Australian Government
Australian Institute of Criminology

Statistical bulletin 03

ISSN 2206-7302

May 2017

Abstract | Illicit drug use costs Australia billions of dollars every year in lost productivity and healthcare and crime costs. This paper examines the demographics of methamphetamine users and their employment, education and health outcomes using data from the National Drug Strategy Household Survey, the Drug Use Monitoring in Australia program, the Alcohol and Other Drug Treatment Services data collection and the National Prisoner Health Data Collection. Across all data sources, methamphetamine users reported worse employment, education, housing and health outcomes than those who used other illicit drugs and those who did not use drugs. In the general population, this effect was more pronounced for crystal methamphetamine users than for users of other forms of methamphetamines.

Australian methamphetamine user outcomes

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The overall costs of serious and organised crime related illicit drug activity were estimated to be around $4.4b in 2013–14 (ACC 2015). This cost estimate takes into account health impacts of illicit drug use, money lost to the economy through international payments for illicit drug importation and lost output of drug users. Approximately 3.2 percent of the general population, or about one in 30 people aged over 14, reported recent illicit use of methamphetamines in the most recent published findings from the National Drug Strategy Household Survey (AIHW 2005). Since that time, there has been an increase in the use of crystal as the preferred form of the drug. Between 2007 and 2013, the proportion of methamphetamine users who most often used crystal methamphetamine increased from just over a quarter (27%) to half (50%; AIHW 2014). The total number of methamphetamine users has also risen in recent years, at least within particular sections of the population. From 2013 to 2014, according to the Illicit Drug Reporting System (IDRS), the number of injecting drug users who used methamphetamine rose six percentage points (55% in 2013 *cf* 61% in 2014; Stafford & Burns 2015).

There was an 11 percentage point increase in methamphetamine use by Australian police detainees, from 23 percent in 2011–12 to 34 percent in 2013–14 (Coghlan, Gannoni, Goldsmid, Patterson & Willis 2015), and a 13 percentage point increase in methamphetamine use by prison entrants, from 37 percent in 2012 to 50 percent in 2015 (AIHW 2015a). As the number of methamphetamine users, and crystal users in particular, increases, it can be expected that the impact of methamphetamine use on Australia will also rise.

Impact on the criminal justice system

Police detainees interviewed for the Drug Use Monitoring in Australia (DUMA) program were asked whether particular drugs had contributed to the offences for which they were detained. Using these data, 33 percent of crime could be attributed to methamphetamine use (Payne & Gaffney 2012); that is, of those police detainees who reported using methamphetamines in the 30 days prior to interview, one in three indicated methamphetamine use had contributed to the offences for which they were being detained by police. Of all police detainees interviewed, 6.2 percent attributed their offending to methamphetamines, regardless of whether they had used them in the previous month. Given that methamphetamine use in the Australian police detainee population has risen since 2012, it is important to examine whether more police detainees now attribute their offending to these drugs.

Impact on the healthcare system

The impact of methamphetamine use on the healthcare system is significant and includes ambulance costs, emergency department presentations, hospital admissions, mental health treatment and treatment and counselling for drug use. Between 2011–12 and 2012–13, ambulance attendance for incidents related to crystal methamphetamine use increased by 88 percent in metropolitan Melbourne and by almost 200 percent in regional Victoria (Lloyd, Matthews & Gao 2014). At the same time there was a significant increase in the proportion of cases co-attended by police (in both metropolitan and regional areas), and in cases where the patient was transported to hospital (in metropolitan regions). This suggests that ambulance attendance for methamphetamine use is becoming more resource-intensive, involving multiple frontline emergency services and hospital emergency departments. Hospital separations for amphetamine-related conditions have increased steadily since the 1990s and according to the most recently available data were at their highest in 2011–12, after a steep increase over the previous three years (Roxburgh & Burns 2013). Fatal overdoses in Victoria involving methamphetamines increased by 250 percent between 2010 and 2013 (Westmore et al. 2014).

This study

The Australian Institute of Criminology (AIC) and the Australian Institute of Health and Welfare (AIHW) collaborated to examine selected demographic characteristics and outcomes including education, employment, housing and the health of methamphetamine users in both the general population and the criminal justice system. The aim was to determine whether methamphetamine users, compared with other drug users and non-users, experienced worse outcomes and whether these outcomes were observed across different methamphetamine user groups. Data from four distinct datasets were examined: the National Drug Strategy Household Survey (NDSHS), the DUMA, the Alcohol and Other Drug Treatment National Minimum Data Set (AODTS NMDS) and the National Prisoner Health Data Collection (NPHDC).

