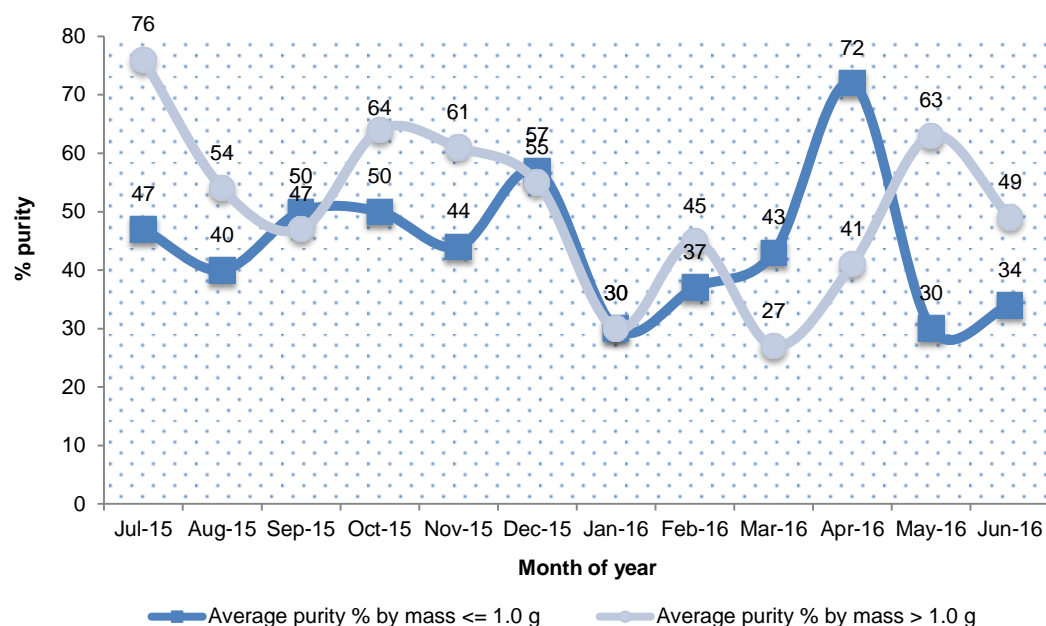
Two participants supplied their perceptions of cocaine availability in 2016. One said cocaine was easy to obtain and recent availability was stable, the other said it was difficult to obtain and becoming more so. On the last purchase occasion, one participants sourced cocaine from a known dealer, the other from a street dealer. Source venues were the dealer's home or a street market.

5.3.3. Purity

In 2016, two participants commented on cocaine purity, one suggesting that it was high and the other medium at the time of interview, and one reporting stable and the other fluctuating availability in the preceding six months.

Figure 14 shows the average purity of cocaine seizures made by Victorian LE agencies in 2015/16. Overall, the average monthly purity of cocaine seizures analysed was 48% (range 30–76%), similar to 2014/15 (50%) and 2013/14 (44%), but higher than previous years (Cogger et al., 2013). In 2015/16, seizures weighing 1.0 gram or less had an average monthly purity of 45% (range 30–72%), whereas seizures weighing more than 1.0 gram had an average purity of 51% (range 30–76%).

Figure 14: Average purity of cocaine seizures by Victorian law enforcement, July 2015 to June 2016



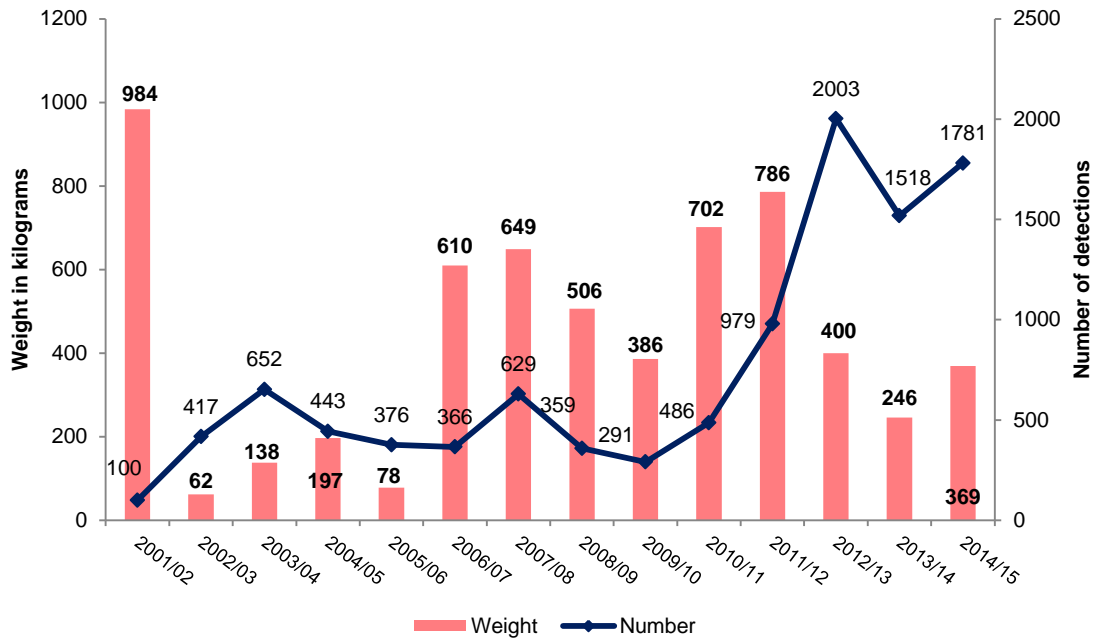
Source: Forensic Drug Branch, Victoria Police Forensic Services Department

5.3.4. Cocaine detected at the Australian border

Customs drug seizure data for 2015/16 were not received in time to be included in this report. This section repeats the data presented in the 2015 IDRS report.

Figure 15 shows the number and weight of cocaine shipments the ACBPS seized at the border from 2001/02 to 2014/15. The weight of cocaine seizures rose substantially between 2009/10 and 2011/12, then declined. The number of seizures reached a peak (n = 2003) in 2012/13, more than double the number recorded in the previous financial year, while the total weight of cocaine seizures almost halved. In 2014/15, ACPBS made 1,781 seizures weighing a total of 369 kilograms (Figure 15).

Figure 15: Number and weight of cocaine shipments seized at the border by the Australian Customs and Border Protection Service, 2001/02-2014/15



Source: ACBPS

5.4. Cannabis

Key Points

Price

- In 2016, the median prices for 1.0 gram and 1.0 ounce of hydroponically grown cannabis were consistent with previous years; the median price of 0.25 ounce fell very slightly. Eighty-five per cent of participants reported no recent price changes.
- Seven participants reported that their last purchase was bush-grown cannabis.

Availability

- Ninety-one per cent reported that hydroponic cannabis was very easy or easy to obtain and 90% reported no recent changes to availability; 8% reported difficulty.
- Eighty-six per cent reported that bush-grown cannabis was very easy or easy to obtain and 71% reported no recent changes to access.
- Cannabis, hydroponic and bush-grown, was most commonly purchased from friends and known dealers.

Potency

- Hydroponic cannabis potency was reported as high (55%) and medium (38%), with 82% reporting no recent changes to potency.
- Bush-grown cannabis potency was reported as medium (57%), with 85% reporting no recent changes.

5.4.1. Price

In 2016, 59 Victorian IDRS participants reported confidence in their knowledge of the cannabis market in Melbourne. Table 8 presents participant reports of the median price paid for the last cannabis purchase, from 2013 to 2016, for hydroponic and bush-grown cannabis. In 2016, participants (n = 34) most commonly reported most recently purchasing 1.0 gram of hydroponic cannabis. Twenty-eight participants reported last purchasing 0.25 ounce (7.0 grams) and 16 participants reported last purchasing 1.0 ounce. Few participants reported purchasing bush-grown cannabis; five reported last purchasing 1.0 gram and two an ounce (Table 8).

Table 8: Median prices paid for last cannabis purchase, according to weight, Victoria, 2013–2016

	Hydroponic				Bush-grown			
	2013 \$	2014 \$	2015 \$	2016 \$	2013 \$	2014 \$	2015 \$	2016 \$
Gram (range)	20 (10–25)	20 (15–25)	20 (15–20)	20 (15–20)	--	20 (10–20)	20 (10–20)^	20 (10–20)^
0.25 ounce (range)	80 (50–100)	70 (70–120)	80 (50–90)	78 (50–80)	70 (70–80)^	80 (70–80)^	60 (50–80)^	60 (50–70)^
Ounce (range)	250 (180–300)	250 (200–280)	250 (200–320)	140 (100–250)	150 (150–150)^	230 (100–250)^	210 (150–250)^	260 (220–300)^

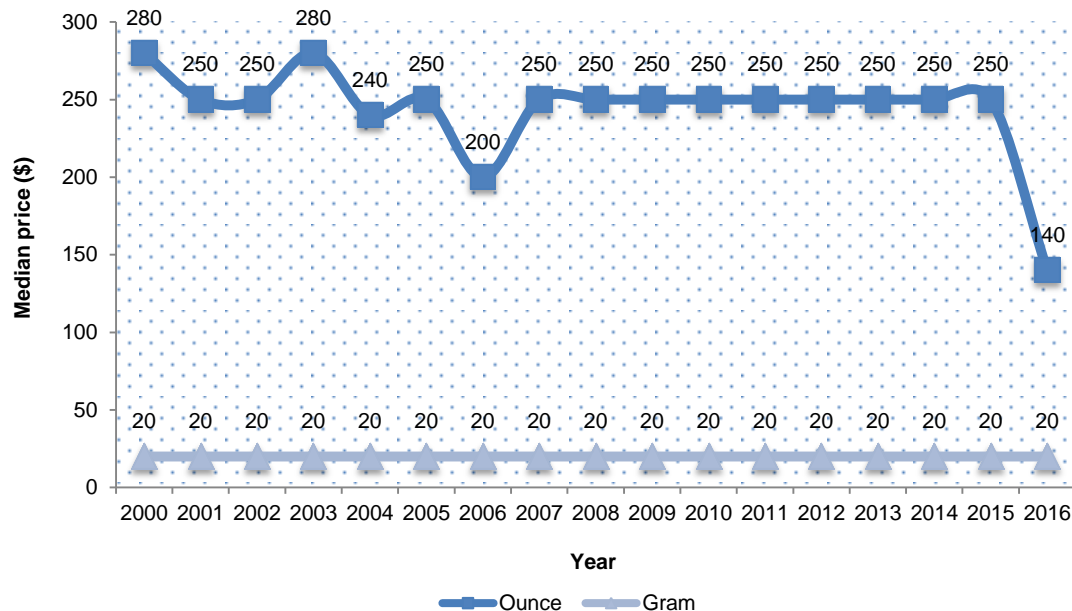
Source: IDRS participant interviews

^ Small numbers reporting (< 10) – interpret with caution

-- No reports received

Figure 16 shows reported median prices of 1.0 gram and 1.0 ounce of cannabis, estimated from Victorian IDRS participants' most recent purchase, from 2000 to 2016. The median reported price of a gram has remained consistent at \$20. By contrast, the reported median price of an ounce fluctuated somewhat between 2000 and 2006; between 2007 and 2015, prices have remained consistent at \$250, but fell to \$140 in 2016 (Figure 16).

Figure 16: Median prices of a gram and an ounce of cannabis estimated from participants' purchases, Victoria, 2000–2016*



Source: IDRS participant interviews

* 2003–2015 prices reflect those for hydroponic cannabis only (the form used most).

In 2016, of the 59 participants who provided information on recent changes to hydroponic cannabis price, 85% reported it was stable (vs. 88% in 2015). Six of the seven participants who reported on recent changes to price for bush-grown cannabis also noted stable prices.

5.4.2. Availability

In 2016, 60 participants commented on hydroponic cannabis availability. Of these, the majority reported it was very easy (58%) or easy (33%) to obtain; only 8% reported difficulty obtaining hydroponic cannabis at the time of interview. With regards to participants' perceptions of recent changes to availability, 90% reported it was stable and 5% reported that this form of cannabis was more difficult to obtain.

Participants (n = 58) nominated the source of their last hydroponic cannabis purchase. In 2015, the most common last source was friends (43%) and known dealers (36%), followed by acquaintances (12%). The most commonly reported source venues were a friend's home (28%), a dealer's home (26%), and an agreed public location (22%).

In 2016, seven participants provided information on their perceptions of current availability of bush-grown cannabis. Bush-grown cannabis was reportedly very easy (43%) or easy (43%) to obtain, and access was reported as stable (71%) in the preceding six months. Among these seven participants, the most common sources of the last bush-grown cannabis purchase were known dealers (57%) and friends (29%).

5.4.3. Potency

In 2016, 60 participants gave their perceptions of hydroponic cannabis potency: 55% reported it was high (vs. 48% in 2015) and 38% reported it was medium. Sixty participants also commented on their perceptions of recent changes to potency. Of these, 82% reported it was stable and 5% that it was increasing. Seven participants commented on bush-grown cannabis potency, with 57% reporting it was medium, 14% high and 29% low. When asked about perceptions of recent changes to bush-grown cannabis potency, 85% reported it was stable and 14% (one participant) reported that it was fluctuating.

5.5. Methadone

In 2016, only one Victorian IDRS participants was able to comment on the market characteristics of *non-prescribed* methadone (Methadone Syrup®, Biodone Forte® and Physeptone® tablets), hence findings must be interpreted with extreme caution. Median prices are not reported. The participant reporting that obtaining illicit methadone was easy, and that ease of access was stable in the preceding six months. This participant reported last sourcing methadone from a friend, who home-delivered the drug.

5.6. Buprenorphine

Only one participant provided comment on the market characteristics of *non-prescribed* buprenorphine (Subutex®) in 2016. No prices were reported. The participants reported that illicit buprenorphine was very easy to obtain, and had become easier in the past six months. The participant's partner was the source of the buprenorphine.

5.7. Buprenorphine-naloxone

5.7.1. Buprenorphine-naloxone tablets

In 2016 no participants provided information on the market characteristics of *non-prescribed* buprenorphine-naloxone tablets (Suboxone® tablets).

5.7.2. Buprenorphine-naloxone film

Three participants provided information on the market characteristics of *non-prescribed* buprenorphine-naloxone film (Suboxone® film) in 2016. One paid \$2.50 for 2 mg film at last purchase. The same participant paid \$10 for 8 mg film, and a second participant paid \$20. Prices were described as stable in the preceding six months.

5.8. Morphine

In 2016, only one participant provided information about *non-prescribed* morphine, stating that it had been obtained from friends at their home, and gave no information about price (if any). Table 9 presents median prices of non-prescribed morphine, estimated from participants' most recent purchase, for 2012 to 2015.

