Australian Government
Australian Institute of Health and Welfare

Alcohol and other drug treatment services in Australia 2016–17

AIHW

Australian Government
Australian Institute of Health and Welfare

DRUG TREATMENT SERIES
Number 31

Alcohol and other drug treatment services in Australia

2016–17

Australian Institute of Health and Welfare
Canberra
Cat. no. HSE 207

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This publication is part of the Australian Institute of Health and Welfare's Drug treatment series. A complete list of the Institute's publications is available from the Institute's website <www.aihw.gov.au>.

ISSN 2205-5088 (PDF)
ISSN 1447-6746 (Print)
ISBN 978-1-76054-383-9 (PDF)
ISBN 978-1-76054-384-6 (Print)

Suggested citation
Australian Institute of Health and Welfare 2018. Alcohol and other drug treatment services in Australia: 2016–17. Drug treatment series no. 31. Cat. no. HSE 207. Canberra: AIHW.

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Published by the Australian Institute of Health and Welfare

This publication is printed in accordance with ISO 14001 (Environmental Management Systems) and ISO 9001 (Quality Management Systems). The paper is sourced from sustainably managed certified forests.

Please note that there is the potential for minor revisions of data in this report. Please check the online version at <www.aihw.gov.au> for any amendments.

Contents

Acknowledgments

The authors of this report were Kristina Da Silva, Steve Glaznieks, Lachlan Facchini and Fiona Elliot from the Tobacco, Alcohol and Other Drugs Unit of the Australian Institute of Health and Welfare (AIHW). Matthew James, Moira Hewitt and David Whitelaw provided essential advice and guidance. The authors gratefully acknowledge the contributions, comments and advice of the Alcohol and Other Drug Treatment Services National Minimum Data Set Working Group.

The AIHW thanks the numerous alcohol and other drug treatment service agencies that provided data for this report. Without the cooperation of the staff in these agencies in each state and territory, this data collection and report would not be possible.

The Australian Government Department of Health provided funding for this report.

Thanks are extended to the data managers and staff in the following departments:

- Department of Health, Australian Government
- Ministry of Health, New South Wales
- Department of Health, Victoria
- Department of Health, Queensland
- Mental Health Commission, Western Australia
- Department of Health, South Australia
- Department of Health and Human Services, Tasmania
- Health Directorate, Australian Capital Territory
- Department of Health, Northern Territory.

Abbreviations

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
AOD	alcohol and other drugs
AODTS NMDS	Alcohol and Other Drug Treatment Services National Minimum Data Set
ASCDC	Australian Standard Classification of Drugs of Concern
ASGC	Australian Standard Geographical Classification
ASGS	Australian Statistical Geography Standard
NDS	National Drug Strategy
NMDS	National Minimum Data Set
NOPSAD	National Opioid Pharmacotherapy Statistics Annual Data
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
SA	South Australia
SA2	Statistical Area Level 2
SLK	statistical linkage key
Tas	Tasmania
Vic	Victoria
WA	Western Australia

Symbols

–	nil or rounded to zero

Supplementary tables referred to in this report (tables with the prefix ‘S’) are available for download from <https://www.aihw.gov.au/reports-statistics/health-welfare-services/alcohol-other-drug-treatment-services/data>.

Summary

Alcohol and other drug (AOD) treatment services across Australia provide a broad range of treatment services and support to people using drugs, and to their families and friends. This report presents information for 2016–17 about publicly funded AOD treatment service agencies, the people they treat, and the treatment provided.

1 in 170 people in Australia received treatment

Around 127,000 clients received treatment in 2016–17, a 7% rise since 2013–14 (119,000) when client data was first reported but a fall of 5% from the number recorded in 2015–16 (134,000). The number of clients in 2016–17 (127,000) equates to a rate of 600 clients per 100,000 people, or about 1 in every 170 Australians. About two-thirds of clients were male (66%), and just over half were aged 20–39 (55%).

Despite comprising only 2.7% of the population (aged 10 and over), 1 in 7 (15%) clients were Aboriginal and Torres Strait Islander. Indigenous Australians are more than 6 times more likely to receive AOD treatment than non-Indigenous Australians; 3,313 clients per 100,000 Indigenous Australians (aged 10 and over) received AOD treatment in 2016–17, compared with 507 clients per 100,000 non-Indigenous Australians.

Treatment agencies provided about 200,000 treatment episodes in 2016–17 (an average of 1.6 episodes per client) and 4 in 5 (80%) episodes ended within 3 months. Of those clients who received treatment in 2016–17, 4% also received treatment in 2014–15 and 2015–16.

Treatment episodes for amphetamines rose by 123% over 5 years

Alcohol, cannabis, amphetamines and heroin have remained the most common principal drugs of concern for clients since 2007–08. Nationally, alcohol was the most common principal drug of concern in 2016–17, accounting for 32% of episodes.

Over the 5-year period from 2012–13 to 2016–17, as a proportion of all treatment episodes, treatment for amphetamines almost doubled from 14% of episodes in 2012–13 to 26% in 2016–17, while the proportion of episodes where alcohol was the most common principal drug of concern decreased from 41% to 32%.

Looking at each of these drugs individually over the same period: the number of treatment episodes where amphetamines was the principal drug of concern increased by 123% (from 22,265 to 49,670 episodes); the number of cannabis treatment episodes increased by 15% (from 36,560 to 41,921 episodes); the number of heroin treatment episodes fell by 22% (from 12,817 to 9,988 episodes) and the number of alcohol treatment episodes fell by 2% (from 63,755 to 62,438 episodes).

The number of episodes for clients injecting and smoking or inhaling amphetamines has also increased, with more than twice as many clients smoking, injecting or inhaling in 2016–17 as in 2012–13 (Table SE.26). A client's usual method of administering their principal drug of concern can provide an indication of the form of drug that a client used, particularly for amphetamines. For example, those smoking (clients who report either smoking or inhaling amphetamines) will be using the crystal form, and those ingesting or snorting are most likely to be using the powder form.

For clients aged 30 and over, alcohol was the most common principal drug of concern, while for clients aged 10–29, cannabis was the most common.

In over 2 in 5 treatment episodes, clients reported more than 1 drug of concern

In over 2 in 5 (44%) treatment episodes, the client also reported additional drugs of concern. Nicotine and cannabis were the most common additional drugs of concern.

Counselling continues to be the most common type of treatment

Since 2007–08, the proportion of episodes for each main treatment type has remained fairly stable, with counselling, withdrawal management, and assessment only being the most common types of treatment. Counselling continues to be the most common main treatment type provided for clients (over one-third of episodes since 2007–08).

1 Introduction

Alcohol and other drug (AOD) treatment services assist people to tackle their problematic drug use through a range of treatments. Many types of treatment are available in Australia. Most aim to reduce the harm of drug use, while some use a structured drug-free setting with abstinence-oriented interventions to help prevent relapse and develop skills and attitudes that assist clients to make changes leading to drug-free lifestyles (AIHW 2011).

This report presents information for 2016–17 about publicly funded AOD treatment service agencies, the people they treat and the treatment provided. Between 2013–14 and 2016–17, the estimated number of clients who received treatment increased by 7% (from 118,760 clients to 127,404 in 2016–17, although the number of clients in 2016–17 fell from the estimated 133,895 clients reported in 2015–16). Of those clients who received treatment in 2016–17, over 1% (5,193) of clients also received treatment over the 4 collection years, from 2013–14 to 2016–17.

1.1 Drug use in Australia

Drug use can be either licit or illicit (see Glossary). Licit and illicit use of drugs is a significant issue in Australia, and has a substantial societal cost—in 2004–05, it cost an estimated $56 billion, of which $8 billion was for illicit drug use (Collins & Lapsley 2008). In 2011, treatment for illicit drug use—including amphetamines, cannabis, cocaine, ecstasy, or opioids—cost an estimated at $298 million (Smith et al. 2014).

The 2016 National Drug Strategy Household Survey found alcohol and tobacco to be the most common drugs used in Australia, with 77% of Australians aged 14 and over drinking alcohol in the previous 12 months, and 12% smoking tobacco daily (AIHW 2017). Nearly 1 in 5 (17%) people drank at levels that put them at increased risk of harm over their lifetime (more than 2 standard drinks per day on average), while one-quarter (26%) of people drank at least once a month at levels that put them at risk of accident or injury (more than 4 standard drinks in a session).

Some drugs are used much more often than others. Very few cocaine and ecstasy users used the drug as often as weekly (only about 2.0%–3.0%) but 1 in 5 meth/amphetamine users used the drug weekly or more often. Therefore, when examining the share of people in Australia using an illegal drug weekly or more often in 2016, meth/amphetamines was the second most commonly used illegal drug after cannabis.

Although less prevalent than the use of licit drugs, illicit drug use is still relatively common. In 2016, about 2 in 5 people (43%) aged 14 and over reported using illicit drugs in their lifetime, while 1 in 7 (16%) reported using illicit drugs within the previous 12 months (AIHW 2017). Cannabis was the most commonly used illicit drug—more than 1 in 3 (35%) Australians aged 14 and over had used cannabis in their lifetime, while 1 in 10 (10%) had used it in the previous 12 months. Ecstasy and hallucinogens were the second and third most common (11% and 9.4%, respectively) for lifetime use, while pain-killers (analgesics) for non-medical purposes and ecstasy were the second and third most common for recent use (3.6% and 2.2%, respectively).

1.2 National Drug Strategy

Australia has had a coordinated approach to dealing with alcohol and other drugs since 1985. The National Drug Strategy (NDS) 2017–2026 is the 7th and latest iteration of the

cooperative strategy between the Australian Government, state and territory governments and the non-government sector. It provides a framework that identifies national priorities relating to alcohol, tobacco and other drugs, guides action by governments—in partnership with service providers and the community—and outlines a national commitment to harm minimisation through balanced adoption of effective demand, supply and harm reduction strategies.

The NDS has an overarching approach of harm minimisation and encompasses 3 pillars, each with specific objectives (NDSC 2017):

- demand reduction, to prevent the uptake and/or delay the onset of use of alcohol, tobacco and other drugs; reduce the misuse of alcohol, tobacco and other drugs in the community; and support people to recover from dependence through evidence-informed treatment
- supply reduction, to prevent, stop, disrupt or otherwise reduce the production and supply of illegal drugs; and to control, manage and/or regulate the availability of illegal drugs
- harm reduction, to reduce the adverse health, social and economic consequences of the use of drugs, for the user, their families and the wider community.

Harm reduction actions in the strategy include (NDSC 2017):

- increasing access to pharmacotherapy demonstrated to reduce drug dependence and reduce the health, social and economic harms to individuals and the community arising from unsanctioned opioid use
- monitoring emerging drug issues to provide advice to the health, law enforcement, education and social services sectors for informing individuals and the community regarding risky behaviours
- developing and promoting culturally appropriate alcohol, tobacco and other drug information and support resources for individuals, families, communities and professionals coming into contact with people at increased risk of harm from alcohol, tobacco and other drugs
- providing opportunities for intervention among high prevalence or high risk groups and locations, including the implementation of settings-based approaches to modify risk behaviours
- enhancing systems to facilitate greater diversion into health interventions from the criminal justice system, particularly for Aboriginal and Torres Strait Islander people, young people and other at risk populations who may be experiencing disproportionate harm.

1.3 Alcohol and other drug treatment services

AOD treatment services assist people to tackle their drug use through a range of treatments. Treatment objectives can include reduction or cessation of drug use, as well as improving social and personal functioning. Treatment and assistance may also be provided to support the family and friends of people using drugs. Treatment services include detoxification and rehabilitation, counselling and pharmacotherapy, and are delivered in residential and non-residential settings.

In Australia, publicly funded treatment services for AOD use are available in all states and territories. Most of these services are funded by state and territory governments, while some are funded by the Australian Government. Information on publicly funded AOD treatment services in Australia, and the people and drugs treated, are collected through the Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS NMDS).

The AODTS NMDS is 1 of several NMDSs that collect data under the 2012 National Healthcare Agreement to inform policy and help improve service delivery (COAG 2012).