Description of data sources

General population: NDSHS

The NDSHS collects information about tobacco, alcohol and other drug use among the general population. The survey began in 1985, and has been conducted every three years since 1995. The most recent survey was conducted in 2013 using a self-complete, drop-and-collect questionnaire. The 2013 NDSHS surveyed the Australian residential population aged 12 years or older. Households were selected using a multistage, stratified area random sample design. The sample was based on private dwelling households, so some people (such as homeless and institutionalised people) were not included in the survey. This is consistent with the approach taken in previous years.

In 2013, 48,879 in-scope households were contacted and a total sample of 23,855 questionnaires categorised as complete and useable—a 49 percent response rate. All data were weighted for probability of selection, which takes into account dwelling location, household size and the age and sex of the respondent.

For this report, those respondents who answered 'yes' to the question 'Have you used meth/amphetamine for non-medical purposes in the last 12 months?' were classed as recent methamphetamine users. The survey listed the following examples of methamphetamine: speed, ice, crystal, whizz, Ritalin, and pseudoephedrine-based cold and flu tablets taken for non-medical purposes.

Police detainees: DUMA

Established in 1999, the DUMA program collects criminal justice and drug use information from police detainees at police stations or watch houses in Perth, Adelaide, Brisbane, and in Sydney at Kings Cross and Bankstown every quarter. Demographic, alcohol and other drug use, and criminal offending data is collected via an interviewer assisted self-report survey. Urine samples are also collected biannually as an objective measure of licit and illicit drug use.

All police detainees present at the police station or watch house during data collection are eligible to participate, except if they:

- have been in custody for more than 96 hours;
- have been in a custodial setting within 48 hours prior to arrest;
- are highly intoxicated;
- are potentially violent;
- are mentally unfit; or
- require the assistance of an interpreter.

Data used in this report come from 2,232 adult detainees and were collected during the third and fourth quarters of 2014 and the first and second quarters of 2015. Police detainees who answered 'yes' to the question 'Have you used methamphetamine/speed/ice during the last 12 months?' were classed as recent methamphetamine users for this report.

Diverted to treatment: AODTS NMDS

The AODTS NMDS is a dataset administered by the AIHW that holds information on the treatment provided by publicly-funded alcohol and other drug (AOD) treatment agencies in Australia. Treatment is available to those seeking help for their own drug use or for someone else's drug use. People may be referred for treatment in a number of different ways, including self-referral, referral from other health agencies, and referral from a police or court diversion program. These diversion programs typically involve delaying the outcome of a criminal justice matter (such as charges) to allow the person to undergo treatment for alcohol or other drug use. The police or court outcome may then depend upon successful completion of the treatment program. Annual data are available from 2003–04 onwards.

People receive treatment for alcohol and other drug-related issues in a variety of other settings that are not in scope for the AODTS NMDS. These include services provided by not-for-profit organisations and private treatment agencies that do not receive public funding; hospitals; prisons, correctional facilities and detention centres; primary healthcare services; accommodation services; and those services which solely prescribe or provide opioid pharmacotherapy (these data are captured in the AIHW's National Opioid Pharmacotherapy Statistics annual data collection). In addition, agencies that provide substance-use services exclusively to Indigenous Australians are not included and their data are instead provided to the Online Services Report collection. Indigenous Australians are therefore not fully represented, which must be considered when interpreting any results relating to Indigenous Australians in treatment services.

In 2014–15, data were collected from around 850 AOD treatment services that provided treatment to about 115,000 people (AIHW 2016a). All data presented from the AODTS NMDS are taken from information about closed treatment episodes. Client information in the AODTS NMDS is derived from closed treatment episodes using a unique identifier. In both 2012–13 and 2013–14, clients in the AODTS NMDS attended an average 1.5 episodes of treatment. Clients were included in this report if they were treated for AOD use at least once during the year and had nominated amphetamines as the drug of greatest concern; in this context, 'amphetamines' includes methamphetamines. Data on the clients' usual method of administering the drug—which indicates the type of amphetamine used—are presented. Clients who either smoked or inhaled amphetamines were most likely to have used crystal amphetamine, or ice. Amphetamine users who ingested or snorted amphetamine probably used the powder form, or speed. For clients who injected amphetamines the type used is less clear, as base, crystal, powder and liquid forms can all be injected (AIHW 2015b). Data from the Illicit Drug Reporting System showed that nearly three-quarters (73%) of injecting drug users who had recently used methamphetamines nominated crystal methamphetamine as the form most commonly used (Stafford & Burns 2015). It can therefore be assumed that the majority of amphetamine users in this sample were methamphetamine users, as 54 percent reported smoking or inhaling the drug (likely to be crystal methamphetamine), and a further 25 percent reported they usually injected it.

