Victoria

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VICTORIAN DRUG TRENDS 2014
Findings from the
Illicit Drug Reporting System (IDRS)

Australian Drug Trends Series No. 130

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Please note that as with all statistical reports there is the potential for minor revisions to data in this report over its life. Please refer to the online version at www.ndarc.med.unsw.edu.au.

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Abbreviations and acronyms

ABS	Australian Bureau of Statistics
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
DPMP	Drug Policy Modelling Project
ED	Emergency department
EDRS	Ecstasy and related Drugs Reporting System
GHB	Gamma-hydroxybutyrate
GP	General Practitioner(s)
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
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 twelve 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 (Department of Human Services, 2006; Drugs and Crime Prevention Committee, 2004, 2006; Law Reform Drugs and Crime Prevention Committee, 2014; Victorian Department of Health, 2007);

— 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); 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 2014 Victorian IDRS methodology

The Centre for Population Health (CPH) at the Burnet Institute conducted the Victorian arm of the 2014 IDRS study between June and November 2014. The project consisted of:

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

2. Semi-structured interviews with 18 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 2013/14 financial year. Where appropriate, these data were also compared to IDRS findings from 2000 to 2013.

Demographics of the sample

The 2014 Victorian IDRS sample consisted of 150 PWID. Participants' demographic characteristics were largely unchanged from previous surveys. Thirteen per cent identified as Indigenous. At the time of interview, 89% were unemployed and 87% received a government pension, allowance or benefit, with a mean weekly income of $384 reported. The percentage of participants in drug treatment at the time of interview significantly increased to almost two-thirds (66%) in 2014, and almost two-thirds reported a prison history.

Consumption patterns

Current patterns of use

The mean age of participants' first injection was 19 years in 2014; similar percentages reported first injecting methamphetamine (50%) or heroin (45%). As in previous years, heroin was the most common drug of choice (67%), drug injected most in the past month (63%) and last drug injected (62%). Thirty-six per cent reported injecting at least once per day.

Heroin

Patterns of heroin use in 2014 were very similar to previous years. The prevalence of recent heroin use and injection (both 83%) has remained stable for the past eight years. Frequency of heroin use declined to a median of 48 days use in the past six months (about twice per week); daily use significantly declined from 30% to 15%. Among recent users, white or off-white rock was the form of heroin used most (76%). Ten per cent of recent heroin users reported using heat to prepare their last injection.

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 2014, 23% nominated methamphetamine as their drug of choice. From 2013 to 2014 lifetime (99%) and recent (77%) methamphetamine use (any form) significantly increased, with a significant increase in the percentage of recent ice (75%) users driving the overall rise in recent use. From 2011, IDRS participants have "switched" from speed powder to ice use. Compared with 2013, in 2014 there was a higher prevalence of lifetime (60%) and recent (29%) methamphetamine smoking/inhalation. Frequency of use was similar to 2013, with recent methamphetamine users reporting a median of 12 days use (approximates to fortnightly use) in the preceding six months.

Cocaine

Between 2013 and 2014 there was no change in the prevalence of lifetime or recent cocaine use (65% and 10%) and injection (43% and 8%). Only 2% of the sample nominated cocaine as their drug of choice. Use was infrequent, occurring on a median of two days in the past six months. Four per cent reported recent insufflation (snorting). Recent users reported using powder cocaine most often (93%).

Cannabis

In 2014, cannabis was the third most common illicit drug used by Victorian IDRS participants after heroin and methamphetamine. While 97% reported lifetime use, 75% reported recent use, a non-significant decline from the figure in 2013 (80%). Median frequency of recent cannabis use fell to 120

days in 2014 (approximately five days per week); however, prevalence of daily smoking remained similar (47%). Recent users reported smoking hydroponically grown cannabis most often. In the last session of use, 50% reported smoking a median of six cones and 7% a median of 1.5 joints.

Opioid substitution treatment (OST) medications

Methadone

In 2014, the prevalence of recent methadone use was 59%, significantly higher than 2013; the median frequency of use was consistent at 180 days in the past six months. Few reports of recent Physeptone® use were received. Prevalence of recent *prescribed* methadone use (49%) did not change significantly, nor did recent non-prescribed use (19%). Consistent with previous years, the median frequency of recent non-prescribed use was low at five days in the past six months. The median frequency of recent injection was lower in 2014 than in 2013; 11% of participants reported a median of six days injection in the preceding six months.

Buprenorphine

From 2013 to 2014, there was a non-significant increase in lifetime buprenorphine use (68%), reflecting levels in 2012. Prevalence of recent use did not change (14%). Median frequency of use was 48 days in the preceding six months. Lifetime prevalence of *non-prescribed* use rose slightly in 2014 (46%), while recent non-prescribed use was similar (12%). There were no reports of recent *prescribed* buprenorphine use. Among recent users, median frequency of use declined in the last six months to 29 days. Recent buprenorphine injection did not significantly change (13%).

Buprenorphine-naloxone tablets

Overall, the prevalence of recent buprenorphine-naloxone tablet use significantly declined, from 19% in 2013 to 5% in 2014. Median frequency of use was five days in the past six months. There were no reports of recent *prescribed* use, but 5% reported recent *non-prescribed* tablet use on a median of five days. Recent tablet injection declined, from 10% in 2013 to 5% in 2014, occurring on a median of three days in the past six months.

Buprenorphine-naloxone film

In 2014, IDRS participants were asked to respond to separate questions about use of buprenorphine-naloxone film for the third time. Lifetime and recent prevalence of film use was similar to 2013 (37% and 23%). Median frequency of use increased to 90 days in the past six months. Prevalence of recent *prescribed* film use (15%) and recent *non-prescribed* film use (14%) did not significantly change from 2013 to 2014. Recent prescribed users reported a median frequency of 166 days of use; non-prescribed users reported a median of 10 days use. Recent film injection was reported by 12%, similar to 2013.

Pharmaceutical opioids

Morphine

Over the past 10 years there has been an overall trend of declining morphine use among Victorian IDRS participants. Between 2013 and 2014 lifetime prevalence of morphine use did not significantly change (77%), nor did recent use (25%). Use was infrequent: *non-prescribed* injection was reported by 22% of participants on three days (median) in the past six months. Sixty-six per cent of recent users reported using MS Contin® most often, while 21% used Kapanol® most.

Oxycodone

In 2014, the prevalence of lifetime oxycodone use (75%) significantly increased from 2013 (62%), yet there was no change in recent use (25%). Median frequency of use was seven days (about once per month) in the past six months. *Non-prescribed* injection prevalence (20%) was similar to 2013; the median frequency was nine days of injecting in the past six months. Nearly all recent users (86%) reported using OxyContin® most often, with 11% using Endone® most and 3% using OxyNorm® most.

Fentanyl

Prevalence of fentanyl use was very low: lifetime use and injection was 8% and 6%. Three per cent reported recent injection, on a median of three days in the past six months.

Other opioids (not elsewhere classified)

Between 2013 and 2014 the prevalence of extra-medical opioid use (other than those listed above) significantly increased (29% vs. 57%), as did recent use (7% vs. 27%). Almost all recent users reported oral ingestion (25%), on a median of seven days in the past six months. No respondents reported recent injection. *Prescribed* use was more common than *non-prescribed* use and Panadeine Forte® was the most commonly used brand.

Over-the-counter (OTC) codeine

Lifetime use of OTC codeine was reported by 41%; recent use was reported by 15%. Median frequency of use was seven days in the past six months. No participants reported OTC codeine injection.

Benzodiazepines

Benzodiazepines (other than alprazolam)

In 2014, lifetime use of benzodiazepines other than alprazolam was 88%, similar to 2013. Although recent use increased to 71%, the change was not significant. All recent users reported using diazepam (87%) most, followed by oxazepam (6%). Recent *prescribed* use increased (non-significantly) from 2013 (50%), while *non-prescribed* use was almost the same (46%). The median frequency of non-prescribed use was 10 days in the preceding six months.

Alprazolam

Prevalence of lifetime and recent alprazolam use was similar in 2013 and 2014 (83% and 40%), despite the rescheduling of alprazolam from a Schedule 4 to Schedule 8 drug in February 2014 (meaning that from this date, treatment permit applications are authorised for specialist shot-term indications only, making the drug harder to access). Unlike other benzodiazepines, lifetime (77%) and recent (38%) *non-prescribed* use was higher than *prescribed* lifetime (31%) and recent use (7%). A median frequency of six days non-prescribed use was reported. Three per cent reported recent non-prescribed alprazolam injection on a median of four days in the past six months.

Other drugs

Quetiapine

In 2014, lifetime use of quetiapine was similar to 2013 (65%), as was recent use (33%). Median frequency was 24 days of use in the past six months; all recent users reported oral ingestion. No reports of recent injection were received. The prevalence of recent *prescribed* (13%) and *non-prescribed* (25%) use was not significantly different, but prescribed users reported daily use (median, 180 days) and non-prescribed users reported a median of six days use.

Pharmaceutical stimulants

Prevalence of lifetime pharmaceutical stimulant use (39%) and injection (28%) significantly increased from 2013, but few (9%) reported recent injection. Recent use (11%) did not change, with a median of three days use reported.

Ecstasy

Lifetime ecstasy use prevalence (67%) was similar to previous years; however, prevalence of recent use increased (11%), with a median reported frequency of two days use. Over time, recent ecstasy use has fallen considerably among Victorian IDRS participants. Only 3% reported recent injection.

Hallucinogens

Few participants reported recent hallucinogenic drug use: 7% reported a median of three days use in the past six months. No reports of recent injection were received.

Inhalants

The lifetime prevalence of inhalant use (21%) was the same as in 2013; however, in 2014 1% reported recent use.

Steroids

In 2014, 12% of IDRS participants reported lifetime steroid use and 2% reported recent use.

Alcohol, tobacco and e-cigarettes

From 2013 to 2014 there was a significant increase in recent alcohol use (68%). Oral consumption was the only ROA reported, occurring on a median of 27 days (about once per week) in the past six months. By contrast, the prevalence of tobacco smoking was similar to previous years: 93% reported daily tobacco use in the past six months. Lifetime use of e-cigarettes was 27% and recent use 23%; but use was very infrequent (median, two days).

New psychoactive substances (NPS) and synthetic cannabinoids

For the second time in 2014, participants were asked about their use of NPS and synthetic cannabinoids. Five per cent reported lifetime NPS use; 2% reported recent use (median, two days). Lifetime use of synthetic cannabinoids significantly increased (25%), as did recent use (20%). All recent synthetic cannabinoid users reported smoking synthetic cannabinoids on one day (median) in the past six months.

Drug market: Price, purity, availability and purchasing patterns

Heroin

In 2014 median prices for heroin were consistent with previous years, with the exception of the price paid for 1.7 gram, which increased by $50. Participants most commonly reported purchasing 0.5 gram and paying $150. Almost all (95%) reported that heroin was very easy or easy to obtain; 83% reported no recent changes to availability. Heroin was most commonly sourced from a known dealer (55%), at an agreed public location (36%), or dealer's home (23%). The overall average purity of heroin seized in 2013/14 was very low (15%).

Methamphetamine

In 2014, 24 participants reported purchasing speed. According to their reports, median prices of 0.1 gram and 0.5 gram were stable, while the median price of 1.0 gram increased by $15. Participants most commonly reported purchasing 0.1 gram of *ice* for $100 (median), consistent with previous years. The median price paid for 0.5 gram of *ice* decreased by $50. *Ice* was reported as easy or very easy (89%) to obtain; 72% reported no recent changes to availability, yet 22% reported access was easier. Seventy per cent reported that *speed* was easy or very easy to obtain, 30% reported difficulty; 74% reported no change in availability in the past six months. *Speed* purity was reported as medium (46%) or high (38%), as was *ice* purity (high 45%, medium 35%). Too few participants commented on the market characteristics for *base*, so reports are not included. In 2013/14, the overall average purity of methamphetamine seized was high (67%). By contrast, purity of amphetamine seizures was low (25%).

Cocaine

In 2014 very few participants reported on the price of cocaine, so median price is not reported. Reports suggested that for this population, cocaine was difficult or very difficult to obtain. Few reports regarding purity were received, with participants suggesting it was high to medium. In 2013/14 the overall average purity of cocaine seized was 44%, 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, the price of 0.25 ounce decreased by $10; 82% of respondents reported no recent price changes. Almost all (93%) reported that hydroponic cannabis was very easy or easy to obtain and

81% reported no recent changes to availability. Fifteen participants reported last purchasing bush-grown cannabis; 73% 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 (60%) to medium (25%) and 80% reported no recent changes. Bush-grown cannabis potency was most commonly reported as medium (60%).

Methadone

Very few participants commented on the market characteristics of non-prescribed methadone. In 2014, too few reports of current prices were received to report on median price. Reports regarding availability suggested that non-prescribed methadone was easy to obtain for fewer than five participants, with access reported as easier.

Buprenorphine

In 2014, 10 participants commented on the market characteristics of non-prescribed buprenorphine. The median price paid for an 8 mg tablet was $15, a decrease of $5 from 2013; prices were reported as stable. All reported that non-prescribed buprenorphine was very easy or easy to obtain, with 80% reporting no recent changes to access. Buprenorphine was most commonly sourced from a friend; friend's home and agreed public locations were the most common source venues.

Buprenorphine-naloxone tablets

Fewer than 10 participants commented on the market characteristics of non-prescribed buprenorphine-naloxone tablets. The median price paid for an 8 mg tablet was $10; price was reported as stable. All reported that the tablets were easy or very easy to obtain, with no recent changes to access reported. Buprenorphine-naloxone tablets were sourced from friends, mostly from a friend's home.

Buprenorphine-naloxone film

Eleven participants commented on the market characteristics of non-prescribed buprenorphine-naloxone film. Median price for an 8 mg film was $10, a decrease of $10 from 2013, although most participants reported stable prices in the past six months. All reported the film was very easy or easy to obtain, with no reported change to access. All participants reported sourcing the film from friends, mostly from a friend's home or an agreed public location.

Morphine

In 2014, 15 participants commented on the market characteristics of morphine. Fewer reports were received on price, and these depended on the weight and type of morphine purchased (100 mg MS Contin® was most common). Most reported that price was stable, but a few reported an increase. Reports regarding morphine availability were inconsistent; however most suggested access was difficult or very difficult. Morphine was most commonly sourced from friends and known dealers, from a friend's home and a dealer's home.

Oxycodone

Eighteen reports were received regarding the market characteristics of oxycodone. An 80 mg OxyContin® tablet was most commonly purchased for a median price of $45, increasing by $5 from price in 2013; reports of recent changes to price varied. More than half reported that oxycodone was difficult and very difficult to obtain and while the majority reported no recent changes to availability, a significant minority reported access was more difficult. Oxycodone was most commonly sourced from a friend, with the most common source location being a friend's home.

Alprazolam

Given the rescheduling of alprazolam from a Schedule 4 to Schedule 8 drug in February 2014 (meaning that from this date, treatment permit applications are authorised for specialist shot-term indications only, making the drug harder to access), participants were asked to respond to questions about market characteristics for non-prescribed forms of the drug. Over 30 participants provided comment. Prior to rescheduling, 66% reported non-prescribed alprazolam use only; post-rescheduling, 84% reported non-

prescribed use only. Prior to and after rescheduling, median price did not change ($5). Since rescheduling, obtaining non-prescribed alprazolam was generally reported as difficult and very difficult, with the majority reporting that access was more difficult. Among those who had not used alprazolam since the policy change (n = 13), the main reason cited was that it was harder to access (62%).

Health-related trends associated with drug use

Overdose and drug-related fatalities

In 2014, the prevalence of reported lifetime accidental heroin overdose (51%) was similar to previous years; the median number of lifetime overdoses was three. Among those with a history of overdose, the past year prevalence was 20%. Eighty per cent of this group reported receiving naloxone, 67% reported ambulance attendance. Most did not seek further treatment and/or information. Only seven participants reported overdosing on drugs other than heroin in the preceding year. Ambo Project data show that during 2013, Ambulance Victoria (AV) attended 914 non-fatal heroin overdoses in Melbourne, a decline of 8% from 2012. In 2012 and 2013 respectively, coroner's data showed that 79 deaths were officially defined as heroin-related, including an additional 48 heroin-related deaths in 2014 (an underestimate given the likelihood of unresolved, ongoing cases).

Drug treatment

Drug treatment access among participants

In 2014, 66% of participants were in drug treatment at interview, most commonly methadone (45%) and Suboxone® (12%). Forty-two per cent reported receiving drug treatment in the six months before interview, most commonly methadone and drug counselling. Sixteen per cent reported barriers to treatment despite trying to access services, with waiting list (39%) and being turned down by programs (35%) the most common responses. Most participants were not waiting for treatment at the time of interview; however, participants' perceptions of treatment availability were inconsistent.

Specialist alcohol and other drug (AOD) treatment services

During 2013/14, 65,875 courses of treatment were delivered to 34,786 clients[1] in Victorian specialist alcohol and drug treatment services[2]. In 2013/14, for the second time in the IDRS the Alcohol and Drug Information Service (ADIS) data showed that amphetamine surpassed heroin as the most commonly cited drug of concern after alcohol and cannabis, comprising 17% of all clients and 16% of courses of treatment. Heroin was cited as a drug of concern in 9% of clients and courses of treatment, respectively, while cocaine was cited in less than 1% of clients and courses of treatment.

DirectLine

In 2013 DirectLine responded to 34,380 alcohol and drug-related calls, with a drug of concern[3] identified in nearly two-thirds. Between 2012 and 2013, calls to DirectLine declined by 8%. Heroin was nominated as a drug of concern in 8% of all drug-identified calls, whereas pharmaceutical opioids were nominated in 26% of calls. ATS were nominated in 22% of drug-identified calls, an increase of 7% from 2012, while cannabis accounted for 11% of all drug-identified calls.

Pharmacotherapy consumers

As at July 2014, 14,255 people were dispensed pharmacotherapy treatment in Victoria, up 2% from 2013. 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®). Between 2013 and 2014, buprenorphine dispensing declined by 14%.

[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.

Hospital admissions

Between 2011/12 and 2012/13 there was a 14% decline in opioid-related hospital admissions in Victoria, continuing the trend from the previous year, with 899 admissions recorded with an opioid-related primary diagnosis in 2012/13, comprising 16% of the Australian total. Similarly, hospital admissions with a cannabis-related primary diagnosis declined by 29% between 2011/12 and 2012/13 to 315, now comprising 13% of the Australian total. By contrast, amphetamine-related hospital admissions in Victoria increased by 22% between 2011/12 to 2012/13 to 787 admissions with an amphetamine-related primary diagnosis, accounting for 23% of the Australian total. Cocaine-related hospital admissions remain relatively low in Victoria; only 15 were recorded with a cocaine-related primary diagnosis in 2012/13.

Injecting risk behaviours

Injecting equipment access, reuse, access and related problems

Similar to previous years, 11% reported borrowing a used needle in the past month, typically on one or two occasions, and most commonly from a close friend. In 2014, 17% reported lending a used needle to someone else in the preceding month, and 49% reported reusing their own needle. Almost all (99%) reported accessing a Needle and Syringe Program (NSP) in the past month, yet 13% reported trouble obtaining sterile injecting equipment when they needed it. Most (75%) reported last injecting into their arm; few reported injecting into their hand or wrist (7%), groin (5%), neck (4%), leg (4%), or foot (3%). Seventy-two per cent reported injecting in private locations and, from 2013, there was a significant increase in self-reported injection-related health problems (64%).

Blood-borne viral infections (BBVI)

In 2013, eight new human immunodeficiency virus (HIV) diagnoses in which IDU was the likely exposure were notified, comprising 2.6% of all new Victorian infections for the year. HIV notifications in which the likely exposure was male-to-male sexual activity (MSM) and IDU significantly increased, accounting for 4.2% of new Victorian infections. The hepatitis C virus (HCV) continues to be an ongoing serious public health problem; in 2013 the estimated prevalence of HCV (antibodies) was 67% among Victorian Australian Needle and Syringe Program Survey (ANSPS) participants, significantly higher than HCV antibody prevalence among the national ANSPS sample (54%).

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 2014, the mean AUDIT-C score was 6.6, not significantly higher than in 2013. Additionally, 67% who reported alcohol consumption in the past year scored five or more on the AUDIT-C. Although the mean score for men was higher than for women (6.8 vs. 6.0), the difference was not significant.

Mental health problems and psychological distress

Self-reported mental health problems

In 2014, 51% of Victorian IDRS participants reported experiencing a mental health problem in the past six months, the same as in 2012 and 2013. Among these, the prevalence of depression was 73% and anxiety 48%. The most common problems of lower prevalence were schizophrenia (14%), bipolar affective disorder (9%) and post-traumatic stress disorder (PTSD) (8%). Of those with a self-reported mental health problem, 71% reported attending a health professional (the same figure as 2013), most commonly a GP, a psychiatrist or a psychologist. Psychotropic medication was prescribed to 73% of those with mental health issues, most commonly benzodiazepines, antipsychotics and antidepressants. Very few were prescribed mood stabilisers.

The Kessler Psychological Distress Scale (K10)

According to the K10, the prevalence of psychological distress was very high among the 2014 sample; 68% 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 2014, 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-third respectively rated their health as fair (36%) and good (35%).

Law enforcement-related trends associated with drug use

Self-reported criminal involvement

In 2014, 43% reported an arrest in the past twelve months, similar to 2013. Among these, the main reason reported for arrest was property crime (44%), and use and/or possession of drugs (25%) and violence (23%). In the month prior to interview, 47% reported that they were involved in crime, higher than 2013. Of the whole sample, 28% reported selling drugs for profit and 23% reported involvement in property crime.

Consumer and provider arrests

In 2012/13, consumer arrests outnumbered arrests of providers for all drug types both in Victoria and across Australia. For instance, in Victoria consumer arrests accounted for 74% of all heroin and other opioid-related arrests, 74% of all ATS-related arrests, 66% of all cocaine-related arrests and 82% of all cannabis-related arrests.

Expenditure on illicit drugs

Half (51%) of the 2014 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

In 2013 and 2014, the IDRS included a series of questions to explore participants' knowledge of and attitudes to naloxone, the short-acting opioid antagonist, and take-home naloxone (THN) in particular. Among the Victorian sample in 2014, 94% had heard of naloxone. Between 2013 and 2014, there was a significant increase in the percentage of participants who had heard of naloxone and who indicated that it was used to reverse the effects of heroin, and a significant increase in the percentage of participants who had heard of THN.

Homelessness

In 2014 the IDRS included a module on homelessness to obtain information on the experiences of homelessness among PWID. The lifetime prevalence of experience of homelessness was very high among Victorian participants at 91%. Forty per cent with a history of homelessness were classified as chronic, long-term rough sleepers. Thirty per cent of those with a history were homeless at the time of interview, significantly higher than the Australian general population estimate of 0.5%.

Ageing

In 2014 a series of questions relating to chronic physical health conditions and health service utilisation were included to better understand ageing among PWID. The most commonly diagnosed lifetime conditions were asthma, respiratory disease, gout, rheumatism or arthritis, and skin disease. The chronic condition diagnosed at the oldest median age (43 years) among participants was stroke. Almost three-quarters (72%) reported visiting a general practitioner approximately monthly (median, 12) in the past year.

Oxycodone

Post-marketing surveillance of the new oxycodone formulation (reformulated OxyContin®) is currently underway in Australia. Given the concerns regarding the original formulation of OxyContin® and changes to the types of oxycodone available, the aim of the 2014 module was to examine the use and misuse of available oxycodone products. More than two-thirds (69%) reported lifetime use and over one-tenth (11%) recent use. Among recent users, use of the original OxyContin® formulation was most common (31%).

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 2014 the SDS was administered to 141 recent heroin and other opioid users; for heroin users the mean SDS score was 7.3, with 72% of participants meeting the cut-off for dependence. The SDS was also administered to 115 recent methamphetamine and other stimulant users, yielding a mean score of 3.2; 36% met the cut-off for methamphetamine dependence.

Conclusions

The results of the 2014 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 2014 IDRS included:

— Stable and high prevalence of heroin use among eight consecutive Victorian IDRS samples and, although patterns of use declined to approximately two days of use per week in 2014, little change was reported in relation to market characteristics for the drug. Overall heroin purity remains very low according to Victoria Police seizure data (15%) and participant subjective reports, with these findings supplemented by AV data showing an 8% decline in non-fatal overdose (NFOD) ambulance attendances and NCIS data showing fewer heroin-related deaths. However, people who cite heroin as their preferred drug still comprise the largest population of service users according to reports from health KE. Two-thirds of participants reported being in drug treatment at interview, most commonly methadone and buprenorphine-naloxone OST, a significant increase from the previous year.

— Overall, significant increases in the prevalence of lifetime and recent methamphetamine use among 2014 IDRS participants, driven by an increase in recent ice use prevalence, of which three-quarters reported using in the past six months. Despite high use prevalence, only 23% nominated methamphetamine as their preferred drug. Frequency of use did not change (median days approximated to fortnightly use). Lifetime and recent smoking prevalence also significantly increased from 2013 to 2014, surpassing previous high levels in 2012. Prevalence of methamphetamine use among 2014 Victorian IDRS participants was similar to that reported in the early to mid-2000s. However, data from successive years show that from 2011, Victorian IDRS samples have “switched” from lower potency speed use to higher potency ice use, 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. In the context of their work with PWID, the majority of 2014 KE nominated methamphetamine as the “most problematic” drug, mainly due to high availability and excess use. Indeed, Victorian LE agency data also show that purity of seized methamphetamine has been significantly higher during the last three financial year periods, with Victorian ADIS drug treatment data showing that for the second time in the IDRS ‘amphetamine’ surpassed heroin as the second most commonly cited drug of concern after cannabis.

— For the past 10 years, there has been a trend of declining morphine use and injection among Victorian IDRS participants, whereas for the past three years oxycodone use and injection has stayed reasonably stable. Very few reported use of reformulated OxyContin®. By comparison,

population-level indicators of harm related to pharmaceutical opioid use remain much higher than those for heroin, suggesting a wide prevalence of use among the general community. 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.

— Stable prevalence and patterns of prescribed and non-prescribed benzodiazepine (other than alprazolam) use, with a non-significant increase in prescribed recent use. Similarly, there were no changes overall to the prevalence and patterns of alprazolam use, although 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 2014 IDRS, there was no significant change to prevalence of non-prescribed use following the rescheduling and no change to median price ($5 per 2 mg tablet), despite access being reportedly difficult and very difficult.

— Improved levels of naloxone awareness among 2014 participants compared with 2013 participants, with a significant increase in the percentage of participants who reported awareness of THN in particular.

— A very high prevalence of lifetime homelessness, with almost all participants reporting at least one episode of homelessness in the past. A significant proportion was identified as chronic, long-term, rough sleepers and almost one-third of those with a history were homeless for approximately two years (median) at the time of interview. The first homelessness episode was most commonly attributed to a relationship breakdown with family.

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 given recent media reports. 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**, given the improvements in knowledge observed between successive Victorian IDRS samples from 2013 to 2014.

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. This is the 17th 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 2014* report summarises data collected during the months of June through October 2014 as part of the Melbourne arm of the 2014 IDRS. The findings contained herein pertain to the 2013/14 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 2014 monograph for national IDRS data and jurisdictional comparisons (Stafford & Burns, 2015).

1.1. Study aims

The primary aims of the 2014 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 2014 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 2014. To be eligible to participate in the study, participants were required to have injected drugs on an at least monthly basis in the six months preceding interview and to have resided in Melbourne for the duration of the previous twelve 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 2014 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 2014 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

Eighteen KE (11 men and seven women) participated in interviews between October and November 2014; 16 KE self-completed an online questionnaire and two participated in face-to-face interviews. 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 2014 IDRS consisted of 14 direct health workers: Primary health care/NSP worker (n = 5), medical officer/first-aid worker/Addiction Medicine Specialist/OST prescriber

(n = 5), policy/government worker (n = 2), drug user group representative (n = 1) and drug court program manager (n = 1); and four LE personnel: investigator (n = 2), forensic scientist (n = 1) and lawyer (n = 1). 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 2014 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 2014 KE had the most contact in regards to their work were (multiple responses allowed) heroin (n = 15), methamphetamine (n = 11), cannabis (n = 8), buprenorphine (n = 5), benzodiazepines (n = 5), steroids (n = 3), methadone (n = 2), hallucinogens (n = 2) and ecstasy (n = 2). Additionally, pharmaceutical opioids were cited by two KE, with one specifically mentioning OTC codeine-ibuprofen. By comparison, the drugs 2014 KE cited as the 'most problematic' in relation to their work with PWID were methamphetamine (ice) (n = 7), methamphetamine in combination with alcohol (n = 1), heroin (n = 4) and alcohol (n = 4). One KE nominated OTC codeine-ibuprofen analgesics as most problematic, and another nominated pharmaceutical opioids. As in 2013, one 2014 KE from the health sector noted the difficulties with problematising illicit drugs as ends in themselves and commented that "drug use is so intertwined with other aspects of people's lives that it's difficult to tease out causality". Findings from KE surveys are presented where relevant throughout the report.

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 2013/14 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 2013/14 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 2012/13 financial year (Australian Crime Commission, 2014).

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 2013/14 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 2014 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 2013 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 2007 to 2013 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 2012/2013.