Other available data sources that support a more complete picture of AOD treatment in Australia include:

- the National Opioid Pharmacotherapy Statistics Annual Data collection <www.aihw.gov.au/reports/alcohol-other-drug-treatment-services/nopsad-2017>
- the National Hospital Morbidity Database <www.aihw.gov.au/reports/alcohol-other-drug-treatment-services/aodts-2015-16/notes#>
- the Online Services Report Database <www.aihw.gov.au/reports/alcohol-other-drug-treatment-services/aodts-2015-16/notes#>
- the Specialist Homelessness Services collection <www.aihw.gov.au/reports/alcohol-other-drug-treatment-services/aodts-2015-16/notes#>
- the National Prisoner Health Data collection <www.aihw.gov.au/prisoner-health>.

1.4 The AODTS NMDS

The AODTS NMDS contains information on treatment provided to clients by publicly funded AOD treatment services, including government and non-government organisations. Information on clients and treatment services are included in the AODTS NMDS when a treatment episode provided to a client is closed (see Glossary).

This report provides information on the following types of treatment:

- assessment only
- counselling, information and education only
- pharmacotherapy
- rehabilitation
- support and case management only
- withdrawal management (see Glossary).

The AODTS NMDS collects data about services provided to people who are seeking assistance for their own drug use, and those seeking assistance for someone else's drug use.

The AODTS NMDS does not contain a unique identifier for clients, and information about clients is collected at the episode level. In 2012–13, a statistical linkage key (SLK) was introduced to the collection. Although the SLK is not a unique identifier, it enables the number of clients receiving treatment to be estimated, while continuing to ensure their privacy. In previous reporting years, SLK data were not available for all clients, so an imputation strategy was developed to estimate the number of clients and enable reporting at the client level. Imputation was applied for the 2012–13, 2013–14 and 2015–16 collection years, because SLKs were missing for a high proportion of treatment episodes. The SLK reporting for 2012–13 contained a number of quality issues and is considered pilot analysis; this data is not included in trend analysis for client data. It is anticipated that the SLK will, in time, allow longitudinal analysis of data for AODTS clients once its quality reaches a sufficiently high standard and level of consistency. Further details on the imputation methodology are provided in Appendix B.

Data are collected by treatment agencies who forward these data to state and territory government health departments who extract required data according the specifications in the AODTS NMDS. Data are submitted to the AIHW annually for national collation and reporting.

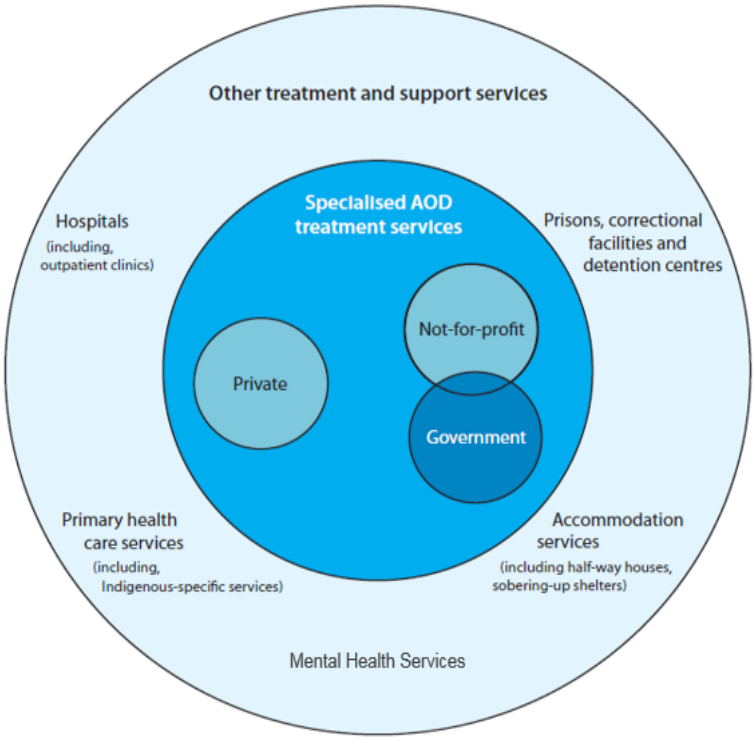
Coverage and data quality

Although the AODTS NMDS collection covers the majority of publicly funded AOD treatment services, including government and non-government organisations, it is difficult to fully quantify the scope of AOD services in Australia.

People receive treatment for alcohol and other drug-related issues in a variety of settings not in scope for the AODTS NMDS. These include:

- services provided by other not-for-profit organisations and private treatment agencies that do not receive public funding
- hospitals, including admitted patient services, outpatient clinics and emergency departments
- prisons, correctional facilities and detention centres
- primary health-care services, including general practitioner settings, community-based care, Indigenous-specific primary health-care services and dedicated substance use services
- health promotion services (for example, needle and syringe programs)
- accommodation services (for example, halfway houses and sobering-up shelters) (Figure 1.1).

In addition, agencies whose sole function is prescribing or providing dosing services for opioid pharmacotherapy are excluded from the AODTS NMDS. These data are captured in the AIHW's National Opioid Pharmacotherapy Statistics Annual Data collection available at <www.aihw.gov.au/reports/alcohol-other-drug-treatment-services/nopsad-2017/>.



Note: Those in scope for the AODTS NMDS are shaded darker.

Figure 1.1: Alcohol and other drug treatment and support services in Australia

Australian Government-funded primary health-care services and substance-use services aimed at Indigenous Australians are in scope for the AODTS NMDS. However, most of these agencies do not contribute to the collection, because they currently provide data to the Online Services Report collection. For the latest data, see <www.aihw.gov.au/alcohol-and-other-drugs/aodts/treatment-by-indigenous-health-organisations>.

In 2016–17, over 98% (836) of in-scope agencies submitted data to the AODTS NMDS. Overall, from 2015–16 to 2016–17, there was an increase of 5 percentage points in the proportion of in-scope agencies that reported to the collection. For the 2014–15 and 2015–16 reporting periods, sector reforms and system issues in some jurisdictions affected the number of in-scope agencies that reported. This led to an under-count of the number of closed treatment episodes reported for these years, so results, especially across reporting years, should be interpreted with caution.

Further details on scope, coverage and data quality is available from the AODTS NMDS Data Quality Statement at <http://meteor.aihw.gov.au/content/index.phtml/itemId/693818>.

1.5 Report structure

This report provides the following information:

- Chapter 1 ‘Introduction’ (this chapter) provides background information about AOD treatment services in Australia, the AODTS NMDS and the context in which these data are reported.
- Chapter 2 ‘At a glance’ provides an overview of findings from the 2016–17 AODTS NMDS.
- Chapter 3 ‘Agencies’ presents data on AOD treatment agencies.
- Chapter 4 ‘Drugs of concern’ provides information on the drugs for which people receive treatment.
- Chapter 5 ‘Treatment provided’ looks at the type of treatment provided, including the characteristics of clients and episodes, and the type and outcome of treatment.
- Appendix A ‘Data and methods’ provides information about the data.
- Appendix B ‘Imputation methodology for AODTS clients’ provides information about the method used to estimate the number of clients.
- The Glossary provides definitions of terms used in this report.

The following online information accompanies this report:

- Scope, coverage and data quality at <www.aihw.gov.au/about-our-data/our-data-collections/alcohol-other-drug-treatment-services/guidelines-for-aodts-data-submitters/>
- Data Quality Statement at <http://meteor.aihw.gov.au/content/index.phtml/itemId/693818>
- State and territory summaries at <https://auth.aihw.gov.au/reports/alcohol-other-drug-treatment-services/aodts-2016-17-state-territory-summaries/contents/summary>
- Supplementary data tables (those with a prefix of ‘S’ referenced throughout the report) at <https://www.aihw.gov.au/reports-statistics/health-welfare-services/alcohol-other-drug-treatment-services/data>
- Interactive data displays at < https://www.aihw.gov.au/reports-statistics/health-welfare-services/alcohol-other-drug-treatment-services/data >.

2 At a glance

This chapter provides an overview of results from the AODTS NMDS for 2016–17.

In 2016–17:

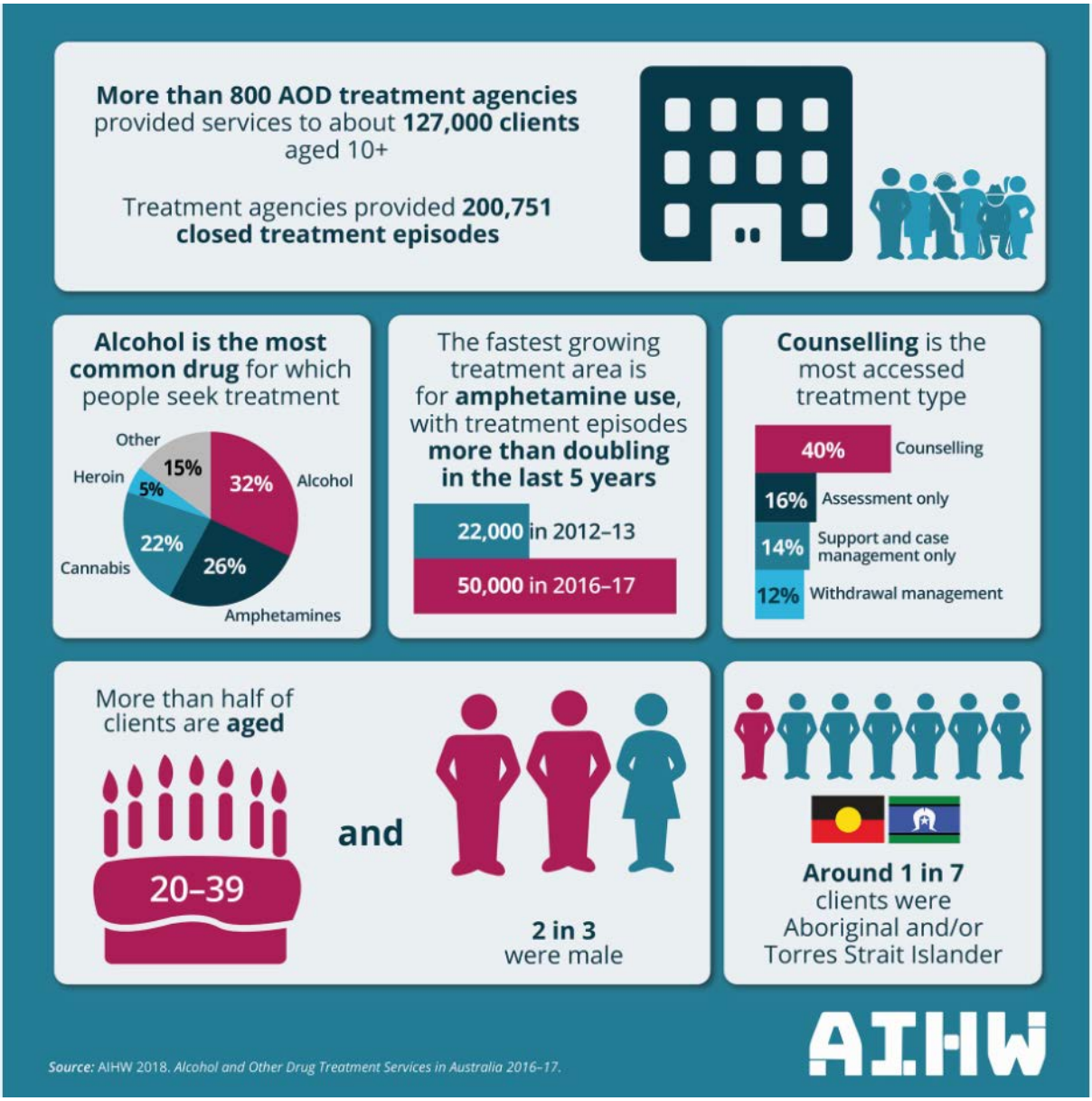


Figure 2.1: Alcohol and other drug treatment services key facts at a glance

2.1 Agencies

In 2016–17, a total of 836 publicly funded AOD treatment agencies provided data about services for clients seeking treatment services, an increase of 21% over the 5-year period from 2012–13.