Prison entrants: NPHDC

The NPHDC began in 2009 and is administered in prisons throughout Australia every three years. It provides information on:

- the health of prison entrants;
- health conditions managed by prison health clinics;
- medications taken by prisoners;
- the health and prison health clinic experiences of people due to be released from prison (prison dischargees); and
- the operation of prison health clinics (AIHW 2015a).

The NPHDC data presented in this report are self-reported data collected during an initial prison reception health assessment and focus on prison entrants.

The sample of prison entrants (n=805) discussed in this report were interviewed over a two-week period in March, April and May 2015. Prison entrants were classed as recent methamphetamines users in this report if they responded 'yes' to the question 'Have you used meth/amphetamines for non-medical purposes in the last 12 months?'.

Differences in definitions, scope and coverage of the data sources

As outlined, DUMA captures information on methamphetamines specifically; all other data sources (NDSHS, AODTS NMDS and NPHDC) address amphetamines—of which methamphetamine is a type—generally. In Australia, methamphetamine was the most common form of amphetamine consumed in 2013 (AIHW 2014). The term methamphetamine is used in this report for convenience. It is acknowledged that recent amphetamine use provides only an approximation of recent methamphetamine use.

Each data source collected data in different Australian jurisdictions. The NDSHS (general community) and AODTS NMDS (treatment) data are national. The NPHDC (prison entrants) data used in this report covers all states and territories in Australia except New South Wales, where data on recent illicit drug use for entrants were not provided in 2015. The DUMA program (police detainees) does not collect data in the Northern Territory, Victoria, Tasmania or the Australian Capital Territory. As illicit drug use varies across Australian jurisdictions, differences in the jurisdictional coverage should be considered when interpreting the report's findings. Differences in the timing of data collection should also be considered. NDSHS data were collected in 2013, AODTS and DUMA data in 2014–15 and NPHDC data in 2015.

Participation in the NDSHS, DUMA and NPHDC surveys is voluntary and confidential. The AODTS NMDS data is an administrative by-product, drawn from routine administrative data collected by the agencies according to established metadata standards.

Results

Key results from each data source are presented separately below.

General population: NDSHS

In 2013, around 1.3 million (7%) Australians aged 14 and older had used methamphetamines in their lifetime and about 400,000 (2.1%) had used them in the 12 months prior to the survey. Compared with those who had not used methamphetamines, recent users were more likely to be young, male, unemployed, single and childless, and less likely to come from the most socioeconomically advantaged areas (Table 1). These results were more pronounced among those recent users who mainly used crystal methamphetamine.

With crystal methamphetamine recently becoming the most commonly used form of methamphetamine in Australia, crystal methamphetamine users were more likely to be new users (that is, they began using methamphetamines in the three years prior). More than two-fifths (43%) of those who mainly used crystal methamphetamine were new users, compared with a third (33%) of all methamphetamine users. Those mainly using crystal methamphetamine were also more likely to use it frequently, with 26 percent using it at least weekly, compared with 16 percent of all methamphetamine users.

Crystal methamphetamine users were younger; 63 percent of users were aged 14–29, compared with 56 percent of those who used other forms of methamphetamine, and 26 percent of people who had never used methamphetamines. Similar proportions of those using crystal methamphetamine (62%) and those using other forms of methamphetamine (64%) were male, compared with about half (49%) of those who had never used methamphetamines. Crystal methamphetamine users were also less likely to live in regional areas (17%, compared with 25% who used a form other than crystal and 26% who had never used methamphetamines).

Crystal methamphetamine users were less likely to hold post-school qualifications, such as university degrees or TAFE certificates, than those who used other forms of methamphetamine (64% compared with 80%). Those who had never used methamphetamines were also less likely to have post-school qualifications (63%); however, this group includes more older people who are less likely to have such qualifications (AIHW 2014). Almost a fifth (18%) of crystal methamphetamine users were unemployed and looking for work, as were 12 percent of users of other forms of methamphetamine, compared with five percent of those who had never used methamphetamines.

The mental health outcomes of adult crystal and non-crystal methamphetamine users also differed. Crystal methamphetamine users were more likely than users of other forms of methamphetamines to report high or very high levels of psychological distress, according to the Kessler 10 (K10) scale (28%, compared with 22%), and to have been diagnosed or treated for a mental illness in the previous 12 months (31%, compared with 28%).