Table 9: Median prices paid for last morphine* purchase, according to tablet weight, Victoria, 2012–2015

	MS Contin®				Kapanol®			
	2012 \$	2013 \$	2014 \$	2015 \$	2012 \$	2013 \$	2014 \$	2015 \$
60 (MS Contin) or 50 (Kapanol) mg tablet* (range)	20^ (10–60)	25^ (25–25)	30^ (20–35)	20^ (20–20)	--	25^# (25–25)	25^# (25–25)	--
100 mg tablet/capsule* (range)	50 (40–100)	35^ (20–50)	50^ (30–100)	--	45^ (40–100)	25^ (20–50)	25^ (20–40)	30^ (30–30)

Source: IDRS participant interviews

* MS Contin® is formulated in 5 mg, 10 mg, 30 mg, 60 mg and 100 mg tablets. Kapanol® is formulated in 20 mg, 50 mg and 100 mg capsules. In 2014, less than three participants reported recent 5 mg, 10 mg and 30 mg MS Contin® tablet purchases, as well as 20 mg and 50 mg Kapanol® capsule purchases. In 2015, fewer than three participants reported recent 60 mg MS Contin® tablet purchases and 100 mg Kapanol® capsule purchases.

^ Small numbers reporting (<10) – please interpret with caution

Price refers to 50 mg Kapanol® capsule

-- No reports received

5.9. Oxycodone

In 2016, only one participant provided a report on the market characteristics of *non-prescribed* oxycodone (OxyContin®, original formulation (OC)). Table 10 shows the median prices Victorian IDRS participants paid for their most recent oxycodone purchase from 2012 to 2016. All prices must be interpreted with caution as no more than two participants reported purchasing any oxycodone tablet weight in 2015, and only one in 2016.

Table 10: Median prices paid for last OxyContin® purchase, according to tablet weight, Victoria, 2012–2016

	2012 \$	2013 \$	2014* \$	2015 \$	2016 \$
10 mg tablet (range)	5^ (5–5)	--	20^ (20–20)	--	--
20 mg tablet (range)	14^ (10–20)	10^ (10–10)	10^ (1.50–20)	10^ (10–10)	--
40 mg tablet (range)	22.50 (20–40)	25^ (20–50)	20^ (20–25)	15^ (10–20)	20^
80 mg tablet (range)	45 (30–80)	40^ (30–50)^	45 (10–50)	40^ (40–40)	--

Source: IDRS participant interviews

* In 2014, median price is reported for the original formulation of OxyContin® only. The original formulation is branded “OC” whereas the new, tamper-resistant reformulation that was introduced in 2014 is branded “OP”. Only one participant reported purchasing the reformulated tablets in 2014. In 2015, there were no participant reports of recent “OC” purchases. Fewer than three reported recent “OP” purchases.

^ Small numbers reporting (<10) – please interpret with caution

-- No reports received

The sole participant said non-prescribed oxycodone was easy to obtain, and this had not changed recently. The participant reported last sourcing illicit oxycodone from a friend, at home.

5.10. Alprazolam

On 1 February 2014, the TGA rescheduled alprazolam (Xanax®) in all forms and preparations from Schedule 4 to Schedule 8 (controlled drug).

In 2016, no participants provided reports on the market characteristics of *non-prescribed* alprazolam.

6. Health-related trends associated with drug use

6.1. Overdose and drug-related fatalities

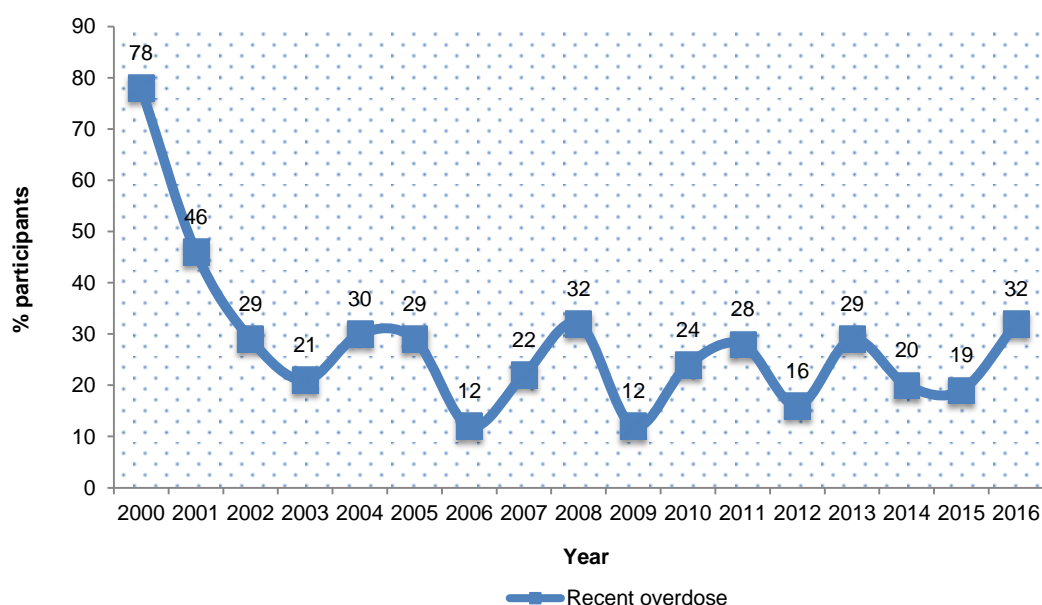
Information on drug-related overdose contained in this report is collected from several sources, including self-report data from the 2016 Victorian IDRS participant sample, data on the number of Victorian drug-related fatalities (sourced from the National Coroner's Information System (NCIS) via DHHS), and a database of all drug-related ambulance attendances in the community (maintained by Turning Point).

6.1.1. Heroin

6.1.1.1. Self-reported non-fatal overdose

In 2016, 130 Victorian IDRS participants provided information regarding non-fatal overdose. Of these, 73 (56%) reported a lifetime accidental heroin overdose, fewer than in 2015 (60%) and more than in 2014 (51%) but similar to percentages in 2013 (57%) and 2012 (55%). Among these, the median number of lifetime overdoses was two (IQR 1–4 overdoses). Figure 17 shows the prevalence of self-reported heroin overdose among Victorian IDRS participants in the past year, from 2000 to 2016. In 2016, among those with a history (n = 73), the prevalence was 32%, significantly higher than the prevalence in 2015 (19%, $p = 0.012$), and the highest figure since 2008 (Figure 17). Eight per cent of participants with a history reported an accidental heroin overdose in the month before interview, similar to the proportion in 2015 (5%).

Figure 17: Self-reported heroin overdose in the past year among participants with an overdose history, Victoria, 2000–2016



Source: IDRS participant interviews

* In this context, recent refers to any heroin overdose in the preceding 12 months

As in previous years, in 2016 participants who reported a past-year heroin overdose (n = 23) were asked to provide information on any immediate treatment received following the last event. Multiple responses were allowed. Of these, 48% reported receiving the opioid antagonist naloxone (Narcan®) and 65% reported ambulance attendance. Two reported receiving cardiopulmonary resuscitation

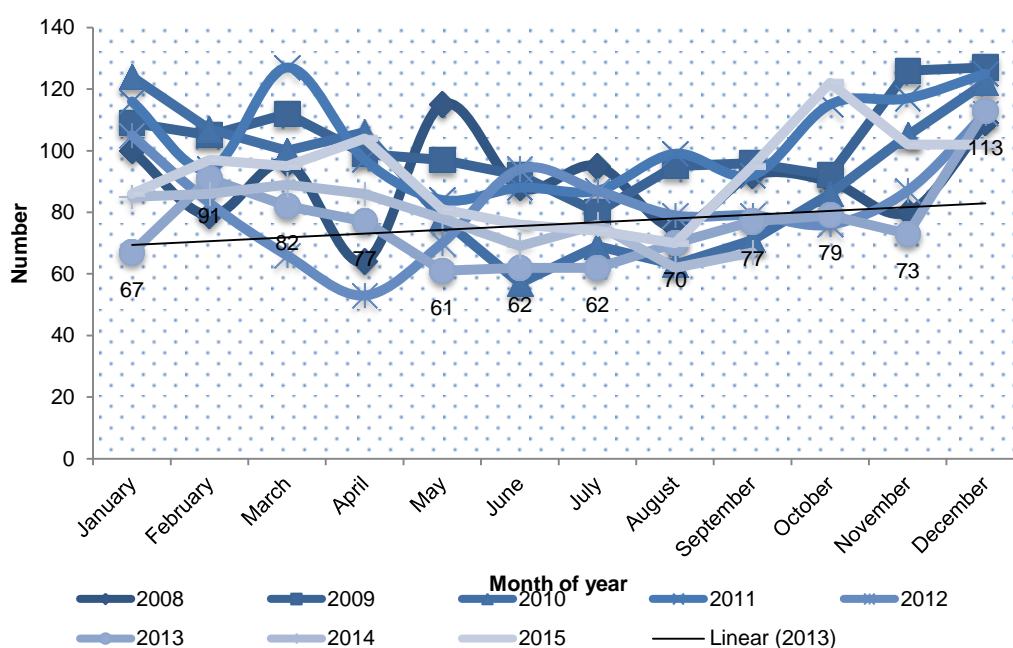
(CPR) from a friend, partner or peer, another received CPR from a health professional, and seven reported attending a hospital ED.

Participants (n = 23) were also asked whether they sought further treatment and/or information as a result of this overdose event afterwards, and to nominate from which health service/professional type. Multiple responses were allowed. Most participants (83%) reported that they did not seek further treatment and/or information; however, two reported visiting a generalist health service and three reported visiting a drug health service for information.

6.1.1.2. Non-fatal heroin overdose attended by ambulance

Figure 18 shows the number of non-fatal heroin⁶ overdoses attended by AV in the greater Melbourne region, by month, from January 2008 to December 2015. Non-fatal heroin overdose case numbers are reported for those patients who responded positively to the opioid antagonist naloxone, and do not include heroin-related cases in which naloxone was not administered. In 2015, 1104 non-fatal heroin overdoses were attended by AV in greater Melbourne, 19% more than the estimated 928 overdoses in 2014⁷. In 2015, the median age of cases was 38 years (range 15–73 years), the same as in 2014. The average number of attendances per month was 92 (range 70–122) (Figure 18).

Figure 18: Number of non-fatal heroin overdoses attended by Ambulance Victoria per month, Melbourne, 2008–2015



Source: Turning Point

6.1.1.3. Heroin-related deaths

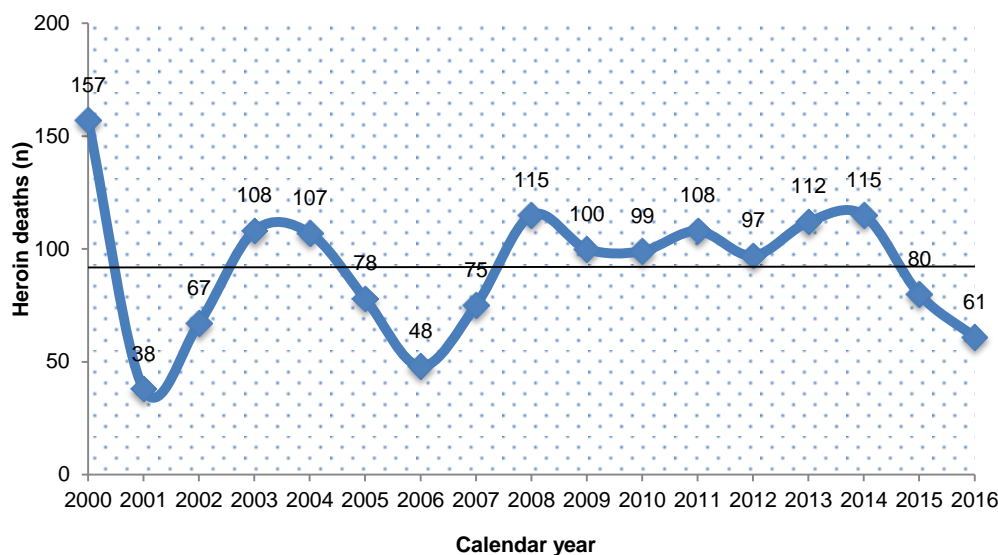
Figure 19 summarises data for trends in heroin-related mortality in Victoria from 2000 to 2016. A total of 1,565 heroin-related deaths were recorded for the period, an average of 92 fatalities (range 38–157 deaths) per year. The sharp decline in fatalities observed in Victoria from 2000 to 2001 was consistent with the timing of the end of the heroin “glut” in Melbourne (Fry & Miller, 2001). Between 2003 and

⁶ Note that this figure may include non-fatal overdoses for other opioids as well as heroin, given that naloxone is an antagonist for all opioids.

⁷ Data for October-December 2014 are missing due to industrial action.

2004, the annual number of heroin-related deaths in Victoria returned to the level observed during the mid-1990s (Cogger et al., 2013). One hundred and fifteen deaths were officially defined as heroin-related in Victoria in 2014 and 80 in 2015. To end 2016, 61 fatalities were officially defined as heroin-related.

Figure 19: Heroin-related deaths, Victoria, 2000–2016*



Source: Victorian Department of Health, 2016

Note: These figures have been extracted from the NCIS database. Deaths generally take approximately six weeks to be entered into the database; therefore the last (and previous) month of entry (e.g. December 2014) may be incomplete. Some data are also modified once the coroner has concluded cases and a finding has been completed, therefore some figures may change. Cases remain open until the coroner makes a finding as to the cause of death – some data remain incomplete until this time. On occasion, cases can remain open for several years. As such, figures may underestimate the true number of heroin-related fatalities in Victoria and are subject to change in future as cases are resolved. The death is counted as heroin-related if the drug is seen to have contributed to the death

* Data for 2012 and 2013 were initially incomplete due to industrial action; significant changes have since been made to figures for these years. Therefore note that data provided by VDH in 2015 supersede those included in the 2012 and 2013 *Victorian Drug Trends* reports

6.1.2. Drugs other than heroin

6.1.2.1. Self-reported non-fatal overdose

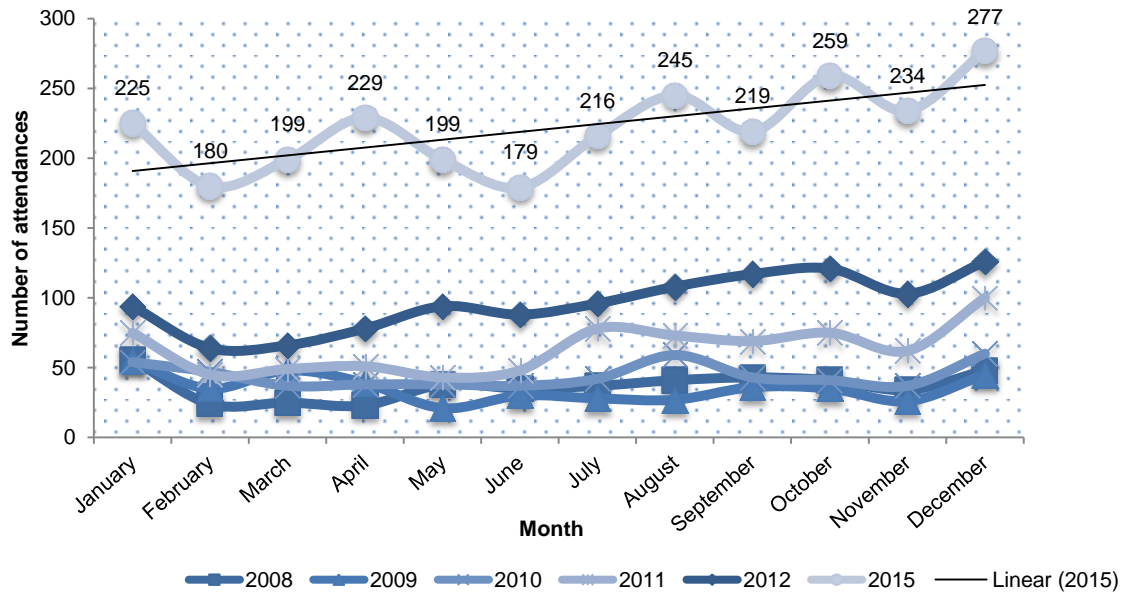
In 2016, 7% of Victorian IDRS participants reported a lifetime accidental overdose on drugs other than heroin, significantly fewer than the figure in 2015 (17%, $p = 0.007$). Among these participants ($n = 10$), the median number of lifetime overdoses was 15 (IQR 1–3 overdoses); this was inflated by two participants who reported 96 and 240 lifetime overdoses – removing them lowered the median to 8.5 (IQR 4-21). Five reported an overdose in the past year, and none reported an overdose in the past month. Of the 11 participants who reported an accidental past-year overdose, four specified that the drug used prior to the most recent event was crystal methamphetamine (ice). No other drugs used at the last overdose event were identified.