Over half (58%) of treatment agencies were non-government, and these agencies provided over two-thirds (70%) of closed treatment episodes. Nationally, over half (58%) of treatment agencies were located in *Major cities*, and over one-fifth (22%) were in *Inner regional* areas. Relatively few agencies were located in *Remote* or *Very remote* areas (4% and 3% respectively) (tables SA.1–SA.3).

2.2 Clients

In 2016–17, an estimated 127,404 clients aged 10 and over received 200,751 closed treatment episodes from publicly funded AOD treatment agencies across Australia (Table 2.1). This equates to 600 clients per 100,000 people in 2016–17, compared with 585 clients per 100,000 in 2013–14 (Table SC.21).

Between 2013–14 and 2016–17, the estimated number of clients rose from 118,760 to 127,404, an overall increase of 7% but a fall of 5% from 2015–16 (Table 2.1). Despite comprising only 2.7% of the population aged 10 and over, 1 in 7 (15%) clients were Aboriginal or Torres Strait Islander. Indigenous Australians were 6.5 times more likely to seek AOD treatment than non-Indigenous Australians. This is a rate of 3,313 clients per 100,000 Indigenous Australians, compared with 507 clients per 100,000 non-Indigenous Australians (tables SC.21 and SC.26).

Clients' own drug use and someone else's drug use

Clients can receive treatment for their own or someone else's drug use (see Glossary). In 2016–17, around 122,413 clients received treatment for their own drug use, and around 5,952 received treatment in relation to someone else's drug use (Table 2.1).

A small proportion (less than 1%) of clients received treatment for their own drug use and received treatment for someone else's drug use in 2016–17.

In 2016–17, clients seeking treatment for their own drug use received an average of 1.6 treatment episodes (Table 2.1), while those receiving treatment for someone else's drug use received an average of 1.3 episodes.

Client profile

Of all clients receiving treatment, around 2 in 3 (66%) were male, and around 1 in 7 (15%) were Indigenous. These proportions were similar for clients receiving treatment for their own drug use, but clients receiving treatment for someone else's drug use were more likely to be female (66%), and less likely to be Indigenous (11%) (tables SC.2–SC.4).

Table 2.1: Clients[a], treatment episodes and rates, by client type and state and territory, 2016–17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Own drug use				
Number of episodes	37,090	63,911	43,192	22,857	11,502	3,252	6,202	5,025	193,031
Number of clients	24,192	31,862	33,012	16,669	8,338	2,298	3,799	3,216	122,413
Episodes per client	1.5	2.0	1.3	1.4	1.4	1.4	1.6	1.6	1.6
Rate of episodes[b] (per 100,000 population)	546	1,172	1,020	1,027	762	712	1,761	2,421	909
Rate of clients[b] (per 100,000 population)	356	585	779	749	552	503	1,079	1,549	576
					Other's drug use				
Number of episodes	907	3,239	1,204	1,526	163	137	187	357	7,720
Number of clients	725	2,498	572	1,460	133	118	177	270	5,952
Episodes per client	1.3	1.3	2.1	1.0	1.2	1.2	1.1	1.3	1.3
Rate of episodes[b] (per 100,000 population)	13	59	28	69	11	30	53	172	36
Rate of clients[b] (per 100,000 population)	11	46	14	66	9	26	50	130	28
					Total				
Number of episodes	37,997	67,150	44,396	24,383	11,665	3,389	6,389	5,382	200,751
Number of clients	24,865	33,610	33,541	18,099	8,463	2,401	3,949	3,459	127,404
Episodes per client	1.5	2	1.3	1.3	1.4	1.4	1.6	1.6	1.6
Rate of episodes[b] (per 100,000 population)	559	1,232	1,048	1,096	772	742	1,814	2,593	945
Rate of clients[b] (per 100,000 population)	366	617	792	814	560	526	1,121	1,666	600

(a) Client numbers based on client records with a valid SLK. No imputation applied for 2016–17.

(b) The crude rate is based on the preliminary Australian estimated resident population as at 31 December 2016.

Sources: Tables SC.21 and SC.27.

Age

Clients receiving treatment for their own drug use tended to be younger, on average, than those receiving treatment for someone else's drug use. In 2016–17, clients aged 20–39 represented over half (56%) of clients receiving treatment for their own drug use, but only about one-quarter (26%) of clients receiving treatment for someone else's drug use. Clients aged 40 and over represented nearly one-third (31%) of clients receiving treatment for their own drug use, compared with over half (59%) of clients receiving treatment for someone else's drug use (tables SC.2–SC.3).

Over the 10 years to 2016–17, the proportion of treatment episodes for clients who were aged 20–29 fell from 31% to 28%, while the proportion for those aged 40 and over rose from 28% to 33%, and remained stable for those aged 10–19 and 30–39 (Table SE.5).

From 2007–08 to 2016–17, the median (midpoint) age for all closed treatment episodes rose slightly, from 32 to 33 years. Similarly, for treatment episodes for clients seeking treatment for their own use, the median age also rose slightly from 32 years in 2007–08 to 33 years in the same period. For treatment episodes related to another's drug use, clients were generally

older over the 10-year period, with the median age fluctuating from 42 in 2007–08 down to 39 in 2014–15 and up to 44 in 2016–17 (Table SE.8).

Australia has an ageing population and therefore the absolute numbers of older Australians with AOD issues is expected to increase (Dowling et al. 2008). Further, Gossop (2008) estimated that, internationally, the number of older people needing treatment for AOD issues would double between 2000 and 2020. Although the demographic profile of clients receiving treatment from publicly funded AOD services has changed little since 2003–04, in recent years the age profile of people receiving treatment suggest that there is an ageing cohort of AOD clients.

Indigenous status

Despite comprising only 2.7% of the Australian population aged 10 and over in 2016–17, 15% of all clients were Aboriginal or Torres Strait Islander people (ABS 2016). This varied by client type—about 1 in 7 (15%) clients receiving treatment for their own drug use, and 11% of clients receiving treatment for someone else's drug use were Indigenous (Table SC.4).

The main drugs that led clients to seek treatment were alcohol, amphetamines, cannabis, heroin and volatile solvents. This was similar for both Indigenous and non-Indigenous clients, with the exception of volatile solvents (Table SC.8).

Country of birth and preferred language

The majority of closed treatment episodes were for clients born in Australia. While 72% of the general population was born in Australia (ABS 2017), 87% of treatment episodes were provided to clients who were born in Australia.

Clients receiving treatment that were born in countries other than Australia represented only a small proportion of all clients, with New Zealand and the United Kingdom being the next most common countries of birth (both 2%) (Table SE.9). Comparatively, as at 30 June 2016, 5% of the Australian population were born in the United Kingdom and 2.5% in New Zealand (ABS 2017).

English was the most frequently reported preferred language (93% of treatment episodes) among clients (Table SE.10).

Further information on clients is provided in Chapters 4 and 5.

2.3 Drugs of concern and treatment provided

In 2016–17, AOD treatment services provided a total of 200,751 closed treatment episodes (see Box 4.1), decreasing by 2.7% from 2015–16 (206,395 episodes). The majority (96%) of closed treatment episodes provided in 2016–17 were for clients receiving treatment for their own drug use (Table SE.1).

In 2016–17, the most common principal drugs of concern (the primary drug leading someone to seek treatment, see Box 4.1) were alcohol (32% of episodes), amphetamines (26%), cannabis (22%) and heroin (5%). Since 2012–13, the proportion of episodes where alcohol was the principal drug of concern has decreased from 41% to 32%, while the proportion of episodes for amphetamines increased from 14% to 26% (Table SE.11).

In almost half (44%) of closed treatment episodes, the client also reported additional drugs of concern. One-quarter (25%) had 1 additional drug of concern, 12% had 2 drugs, and 1% had 5 drugs. Nicotine (18%) and cannabis (17%) were the most common additional drugs of concern (tables SD.6 and SD.8).

Since 2007–08, the proportion of closed treatment episodes for each main treatment type (see Box 4.1) remained relatively stable. Counselling continues to be the most common main treatment type provided (comprising around 2 in 5 episodes since 2007–08). However, since 2012–13, assessment only has replaced withdrawal management as the next most common (Table ST.2).

In 2016–17, the majority of treatment episodes for clients receiving treatment for their own drug use were provided by non-residential treatment facilities (66%), followed by residential treatment facilities and outreach settings (both 13%) (outreach includes any public or private location where services are provided away from the main service location, or a mobile service). Episodes provided for the most common principal drugs of concern (alcohol, amphetamines, cannabis and heroin) were most likely to be provided by non-residential treatment facilities (89% of episodes) (Table SD.12).

In 2016–17, nearly 4 in 5 (80%) closed treatment episodes ended within 3 months. Almost one-third (30%) of closed treatment episodes ended within 1 day, and over one-quarter (26%) ended within 1 month. Only 7% of closed treatment episodes lasted 6 months or longer. Nationally, the median duration of closed treatment episodes in 2016–17 was almost 3 weeks (20 days) (tables SE.21 and SE.22).

3 Agencies

The Australian Government and state and territory governments fund both government and non-government organisations to provide a range of AOD treatment services (see Glossary). Services are delivered in residential and non-residential settings, and include treatment such as detoxification, rehabilitation, counselling and pharmacotherapy.

The AODTS NMDS contains information on a subset of publicly funded AOD treatment services (see Section 1.4 for details of agencies that are excluded).

Box 3.1: Agencies key facts

In 2016–17:

- a total of 836 publicly funded agencies provided data about their treatment services to the AODTS NMDS
- nearly 3 in 5 (58%) agencies were non-government
- more than half (58%) of agencies were located in *Major cities.*

Over the 5-year period to 2016–17:

- the number of publicly funded agencies providing AOD treatment increased by 17%.

3.1 Number of agencies

In 2016–17, 836 publicly funded AOD treatment agencies reported to the AODTS NMDS, an increase of 5% since 2015–16. The number of agencies per state and territory ranged from 15 in the Australian Capital Territory to 318 in New South Wales (Table SA.1).

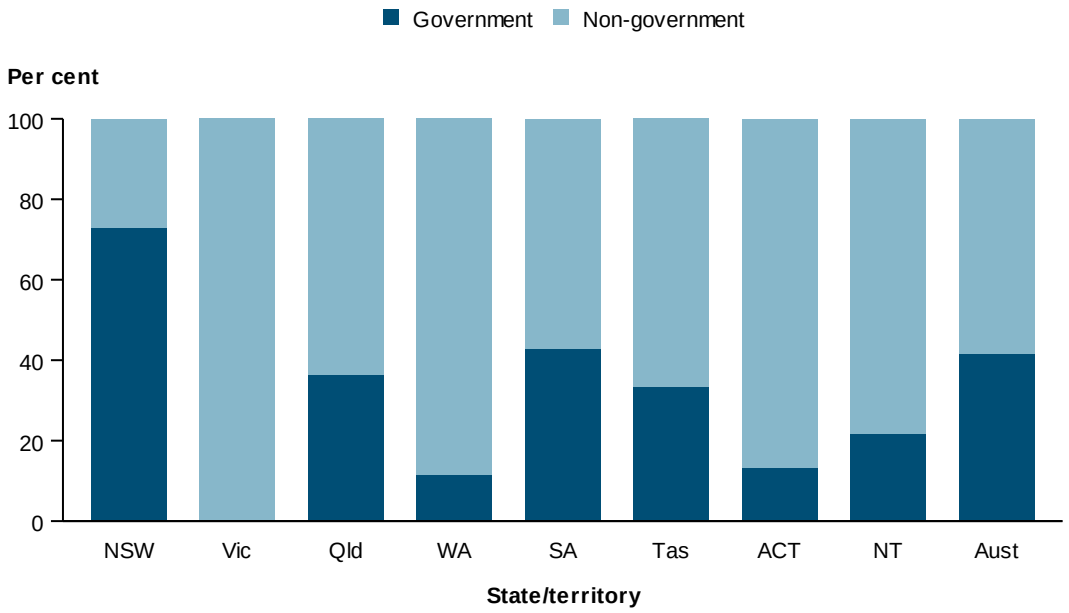
Over the 5-year period to 2016–17, there has been a 17% increase in the number of reporting agencies (from 714 to 836). This rise has largely been driven by increases in the number of reporting agencies in New South Wales (from 245 to 318), Queensland (from 133 to 168) and Western Australia (from 68 to 87) (Table SA.1).