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 2014.

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 2013.

— 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 2013 ANSPS data collections is presented in this report (Iversen, Chow, & Maher, 2014; Iversen & Maher, 2013).

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 variables[4], with the mean and standard deviation (SD) reported. Selected categorical variables were analysed using χ^2 tests for percentages. Prevalence data between 2013 and 2014 were analysed using a one-sided test of proportions (prtesti). Analyses of 2014 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 2014 IDRS participant sample

In 2014, 150 people who regularly inject drugs (PWID) were interviewed for the Victorian IDRS. As with previous years, 25 participants were recruited from each of six sites across Melbourne: Collingwood, Dandenong, Footscray, Frankston, North Richmond and St Kilda.

The demographic characteristics of Victorian IDRS participants are summarised in Table 1 from 2011 to 2014. Characteristics have remained largely unchanged for the period shown. The mean age of participants in 2014 and 2013 was 40 years (p = 0.729). Three-quarters of the sample were men and more than half (57%) reported residing in stable housing. Nineteen per cent reported having no fixed address and being homeless and 11% reported residing in boarding houses or hostels. In 2014 13% of participants identified as Indigenous Australian, the same as in 2013 (Table 1).

Most participants were unemployed at the time of interview, and almost all reported that their main source of income in the preceding month was a government pension, allowance or benefit. Participants reported receiving a mean income of $383.93 per week (SD 161.8, median $377.50, IQR $280–$435).

In 2014, 66% of participants reported being in drug treatment at the time of interview, significantly higher than in 2013 when 52% reported current drug treatment (p < 0.05) (see section 6.2. for more detail).

In 2014, nearly two-thirds reported a history of imprisonment, similar to prevalence in previous years (Table 1), with a history of incarceration significantly more common among male than female participants (69% vs. 50%, p < 0.05).

Key Expert comments: Characteristics

The descriptions of the characteristics of PWID in Melbourne by 2014 KE coincided with those provided in previous years. Overall, KE from both the health and LE sectors reported that the majority of PWID they had contact with during the past six to 12 months were men ranging from 14 to 65 years of age. NSP KE reported that most clients were aged between 27 and 52 years, while some LE KE reported seeing younger cohorts of men aged between 18 and 22 years. High levels of use were also reported among people aged over 50 years. Ageing was the only notable change reported.

Generally, KE reported that PWID "come from all walks of life and … live in all areas"; some KE work in a state-wide capacity. Although most KE reported that the PWID with whom they were in contact were generally Australian-born and English-speaking, people were described as being from a multiplicity of ethnic backgrounds and having multiple cultural identities. Some KE reported more contact with ATSI populations than others. Several health and LE KE specified that many people they worked with resided in the North West metropolitan region of Melbourne, while others reported seeing PWID from outer suburban areas who specifically came into inner-city drug markets to purchase and use drugs.

KE reported high levels of unemployment, with many PWID receiving Centrelink benefits of some type. People in contact with low-threshold primary health services were more likely to have low levels of education and limited formal trade and tertiary qualifications. Some sex work was reported.

All KE referred to the high prevalence of mental health problems among their cohorts, with depression, anxiety and PTSD reported as most common. 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, 2011–2014

	2011 (N=150)	2012 (N=150)	2013 (N=150)	2014 (N=150)
Mean age in years (SD)	37 (7.6)	38 (8.1)	40 (7.9)[#]	40 (8.8)
Male (%)	75	70	71	75
Heterosexual (%)	91	93	91	89
Indigenous (%)	10	11	13	13
Accommodation (%)				
Own house/flat (includes rental)^	34	41	54	57
Parents'/family house	11	11	5	10
Boarding house/hostel	24	27	25	11
Shelter/refuge	3	4	0	1
No fixed address/homeless	17	15	15	19
Other	0	3	1	2
Employment (%)				
Not employed	87	92	90	89
Full-time	1	2	2	1
Part-time/casual	7	5	3	5
Home duties	2	1	4	1
Other	0	1	1	3
Mean years of school education (IQR)	9.7 (9–11)	9.6 (8–11)	9.6 (9–11)	9.9 (9-11)
Tertiary education (%)				
None	39	55	61	54
Trade/technical	52	41	33	43
University/college	8	5	5	3
Government pension, allowance or benefit (%)	96	95	94	87
Current drug treatment* (%)	59	60	52	66
Prison history (%)	63	60	64[#]	64

Source: IDRS participant interviews

^ Includes private rental and public housing

* Includes all types of OST and drug counselling. See Section 6.2 for more detailed information

[#] Data missing for one participant (n = 149)

4. Consumption patterns

Victorian IDRS participants' IDU history and patterns of use in the month preceding interview are shown in Table 2 from 2011 to 2014. In 2014, participants reported initiating injection at a mean of 18.7 years of age (median 17, IQR 15–20 years), not significantly different from the mean age reported in 2013 (19.4, p = 0.305). Similar percentages reported that their first injection was either methamphetamine (50%) or heroin (45%). Heroin was the most commonly cited drug of choice (67%), drug injected most in the past month (63%), and last drug injected (62%). For the 31 participants who reported injecting a different drug most in the last month to their drug of choice, availability (26%) was reported as the most common reason for doing so. In 2014, the distribution of injection frequency in the past month was similar to distributions in previous years (Table 2).

Table 2: IDU history and patterns of use in the last month, Victoria, 2011–2014

	2011 (N=150)	2012 (N=150)	2013 (N=150)	2014 (N=150)
Mean age in years at first injection (SD)	18 (6.1)	18 (5.1)	19 (5.9)	19 (5.9)
First drug injected (%)				
Heroin	39	47	47	45
Methamphetamine	56	45	49	50
Other drugs	5	7	4	5
Drug of choice (%)				
Heroin	60	74	71	65
Methamphetamine	19	13	18	23
Cannabis	11	4	6	5
Morphine	1	2	1	1
Cocaine	3	1	2	2
Other drugs	7	5	2	4
Drug injected most in last month (%)				
Heroin	60	72	69	63
Methamphetamine	22	17	20	28
Buprenorphine/buprenorphine-naloxone	14	7	7	4
Morphine	1	2	2	1
Other drugs	3	2	2	4
Last drug injected (%)				
Heroin	59	73	69	62
Methamphetamine	21	15	20	27
Morphine	1	1	2	1
Cocaine	0	0	1	1
Buprenorphine/buprenorphine-naloxone	14	8	7	5
Other drugs	5	3	2	4
Frequency of injecting in last month (%)				
Weekly or less	28	23	23	28
More than weekly, less than daily	36	35	32	35
Once a day	13	19	21	12
Two to three times per day	17	18	17	17
More than three times per day	3	5	6	7

Source: IDRS participant interviews

4.1. Current drug use

The self-reported patterns of lifetime and recent[5] drug use among the 2014 Victorian IDRS sample are summarised in Table 3. Between 2013 and 2014, there was a significant increase in the percentage of participants who reported lifetime use of various methamphetamine forms (99% vs. 93%, $p < 0.01$), with almost every participant having tried the drug at some time in the past. As with previous years, lifetime use of heroin (98%), tobacco (98%), alcohol (97%) and cannabis (97%) was ubiquitous among the sample, as was lifetime use of prescribed and/or non-prescribed benzodiazepines (95%) and methadone (85%).

In the six months preceding interview, participants most commonly reported injecting heroin (83%) and methamphetamine (74%), followed by prescribed and/or non-prescribed morphine (22%) and oxycodone (20%).

The illicit drugs participants most commonly reported recently smoking were cannabis (75%) and methamphetamine (31%), 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, in 2014 the drugs most commonly ingested orally by participants in the six months prior to interview were prescribed and/or non-prescribed benzodiazepines (77%), methadone (57%), and the antipsychotic medication quetiapine (33%, 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, 2014

	Ever used (%)	Ever injected (%)	Injected last 6 months (%)	Median days injected* last 6 months	Ever smoked (%)	Smoked last 6 months (%)	Ever snorted (%)	Snorted last 6 months (%)	Ever+ swallow (%)	Swallow last 6 months+ (%)	Used^ last 6 months (%)	Median days in tx*# last 6 months	Median days used^ last 6 months*
Heroin	98	98	83	48	50	4	21	0	16	1	83		48
Home bake heroin	25	24	6	12	2	1	1	0	0	0	6		12
Any heroin	**98**	**98**	**83**	**50**	**51**	**4**	**21**	**0**	**16**	**1**	**83**		**50**
Methadone (prescribed)	75	22	6	72					75	51	51	180	180
Methadone (not prescribed)	51	15	7	13					49	17	19		5
Physeptone (prescribed)	7	3	1	14	0	0	0	0	5	1	1	180	170
Physeptone (not prescribed)	17	15	3	3	0	0	0	0	5	1	3		3
Any methadone/ physeptone	**85**	**33**	**11**	**6**	**0**	**0**	**0**	**0**	**84**	**57**	**59**		**180**
Buprenorphine (prescribed)	45	24	3	138	1	0	0	0	43	2	3	180	180
Buprenorphine (not prescribed)	46	41	11	29	3	0	0	0	21	3	12		29
Any buprenorphine	**68**	**46**	**13**	**48**	**4**	**0**	**0**	**0**	**53**	**5**	**14**		**48**
Buprenorphine-naloxone tablets (prescribed)	33	14	0	0	1	0	0	0	31	0	0	0	0
Buprenorphine-naloxone tablets (not prescribed)	28	23	5	3	1	0	0	0	14	2	5		5
Any buprenorphine-naloxone tablets	**47**	**27**	**5**	**3**	**2**	**0**	**0**	**0**	**37**	**2**	**5**		**5**

Table 3: Drug use history and patterns of drug use in the preceding six months, Victoria, 2014 (continued)

	Ever used (%)	Ever injected (%)	Injected last 6 months (%)	Median days injected* last 6 months	Ever smoked (%)	Smoked last 6 months (%)	Ever snorted (%)	Snorted last 6 months (%)	Ever+ swallow (%)	Swallow last 6 months+ (%)	Used^ last 6 months (%)	Median days in tx*# last 6 months	Median days used^ last 6 months*
Buprenorphine-naloxone film (prescribed)	27	7	5	90	1	0	0	0	27	15	15	180	166
Buprenorphine-naloxone film (not prescribed)	21	14	11	12	1	0	0	0	13	7	14		10
Any buprenorphine-naloxone film	**37**	**15**	**12**	**36**	**1**	**0**	**0**	**0**	**32**	**19**	**23**		**90**
Any buprenorphine-naloxone	**61**	**33**	**14**		**3**	**0**	**0**	**0**	**50**	**19**	**25**		
Morphine (prescribed)	24	15	0	0	1	0	1	0	19	1	1	12	11
Morphine (not prescribed)	69	64	22	4	3	1	0	0	21	4	24		4
Any morphine	**77**	**68**	**22**	**3**	**3**	**1**	**1**	**0**	**35**	**5**	**25**		**4**
Oxycodone (prescribed)	25	14	1	111	1	1	1	1	19	5	5	113	98
Oxycodone (not prescribed)	68	63	20	7	1	0	0	0	23	7	22		6
Any oxycodone	**75**	**65**	**20**	**9**	**2**	**1**	**1**	**1**	**35**	**11**	**25**		**7**
Fentanyl	8	6	3	3	0	0	0	0	0	0	3		3
Over-the-counter codeine	41	2	0	0	1	0	0	0	40	15	15		7
Other opioids (not elsewhere classified)	57	3	1	2	1	0	0	0	55	25	27		7
Speed powder	95	92	24	5	31	6	59	1	43	2	25		5
Amphetamine liquid	27	24	1	1					5	0	1		1

Table 3: Drug use history and patterns of drug use in the preceding six months, Victoria, 2014 (continued)

	Ever used (%)	Ever injected (%)	Injected last 6 months (%)	Median days injected* last 6 months	Ever smoked (%)	Smoked last 6 months (%)	Ever snorted (%)	Snorted last 6 months (%)	Ever+ swallow (%)	Swallow last 6 months+ (%)	Used^ last 6 months (%)	Median days in tx*# last 6 months	Median days used^ last 6 months*
Base methamphetamine	31	31	3	8	1	0	2	0	3	0	3		8
Crystal meth (ice)	93	90	71	12	60	29	4	1	11	4	75		12
Any methamphetamine	**99**	**97**	**74**	**12**	**65**	**31**	**61**	**2**	**49**	**5**	**77**		**12**
Pharmaceutical stimulants (prescribed)	8	4	1	96	0	0	0	0	8	1	1	180	96
Pharmaceutical stimulants (not prescribed)	36	27	8	2	0	0	1	0	20	3	10		2
Any pharmaceutical stimulants	**39**	**28**	**9**	**2**	**0**	**0**	**1**	**0**	**23**	**4**	**11**		**3**
Cocaine	65	43	8	3	7	0	41	4	5	0	10		2
Hallucinogens	61	4	1	1	3	1	0	0	61	7	7		3
Ecstasy	67	20	3	5	1	0	6	1	63	9	11		2
Alprazolam (prescribed)	31	5	0	0	0	0	1	0	31	7	7	120	177
Alprazolam (not prescribed)	77	9	3	4	1	0	1	0	77	37	38		6
Any alprazolam	**83**	**12**	**3**		**1**	**0**	**1**	**0**	**82**	**39**	**40**		
Other benzodiazepines (prescribed)	77	6	0	0	1	1	1	0	77	50	50	180	156
Other benzodiazepines (not prescribed)	71	6	0	0	0	0	0	0	70	54	46		10
Any other benzodiazepines	**88**	**9**	**0**	**0**	**1**	**1**	**1**	**0**	**88**	**71**	**71**		
Any benzodiazepines	**95**	**19**	**3**	**3**	**1**	**1**	**1**	**0**	**95**	**77**	**77**		**60**

Table 3: Drug use history and patterns of drug use in the preceding six months, Victoria, 2014 (continued)

	Ever used (%)	Ever injected (%)	Injected last 6 months (%)	Median days injected* last 6 months	Ever smoked (%)	Smoked last 6 months (%)	Ever snorted (%)	Snorted last 6 months (%)	Ever+ swallow (%)	Swallow last 6 months+ (%)	Used^ last 6 months (%)	Median days in tx*# last 6 months	Median days used^ last 6 months*
Quetiapine (prescribed)	31	0	0	0	0	0	0	0	31	13	13	180	180
Quetiapine (not prescribed)	49	1	0	0	1	0	0	0	49	25	25		6
Any quetiapine	**65**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**65**	**33**	**33**		**24**
Alcohol	97	6	1	4					97	68	68		27
Cannabis	97				97	75			45	8	75		120
Inhalants	21										1		5
Tobacco	98										97		180
E-cigarette	27										23		2
Steroids	12	9	1	1	0	0	0	0	3	1	2		4
NPS	5	3	1	3	1	0	3	1	1	0	2		2
Synthetic cannabinoids	25				23	19			1	1	20		1

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

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

Refers to the median number of days in treatment among participants who reported prescribed drug use in the preceding six months

Table 4 shows the drug types Victorian IDRS participants reported using on the day prior to interview from 2008 to 2014. Multiple responses were allowed and prescribed drug use was included. In 2014, almost all participants (97%) reported the use of at least one drug on the day before interview, with cannabis (54%), heroin (42%) and methadone (37%) most commonly used (Table 4).

Table 4: Drugs used on the day prior to interview, Victoria, 2008–2014

	2008 (N=150)	2009 (N=150)	2010 (N=151)	2011 (N=150)	2012 (N=150)	2013 (N=150)	2014* (N=147)
Cannabis (%)	53	43	51	59	62	52	54
Heroin (%)	45	37	36	33	50	37	42
Benzodiazepines (%)	30	23	17	37	41	27	35
Alcohol (%)	24	28	28	32	32	22	31
Methadone (%)	25	26	12	28	27	30	37
Buprenorphine (%)	10	16	9	12	6	5	6
Speed (%)	13	8	8	3	2	3	0
Morphine (%)	7	3	5	3	1	1	2
Antidepressants (%)	4	9	6	8	4	4	7
Other opioids (%)	3	0	0	1	2	1	3
Buprenorphine-naloxone (%)	8	5	7	14	12	12	12
Crystal meth (ice) (%)	2	3	1	8	9	9	15
Cocaine (%)	3	2	0	0	1	0	0
Base (%)	0	1	0	0	1	1	0
Oxycodone (%)	-	-	1	1	3	1	4
Antipsychotics (%)	-	-	-	-	10	9	13

Source: IDRS participant interviews

* Data missing for one participant. Two participants reported no substance use on the day before interview.

The median drug quantities participants reported using in a session in the six months preceding interview are shown in Table 5. 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. Note that among recent crystal methamphetamine users, 0.1 gram was the median amount reportedly used in a session, the median amount used most, and the median amount used during the course of a day (Table 5).

Table 5: Median drug quantities used in the preceding six months, Victoria, 2014

	Median amount used in a session* Grams (IQR)	Median amount used *most* in a session* Grams (IQR)	Median amount used in a day Grams (IQR)
Heroin (n=119)	0.3 (0.2-0.5)[++]	0.5 (0.4-1.0)[+]	0.4 (0.25-0.5)
Powder meth (n=35)	0.15 (0.1-0.5)	0.2 (0.1-1.0)	0.25 (0.1-0.5)
Crystal meth (ice) (n=103)	0.1 (0.06-0.1)	0.1 (0.1-0.25)	0.1 (0.1-0.2)
Cocaine (n=10)	0.25 (0.1-1.0)	0.4 (0.1-1.0)	0.4 (0.1-1.0)
Cannabis			
Joints (n=10)	1.0 (1-2)	2.5 (1-4)	1.5 (1-6)
Cones (n=54)	6.0 (4-10)	10.0 (5-25)	9.0 (4-16)

Source: IDRS participant interviews

Note: Only three participants reported on the average amount of base used in the preceding six months so median quantities used per session are not reported. Participant reports of quantities used in $AUD amounts are excluded.

* Session refers to a period of continuous use

[++] Data missing for two participants.

[+] Data missing for one participant.

4.2. Heroin

Key points

- In 2014, 83% of participants reported recent heroin use and injection, the same prevalence as in 2013 (83%).
- The frequency of heroin use declined: the median was 48 days in 2014, compared with 72 days in 2013.
- There was a significant decline in the percentage of daily heroin users between 2013 and 2014 (30% to 15%).
- White or off-white rock was the form of heroin used most by recent users in 2014 (76%). There was no change in the percentage of participants who reported using brown/beige rock most (10%).
- Ten per cent of the sample reported using heat to prepare their last heroin injection, similar to 2013.

4.2.1. Prevalence of heroin use

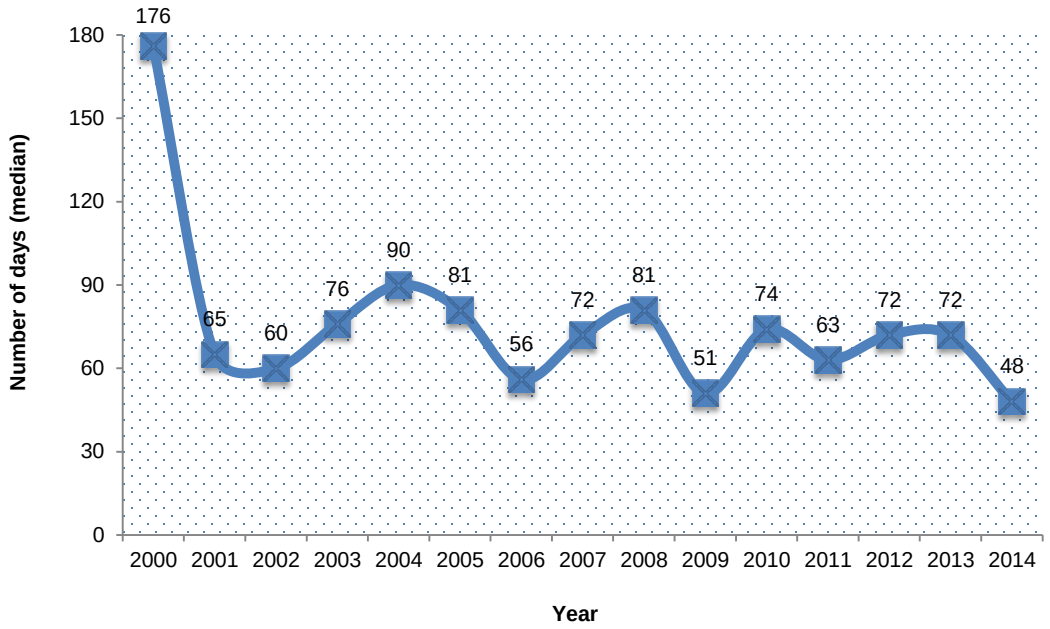
Among Victorian IDRS participants the prevalence of recent heroin use has remained stable for the past eight years. In 2014 heroin was the most widely used illicit drug by Victorian IDRS participants in the preceding six months. Lifetime use was reported by 98% (n = 147) of the sample, with 83% (n=125) reporting recent heroin use and injection, respectively. Sixty-five per cent nominated heroin as their drug of choice, similar to 2013 (71%, $p = 0.265$). Likewise, 62% of 2014 participants reported that heroin was the last drug they injected before interview (vs. 69% in 2013, $p = 0.202$). This figure (62%) was not significantly different from that reported in the 2013 ANSPS, in which 54% of Victorian ANSPS participants nominated heroin as the last drug injected before survey completion (Iversen et al., 2014)

4.2.2. Current patterns of heroin use

As in previous years, of the 125 IDRS participants who reported recent heroin use, all reported recent heroin injection. Only 4% reported recently smoking heroin (i.e. heating the drug and inhaling the vapours) and 1% reported oral ingestion. No participants reported recent insufflation (snorting). These results are consistent with findings in 2013.

Figure 1 illustrates the median days of heroin use, from 2000 to 2014, by Victorian participants who reported use in the preceding six months. In 2014, heroin was used on a median of 48 days (range 1–180 days) in the six months before interview, or about twice per week. This was less than the median days of use reported by participants in 2013 (72 days, or about three 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 1). In 2014, only 15% of recent heroin users reported daily use, a significant decline from the percentage reporting daily use in 2013 (30%, $p < 0.01$).

Figure 1: Median days of heroin use in the past six months, Victoria, 2000–2014



Source: IDRS participant interviews

4.2.3. Forms of heroin used

As in previous years, in 2014 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 6 presents the forms of heroin used by IDRS participants from 2011 to 2014, and the forms of heroin participants reported using most. Among recent heroin users (n = 125) in 2014, 72% reported using white/off-white rock in the preceding six months, a non-significant decline from previous years. Reports of recent use of white/off-white powder have fluctuated, increasing significantly from 19% in 2013 to 37% in 2014 ($p < 0.01$). The reported use of brown/beige powder was reasonably stable between 2013 and 2014 (7% to 11%), as was use of brown/beige rock (37% vs. 33% respectively) (Table 6).

For years, Victorian IDRS participants have reported that most of the heroin available in Melbourne is white/off-white rock. Consistent with this, in 2014 76% of recent heroin injectors reported using white/off-white rock most in the preceding six months. The percentage of recent heroin injectors reporting use of brown/beige rock most often did not change (11% in 2013 vs. 10% in 2014) (Table 6).

Table 6: Forms of heroin used in the preceding six months, Victoria, 2011–2014

	Forms used*				Form used most			
	2011 (n=122)	2012 (n=126)	2013 (n=124)	2014 (n=125)	2011 (n=121)	2012 (n=125)	2013 (n=124)	2014+ (n=122)
White/off-white heroin (%)								
Powder	25	44	19	37	8	10	5	9
Rock	89	87	82	72	79	82	83	76
Brown/beige heroin (%)								
Powder	13	24	7	11	2	3	1	1
Rock	21	29	37	33	7	5	11	10
Other colour heroin (%)								
Powder	0	1	1	3	0	0	0	2
Rock	7	3	1	2	3	1	0	2
Homebake heroin (%)	3	1	1	3	--	--	--	1

Source: IDRS participant interviews

* Multiple responses allowed

+ Data missing for three participants

-- No reports received

In 2014, 125 participants completed the survey questions regarding their most recent episode of heroin injection. Of these, 13 participants (10%) reported using heat to prepare their last injection, similar to 2013 (14%). Fourteen participants provided information on the type of heroin used on this occasion: 12 reported heating white/off-white heroin and two reported heating brown/beige heroin. One report was received regarding the use of citric acid to dissolve heroin.

Key Expert comments: Heroin

Although 15 KE reported that heroin was the main illicit drug they had come into contact with during the course of their work with PWID, only four reported perceiving heroin as the “most problematic” drug in 2014. For instance, some health KE nominated heroin as most problematic due to the high prevalence and frequency of use among people accessing services—presentations with the most significant and complex needs. Several other health KE concurred, reporting that heroin was most problematic in their workplaces due to the “sheer volume” of opioid-dependent clients accessing services (sometimes just NSP), as well as a range of other related factors including overdose, financial costs, injecting ROA, stigma and discrimination, legal consequences of use, physical and mental health issues, trauma, parenting/child protection issues, motor vehicle accidents (MVA) and fall injuries, and unstable housing. Health consequences related to heroin injection such as hepatitis C, sepsis, endocarditis, abscesses, cellulitis and thrombosis were also cited.

4.3. Methamphetamine

Key points

- In 2014, the prevalence of recent methamphetamine use was 77% and recent injection 74%, significantly higher than 2013. The median frequency of methamphetamine use was 12 days in the preceding six months (fortnightly use), very similar to 2013.
- Twenty-three per cent nominated methamphetamine as their drug of choice.
- The prevalence of recent *ice* use (75%) significantly increased. Ice smoking also rose significantly to 29%. Frequency of *ice* use was 12 days in the preceding six months.
- Prevalence of recent *speed* use did not change (25%). Frequency of *speed* use was five days in the preceding six months.
- Prevalence of recent *base methamphetamine* use was the same (3%). Median frequency of use was eight days.

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). By comparison, between 2013 and 2014 there was a significant increase in lifetime methamphetamine use among Victorian IDRS participants (from 93% to 99%, $p < 0.01$) and a non-significant increase in lifetime injection (from 93% to 97%, $p = 0.112$). Recent use (any ROA) of methamphetamine also significantly increased, from 61% of participants in 2013 to 77% in 2014 ($p < 0.01$); recent injection increased significantly as well (59% vs. 74%, $p < 0.01$). Overall, however, Table 2 shows no change between 2013 and 2014 in the percentage of participants who nominated methamphetamine as their primary drug of choice (18% vs. 23%, $p = 0.283$).

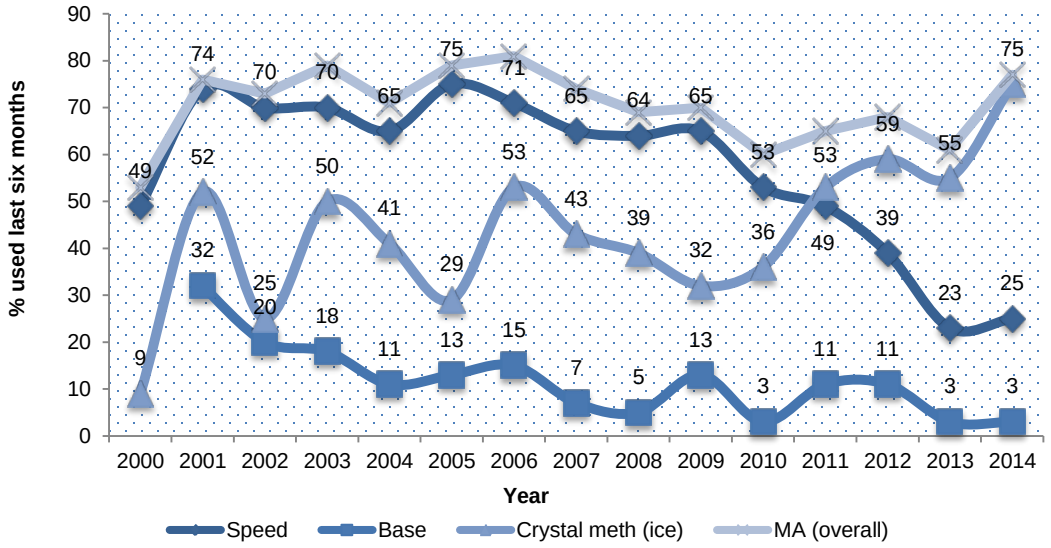
A greater percentage of Victorian IDRS participants reported ever injecting various methamphetamine forms in 2014. There was a significant increase in the lifetime prevalence of *ice* injection from 2013 to 2014 (80% vs. 90%, $p < 0.05$), suggesting that more PWID in Victoria have tried *ice* at some point in their lives. The lifetime prevalence of *speed powder* injection returned to the same level as in 2012, with 92% reporting lifetime injection in 2014, compared with 85% in 2013 ($p = 0.058$). In 2014, lifetime prevalence of *base methamphetamine* also returned to the same level as in 2012 (30%), significantly increasing from 15% in 2013 ($p < 0.01$). There was also a significant increase in the lifetime prevalence of *amphetamine liquid* injection, from 8% in 2013 to 24% in 2014 ($p < 0.001$).