Table 1: Characteristics of meth/amphetamine users[a] in the general population, by main form used, people aged 14 years or older, 2013 (%)

Characteristic	Meth/amphetamine users[a]			
	Mainly used a form other than crystal	Mainly used crystal	All users	Never used
Gender				
Male	63.9	62.1	63.8	48.6
Female	36.1	37.9	36.2	51.4
Age group				
14–29	55.7	63.3	58.1	26.3
Education				
With post-school qualifications	79.6	64.3	72.1	63.1
Labour force status				
Currently unemployed/looking for work	12.0	18.3	13.8	4.9
Main language spoken at home				
English	93.6	97.0	95.0	87.5
Socioeconomic status				
4th or 5th quintile (most advantaged)	42.4	33.1	38.0	43.7
Remoteness				
Major cities	71.5	74.9	72.3	71.2
Regional areas (inner and outer regional)	25.0	17.2	21.8	26.2
Marital status				
Never married	54.9	67.8	60.5	24.7
Household composition				
Couple with or without dependent children	35.9	24.9	30.6	52.8
No dependent children	48.9	37.5	41.5	33.1
Frequency of use				
At least weekly	n.a.	25.5	15.6	n.a.
New user (previous 3 years)	n.a.	43.0	33.3	n.a.
Mental health issues[b]				
Recently diagnosed or treated for mental illness	27.5	31.2	25.6	n.a.
High or very high level of psychological distress	21.6	28.0	20.8	n.a.

a: In last 12 months, for non-medical purposes
b: Aged 18 years or over
Source: AIHW analysis of the 2013 NDSHS

Police detainees: DUMA

In 2014–15, 1,121 (50%) police detainees reported having consumed methamphetamines in the 12 months prior to interview, with 531 (24%) reporting the use of other types of drugs and 579 (26%) reporting no illicit drug use in the previous 12 months. The majority of each of these groups were men (82% of methamphetamine users and non-users, and 86% of other drug users; Table 2).

The age profiles of the groups varied somewhat. Methamphetamine users were generally younger than other drug users. Almost a quarter (23%) of detainees aged 45 or over were classed as non-users, compared with 12 percent of other drug users and eight percent of methamphetamine users. Other drug users (34%) were more likely to be aged 18–24 than methamphetamine users (24%) or non-users (24%).

Recent methamphetamine users reported lower educational attainment levels than other drug users and non-users. Just over half (54%) of methamphetamine users completed year 11 or 12, compared with 63 percent of other drug users and 69 percent of non-users. Methamphetamine users were also more likely to be unemployed (34% looking for work and 25% not looking for work) than those who used other drugs (31% and 17%, respectively) or non-users (24% and 13%). The proportion of detainees who had slept rough was substantially higher among methamphetamine users (15%) than among other drug users (9%) and non-users (5%).

Data on psychological distress were captured in the fourth quarter of 2014, using the K10 psychological distress scale. The majority of police detainees who completed the K10 instrument (n=206) reported high to very high levels of psychological distress. Among methamphetamine users, three-quarters (76%) reported high to very high levels of psychological distress, as did 85 percent of other drug users and 92 percent of non-users. The proportion of users reporting high to very high levels of psychological distress in the police detainee sample must be considered in light of the fact that arrest may have led to temporarily elevated distress levels. As a result, the data can be considered a measure of the distress felt by the detainee while in police custody. This may or may not reflect long-term and continuing distress associated with a mental illness (Forsythe 2013).

Using the method outlined in Payne and Gaffney (2012), the methamphetamine-crime attribution rate was calculated. In 2014–15, almost two-fifths (39%) of police detainees interviewed by the DUMA program self-reported consuming methamphetamines in the 30 days prior to their current detention by police. Of these users, 54 percent reported that methamphetamine use contributed to their current detention, compared with 33 percent in 2009. This equated to a total methamphetamine-crime attribution rate for all surveyed detainees of 21 percent in 2014–15, compared with six percent in 2009.