A number of issues can affect agency reporting within jurisdictions either increasing or decreasing numbers. These include: new client management systems improving data provision; technical issues with new or old reporting systems; overburden of reporting on small agencies; and changing reporting from the head-office level to the service outlet level—increasing the number of agencies within 1 organisation. Most jurisdictions report that they are continuing to work to improve the coverage and quality of data supplied by agencies.

3.2 Service sector

Nationally, in 2016–17, almost 3 in 5 (58% or 488) AOD treatment agencies were non-government, and these agencies provided over two-thirds (70% or 139,991) of closed treatment episodes (Figure 3.1). Over the 10-year period to 2016–17, the proportion of non-government agencies has increased (from 50% to 58%), along with the proportion of closed treatment episodes also provided by non-government agencies (from 52% to 70%) (tables SA.1–SA.2).

In New South Wales, the majority of treatment agencies were in the government sector (73%). In the remaining states and territories, most treatment agencies were in the non-government sector, ranging from 57% in South Australia to 100% in Victoria.



Source: Table SA.1.

Figure 3.1: Publicly funded AOD treatment agencies by service sector, states and territories, 2016–17

3.3 Remoteness area

Nationally, in 2016–17, over half (58% or 488) of the treatment agencies were located in *Major cities* and over one-fifth (22%) were in *Inner regional* areas. These agencies provided 71% and 16% of all treatment episodes, respectively (Table SA.4). Relatively few agencies were located in *Remote* and *Very remote* areas (7% in total). This pattern was similar across most states and territories, except for Northern Territory where 35% of agencies were located in *Remote* and 22% in *Very remote* areas (Table SA.3).

4 Drugs of concern

4.1 Introduction

People may seek AOD treatment services due to problematic use of 1 or more drugs. For most people, however, there is a single drug that is of most concern for them, and therefore the focus of the treatment they receive. This is referred to as their principal drug of concern. Clients can also report other drugs of concern (referred to as additional drugs of concern). Information on clients and treatment agencies are included in the AODTS NMDS when a treatment episode provided to a client is closed (Box 4.1).

Box 4.1: Key terminology

Closed treatment episode

A treatment episode is considered closed where any of the following occurs: treatment is completed or has ceased; there has been no contact between the client and treatment provider for 3 months; or there is a change in the main treatment type, principal drug of concern or delivery setting.

Treatment episodes are excluded from the AODTS NMDS for a reporting year if they:

- are not closed in the relevant financial year
- are for clients who are receiving pharmacotherapy (through an opioid substitution therapy program) and not receiving any other form of treatment that falls within the scope of the collection
- include only activities relating to needle and syringe exchange
  or
- are for a client aged under 10.

Drugs of concern

The *principal drug of concern* is the main substance that the client stated led them to seek treatment from the AOD treatment agency. In this report, only clients seeking treatment for their own substance use are included in analyses of principal drug of concern. It is assumed that only substance users themselves can accurately report principal drug of concern; therefore these data are not collected from those who seek treatment for someone else's drug use.

Additional drugs of concern refer to any other drugs the client reports using in addition to the principal drug of concern. Clients can nominate up to 5 additional drugs of concern.

All drugs of concern refer to all drugs reported by clients, including the principal drug of concern and any additional drugs of concern.

Reasons for cessation

The reasons for a client ceasing to receive a treatment episode from an AOD treatment service include:

- *expected cessation:* episodes where the treatment was completed, or where the client ceased to participate at expiation or by mutual agreement
- *unexpected cessation:* episodes where the client ceased to participate against advice, without notice or due to non-compliance
- *administrative cessation:* episodes that ended due to a change in main treatment type, delivery setting or principal drug of concern, or where the client was transferred to another service provider.

(continued)

Box 4.1 (continued): Key terminology

Treatment types

Treatment type refers to the type of activity used to treat the client's alcohol or other drug problem. Rehabilitation, withdrawal management (detoxification) and pharmacotherapy are not available for clients seeking treatment for someone else's drug use.

The *main treatment type* is the principal activity that is determined at assessment by the treatment provider to be necessary for the completion of the treatment plan for the client's alcohol or other drug problem for their principal drug of concern. One main treatment type is reported for each treatment episode. 'Assessment only', 'support and case management only' and 'information and education only' can only be reported as main treatment types, with no additional forms of treatment provided.

Other treatment types refer to other treatment types provided to the client, in addition to their main treatment type. Up to 4 additional treatment types can be reported.

Note that Victoria and Western Australia do not supply data on additional treatment types. In these jurisdictions, each type of treatment (main or additional) results in a separate episode.

Box 4.2: Key facts

In 2016–17:

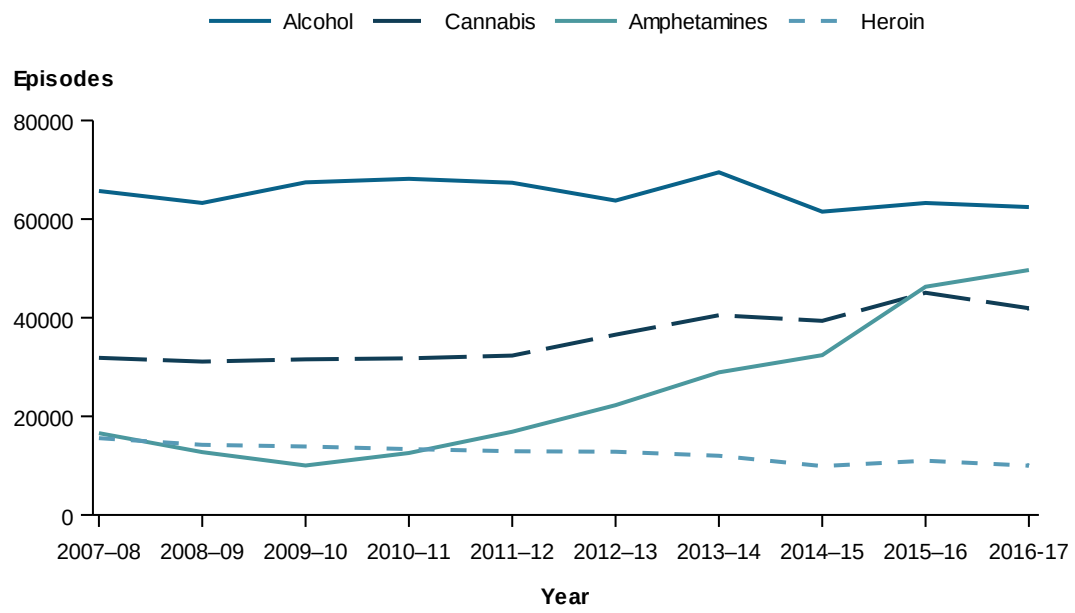
- nationally, alcohol was the most common principal drug of concern, accounting for 32% of episodes
- after alcohol, amphetamines (26%), cannabis (22%) and heroin (5%) were the next most common principal drugs of concern—together, these 4 drugs accounted for 85% of all treatment episodes
- closed treatment episodes for amphetamines increased in all jurisdictions, overtaking alcohol as the top drug of concern in South Australia and Western Australia over the last 2 years
- treatment for alcohol as a principal drug of concern was most common in *Very remote* areas (64% of all treatment episodes) compared with 30% of treatment episodes in *Major cities* (30%)
- Cannabis was the most common principal drug of concern for clients aged 10–29, while alcohol was the most common for clients aged 30 and over
- clients whose principal drug of concern was heroin generally spent longer in treatment—the median duration of episodes was 39 days, compared with 19 days for all treatment episodes.

Over the 5-year period to 2016–17:

- the top 4 principal drugs of concern have remained consistent, although from 2015–16, amphetamines replaced cannabis as the second most common principal drug of concern
- the trend in the top 4 principal drugs of concern has been consistent for both Indigenous and non-Indigenous clients
- the number of closed treatment episodes where amphetamines were the principal drug of concern increased by 123%; treatment episodes for cannabis rose by 15%
- the number of closed episodes for clients injecting and smoking/inhaling amphetamines increased, with more than twice as many clients smoking and inhaling in 2016–17 than in 2012–13.

Although there are many different drugs for which people receive treatment, the most common principal drugs of concern—alcohol, amphetamines, cannabis and heroin—have accounted for the large majority of services over time (Figure 4.1). Nationally, alcohol has been the most common principal drug of concern until 2016–17, followed by cannabis until 2014–15, when amphetamines became the second most common principal drug of concern. Heroin has maintained its place as the fourth most common principal drug of concern. Due to this consistent trend, the focus of this chapter will be on these drugs.

Where a person receives treatment or support for someone else's drug use, the principal drug of concern for that person is not collected. As a result, no information is presented in this chapter on treatment received by people for someone else's drug use.



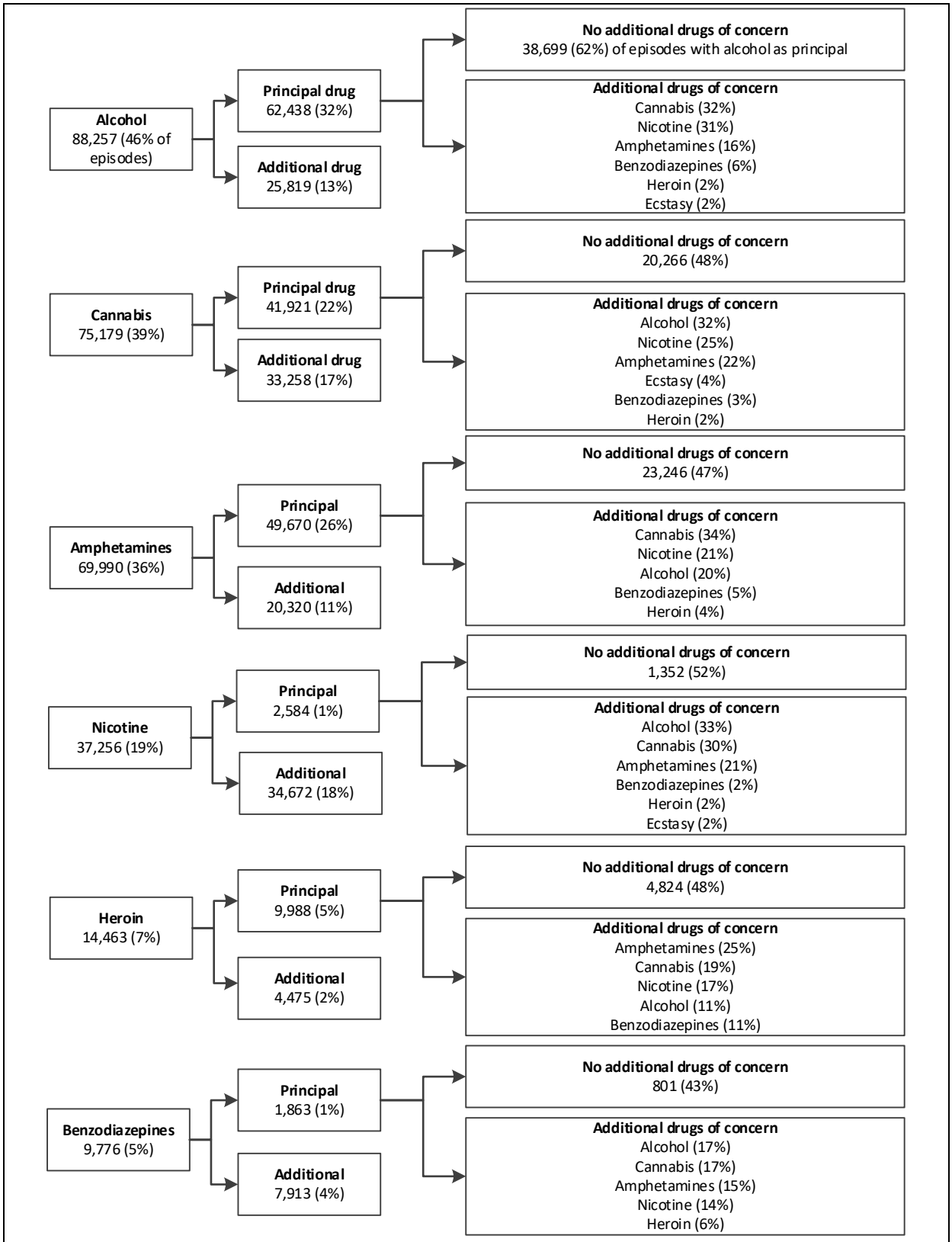
Source: Table SD.2.