Participants were asked to provide information on the immediate treatment received following their last overdose and, in 2016, two responded. Multiple responses were allowed; they were ambulance attendance ($n = 2$) and hospital ED ($n = 1$). Participants were also asked whether they sought further treatment and/or information as a result. One participant reported seeking treatment and/or information, but did not specify what that was.

6.1.2.2. Other drug-related events attended by ambulance

Figure 20 shows the number of amphetamine-related events attended by AV in the greater Melbourne region by month, in 2015. AV attended 2,661 amphetamine-related events, a 105% increase on the estimated 1,293 events attended in 2014⁸. In 2014, the median age of cases was 30 years (range 13–76 years) and the average number of attendances per month was 222 (range 180–277 attendances), increasing from an average of 144 in 2014, 96 in 2012, 64 in 2011, 44 (range 37–60) in 2010 and 35 (range 21–55) in 2009 (Figure 20).

Figure 20: Number of amphetamine-related events attended by Ambulance Victoria per month, Melbourne, 2008–2015

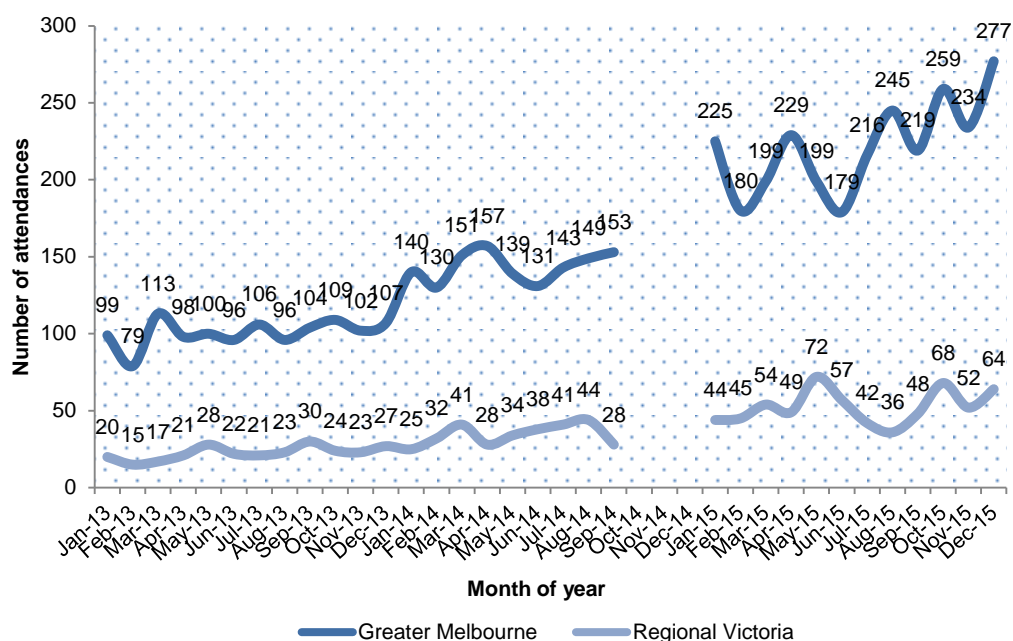


Source: Turning Point

The number of crystal methamphetamine-related (ice) events attended by AV in greater Melbourne from 2012 to 2015 is shown in Figure 21 by month, compared with regional Victoria. During 2015, AV attended 2661 ice-related events in Melbourne and a further 631 in regional Victoria, increases of 105% and 165% from the data estimated for 2014. In 2015, the median age of Melbourne cases in which ice was involved was 30 years (range 13–76 years), nearly the same as the median age of cases in regional Victoria (28 years, range 13–80 years), both higher than reported median ages in 2013. In Melbourne the average number of attendances per month was 222 (range 180–277 attendances), roughly equivalent on a population basis with regional Victoria, where the monthly average was 53 (range 36–72 attendances) (Figure 21).

⁸ Data for October-December 2014 are missing due to industrial action.

Figure 21: Number of crystal methamphetamine-related events attended by Ambulance Victoria per month, Melbourne and regional Victoria, 2013–2015



Source: Turning Point

During 2015, AV attended 221 cocaine-related events in the greater Melbourne region, a 44% increase over the estimated number in 2014 ($n = 153$)⁹. The median age of cases in which cocaine was involved was 26 years (range 17–62 years), lower than the median age in 2014. In 2015, the average number of cocaine-related attendances per month was 18 (range 2–34 attendances).

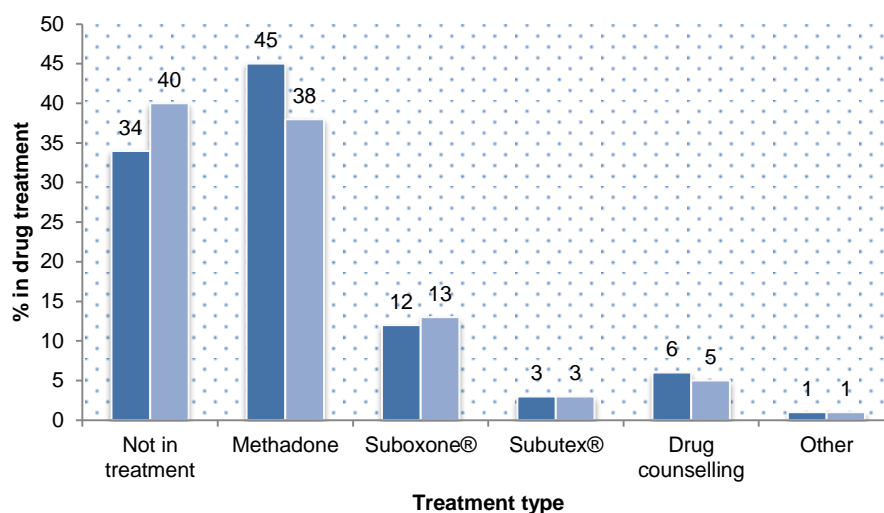
6.2. Drug treatment

6.2.1. Current drug treatment

In 2016, the IDRS included more detailed questions about access to drug treatment services at the time of interview and in the preceding six months. Figure 22 shows that of the Victorian participants who responded ($n = 150$), 45% were in current drug treatment, particularly OST such as methadone (31%) and Suboxone® (10%). Among participants who were in treatment at the time of interview ($n = 68$), the median duration was 27 months (IQR 6–60 months). For those currently in methadone treatment ($n = 46$), the median duration of the treatment episode was 30 months (IQR 10–60 months).

⁹ Data for October-December 2014 are missing due to industrial action.

Figure 22: Drug treatment status at interview, Victoria, 2015–2016



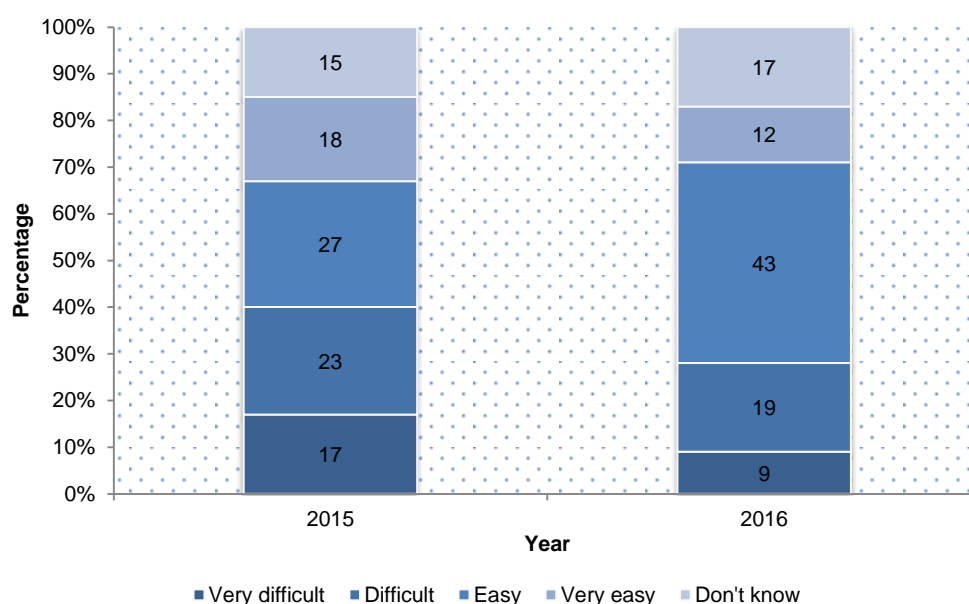
Source: IDRS participant interviews

As well as current drug treatment, participants were asked to indicate whether they had received any drug treatment in the preceding six months and the treatment type. Multiple responses were allowed. Forty-five per cent ($n = 68$) reported being in drug treatment during the six months before interview. Of these, the most common treatment types were methadone (68%) and buprenorphine-naloxone (22%), followed by drug counselling (4%) and buprenorphine (3%).

The sample was also asked about their recent experiences of accessing drug treatment services. As in 2015, 15% per cent reported being turned away from treatment. In the six months before interview. Participants in this group ($n = 23$) most commonly reported trying to access AOD treatment services such as detoxification (30%) and residential rehabilitation (26%), followed by AOD treatment through a GP (13%), counsellor (22%) and OST program (22%).

Participants were also asked questions about their perception of current access to and recent availability of drug treatment services. Figure 23 shows 2016 Victorian IDRS participants' perception of access to drug treatment services at the time of interview. While some perceived access to drug treatment to be difficult (19%) or very difficult (9%) to access if they wanted to, others reported that it was easy (43%) or very easy (12%).

Figure 23: Perception of access to drug treatment services at interview, Victoria, 2015–2016



Source: IDRS participant interviews

6.2.2. Heroin

6.2.2.1. Alcohol and Drug Information System

During 2015–16, 57,986 courses of treatment¹⁰ were delivered to an estimated 38,454 clients¹¹ in federal and state government-funded Victorian specialist alcohol and drug treatment services. Overall, the number of courses of treatment delivered to clients increased 26%, from 45,855 in 2014–15. A 9% increase in the number of clients was recorded, from 28,492⁹ in 2014–15. In 2015–6, alcohol was the most commonly cited drug of concern (25% of clients and 30% of treatment episodes), followed by, amphetamines (19% of episodes), cannabis (16%) and heroin (6%).

6.2.2.2. DirectLine calls

The DirectLine telephone service provides 24-hour counselling, information and referral services to people in Victoria wishing to discuss drug-related issues or concerns (Victorian Department of Health, 2013c). In 2015 DirectLine responded to 33,772 alcohol and drug-related telephone calls, with a specific drug of concern¹² identified in 78% of enquiries. Between 2014 and 2015, calls to DirectLine decreased by 8%, almost certainly due to the introduction of a separate dedicated 'ice' advice line (IceAdvice).

Figure 24 shows the percentages of calls to DirectLine in which heroin and other opioids were identified, from 2000 to 2015. In 2015, heroin was identified as a drug of concern in 1857 telephone calls, representing 7% of all calls to DirectLine in which a drug of concern was cited. Since 2002, the percentage of heroin-related calls has fluctuated around 10%. In 2015, an additional 3,840 calls were received identifying opioids other than heroin as the drug of concern, comprising 15% of all drug-

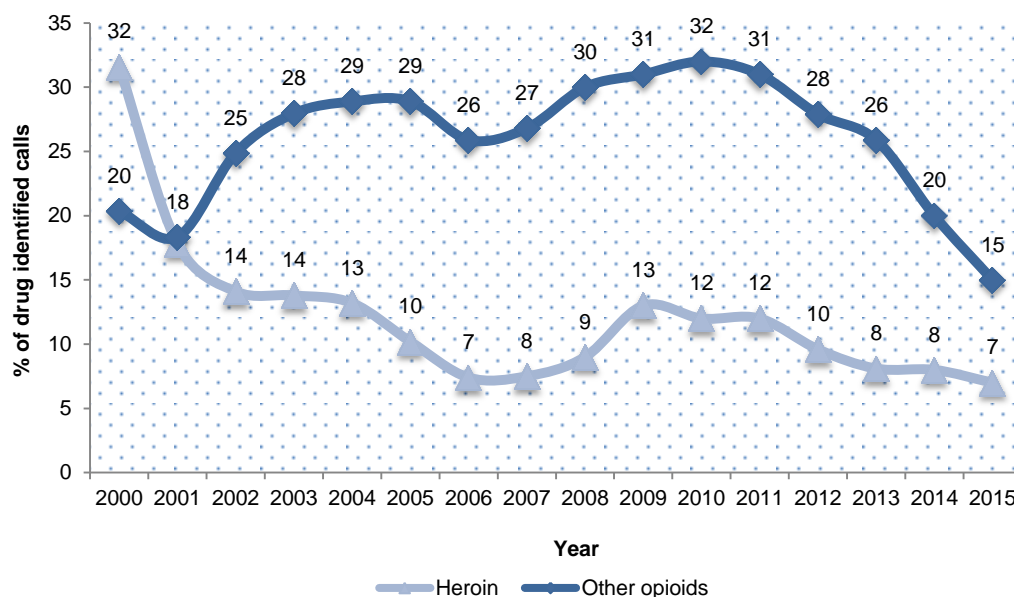
¹⁰ 2015–16 data may be subject to change due to late agency data returns. As such, these data are likely to underestimate the total numbers of courses of treatment and clients for this period.

¹¹ Clients in specialist alcohol and drug services include both people who use drugs and non-users. Non-users may include partners, family or friends. Clients can receive more than one course of treatment during a year with different primary drug types. Hence the count of distinct clients by drug type and year is greater than the count of distinct clients for year only.

¹² A caller or user may have more than one drug of concern and totals are adjusted for multiple drugs of concern.

identified calls for the period. Since 2002, the percentage of calls identifying other opioids as a concern has remained similar, fluctuating between 25% and 32% (Figure 24).