Referring back to Table 2, in 2014 the percentage of participants who reported injecting methamphetamine most often in the month preceding interview was 28%, not significantly different from 2013 when it was 20% ($p = 0.105$). Twenty-seven per cent reported that methamphetamine was the last drug injected (vs. 20% in 2013, $p = 0.153$). 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 2014, is shown in Figure 2 by methamphetamine type. In 2014 participants most commonly reported recently using *crystal methamphetamine* or *ice* (75%), significantly higher than in 2013 (55%, $p < 0.001$) and underpinning the high prevalence of methamphetamine use overall (77%). There was no change in the prevalence of recent *speed* use from 2013 to 2014 (23% vs. 25%, $p = 0.685$), or in the prevalence of recent *base methamphetamine* use. Figure 2 shows that from 2011 there has been a switch from *speed powder* to *ice* use among Victorian IDRS participants.

Figure 2: Percentage of participants reporting methamphetamine use in the past six months, Victoria, 2000–2014



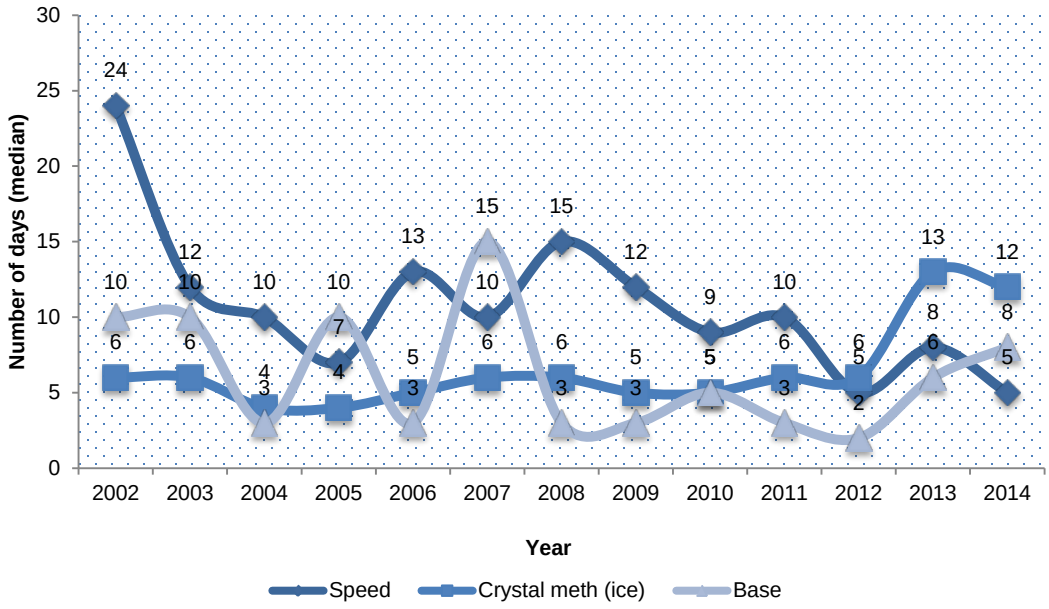
Source: IDRS participant interviews

Consistent with previous years, in 2014 the most common recent methamphetamine ROA among Victorian IDRS participants was injection; 71% reported recent *ice* injection (vs. 54% in 2013, $p < 0.01$). There was no change in the prevalence of recent *speed* injection (22% in 2013 vs. 24% in 2014, $p < 0.681$). Recent injection of *base methamphetamine* and *amphetamine liquid* was very low (3% and 1%, respectively). Nine per cent reported the recent injection of *pharmaceutical stimulants* (prescribed and non-prescribed).

In 2014, there was a higher prevalence of lifetime and recent methamphetamine smoking/inhalation than previous years. For instance, lifetime prevalence of *ice* smoking significantly increased from 33% in 2013 to 60% in 2014 ($p < 0.001$). Reports of recent *ice* smoking also significantly increased, with 29% of participants in 2014 indicating they had smoked the drug in the preceding six months, compared with 13% in 2013 ($p < 0.001$).

Figure 3 illustrates the median days of methamphetamine use among Victorian IDRS participants who reported recent use, from 2002 to 2014, according to methamphetamine type. In 2014 recent users reported using the drug at very similar frequencies to 2013. In 2014, for instance, recent *ice* users (n = 112) reported use about once per fortnight (median 12 days, IQR 3–24 days) in the preceding six months, compared with 13 days in 2013. On average, recent *speed* users (n = 38) reported use on a median of five days (IQR 2–12 days), compared with eight days in 2013. The few participants (n = 4) who reported recent use of *base* reported a median frequency of eight days use (IQR 3–21 days) in 2014, versus six days in 2013. Overall, in 2014 the 116 Victorian IDRS participants who reported the recent use of any methamphetamine used on a median of 12 days (IQR 3–30 days) in the preceding six months, or on about two days per month.

Figure 3: Median days of methamphetamine use in the past six months, Victoria, 2002–2014



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

Eight of 11 KE nominated methamphetamine (or more specifically, ice) as the "most problematic" drug in 2014, similar to the proportion in 2013. Reports by participants were reasonably consistent, with almost all KE citing the mental and behavioural consequences associated with methamphetamine use as the biggest concern. All KE acknowledged that methamphetamine use occurred across the social and cultural spectrum. Aggression and violence—attributed to "excess use", low prices, high potency and high availability, and experiences of agitation—were reported by KE at the coalface, particularly those working in NSP, ED, and general practice and policing. Ice was particularly problematic for PWID given many switched to using it when heroin was of poor quality and/or unavailable. Noting that people who used 'ice' were "scattered" throughout Melbourne, it was reported that use was embedded in some public housing estates and among people in unstable living arrangements or homelessness. LE KE reported that seizures of methamphetamine occurred across the state of Victoria. However, as health KE indicated, particular local areas attract vulnerable populations because of the high volume of support services targeting groups like recently released prisoners, including short to medium-term crisis accommodation services and boarding houses. LE KE suggested that, historically, many men involved in acquisitive crime to fund methamphetamine use were once participants in the physical labour force, but escalating levels of use (and harm) contributed to loss of employment. Despite these reports, other health KE reported being in contact with people who used the drug at frequencies ranging from "social" to "daily use". One even noted a reduction in methamphetamine-related harms among some people who used the drug, attributed to lower frequency of use and injection and higher levels of awareness of harms and therefore better sleep.

4.4. Cocaine

Key Points

- The estimated prevalence of cocaine use among the Victorian general population in 2013 was 2.1%.
- In 2014, the lifetime prevalence of cocaine use was 65%, whereas lifetime prevalence of cocaine injection was 43%.
- Recent use was reported by 10% and recent injection was reported by 8%.
- Only 2% nominated cocaine as their drug of choice, the same as 2013.
- Frequency of use was very low.

4.4.1. Prevalence of cocaine use

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 2014, 97 Victorian IDRS participants (65%) reported lifetime cocaine use, compared with 61% in 2013 (p = 0.473). By contrast, 10% reported using cocaine in the preceding six months, almost the same as in 2013 (11%, p = 0.778). In 2014, only three participants (2%) nominated cocaine as their drug of choice, which was consistent with the figure in 2013. The prevalence of lifetime cocaine injection was 43% (n = 65), whereas in 2013 lifetime prevalence was 41% (p = 0.726). Despite a reasonably high prevalence of lifetime injection, only 12 participants (8%) reported cocaine injection in the preceding six months, also similar to the figure in 2013 (9%).

Consistent with previous years, in 2014 injection remained the most common lifetime and recent ROA reported by IDRS participants. However, 41% (n = 62) of the sample reported lifetime cocaine insufflation (snorting), with only 4% (n=6) reporting recent use via this method. No other recent ROA were reported.

As in previous years, the frequency of recent cocaine use was relatively low. The median frequency of recent cocaine use (any ROA) was two days (IQR 1–5 days) in the preceding six months, while the median frequency of injection was three days (IQR 1–5 days).

All 15 recent cocaine users provided information in 2014 on the forms of the drug they had used most in the past six months. Fourteen participants (93%) reported using powder cocaine and one (7%) reported using rock cocaine most.

4.5. Cannabis

Key Points

- In 2014, the prevalence of cannabis use among the IDRS sample was almost the same as 2013; lifetime use was reported by 97% and recent use was reported by 75%. Daily use was reported by 47%. Median frequency of use was 120 days, translating to use approximately five days per week.
- Five 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, 50% of recent users reported smoking a median of six cones, while 7% reported smoking a median of 1.5 joints.

4.5.1. Prevalence of cannabis use

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 prevalence of lifetime and recent use among the 2014 sample reasonably consistent with prevalence in 2013. For instance, in 2014 almost all participants (97%) reported lifetime use, very close to the figure in 2013 (96%, $p = 0.638$). Although a significant majority (75%) reported recently using cannabis, there was a non-significant decline in use from 80% in 2013 ($p = 0.300$), suggesting a downward trend from 2012, when the figure was 85%. Despite a high prevalence of cannabis use in 2014, only 5% nominated cannabis as their primary drug of choice.

In 2014, 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 = 113), 102 (90%) provided responses about the cannabis types used during the past six months. Of these, 92% reported recently using hydroponically grown cannabis and 55% reported recently using bush-grown cannabis; 7% reported the recent use of hashish and hashish oil, respectively. Regarding the form of cannabis used most during the preceding six months (n = 101), 84% reported using hydroponically grown cannabis most, while 16% reported using bush-grown cannabis most.

4.5.2. Current patterns of cannabis use

In 2014, recent cannabis users (n = 113) reported a median frequency of 120 days (IQR 48–180 days) use in the preceding six months, lower than in 2013 (median 163 days) and in 2012 (median 178 days). One hundred and twenty days of use equates to use on approximately five days per week. Of recent users, almost half (47%) reported daily cannabis use, almost the same as the percentages in recent years.

All recent users provided information on the amount of cannabis used during their most recent session of use. Of these, 50% reported smoking a median of six cones (IQR 3–10 cones), while 7% reported smoking a median of 1.5 joints (IQR 1–3 joints).

4.6. OST medications

Key Points

Methadone

— In recent years, overall there have been fluctuating levels of lifetime and recent OST medication use among Victorian IDRS participants.

— In 2014, the prevalence of recent methadone use was 59%, a significant increase from 2013 (47%). The median frequency of use was stable at 180 days.

— Very few participants reported recent *prescribed* (1%) and *non-prescribed* (3%) Physeptone® use.

Buprenorphine

— In 2014, the prevalence of recent buprenorphine use was 68%, almost the same as 2012 after a significant decline in 2013.

— Recent use did not change (14%) and occurred at a median frequency of 48 days. Recent injection was reported by 13%.

Buprenorphine-naloxone

— There was a significant decline in both lifetime and recent buprenorphine-naloxone tablet use (to 47% and 5%, respectively). Median frequency of use also declined from 64 days to five days.

— Lifetime and recent prevalence of buprenorphine-naloxone film use was similar to 2013 (37% and 23%, respectively).

— Twelve per cent reported recent injection, 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, 2014 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 2014 Victorian IDRS sample, 85% (n = 127) reported lifetime use of methadone (*prescribed* and *non-prescribed*), almost the same as in 2013 (83%, $p = 0.637$). Fifty-nine per cent (n = 89) reported recent use, a significant increase on the percentage in 2013 (47%, $p < 0.05$). Recent users of methadone reported a median frequency of 180 days (IQR 120–180 days) use in the previous six months, or a median of daily use.

In 2014, 75% (n = 113) reported lifetime use of *prescribed* methadone, with 49% (n = 77) reporting use on a median of 180 days (IQR 120–180 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 2014, the lifetime prevalence of illicit use was 51%, returning to levels seen in 2012 (51%) after declining in 2013 (37%). While recent illicit use declined to 12% in 2013, in 2014 prevalence rose slightly (but non-significantly) to 19% ($p = 0.094$). Each year since 2010 the median days of non-prescribed methadone use has been reported as three days but in 2014 the median frequency of use was five days (IQR 2–20 days).

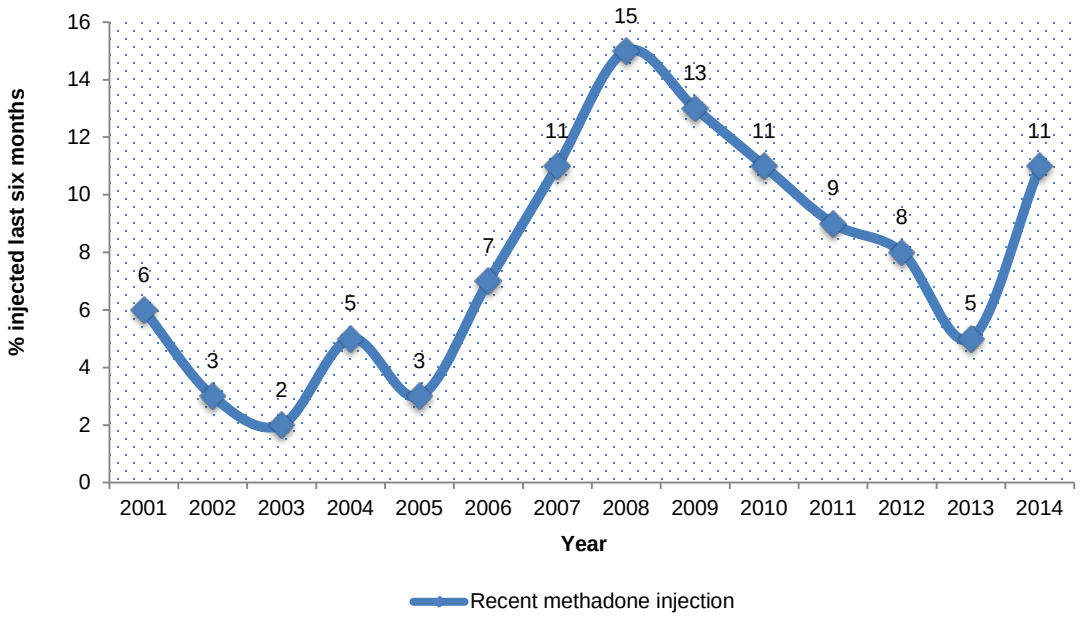
Use of both prescription and non-prescription Physeptone® remains very uncommon among Victorian IDRS participants. In 2014, only 7% (n = 10) reported lifetime *prescribed* use (the same as in 2013),

with 17% (n = 26) reporting lifetime *non-prescribed* use (vs. 6% in 2013, $p < 0.01$). Only 1% of the sample reported recent *prescribed* use, while 3% reported recent *non-prescribed* use.

In 2014 lifetime prevalence of *(prescribed and non-prescribed)* methadone injection was 33%, a significant increase from 2013 (21%, $p < 0.05$), but similar to the figure in 2012 (34%). Figure 4 shows the prevalence of recent methadone injection from 2001 to 2014, with a declining trend evident from 2008. In 2014, the percentage of participants reporting recent methadone injection (11%) was similar to previous years, although there was a non-significant increase in prevalence from 2013 (5%, $p = 0.056$). Among the 17 participants who reported injection in 2014, the median frequency was six days (IQR 2–90 days) in the preceding six months.

Participants who reported recent use of *non-prescribed* methadone were asked to nominate the main reasons for their last occasion of illicit use: only seven participants provided responses (multiple responses were allowed). The main reason reported was self-treatment (n = 6).

Figure 4: Percentage of participants reporting any methadone injection in the past six months, Victoria, 2001–2014



Source: IDRS participant interviews

4.6.2. Buprenorphine

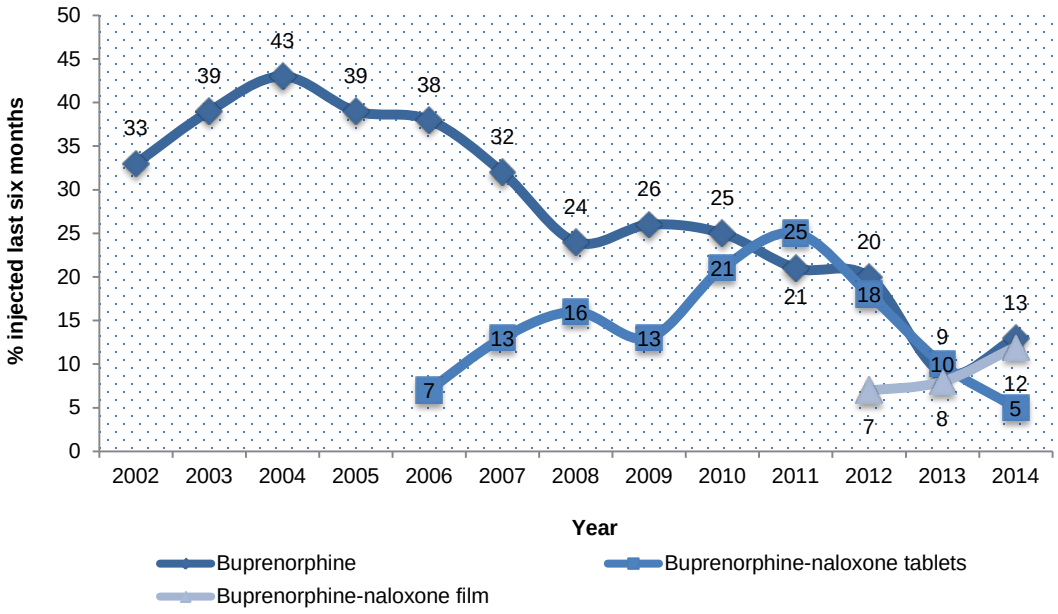
In 2014 the lifetime prevalence of buprenorphine use (Subutex®, *prescribed* and *non-prescribed*) was 68%, almost the same as in 2012 (69%) after a significant decline in 2013 (59%). Between 2013 and 2014, prevalence of recent buprenorphine use did not change (12% vs. 14%, $p = 0.606$). Among recent users (n = 21), median frequency of use was 48 days (IQR 20–120 days). Lifetime prevalence of buprenorphine injection (prescribed or non-prescribed) was comparable (41% in 2013 vs. 46% in 2014, $p = 0.382$). As in previous years, the 2014 sample was asked to provide responses to separate questions about the use of prescribed and non-prescribed buprenorphine.

In 2014 the lifetime prevalence of *prescribed* buprenorphine use was 45%, unchanged from 2013 (vs. 43%, $p = 0.727$). There were no reports of recent *prescribed* use in 2014. Lifetime prevalence of *non-prescribed* buprenorphine use was 46% in 2014, a slight increase from 2013 (36%, $p = 0.078$), whereas the prevalence of recent use was similar (9% vs. 12%, $p = 0.397$). Among the 18 participants who reported recent illicit use, the median frequency was 29 days (IQR 3–96 days) in the past six months, compared with 36 days in 2013.

Participants who reported recently using *non-prescribed* buprenorphine were asked to nominate the main reasons for their last occasion of illicit use. Multiple responses were allowed. Nine participants provided responses, with self-treatment (n = 5) and substitute for heroin/other opioids (n = 2) reported as the main reasons for illicit use.

Figure 5 shows the prevalence of recent buprenorphine and buprenorphine-naloxone tablet and film injection (see section 4.6.3) from 2002 to 2014. Between 2013 and 2014 the prevalence of recent buprenorphine injection was unchanged (9% vs. 13%, $p = 0.268$) (Figure 5). 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 5: Percentage of participants reporting any buprenorphine and buprenorphine-naloxone* tablet and film injection in the past six months, Victoria, 2002–2014



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. Since 2012, Victorian IDRS participants have been asked to respond to separate questions regarding the use of prescribed and non-prescribed buprenorphine-naloxone tablets and buprenorphine-naloxone film.

4.6.3.1. Buprenorphine-naloxone tablets

Between 2013 and 2014, lifetime prevalence of *prescribed* and *non-prescribed* buprenorphine-naloxone tablet use among Victorian IDRS participants decreased significantly (63% vs. 47%, $p < 0.01$). There was also a significant decline in the prevalence of recent tablet use, with 5% reporting use in 2014, compared with 19% in 2013 ($p < 0.001$). The median frequency of use also declined from 64 days in 2013 to five days (IQR 2–24 days) in 2014. The successive decrease in the prevalence of recent buprenorphine-naloxone tablet use since 2011 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 2015.

In 2014, lifetime prevalence of *prescribed* buprenorphine-naloxone tablet use was similar to lifetime prevalence of *non-prescribed* illicit tablet use (33% vs. 28%, $p = 0.347$). There were no reports of *prescribed* use, while *non-prescribed* use (5%) occurred on a median of five days (IQR 2–24 days**).**

Lifetime prevalence of buprenorphine-naloxone tablet injection (*prescribed* and *non-prescribed*) was 27% in 2014, similar to prevalence in 2013 (32%, $p = 0.342$). In 2014, 5% of participants reported injection in the preceding six months, as shown in Figure 5, compared with 10% in 2013 ($p = 0.100$). Recent buprenorphine-naloxone tablet injectors (n = 7) reported doing so on a median of three days (IQR 2–24 days) in the preceding six months.

Participants (n = 7) who reported recent use of *non-prescribed* buprenorphine-naloxone tablets were asked to nominate the main reasons for their last occasion of illicit use. Multiple responses were allowed. Five participants provided responses; the main reasons cited were self-treatment (n = 3) and intoxication (n = 2).

4.6.3.2. Buprenorphine-naloxone film

In 2014, the lifetime prevalence of buprenorphine-naloxone film use (*prescribed* and *non-prescribed*) was 37%, similar to the 2013 figure (31%, $p = 0.273$). As in 2013, when 21% reported recent use of the film preparation, 23% reported recent use in 2014 ($p = 0.676$). Among recent users (n = 35), the median days of film use increased to 90 days (IQR 12–180 days) in the past six months.

Consistent with previous years, in 2014 the percentages of participants reporting lifetime and recent prescribed and non-prescribed use were similar. For instance, 27% reported lifetime use of *prescribed* buprenorphine-naloxone film, while 21% reported lifetime use of *non-prescribed* film. Fifteen per cent reported recent *prescribed* use and 14% reported *non-prescribed* use. Recent users of *prescribed* film reported a median frequency of 166 days (IQR 72–180 days) use in the preceding six months, while recent users of *non-prescribed* film reported a median frequency of 10 days (IQR 3–60 days) use during the same period.

Lifetime injection of buprenorphine-naloxone film was reported by 15% (n = 23) of the 2014 Victorian IDRS sample, similar to 2013 (13%, $p = 0.618$). As shown in Figure 5, prevalence of recent injection in 2014 was also similar to 2013, with 12% (n = 18) reporting injection on a median of 36 days (IQR 2–120 days) in the preceding six months.

Only 11 of 21 participants who reported recent *non-prescribed* buprenorphine-naloxone film use nominated the reason for their last occasion of illicit use. Multiple responses were allowed. The most common reasons cited by participants were self-treatment (n = 7) and intoxication (n = 3).

4.7. Other opioids

Key Points

- Between 2013 and 2014 prevalence of lifetime (77%) and recent (25%) morphine use did not change. Sixty-six per cent of recent users reported using MS Contin® most, 21% reported using Kapanol® most.
- Over the past 10 years there has been a trend of declining morphine use among participants. The median frequency of use in 2014 was less than one per month.
- Twenty-two per cent reported recent morphine injection, on a median of three days in the past six months.
- The prevalence of lifetime oxycodone use increased significantly to 75% in 2014, returning from a low in 2013 to the level in 2012. Prevalence of recent use was the same (25%), with median frequency of use reported as seven days.
- Eighty-six per cent of recent users reported using OxyContin® most, 11% reported using Endone® most and 3% reported using OxyNorm most.
- Prevalence of recent oxycodone injection (20%) did not significantly change and occurred on a median of nine days in the past six months.
- Lifetime and recent injection of fentanyl was very low at 6% and 3% respectively. Median frequency of injection was three 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 2014 Victorian IDRS sample (77%, n = 116), similar to 2013, when lifetime prevalence was 72% (p = 0.321).

In 2014, the prevalence of recent morphine use was 25%, close to 2013 (21%, p = 0.410). The median frequency of use in the past six months was four days (IQR 1–12 days). Of recent users (n = 38), 35 provided information on the brand of morphine used most in the past six months: 66% reported using MS Contin® most, while 21% reported using Kapanol® most. While there has been no statistically significant change in the prevalence of recent morphine use among Victorian IDRS participants over the past 10 years, there has been an overall trend of declining use (Cogger, Dietze, & Lloyd, 2013, 2014).

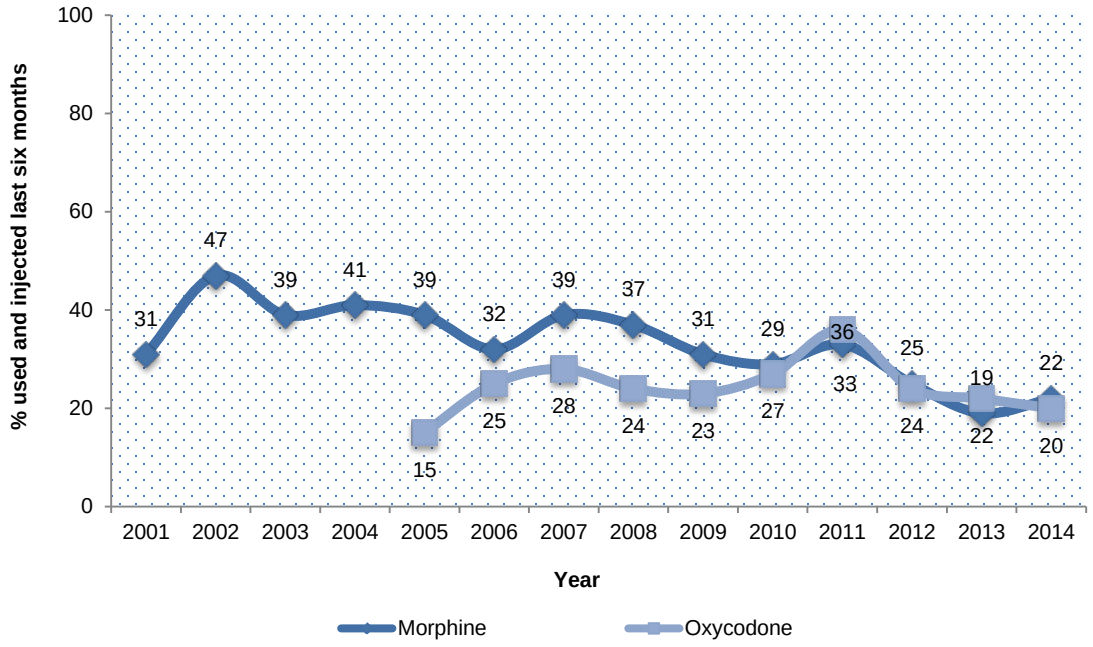
As with other pharmaceutical opioids, in 2014 participants were asked separate questions distinguishing between prescribed and non-prescribed morphine use. With regards to *prescribed* morphine, in 2014 24% (n = 36) reported lifetime use. One per cent reported recent prescribed use, at a median frequency of 11 days (IQR 7–14 days) in the past six months. By contrast, lifetime use of *non-prescribed* or illicitly sourced morphine was reported by 69% of participants, similar to 2013 (63%, p = 0.273); recent illicit use did not change substantively (20% in 2013 vs. 24% in 2014, p = 0.403). In 2014, recent non-prescribed users (n = 36) reported a median frequency of four days (IQR 1–11 days) use in the preceding six months.

Participants who reported *non-prescribed* morphine use in the past six months were also asked to nominate the main reason for their last occasion of illicit use. Multiple responses were allowed. In 2014, 14 of 38 participants provided comments. The most common reasons cited for the last occasion of use were substitution for heroin and other opioids (n = 7), self-treatment (n = 6) and intoxication (n = 3).

Between 2013 and 2014, lifetime prevalence of any pharmaceutical morphine injection remained consistent at 67% and 68% (p = 0.853). Figure 6 shows the prevalence of recent morphine injection among Victorian IDRS participants, from 2001 to 2014. As in previous years, in 2014 injection was the most commonly reported route of recent morphine administration among recent users. Twenty-two per cent (n = 33) reported any recent morphine injection in 2014, compared with 19% in 2013 (p = 0.520) (Figure 6). Among these participants, morphine injection occurred on a median of three days (IQR=1–11 days) in the preceding six months.

As in previous years, in 2014 reports of lifetime *non-prescribed* morphine injection were again significantly more common than reports of lifetime *prescribed* morphine injection (64% vs. 15%, p < 0.001). Recent injection of *non-prescribed* morphine was reported by 22% of participants, but in 2014 there were no reports of recent *prescribed* morphine injection. Illicitly sourced morphine was reportedly injected by recent users on a median of four days (IQR 1–10 days) in the preceding six months.

Figure 6: Percentage of participants reporting any morphine and oxycodone* injection in the past six months, Victoria, 2001–2014



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 75% (n = 113) of 2014 Victorian IDRS participants, increasing significantly from 62% in 2013 (p < 0.05), but similar to prevalence in 2012 (77%). Twenty-five per cent (n = 37) report recent use, consistent with reports in 2013 (25%). The median frequency of use was seven days (IQR=4–30 days) in the past six months, declining from 2013 when a median of 12 days use was reported. Almost all recent users (n = 36) provided information on the brand of oxycodone used most in the preceding six months. Of these, 86% reported using OxyContin® most, 11% reported using Endone® most and 3% reported using OxyNorm® most.