Table 2: Characteristics of police detainees by methamphetamine use[a], 2013–14 (%)			
Characteristic	Methamphetamine users	Other drug users	Non-users
Gender			
Male	82	86	82
Female	18	14	18
Age group			
18–24	24	34	24
45+	8	12	23
Education			
Completed Year 11 or 12	54	63	69
Labour force status			
Currently unemployed and looking for work	34	31	24
Currently unemployed but not looking for work	25	17	13
Homelessness			
Sleeping rough	15	9	5
Indigenous status			
Indigenous	22	21	17
Level of psychological distress			
High or very high	76	85	92
Moderate	20	13	6

a: In last 12 months for non-medical purposes
Source: AIC DUMA collection 2013–14 [computer file]

Diverted to treatment: AODTS NMDS

In 2014–15, 93,342 clients aged 18–54 received treatment for their own drug use and, of these, 25 percent (or 23,516) had been diverted from the criminal justice system into AOD treatment for drug or drug-related offences. Among these diversion clients, cannabis (47%), amphetamine (22%), alcohol (16%) and heroin (4%) were the most common principal drugs of concern (that is, the primary drug that led them to treatment).

Consistent with the demographics of those involved in the criminal justice system, diversion clients tended to be younger than non-diversion clients who received treatment for amphetamine use (Table 3). Diversion and non-diversion clients were similar in age; 26 percent and 24 percent, respectively, were aged 18–24 years. A higher proportion of diversion clients were male (75%) than non-diversion clients (67%). There were no differences between diversion and non-diversion clients in country of birth or main language spoken at home.

The majority (76%) of diversion clients who received AOD treatment for amphetamine as a principal drug of concern successfully completed their treatment episodes in 2014–15, either because their treatment was completed (57%) or their diversion program conditions had been met (19%). Non-diversion clients were less likely to successfully complete their treatment (48%). Non-diversion clients were more likely to cease treatment without notice (25%) than diversion clients (8%).

Table 3: Characteristics of clients aged 18–54 receiving treatment for amphetamine use, by diversion type, 2014-15 (%)

Characteristic	Diversion clients	Non-diversion clients	All clients
Age group			
18–24	25.8	24.0	24.4
Gender			
Male	74.5	66.8	68.8
Indigenous status			
Indigenous	8.3	13.6	12.2
Country of birth			
Australia	89.8	90.2	90.1
Main language spoken at home			
English	96.0	97.8	97.3
Treatment type			
Counselling	39.2	50.7	47.7
Assessment only	30.7	18.3	21.5
Reason for treatment ending			
Treatment completed	57.0	48.0	50.3
Conditions of diversion program or obligation met	19.1	0.6	5.4
Ceased to participate without notice	7.6	24.6	20.2

Source: AIHW 2015b; AIHW analysis of 2014–15 AODTS data

Prison entrants: NPHDC

Half (50%) of the 805 prison entrants in the 2015 data collection were classed as recent methamphetamine users. Recent methamphetamine users were generally younger than other prison entrants—two-thirds (67%) were aged 18–34, compared with 58 percent of those who had used other drugs or had not used drugs (Table 4). Methamphetamine users were less likely than other entrants to be Indigenous (18% cf 31%). Most prison entrants were men, regardless of their methamphetamine use (91% methamphetamine users cf 94% non-users).

Prison entrants who had recently used methamphetamines were slightly more likely than those who used other drugs, or did not use drugs, to be born in Australia (92%, 90% and 88%, respectively) and to speak English as their main language at home (95%, 92% and 85%).

The detention and prison histories of prison entrants who had used drugs, and methamphetamines in particular, were more extensive than those of other prison entrants. Prison entrants who reported recent use of methamphetamines (23%) or other types of drugs (23%) were more likely to have been in juvenile detention than those who reported no recent illicit drug use (15%). Where a history of juvenile detention did exist, it was more extensive for drug users, with eight percent of methamphetamine users and six percent of users of other drugs having been in juvenile detention at least five times, compared with two percent of those who reported no drug use. Similarly, prison histories were both more common and more extensive among those who reported recent methamphetamine use than among other drug users and non-users. Almost three-quarters (74%) of recent methamphetamine users had been in prison before, compared with 69 percent of other drug users and 64 percent of those who reported no drug use. Twenty-nine percent of methamphetamine users reported at least five previous prison stays, compared with 26 percent of other drug users and 22 percent of non-users. Half (50%) of those prison entrants who reported no recent drug use were entering prison on remand (awaiting trial or sentencing), compared with over three-fifths of those who had used methamphetamines (63%) or other drugs (62%).

Prison entrants who reported recent drug use were less likely than other prison entrants to have progressed beyond year 10 at school. Sixty-eight percent of methamphetamine users had completed year 10 or less, compared with 71 percent of other drug users and 60 percent of non-users. A higher proportion of methamphetamine users (39%) held a trade certificate than did those who used other drugs (24%) or did not use drugs (25%). This apparent anomaly may arise because a more extensive prison history affords methamphetamine users access to vocational education and training, or because younger entrants have had better access to education.