Figure 4.1: Closed treatment episodes for own drug use, by the four main principal drugs of concern, 2007–08 to 2016–17

Over the 5-year period from 2012–13 to 2016–17, substantial shifts in treatment activity were reported (Figure 4.1).

Overall, the number of closed treatment episodes provided to clients seeking treatment for their own drug use increased by 24% (from 155,151 in 2012–13 to 193,031 in 2016–17). Over the same period, the number of treatment episodes provided for both amphetamines and cannabis also increased substantially—rising by 123% for amphetamines (from 22,265 treatment episodes in 2012–13 to 49,670 in 2016–17) and by 15% for cannabis (from 36,560 to 41,921 episodes). Overall, the number of treatment episodes for heroin fell by 22% over the same period (from 12,817 to 9,988). Alcohol treatment episodes showed a variance in treatment activity during this time, but still remains the top drug of concern nationally, even though the actual number of treatment episodes have been gradually declining (Table SD.2).

Decreases or increases in certain principal drug episodes in particular years can be subject to administrative anomalies in the data. For example, the drop in all treatment episodes in the 2016–17 collection year might be partly related to system changes resulting in under-reporting or partial reporting of the number of episodes in some jurisdictions.



Note: Totals might not add to 100% due to rounding.

Sources: Tables SD.6, SD.7 and SD.8.

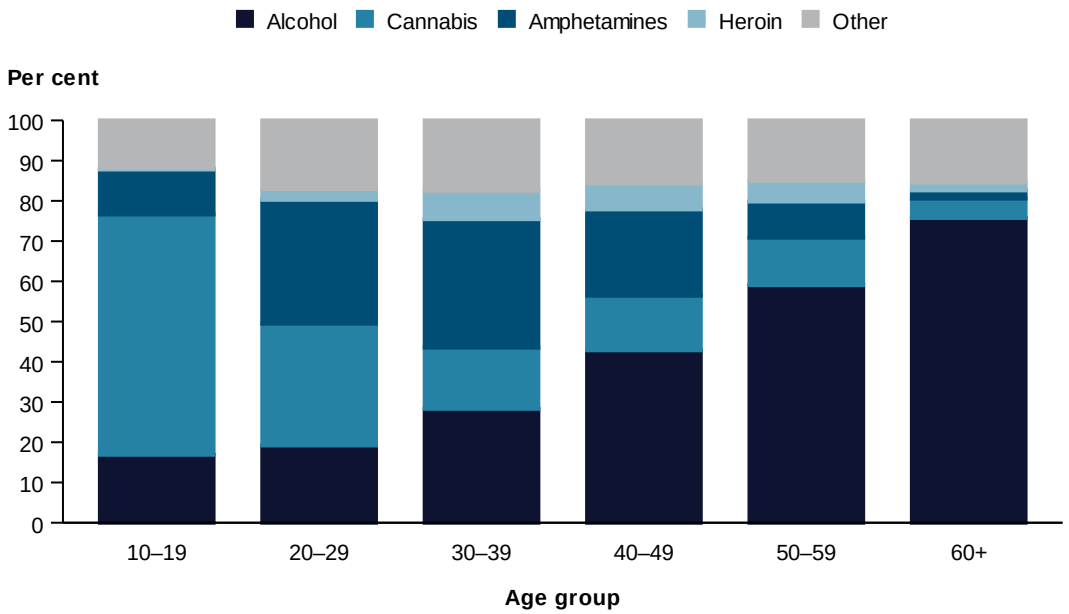
Figure 4.2: Closed treatment episodes for own drug use, by principal drug of concern and additional drugs of concern, 2016–17

Client demographics

Nationally, at the client level, alcohol was the most common principal drug of concern for 31% of clients, followed by cannabis and amphetamines (both 24%) and heroin (4%) (Table SC.9).

The proportion of clients receiving treatment where alcohol was the principal drug of concern increases substantially with age. Alcohol as a principal drug of concern was more common in the older age groups—59% of those aged 50–59, and 76% of clients aged 60 and over, whereas it was a principal drug of concern for only about 1 in 6 (17%) clients aged 10–19 (Figure 4.3; Table SC.7).

For clients receiving treatment for cannabis the opposite was true. Those aged 10–29 were most likely to be receiving treatment for cannabis, which was the principal drug of concern for 3 in 5 (60%) clients aged 10–19, compared with 30% of those aged 20–29, 12% of those aged 50–59, and only 5% of clients aged 60 and over.



Note: Based on client records with a valid SLK.

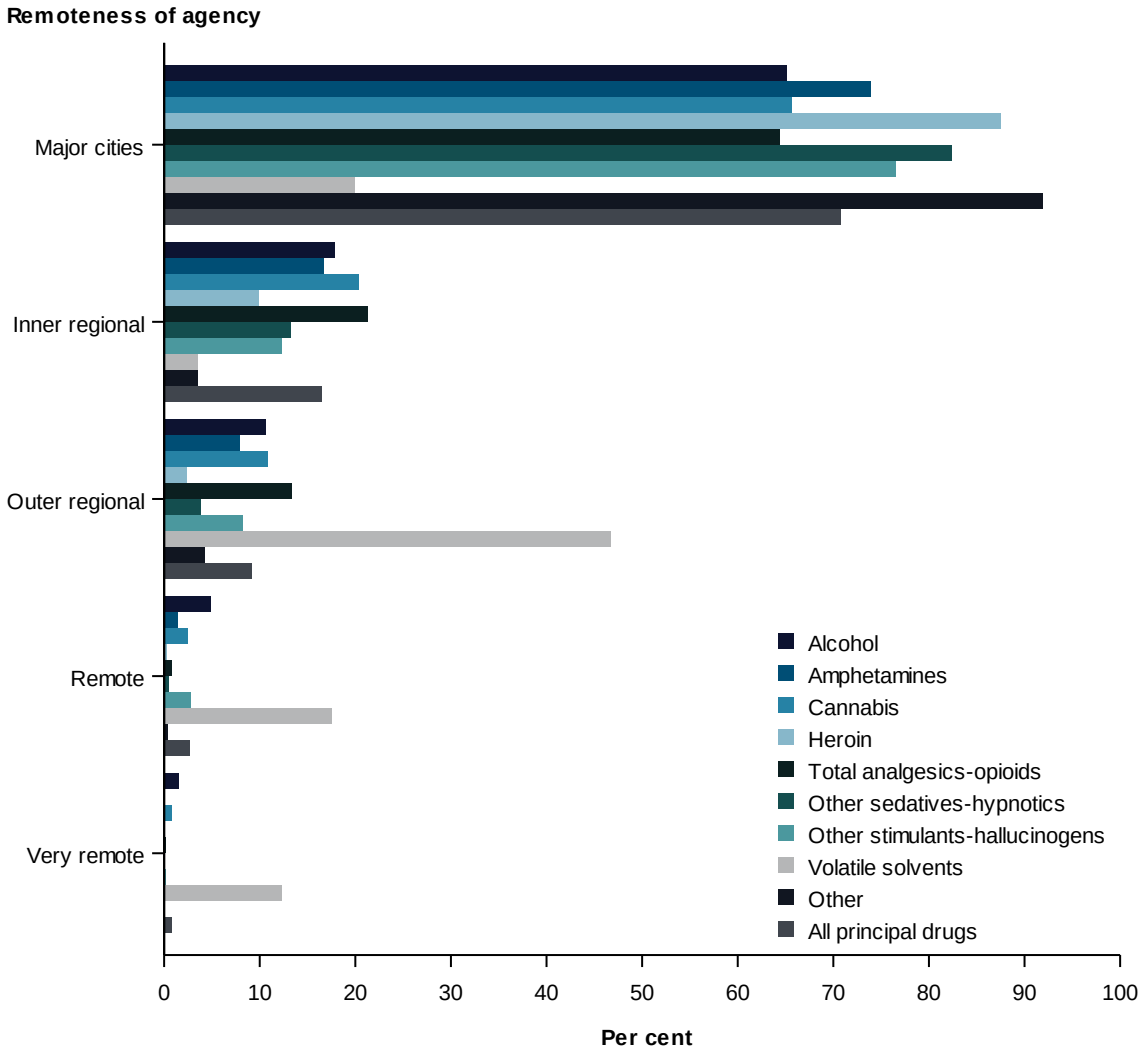
Source: Table SC.7.

Figure 4.3: Clients' principal drugs of concern, by age group (years), 2016–17

The majority of clients receiving treatment where the principal drug of concern was amphetamines (91%) or heroin (88%) were aged 20–49. Amphetamines were most likely to be the principal drug of concern for clients aged 20–39 (30% of those aged 20–29, and 32% of those aged 30–39), whereas only 11% of those aged 10–19, and 4% of clients aged 50+ were receiving treatment for amphetamines. Heroin was most common principal drug of concern among clients aged 30–49 (ranging from 43% of clients aged 30–39 and to 28% of those aged 40–49), compared with 1% of clients aged 10–19, and 12% of clients aged 50+ (Table SC.7).

Alcohol was the most common principal drug of concern in treatment episodes reported across all agency remoteness areas except for *Very remote*. Agencies located in *Major cities* provided the highest proportion of treatment episodes for all principal drugs of concern. Where volatile solvents was the principal drug of concern, the highest proportion of treatment episodes reported were provided in *Outer regional*, *Very remote* and *Remote* areas, and the lowest proportion in *Inner regional* areas (30%). Where amphetamines were the principal

drug of concern, treatment episodes were mostly provided in *Major cities* (74%) followed by *Inner regional* (17%) (Figure 4.4).



Source: Table SA.8.

Figure 4.4: SA2 remoteness of agency by proportion of closed episodes for principal drug of concern, 2016–17

4.2 Alcohol

Box 4.3: Alcohol

Alcohol is a central nervous system depressant that inhibits brain functions, dampens the motor and sensory centres, and makes judgment, coordination and balance more difficult (NDARC 2010). According to the 2009 Australian guidelines to reduce health risks from drinking alcohol (NHMRC 2009), people who drink more than 2 standard drinks per day on average have an increased lifetime risk of harm from alcohol-related disease or injury, while those who drink more than 4 standard drinks on a single occasion are at risk of harm on that occasion.

Results from the 2016 National Drug Strategy Household Survey (AIHW 2017) showed that:

- about 77% of Australians aged 14 and over drank alcohol in the previous 12 months
- a significant proportion of the Australian population drank at risky levels—1 in 5 (17%) aged 14 and over drank at a level that put them at risk of alcohol-related harm over their lifetime, while 1 in 4 (26%) drank at levels that put them at risk of harm from a single drinking occasion at least once in the previous 12 months
- males were more likely than females to drink at levels that placed them at risk of harm over their lifetime, as well as on a single occasion.

In 2016–17, alcohol was a drug of concern (principal or additional) in 46% of closed episodes, and the most common principal drug of concern (62,438 or 32% of all closed treatment episodes, and for 31% of clients) (Figure 4.2; tables SD.8 and SC.6). This was consistent for both Indigenous and non-Indigenous clients, but the proportion of closed episodes where alcohol was the most common principal drug of concern was higher for Indigenous clients—36%, compared with 30% for non-Indigenous clients (Table SC.8). In 38% of episodes where alcohol was the principal drug of concern, the client reported additional drugs of concern, most commonly cannabis (32%) or nicotine (31%) (Figure 4.2, tables SD.6 and SD.7).