Figure 24: Percentage of calls to DirectLine in which heroin or other opioids were identified as drugs of concern, Victoria, 2000–2015

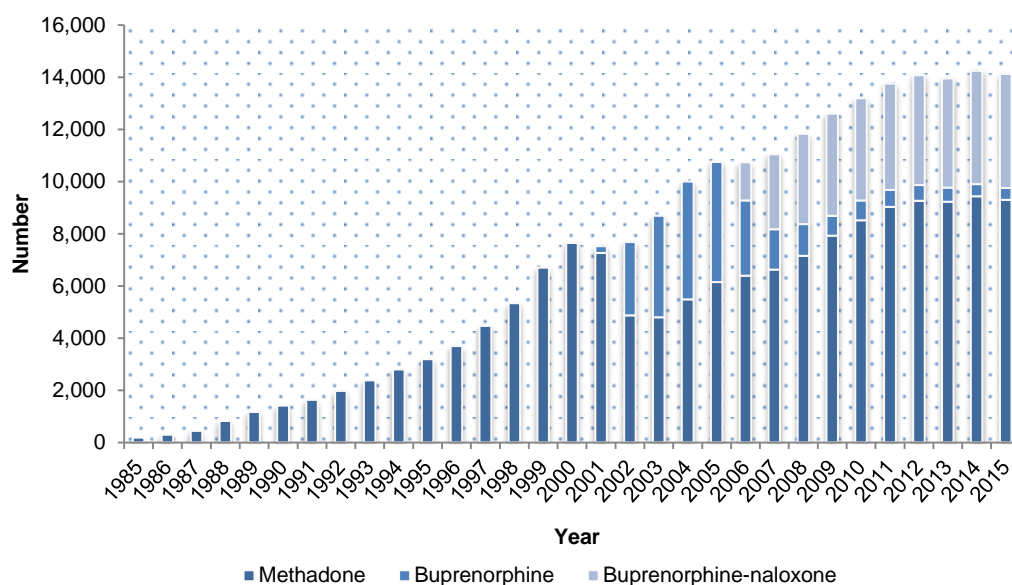


Source: Turning Point

6.2.2.3. Pharmacotherapy consumers

The National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD) collection provides information on a snapshot day in June 2015 on people receiving opioid pharmacotherapy treatment (methadone, buprenorphine, and buprenorphine-naloxone) in Australia. Figure 25 shows the number of Victorian pharmacotherapy consumers dispensed OST by treatment type from 1985 to 2015. As detailed in the Figure, the number of consumers who were dispensed methadone increased steadily to over 7,500 in the year 2000. In 2001, buprenorphine (Subutex®) became available on the PBS and was prescribed to 258 people during that year. Over the next five years, there was a substantial increase in the number of pharmacotherapy consumers dispensed buprenorphine, peaking at 4,605 during 2005; concurrently, in 2003 the number of consumers who were dispensed methadone decreased, falling to 4,795. In 2006, buprenorphine-naloxone (Suboxone®) became available on the PBS and, since then, many more consumers have been transferred to the combination product. As at July 2015, 14,122 people were dispensed OST in Victoria, a decrease of 1% from 2014 (n = 14,255). As in previous years, 66% (n = 9,303) were dispensed methadone, while 31% (n = 4,367) were dispensed buprenorphine-naloxone. Only 452 people were dispensed buprenorphine (five fewer than in 2014), comprising only 3% of all pharmacotherapy consumers in Victoria (Figure 25).

Figure 25: Number of pharmacotherapy consumers dispensed opioid substitution treatment in Victoria, by treatment type, 1985–2015



Source: National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD)

6.2.3. Methamphetamine

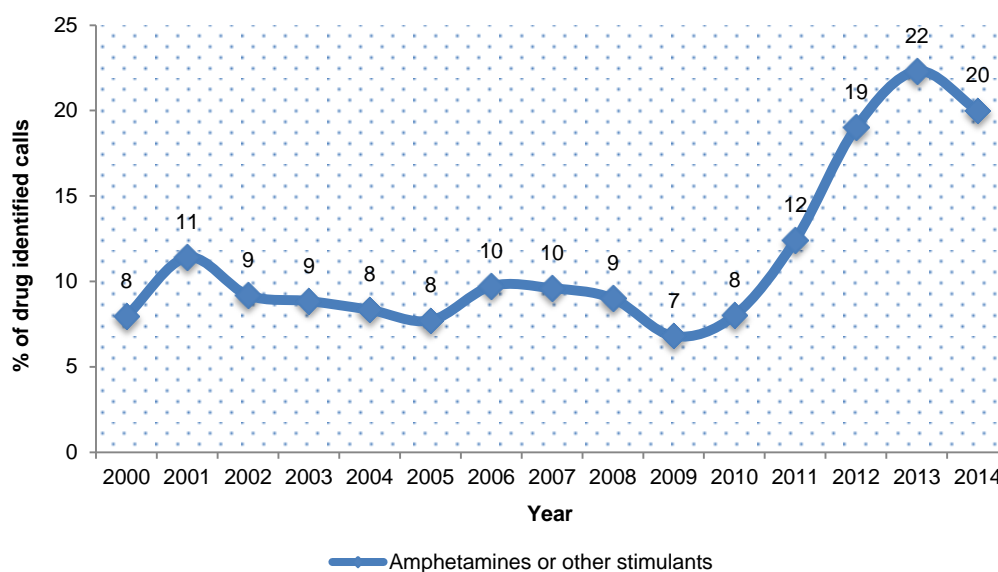
6.2.3.1. Alcohol and Drug Information System

In 2015/16, amphetamine/s was cited as a drug of concern in 11,247 courses of treatment delivered to 6,874 clients in Victorian specialist alcohol and drug treatment services. Compared with 2014/15, there was a 25% increase in the number of amphetamine-related courses of treatment delivered, and a 20% increase in the number of clients citing the drug as their primary concern. In 2015/16, for the first time, amphetamine surpassed heroin and cannabis as the second-most commonly cited drug of concern, representing 18% of all clients and 19% of all courses of treatment for the period.

6.2.3.2. DirectLine calls

Figure 26 shows the proportion of calls made to DirectLine in which amphetamines or other stimulants (ATS) were identified, from 2000 to 2014. In 2015 ATS were identified in 1,833 calls, representing 7% of calls to DirectLine in which a drug of concern was identified; this is a substantial fall from the number received in 2014, due to the introduction of a separate dedicated 'ice' advice line (IceAdvice). 2015 data are not shown to avoid misinterpretation of trend.

Figure 26: Percentage of calls to DirectLine in which amphetamines or other stimulants were identified as drugs of concern, Victoria, 2000–2014



Source: Turning Point

Note: Includes calls relating to 'amphetamine', ecstasy, cocaine and other stimulants.

6.2.4. Cocaine

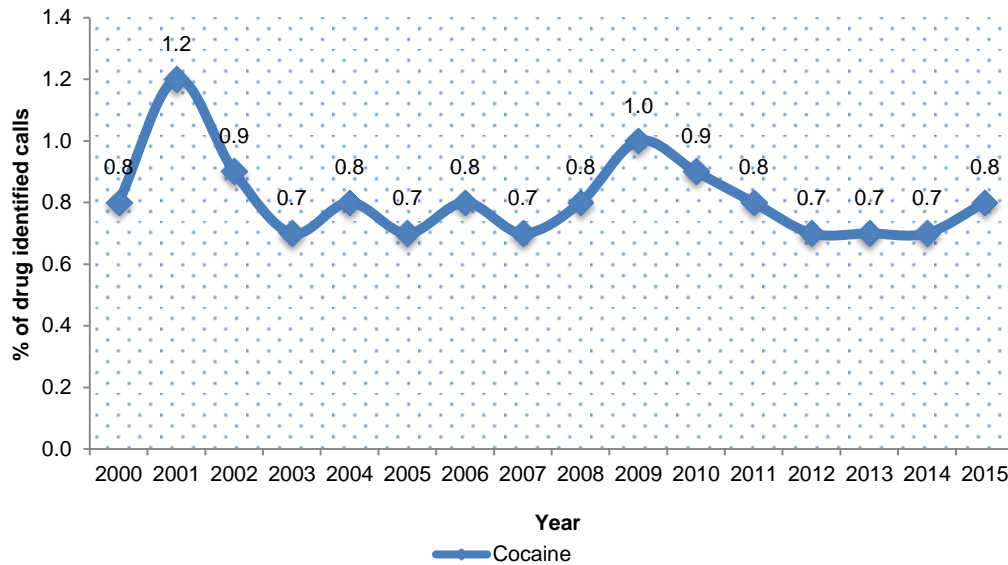
6.2.4.1. Alcohol and Drug Information System

During 2015/16, cocaine was cited as a drug of concern in 86 courses of treatment delivered to 74 clients in Victorian specialist alcohol and drug treatment services. As in previous years, cocaine was cited in fewer than 1% of all courses of treatment and clients for the period. Between 2014/15 and 2015/16, the number of courses of treatment for cocaine decreased by 3.4% and the number of clients increased by 4.2%.

6.2.4.2. DirectLine calls

Figure 27 shows the percentage of calls made to DirectLine in which cocaine was identified as the drug of concern, from 2000 to 2015. In 2015, cocaine was identified as a drug of concern in 208 calls, representing 0.8% of calls to the service. The percentage of calls received by DirectLine relating to cocaine has been low and stable for all years shown (Figure 27).

Figure 27: Percentage of calls to DirectLine in which cocaine was identified as a drug of concern, Victoria, 2000–2015



Source: Turning Point

6.2.5. Cannabis

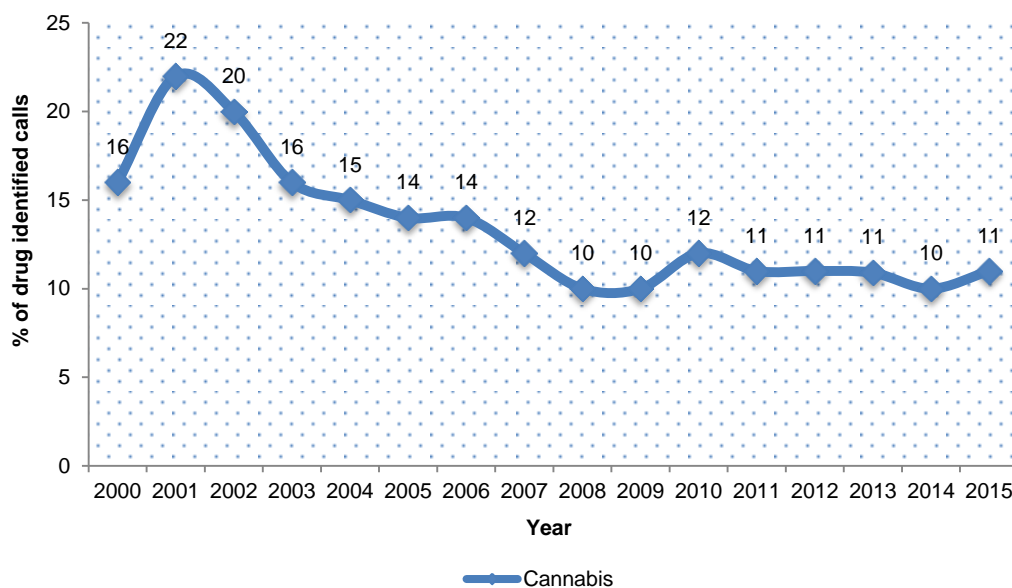
6.2.5.1. Alcohol and Drug Information System

In previous years, cannabis was the most commonly cited illicit drug of concern in the Victorian Alcohol and Drug System, but in 2015/16 it was overtaken by amphetamine; cannabis accounted for representing 16% of courses of treatment and 14% of clients. During the period, 9,562 courses of treatment were delivered to 5,485 clients, increasing by 0.5% and decreasing by 1.9% respectively from 2014/15.

6.2.5.2. DirectLine calls

Figure 28 shows the percentage of calls made to DirectLine in which cannabis was identified as a drug of concern, from 2000 to 2015. In 2015, DirectLine responded to 2,741 calls in which cannabis was cited as a drug of concern, 9% more than in the previous year, representing 11% of all drug-identified calls to the service during the period. Since 2007 figures have remained stable at between 10% and 12% (Figure 28).

Figure 28: Percentage of calls to DirectLine in which cannabis was identified as a drug of concern, Victoria, 2000–2015



Source: Turning Point

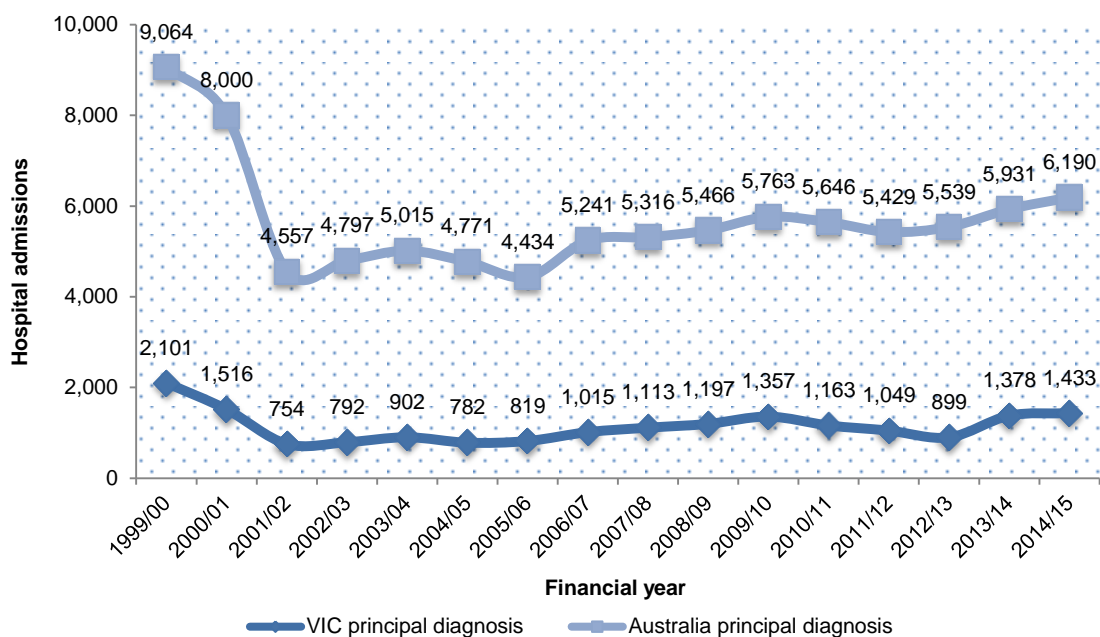
6.3. Hospital admissions

The National Hospital Morbidity Database (NHMD) is a collection of electronic records for hospital admissions in public and private hospitals compiled by the AIHW. Drug-related hospital admissions for opioids, amphetamine, cocaine and cannabis are reported below for Victoria and Australia, from 1999/2000 to 2014/15, the most recent data available (Roxburgh & Breen, 2017). Following examination, the principal diagnosis refers to the established diagnosis that is primarily responsible for occasioning the patient’s episode of care in hospital.