As in previous years, participants in 2014 were asked separate questions about the use of prescribed and non-prescribed oxycodone, with patterns of use comparable to patterns of morphine use. In 2014,

lifetime prevalence of *prescribed* oxycodone use was 25%, significantly increasing from 2013, when prevalence was 12% ($p < 0.01$). Five per cent reported recent prescribed use, on a median of 98 days (IQR 24–180 days) in the preceding six months, similar to 2013 (3%, $p = 0.377$, median 96 days). By comparison, in 2014 lifetime prevalence of *non-prescribed* oxycodone use was 68%, similar to prevalence in 2013 (60%, $p = 0.149$). Prevalence of recent non-prescribed use was almost the same as well from 2013 to 2014 (23% vs. 22%, $p = 0.836$). The median frequency of non-prescribed use was six days (IQR 3–16 days) in the previous six months.

Participants who reported recent *non-prescribed* oxycodone use were asked to provide reasons for their last occasion of illicit use. Multiple responses were allowed. Seventeen of 33 participants responded in 2014; the most common reasons cited were self-treatment (n = 7), substitution for heroin and other opioids (n = 5), and intoxication (n = 5).

From 2013 to 2014, lifetime prevalence of (prescribed and non-prescribed) oxycodone injection did not significantly change (57% vs. 65%, $p = 0.156$) and was close to prevalence in 2012 (66%). Injection was the most commonly reported recent ROA: 20% of participants reported injecting oxycodone on a median of nine days (IQR 3–20 days) in the preceding six months. Figure 6 shows that the prevalence of recent oxycodone injection has been comparable each year since 2011.

As in previous years and similar to findings for morphine, in 2014 prevalence of lifetime *non-prescribed* oxycodone injection was significantly higher than prevalence of lifetime *prescribed* injection (63% vs. 14%, $p < 0.001$). Recent *non-prescribed* oxycodone injection also remains significantly more common than recent *prescribed* injection (20% vs. 1%, $p < 0.001$). However, *non-prescribed* oxycodone was injected at a median frequency of seven days (IQR 3–18 days), while *prescribed* oxycodone was injected at a median frequency of 111 days (IQR 72–150 days).

4.7.3. Fentanyl

For the second time in 2014, IDRS participants were asked about their history of fentanyl use; as in 2013 prevalence of use was very low in Victoria. For instance, lifetime prevalence of use and injection was 8% and 6%. Three per cent each reported recent use and injection, respectively. The median frequency of use was three days (IQR 1–14 days) in the preceding six months, as was the median frequency of injection (three days, IQR 1–14 days).

4.7.4. Other opioids (not elsewhere classified)

In 2014, lifetime prevalence of extra-medical opioid (other than those listed above) use was 57%, significantly higher than in 2013 (29%, $p < 0.001$) but similar to prevalence in 2012 (51%). The prevalence of recent use was 27%, again significantly higher than 2013 (7%, $p < 0.001$) but closer to prevalence in 2012 (21%). Oral ingestion was the most common ROA, with 25% of participants reporting recent use via this method at a median frequency of seven days (IQR 3–36 days) in the past six months. Lifetime prevalence of injection was 3% and recent injection was 1%. Among recent users (n = 40), Panadeine Forte® (n = 33) was the most common brand used, with the majority of participants reporting prescribed use most (70% vs. 30%).

4.7.5. Over the counter (OTC) codeine

In 2014, lifetime prevalence of extra-medical OTC codeine use was 41% (n = 61) and recent extra-medical use was reported by 15% (n = 22). Participants who reported recent use of these medications reported a median frequency of seven days (IQR 4–24 days) use in the preceding six months. No participants reported recent OTC codeine injection (see Table 3).

4.8. Benzodiazepines

Key Points

— In 2014, prevalence of lifetime benzodiazepine use (other than alprazolam) did not change (88%). Recent use increased to 71% but the change was not significant and was similar to the level in 2012: trends in recent use have remained reasonably stable.

— Between 2013 and 2014 there was no change to the prevalence of lifetime or recent alprazolam use. Prescribed users typically used daily, whereas non-prescribed users typically used on a monthly basis.

4.8.1. Benzodiazepines other than alprazolam

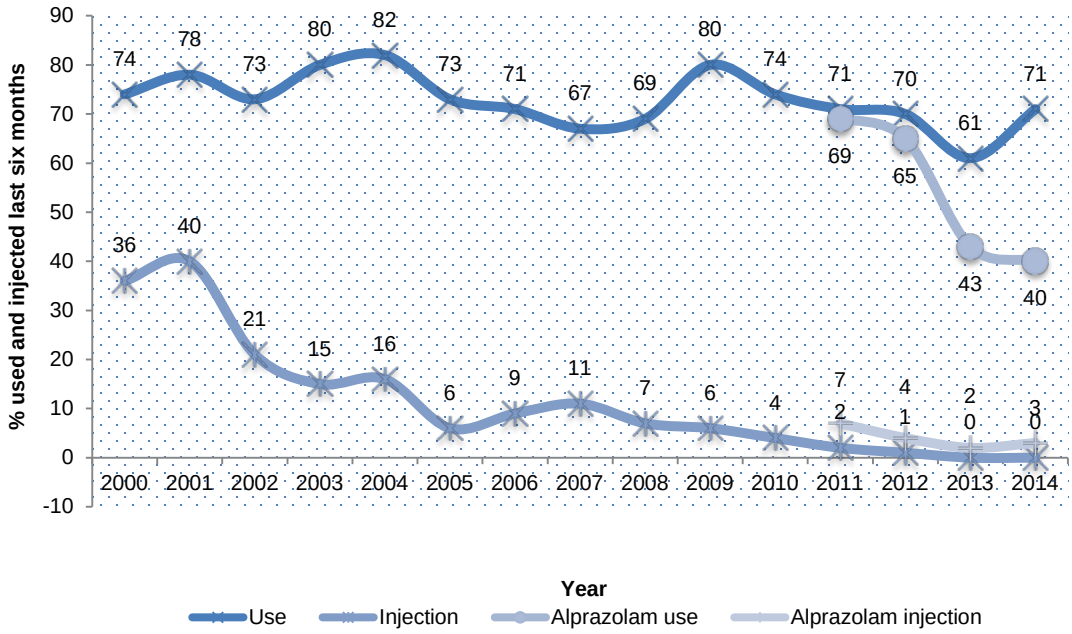
Since 2011, Victorian IDRS participants have been asked to respond to separate questions distinguishing between use of prescribed and non-prescribed alprazolam (Xanax®) and the use of other benzodiazepines such as diazepam (Valium®). This change to the participant survey may have reduced the prevalence 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 2014, lifetime use of benzodiazepines other than alprazolam (*prescribed* and *non-prescribed*) was 88%, similar to the figure in 2013 (84%, $p = 0.318$). While recent use increased to 71% (n = 107) in 2014 (from 61% in 2013) the difference was not significant ($p = 0.068$) and was similar to prevalence in 2012 (70%). Trends in the prevalence of recent benzodiazepine use (other than alprazolam) have remained reasonably stable from 2000 to 2014, as shown in Figure 7.

There were no reports of recent benzodiazepine (other than alprazolam) injection in 2014. 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 2014 prevalence of both lifetime and recent use of *prescribed* and *non-prescribed* benzodiazepines was similar (lifetime: 77% vs. 71%, $p = 0.236$, recent 50% vs. 46%, $p = 0.488$). Between 2013 and 2014, there was an increase in the prevalence of lifetime prescribed use (65% to 77%, $p < 0.05$) and lifetime non-prescribed use (61% to 71%, $p = 0.068$), although both figures were similar to prevalence in 2012. There was a non-significant change in the prevalence of recent prescribed use (39% to 50%, $p = 0.056$), whereas recent non-prescribed use was similar (40% to 46%, $p = 0.294$). *Prescribed* users reported a median frequency of 156 days (IQR 28–180 days) use in the preceding six months, while *non-prescribed* users reported a median of 10 days (IQR 5–24 days) use. Among recent users (n = 107), 87% reported using diazepam most (e.g. Valium, n = 81) and 6% reported using oxazepam (e.g. Serapax®) most.

Figure 7: Percentage of participants reporting any benzodiazepine use and injection in the past six months, Victoria, 2000–2014



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 2013 to 2014, there were no changes in lifetime prevalence of any (prescribed and non-prescribed) alprazolam use (78% to 83%, $p = 0.274$). As shown in Figure 7, recent use was similar between years as well, with prevalence at 43% in 2013 compared to 40% in 2014 ($p = 0.598$). Three per cent reported recent alprazolam injection at a median frequency of four days (IQR 3–47 days) 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 2014 lifetime prevalence of *non-prescribed* alprazolam use was significantly higher than lifetime prevalence of *prescribed* alprazolam use (77% vs. 31%, $p < 0.001$). Recent *non-prescribed* use was also higher than *prescribed* use (38% vs. 7%, $p < 0.001$). Patterns of use in 2014 were similar to those reported in 2012 and 2013. In 2014, recent users of *prescribed* alprazolam reported a median frequency of 177 days use (IQR 50–180 days) in the past six months, whereas *non-prescribed* users reported a median of six days use (IQR 2–14 days).

4.9. Other drugs

Key Points

- Prevalence of lifetime quetiapine use did not significantly change (65%), nor did prevalence of recent use (33%). Recent quetiapine users reported a median of 24 days years (approximately twice weekly).
- Prevalence of lifetime pharmaceutical stimulant use (39%) and injection (28%) significantly increased, although figures were similar to those in 2012. Recent use was reported by 11% on a median of three days in the past six months. Nine per cent reported recent injection.
- The prevalence of recent ecstasy use increased from 4% to 11%, similar to the level in 2012.
- Seven per cent reported recent hallucinogen use. There were no reports of recent injection.
- One per cent reported recent inhalant use.
- Two per cent reported recent steroid use.
- The prevalence of recent alcohol use (68%) significantly increased, but back to the same level as in 2012. Median frequency of use declined to 27 days (approximately once per week) in the past six months.
- Prevalence of recent tobacco use (97%) was consistent with previous years. Twenty-three per cent reported recent e-cigarette use on a median of two days in the past six months.
- Two per cent reported recent NPS use on a median of two days in the six months before interview.
- Lifetime prevalence of synthetic cannabinoid use significantly increased to 25%, with recent use significantly increasing to 20%. Recent use only occurred on one day 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 2014 participants responded to questions distinguishing between prescribed and non-prescribed use.

Between 2013 and 2014, lifetime prevalence of any (prescribed and non-prescribed) quetiapine use did not change (59% to 65%, $p = 0.284$). Prevalence of recent use was 33% in 2014, not significantly different from the 29% reported in 2013 ($p = 0.454$), at a median frequency of 24 days use (IQR 3–180 days) in the preceding six months. Consistent with previous years, lifetime quetiapine injection was reported by 1% of the sample. No reports of recent injection were received. As in 2013, oral ingestion was the only ROA reported by participants.

As with the benzodiazepine alprazolam, in 2014 lifetime *non-prescribed* quetiapine use was significantly higher than lifetime *prescribed* quetiapine use (49% vs. 31%, $p < 0.01$), the same as recent non-prescribed and prescribed use (25% vs. 13%, $p < 0.01$). *Prescribed* quetiapine users (n = 19) reported a median frequency of daily use (median 180, IQR 24–180 days), while *non-prescribed* users (n = 37) reported a median frequency of six days use (IQR 2–24 days) in the preceding six months.

4.9.2. Pharmaceutical stimulants

In 2014, lifetime prevalence of pharmaceutical stimulant use (e.g. dexamphetamine and methylphenidate, prescribed and non-prescribed) was 39%, significantly higher than 2013 (27%, $p < 0.05$) but similar to prevalence in 2012 (41%). Lifetime injection increased in 2014 to 28%, significantly higher than in 2013 (14%, $p < 0.01$) but also closer to prevalence in 2012 (27%). Few (9%) reported recent injection. Prevalence of recent use did not change significantly from 2013 to 2014 (5% to 11%, $p = 0.056$); median frequency of use was three days (IQR 2–7 days) in the preceding six months. The main brands reportedly used were generic dexamphetamine (73%) and Ritalin® (27%).

As with most other pharmaceutical preparations, in 2014 lifetime prevalence of *non-prescribed* pharmaceutical stimulant use was significantly higher than *prescribed* use (36% vs. 8%, $p < 0.001$). Recent illicit use was significantly higher than recent prescribed use (10% vs. 1%, $p < 0.001$). *Non-prescribed* users reported use on a median of two days (IQR 1–5 days) in the preceding six months.

4.9.3. Ecstasy

Similar to previous years, 67% (n = 100) of the 2014 Victorian IDRS sample reported lifetime ecstasy (3,4-methylenedioxymethamphetamine/MDMA) use. Eleven per cent reported use in the preceding six months, a significant increase from 2013 when 4% reported recent use ($p < 0.05$), but similar to prevalence in 2012. Over time, the prevalence of recent ecstasy use has declined considerably among IDRS participants, from about two-fifths of the sample in 2001. In 2014, the median frequency of use was two days (IQR 2–4 days) in the past six months. Between 2013 and 2014, reported lifetime injection of ecstasy did not change (17% vs. 20%, $p = 0.503$) and only 3% reported recent injection in 2014.

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 2014 Victorian EDRS are available in early 2015 (Truong, Dietze, & Lloyd, 2015).

4.9.4. Hallucinogens

In 2014, lifetime prevalence of hallucinogenic drug use (e.g. LSD (lysergic acid diethylamide) and ‘magic mushrooms’ (psilocybin mushrooms)) was 61%, similar to 2013 when it was 57% ($p = 0.481$). Seven per cent reported recent use, at a median frequency of three days (IQR 2–5 days) in the past six months. While 4% reported lifetime injection, there were no reports of recent injection, the same as 2013.

4.9.5. Inhalants

In 2013 and 2014, the lifetime prevalence of inhalant use was the same (21%, respectively). In 2014 1% reported recent use.

4.9.6. Steroids

In 2014, lifetime prevalence of steroid use was 12%, significantly higher than in 2013 (5%, $p < 0.05$). Two per cent reported recent use.

4.9.7. Alcohol, tobacco and e-cigarettes

Lifetime prevalence of alcohol use was 97% in 2014, similar to previous years. Prevalence of recent use was 68%, significantly increasing from 55% in 2013 ($p < 0.05$), but similar to prevalence in 2012

(69%). All recent alcohol users (n = 102) reported oral consumption at a median frequency of 27 days (IQR 6–144 days) in the past six months, translating to an approximate pattern of weekly use. Eighteen per cent of recent users consumed alcohol daily.

In 2014, lifetime prevalence of tobacco use was 98%, also similar to previous years. Recent use was reported by 97%, compared with 94% in 2013 (p = 0.210). Among recent smokers, the prevalence of daily tobacco smoking was 93% 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 27% and, in 2014, 23% of participants reported use at a median frequency of two days (IQR 1–7 days) in the preceding six months.

4.9.8. NPS and synthetic cannabinoids

In 2014, for the second 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. However, in 2014 5% reported lifetime use, with 2% reporting recent use at a median frequency of two days (IQR 1–5 days) in the preceding six months.

Between 2013 and 2014, lifetime prevalence of synthetic cannabinoid use significantly increased from 6% to 25% (p < 0.001). Recent use also increased from 5% to 20% (p < 0.001) in 2014. The median frequency of use in the past six months was one day (IQR 1–3 days).

Key Expert comments: Drugs other than heroin and methamphetamine

Legally available drugs such as alcohol and pharmaceutical opioids, and to a lesser extent benzodiazepines and OTC codeine, were mentioned as “problematic” by KE from the health and LE sectors. All KE who mentioned alcohol as “problematic” cited reasons for their concerns such as widespread frequent consumption, high availability, and related toxicity. Alcohol was generally mentioned as part of a broader poly drug use pattern, and was cited by LE KE as the most common drug of use among young people in contact with the law. Alcohol was also mentioned in the context of increasing chronic health problems among older people who inject, or older people with histories of IDU. Pharmaceutical opioids were cited as problematic for a range of reasons, most commonly because there was a perception that they were in constant supply (both legally and illicitly) and in high demand, as well as carrying increased risk for overdose (particularly when used in combination with other CNS depressants such as alcohol and benzodiazepines). The new, reformulated OxyContin® was mentioned as posing health risks to uninformed injectors. Benzodiazepines were also noted as potentially harmful in the context of poly drug use patterns, although several KE provided anecdotal reports of decreases in non-prescribed use. OTC codeine use was framed by one health KE under the rubric of “misuse” (very high rates of consumption of up to 80 tablets per day), dependence and the potential for harm, particularly given concomitant high doses of paracetamol and ibuprofen and wide availability from pharmacies. However, this group of people was described as disconnected from the “drug scene”, high functioning and well presented, with women outnumbering men; a different population to the PWID sampled by the Victorian IDRS.

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

5.1. Heroin

Key Points

Price

— In 2014, the median reported price for 1.7 g of heroin increased by $50. 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 (95%) reported that heroin was very easy or easy to obtain, with 83% reporting that the heroin market was stable in the past six months. Ten per cent reported heroin was more difficult to obtain.

— Heroin was primarily sourced from known dealers (55%) or friends (30%), from an agreed public location (36%), dealer's home (23%) or friend's home (17%).

Purity

— Participants reported that heroin was typically of low (56%) to medium (25%) purity. Fifty-one per cent reported that purity was stable in the six months before interview, 22% reported a decrease.

— In 2013/14, the overall average purity of heroin seizures was very low (15%).

5.1.1. Price

In 2014, 77% (n = 115) 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 7 presents Victorian IDRS participants' reports of the median price paid for their most recent heroin purchase, from 2011 to 2014, according to weight. Median heroin prices were estimated from participants' most recent heroin purchase. In 2014, participants (n = 62) most commonly reported recently purchasing 0.5 gram of heroin; the median price paid on the last purchase occasion was $150 (IQR $120–150). Fifty-one participants reported most recently purchasing 1.7 grams of heroin (a standard amount of heroin sold on the streets of Melbourne), while 49 participants reported most recently purchasing a cap/0.1 gram (Table 7).

Table 7: Median prices paid for last heroin purchase, according to weight, Victoria, 2011–2014

	2011 $	2012 $	2013 $	2014 $
Cap/0.1 g (range)	50 (30–100)	50 (30–100)	50 (35–80)	50 (20–300)
0.25 g (range)	100 (70–150)^	110 (70–150)	100 (50–120)^	100 (50–150)
0.5 g (range)	150 (20–350)	150 (120–300)	150 (100–300)	150 (100–250)
1.0 g (range)	250 (150–450)	300 (200–350)	250 (160–700)	250 (50–480)
1.7 g (range)	--	350 (250–500)	300 (100–1000)	350 (180–400)

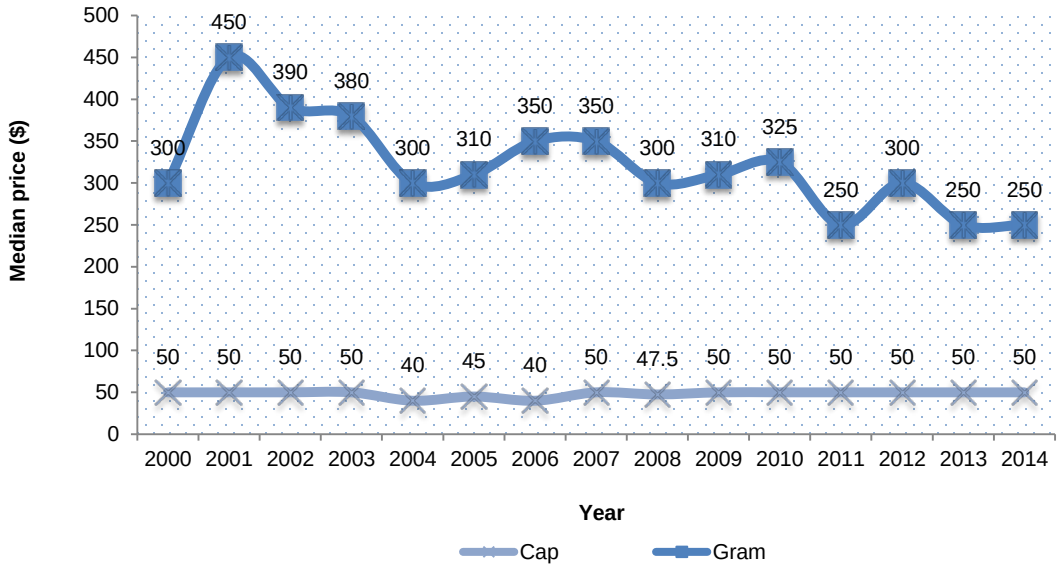
Source: IDRS participant interviews

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

-- Not reported

Figure 8 shows the median prices of a cap (about 0.1 gram) and 1.0 gram of heroin from 2000 to 2014, 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 2014, the reported median price of a gram was $250, consistent with 2011 and 2013 (Figure 8).

Figure 8: Median prices of a cap and a gram of heroin estimated from participants' purchases, Victoria, 2000–2014



Source: IDRS participant interviews

In 2014, 113 participants provided information on changes to the price of heroin during the preceding six months. Stable heroin prices were reported by 69%, while 16% reported that the price of heroin decreased and 11% reported that the price increased. Four per cent reported that the price of heroin decreased during the preceding six months.

5.1.2. Availability

One hundred and fifteen participants commented on perceptions of current heroin availability. Most reported that heroin was very easy (58%) or easy (37%) to obtain, 4% reported that obtaining heroin at the time of interview was difficult, 1% reported it was very difficult. Most participants reported no changes to recent heroin availability; 83% reported that the market was stable in the past six months, 10% reported that heroin had become more difficult to obtain, while 6% reported it was easier. Two 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; 115 participants provided comment. On the last purchase occasion, 55% reported sourcing heroin from known dealers, 30% reported sourcing it through friends. Smaller proportions reported last sourcing heroin from a street dealer (11%) and an acquaintance (4%). Participants most commonly reported sourcing their last purchase from an agreed public location (36%), dealer's home (23%) or friend's home (17%).

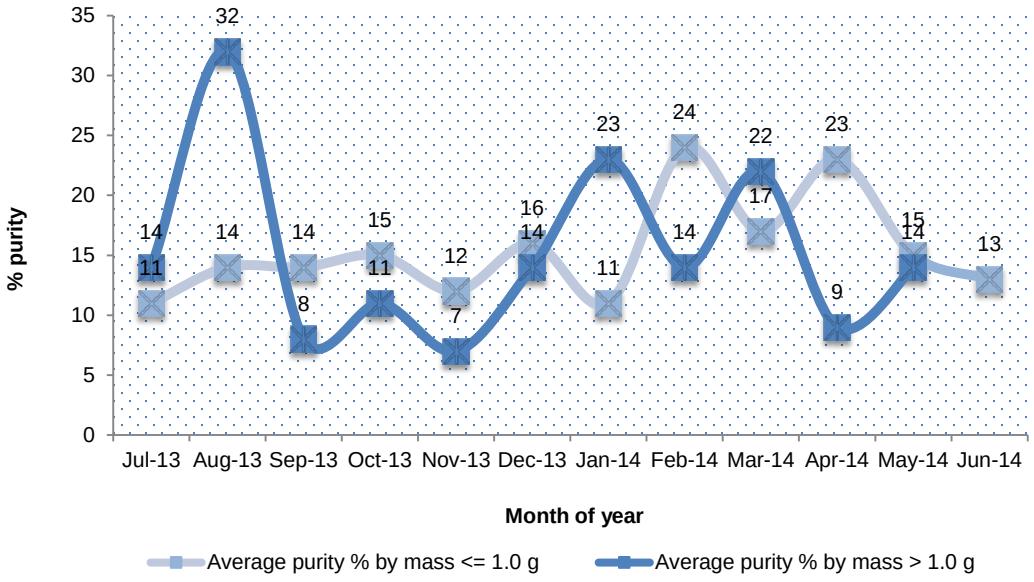
5.1.3. Purity

In 2014, 112 participants provided information on their perceptions of current heroin purity. Similar to previous years, more than half (56%) reported that heroin purity was low and one-quarter (35%) reported it was medium. Only 8% reported purity as high at the time of interview and 11% reported it as fluctuating.

One hundred and twelve participants commented on their perceptions of changes to heroin purity in the past six months. Of these, 51% reported that purity was stable, 22% reported a decrease, 19% reported fluctuating purity and 8% reported an increase.

Figure 9 shows the average purity of heroin seizures made by Victorian LE agencies during 2013/14. Overall, the average purity of heroin seizures analysed was 15% (range 7–32%), six points lower than the 2012/13 financial year when it was 21% (range 13–71%). Compared with the average purity of seizures during the height of heroin supply in Melbourne from 1998 to 2001, overall purity in 2013/14 was considerably lower (Cogger et al., 2013; Quinn, 2009). In 2013/14, seizures weighing 1.0 gram or less had an average purity of 15% (range 11–24%), with the average purity of seizures weighing more than 1.0 gram the same (15%, range 7–32%).

Figure 9: Average purity of heroin seizures by Victorian law enforcement, July 2013 to June 2014



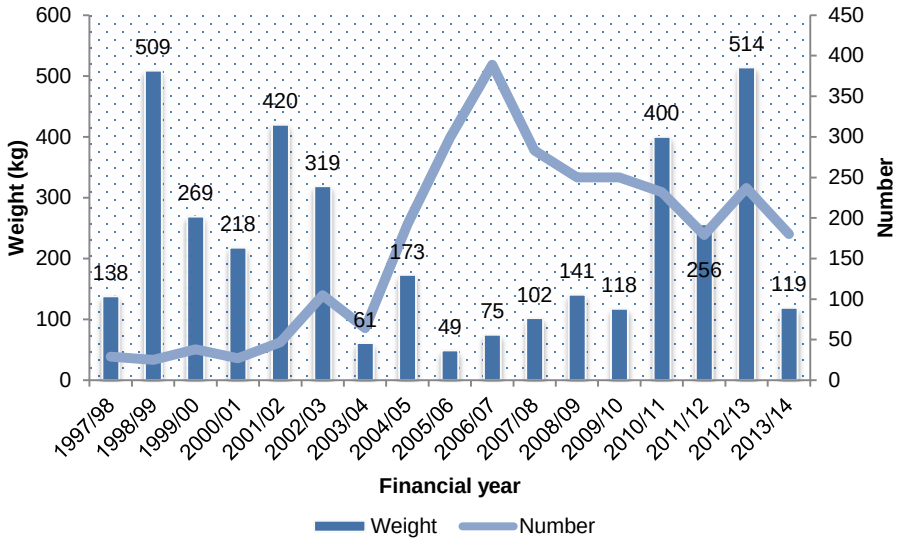
Source: Forensic Drug Branch, Victoria Police Forensic Services Department

* At the time of data collation, in June 2014 Victoria Police had recorded no heroin seizures weighing more than one gram.

5.1.4. Heroin detected at the Australian border

Figure 10 shows the number and weight of heroin seizures at the border detected by the Australian Customs and Border Protection Service (ACBPS), from 1997/98 to 2013/14. The weight of heroin seizures declined sharply between 2012/13 and 2013/14, but was similar to previous years (e.g. 2009/10). The number of seizures has declined since 2006/07. In 2013/14, 180 heroin seizures were made, lower than the previous period (n = 237) but close to 2011/12 (n = 179) (Figure 10).

Figure 10: Weight and number of heroin seizures at the Australian border, 1997/98–2013/14



Source: ACBPS

5.2. Methamphetamine

Key Points

Price

— In 2014, 24 participants reported purchasing speed. Median prices of 0.1 gram and 0.5 gram were stable. The reported median price of 1.0 gram increased by $15.

— Participants (n = 66) most commonly reported purchasing 0.1 gram of ice for $100, consistent with previous years. The reported median price of 0.5 gram decreased by $50.The median price for 1.0 gram increased by $200, but was consistent with reports in 2012.

Availability

— Approximately 70% reported that speed was easy or very easy to obtain, 30% reported difficulty. Seventy-four per cent reported no change in availability in the past six months.

— Ice was easy or very easy to obtain (89%), 11% reported difficulty. Seventy-two per cent reported no change in availability in the past six months, but 22% reported access was easier.

Purity

— In 2014, 46% reported speed purity was medium, 38% reported it was high. Reports regarding changes to speed purity varied widely, however, 38% reported no changes and 25% reported an increase.

— Forty-five per cent reported that ice purity was high, 35% reported it was medium. Forty-nine per cent reported that purity was stable in the six months before interview, 18% reported an increase and fluctuation, respectively.

— In 2013/14, the overall average purity of methamphetamine seizures was high (67%), but similar to 2012/13 (63%). By contrast, the overall average purity of amphetamine seizures was comparatively low (25%).

5.2.1. Price

5.2.1.1. Speed powder

In 2014, 24 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 8. In 2014, relatively few reports were received. Participants (n = 16) most commonly reported last purchasing 0.1 gram of speed. Ten participants reported most recently purchasing 1.0 gram, while seven participants reported most recently purchasing 0.5 gram. According to these reports, median prices for 0.1 gram and 0.5 gram were stable between 2013 and 2014 (Table 8). Twenty-three participants provided information on changes to the price of speed in the preceding six months. Of these, 74% reported that the price of speed was stable, while 13% reported an increase and 13% reported a decrease.