Prison entrants who reported no recent drug use were more likely to be employed full time (28%) than those who used methamphetamines (18%) or other drugs (19%). Drug users were twice as likely to be unable to work (14% of both methamphetamine and other drug users) than those who did not use drugs (7%).

Homelessness was more common among prison entrants who used methamphetamines. Eight percent reported sleeping rough immediately prior to entering prison, compared with five percent of prison entrants using other drugs and three percent of non-users.

Mental health issues were more common among those using drugs, and methamphetamines in particular, than entrants with no recent drug use. Prison entrants who reported the recent use of methamphetamines were more likely to have experienced high or very high levels of psychological distress over the prior 30 days, as measured by the K10 scale of psychological distress (36%) than those who used other drugs (31%) or who did not use drugs (22%). This may be related to the finding that entrants with previous prison experience are more distressed (AIHW 2015a). Recent users of methamphetamines (27%) or other drugs (28%) were more likely than non-users (20%) to report taking medication for a mental health condition, to rate their own mental health as fair or poor (36%, 31% and 18%, respectively), and to have a history of self-harm (26%, 21% and 16%, respectively).

For prison entrants, drug use was also associated with poor physical health, with 28 percent of methamphetamine users and 26 percent of other drug users rating their physical health as fair or poor, compared with 17 percent of non-users.

A history of head injury leading to loss of consciousness was more common among prison entrants who used methamphetamine (43%) than among those who used other drugs (36%) or who did not use drugs (22%). Ongoing symptoms such as personality or memory changes due to that injury affected a higher proportion of methamphetamine users (15%) and users of other drugs (16%) than non-users (6%).

Table 4: Characteristics of prison entrants by methamphetamine use[a], 2015 (%)

Characteristic	Methamphetamine users	Other drug users	Non-users
Gender			
Male	91	94	92
Age group			
18–34	67	58	58
45+	7	16	13
Indigenous status			
Indigenous	18	31	31
Education			
Completed Year 10 or below	68	71	60
Trade Certificate	39	24	25
Prison and juvenile detention history			
Previously been in juvenile detention	23	23	15
Previously been in juvenile detention at least 5 times	8	6	2
Previously been in prison	74	69	64
Previously been in prison at least 5 times	29	26	22
Currently on remand	63	62	50
Labour force status			
Employed full-time	18	19	28
Unable to work	14	14	7

Table 4: Characteristics of prison entrants by methamphetamine use[a], 2015 (%) cont.			
Characteristic	Methamphetamine users	Other drug users	Non-users
Homelessness			
Sleeping rough	8	5	3
Country of birth			
Australia	92	90	88
Main language spoken at home			
English	95	92	85
Health issues			
Taking mental health related medication	27	28	20
High or very high levels of psychological distress	36	31	22
Self-assessed mental health fair or poor	36	31	18
History of self-harm	26	21	16
Self-assessed physical health fair or poor	28	26	17
History of head injury leading to loss of consciousness	43	36	22
Still experiencing symptoms such as changes in memory or personality from previous head injury	15	16	6

a: In last 12 months for non-medical purposes
Source: AIHW 2015a

How were methamphetamines used?

There may be more experimental use of methamphetamines in the general community than among police detainees or prison entrants. The majority (52%) of methamphetamine users in the general community had used at least four different types of illicit drugs during the previous 12 months, compared with 20 percent of police detainees or prison entrants (Table 5). Police detainees (57%) and prison entrants (61%) were more likely to have used only one or two types of illicit drugs recently than those in the general community (31%). This suggests methamphetamine users in the criminal justice system are more likely to have an established drug of choice than those in the general population, who may be experimenting with many types of illicit drugs.

Table 5: Number of drug types used by methamphetamine users in the last 12 months, 2015

Number of drug types used	NDSHS		DUMA		NPHDC	
	Number	Percent	Number	Percent	Number	Percent
1	37,000	10	196	17	104	26
2	75,000	21	443	40	139	35
3	65,000	18	261	23	78	20
4 or more	191,000	52	221	20	78	20
Total	368,000	100	1,121	100	399	100

Sources: AIHW 2014, AIC DUMA collection 2013–14 [computer file], AIHW 2015a

The various groups also differed in their use of other types of drugs. Cannabis or marijuana was the other drug most commonly used—by almost three-quarters (72%) of methamphetamine users in the general population, 70 percent of police detainees and 58 percent of prison entrants (Table 6). Other drugs commonly used by methamphetamine users in the general population were stimulants (55% used ecstasy and 40% used cocaine), and hallucinogens (25%). Use of these drugs was less common among methamphetamine users in police custody (23% ecstasy, 21% cocaine and 14% hallucinogens) and prison entrants (14% ecstasy, 11% cocaine and 4% hallucinogens). Methamphetamine users in the criminal justice system were more likely to have also used heroin (18% of methamphetamine users in police custody and 13% of prison entrants) than those in the general community (2%).