6.3.1. Heroin and other opioids

Figure 29 shows the number of opioid-related hospital admissions among persons aged 15 to 54 years in Victoria and Australia, from 1999/2000 to 2014/15. Opioid-related hospital admissions account for the highest proportion of drug-related admissions in Victoria and Australia. Between 1999/2000 and 2001/02, the number of opioid-related hospital admissions significantly declined, consistent with reports of the end of the heroin “glut” (Jenkinson, Miller, & Fry, 2004). Since 2001/02, the number was reasonably stable, then declined from 2010/11 to 2012/13. However, in 2014/15 there were 1433 admissions with an opioid-related primary diagnosis in Victoria (435 per million people) – an increase of 4% over the previous year – comprising 23% of opioid-related admissions in Australia (6190; 476 per million people). The 2014/15 figures are the highest for both Victoria and Australia since 2000/01.

Figure 29: Number of opioid-related hospital admissions, Victoria and Australia, 1999/2000–2014/15

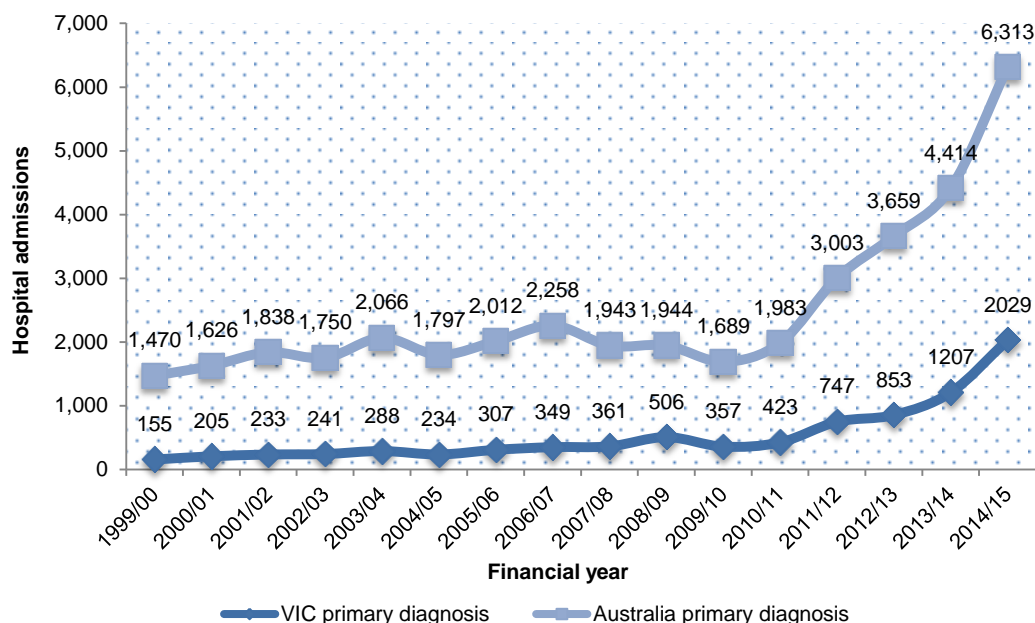


Source: Roxburgh and Breen, 2017

6.3.2. Meth/amphetamine (amphetamine)

Amphetamine-related hospital admissions from 1999/2000 to 2014/15 in Victoria and Australia among persons aged 15 to 54 years are presented in Figure 30. The annual number of hospital admissions with an amphetamine-related primary diagnosis has been increasing since 2007/08. In 2014/15, amphetamine-related hospital admissions increased by 68% in Victoria to 2029 (616 per million people, vs 485 per million for Australia), continuing the increase from the previous year, but at over 1.5 times the rate. This figure comprises 32% of Australian hospital admissions related to the drug (n=6313), an increase from the previous year (27%).

Figure 30: Number of amphetamine-related hospital admissions, Victoria and Australia, 1999/2000–2014/15

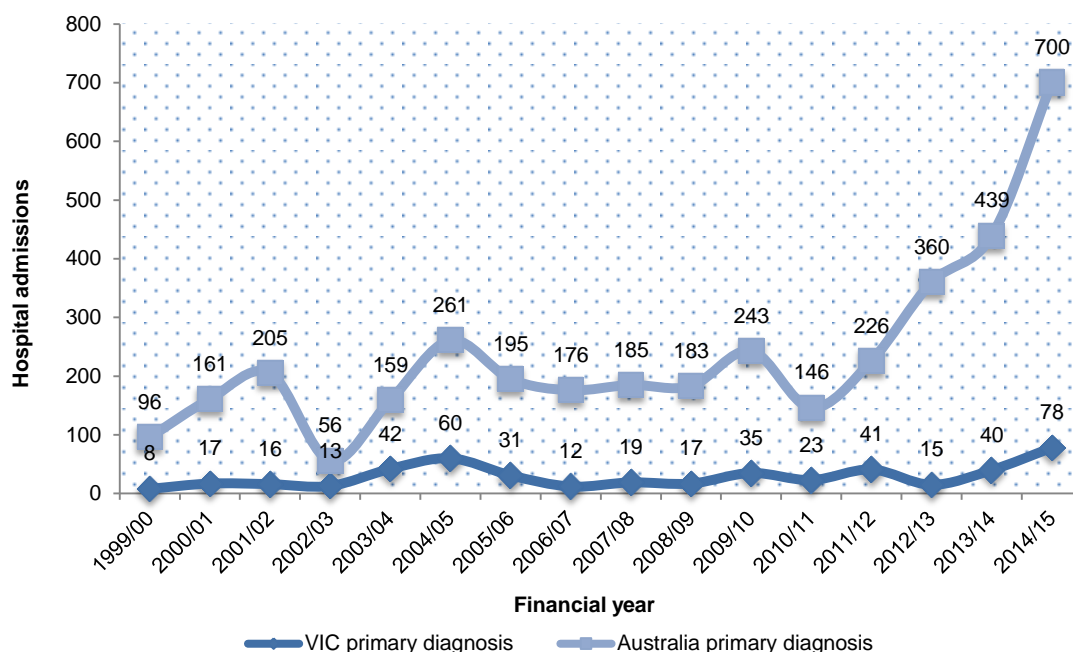


Source: Roxburgh and Breen, 2017

6.3.3. Cocaine

Figure 31 shows the number of cocaine-related hospital admissions among persons aged 15 to 54 years in Victoria and Australia, from 1999/2000 to 2014/15. Nationally, the number of admissions with a primary diagnosis related to cocaine has been increasing since 2010/11, peaking in 2014/15 (n=700), an increase of 37% over the previous year. This pattern was not observed in Victoria, where cocaine-related admissions declined to only 15 in 2012/13, rebounded to 40 (12 per million people, vs 34 per million for Australia) in 2013/14, and climbed to 78 in 2014/15, comprising 11% of the national total.

Figure 31: Number of cocaine-related hospital admissions, Victoria and Australia, 1999/2000–2014/15

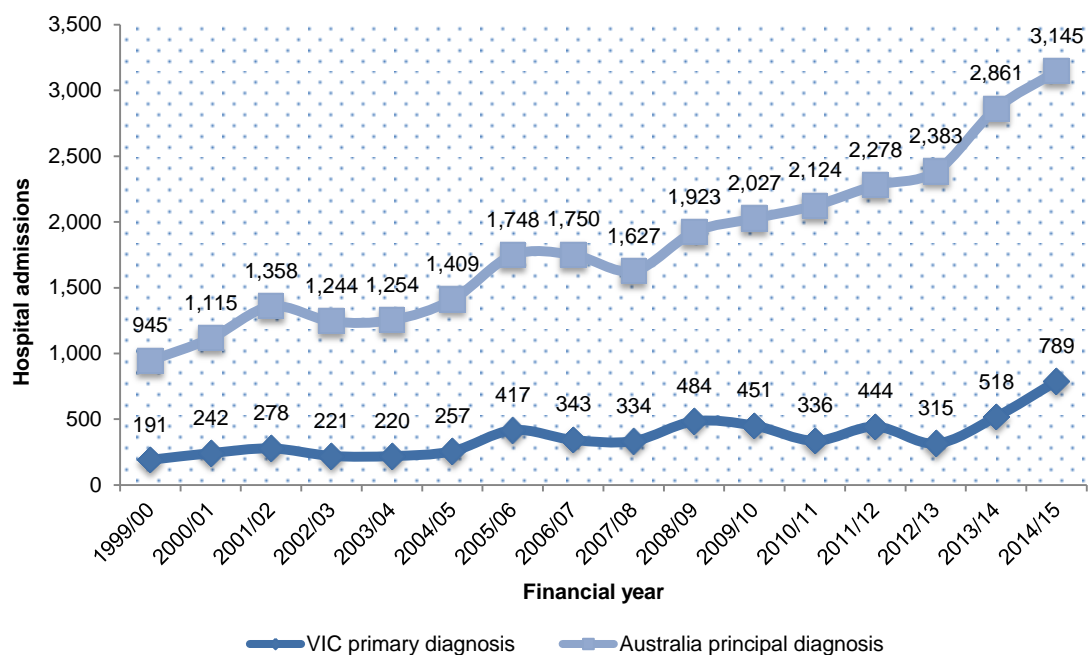


Source: Roxburgh and Breen, 2017

6.3.4. Cannabis

Cannabis-related hospital admissions among persons aged 15 to 54 years are shown in Figure 32 for Victoria and Australia, from 1999/2000 to 2014/15. Nationally, the number of hospital admissions with a cannabis-related primary diagnosis has increased steadily over the period, peaking in 2014/15. The number in Victoria has been fluctuating around 400 since 2005/06, but in 2014/15 there were 789 hospital admissions with a cannabis-related primary diagnosis, an increase of 34% over the previous year. Victorian admissions comprised 25% of all cannabis-related admissions in Australia for 2014/15, up from 18% in 2013/14.

Figure 32: Number of cannabis-related hospital admissions, Victoria and Australia, 1999/2000–2014/15



Source: Roxburgh and Breen, 2017

6.4. Injecting risk behaviours

6.4.1. Sharing of injecting equipment

Sharing needles and syringes and other injecting equipment used to prepare drugs for injection is a significant risk factor for exposure to BBVI such as HIV, hepatitis B and hepatitis C (Crofts, Aitken, & Kaldor, 1999). As in previous years, in 2016 Victorian IDRS participants were asked to answer questions relating to their injection practices in the past month and access to injecting equipment.

Participants were asked to nominate the site on their body where they last injected before being interviewed; 149 did so in 2016, and responses were similar to previous years. The majority (71%) reported that their most recent injection site was their arm, while smaller proportions reported most recently injecting into their hand or wrist (11%), leg (3%), neck (8%), groin (5%) or foot (1%).

Table 11 presents the self-reported injecting risk practices of Victorian IDRS participants from 2009 to 2016. Thirteen per cent of the 2016 sample reported borrowing a used needle in the month before interview (Table 11). Among participants in this group ($n = 19$), 47% reported using a borrowed needle once in the last month, 31% reported using twice, 16% reported use three to five times, and 5% reported use more than 10 times. Participants were asked (14 responded) to nominate their relationship with the person who used the needle before them: 52% nominated a regular sex partner, 21% nominated close friends, and 26% nominated an acquaintance.

In 2016, 20% ($n = 30$) of participants reported lending a used needle to someone else in the preceding month, similar to 2014. A further 34% ($n = 51$) reported use of other injecting equipment after some else, with the type of equipment used detailed in Table 11.

Table 11: Self-reported injecting risk practices in the past month, Victoria, 2009–2016

	2009	2010	2011	2012	2013	2014	2015	2016
Borrowed a used NS[^] (%)	12	15	11	11	12	11	11	13
Loaned a used NS[^] (%)	21	21	22	25	17	17	16	20
Used spoon after someone else (%)	26	45	21	92*	97*	95*	90*	84*
Used filter after someone else (%)	7	20	5	21*	24*	15*	20*	29*
Used tourniquet after someone else (%)	3	9	1	16*	3*	7*	15*	12*
Used water after someone else (%)	13	20	7	13*	32*	15*	24*	39*
Used any equipment after someone else (%)	27	48	24	25	25	27	27	34

Source: IDRS participant interviews

* In 2012, 2013 and 2014, 38, 37 and 41 participants reported sharing any injecting equipment in the past month, respectively. In 2015, 41 participants reported any sharing. The percentages for these years denoted by an asterisk refer to the proportion who shared injecting equipment among this subgroup.

[^] NS refers to needle and/or syringe

6.4.1.1. Reuse of own injecting equipment

Sixty-six (44%) of the 2016 sample reported reusing their own needle in the month preceding interview, significantly different from 2015 when 55% reported reuse ($p = 0.049$). Nine per cent reported reusing their own needle once in the past month and 11% reported reuse twice, while 14% reported reuse on three to five occasions, 9% on six to 10 occasions, and 1% on more than 10 occasions. Reuse of any ancillary injecting equipment was nominated by 53%. Among this group ($n = 95$), the most commonly reused pieces of equipment were spoons or mixing containers (91%), tourniquets (19%), filters (26%), and water (23%).

6.4.1.2. Injecting equipment access and coverage

In 2016, of 150 Victorian IDRS participants, 97% reported accessing sterile injecting equipment from an NSP in the preceding six months. Equipment was also accessed from outreach/peer workers (18%), friends (13%), pharmacies (16%), dealers (4%) and syringe vending machines (3%).

Participants were asked to nominate the number of times sterile injecting equipment was collected from an NSP or other outlet in the past month; reports were similar to previous years. In 2016, participants ($n = 150$) reported collecting needles and syringes a median of four times (IQR 2–8 times) in the past month. During that month, participants reported a median of 30 drug injection episodes (IQR 8–60 episodes) and collecting a median of 100 needles and syringes (IQR 30–200 needles). Participants gave away or sold 10 needles and syringes (median, IQR 0–50 needles) to other people and, at the time of interview, had a median of nine needles (IQR 0–50 needles) stored at home. Eight per cent reported trouble obtaining sterile injecting equipment in the past month when it was needed.

As in previous years, participants were asked to nominate the location of their last injection: 66% reported injecting in private. Seventeen per cent reported injecting in a street or park, 9% in a car and

5% in a public toilet. In 2016, the proportions of participants who reported private and public injecting were similar to those in previous years.

6.4.2. Injection-related health problems

Table 12 shows Victorian IDRS participants' self-reported injecting-related health problems, from 2009 to 2016. In 2016, 70% of participants reported experiencing at least one injection-related health problem in the month before interview, the same percentage as in 2015. Participants in this group (n=105) were asked to nominate the problems experienced, detailed in Table 12.

Table 12: Self-reported injection-related health problems among participants in the past month, Victoria, 2009–2016

	2009	2010	2011	2012 n=77	2013 n=62	2014 n=96	2015 n=105	2016 n=105
Prominent scars/bruising (%)	43	19	41	75*	74*	67*	71*	77*
Difficulty injecting (%)	41	25	33	51*	50*	62*	52*	64*
Dirty hit (%)	18	12	10	26*	13*	17*	17*	11*
Thrombosis (%)	7	5	6	9*	10*	6*	7*	10*
Abscesses/infections (%)	6	6	8	20*	7*	12*	10*	14*
Overdose (%)	5	2	3	9*	8*	3*	9*	4*

Source: IDRS participant interviews

* In 2012, 2013, 2014, 2015 and 2016, 77, 62, 96, 105 and 105 participants reported experiencing an injecting-related health problem in the past month, respectively. The data for these years denoted by an asterisk refer to the proportion in these groups who experienced injection-related health problems in the past month.