5.2.1.2. Crystal methamphetamine (ice)

Table 8 also shows the median prices participants paid for their most recent ice purchase from 2011 to 2014. As with speed, median prices were estimated from participant reports of the last price paid. In 2014, 85 participants reported confidence in their knowledge of the ice market. Of these, most (n = 66) reported last purchasing 0.1 gram of ice. Twenty-three participants reported purchasing 0.5 gram, while 16 participants reported purchasing 1.0 gram (Table 8). Seventy-nine participants provided

information on changes to the price in the six months before interview; 66% reported it was stable, while similar percentages reported an increase (14%) or decrease (13%). Eight per cent reported fluctuating prices.

Table 8: Median prices paid for last speed and crystal methamphetamine* purchase, according to weight, Victoria, 2011–2014

	Speed				Crystal methamphetamine			
	2011 $	2012 $	2013 $	2014 $	2011 $	2012 $	2013 $	2014 $
0.1 g (range)	50 (20–100)	100 (20–150)	50 (25–100)^	50 (50–100)	100 (50–120)	100 (50–100)	100 (20–100)	100 (50–100)
0.5 g (range)	100 (75–150)	100 (70–500)	100 (100–100)^	100 (100–300)^	400 (50–600)	300 (200–450)	350 (150–370)	300 (200–500)
1.0 g (range)	200 (100–500)	200 (100–500)	160 (100–240)^	175 (90–800)	800 (350–1000)	500 (220–996)	300 (100–600)^	500 (300–800)

Source: IDRS participant interviews

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

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

5.2.1.3. Base methamphetamine

In 2014, only one participant provided information on the price of base methamphetamine. Median prices are therefore not reported.

5.2.2. Availability

5.2.2.1. Speed powder

In 2014, 23 participants commented on their perceptions of speed availability. Similar to 2013, the majority reported that speed was easy (44%) or very easy (26%) to obtain; 26% reported access was difficult and a further 4% reported it was very difficult. With regards to participants' perceptions of recent changes to speed availability, 74% reported the market was stable. The remaining participants reported that obtaining speed was easier (13%) and more difficult (13%) in the six months preceding interview.

Participants were asked to nominate the source of their most recent speed purchase; 24 did so in 2014. At the last purchase, participants most commonly reported sourcing the drug from friends (50%) and known dealers (33%), then street dealers (13%) and acquaintances (4%). Participants (n = 24) reported that the most common locations for sourcing their last purchase were friend's home (38%) and dealer's home (25%), followed by agreed public location (13%), and street market (21%).

5.2.2.2. Crystal methamphetamine (ice)

In 2014, 83 Victorian IDRS participants provided information on their perceptions of ice availability. Most participants reported that ice was very easy (54%) or easy (35%) to obtain, 11% reported it was difficult. Regarding participants' (n = 81) perceptions of recent changes to availability, 72% reported the market was stable, 22% reported that ice was easier to obtain, while 6% reported more difficulty.

Participants were asked to nominate the source of their last ice purchase and, in 2014, 85 did. At the last purchase, the most common sources were known dealers (49%), friends (39%), and street dealer (6%). Participants (n = 84) reported that the most common source locations were agreed public location (32%), friend's home (26%), dealer's home (21%) and street market (8%).

5.2.2.3. Base methamphetamine

Only one participant was able to comment on the market characteristics for base methamphetamine in 2014. Market characteristics are therefore not reported.

5.2.3. Purity

5.2.3.1. Speed powder

In 2014, 24 Victorian IDRS participants provided information on their perceptions of speed purity. Of these, 46% reported that speed purity was medium, 38% reported it was high, 13% reported it was low, and 4% reported fluctuating purity. Twenty-four participants commented on recent changes to purity, reports varied. Of these, 38% reported purity was stable, 25% reported increasing purity, 21% reported it was fluctuating and 17% reported a decrease.

5.2.3.2. Crystal methamphetamine (ice)

In 2014, 82 participants provided information on their perceptions of ice purity at the time of interview. Of these, 45% reported purity was high, 35% reported it was medium, 11% reported it was low and 9% reported it was fluctuating. Seventy-nine participants commented on perceived recent changes to ice purity. Of these, 49% reported no changes in the past six months. Eighteen per cent each reported that ice purity was increasing and fluctuating, and 15% reported a decrease.

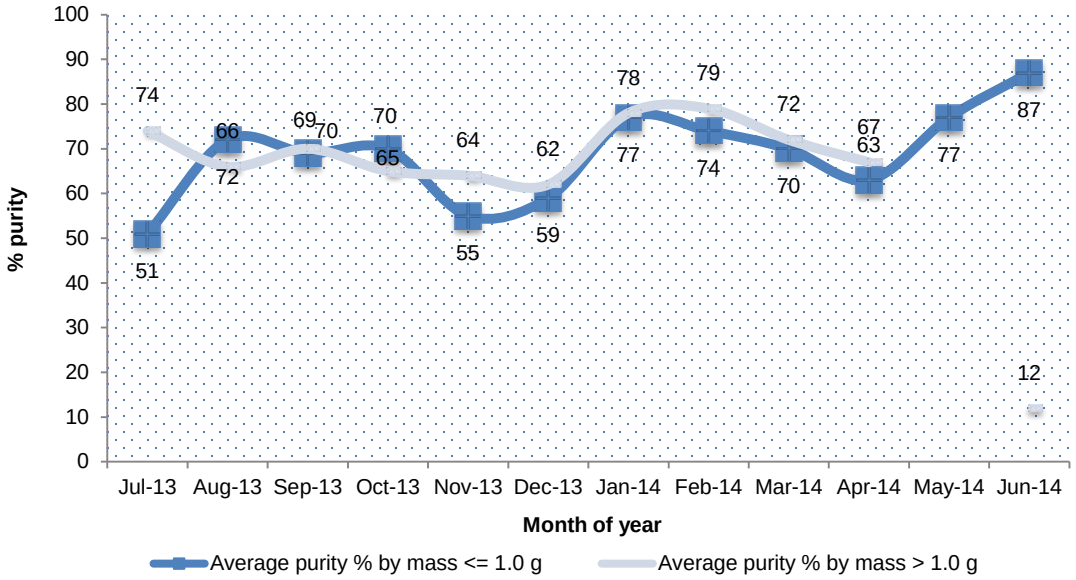
5.2.3.3. Base methamphetamine

Only one participant commented on the purity of base methamphetamine in 2014, thus reports are not included.

Figure 11 shows the average purity of methamphetamine seized by Victorian LE agencies during 2013/14. Overall, the average purity of methamphetamine seizures analysed was 67% (range 12–87%), not significantly different from 2012/13 when it was 63%. Note that the overall average purity of methamphetamine seizures made during the last three financial years has been significantly higher than overall average purity prior to 2011/12 (Cogger et al., 2013). In 2013/14, smaller seizures weighing 1.0 gram or less had an average purity of 69% (range 51–87%), higher than the average purity of smaller seizures in 2012/13 (56%). The average purity of larger seizures of more than 1.0 gram was three points lower at 64% (range 12–79%) and similar to purity in 2012/13 (66%).

As per previous years, fewer amphetamine than methamphetamine seizures were made by Victorian LE agencies during 2013/14 and, in comparison with methamphetamine the purity of amphetamine seizures was relatively low (figure not shown). Overall average purity was 25% (range 1–84%), increasing gradually from 2012/13 (19%) and 2011/12 (14%). In 2013/14, smaller amphetamine seizures weighing 1.0 gram or less had an average purity of 21% (range 2–84%), whereas larger seizures of more than 1.0 gram had a higher average purity of 31% (range 1–79%).

Figure 11: Average purity of methamphetamine seizures by Victorian law enforcement, July 2013 to June 2014



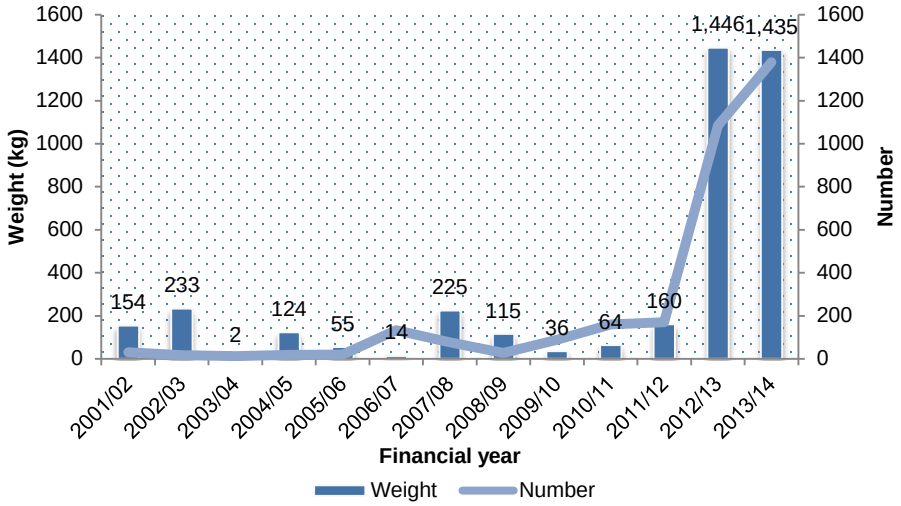
Source: Forensic Drug Branch, Victoria Police Forensic Services Department

* At the time of data collation, in May 2014 Victoria Police had recorded no methamphetamine seizures weighing more than one gram.

5.2.4. Crystal methamphetamine detected at the Australian border

Figure 12 shows the number and weight of crystal methamphetamine seizures at the border detected by the Australian Customs and Border Protection Service (ACBPS), from 1997/98 to 2013/14. The weight of crystal methamphetamine seizures significantly increased between 2011/12 and 2012/13, and was similar in 2013/14. The number of seizures also increased during the same period. The highest number of crystal methamphetamine seizures was made in 2013/14 (n = 1,379), weighing 1,435 kilograms (Figure 12).

Figure 12: Weight and number of crystal methamphetamine seizures at the Australian border, 2001/02–2013/14



Source: ACBPS

5.3. Cocaine

Key Points

- In 2014, too few participants provided information on their last cocaine purchase, so median prices are not reported.
- Only three participants reported on cocaine availability, suggesting it was easy to obtain.
- Very few comments regarding purity were received; reports suggested it was medium to high.
- In 2013/14, the overall average purity of cocaine seizures was moderate (44%). Seizures weighing more than 1.0 gram had an average purity of 46%.

5.3.1. Price

In 2014, eight Victorian IDRS participants reported confidence in their knowledge of the cocaine market in Melbourne, but only two provided information about the price of their last cocaine purchase in the past six months. Median prices are therefore not reported.

5.3.2. Availability

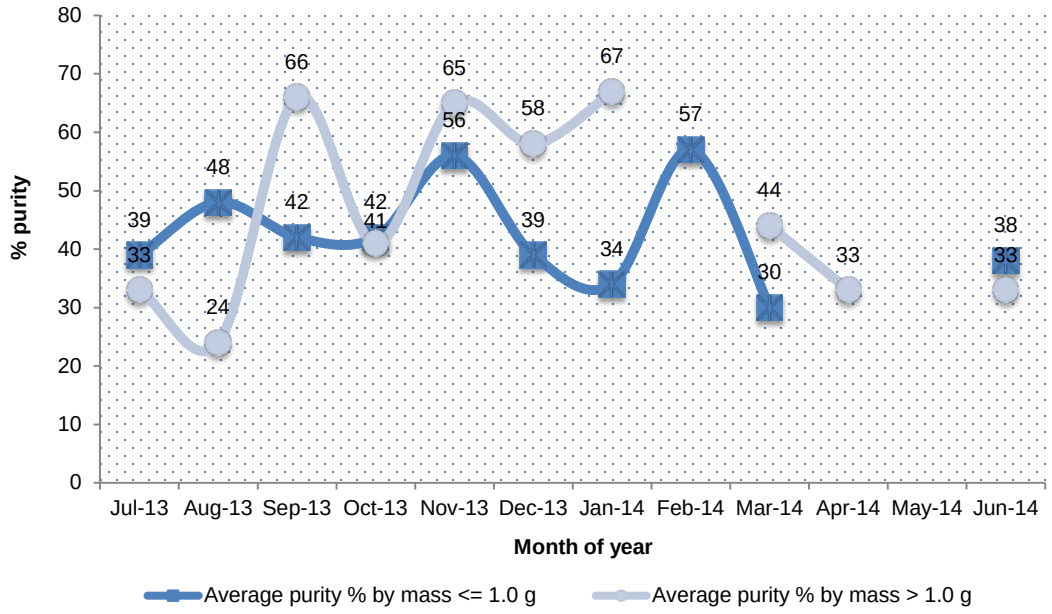
Eight participants were able to comment on their perceptions of cocaine availability in 2014. Reports suggest that for this population cocaine was difficult (50%) to very difficult (13%) to obtain at the time of interview, as well as during the preceding six months. On the last purchase occasion, participants reported sourcing cocaine via a range of people (street dealer, friends, known dealers, acquaintances) from various venues (home delivery, friend's home, street market, dealer's and acquaintances' homes).

5.3.3. Purity

In 2014, eight participants commented on cocaine purity. Reports suggested that it was high (63%) to medium (38%) at the time of interview and of stable (50%) purity in the preceding six months. One-third (33%) reported decreasing purity.

Figure 13 shows the average purity of cocaine seizures made by Victorian LE agencies in 2013/14. Overall, the average purity of cocaine seizures analysed was 44% (range 24–67%), similar to 2012/13 (46%) and 2011/12 (49%), but higher than previous years (Cogger et al., 2013). In 2013/14, smaller seizures weighing 1.0 gram or less had an average purity of 43% (range 30–57%), whereas seizures weighing more than 1.0 gram had an average of 46% (range 24–67%).

Figure 13: Average purity of cocaine seizures by Victorian law enforcement, July 2013 to June 2014



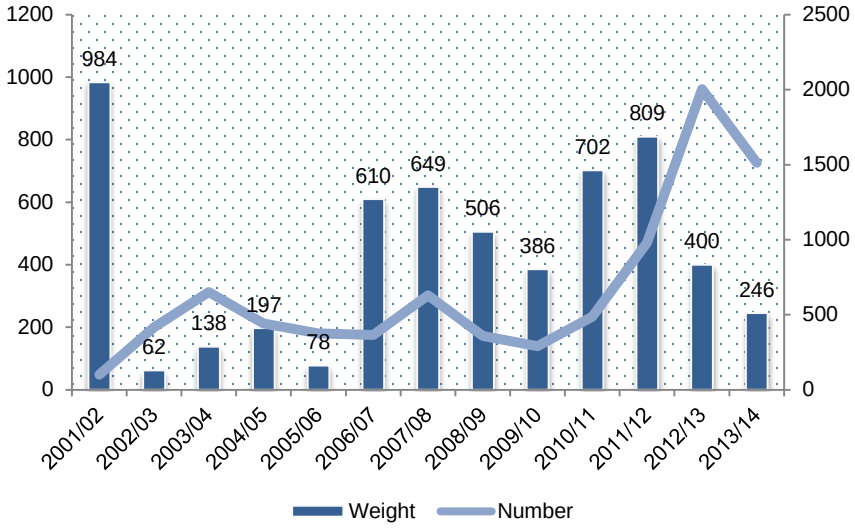
Source: Forensic Drug Branch, Victoria Police Forensic Services Department

* At the time of data collation, from April to May 2014, Victoria Police had recorded no cocaine seizures weighing less than or equal to 1.0 gram. No cocaine seizures weighing more than 1.0 gram were recorded in February 2014 and May 2014.

5.3.4. Cocaine detected at the Australian border

Figure 14 shows the number and weight of cocaine seizures at the border detected by the Australian Customs and Border Protection Service (ACBPS), from 1997/98 to 2013/14. The weight of cocaine seizures rose substantially between 2005/06 and 2006/07, and has fluctuated since. From 2012/13 to 2013/14, there was a decline in weight and number, with a total of 1,512 seizures made, weighing a total of 246 kilograms (Figure 14).

Figure 14: Number and weight of cocaine seizures at the Australian border, 2001/02–2013/14



Source: ACBPS

5.4. Cannabis

Key Points

Price

— In 2014, the median prices for 1.0 gram and 1.0 ounce of hydroponically grown cannabis were consistent with previous years; the price of 0.25 ounce decreased by $10. Eighty-two per cent of participants reported no recent price changes.

— Fifteen participants reported that their last purchase was bush-grown cannabis.

Availability

— Ninety-three per cent reported that hydroponic cannabis was very easy or easy to obtain and 81% reported no recent changes to availability; 10% reported difficulty.

— Seventy-three per cent reported that bush-grown cannabis was very easy or easy to obtain and 80% 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 (48%) and medium (37%), with 65% reporting no recent changes to potency.

— Bush-grown cannabis potency was reported as medium, with varied reports received regarding recent changes to potency.

5.4.1. Price

In 2014, 72 Victorian IDRS participants reported confidence in their knowledge of the cannabis market in Melbourne. Table 9 presents participant reports of the median price paid for the last cannabis purchase, from 2011 to 2014, for hydroponic and bush-grown cannabis. In 2014, participants (n = 34) most commonly reported most recently purchasing 1.0 gram of hydroponic cannabis. Thirty-two participants reported last purchasing 0.25 ounce (7.0 grams) and 15 participants reported last purchasing 1.0 ounce. Few participants reported purchasing bush-grown cannabis; 10 participants reported last purchasing 1.0 gram (Table 9).

Table 9: Median prices paid for last cannabis purchase, according to weight, Victoria, 2011–2014

	Hydroponic				Bush-grown			
	2011 $	2012 $	2013 $	2014 $	2011 $	2012 $	2013 $	2014 $
Gram (range)	20 (15–30)	20 (10–20)	20 (10–25)	20 (15–25)	20 (20–20)^	20 (10–20)^	--	20 (10–20)
0.25 ounce (range)	80 (50–150)	80 (50–180)	80 (50–100)	70 (70–120)	--	70 (0–80)^	70 (70–80)^	80 (70–80)^
Ounce (range)	250 (160–360)	250 (150–280)	250 (180–300)	250 (200–280)	210 (200–250)^	240 (200–250)^	150 (150–150)^	230 (100–250)^

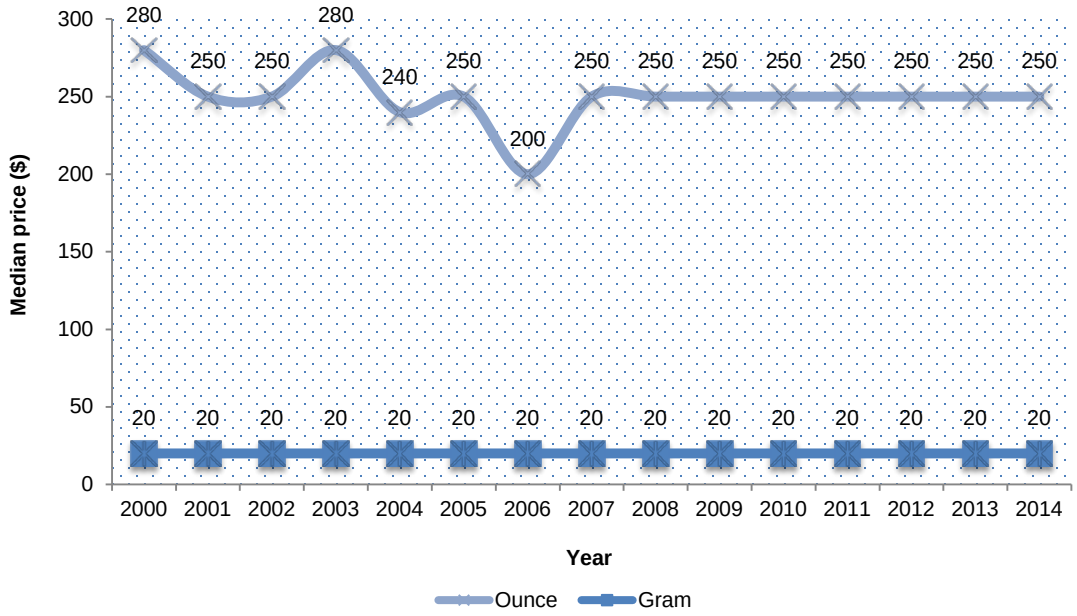
Source: IDRS participant interviews

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

-- No reports received

Figure 15 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 2014. 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; however, since 2007, prices have remained consistent at $250 (Figure 15).

Figure 15: Median prices of a gram and an ounce of cannabis estimated from participants' purchases, Victoria, 2000–2014*



Source: IDRS participant interviews

* 2003–2014 prices reflect those for hydroponic cannabis only (the form used most).

In 2014, of the 51 participants who provided information on recent changes to hydroponic cannabis price, 82% reported it was stable. Two-thirds of the 15 participants who reported on recent changes to price for bush-grown cannabis also noted stable prices.

5.4.2. Availability

In 2013, 52 participants commented on hydroponic cannabis availability. Of these, the majority reported it was very easy (56%) or easy (37%) to obtain; only 8% reported difficulty obtaining hydroponic cannabis at the time of interview. With regards to participants' perceptions of recent changes to availability, 81% reported it was stable and 10% reported that this form of cannabis was more difficult to obtain.

Participants (n=51) were asked to nominate the source of their last hydroponic cannabis purchase. In 2014, the most common last source was friends (47%) and known dealers (45%), followed by street dealer (8%). Locations for sourcing the last hydroponic purchase varied. The most commonly reported source venues were dealer's home (29%), friend's home (28%) and agreed public location (26%).

In 2014, 15 participants provided information on their perceptions of current availability of bush-grown cannabis. Bush-grown cannabis was reportedly very easy (40%) or easy (33%) to obtain, and access was reported as stable (80%) in the preceding six months. Of 15 participants, the most common source of the last bush-grown cannabis purchase was friends (47%) and known dealers (33%).

5.4.3. Potency

In 2014, 52 participants gave their perceptions of hydroponic cannabis potency: 48% reported it was high and 37% reported it was medium. Fifty-one participants commented on their perceptions of recent changes to potency. Of these, 65% reported it was stable and 18% reported it fluctuated. By contrast, 15 participants commented on bush-grown cannabis potency, with 60% reporting it was medium and 20% reporting fluctuation. Perceptions of recent changes to bush-grown cannabis potency varied; 40% reported it was stable, 27% reported fluctuation and 20% reported a decrease.

5.5. Methadone

In 2014, seven Victorian IDRS participants were able to comment on the market characteristics of *non-prescribed* methadone (Methadone Syrup®, Biodone Forte® and Physeptone® tablets). Due to the small number of participants in this group, findings must be interpreted with caution. Few reports were received from these participants about the price of their most recent methadone purchase, so median prices are not reported. Only five commented on availability, with three reporting that obtaining illicit methadone was easy, and that access was easier in the preceding six months. Of the seven participants, five reported last sourcing methadone from friends, and four reported the last source venue as an agreed public location. Five of seven participants reported that they bought non-prescribed methadone; however, all reported that the source of their last purchase was someone else's take-away dose.

5.6. Buprenorphine

Ten participants provided comment on the market characteristics of *non-prescribed* buprenorphine (Subutex®) in 2014. Eight reported on the price paid for their last purchase. Of these, six reported paying a median of $15 for an 8 mg tablet, a decrease of $5 from 2013 (median $20 per 8 mg tablet). All 10 participants reported that prices were stable in the preceding six months. In relation to availability, illicit buprenorphine was reported as very easy (60%) and easy (40%) to obtain, with 80% reporting no changes to access in the past six months and 20% reporting more difficulty. Nine participants provided information on non-prescribed sources: 89% reported last sourcing it from friends, most commonly from a friend's home (33%) and an agreed public location (33%). On the last occasion of use, eight of 10 reported purchasing buprenorphine, with eight of nine reporting that the original source was someone else's daily dose. Given the small number of participants reporting, findings for buprenorphine must be interpreted with caution.

5.7. Buprenorphine-naloxone

5.7.1. Buprenorphine-naloxone tablets

In 2014, five participants provided information on the market characteristics of *non-prescribed* buprenorphine-naloxone tablets (Suboxone® tablets), thus interpretation of findings is limited. Three reported on the price paid for their most recent illicit tablet purchase; the median price was $10 for 8 mg. All five participants reported stable prices in the preceding six months. Regarding availability, the tablets were reportedly easy (n = 3) or very easy (n = 2) to obtain at the time of interview, with no recent changes to availability noted. Each participant reported sourcing the tablets from friends on their last occasion of purchase, most commonly from a friend's home (n = 3). On their last occasion of use, four of five reported purchasing the tablets, and also that the original source was someone else's take-away dose.

5.7.2. Buprenorphine-naloxone film

Eleven participants provided information on the market characteristics of *non-prescribed* buprenorphine-naloxone film (Suboxone® film) in 2014. Four reported on the price paid for their last purchase of the 2 mg film and the median price was $3.75. Nine participants reported that the median price of their last 8 mg film purchase was $10, a decrease of $10 from 2013 when the median price for 8 mg of film was $20. Eight of 10 participants reported that prices were stable in the preceding six months. All participants reported that the film was either very easy (64%) or easy (36%) to obtain, with no recent changes to availability reported. Each participant (n = 11) reported last sourcing the film from friends, most commonly from a friend's home (64%) or an agreed public location (27%). On the last occasion of use, 82% reported purchasing the film, with 73% reporting that the original source was someone else's take-away dose and 18% reporting that it was someone else's daily dose.

5.8. Morphine

In 2014, 15 participants provided information on the market characteristics of *non-prescribed* morphine (MS Contin® tablets and Kapanol® capsules). Table 10 presents median prices of non-prescribed morphine, estimated from participants' most recent purchase, for 2011 to 2014. Fewer than 10 participants reported on price, so these must be interpreted with caution. For instance, eight participants reported last purchasing a 100 mg MS Contin® tablet and three reported purchasing a 60 mg tablet. Five participants reported purchasing a 100 mg Kapanol® capsule, one reported purchasing a 50 mg capsule (Table 10). Thirteen participants provided information on recent changes to price and, of these, 78% reported price was stable, while 15% reported an increase.

Table 10: Median prices paid for last morphine* purchase, according to tablet weight, Victoria, 2011–2014

	MS Contin®				Kapanol®			
	2011 $	2012 $	2013 $	2014 $	2011 $	2012 $	2013 $	2014 $
60 mg tablet* (range)	30 (10–60)	20^ (10–60)	25^ (25–25)	30^ (20–35)	--	--	25^# (25–25)	25^# (25–25)
100 mg tablet/ capsule* (range)	50 (20–100)	50 (40–100)	35^ (20–50)	50^ (30–100)	40 (30–80)	45^ (40–100)	25^ (20–50)	25^ (20–40)

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

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

Price refers to 50 mg Kapanol® capsule

-- No reports received

In 2014, 14 participants provided information on illicit morphine availability. Reports were mixed; more than half reported that accessing morphine was difficult (42%) or very difficult (14%), whereas two-fifths reported that access was easy (21%) or very easy (21%). Of the 13 participants who reported on changes to availability in the preceding six months, 69% reported that access was stable and 23% reported it was more difficult. Participants most commonly reported sourcing their last morphine purchase from friends (57%) and known dealers (29%), with the most common source venues reported as friend's home (50%) and dealer's home (29%).

5.9. Oxycodone

In 2014, 18 participants provided reports on the market characteristics of *non-prescribed* oxycodone (OxyContin®, original formulation (OC)). Table 11 shows the median prices Victorian IDRS participants paid for their most recent oxycodone purchase from 2011 to 2014. Prices for tablets less than 80 mg in weight must be interpreted with caution as fewer than five participants reported purchasing these measures in 2014. Fourteen participants reported on price for their last 80 mg tablet purchase (Table 11). Of 18 participants, 56% reported no recent changes to the price of oxycodone, 33% reported an increase and 11% reported a decrease.

Table 11: Median prices paid for last OxyContin® purchase, according to tablet weight, Victoria, 2011–2014

	2011 $	2012 $	2013 $	2014* $
10 mg tablet (range)	10^ (5–30)	5^ (5–5)	--	20^ (20–20)
20 mg tablet (range)	10^ (10–25)	14^ (10–20)	10^ (10–10)	10^ (1.50–20)
40 mg tablet (range)	20 (15–35)	22.50 (20–40)	25^ (20–50)	20^ (20–25)
80 mg tablet (range)	40 (30–80)	45 (30–80)	40^ (30–50)^	45 (10–50)

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

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

-- No reports received

Seventeen participants commented on the availability of non-prescribed oxycodone at the time of interview; reports were mixed. Just over half reported it was difficult (47%) or very difficult (6%) to obtain, with the remainder reporting access was easy (29%) or very easy (18%). Regarding recent changes to availability, 53% reported access was stable whereas 41% reported it was more difficult. Participants most commonly reported last sourcing illicit oxycodone from friends (59%) and known dealers (29%), from venues such as a friend’s home (53%), an agreed public location (29%) and a dealer’s home (18%).

5.10. Alprazolam

On 1 February 2014, the Therapeutic Goods Administration (TGA) rescheduled alprazolam (Xanax®) in all forms and preparations from Schedule 4 to Schedule 8 (controlled drug). Because of this policy change, IDRS participants were asked separate questions regarding alprazolam use prior to and after the date of rescheduling, and changes to price and availability.