Table 6: Other select drugs used by people who used methamphetamine in the last 12 months, 2015

	NDSHS		DUMA		NPHDC	
Substance used	Number	Percent	Number	Percent	Number	Percent
Cannabis/marijuana	264,000	72	785	70	233	58
Heroin	8,000	*2.3	197	18	52	13
Ecstasy	42,000	55	262	23	56	14
Cocaine	201,000	40	237	21	42	11
Hallucinogens	149,000	25	158	14	14	4
Inhalants	90,000	13	42	4	9	2
Steroids	48,000	*3.2	56	5	8	2
Total	368,000	100	1,121	100	399	100

* Estimate has a relative standard error of 25% to 50% and should be used with caution
Note: Columns will not sum to total because more than one drug type may have been used
Sources: AIHW 2014, AIC DUMA collection 2013–14 [computer file], AIHW 2015a

The various groups used methamphetamines in different ways. About half (49%) of methamphetamine users in the general population favoured ingesting or sniffing methamphetamines, usually speed; 40 percent smoked or inhaled crystal methamphetamine and another 10 percent injected the drug (probably crystal methamphetamine; see Table 7). Ingesting or sniffing amphetamines, or speed, was less common among users in either diversion (7%) or non-diversion (6%) treatment. Those in diversion treatment (58%) were most likely to smoke the drug, and the non-diversion treatment group were most likely to inject it (44%).

Table 7: Usual method of methamphetamine use of people who used methamphetamines or amphetamines, 2015

	NDSHS (2013)		Diversion treatment		Non-diversion treatment	
Method of use	Number	Percent	Number	Percent	Number	Percent
Ingests/sniffs (speed)	94,000	49.2	352	6.9	919	6.3
Smokes/inhales (crystal)	149,000	40.4	2,996	58.4	6,260	42.7
Injects	37,000	10.1	1,316	25.7	6,418	43.8
Total	368,000	100	5,127	100	14,654	100

Note: Totals include those where the method of use was unknown or not stated
Sources: AIHW 2014, AIHW 2015b

Discussion

Across all data sources, methamphetamine users reported worse employment, education, housing and health outcomes than those who used other illicit drugs and those who did not use drugs. In the general population, this effect was more pronounced for crystal methamphetamine users than for users of other forms of methamphetamines.

Demographics

Each of the data sources revealed that methamphetamine users were younger than other drug users and, in the general population sample, those who used crystal methamphetamine, in particular, were younger than those who used other methamphetamines. This may reflect that powder methamphetamine has, historically, been more widely available than crystal methamphetamine. Crystal methamphetamine is now the most commonly available form of methamphetamine in the Australian illicit drug market, so younger users may have tried only crystal methamphetamine. Older users may have been introduced to methamphetamine use by consuming powder forms and might retain a preference for this.

In the general population methamphetamine users, and crystal methamphetamine users in particular, were more likely to be men. This held true in the treatment sample, with men more likely to be diverted to treatment for methamphetamine use. This is consistent with the higher proportion of men than women in the criminal justice system (ABS 2016).

Results by Indigenous status were inconsistent across the population groups. Among police detainees, those using methamphetamines or other drugs were slightly more likely to be Indigenous than those who did not use drugs. Among prison entrants, however, methamphetamine users were less likely to be Indigenous than those who used other drugs or who did not use drugs. This may be because Indigenous methamphetamine users are diverted from prison to treatment by the criminal justice system. During 2014–15, Indigenous treatment services saw 25,200 clients for substance-use issues. Seventy percent of these services listed amphetamines among the five most common problem substances (up from 45% in 2013–14), and 69 percent of services received referrals from the criminal justice system (AIHW 2016b).

In the general population and among prison entrants, methamphetamine users—and crystal methamphetamine users in particular—were also more likely to be born in Australia and speak English as their main language at home.

Drug-attributable crime

Between 2009 and 2014–15, the methamphetamine-crime attribution rate for police detainees who reported having used methamphetamines in the previous 30 days increased from 33 percent to 54 percent; it was three and a half times higher overall (6% to 21%) for all detainees, regardless of drug use. This overall increase, and the increase among methamphetamine users, coincides with an increase in crystal methamphetamine use by amphetamine users.