Of the clients receiving treatment across multiple collection years, a similar proportion of clients received treatment for alcohol as a main drug of concern (tables SCY.1–36):

- Over 2 collection years from 2015–16 to 2016–17, around one-third (31%) of clients received treatment for alcohol.
- Over 3 collection years from 2014–15 to 2016–17, over one-third (34%) of clients sought treatment for alcohol.
- Over 4 collection years from 2013–14 to 2016–17, almost 2 in 5 clients (38%) sought treatment for alcohol.

Over the 5 years to 2016–17, the proportion of closed treatment episodes where alcohol was the principal drug of concern fell from 41% to 32% (Table SD.2).

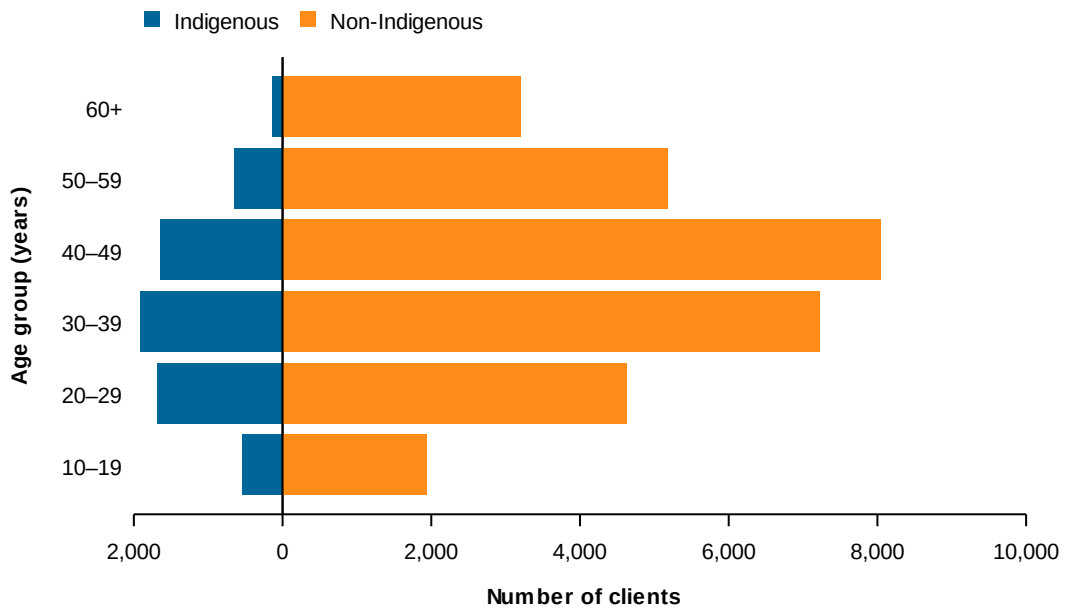
Client demographics

In 2016–17, almost two-thirds of clients whose principal drug of concern was alcohol were male (65%), and 1 in 6 were Indigenous (17%) (tables SC.6 and SC.8). Indigenous Australians (1,204 per 100,000 population) were more likely to have received treatment for

alcohol as a principal drug of concern than non-Indigenous Australians (155 per 100,000 population) (Table SC.26).

Clients with alcohol as their principal drug of concern were most likely to be aged 40–49 (26% of clients), followed by 50+ and 30–39 (both 25%) (Table SC.7).

Indigenous clients whose principal drug of concern was alcohol tended to be younger, with over half (55%) aged 20–39, compared with 39% of non-Indigenous clients in this age group (Figure 4.5).



Note: Based on client records with a valid SLK.

Source: AIHW analysis of the AODTS NMDS.

Figure 4.5: Number of clients with alcohol as the principal drug of concern, by age group (years) and Indigenous status, 2016–17

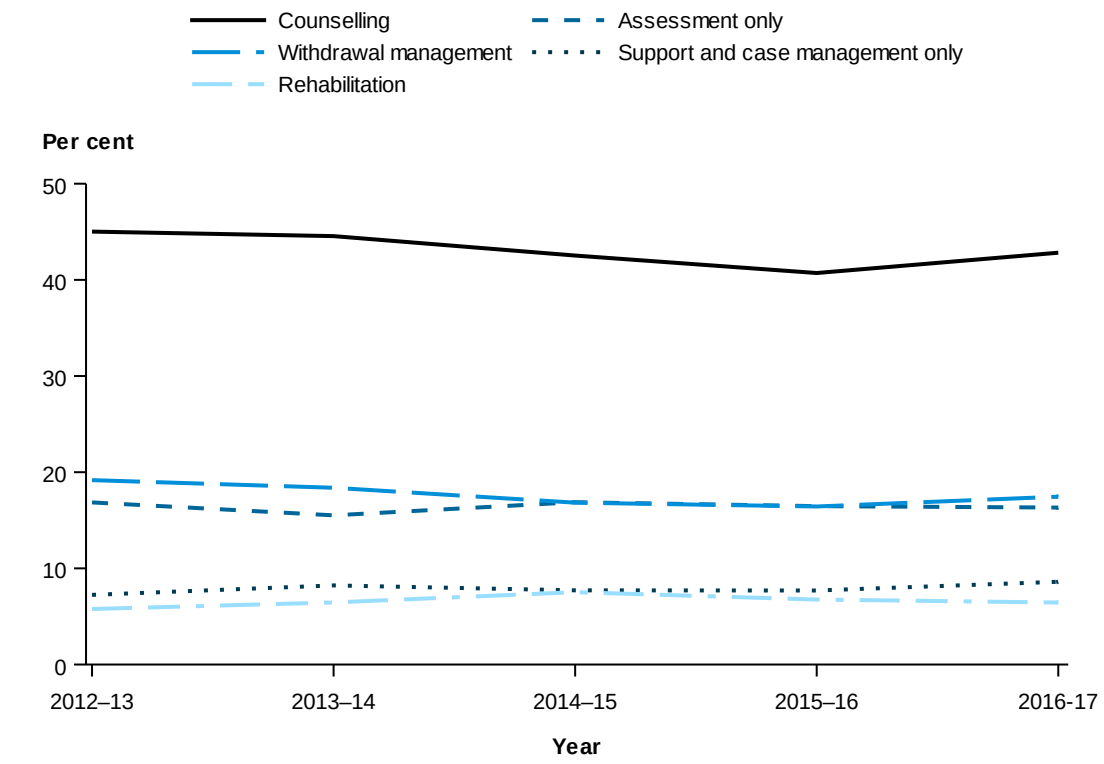
Treatment

In 2016–17, where alcohol was the principal drug of concern, the most common source of referral for closed treatment episodes was self/family (42%), followed by a health service (37%) (Table SD.21).

The most common main treatment type was counselling (43% of closed treatment episodes), followed by withdrawal management (17%) and assessment only (16%). Assessment only was the most common treatment type for the 10–19, 20–29 and 50+ age groups, while withdrawal management was most common for the 30–39, 40–49 and 50–59 age groups (Table SD.27).

Over the 5 years to 2016–17, counselling, withdrawal management, and assessment only have remained the most common main treatment types for closed treatment episodes where alcohol was the principal drug of concern (Figure 4.6).

More than half (52%) of closed treatment episodes with alcohol as the principal drug lasted less than 1 month (21% ended within 1 day) (Table SE.25). The median duration of episodes with alcohol as the principal drug of concern was 4 weeks (28 days) (Table SD.33).



Source: Table SD.26.

Figure 4.6: Closed treatment episodes with alcohol as the principal drug of concern, by the top 5 treatment types received, 2012–13 to 2016–17

Alcohol-related treatment episodes were most likely to take place in a non-residential treatment facility (68%), with almost 1 in 6 (15%) occurring in a residential treatment facility.

Where counselling was the main treatment type, most episodes (88%) took place in a non-residential treatment facility, while episodes with a main treatment type of withdrawal management were most likely to take place in a residential treatment facility (49%) (Table SD.28).

Almost two-thirds (66%) of closed episodes where alcohol was the principal drug of concern ended with an expected cessation, while 20% ended unexpectedly (that is, the client ceased to participate against advice, without notice or due to non-compliance). Expected cessations were most common where the referral source was self/family (42%). Unexpected cessations were also most common where the referral source was self/family (47%) (Table SD.29).

For more information on the groupings for reasons for cessation of treatment, see Table A3.

4.3 Cannabis

Box 4.4: Cannabis

Cannabis (also called marijuana or gunja) is derived from the cannabis plant (usually *Cannabis sativa*), and is used in whole plant (typically the flowering heads), resin or oil forms. Cannabis has a range of stimulant, depressant and hallucinogenic effects. The risks associated with long-term or regular use of cannabis include addiction, damage to lungs and lung functioning, effects on memory and learning, and psychosis and other mental health conditions. Cannabis withdrawal is now listed as a discrete syndrome in the Diagnostic and Statistical Manual of Mental Disorders (NCPIC 2011). According to the 2016 National Drug Strategy Household Survey (AIHW 2017), 1 in 3 Australians aged 14 and over have used cannabis at some point in their lifetime, while 1 in 10 have used it in the previous 12 months.

In 2016–17, cannabis was a drug of concern (principal or additional) in 39% of episodes, and was the third most common principal drug of concern (41,921 or 22% of closed treatment episodes) (Figure 4.2; tables SD.8 and SD.6). In more than half (52%) of episodes with cannabis as the principal drug of concern, the client reported additional drugs of concern (Table SD.6). This was most commonly alcohol (32%), nicotine (25%) or amphetamines (22%) (Figure 4.2; Table SD.7).

Of the clients receiving treatment across multiple collection years, a similar proportion of clients received treatment for cannabis as a main drug of concern (tables SCY.1–36):

- Over 2 collection years from 2015–16 to 2016–17, around 1 in 5 clients (18%) received treatment for cannabis.
- Over 3 collection years from 2014–15 to 2016–17, around 1 in 7 clients (15%) received treatment for cannabis.
- Over 4 collection years from 2013–14 to 2016–17, almost 1 in 8 clients (13%) received treatment for cannabis.

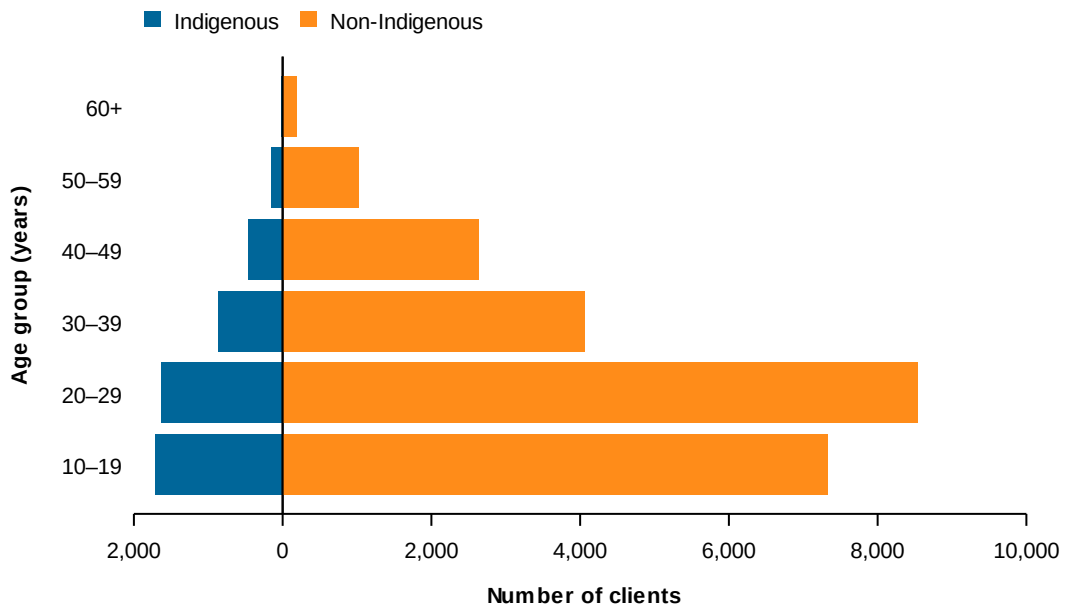
In 2016–17, cannabis was the third most common principal drug of concern in most states, the exceptions being Queensland, where it was the top principal drug of concern for the third consecutive year, and the Northern Territory where it has continued to be the second most common principal drug of concern for over 10 years (Table SD.2).