Participants who reported an overdose or a dirty hit in the past month were asked to nominate the main drug used beforehand, as well as other drugs used at the same time. Of participants who reported an overdose (n = 4), the primary drugs involved were heroin (n = 4) and methamphetamine (n = 1). Among participants who reported a dirty hit (n = 12), the primary drugs identified were methamphetamine (n = 2) and alcohol (n = 1).

6.5. Blood-borne viral infections (BBVI)

An integrated surveillance system monitors the incidence and prevalence of HIV, HBV and HCV among Australian PWID. Table 13 shows the number and proportion of new HIV diagnoses in Victoria in which IDU was reported as the likely exposure factor. In 2015, 8 new cases of HIV infection were notified to the VDH in which IDU was the likely exposure, comprising 2.9% of all new HIV infections for the 2015 calendar year. There were an additional 10 new HIV notifications in 2015 in which both male-to-male sexual activity (MSM) and IDU were the likely exposures (Table 13).

Table 13: New HIV diagnoses where injecting drug use was reported as the likely exposure, Victoria, 2006–2015

	2006 n (%)	2007 n (%)	2008 n (%)	2009 n (%)	2010 n (%)	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)
IDU	8 (3.1)	5 (1.9)	6 (2.3)	2 (0.8)	0 (0.0)	3 (1.1)	6 (2.3)	8 (2.6)	13 (4.2)	8 (2.9)
IDU: MSM	5 (1.9)	5 (1.9)	7 (2.7)	6 (2.3)	5 (2.1)	4 (1.4)	3 (1.2)	13 (4.2)	14 (4.6)	10 (3.6)
New diagnoses (N)	259	263	261	262	235	278	262	307	306	276

Source: Victorian Department of Health

Note: Data are subject to change due to ongoing case investigations. The figures contained here supersede data from previous Victorian Drug Trends reports.

National prevalence estimates of HIV infection among PWID are derived from data from the ANSPS. The ANSPS is conducted each year in every Australian jurisdiction and is designed to serve as a strategic early warning system to monitor the prevalence of BBVI among PWID. Finger-prick blood samples are collected from all consenting participants recruited from participating NSPs. Between 2009 and 2012 the estimated prevalence of HIV infection among PWID in Australia remained low and stable at 1.2% or less. However, there was an increasing trend in HIV antibody (Ab) prevalence from 1.2% in 2009 to 1.7% among the 2,378 ANSPS participants who provided blood samples in 2014 (Iversen et al., 2015b).

Hepatitis C infection among PWID in Australia continues to be a major public health concern due to its ongoing high background prevalence. Table 14 presents prevalence estimates of new Victorian HIV infections and exposure to HCV attributed to IDU between 2008 and 2015, derived from ANSPS data (Iversen et al., 2014; Iversen & Maher, 2012, 2015b; Memedovic et al., 2016). From 2014 to 2015, there was a significant increase in the estimated prevalence of HIV Ab among Victorian ANSPS participants, from 1.7% to 2.2% ($p = 0.012$). Although high, the estimated prevalence of HCV Ab among the Victorian ANSPS sample was stable at 72% (Table 14). Compared with the national ANSPS sample, in 2015 HCV Ab prevalence was significantly higher among the Victorian ANSPS sample (72% vs. 57%, $p < 0.001$), as in previous years. Note that with regards to hepatitis C, at this time finger-prick testing measures exposure to HCV Ab only and cannot distinguish between participants who have chronic infection and those who have resolved spontaneously or through treatment.

Table 14: Estimated prevalence of HIV Ab infection and HCV Ab exposure among Victorian ANSPS participants, 2008–2015

	2008	2009	2010	2011	2012	2013	2014	2015
HCV Ab (%)	72	55	64	66	69	67	67	72
HIV Ab (%)	0.7	0.9	0.5	0.8	0.2	1.3	1.7	2.2

Source: Iversen, Chow & Maher, 2015; Iversen & Maher, 2012, 2015b; Memedovic et al., 2016)

6.6. Alcohol Use Disorders Identification Test-Consumption (AUDIT-C)

During the past few years, there has been considerable media attention focusing on young people's alcohol consumption in Australia (Connell, 2014; Davey, 2012; Wright, 2013). However, there is much less focus on alcohol use among PWID, despite this population being particularly at risk of alcohol-related harm given their high prevalence of poly-CNS-depressant use and injection (potentiating overdose) and HCV. As mentioned in section 6.5, using finger-prick blood samples, HCV antibodies have been found in approximately two-thirds of Victorian ANSPS participants since 2010 (Iversen et al., 2014; Iversen & Maher, 2012, 2013). Given that alcohol consumption is hepatotoxic, known to exacerbate HCV infection, and associated with a greater risk of non-fatal and fatal opioid-related and depressant overdose, it is important to monitor the prevalence of risky alcohol consumption among PWID (Coffin et al., 2007; Darke, Duflou, & Kaye, 2007; Darke, Ross, & Hall, 1996; Schiff & Ozden, 2004).

Presently, the IDRS includes self-report data on the prevalence of lifetime and recent alcohol use, and the median number of days that alcohol has been consumed in the preceding six months (see Table 3). For the past six years, the AUDIT-C has been administered to Victorian IDRS participants. Derived from the first three consumption questions in the AUDIT, the AUDIT-C is a three-item validated measure that identifies heavy and high-risk drinking among respondents during the past year (Bush, Kivlahan, McDonnell, Fihn, & Bradley, 1998). According to previous research, the AUDIT-C is a reliable measure of alcohol dependence, alcohol use disorder and risky alcohol consumption, with a cut-off score of five or more indicating a need for further assessment (Dawson, Grant, Stinson, & Zhou, 2005; Haber, Lintzeris, Proude, & Lopatko, 2009).

Table 15 presents AUDIT-C scores among Victorian IDRS participants from 2011 to 2016. In 2016, among participants who reported consuming alcohol in the past year ($n = 87$, 58% – significantly fewer than the 69% measured in 2015, $p = 0.041$), the mean AUDIT-C score was 5.9 (median 5, IQR 2–10), not significantly different from the mean score in 2015 ($p = 0.928$). Although men ($n = 66$) returned a higher mean score than women ($n = 21$), the difference was not significant (6.0 vs. 5.9, $p = 0.874$). The proportion of participants scoring five or more on the AUDIT-C was similar between 2011 and 2015, but dropped to the lowest yet recorded in 2016 (Table 15).

Table 15: AUDIT-C scores among participants who drank alcohol in the past year, Victoria, 2011–2016

	2011 (n=112)	2012 (n=107)	2013 (n=91)	2014 (n=101)	2015 (n=103)	2016 (n=87)
Mean AUDIT-C score (SD)	6.1 (3.5)	6.1 (3.6)	6.4 (3.9)	6.6 (3.5)	6.0 (3.7)	5.9 (3.8)
Range	1–12	1–12	1–12	1–12	1–12	1–12
Total score of > = 5 (%)	60	63	62	67	60	51
Men score of > = 5 (%)	59	65	66	73	65	48
Women score of > = 5 (%)	63	59	52	50	48	57

Source: IDRS participant interviews

6.7. Mental health problems and psychological distress

As in previous years, in 2016 Victorian IDRS participants were asked to indicate whether they had experienced any problems with their mental health in the preceding six months, including issues not discussed with a health professional. Sixty-one per cent reported experiencing a mental health problem in the past six months, not significantly higher than the proportions in 2015 and 2014 (60% and 51%). These participants were asked to specify their mental health problem (multiple responses allowed for comorbidity). Among this group ($n = 91$), the prevalence of self-reported depression was 73% and the prevalence of anxiety was 59%, not significantly changed from 2014 (80% and 58% respectively). In 2016, the most commonly reported problems of lower prevalence were somewhat different to those in 2015: schizophrenia (19% and 8% respectively), drug-induced psychosis (9% vs 12%) and PTSD (11% vs 19%). Ten per cent reported bipolar affective disorder (vs 9% in 2015), and 15% reported panic (vs. 17% in 2015).

Of the 91 participants who reported a recent mental health issue, in 2016 70% reported attending a health professional for their problem in the six months before interview, nearly the same as in 2015 (74%). Participants in this group ($n = 64$) most commonly reported seeing a GP (69%), psychologist (27%) or a psychiatrist (21%), followed by a counsellor (19%) and social worker (14%), similar to the previous year.

In the six months before interview, 65% of those with a self-reported mental health problem reported being prescribed psychiatric medication. Multiple responses were allowed. Among these participants ($n = 51$), 57% ($n = 29$) reported being prescribed benzodiazepines for their mental health: typically diazepam (72%), followed by alprazolam (14%). Forty-nine per cent ($n = 25$) reported they were prescribed an antipsychotic, mostly quetiapine (52%) or zuclopenthixol (16%). Forty-five per cent ($n = 23$) reported they were prescribed anti-depressants. In this group, the most common medications were venlafaxine (30%), mirtazapine (13%), sertraline (13%) and desvenlafaxine (13%). Four participants were prescribed mood stabilisers.

6.7.1. Kessler Psychological Distress Scale (K10)

Given the high prevalence of mental illness in the general community, distinguishing more serious cases by symptom severity is important. The Kessler Psychological Distress Scale (K10) was designed to measure non-specific psychological distress in the general population (Kessler et al., 2002). The K10 discriminates between people with and without serious mental illness by yielding a global score of psychological distress in the past four weeks. Scores are calculated from five responses to a 10-item scale, with a maximum score of 50 indicating severe distress and a minimum score of 10 indicating no distress (Andrews & Slade, 2001). Cut-off scores are categorised into levels representing low (10–15), moderate (16–21), high (22–29) and very high (30–50) psychological distress, with higher scores indicating a need for further mental health assessment (Australian Bureau of Statistics, 2010).

In 2016 the complete K10 was administered to 147 participants; among these, the mean score was 26.1 (SD 8.2, median 25, IQR 19–32), almost identical to that in 2015. Levels of psychological distress among Victorian IDRS participants are shown in Table 16, from 2009 to 2016, compared with the 2007/08 NHS general population sample. According to the K10, the majority of participants in 2015 were classified as having high or very high psychological distress in the four weeks before interview. The distributions of K10 scores have been similar across years. IDRS participants have a significantly higher prevalence of psychological distress than the NHS general population sample (67% vs. 10%, $p < 0.001$), very similar to findings in previous years (Table 16).

Table 16: Levels of psychological distress among Victorian IDRS participants, 2011–2016, compared with the 2007/08 NHS general population sample

	IDRS						NHS
	2011 (n=147)	2012 (n=144)	2013 (n=149)	2014 (n=142)	2015 (n=141)	2016 (n=147)	2007/08 (n=15,362)
Psychological distress (%)							
Low (10–15)	14	8	20	11	9	8	71
Moderate (16–21)	19	17	20	20	20	25	20
High (22–29)	30	33	34	31	33	31	7
Very high (30–50)	37	41	28	37	38	36	3

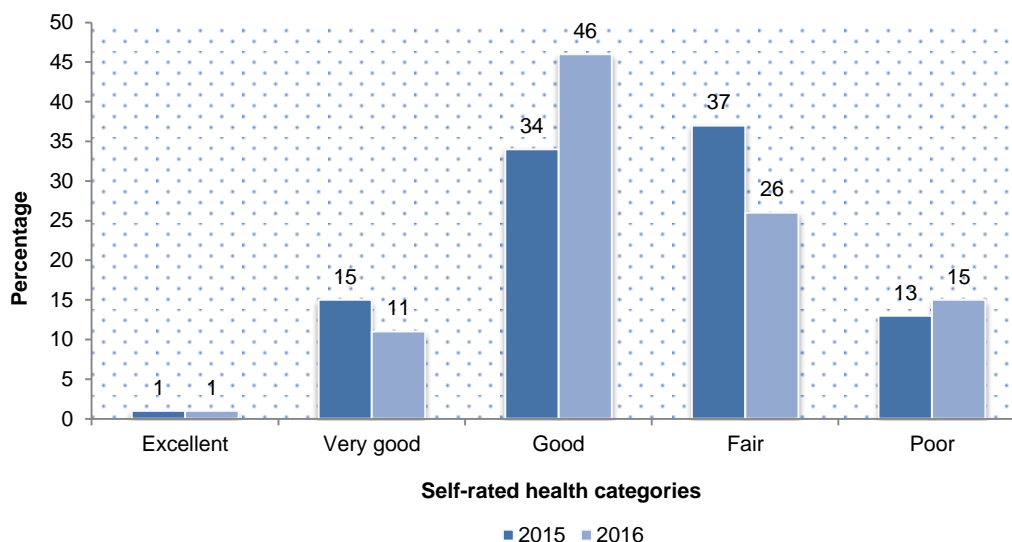
Source: IDRS participant interviews; ABS, 2010

Note: The extent to which K10 cut-offs derived from general population samples can be applied to IDRS participants is yet to be established. Therefore these findings should be taken as a guide only.

6.7.2. Short Form 12 Health Survey (SF-12) self-rated physical health

In 2016, a 12-item health survey, the Short Form 12 (SF-12, derived from the SF-36) (Ware, Kosinski, & Keller, 1995; Ware, Kosinski, & Keller, 1996), was excluded from the IDRS participant questionnaire in part to shorten the survey length and lessen the burden on participants. In place of the full measure, the sample was asked to self-rate their overall health according to the first question of the SF-12: “Overall, how would you rate your health during the past four weeks?” Responses among participants in 2016 are shown in Figure 33, More than one quarter rated their health as fair and nearly half as good, a significant improvement on the figures in 2015

Figure 33: Self-rated general health among Victorian IDRS participants, 2015–2016



Source: IDRS participant interviews

6.8. Driving risk behaviour

Participants were asked to provide information about their driving risk behaviour. In 2016, 29% reported driving a car, motorcycle, or other vehicle in the preceding six months, significantly smaller than the proportion in 2015 (41%, $p < 0.05$) but similar to the 26% recorded in 2013 (the previous year in which the question was asked). Among these participants ($n=44$), 52% reported having their full driver's licence and 20% reported having no licence. Five per cent of recent drivers ($n=2$) reported driving under the influence of alcohol (significantly fewer than the 18% recorded in 2015 – $p < 0.05$).

Table 18 shows the proportion of Victorian IDRS participants who reported illicit drug use before driving a vehicle in the past six months, from 2008 to 2016, by drug type. Among recent drivers in 2016, 80% reported using illicit drugs less than three hours before driving. The median frequency of reported 'drug driving' occasions this group ($n=35$) was once per month in the past six months. Participants who drove after consuming drugs most commonly reported driving after using heroin ($n=27$), cannabis ($n=21$) and crystal/ice ($n=12$) (Table 17).