Methamphetamine users and users of other types of illicit drugs were broadly similar in the extent of their juvenile detention histories. There were differences, however, in the prison detention histories of different user groups. Methamphetamine users were more likely to report previous incarceration and a more extensive prison history than other illicit drug users or non-users. As methamphetamine users and crystal methamphetamine users are generally younger than other drug users and non-users, their extensive prison histories are more likely to be recent—as opposed to older prison entrants whose prison histories may extend for a number of decades.

Education

Methamphetamine users had less positive educational outcomes, both scholastic and post-scholastic, than others. Methamphetamine users in both the police detainee sample and the prison entrant sample had completed a lower level of schooling than others. In the general community, crystal methamphetamine users were less likely than those who used other forms of methamphetamine to hold post-school qualifications. Prison entrants were the exception to this; those who used methamphetamines were more likely than others to hold a trade certificate. This may be related to the more extensive prison histories of methamphetamine users, since vocational education and training are available in prison.

Employment

Illicit drug users were, as expected, less likely to be employed than non-users. This was the case for the general population as well as police detainees and prison entrants. In the general population, crystal methamphetamine users, in particular, were more likely to be unemployed and looking for work. This suggests that the adverse impact illicit drug use has on gaining or maintaining employment is exacerbated by crystal methamphetamine use. With the use of crystal methamphetamine increasing, current loss of productivity due to methamphetamine use could be expected to exceed that previously observed, when the most common form was powder.

Housing

Crystal methamphetamine users in the general population sample, which was taken from a household survey, were more likely to be single with no children and less likely to live in socioeconomically advantaged areas than other methamphetamine users.

In the other sample groups, homelessness was more common among methamphetamine users than others; in both the police detainee and prison entrant samples, it was more common for methamphetamine users to have recently slept rough or in unconventional housing than it was for those using other drugs or not using drugs.

Health outcomes

The mental and physical health of methamphetamine users, and crystal methamphetamine users in particular, was generally poorer than that of those who used other illicit drugs or who did not use drugs. Poor health outcomes associated with illicit drug use were evident in the prison entrant sample, with those using any type of illicit drugs more likely to rate their physical health as poor, to be on medication for a mental health condition, or to suffer the ongoing symptoms (such as changes in memory or personality) of a previous head injury. The health outcomes of those who used methamphetamines were worse than those who used other types of illicit drugs. Methamphetamine users were more distressed, rated their mental health as worse, and were more likely to have histories of self-harm and head injuries leading to a loss of consciousness than those who used other types of illicit drugs or who did not use any drugs. Among methamphetamine users in the general community, crystal methamphetamine was associated with greater distress and a recent diagnosis of or treatment for mental illness.

An exception to these findings was found in the small sample of police detainees who were asked about their level of distress. Although most detainees reported a high level of distress, methamphetamine users were slightly less distressed than those who used other drugs or non-users. This may be because some methamphetamine users were under the influence of methamphetamine when detained by police. Intoxication or the effects of withdrawing from methamphetamine may have influenced the level of psychological distress these users experienced when arrested. Methamphetamine users in the general population had used, on average, a higher number of other illicit drugs than police detainees or prison entrants. Users in the general community were more likely to have used stimulants or hallucinogens and less likely to have used heroin than those in police custody or prison. This suggests methamphetamine users in the general population were engaged

in more experimental drug-taking than police detainees or prison entrants, who were more likely to have a drug of choice. This conclusion is supported by the findings on usual method of use, with half of those in the general community using powder, or speed, compared with those in treatment, who were more likely to inject crystal methamphetamine. Injecting and smoking methamphetamines are both associated with more frequent use, greater demand for treatment, more risky behaviour and other health and psychiatric consequences (McKetin et al. 2008).

Conclusions

Data from the NDSHS, DUMA, AODTS NMDS and NPHDC show that outcomes for methamphetamine users are less positive than those experienced by other illicit drug users and those who do not use drugs. This suggests that the impact on the Australian community in terms of lost productivity, health care and drug-attributable crime arising from methamphetamine use, and crystal methamphetamine use in particular, is higher than that arising from the use of other illicit drugs.

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General editor, *Statistical bulletin series*: Dr Rick Brown, Deputy Director, Australian Institute of Criminology. For a complete list and the full text of the papers in the *Statistical bulletin series*, visit the AIC website at: aic.gov.au

ISSN 2206-7302

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