Client demographics

In 2016–17, where cannabis was the principal drug of concern, nearly three-quarters of clients were males (70%), and around 1 in 6 were Indigenous (16%) (tables SC.6 and SC.8). Where cannabis was the principal drug of concern, Indigenous Australians (910 per 100,000 population) were more likely to have received treatment than non-Indigenous Australians (123 per 100,000 population) (Table SC.26).

For two-thirds (67%) of clients aged 10–29, cannabis was most likely to be the principal drug of concern (Table SC.7).

This pattern was similar for both Indigenous and non-Indigenous clients (Figure 4.7).



Note: Based on client records with a valid SLK.

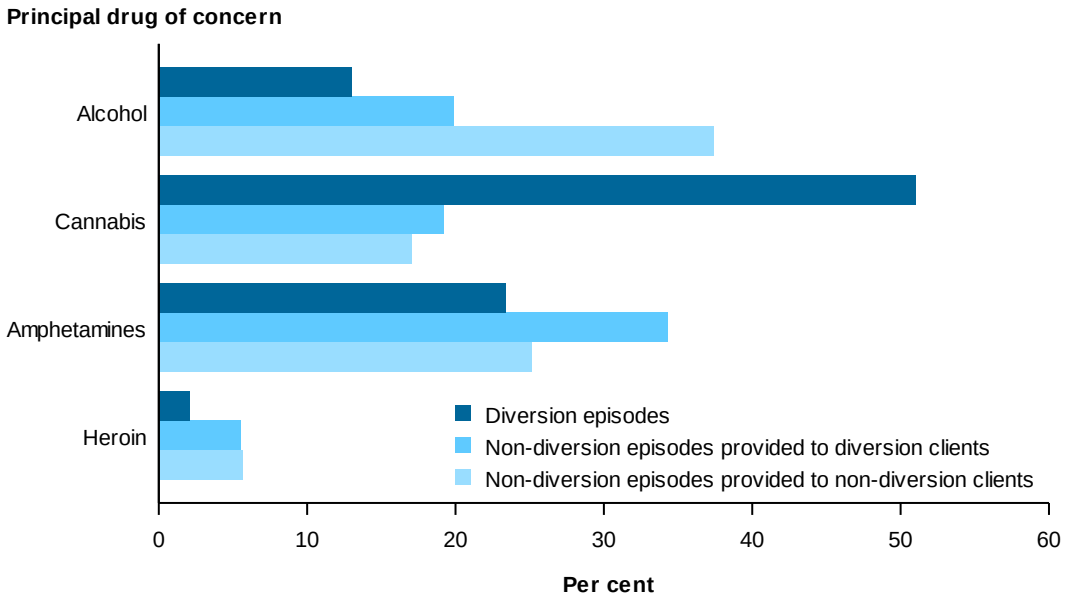
Source: AIHW analysis of the AODTS NMDS.

Figure 4.7: Number of clients with cannabis as the principal drug of concern, by age group (years) and Indigenous status, 2016–17

Treatment

The most common source of referral for treatment episodes where cannabis was the principal drug of concern was diversion (that is, referred from police or court within the criminal justice system into AOD treatment for drug or drug-related offences) (36%), followed by self/family (28%) (Table SD.37).

Of the top 4 principal drugs of concern, cannabis (51%) was the only drug where diversion was the most common source of referral (Figure 4.8). Clients that were diverted into AOD treatment from the justice system, also received treatment where the source of referral was not related to diversion within the same year; such as referrals for amphetamines included 23% of closed episodes with diversion only referrals and 34% of referrals related to a mixture of diversion and non-diversion treatment episodes (see Appendix A for further detail) (Figure 4.8; Table SE.27).



Source: Table SE.27.

Figure 4.8: Closed treatment episodes, by selected principal drug of concern and diversion client type, 2016–17

Where cannabis was the principal drug of concern, counselling was the most common main treatment type (41%), followed by information and education only (21%) (Table SD.42).

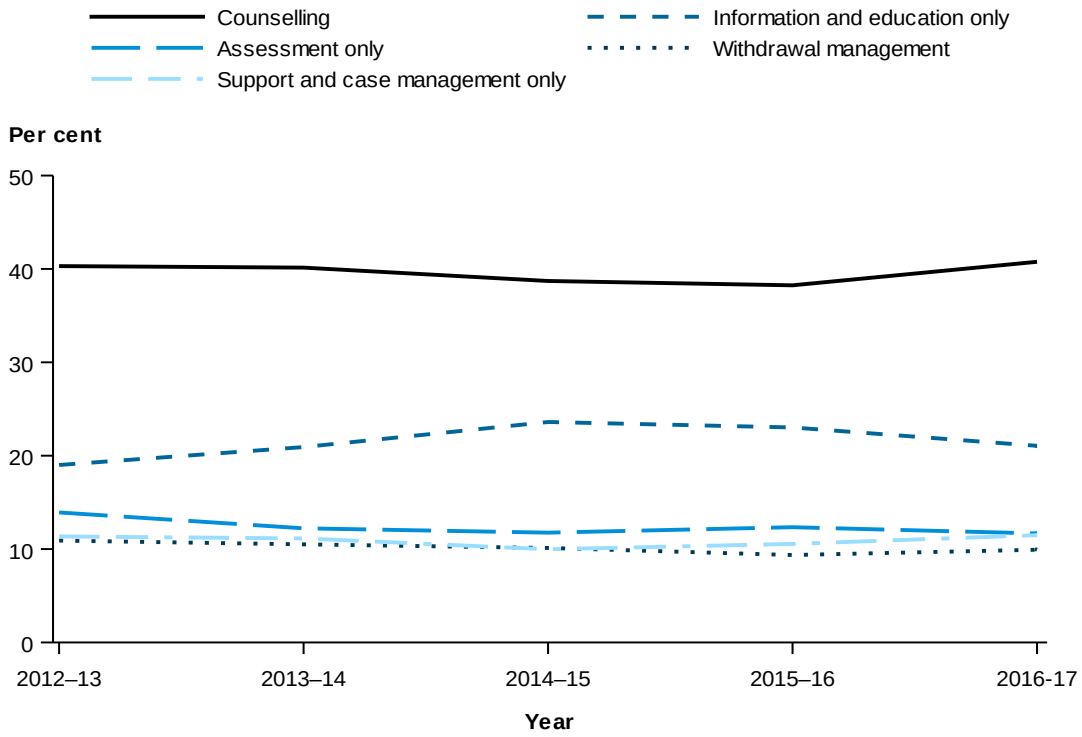
Treatment episodes where cannabis was the principal drug of concern were most likely to take place in a non-residential treatment facility (71%). Most (83%) episodes where counselling was the main treatment type took place in a non-residential treatment facility (Table SD.44).

Since 2012–13, cannabis episodes with a main treatment type of counselling has remained the most common form of treatment, accounting for around 40% of treatment episodes annually, followed by information and education only, which increased from 19% to 21% as a result of diversion programs (Figure 4.9; Table SD.42).

Where cannabis was the principal drug of concern, 3 in 5 (61%) episodes lasted less than 1 month (38% ended within 1 day) (Table SE.25). The median duration of episodes with cannabis as the principal drug of concern was just under a fortnight (12 days) (Table SD.47).

Episodes with support and case management only as the main treatment type had a median duration of about 7 weeks (51 days), followed by pharmacotherapy (50 days) and rehabilitation (44 days). Withdrawal management treatment episodes had the shortest duration, at just over 1 week (8 days) (Table SD.47).

Almost three-quarters (73%) of closed episodes where cannabis was the principal drug of concern ended with an expected cessation, and expected cessations were most common for episodes where the client was diverted from the criminal justice system (52%). Around 1 in 5 (18%) episodes ended unexpectedly (Table SD.45).



Source: Table SD.42.

Figure 4.9: Closed treatment episodes with cannabis as the principal drug of concern, by the top 5 treatment types received, 2012–13 to 2016–17

4.4 Amphetamines

Box 4.5: Amphetamines

Amphetamines stimulate the central nervous system, and can result in euphoria, increased energy, decreased appetite, paranoia and increased blood pressure (ADCA 2013). Long-term effects include high blood pressure, extreme mood swings, depression, anxiety, psychosis and seizures. There is no approved pharmacotherapy for the management of amphetamine withdrawal or replacement therapy (Lee et al. 2007). According to the 2016 National Drug Strategy Household Survey (AIHW 2017), 1 in 16 (6.3%) Australians aged 14 and over have used meth/amphetamines for non-medical purposes at some point in their lifetime, while 1 in 70 (1.4%) have used them in the previous 12 months.

Some drugs are used much more often than others. Very few cocaine and ecstasy users used the drug as often as weekly (only about 2.0%–3.0%) but 1 in 5 meth/amphetamine users used the drug weekly or more often. Therefore, when examining the share of people in Australia using an illegal drug weekly or more often in 2016, meth/amphetamines was the second most commonly used illegal drug after cannabis.

The AODTS NMDS data available for amphetamines correspond to the Australian Standard Classification of Drugs of Concern (ASCDC) for the general 'amphetamines' classification, in which methylamphetamine is a sub-classification. Data on different forms of amphetamines (methylamphetamine specifically) are not separately reported due to the nature of the classification structure used in this collection.

A client's usual method of administering their principal drug of concern can provide an indication of the form a client used, particularly for amphetamines. For example, those smoking (clients who report either smoking or inhaling amphetamines) will be using the crystal form, and those ingesting or snorting are most likely to be using the powder form.

In 2016–17, amphetamines were a drug of concern (principal or additional) in 36% of closed treatment episodes, (Figure 4.2; tables SD.8 and SC.8). This was consistent for both Indigenous and non-Indigenous clients, with amphetamines being the most common principal drug of concern for 26% of Indigenous clients and 24% non-Indigenous clients (Table SC.8).

Amphetamines were the second most common principal drug of concern for the second consecutive year, having surpassed cannabis for the first time in 2015–16 (49,670 episodes, or 26% of all episodes nationally, and 24% of clients) (Figure 4.2; tables SD.8 and SC.8).

Where amphetamines were the principal drug of concern, Indigenous Australians (867 per 100,000 population) were more likely to have received treatment than non-Indigenous Australians (126 per 100,000 population) (Table SC.26). While a small number of episodes (4,480 episodes) where amphetamines were a principal drug of concern were reported nationally for Indigenous clients, this represents a larger proportion of the Indigenous population across Australia than the non-Indigenous population.

In more than half (53%) of episodes with a principal drug of concern of amphetamines, the client reported additional drugs of concern. These were most commonly cannabis (34%), nicotine (21%) and alcohol (20%) (Figure 4.2; tables SD.6–SD.7). Notably, in 2016–17, nicotine replaced alcohol as the second-most common additional drug of concern for those clients with amphetamines as their principal drug of concern.

Of the clients receiving treatment across multiple collection years, a similar proportion of clients received treatment for amphetamines as a main drug of concern (tables SCY.1–36):

- Over 2 collection years from 2015–16 to 2016–17, over one-quarter (26%) of clients received treatment for amphetamines.
- Over 3 collection years from 2014–15 to 2016–17, over one-quarter (26%) of clients received treatment for amphetamines.
- Over 4 collection years from 2013–14 to 2016–17, almost one-quarter (23%) of clients received treatment for amphetamines.

In 2016–17, smoking/inhaling was the most common usual method of use (46% of episodes), followed by injecting (38%) (Table SD.55).