First, participants were asked to specify whether they had used alprazolam between June 2013 and January 2014. Of those who reported using alprazolam during this period (n = 38), 66% reported non-prescribed use only, 29% reported both prescribed and non-prescribed use, and 5% reported prescribed use only. The median frequency of non-prescribed (illicit) use among participants (n = 35) during this period was six days (IQR 3–15). Participants (n = 33) were asked about the price of alprazolam before and after the policy change. Before the change, the median reported price for 2 mg was $5 (IQR $3–$5). Of participants who commented (n = 36), 33% reported receiving alprazolam as a ‘gift’.

Among participants who continued using alprazolam after the policy change in February 2014 (n = 31), 84% reported non-prescribed use only, 10% reported both prescribed and non-prescribed use, and 7% reported prescribed use only. The median frequency of non-prescribed (illicit) alprazolam use among participants (n = 31) in this group was seven days (IQR 4–15) between February and June 2014. After the policy change, participants (n = 25) reported the same median price for 2 mg of alprazolam ($5, IQR $4–$7). Since February 2014, participants (n = 30) most commonly reported price as increasing (53%) and stable (43%). Of participants who commented (n = 31), 36% reported receiving alprazolam as a ‘gift’ since February 2014.

Thirty participants commented on the availability of non-prescribed alprazolam since the rescheduling. Fifty-three per cent reported it was difficult to obtain and 23% reported it was very difficult to obtain. Smaller percentages reported that alprazolam was very easy (13%) and easy (10%) to obtain. Of participants who provided information regarding change to availability since February 2014 (n = 31), 77% reported that obtaining alprazolam was more difficult, 19% reported no change and 3% reported easier access. Among participants who had not used alprazolam since the policy change (n = 13), the main reason cited was harder to access (62%), followed by reasons such as lack of interest (15%) or experience of negative effects (15%).

6. Health-related trends associated with drug use

6.1. Overdose and drug-related fatalities

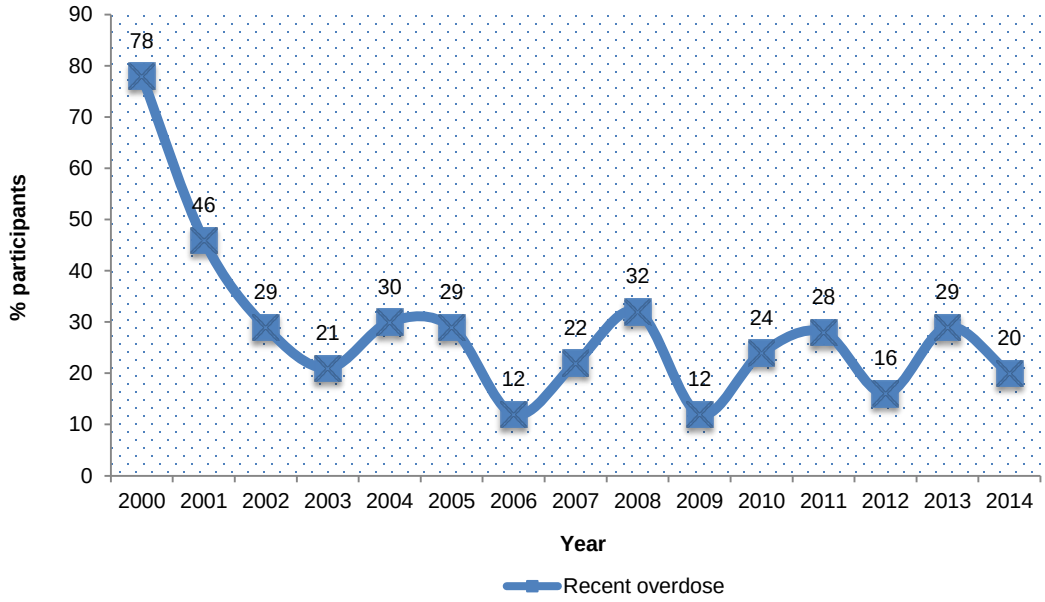
Information on drug-related overdose contained in this report is collected from several sources, including self-report data from the 2014 Victorian IDRS participant sample, data on the number of Victorian drug-related fatalities (sourced from the National Coroner's Information System (NCIS) via the VDH), and a database of all drug-related ambulance attendances in the community (maintained by Turning Point Alcohol and Drug Centre).

6.1.1. Heroin

6.1.1.1. Self-reported non-fatal overdose

In 2014, 142 Victorian IDRS participants provided information regarding self-reported non-fatal overdose. Of these, half (51%, n = 77) reported a lifetime accidental heroin overdose, very similar to percentages in 2013 (57%) and 2012 (55%). Among these, the median number of lifetime overdoses was three (IQR 1–5 overdoses). Figure 16 shows the prevalence of self-reported heroin overdose among Victorian IDRS participants in the past year, from 2000 to 2014. In 2014, among those with a history (n = 77), the prevalence was 20%, not significantly different to prevalence in 2013 (29%, p = 0.167) and similar to prevalence in 2012 (Figure 16). Four per cent of participants with a history reported an accidental heroin overdose in the month before interview, close to the proportion in 2013 (8%, p = 0.294).

Figure 16: Self-reported heroin overdose in the past year among participants with an overdose history, Victoria, 2000–2014



Source: IDRS participant interviews

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

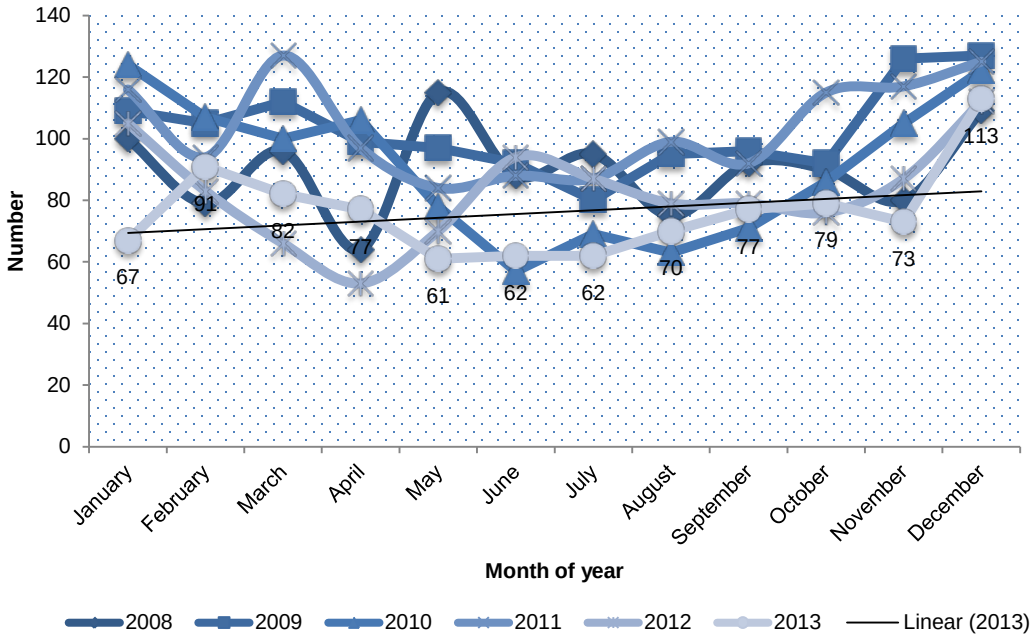
As in previous years, in 2014 participants who reported a past year heroin overdose (n = 15) were asked to provide information on any immediate treatment received following the last event. Multiple responses were allowed. Of these, 80% reported receiving the opioid antagonist naloxone (Narcan®) and 67% reported ambulance attendance. Twenty-seven per cent respectively reported receiving CPR from a friend, partner or peer (n = 4) and attending a hospital ED (n = 4).

Participants (n = 15) 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 (80%) reported that they did not seek further treatment and/or information; however, 7% each reported presenting to a generalist health service and seeing a counsellor.

6.1.1.2. Non-fatal heroin overdose attended by ambulance

Figure 17 shows the number of non-fatal heroin[6] overdoses attended by AV in the greater Melbourne region, by month, from January 2008 to December 2013. 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. During 2013, 914 non-fatal heroin overdoses were attended by AV, decreasing by 8% from the figure in 2012 (n = 991). In 2013, the median age of cases was 35 years (range 16–85 years), the same as the median age in 2012. The average number of attendances per month declined from 83 (range 53–112 attendances) in 2012 to 76 in 2013 (range 61–113 attendances), the lowest monthly average for all years shown (Figure 17).

Figure 17: Number of non-fatal heroin overdoses attended by Ambulance Victoria per month, Melbourne, 2008–2013



Source: Turning Point Alcohol and Drug Centre

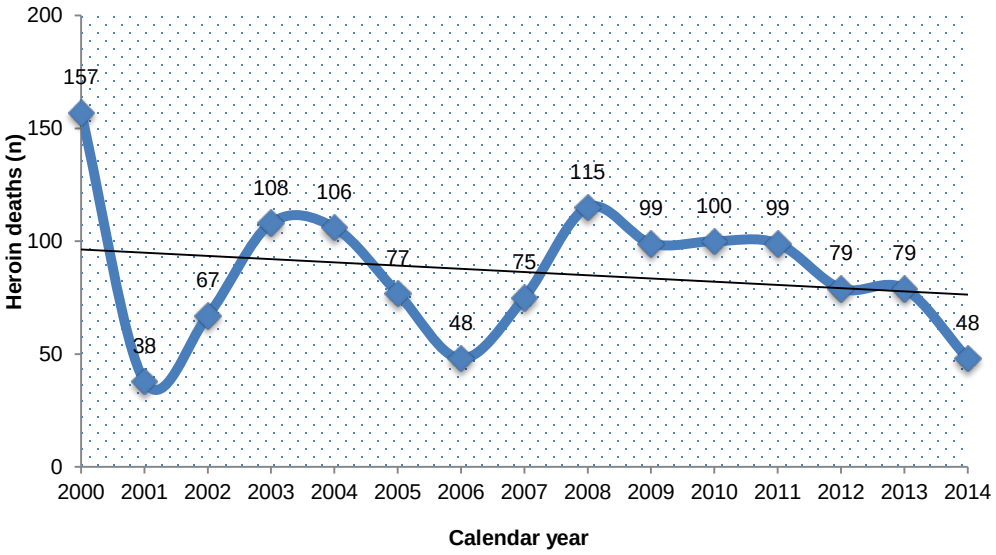
6.1.1.3. Heroin-related deaths

Figure 18 summarises data for trends in heroin-related mortality in Victoria from 2000 to 2014. A total of 1,295 heroin-related deaths were recorded for the period, an average of 86 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 2004, the annual number of heroin-related deaths in Victoria returned to the level observed during the mid-1990s (Cogger et al., 2013). Seventy-nine deaths were officially defined as heroin-related in

[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.

Victoria in 2012 and in 2013, respectively. As at November 2014, 48 fatalities were officially defined as heroin-related (Victorian Department of Health, 2013b, 2014).

Figure 18: Heroin-related deaths, Victoria, 2000–2014*



Source: Victorian Department of Health, 2014

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 impacted due to industrial action and are now complete, meaning significant changes have been made to figures for these years. Therefore note that data provided by VDH in 2014 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

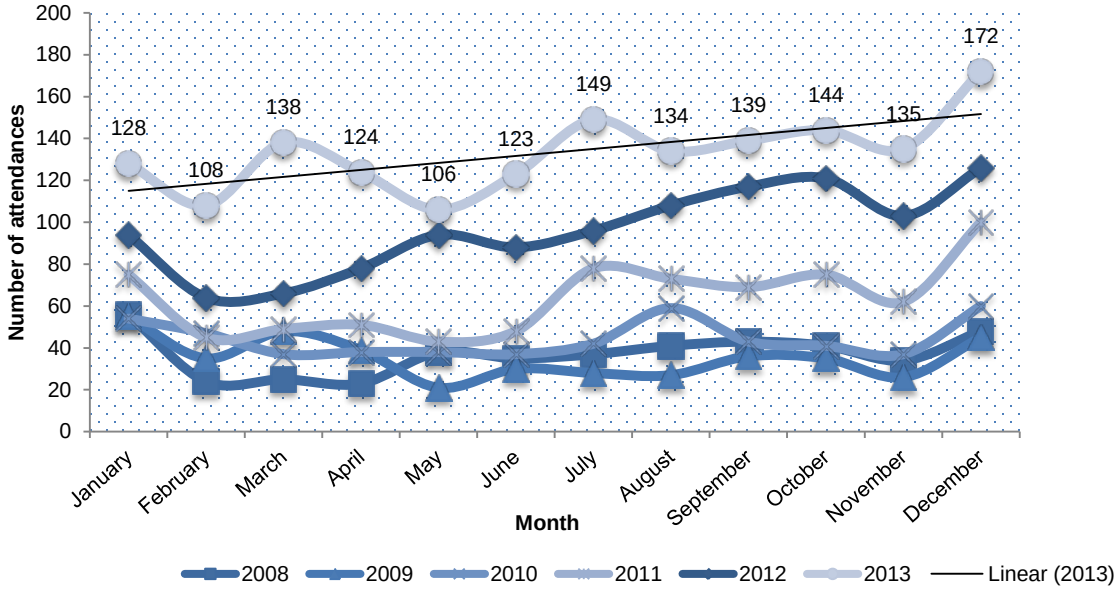
In 2014, 11% of Victorian IDRS participants reported a lifetime accidental overdose on drugs other than heroin, similar to the figure in 2013 (9%, p = 0.667). Among these participants (n = 16), the median number of lifetime overdoses was two (IQR 1–3 overdoses). Almost half (44%) of those with a history (n = 16) reported an overdose in the past year, 13% reported an overdose in the past month. Of the seven participants who reported an accidental past-year overdose, four specified that the drug used prior to the most recent event was crystal methamphetamine (ice). Other drugs attributed to the last overdose event by participants included alcohol (n = 2), methadone (n = 1) and morphine (n = 1).

Participants (n = 7) were asked to provide information on the immediate treatment received following their last overdose and, in 2014, six responded. Multiple responses were allowed and included received no immediate treatment (n = 2), ambulance attendance (n = 1), and 'don't know/can't recall' (n = 1). Two further participants specified that they were attended to or supported by peers. Participants were also asked whether they sought further treatment and/or information as a result. Three participants reported that they did not seek any treatment and/or information; however, one reported presenting to a drug health service. Two reported accessing information: one specified doing so through their peers/friends and one from the internet.

6.1.2.2. Other drug-related events attended by ambulance

Figure 19 shows the number of amphetamine-related events attended by AV in the greater Melbourne region by month, from January 2009 to December 2013. During 2013, AV attended 1,160 amphetamine-related events, a 39% increase compared with the 1,155 events attended in 2012. In 2012, the median age of cases was 27 years (range 12–61 years) and the average number of attendances per month was 133 (range 106–172 attendances), increasing from an average of 96 (range 64–126 attendances) in 2012, 64 (range 43–100 attendances) in 2011, 44 (range 37–60 attendances) in 2010 and 35 (range 21–55 attendances) in 2009 (Figure 19).

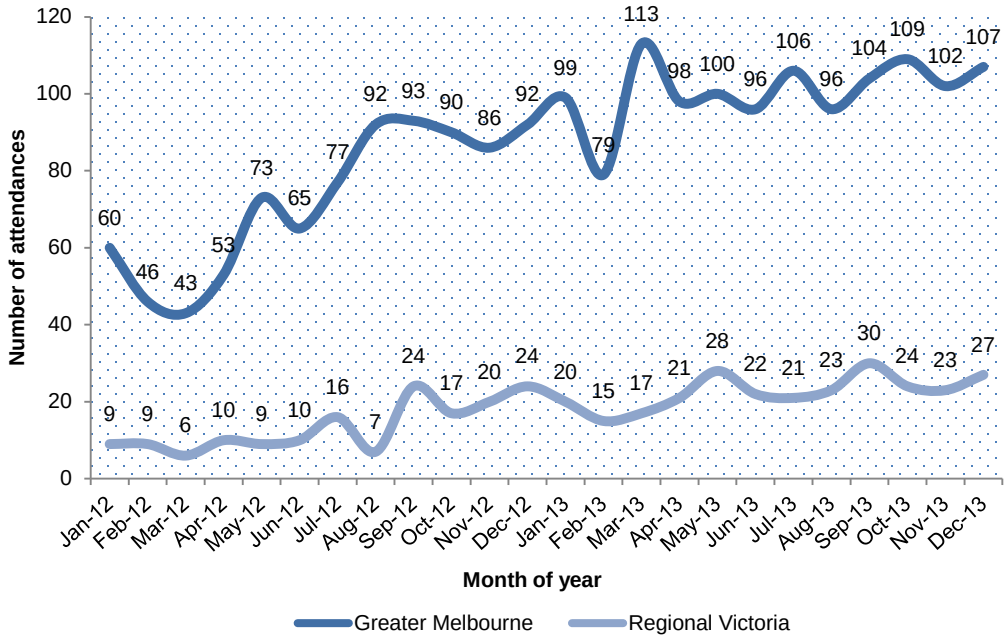
Figure 19: Number of amphetamine-related events attended by Ambulance Victoria per month, Melbourne, 2008–2013



Source: Turning Point Alcohol and Drug Centre

The number of crystal methamphetamine-related (ice) events attended by AV in greater Melbourne from 2012 to 2013 is shown in Figure 20 by month, compared with regional Victoria. During 2013, AV attended 1,209 ice-related events in Melbourne and a further 271 events in regional Victoria, an increase of 39% and 68% from 2012, respectively. In 2013, the median age of Melbourne cases in which ice was involved was 27 years (range 12–61 years), the same as the median age of cases in regional Victoria (27 years, range 14–57 years), with both increasing by one year compared with reported median ages in 2012. In Melbourne the average number of attendances per month was 101 (range 79–113 attendances), much higher than in regional Victoria where the monthly average was 23 (range 15–30 attendances). Note that this difference would be smaller if the data were adjusted for population size (Figure 20).

Figure 20: Number of crystal methamphetamine-related events attended by Ambulance Victoria per month, Melbourne and regional Victoria, 2012–2013



Source: Turning Point Alcohol and Drug Centre

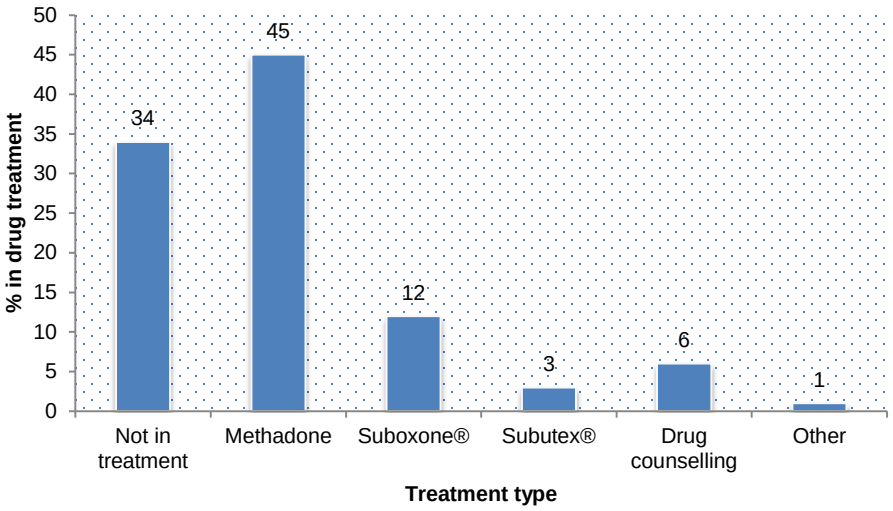
During 2013, 111 cocaine-related events were attended by AV in the greater Melbourne region, declining by 8% compared with the number in 2012 (n = 120). The median age of cases in which cocaine was involved was 29 years (range 17–49 years), the same as the median age in 2012. In 2013, the average number of cocaine-related attendances per month was nine (range 5–15 attendances).

6.2. Drug treatment

6.2.1. Current drug treatment

In 2014, the IDRS included more detailed questions asking participants about their access to drug treatment services at the time of interview and in the preceding six months. Figure 21 shows that of the Victorian sample (n = 150), 66% were in current drug treatment, particularly OST such as methadone (45%) and Suboxone® (12%, Figure 21). Among participants who were in treatment at the time of interview (n = 99), the median duration was 24 months (IQR 8–60 months). For those currently in methadone treatment (n = 67), the median duration of the treatment episode was 36 months (IQR 18–96 months).

Figure 21: Drug treatment status at interview, Victoria, 2014



Source: IDRS participant interviews

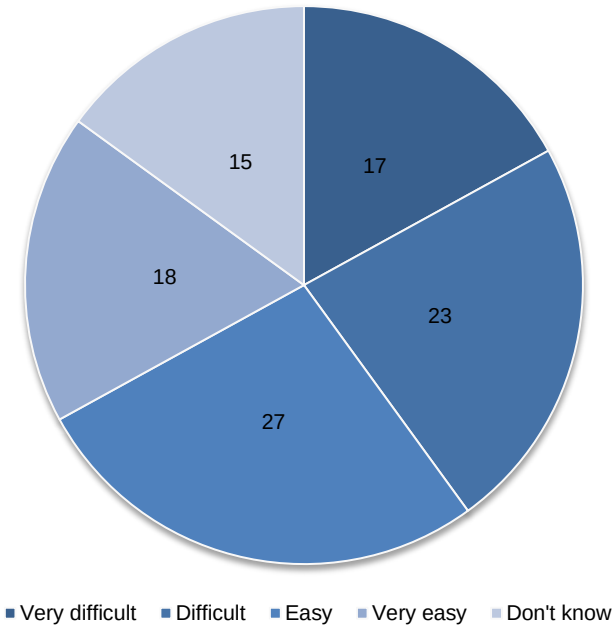
As well as current drug treatment, participants were asked to indicate whether they had received any drug treatment in the preceding six months and the treatment type. Multiple responses were allowed. Forty-two per cent (n = 63) reported being in drug treatment during the six months leading to interview. Of these, the most common treatment types were methadone (49%) and drug counselling (43%), followed by buprenorphine-naloxone (13%) and detoxification (8%).

The sample was also asked about their recent experiences accessing drug treatment services: in the six months before interview, 16% reported barriers to treatment despite trying to access services. Participants in this group (n = 24) most commonly reported trying to access AOD treatment services such as detoxification (50%) and residential rehabilitation (29%), followed equally by AOD treatment through a GP (13%), counsellor (13%) and OST program (13%). Twenty-three of 24 participants answered questions about problems they had accessing treatment, with waiting list (39%) and being turned down by programs (35%) cited as the most common barriers. Twenty-six per cent specified that OST dose levels were a barrier to accessing Victorian residential AOD treatment services, with participants reporting being turned away because their dose was too low, too high, or unstable.

Participants were asked whether they were currently trying to get into drug treatment and, of the 147 who responded, 84% reported they were not waiting for treatment (multiple responses allowed). Three per cent reported that they had given up seeking treatment. Among those who reported trying to get into treatment, detoxification (7%), drug counselling (3%) and residential rehabilitation (2%) were the most common services sought. Participants were also asked questions about their perception of current access to and recent availability of drug treatment services.

Figure 22 shows 2014 Victorian IDRS participants' perception of access to drug treatment services at the time of interview; responses varied (n = 148). While the majority reported perceiving drug treatment was easy (27%) or very easy (18%) to access if they wanted to, a significant minority reported it was difficult (23%) or very difficult (17%, Figure 22). Access to drug treatment services in the preceding six months was reported by participants as stable (60%), more difficult (12%), easier (5%) and fluctuates (2%). Twenty-one per cent reported no knowledge of recent changes to drug treatment availability.

Figure 22: Perception of access to drug treatment services at interview, Victoria, 2014



Source: IDRS participant interviews

6.2.2. Heroin

6.2.2.1. Alcohol and Drug Information System

During 2013/14, 65,875 courses of treatment[7] were delivered to 34,786 clients[8] in federal and state government funded Victorian specialist alcohol and drug treatment services. Overall, a 9% increase occurred in the number of courses of treatment delivered to clients, rising from 60,452[9] in 2012/13. An 8% increase in the number of clients was also recorded, rising from 32,271[9] in 2012/13. In previous years, apart from alcohol and cannabis, heroin was cited as the most common drug of concern (Cogger et al., 2013). However, in 2013/14, for only the second time in the history of the IDRS, heroin was the second most commonly cited drug of concern after amphetamine, comprising 9% of all clients (n = 3,518) and courses of treatment (n = 6,091) for the period.

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 2013, DirectLine responded to 34,380 alcohol and drug-related telephone calls, with a specific drug of concern[10] identified in nearly two-thirds (63%, n = 21,608) of all enquiries. Between 2012 and 2013, calls to DirectLine declined by 8%.

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[7] 2013/14 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.

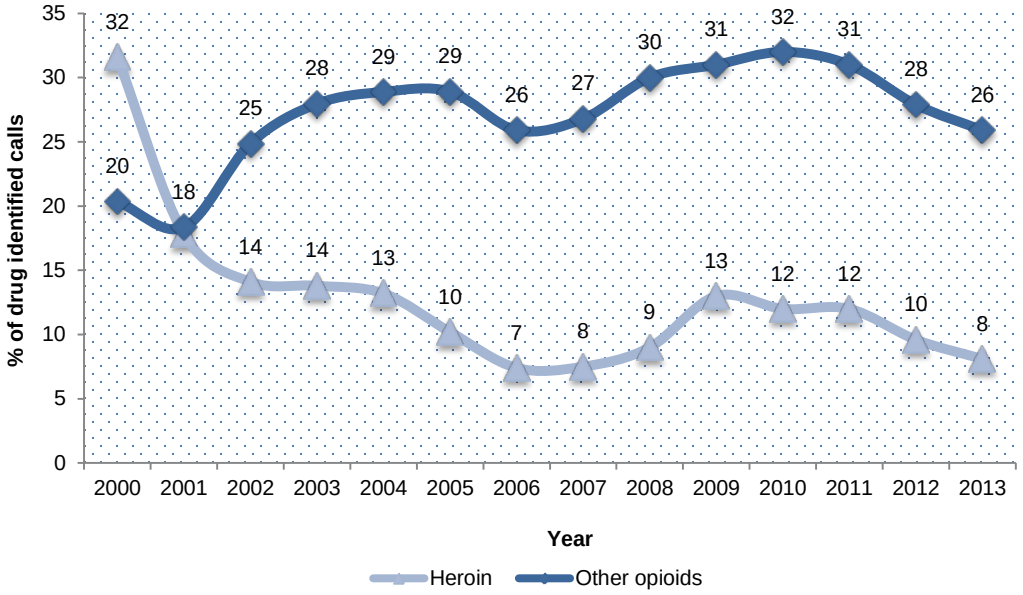
[8] Clients in specialist alcohol and drug services include both people who use drugs and non-users. Non-users may include partners, family or friends. Clients can receive more than one course of treatment during a year with different primary drug types. Hence the count of distinct clients by drug type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

[9] The 2012/13 ADIS data included in the 2013 Victorian Drug Trends report have been revised for the 2014 edition due to a specific service not reporting past year activity until 2013/14. After the revision, in 2012/13 the number of courses of treatment increased from 58,916 to 60,452, while clients reduced from 35,956 to 32,271.

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

Figure 23 shows the percentage of calls to DirectLine in which heroin or other opioids were identified, from 2000 to 2013. In 2013, heroin was identified as a drug of concern in 1,743 telephone calls, representing 8% of all calls to DirectLine in which a drug of concern was cited. Since 2002, the percentage of heroin-related calls has fluctuated at around 10%. In 2013, an additional 5,586 calls were received identifying opioids other than heroin as the drug of concern, comprising 26% of all drug-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 23).

Figure 23: Percentage of calls to DirectLine in which heroin or other opioids were identified as drugs of concern, Victoria, 2000–2013

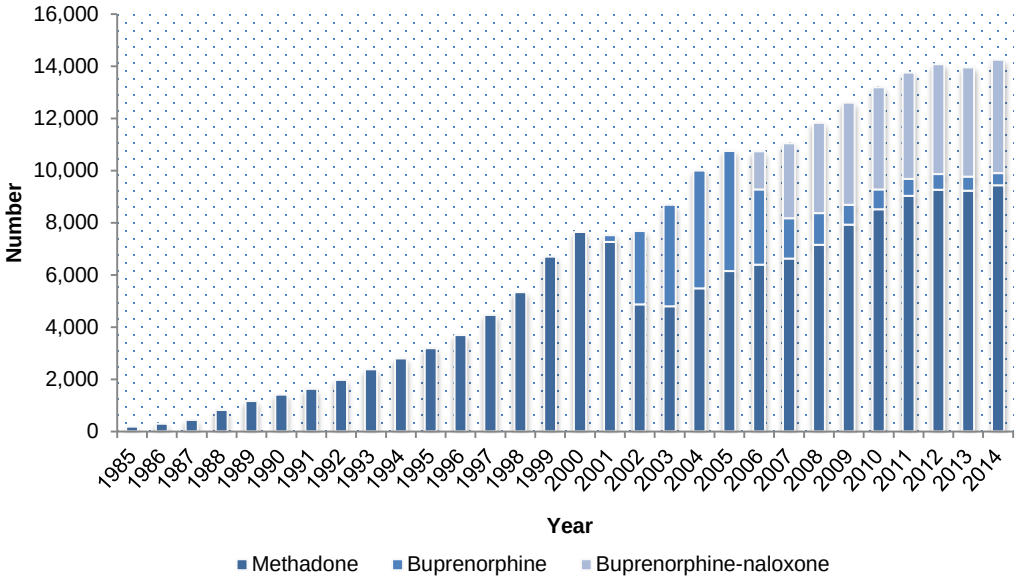


Source: Turning Point Alcohol and Drug Centre

6.2.2.3. Pharmacotherapy consumers

A quarterly census of pharmacies is conducted by the Harm Reduction Pharmacotherapy Services (HRPS) unit at the VDH on the first day of July each year to determine how many clients in Victoria are dispensed pharmacotherapy treatment (methadone, buprenorphine, and buprenorphine-naloxone). Figure 24 shows the number of Victorian pharmacotherapy consumers dispensed OST by treatment type from 1985 to 2014. 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 2014, 14,255 people were dispensed OST in Victoria, increasing by 2% from 2013 (n = 13,961). As in previous years, 66% (n = 9,444) were dispensed methadone, while 31% (n = 4,352) were dispensed buprenorphine-naloxone. Only 459 people were dispensed buprenorphine (a decline of 14% from 2013), comprising only 3% of all pharmacotherapy consumers in Victoria (Figure 24). As in 2013, some 2014 health KE recommended eliminating OST dispensing fees for consumers and increasing incentives for general practitioners to become pharmacotherapy prescribers.