Table 17: Proportion of participants who reported using illicit drugs prior to driving in the past six months, Victoria, 2009–2015

	2009 (n=53)	2010 (n=44)	2011 (n=45)	2012 (n=35)	2013 (n=31)	2015 (n=35)	2016 (n=44)
Heroin (%)	66	82	64	69	58	66	77
Cannabis (%)	59	48	51	49	45	23	60
Speed (%)	28	16	20	9	0	0	-
Crystal/ice (%)	2	7	18	11	13	20	34*
Benzodiazepines (%)	25	18	16	20	23	6	11
Ecstasy (%)	6	2	2	0	0	0	-

Source: IDRS participant interviews

* includes speed

7. Law-enforcement-related trends associated with drug use

7.1. Criminal involvement

As per previous iterations of the IDRS, the 2016 sample was asked to provide information about their involvement in crime in the month preceding interview. Table 19 presents the self-reported prevalence of criminal involvement in the past month, from 2007 to 2016. In 2016, 38% (n = 57) of the sample reported that they were involved in a crime during the past month, slightly fewer than in 2015 (44%) ($p = 0.291$) (Table 18).

Table 18: Percentage of participants reporting criminal involvement during the past month, Victoria, 2009–2016

	2009 (N=150)	2010 (N=150)	2011 (N=150)	2012 (N=150)	2013 (N=150)	2014 (N=150)	2015 (N=150)	2016 (N=150)
Property crime (%)	17	19	27	27	21	23	23	23
Drug dealing (%)	27	23	29	20	17	28	27	18
Fraud (%)	1	1	5	3	3	7	5	9
Violence (%)	7	8	7	3	5	7	5	11
Any crime (%)	39	40	47	41	36	47	44	38

Source: IDRS participant interviews

Note: Property crime indicates shoplifting, break and enter, stealing or receiving; drug dealing indicates selling drugs for a cash profit; fraud indicates the forging of cheques, prescriptions, credit cards, or scams; violence indicates assault, violent or armed robbery, sexual assault, breaking violence orders.

In 2016, Victorian IDRS participants were asked to report whether they had been a victim of a crime involving violence in the month before interview. Ten per cent of the sample reported experiencing violence such as an assault, sexual assault and/or domestic violence in the past month. Participants in this group (n = 15) were asked whether they thought the perpetrator was under the influence of substances at the time. Of these, 14 (93%) reported that the perpetrator was under the influence of drugs.

7.2. Arrests

In 2016, 38% of the sample reported an arrest in the 12 months preceding interview, the same as in 2015. Among these (n = 57), the main reason reported for arrest was property crime (40%), followed by violence (18%) and use and/or possession of drugs (21%).

7.2.1. Consumer and provider arrests

The following section details consumer (i.e. use/possession) and provider (i.e. manufacture/trafficking) arrests in the 2014/15 financial year relating to heroin and other opioids, methamphetamine, cocaine and cannabis, sourced from the ACC's *Illicit Drug Data Report 2014–15* (Australian Crime and Intelligence Commission, 2015). Data should be interpreted with caution given the lack of uniformity between jurisdictions regarding the recording and storage of illicit drug-related arrest data. Further, the total numbers of arrests may include offenders for whom consumer and/or provider status was not stated. As shown in Tables 19 to 22, however, consumer arrests outnumber provider arrests for all drug types both in the state of Victoria and across Australia.

7.2.1.1. Heroin and other opioids

Table 19 presents the number and percentage of consumer and provider arrests relating to heroin and other opioids in Victoria and Australia for the financial year 2014/15. Victorian arrests accounted for 40% of all heroin and other opioid-related arrests in Australia, the same as in the previous period. Between 2013/14 and 2014/15, Victorian consumer arrests and provider arrests relating to heroin and other opioids were stable as proportion of national arrests. In Victoria, consumer arrests accounted for 71% of all heroin and other opioid-related arrests for the period (Table 19).

Table 19: Consumer and provider arrests relating to heroin and other opioids, Victoria and Australia, 2014/15

	Victoria (n)	Australia (N)	Percentage of national arrests (%)
Consumer arrests	893	2,427	37%
Provider arrests	372	774	48%
Total arrests	1,265	3,201	40%

Source: Australian Crime and Intelligence Commission, 2016

Note: Arrest data for Victoria include Australian Federal Police data

7.2.1.2. Methamphetamine

The number and percentage of consumer and provider arrests relating to ATS for the 2014/15 financial year are detailed in Table 21. Victorian ATS-related consumer arrests and provider arrests changed only marginally from 2013/14 as proportions of national arrests. In Victoria, consumer arrests accounted for 75% of all arrests relating to ATS for the financial period, similar to previous years (Table 20).

Table 20: Consumer and provider arrests relating to amphetamine-type stimulants, Victoria and Australia, 2014/15

	Victoria (n)	Australia (N)	Percentage of national arrests (%)
Consumer arrests	7,298	27,502	27
Provider arrests	2,436	7,862	31
Total arrests	9,734	35,364	28

Source: Australian Crime and Intelligence Commission, 2016

Note: Arrest data for Victoria include Australian Federal Police data

7.2.1.3. Cocaine

Table 21 shows the number and percentage of cocaine-related consumer and provider arrests in Victoria and Australia for the 2014/15 financial year. During the period, 18% of all Australian arrests relating to cocaine occurred in Victoria. As percentages of national arrests, Victorian cocaine-related consumer and provider arrests were stable. In 2014/15, consumer arrests for cocaine comprised 68% of all cocaine-related arrests in Victoria (Table 21).

Table 21: Consumer and provider arrests relating to cocaine, Victoria, 2014/15

	Victoria (n)	Australia (n)	Percentage of national arrests (%)
Consumer arrests	256	1,542	17
Provider arrests	119	544	21
Total arrests	375	2,086	18

Source: Australian Crime and Intelligence Commission, 2016

Note: Arrest data for Victoria include Australian Federal Police data

7.2.1.4. Cannabis

The number and percentage of cannabis-related consumer and provider arrests in Victoria and Australia for the 2014/15 financial year are shown in Table 23. During the period, 14% of all Australian cannabis-related consumer and provider arrests occurred in Victoria. As a percentage of national arrests, Victorian cannabis-related consumer arrests and provider arrests changed only marginally from 2013/14 as proportions of national arrests. Consumer arrests for cannabis comprised the overwhelming majority of cannabis-related arrests (88%) across Australia, and 83% of all cannabis-related arrests in Victoria (Table 22).

Table 22: Consumer and provider arrests relating to cannabis, Victoria, 2014/15

	Victoria (n)	Australia (n)	Percentage of national arrests (%)
Consumer arrests	8,511	66,309	13
Provider arrests	1,781	8,716	20
Total arrests	10,292	75,025	14

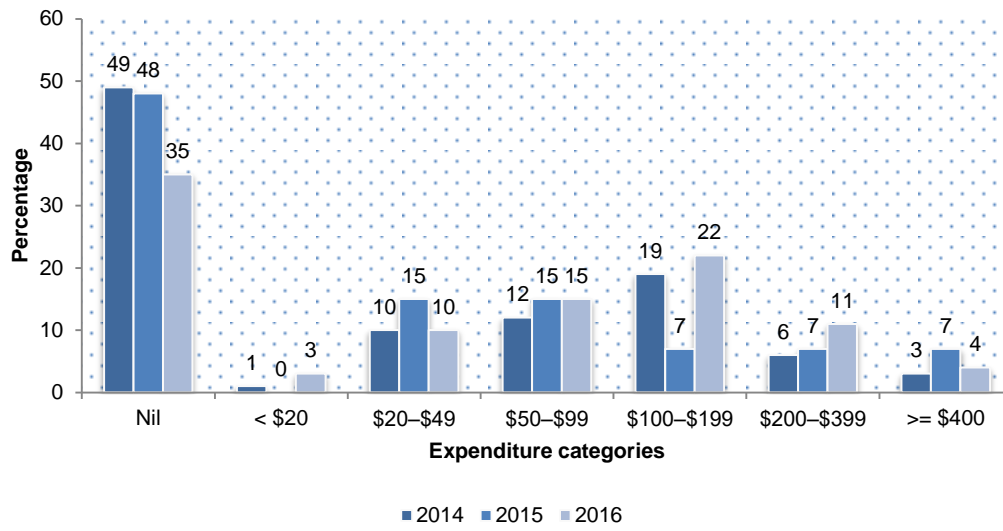
Source: Australian Crime and Intelligence Commission, 2016

Note: Arrest data for Victoria include Australian Federal Police data

7.3. Participants' expenditure on illicit drugs

Nearly two-thirds (65%) of 2016 Victorian IDRS participants reported purchasing illicit drugs on the day before completing the survey. Participants' (n = 97) median reported spend on illicit drugs was \$100 (IQR \$50–\$175). Figure 33 shows the distributions of participants' financial spend, with the single largest group (35%) reporting spending nothing on the day before interview. Twenty-six per cent reported spending between \$20 and \$99 on illicit drugs the day prior to interview (Figure 34).

Figure 34: Distribution of drug expenditure among all participants, day before interview, Victoria, 2014–2016



Source: IDRS participant interviews

8. Special topics of interest

8.1. Naloxone

Naloxone is a short-acting opioid antagonist that has been used for over 40 years to reverse the effects of opioids, particularly in the case of overdose. In Australia, naloxone has largely only been available for use by medical doctors (or those auspiced by medical doctors such as nurses and paramedics) for overdose response. In 2012 a take-home naloxone program commenced in the ACT through which naloxone was made available to peers and family members of people who inject drugs for the reversal of opioid overdose as part of a comprehensive overdose response package. This program was shortly followed by similar programs in NSW, VIC, and WA. In early 2016, the TGA effectively placed 'naloxone when used for the treatment of opioid overdose' on a dual listing of Schedule 3 and Schedule 4, meaning naloxone can be purchased OTC at pharmacies without a prescription (Lenton et al., 2016) but dual listing means it is still available at reduced cost via prescription.

Since 2013, the IDRS has included a series of questions about take-home naloxone and naloxone more broadly. Of the participants who commented in 2016 (N=832), 86% had heard of naloxone (ranging from 70% in SA to 96% in VIC). Nearly two-thirds (60%) of those who had heard of naloxone (N=697) reported that naloxone was used to 'reverse heroin', while 29% reported the use of naloxone to 're-establish consciousness'. Fifteen per cent said naloxone was used to 'help start breathing' and 19% gave 'other' reasons (Table 23).

Participants were then asked if they had heard about take-home naloxone programs. Among the national sample who commented (N=830), 49% reported that they had heard of take-home naloxone programs (ranging from 21% in SA to 80% in the ACT), while 51% had not (Table 23). Nationally, six per cent reported that they had been resuscitated with naloxone by somebody who had been trained through the take-home naloxone program (ranging from 2% in SA to 12% in the ACT).

Of the national sample who commented (N=830), 18% reported that they had completed training in naloxone administration and had received a prescription for naloxone (ranging from 3% in SA to 48% in the ACT; nationally, 17% in 2015). Of those who had completed the course (N=151), 46% had used the naloxone to resuscitate someone who had overdosed (mean two people, range 1–24).

In 2016, participants were asked if they had heard about the rescheduling of naloxone (which is now available OTC without a prescription). Of the national sample who commented (N=827), 13% reported that they had heard about the rescheduling (Table 23). Participants were then asked how much they would be willing to pay OTC at a pharmacy for naloxone in a prefilled syringe with accompanying needle and instruction materials. Forty-one percent stated that naloxone OTC should be free and cost \$0 and 15% were willing to pay either \$5 or \$30.

Participants were then asked if they had been resuscitated with naloxone by someone who obtained naloxone OTC from a pharmacy. Of the national sample who commented (N=829), 2% reported that they had been resuscitated with naloxone which was obtained OTC at a pharmacy. Two per cent (N=13) reported that they had themselves obtained naloxone OTC without a prescription from a pharmacy (mainly in the ACT).

Of those who had obtained naloxone OTC from a pharmacy (N=13), five reported that they had resuscitated someone who had overdosed. The median number of people attempted to resuscitate by injecting them with naloxone purchased from OTC was three.

Participants who had not obtained naloxone OTC without a prescription from a pharmacy were asked: 'now that naloxone is available OTC would you purchase it from a pharmacy?' Of those who commented (N=805), 66% reported that they would purchase naloxone OTC. Participants were asked if they would '(a) carry naloxone on your person? (b) administer naloxone after witnessing someone

overdose? and (c) stay with someone after giving them naloxone?’ Seventy-six per cent of those who commented (N=439) reported that they would carry the naloxone on their person, 99% reported that they would administer naloxone after witnessing someone overdose and 97% reported that they would stay after giving the naloxone.

Table 23: Take-home naloxone program and distribution (among those who commented), by jurisdiction, 2016

	National		NSW	ACT	VIC	TAS	SA	WA	NT	QLD
	N=856	N=792	n=141	n=86	n=160	n=74	n=100	n=64	n=89	n=78
	2015	2016								
% Heard of naloxone	87	86	89	94	96	81	70	91	74	86
% Naloxone description (n)	(N=675)	(N=697)	(n=125)	(n=87)	(n=155)	(n=68)	(n=63)	(n=64)	(n=66)	(n=69)
Reverses heroin	60	60	50	69	72	44	67	47	62	62
Help start breathing	12	15	14	15	23	15	6	8	18	16
Re-establish consciousness	31	29	30	23	37	16	35	19	35	25
Other	23	19	23	15	4	35	13	30	18	30
% Heard of the take-home naloxone program (n)	(N=796)	(N=830)	(n=147)	(n=91)	(n=164)	(n=86)	(n=100)	(n=70)	(n=89)	(n=83)
Yes	52	49	52	80	65	24	21	73	34	36
No	48	51	48	20	35	76	79	27	66	64
% Heard of the naloxone rescheduling* (N)	n.a.	(N=827)	(n=147)	(n=91)	(n=164)	(n=86)	(n=100)	(n=67)	(n=89)	(n=83)
Yes	n.a.	13	14	14	17	5	6	24	9	15
No	n.a.	86	85	86	81	95	94	75	91	86

Source: IDRS Injecting drug user interviews

* naloxone over the counter from a pharmacy without a prescription

n.a. not available

8.2. Blood donations

In Australia and most other territories around the world (excluding Japan), people with a history of injecting drug use comprise a ‘risk group’ who are permanently excluded from donating blood and blood products due to the high risk of infection from BBVI and sexually transmitted infections such as HCV and HIV (regardless of past injecting drug use ‘remoteness’ and current BBVI status).

In 2014 the Australian Red Cross Blood Service commissioned the Burnet Institute to conduct a review of international literature and guidelines to evaluate the appropriateness of their current eligibility criteria around blood donation and injecting drug use. One of the review’s main outcomes was the paucity of data on prevalence of lifetime blood donation among PWID, which precludes

calculations of estimates of the risk associated with changing the exclusion/deferral period from permanent to a reduced timeframe (e.g., 5 years).

Of those who commented nationally (N=756), 12% reported that they had given blood in their lifetime. One-third (34%) of those that had given blood (n = 94) reported that they had commenced injecting drug use before donating blood (Table 24). Participants were asked about their most recent episode between injection and blood donation. Of those participants who commented (n = 24), six reported that they had injected less than one month before they donated blood, 12 reported injecting between one month and one year before donating blood and the remainder (n = 6) reported injecting more than one year before donating blood.