Figure 24: Number of pharmacotherapy consumers dispensed opioid substitution treatment in Victoria, by treatment type, 1985–2014



Source: Harm Reduction and Pharmacotherapy Services, Victorian Department of Health
Note: Census data are collected on the first day of July each year

6.2.3. Methamphetamine

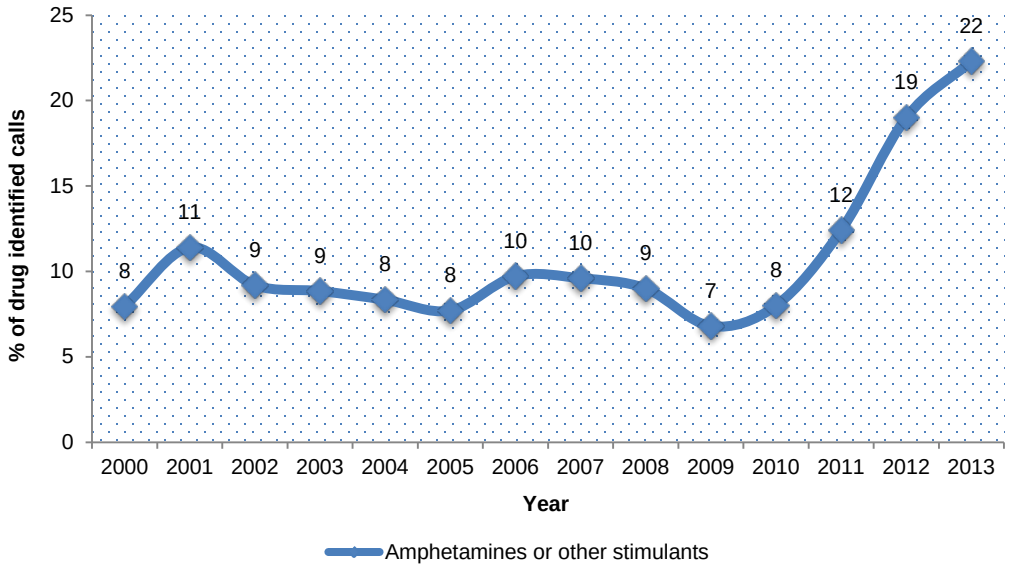
6.2.3.1. Alcohol and Drug Information System

In 2013/14, amphetamine was cited as a drug of concern in 10,401 courses of treatment delivered to 6,635 clients in Victorian specialist alcohol and drug treatment services. Compared with 2012/13, there was a 30% increase in the number of amphetamine-related courses of treatment delivered, and a 26% increase in the number of clients citing the drug as their primary concern. After alcohol and cannabis, in 2013/14 for the second time amphetamine surpassed heroin as the most commonly cited drug of concern, representing 17% of all clients and 16% of all courses of treatment for the period.

6.2.3.2. DirectLine calls

Figure 25 shows the proportion of calls made to DirectLine in which amphetamines or other stimulants (ATS) were identified, from 2000 to 2013. In 2013 ATS were identified in 4,808 calls, representing 22% of calls to DirectLine in which a drug of concern was identified. Between 2012 and 2013, there was a 7% increase in the number of calls identifying ATS as a concern. Prior to 2012, the proportion of calls relating to ATS was reasonably stable (Figure 25).

Figure 25: Percentage of calls to DirectLine in which amphetamines or other stimulants were identified as drugs of concern, Victoria, 2000–2013



Source: Turning Point Alcohol and Drug Centre

Note: Includes 'amphetamine', ecstasy, cocaine and other stimulants

6.2.4. Cocaine

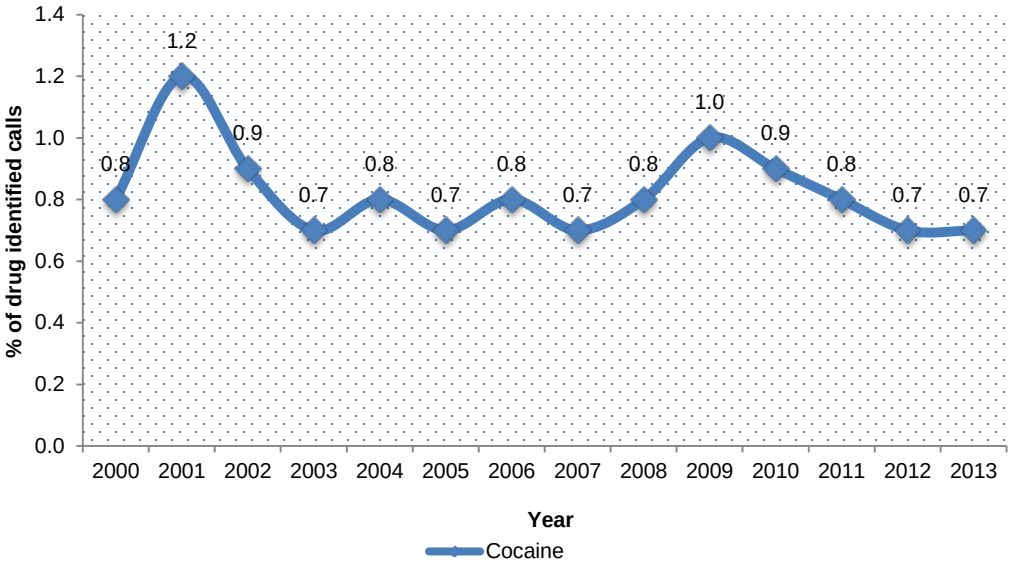
6.2.4.1. Alcohol and Drug Information System

During 2013/14, cocaine was cited as a drug of concern 145 courses of treatment delivered to 114 clients in Victorian specialist alcohol and drug treatment services. As in previous years, cocaine was cited fewer than 1% of all courses of treatment (0.22%) and clients for the period (0.28%). Between 2012/13 and 2013/14, the number of courses of treatment for cocaine increased by 16% and the number of clients by 12%.

6.2.4.2. DirectLine calls

Figure 26 shows the percentage of calls made to DirectLine in which cocaine was identified as the drug of concern, from 2000 to 2013. In 2013, cocaine was identified as a drug of concern in 148 calls, representing 0.7% of calls to the service. The percentage of calls received by DirectLine relating to cocaine has low and stable for all years shown (Figure 26).

Figure 26: Percentage of calls to DirectLine in which cocaine was identified as a drug of concern, Victoria, 2000–2013



Source: Turning Point Alcohol and Drug Centre

6.2.5. Cannabis

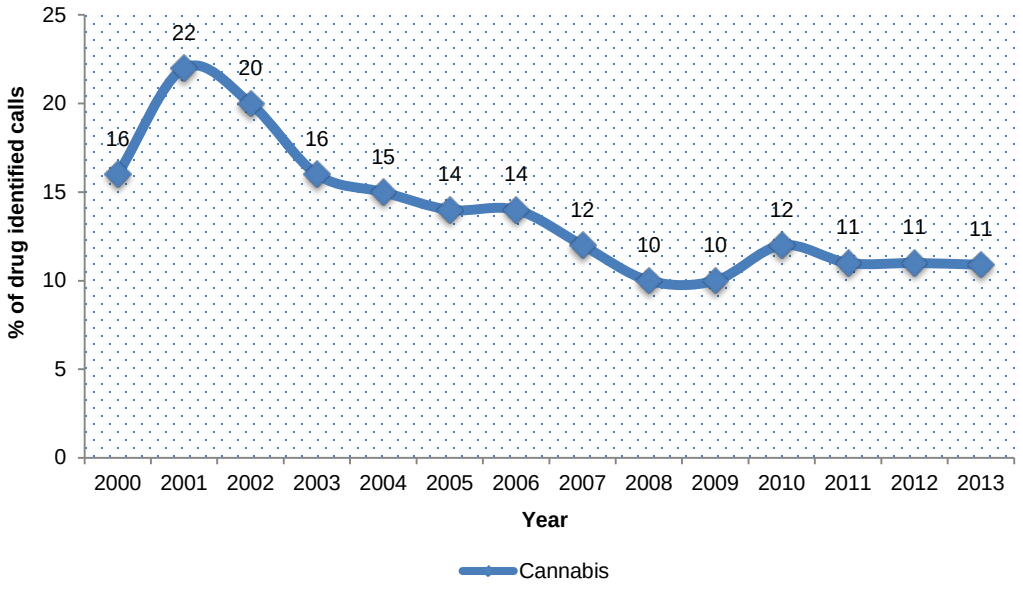
6.2.5.1. Alcohol and Drug Information System

Consistent with previous years, in 2013/14 cannabis was the most commonly cited illicit drug of concern in the Victorian Alcohol and Drug Information System, representing 20% of courses of treatment and 20% of clients. During the period, 13,250 courses of treatment were delivered to 7,913 clients, increasing by 3% and 5% from 2012/13.

6.2.5.2. DirectLine calls

Figure 27 shows the percentage of calls made to DirectLine where cannabis was identified as a drug of concern, from 2000 to 2013. In 2013, DirectLine responded to 2,366 calls in which cannabis was cited as a drug of concern, 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 27).

Figure 27: Percentage of calls to DirectLine in which cannabis was identified as a drug of concern, Victoria, 2000–2013



Source: Turning Point Alcohol and Drug Centre

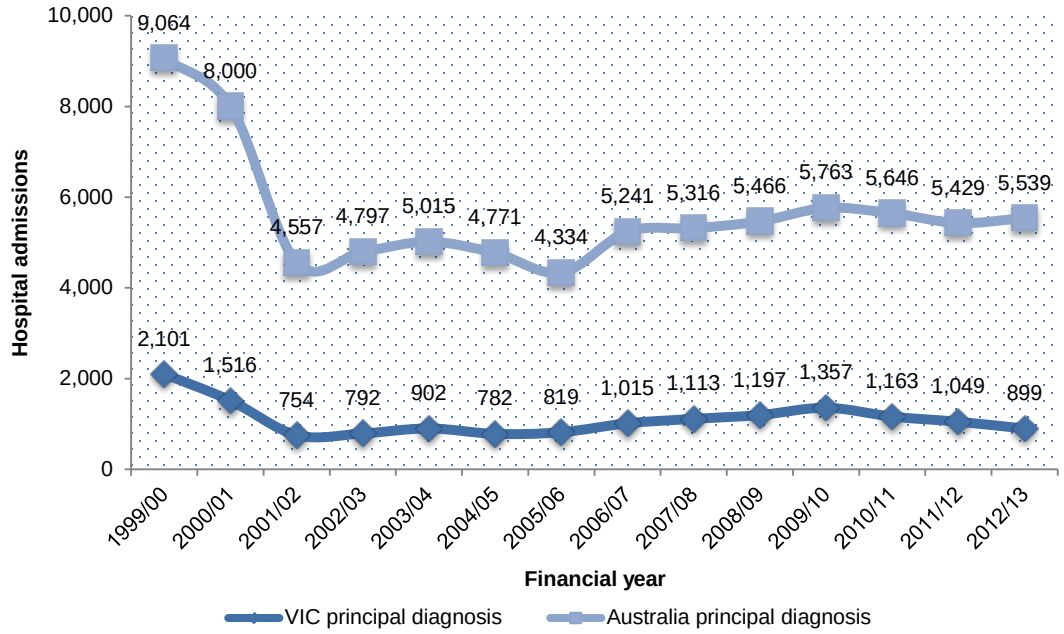
6.3. Hospital admissions

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 2012/13, the most recent data available (Roxburgh & Burns, In Press). 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 28 shows the number of opioid-related hospital admissions among persons aged 15 to 54 years in Victoria and Australia, from 1999/2000 to 2012/13. Compared with cannabis, amphetamine and cocaine, 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 has been reasonably stable. From 2010/11 to 2012/13, however, there has been a decline in Victorian opioid-related hospital admissions with 899 admissions recorded a opioid-related primary diagnosis, comprising 19% of opioid-related admissions in Australia.

Figure 28: Number of opioid-related hospital admissions, Victoria and Australia, 1999/2000–2012/13

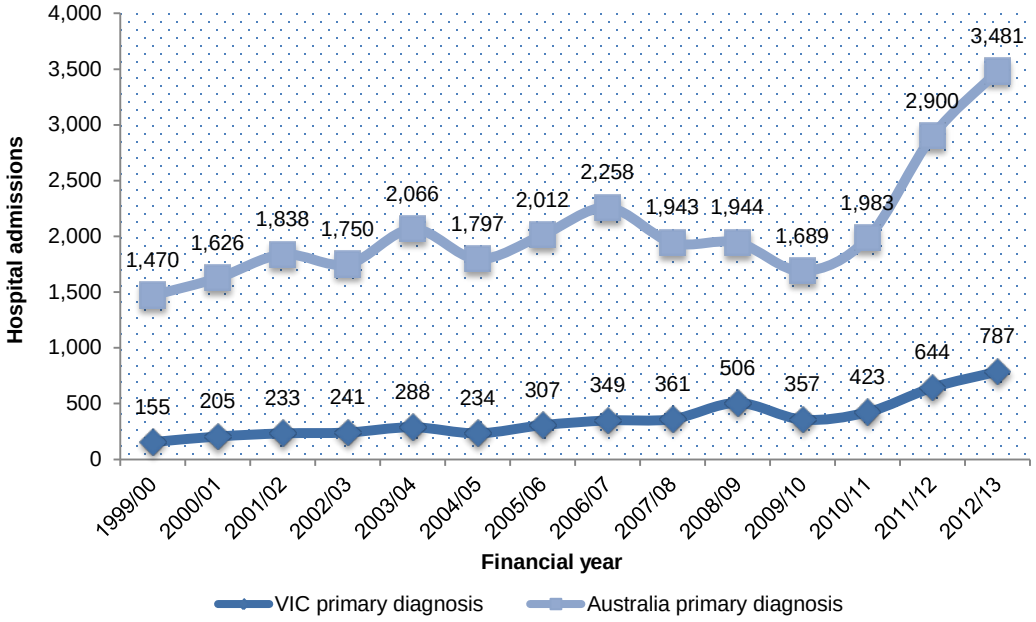


Source: Roxburgh and Burns, in press

6.3.2. Meth/amphetamine (amphetamine)

Amphetamine-related hospital admissions from 1999/2000 to 2012/13 in Victoria and Australia among persons aged 15 to 54 years are presented in Figure 29. The annual number of hospital admissions with an amphetamine-related primary diagnosis has been increasing since 2007/08. In 2012/13, these amphetamine-related hospital admissions increased by 22% in Victoria to 787, continuing the increase from the previous year, but at less than half the rate. This figure comprises 23% of Australian hospital admissions related to the drug, a figure unchanged from the previous year.

Figure 29: Number of amphetamine-related hospital admissions, Victoria and Australia, 1999/2000–2012/13

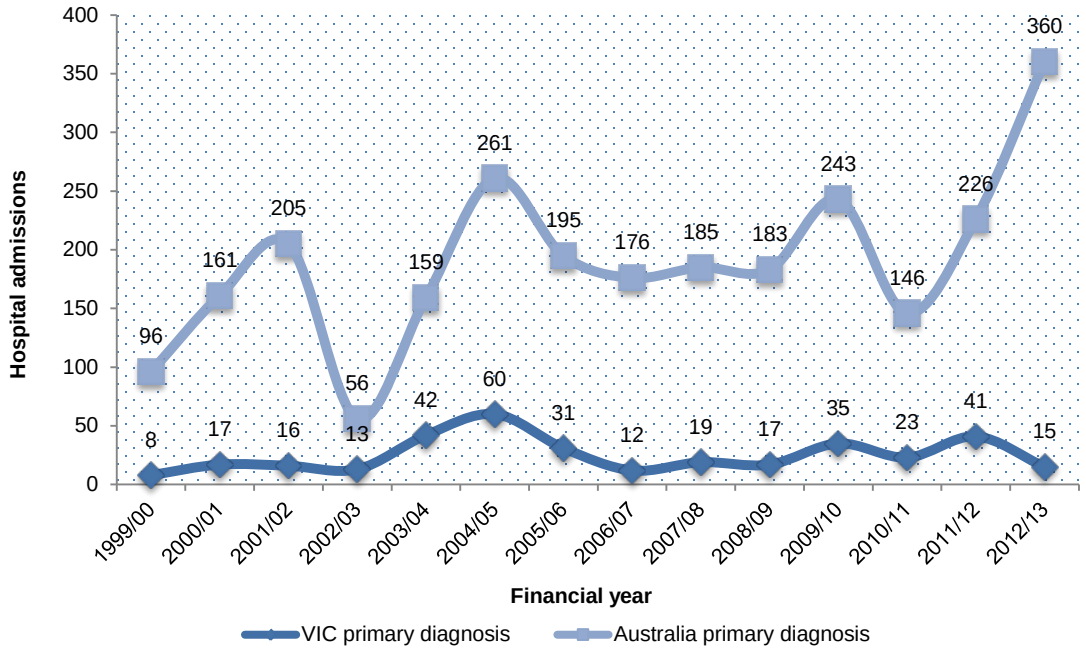


Source: Roxburgh and Burns, in press

6.3.3. Cocaine

Figure 30 shows the number of cocaine-related hospital admissions among persons aged 15 to 54 years in Victoria and Australia, from 1999/2000 to 2012/13. Nationally, the number of admissions with a primary diagnosis related to cocaine has been increasing since 2010/11, peaking in 2012/13, the last year for which data are available. This pattern was not observed in Victoria, where these admissions declined to only 15 in 2012/13, a decline of 63% from the previous year, meaning that Victorian admissions comprised only four per cent of the national total.

Figure 30: Number of cocaine-related hospital admissions, Victoria and Australia, 1999/2000–2012/13

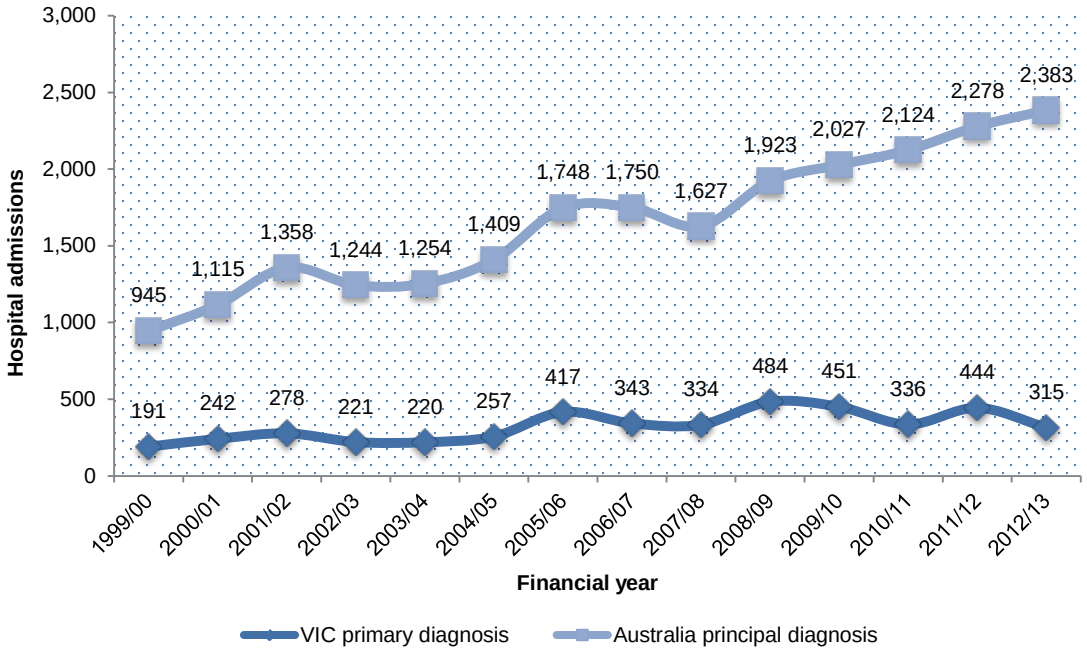


Source: Roxburgh and Burns, in press

6.3.4. Cannabis

Cannabis-related hospital admissions among persons aged 15 to 54 years are shown in Figure 31 for Victoria and Australia, from 1999/2000 to 2012/13. Nationally, the number of hospital admissions with a cannabis-related primary diagnosis has increased steadily over the period, peaking in 2012/13. The number in Victoria has been fluctuating around 400 since 2005/06. In Victoria in 2012/13, there were 315 hospital admissions with a cannabis-related primary diagnosis, an decrease of 29% on the previous year, returning to around the number seen in 2010/11. This figure meant that the Victorian admissions comprised only 13% of all cannabis-related admissions in Australia.

Figure 31: Number of cannabis-related hospital admissions, Victoria and Australia, 1999/2000–2012/13



Source: Roxburgh and Burns, in press

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 2014 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; 146 did so in 2014 and responses were similar to previous years. The majority (75%) reported that their most recent injection site was their arm, while smaller proportions reported most recently injecting into their hand or wrist (7%), groin (5%), neck (4%), leg (4%) or foot (3%).

Table 12 presents the self-reported injecting risk practices of Victorian IDRS participants, from 2007 to 2014. The same as in previous years, 11% of the 2014 sample reported borrowing a used needle in the month before interview (Table 12). Among participants in this group (n = 17), 41% reported reusing a borrowed needle once, 29% reported reuse twice, 18% reported reuse three to five times, and 12% reported reuse six to 10 times. Participants were asked to nominate their relationship with the person who used the needle before them; 71% nominated close friends, 18% nominated a casual sex partner, and 12% nominated a regular sex partner.

In 2014, 17% (n = 26) of participants reported lending a used needle to someone else in the preceding month, the same as in 2013. A further 27% (n = 41) reported use of other injecting equipment after some else, with the type of equipment used detailed in Table 12.

Table 12: Self-reported injecting risk practices in the past month, Victoria, 2007–2014

	2007	2008	2009	2010	2011	2012	2013	2014
Borrowed a used NS^ (%)	**7**	**9**	**12**	**15**	**11**	**11**	**12**	**11**
Loaned a used NS^ (%)	**10**	**16**	**21**	**21**	**22**	**25**	**17**	**17**
Used spoon after someone else (%)	41	31	26	45	21	92*	97*	95*
Used filter after someone else (%)	19	19	7	20	5	21*	24*	15*
Used tourniquet after someone else (%)	7	11	3	9	1	16*	3*	7*
Used water after someone else (%)	29	17	13	20	7	13*	32*	15*
Used any equipment after someone else (%)	45	59	27	48	24	25	25	27

Source: IDRS participant interviews

* In 2012, 2013 and 2014, 38, 37 and 41 participants reported sharing any injecting equipment in the past month, respectively. 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

Approximately half (49%, n = 74) of the 2014 sample reported reusing their own needle in the month preceding interview, not significantly different from 2013 when 41% reported reuse (p = 0.164). Fifteen per cent reported reusing their own needle twice in the past month and 14% reported reuse once, while 12% reported reuse on three to five occasions, 6% on six to 10 occasions, and 3% on more than 10 occasions. While 45% reported no reuse of any ancillary injecting equipment, reuse of another item more than once was nominated by 55%. Among this group (n = 82), the most commonly reused pieces of equipment were spoons or mixing containers (93%), tourniquets (16%), filters (16%), and water (13%).

6.4.1.2. Injecting equipment access and coverage

In 2014, of 146 Victorian IDRS participants, 99% reported accessing sterile injecting equipment from an NSP in the preceding six months. Equipment was also accessed from pharmacies (21%), outreach/peer workers (20%), friends (14%), and dealers (6%). To increase equipment coverage and access to BBVI education and healthcare, health KE from the NSP sector recommended installation of 24-hour syringe vending machines (SVM) in Melbourne, as well as implementation of a supervised injecting facility (SIF).

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 2014, participants (n = 148) reported collecting needles and syringes four times (median, IQR 2–8 times) in the past month. During that month, participants reported a median of 16 drug injection episodes (IQR 8–50 episodes) and collecting a median of 48 needles and syringes (IQR 15–100 needles). Participants reportedly gave away or sold three (median, IQR 0–20 needles) to other people and, at the time of interview, reportedly had a median of five needles (IQR 0–30 needles) stored at home.

Thirteen 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: 72% reported injecting in private, similar to 2012 (66%, $p = 0.264$). Twelve per cent reported injecting in a street or park, 7% in a car and 6% in a public toilet. In 2013, the proportion of participants who reported private versus public injecting was similar to the proportions in previous years.

6.4.2. Injection-related health problems

Table 13 shows Victorian IDRS participants' self-reported injecting-related health problems, from 2007 to 2014. In 2014, 64% of participants reported experiencing at least one injection-related health problem in the month before interview, significantly higher than the percentage in 2014 (41%, $p < 0.001$). Participants in this group (n=96) were asked to nominate the problems experienced, detailed in Table 13.

Table 13: Self-reported injection-related health problems among participants in the past month, Victoria, 2007–2014

	2007	2008	2009	2010	2011	2012 n=77	2013 n=62	2014 n=96
Prominent scars/bruising (%)	63	47	43	19	41	75*	74*	67*
Difficulty injecting (%)	35	39	41	25	33	51*	50*	62*
Dirty hit (%)	17	15	18	12	10	26*	13*	17*
Thrombosis (%)	9	10	7	5	6	9*	10*	6*
Abscesses/infections (%)	10	7	6	6	8	20*	7*	12*
Overdose (%)	3	3	5	2	3	9*	8*	3*

Source: IDRS participant interviews

* In 2012, 2013 and 2014, 77, 62 and 96 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 = 3). Among participants who reported a dirty hit (n = 16), the primary drugs involved were heroin (n = 9), methamphetamine (n = 3), methadone (n = 2), morphine (n = 1) and oxycodone (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 14 shows the number and proportion of new HIV diagnoses in Victoria in which IDU was reported as the likely exposure factor. In 2013, eight new cases of HIV infection were notified to the VDH in which IDU was the likely exposure, comprising 2.6% of all new HIV infections for the 2013 calendar year. There was an additional 13 new HIV notifications in 2013 in which both male-to-male sexual activity (MSM) and IDU were the likely exposures, a significant increase from the few notifications in 2012 ($p < 0.05$) (Table 14).

Table 14: New HIV diagnoses where injecting drug use was reported as the likely exposure, Victoria, 2004–2013

	2004 n (%)	2005 n (%)	2006 n (%)	2007 n (%)	2008 n (%)	2009 n (%)	2010 n (%)	2011 n (%)	2012 n (%)	2013 n (%)
IDU	8 (3.9)	11 (4.6)	8 (3.1)	5 (1.9)	6 (2.3)	2 (0.8)	0 (0.0)	3 (1.1)	6 (2.3)	8 (2.6)
IDU: MSM	13 (6.3)	12 (5.0)	5 (1.9)	5 (1.9)	7 (2.7)	6 (2.3)	5 (2.1)	4 (1.4)	3 (1.2)	13 (4.2)
New diagnoses (N)	207	240	259	263	261	262	235	278	262	307

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 2.1% among the 2,407 ANSPS participants who provided blood samples in 2013 (Iversen et al., 2014).

Hepatitis C infection among PWID in Australia continues to be a major public health concern due to its ongoing high background prevalence. Table 15 presents prevalence estimates of new Victorian HIV infections and exposure to HCV attributed to IDU between 2007 and 2013, derived from ANSPS data (Iversen et al., 2014; Iversen & Maher, 2012, 2013). From 2012 to 2013, there was a non-significant increase in the estimated prevalence of HIV Ab among Victorian ANSPS participants, from 0.2% to 1.3% (p = 0.060). Although high, the estimated prevalence of HCV Ab among the Victorian ANSPS sample was reasonably stable at 67% (Table 15). Compared with the national ANSPS sample, in 2013 HCV Ab prevalence was significantly higher among the Victorian ANSPS sample (67% vs. 54%, $p < 0.001$), 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 15: Estimated prevalence of HIV Ab infection and HCV Ab exposure among Victorian ANSPS participants, 2007–2013

	2007	2008	2009	2010	2011	2012	2013
HCV Ab (%)	73	72	55	64	66	69	67
HIV Ab (%)	0.0	0.7	0.9	0.5	0.8	0.2	1.3

Source: Iversen, Chow & Maher, 2014; Iversen & Maher, 2012, 2013

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 Ab 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 four 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, McDonell, 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 16 presents AUDIT-C scores among Victorian IDRS participants from 2011 to 2014. In 2014, participants who reported consuming alcohol in the past year (n = 101, 67%) returned a mean AUDIT-C score of 6.6 (median 6, IQR 4–10), not significantly different from the mean score in 2013 (p = 0.708). Although men (n = 77) returned a higher mean score than women (n = 24), the difference was not significant (6.8 vs. 6.0, p = 0.534). The proportion of participants scoring five or more on the AUDIT-C has been similar since 2011 (Table 16).