Table 24: Blood donations, by jurisdiction, 2016

	National		NSW	ACT	VIC	TAS	SA	WA	NT	QLD
	N=745	N=756	n=146	n=57	n=147	n=76	n=99	n=66	n=83	n=82
	2015	2016								
% Ever donated blood	15	12	10	12	11	12	11	12	22	12
% Injected before blood donation*	28	34	33	14	38	22	46	38	33	40

8.3. Opioid and stimulant dependence

Substance dependence is an important predictor of other drug-related harm and typically demonstrates stronger relationships between other health and social outcomes than simpler frequency of use measures. In 2016, Victorian IDRS participants were administered the SDS in relation to use of heroin and other opioids in the past six months, as well as methamphetamine and other stimulants. The SDS is a five-item scale designed to measure the degree of dependence on a range of substances by focusing on the psychological aspects of dependence, including impaired control and preoccupation with and anxiety about use. The scale is a reliable measure of dependence, with good psychometric properties demonstrated in five samples of heroin, cocaine, amphetamine and methadone users in both Sydney and London (Dawe, Loxton, Hides, Kavanagh, & Mattick, 2002). Previous research suggests that a cut-off of four is indicative of dependence among methamphetamine users, while a cut-off of three is indicative of dependence among cocaine users (Kaye & Darke, 2002; Topp & Mattick, 1997). While there is no validated cut-off for heroin and other opioid dependence, researchers typically use a score of five or more to indicate the presence of dependence.

The SDS was administered to 127 Victorian IDRS participants who reported the recent use of heroin and/or other opioids in 2016, as shown in Table 25. Among these, the mean SDS score was 7.4, higher than the mean score in 2015 (7.2), with 79% of recent heroin and/or opioid users meeting the cut-off for dependence. In 2016, mean SDS scores for women and men were similar. Participants who scored five or more on the SDS were asked to nominate the opioids to which their responses related; 100 participants provided responses. Of these, 76% attributed their responses to heroin, 8% to methadone and 7% to buprenorphine-naloxone.

The SDS was also administered to 99 participants who reported the recent use of methamphetamine or other stimulants (i.e. cocaine or pharmaceutical stimulants). The mean SDS score was 3.2 in 2016, the same as in 2015. Thirty-eight per cent of recent users met the cut-off for stimulant dependence. Participants who scored four or more on the SDS were asked to nominate the stimulants to which their responses related: 38 participants provided responses. Of these, 97% nominated methamphetamine.

Table 25: SDS scores among participants who reported recent opioid and/or stimulant use, Victoria, 2014–2016

	Heroin and/or other opioids			Methamphetamine and/or other stimulants		
	2014 n=141	2015 n=136	2016 n=127	2014 n=115	2015 n=101	2016 n=99
Mean SDS score (SD)	7.3 (4.3)	7.2 (4.0)	7.4 (4.0)	3.2 (3.6)	3.4 (3.9)	3.4 (3.9)
Mean SDS score for men (SD)	7.2 (4.1)	6.8 (3.9)	7.3 (4.1)	3.0 (3.3)	3.2 (4.0)	2.8 (3.1)
Mean SDS score for women (SD)	7.8 (4.9)	8.5 (3.8)	7.7 (3.5)	3.7 (4.3)	3.9 (3.8)	4.1 (4.4)
Scored above cut-off* (%)	72	74	79	36	40	38
Men who scored above cut-off (%)	72	69	72	34	36	35
Women who scored above cut-off (%)	74	86	95	41	50	48

Source: IDRS participant interviews;

* The cut-off score for heroin and/or other opioids is five, and the cut-off score for methamphetamine is four.

8.6 Homelessness

A notable proportion of people who are homeless experience higher rates of mental health disorders than the general population. Specifically, substance use disorders have been repeatedly recorded as the most common mental health diagnosis amongst homeless populations in Western countries (Fazel et al., 2008). Whilst research examining substance use among homeless populations has been undertaken, very few studies have looked at homelessness amongst heavy substance users, including PWID. The aim of this module was to obtain information on the lifetime and recent homelessness experiences of PWID.

In 2014, the IDRS included a homelessness module which revealed the high lifetime (76%) and recent (23%) prevalence of homelessness among participants. To better understand the risk factors associated with different degrees of homelessness severity, four questions from the 2014 module were repeated in 2016.

Among those who commented (N=877), the lifetime prevalence of homelessness among the 2016 PWID sample was 80% (Table 26). Of those PWID with a homelessness history, 25% were currently homeless at the time of interview. It is clear that the rate of homelessness among PWID is notably higher than in the general Australian population (estimated at 0.5%) (Australian Bureau of Statistics, 2012). PWID who were currently homeless reported the mean duration of their current episode of homelessness as one year (range: <1–28 years).

Table 26: Homelessness history among people who inject drugs, by jurisdiction, 2016

	National		NSW	ACT	VIC	TAS	SA	WA	NT	QLD
	N=898	N=877	n=150	n=100	n=175	n=99	n=101	n=71	n=90	n=91
	2014	2016								
% Lifetime homelessness history	76	80	90	73	86	70	79	56	82	91
% Length of time since last homeless episode*	(n=631)	(N=688)	(n=131)	(n=72)	(n=150)	(n=67)	(n=80)	(n=35)	(n=71)	(n=82)
Currently homeless	21	25	37	19	31	18	6	20	25	29
In the past six months	11	14	15	24	9	8	14	14	18	15
7-12 months	7	4	5	3	7	2	1	3	1	9
1-2 years	10	9	4	14	10	10	10	14	11	9
2-5 years	13	13	13	11	17	19	10	23	9	7
More than 5 years	39	34	27	29	26	43	59	26	35	32
% Total duration of homelessness over lifetime*	(n=624)	(N=677)	(n=131)	(n=71)	(n=149)	(n=67)	(n=78)	(n=34)	(n=66)	(n=81)
Less than six months	22	23	13	27	21	31	37	29	21	15
6-11 months	11	11	12	7	9	10	18	15	11	9
1-2 years	24	25	24	16	28	27	22	27	35	24
3-5 years	19	18	26	23	14	16	19	15	11	14
6-10 years	10	12	14	11	15	8	0	12	11	19
More than 10 years	13	12	12	17	13	8	4	3	12	21

Source: IDRS participant interviews

* Among those with a homelessness history and who commented

Table shows, for the subsample of PWID with a homelessness history, the proportion that reported experiencing various states of homelessness in their lifetimes and in the past six months in each

state. The most commonly experienced forms of homelessness during both lifetime and the past six months were sleeping rough (72% and 26% respectively), couch surfing (66% and 25% respectively), boarding rooms/hostels (47% and 11% respectively) and crisis accommodation (46% and 10% respectively).

Table 27: Different forms of homelessness (lifetime & last six months), by jurisdiction, 2016

	National		NSW	ACT	VIC	TAS	SA	WA	NT	QLD
	N=827	N=812	n=148	n=78	n=170	n=77	n=98	n=62	n=90	n=89
	2014	2016								
% Lifetime										
Slept rough	66	72	82	85	80	68	57	47	57	78
Crisis or emergency accommodation	45	46	52	53	48	44	38	37	40	47
Medium or long term accommodation	22	27	29	36	34	20	15	18	19	33
Lived with relatives, friends or acquaintances (couch surfing)	63	66	66	68	69	82	63	52	62	65
Boarding or rooming houses or hostels (other than on holiday)	45	47	54	46	60	36	39	29	42	48
Caravan park (other than on holiday)	34	35	30	37	32	34	41	27	41	36
% Last six months										
Slept rough	20	26	38	35	26	19	9	15	22	31
Crisis or emergency accommodation	7	10	11	10	15	5	4	6	10	13
Medium or long term accommodation	4	7	7	12	7	8	1	3	6	12
Lived with relatives, friends or acquaintances (couch surfing)	18	25	32	31	25	27	15	19	29	21
Boarding or rooming houses or hostels (other than on holiday)	10	11	16	9	11	8	5	6	10	19
Caravan park (other than on holiday)	2	3	2	5	4	0	3	2	3	4

Source: IDRS participant interviews

8.7 Unfair treatment

Being discriminated against is a common event for people who use illicit drugs, particularly those who inject drugs. The IDRS provides an opportunity to obtain important insights into the multiple origins and impacts of unfair treatment of PWID.

Questions included in the 2016 IDRS aimed to clarify the relationships between unfair treatment, mental and physical health issues and quality of life as well as help to inform policy and improve the quality of services. The questions also aimed to identify the locations in which PWID are most likely to experience unfair treatment to help reduce future occurrences.

The 'unfair treatment' questions are based on 2013 IDRS questions developed in conjunction with the Australian Injecting and Illicit Drug Users League (AIVL) (Stafford and Burns, 2014), and two validated and well-accepted scales. The personal well-being index (PWI-A) (International Wellbeing Group, 2013) has been previously used in the IDRS and was well accepted by participants, while the DISC-12 has been used to evaluate discrimination against people with mental health disorders (Thornicroft et al., 2009).

In 2016, 30% of those who commented (N=796) reported that they had 'never' been unfairly treated, and 17% reported that they had not experienced unfair treatment in the last 12 months. However, 24% did report unfair treatment 'monthly', 16% 'weekly but not daily' and 13% experienced unfair treatment 'daily or more' (

Table 28).

Between one-quarter and one-third of those who were treated unfairly reported that they had been treated unfairly in the last 12 months by the police, by family, when getting help for physical health problems, in keeping or making friends and by people in the neighbourhood. A public location was reported as the venue at which most of the unfair treatment occurred; unfair treatment was mainly received from the general public, police or a family member (

Table 28).

Table 28: Unfair treatment, by jurisdiction, 2016

	National N=796	NSW n=146	ACT n=57	VIC n=147	TAS n=76	SA n=99	WA n=66	NT n=83	QLD n=82
% Treated Unfairly									
Never	30	32	36	30	20	30	30	39	22
Not in the last 12 months	17	16	10	17	24	18	13	23	17
Monthly	24	21	28	24	20	26	21	27	29
Weekly but not daily	16	16	12	15	19	18	18	10	21
Daily or more	13	16	14	14	17	8	18	2	12
% Treated unfairly last 12 months:	(N=562)	(n=98)	(n=52)	(n=120)	(n=60)	(n=68)	(n=42)	(n=51)	(n=71)
In making or keeping friends	26	33	25	27	25	21	17	18	34
By people in neighbourhood	24	25	27	28	18	19	21	18	34
In housing	19	16	21	23	18	16	10	8	32
By your family	27	28	32	24	20	32	24	22	32
By the police	29	36	25	27	35	19	17	22	45
When getting help for physical health problems	28	25	29	25	32	22	33	28	39
In getting welfare/disability benefits	13	21	19	16	12	9	10	4	9
In school/education	2	3	2	0	3	3	5	2	3
At work/in your career	8	8	4	7	7	7	17	10	9
% Most frequent venue treated unfairly:	(N=543)	(n=91)	(n=50)	(n=115)	(n=57)	(n=67)	(n=43)	(n=49)	(n=71)
Public location	34	43	34	37	35	21	19	33	39
Employment/work place	6	3	6	4	9	8	2	8	7
Pharmacy	11	6	22	6	19	13	26	2	6
General Practitioner practice	9	11	16	10	4	5	12	12	3
Other health care service	11	3	10	10	16	10	7	22	16
Government institution	6	10	4	9	4	6	2	0	10

Home	12	10	4	14	5	21	9	14	13
Other	12	14	4	11	9	10	23	8	7
% Mainly treated unfairly in venue by:	(N=543)	(n=89)	(n=50)	(n=116)	(n=59)	(n=67)	(n=43)	(n=48)	(n=71)
Police	16	30	4	13	9	10	2	13	32
Family member	14	10	10	17	10	27	9	15	13
Member of public	20	23	26	25	22	18	21	8	14
Pharmacist	9	2	28	5	15	12	26	2	0
General Practitioner	11	7	12	10	14	9	12	23	7
Other service provider	8	3	6	13	7	5	2	8	11
Other	22	25	14	17	23	9	28	31	23

Source: IDRS participant interviews

9. Study limitations

The primary aim of the Victorian IDRS is to monitor emerging trends in IDU and related issues in Melbourne. The project is not designed to provide definitive or detailed explanations of these trends. Rather, where appropriate, the main purpose of the IDRS is to inform future research initiatives and policy responses to the public health challenges presented by illicit drug use in each state and territory of Australia.

The Victorian IDRS relies on the perceptions of individuals who are involved in and exposed to the injecting drug scene in Melbourne. These individuals include both PWID and professionals working with PWID. Where possible, reports from professionals are used to supplement self-report data from PWID; these two data sources are compared with relevant secondary indicators. However, given the marginalisation and stigmatisation of IDU, and the hidden nature of various subpopulations of PWID, indicator data are often unreliable, particularly given the low prevalence of IDU in the general population, and the lag in time from collection to availability for publication.

In addition, the IDRS principally gathers evidence on emerging trends from a convenience sample of PWID who are in contact with NSP, drug treatment, primary health care and other services and who are often involved in the street-based drug scene. This population is not representative of all PWID in Melbourne. For instance, PWID who do not routinely access services and/or recreational populations of PWID are typically not reached via IDRS recruitment methods. Consequently, the generalisability of findings contained herein is limited. Another key limitation of the IDRS methodology is that the focus on drug-related issues within metropolitan Melbourne excludes exploration of illicit drug trends in rural and regional Victoria, or in emerging outer suburban markets. To provide a more comprehensive picture of trends in Victoria, the IDRS methodology requires expansion to include a sample of PWID in rural and regional settings and increase the numbers participating from outer suburban Melbourne.

10. Implications

The results from the 2016 Victorian IDRS suggest action in the following priority areas:

1. **Continued monitoring of illicit drug markets** for changes in trends in the prevalence and patterns of drug use and injection, and price, purity and availability, and continued monitoring of related health and social outcomes among the ageing cohort of PWID in Melbourne. Monitoring should be extended to cover current gaps such as young PWID (particularly young initiates to heroin injection) and non-injectors of all ages (e.g. methamphetamine smokers) through novel recruitment methods, given the relatively hidden nature of these populations.
2. **Research on the prevalence and patterns of methamphetamine use**, injection and inhalation, not only in Melbourne but in regional Victoria. Funding research to develop an evidence base for better access and support for effective treatment options for people who use this drug, focusing on long-term treatment options. Credible harm reduction education campaigns delivered by credible voices targeted to users pointing to the harms associated with heavy and dependent use. Reducing the negative impacts of stigma associated with ice use in the Victorian media.
3. **Continued expansion of OST programs across Victoria**, as well as ongoing consideration of full subsidisation of the OST system, even if (in the short term) only for vulnerable populations of PWID, such as pregnant women, ex-prisoners, and people living with HIV, in line with the Victorian pharmacotherapy review (King et al., 2011). Initiatives should include incentives for GPs to become pharmacotherapy prescribers.
4. **Continued monitoring of the prevalence, patterns and sources of prescribed and non-prescribed alprazolam and other benzodiazepine use**, given the rescheduling of alprazolam from Schedule 4 to Schedule 8 in February 2014. Research that examines the positive and negative outcomes associated with this policy change, including any unintended consequences such as increases in other types of benzodiazepine and/or psychotropic medication use.
5. **Continued support to increase access to THN programs for PWID**, given the improvement and consolidation in knowledge and support for THN observed in successive Victorian IDRS samples from 2013 to 2016.

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