Table 16: AUDIT-C scores among participants who drank alcohol in the past year, Victoria, 2011–2014

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

Source: IDRS participant interviews

6.7. Mental health problems and psychological distress

As in previous years, the 2014 Victorian IDRS participant sample was 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. Prevalence has not changed for three years: 51% reported experiencing a mental health problem in the past six months, the same as the proportion in 2013 and 2012 (51% each). These participants were asked to specify their mental health problem (multiple responses allowed for comorbidity). Among this group (n = 77), the prevalence of self-reported depression was 73% and the prevalence of anxiety was 48%, not significantly changed from 2013 (65% and 42% respectively). In 2014, the most commonly reported problems of lower prevalence were also very similar to 2013: schizophrenia (14%), bipolar affective disorder (9%) and PTSD (8%). Further, problems such as panic (10%) and paranoia (9%) were more commonly specified by participants in 2014 than in 2013.

Of the 77 participants who reported a recent mental health issue, in 2014 71% reported attending a health professional for their problem in the six months before interview, the same figure as reported in 2013. Participants in this group (n = 55) most commonly reported seeing a GP (64%), psychologist (29%) and a psychiatrist (27%), followed by a counsellor (15%) and mental health nurse (7%), very similar to the previous year. Among those who did not see a health professional (n = 22), the most commonly reported reason was 'other' (41%), with participants citing a range of qualitative influences: awaiting future appointments, fear, depression, and anxiety, perception that practitioners wouldn't take them seriously, or prescribe OST, and that help was unnecessary. The next most common reasons for not seeking help were service too busy/waiting list too long (14%), didn't think it was serious enough (14%) and don't know (9%).

In the six months before interview, 73% of those with a self-reported mental health problem reported being prescribed psychiatric medication. Multiple responses were allowed. Among these participants (n = 56), 70% (n = 39) reported being prescribed benzodiazepines for their mental health: typically diazepam (69%), followed by oxazepam (10%) and alprazolam (8%). Fifty-two per cent (n = 29) reported they were prescribed an antipsychotic: namely quetiapine (38%), olanzapine (31%), risperidone (7%) and haloperidol (7%). Fifty per cent (n = 28) reported they were prescribed anti-depressants. In this group, the most common medications were fluoxetine (18%), sertraline (18%), venlafaxine (14%) and desvenlafaxine (14%). Three participants were prescribed mood stabilisers.

6.7.1. Kessler Psychological Distress Scale (K10)

Given the high prevalence of mental illness is of 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 2014 the complete K10 was administered to 142 participants; among these, the mean score was 26.6 (SD 9.8, median 25, IQR18–33), higher than 2013 but failing to reach significance (mean 24.5, SD 9.1, $p = 0.053$). Levels of psychological distress among Victorian IDRS participants are shown in Table 17, from 2009 to 2014, compared with the 2007/08 NHS general population sample. According to the K10, the majority of participants in 2014 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. Compared with the NHS general population sample, IDRS participants have a significantly higher prevalence of psychological distress (68% vs. 10%, $p < 0.001$), very similar to findings in previous years (Table 17).

Table 17: Levels of psychological distress among Victorian IDRS participants, 2009–2014, compared with the 2007/08 NHS general population sample

	IDRS						NHS
	2009 (n=149)	2010 (n=143)	2011 (n=147)	2012 (n=144)	2013 (n=149)	2014 (n=142)	2007/08 (n=15,362)
Psychological distress (%)							
Low (10–15)	9	11	14	8	20	11	71
Moderate (16–21)	28	22	19	17	20	20	20
High (22–29)	32	33	30	33	34	31	7
Very high (30–50)	31	34	37	41	28	37	3

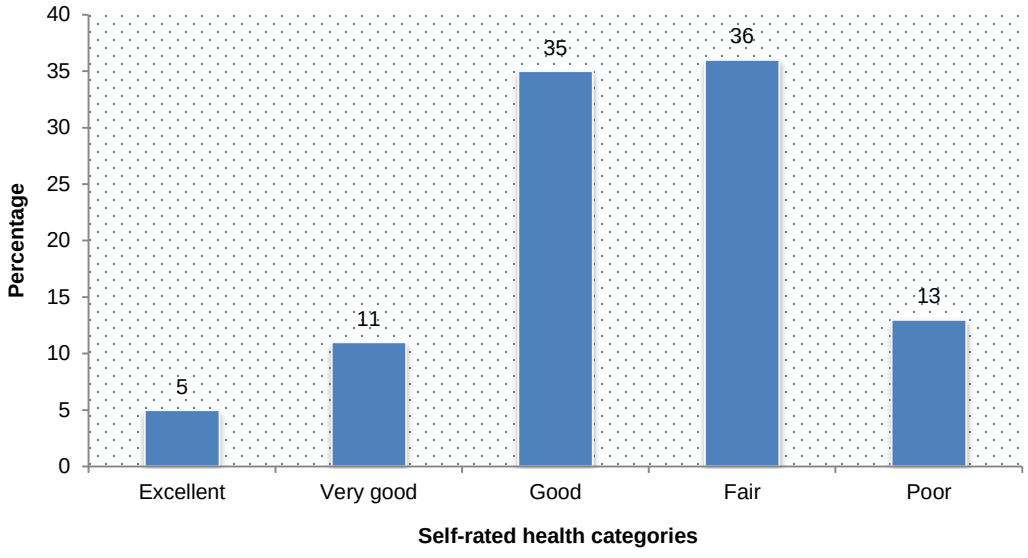
Source: IDRS participant interviews; ABS, 2010

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 2014, the 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 2014 are shown in Figure 32, with similar percentages rating their health as fair (36%) and good (35%).

Figure 32: Self-rated general health among 2014 Victorian IDRS participants, 2014



Source: IDRS participant interviews

7. Law-enforcement related trends associated with drug use

7.1. Criminal involvement

As per previous iterations of the IDRS, the 2014 sample was asked to provide information about their involvement in crime in the month preceding interview. Table 18 presents the self-reported prevalence of criminal involvement in the past month, from 2007 to 2014. In 2014, 47% (n = 54) of the sample reported that they were involved in a crime during the past month, higher than 2013 (36%) but failing to reach significance (p = 0.053) (Table 18).

Table 18: Percentage of participants reporting criminal involvement during the past month, Victoria, 2007–2014

	2007 (N=149)	2008 (N=150)	2009 (N=150)	2010 (N=150)	2011 (N=150)	2012 (N=150)	2013 (N=150)	2014 (N=150)
Property crime (%)	22	21	17	19	27	27	21	23
Drug dealing (%)	24	35	27	23	29	20	17	28
Fraud (%)	5	5	1	1	5	3	3	7
Violence (%)	7	3	7	8	7	3	5	7
Any crime (%)	**38**	**47**	**39**	**40**	**47**	**41**	**36**	**47**

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.

7.2. Arrests

In 2014, 43% of the sample reported an arrest in the 12 months preceding interview, similar to 2013 (39%, p = 0.481). Among these (n = 64), the main reason reported for arrest was property crime (44%), followed by use and/or possession of drugs (25%), violence (23%) and, to a lesser extent, fraud (9%) and use and/or possession weapons (8%). One health KE reported that police antagonism towards street-based PWID had apparently led to worse incidences of violence on the streets of an outer suburban central business district.

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 2012/13 financial year relating to heroin and other opioids, methamphetamine, cocaine and cannabis, sourced from the ACC's *Illicit Drug Data Report 2012–2013* (Australian Crime Commission, 2014). 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 2012/13. Victorian arrests accounted

for 49% of all heroin and other opioid-related arrests in Australia, slightly lower the previous period (53%). Between 2011/12 and 2012/13, Victorian consumer arrests relating to heroin and other opioids decreased slightly (54% to 57%) as a percentage of national arrests, as did Victorian provider arrests (47% to 41%). In Victoria, consumer arrests accounted for 74% 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, 2012/13

	Victoria (n)	Australia (N)	Percentage of national arrests (%)
Consumer arrests	902	1,678	54%
Provider arrests	315	776	41%
Total arrests	1,217	2,463	49%

Source: Australian Crime Commission, 2014

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 2012/13 financial year are detailed in Table 20. During the period, more than one-quarter of all Australian consumer and provider arrests for ATS occurred in Victoria (30% and 32%, respectively). As a percentage of national arrests, Victorian ATS-related consumer arrests increased from 27% in 2011/12 to 30% in 2012/13, as did provider arrests remained the same (27% to 32%). In Victoria, consumer arrests accounted for 74% 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, 2012/13

	Victoria (n)	Australia (N)	Percentage of national arrests (%)
Consumer arrests	4,993	16.595	30
Provider arrests	1,769	5,462	32
Total arrests	6,762	22,189	30

Source: Australian Crime Commission, 2014

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 2012/13 financial year. During the period, 18% of all Australian arrests relating to cocaine occurred in Victoria. As a percentage of national arrests, Victorian cocaine-related consumer arrests declined from 20% in 2011/12 to 17% in 2012/13, whereas provider arrests increased (17% vs. 21%). In 2012/13, consumer arrests for cocaine comprised 66% of all cocaine-related arrests in Victoria (Table 21).

Table 21: Consumer and provider arrests relating to cocaine, Victoria, 2012/13

	Victoria (n)	Australia (n)	Percentage of national arrests (%)
Consumer arrests	155	899	17
Provider arrests	80	380	21
Total arrests	235	1,282	18

Source: Australian Crime Commission, 2014

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 2012/13 financial year are shown in Table 22. During the period, 13% of all Australian cannabis-related consumer and provider arrests occurred in Victoria. As a percentage of national arrests, Victorian cannabis-related consumer arrests rose from 12% in 2011/12 to 13% in 2012/13, as did provider arrests (18% to 19%). Consumer arrests for cannabis comprised the overwhelming majority of cannabis-related arrests (87%) across Australia, and 82% of all cannabis-related arrests in Victoria (Table 22).

Table 22: Consumer and provider arrests relating to cannabis, Victoria, 2012/13

	Victoria (n)	Australia (n)	Percentage of national arrests (%)
Consumer arrests	6,768	53,829	13
Provider arrests	1,537	8,013	19
Total arrests	8,305	62,120	13

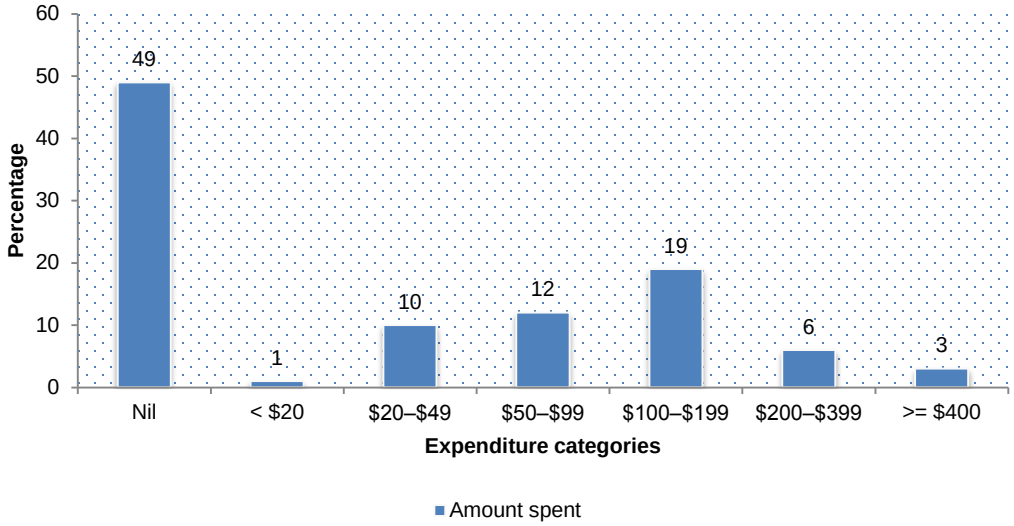
Source: Australian Crime Commission, 2014

Note: Arrest data for Victoria include Australian Federal Police data

7.3. Participants' expenditure on illicit drugs

In 2014, half (51%) of 2014 Victorian IDRS participants reported purchasing illicit drugs on the day before completing the survey. Participants' (n = 76) median reported spend on illicit drugs was $100 (IQR $60–$150). Figure 33 shows the distributions of participants' financial spend, with most (49%) reporting spending nothing on the day before interview. One-fifth reported spending between $100 and $199 on illicit drugs the day prior to interview (Figure 33).

Figure 33: Distribution of drug expenditure among all participants, day before interview, Victoria, 2014



Source: IDRS participant interviews

8. Special topics of interest

8.1. Naloxone

Naloxone (Narcan®), the short-acting opioid antagonist, has been used for over 40 years as the frontline medication to reverse the effects of heroin and other opioids, particularly in the event of overdose. In Australia, until recently, naloxone was only available for use by medical doctors, nurses and paramedics. In 2012, a THN program commenced in the Australian Capital Territory through which naloxone was made available to peers and family members of PWID as part of a comprehensive overdose response package (Canberra Alliance for Harm Minimisation and Advocacy, 2012). Shortly thereafter, a similar program began in NSW and more recently in other Australian jurisdictions such as Victoria. For more information about THN, please see www.naloxoneinfo.org.

In 2013, the IDRS included a series of questions to explore participants' knowledge of and attitudes to naloxone, and THN in particular. Given the ongoing implementation of THN programs in Australia, the same were included in the 2014 questionnaire to measure potential changes to knowledge. Participants' responses are detailed in Table 23. In 2014, 94% of the Victorian sample had heard of the opioid antagonist naloxone. Between 2013 and 2014, there was a significant increase in the percentage of participants who had heard of naloxone and who reported that it was used to reverse the effects of heroin (58% vs. 77%, $p < 0.001$).

Only 17% of Victorian participants had heard of THN at the time of interview in 2013, not surprising given that at the time of data collection Victorian programs were not yet implemented. However, in 2014 the percentage of Victorian participants who had heard of THN significantly increased to 52% ($p < 0.001$).

Participants were asked to indicate whether they had been resuscitated with naloxone by someone trained in THN programs after a recent overdose. Of these (n = 145), 65% reported they had not been resuscitated, 32% they had never overdosed and 3% reported resuscitation by someone trained in THN; 1% reported they were unsure. In 2014, 21% (n = 31) of participants reported they had been through a THN training course and received a prescription for naloxone. Of these participants, 26% (n = 8) reported that, since doing the course, they had used naloxone to resuscitate someone who had overdosed. The median number of people participants had attempted to resuscitate was seven (IQR 2–14).

Participants (n = 113) were asked what they would do if they witnessed someone overdose or found a suspected overdose. In 2014 the percentage reporting that they would call 000 was the same is in 2013, although 2014 participants were more likely to choose this response compared with other options. There was also a significant increase ($p < 0.001$) in the percentage of participants who reported preparedness to carry THN on their person, with 100% of 2014 participants who would participate in naloxone programs (n = 79) reporting that they would administer it someone in the event of an opioid overdose, versus 85% in 2013 (Table 23).

Table 23: Knowledge of and attitudes to take-home naloxone, Victoria, 2013–2014

	2013 (N = 150)	2014 (N = 147)
Heard of naloxone (%)	91	94
Description of naloxone* (%)	(n=136)	(n=132)
Reverses the effects of heroin	58	77
Helps someone start breathing	5	18
Re-establishes consciousness	47	40
Other	14	8
Heard of take-home naloxone programs (%)		
Yes	17	52
No	83	46
Unsure	0	2
Witness overdose* (%)	(N=150)	(n=113)
Turn victim on side	51	39
Mouth to mouth CPR	49	43
Call 000	96	95
Stay with victim	52	38
Other remedies (e.g. ice, shower, slap)	23	16
If available, would you* (%)	(N=150)	(n=78)
Carry naloxone if trained	77	94
Administer naloxone after witnessing overdose	85	100
Want peers to give you naloxone	86	98
Stay with someone after giving them naloxone	85	99

Source: IDRS participant interviews

* Multiple responses allowed.

8.2. Homelessness

People without shelter 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 among homeless populations throughout Western countries (Fazel, Khosla, Doll, & Geddes, 2008). The aim of this module was to obtain information on experiences of lifetime and recent homelessness among PWID via the IDRS participant sample. Definitions of homelessness included sleeping rough, time spent in crisis or emergency accommodation, time spent in medium or long-term accommodation, couch surfing with relatives, friends or acquaintances (due to nowhere else to live), boarding or rooming houses or pubs, hotels and hostels (other than holidaying) and caravan parks (other than holidaying).

In 2014, the lifetime prevalence of homelessness among Victorian IDRS participants was 91%, as detailed in Table 24. Forty per cent of participants with a history of homelessness (n = 136) were identified as chronic, long-term rough sleepers, given they reported sleeping rough or staying in emergency accommodation every day for at least six months for nowhere else to live. Thirty per cent of participants with a history who commented (n = 125) reported that they were homeless at the time of interview, significantly higher than the Australian general population estimate of 0.5% (Australian Bureau of Statistics, 2012). Among these (n = 37), the reported median duration of the current homelessness episode was 24 months (IQR 5.5–90 months).

The main factors participants attributed as contributing to their first homelessness episode are shown in Table 24; 124 participants provided information (multiple responses were allowed). The most

common factors reported were relationship breakdown with family (50%), drug use/dependence (38%) and financial difficulties (23%).

Among participants with a homelessness history, 53% reported being homeless for more than three years duration. Participants also reported heightened exposure to violence during the last six months of their most recent homeless episode, with approximately one-third reporting being stood over (35%), physically attacked (34%) and robbed (33%) during this time (Table 24).

Table 24: Homelessness among Victorian IDRS participants, 2014

	2014
Lifetime homelessness (%)	91
Self-reported factors relating to first homelessness episode (%)	**(n=124)**
Relationship breakdown (family)	50
Drug use/dependence	38
Financial difficulties	23
Mental health problems	15
Relationship breakdown (friends)	13
Unemployment	12
Domestic violence	11
Physical or sexual abuse	7
Alcohol use/dependence	6
Recent prison release	5
Disability	2
Gambling	2
Physical health	1
Length of time since last homelessness episode (%)	**(n=125)**
Nil, currently homeless	30
Past six months	8
Seven to 12 months	6
One to two years	17
Two to five years	16
More than five years	23
Lifetime total duration of homelessness (%)	**(n=125)**
Less than six months	17
Six to 11 months	8
One to two years	22
Three to five years	22
Six to 10 years	11
More than 10 years	20
Exposed to violence during last six months of homelessness (%)	**(n=89)**
Physically attacked	34
Stood over	35
Robbed	33
Mugged	21

Source: IDRS participant interviews

* Multiple responses allowed.

Table 25 shows participants' homelessness history by accommodation type. In their lifetime, homeless participants most commonly reported couch surfing (85%), rough sleeping (82%) and living in a boarding or rooming house (74%). In the six months preceding interview, homeless participants most commonly reported rough sleeping (26%) and couch surfing (26%), followed by living in a boarding or rooming house (18%). Fewer participants reported recent access to crisis or emergency accommodation (7%) or medium to long-term accommodation (5%, Table 25). Health KE noted the high level of unstable housing among some populations of PWID and the lack of effective residential services for this group. Developing decent transitional housing with clearly defined pathways from homelessness to public housing was suggested.

Table 25: Participants' homelessness history, by accommodation type, Victoria, 2014

	2014 (n=136)
Rough sleeping	
Lifetime (%)	82
Past six months (%)	26
Median age first episode (IQR)	17 (15–25)
Crisis or emergency accommodation	
Lifetime (%)	65
Past six months (%)	7
Median age first episode (IQR)	19 (16–30)
Medium to long term accommodation	
Lifetime (%)	33
Past six months (%)	5
Median age first episode (IQR)	21 (17–35)
Couch surfing	
Lifetime (%)	85
Past six months (%)	26
Median age first episode (IQR)	18 (15–26)
Boarding or rooming house	
Lifetime (%)	74
Past six months (%)	18
Median age first episode (IQR)	23 (18–31)
Caravan park	
Lifetime (%)	50
Past six months (%)	4
Median age first episode (IQR)	20 (16–28)

Source: IDRS participant interviews

8.3. Ageing

PWID are an ageing cohort. Developing a better understanding of the health issues people are facing is imperative. For this reason, the 2014 IDRS included a series of questions asking participants whether they had received a lifetime diagnosis of a chronic physical health condition and whether they had had the condition or received treatment for it during the preceding six months, presented in Table 26. Among the sample (n = 149), the most commonly diagnosed lifetime conditions were asthma (40%), respiratory disease (18%), gout, rheumatism or arthritis (16%) and skin disease (16%). With

regards to ageing, the chronic condition diagnosed at the oldest median age among participants (n = 7) was stroke (43 years) (Table 26).

Table 26: Ageing among Victorian IDRS participants, 2014

	2014 N=149
Asthma (%)	
Lifetime diagnosis	40
Had condition or received treatment for it in past six months (n=60)*	68
Median age first episode (IQR)	10 (5–20)
Cancer (%)	
Lifetime diagnosis	3
Had condition or received treatment for it in past six months (n=5)*^	40
Median age first episode (IQR)	30 (28–35)
Stroke (%)	
Lifetime diagnosis	5
Had condition or received treatment for it in past six months (n=7)*^	43
Median age first episode (IQR)	43 (25–48)
Heart and/or circulatory condition (%)	
Lifetime diagnosis	14
Had condition or received treatment for it in past six months (n=21)*	57
Median age first episode (IQR)	29 (20–38)
Gout, rheumatism and/or arthritis (%)	
Lifetime diagnosis	16
Had condition or received treatment for it in past six months (n=24)*	63
Median age first episode (IQR)	34 (22–45)
Diabetes or high blood sugar (%)	
Lifetime diagnosis	3
Had condition or received treatment for it in past six months (n=5)*^	60
Median age first episode (IQR)	33 (30–39)
Respiratory disease (%)	
Lifetime diagnosis	18
Had condition or received treatment for it in past six months (n=26)*	54
Median age first episode (IQR)	15 (10–31)
Skin problems (%)	
Lifetime diagnosis	16
Had condition or received treatment for it in past six months (n=24)*	50
Median age first episode (IQR)	13 (6–27)

Source: IDRS participant interviews

* Among participants with a lifetime diagnosis of the specified chronic condition

^ Fewer than 10 participants reporting, please interpret with caution

Participants were also asked to indicate the frequency with which they attended a health service within the preceding 12 months, as shown in Table 27. Among those who had visited a general practitioner in the past year (72%), the median number of visits was 12 (equating to monthly visits). Approximately two-thirds (66%) reported visiting an OST prescriber on a median of 12 days in the preceding 12 months (Table 27).

Table 27: Health service utilisation among participants in the preceding 12 months, Victoria, 2014

	2014 N=149
General practitioner (%)	**72**
Median days (IQR)	12 (5–12)
OST prescriber (%)	**66**
Median days (IQR)	12 (6–12)
AOD counsellor (%)	**32**
Median days (IQR)	12 (3–24)
Psychiatrist (%)	**20**
Median days (IQR)	4 (1–12)
Specialist (%)	**12**
Median days (IQR)	3 (1–6)
Psychologist	**24**
Median days (IQR)	6 (2–12)
Social or welfare worker	**34**
Median days (IQR)	10 (3–24)
Dentist	**28**
Median days (IQR)	2 (1–3)
Other health professional (%)	**11**
Median days (IQR)	4 (3–7)
Ambulance attendance (%)	**24**
Median days (IQR)	1 (1–2)
Hospital admission (%)	**25**
Median days (IQR)	2 (1–3)
Outpatient clinic (%)	**15**
Median days (IQR)	3 (1–4)

Source: IDRS participant interviews

8.4. Oxycodone

Over the past decade there has been a considerable rise in the prescribing of pharmaceutical opioids in Australia: between 1992 and 2012, the number of pharmaceutical opioid dispensing episodes in Australia increased 15-fold (Blanch, Pearson, & Haber, 2014). The rise in opioid prescriptions such as oxycodone has coincided with an increase in the extra-medical use of these medications among some groups of PWID. Extra-medical use includes tampering with medications (crushing, chewing, snorting, smoking, injecting or dissolving/drinking opioid medications intended for oral administration) to facilitate bioavailability of a larger quantity of the active ingredient, resulting in increased euphoric effects (Katz et al., 2011).

In response, pharmaceutical companies have started developing drug formulations that are less prone to tampering. Oxycodone is a semi-synthetic opioid agonist prescribed for the treatment of moderate to severe chronic pain. It is available in eight different products in Australia, with OxyContin® being the most frequently prescribed controlled release formulation. A new tamper resistant formulation of controlled release oxycodone hydrochloride tablets (reformulated OxyContin® (OP)) was released onto the Australian market in April 2014. While the tablets were designed to be bioequivalent to the original formulation, they instead employ a controlled release technology that

makes them difficult to crush and a hydro-gelling matrix so that a viscous gel forms if dissolved in water (Sellers, Perrino, Colucci, & Harris, 2013). Early US surveillance of the reformulation suggests reductions in misuse, street price and OxyContin® poisonings (Butler et al., 2013; Havens, Leukefeld, Deveaugh-Geiss, Coplan, & Chilcoat, 2014; Sellers et al., 2013; Severtson et al., 2013) .

Post-marketing surveillance of the new formulation is currently underway in Australia (Degenhardt et al., 2015), with early findings indicating a decline in national pharmacy sales of 80 mg OxyContin®, as well as decreases in prevalence of use and injection, and reduced street prices and attractiveness for misuse via tampering (Degenhardt et al., In Preparation; Larance et al., In Preparation).

Given the concerns regarding oxycodone and changes to the types of oxycodone available, the aim of the 2014 oxycodone module was to examine the use and misuse of available oxycodone products. Participants were asked about their use of the original OxyContin®, in addition to the reformulated OxyContin®, shown in Table 28.

Table 28: Lifetime and recent use of oxycodone (any form), Victoria, 2014

	N = 149 %
Lifetime oxycodone use (any form)	69
Recent use of oxycodone (any form)*	11
OxyContin® (original)	31
OxyContin® (reformulation)	12
Endone®	11
OxyNorm® tablets	3
OxyNorm® liquid	1
OxyNorm® solution	0
Targin®	3
Proladone®	1

Source: IDRS participant interviews

* Among participants who reported lifetime oxycodone use (n = 103)

Please refer to Degenhardt, Larance and colleagues for further information on patterns of use of oxycodone products following the introduction of reformulated OxyContin®, as monitored by the National Opioid Medications Abuse Deterrence (NOMAD) study (Degenhardt et al., In Preparation; Degenhardt et al., 2015; Larance et al., In Preparation).

8.5. 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 2014, 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 141 Victorian IDRS participants who reported the recent use of heroin and/or other opioids in 2014, as shown in Table 29. Among these, the mean SDS score was 7.3, not significantly different from the mean score in 2013 (7.6, p = 0.564), with 72% of recent heroin and/or opioid users meeting the cut-off for dependence. In 2014, mean SDS scores for women and men were similar. Participants who scored five or more on the SDS were asked to nominate the opioids their responses related to; 92 participants provided responses. Of these, 78% attributed their responses to heroin, 32% to methadone and 9% to buprenorphine-naloxone.

The SDS was also administered to 115 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 2014, compared with 4.2 in 2013 (p = 0.280). Thirty-six per cent of recent users scored 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, 100% nominated methamphetamine, 3% cocaine and 3% pharmaceutical stimulants.

Table 29: SDS scores among participants who reported recent opioid and/or stimulant use, Victoria, 2013

	Heroin and/or other opioids		Methamphetamine and/or other stimulants	
	2013 n=140	2014 n=141	2013 n=96	2014 n=115
Mean SDS score (SD)	**7.6 (4.4)**	**7.3 (4.3)**	**4.2 (9.1)**	**3.2 (3.6)**
Mean SDS score for men (SD)	7.8 (4.4)	7.2 (4.1)	3.9 (7.8)	3.0 (3.3)
Mean SDS score for women (SD)	7.1 (4.5)	7.8 (4.9)	5.1 (12.7)	3.7 (4.3)
Scored above cut-off* (%)	**74**	**72**	**34**	**36**
Men who scored above cut-off (%)	75	72	37	34
Women who scored above cut-off (%)	71	74	26	41

Source: IDRS participant interviews;

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

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. Subsequently, 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 2014 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. **Commissioning research to examine the prevalence and patterns of methamphetamine use**, injection and inhalation not only in Melbourne, but particularly in regional Victoria given recent media reports. 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 improvements in knowledge observed between successive Victorian IDRS samples from 2013 to 2014.

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