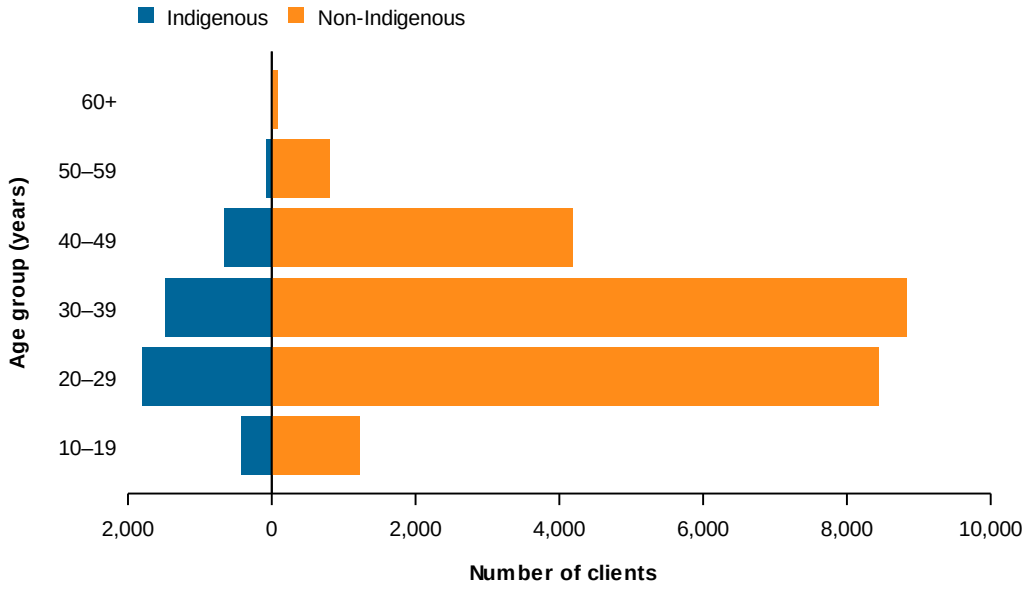
Over the 5 years to 2016–17, the proportion of episodes with amphetamines as the principal drug of concern rose from 14% to 26%.

According to the 2016 National Drug Strategy Household Survey (AIHW 2017), the proportion of the adult population using methamphetamine fell between 2010 and 2016, from 2.1% to 1.4%. However, among recent methamphetamine users, there was a change in the main form used, with a significant increase in the use of crystal methamphetamine or 'ice' (from 22% to 57% over the same time period).

Client demographics

In 2016–17, two-thirds of clients receiving treatment for amphetamines as a principal drug of concern were male (66%), and about 1 in 6 clients were Indigenous (16%) (tables SC.6 and SC.8).

Clients with a principal drug of concern of amphetamines were most likely to be aged 20–39 (73%), followed by those aged 40–49 (17%) (tables SC.5–7). The age profile was similar for Indigenous clients; however, the proportion of clients aged 10–19 was higher for Indigenous clients (9%), compared with 5% for non-Indigenous clients of the same age (Figure 4.10).



Note: Based on client records with a valid SLK.

Sources: Tables SC.6 and SC.7.

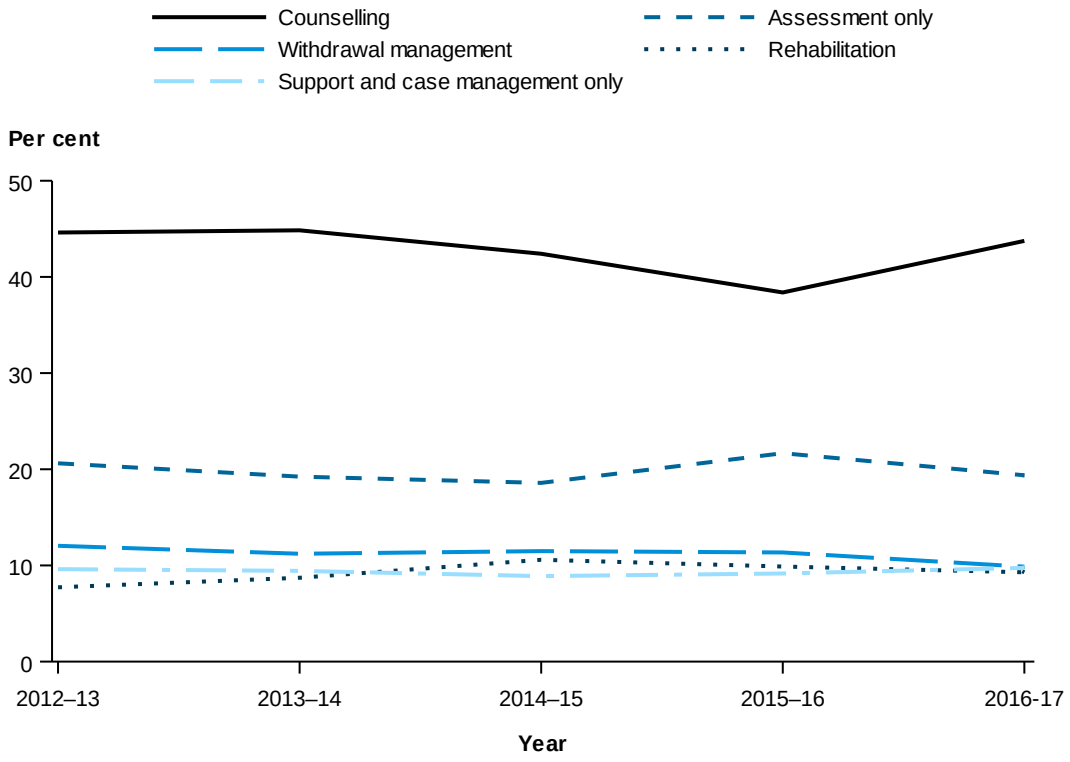
Figure 4.10: Number of clients with amphetamines as the principal drug of concern, by age group (years) and Indigenous status, 2016–17

Treatment

The most common source of referral for treatment episodes with amphetamines as the principal drug of concern was self/family (42%), followed by health services (24%) and diversion (19%) (Table SD.53).

In 2016–17, the most common main treatment type for episodes with amphetamines as the principal drug of concern was counselling (44%), followed by assessment only (19%) and withdrawal management (10%). Treatment was most likely to take place in a non-residential treatment facility (69%) (tables SD.58 and SD.60).

Over the 5 years to 2016–17, the proportion of episodes where counselling was the main treatment type for amphetamines as the principal drug of concern was essentially unchanged: 45% in 2012–13, compared with 44% in 2016–17, although the proportion fluctuated over the period (Figure 4.11; Table SD.63).



Source: Table SD.58.

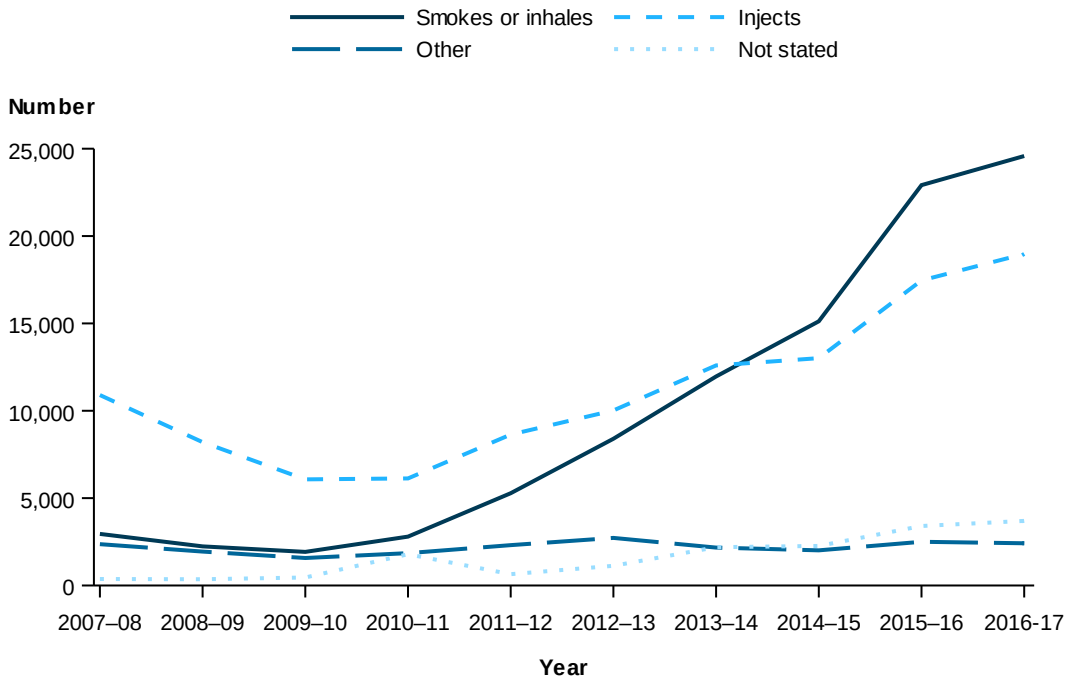
Figure 4.11: Closed treatment episodes with amphetamines as the principal drug of concern, by the top 5 treatment types received, 2012–13 to 2016–17

Just over half (51%) of closed episodes with amphetamines as the principal drug of concern lasted less than 1 month (24% ended within 1 day, and were mostly for assessment only) (Table SE.25). The median duration of episodes was just over 4 weeks (29 days) (Table SE.23). Episode duration varied widely depending on the main treatment type: episodes with a main treatment type of counselling had a median duration of just over 8 weeks (57 days); episodes with withdrawal management ended within 1 week (7 days); and information and education only lasted 1 day (Table SD.64).

Over 3 in 5 (61%) closed episodes with amphetamines as the principal drug of concern ended with an expected cessation. Expected cessations were most common for episodes where self/family was the referral source (40%). Slightly more than one-quarter (26%) of episodes ended unexpectedly (Table SD.61).

Over the 5 years to 2016–17, the number of episodes for clients smoking/inhaling amphetamines increased, with clients almost 3 times as likely to smoke/inhale amphetamines in 2016–17, compared with 2012–13 (Table SD.55, Figure 4.12).

Injecting as a method of use for amphetamines rose in 2011–12, which may be attributed to patterns arising from an increase in the availability of crystal methamphetamines, as well as an increase in treatment episodes, and for injecting clients who might have been using amphetamines and heroin interchangeably (AIHW 2015). As mentioned in Box 4.5, a client's usual method of administering their principal drug of concern can provide an indication of the form of drug that a client used, particularly for amphetamines.



Note: 'Other' includes 'ingests', 'sniffs' and 'other'.

Source: Table SD.55.

Figure 4.12: Closed treatment episodes for own drug use with amphetamines as the principal drug of concern, by method of use, 2007–08 to 2016–17

4.5 Heroin

Box 4.6: Heroin

Heroin is 1 of the opioid drugs, which are strong pain-killers with addictive properties. Short-term side effects of use include pain relief and feelings of euphoria and wellbeing, while long-term effects can include lowered sex drive and infertility (for women), along with risk of overdose, coma and death (ADCA 2013).

Heroin users seeking treatment can take part in a withdrawal program (also called detoxification), an abstinence-based treatment (for example, residential rehabilitation in a therapeutic community), or attend an opioid maintenance substitution program (O'Brien 2004).

Results from the 2016 National Drug Strategy Household Survey showed that:

- 1.3% of people in Australia aged 14 and over had used heroin in their lifetime and 0.2% had used it in the previous 12 months
- there was no significant change in the proportion of people using heroin between 2013 and 2016 (AIHW 2017).

Results from the 2017 National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD) collection reported that clients receive pharmacotherapy treatment for a range of opioid drugs, including illicit opioids (such as heroin), and pharmaceutical opioids available by prescription (such as oxycodone), over-the-counter (such as codeine-paracetamol combinations) or through illicit means.

NOPSAD reported that, nationally in 2017, 38% of clients reported heroin as their opioid drug of dependence (AIHW 2018).

In 2016–17, heroin was a drug of concern (principal or additional) in 7% of closed treatment episodes, and was reported in 5% of episodes as a principal drug of concern, making it the fourth most common principal drug of concern (9,988 closed treatment episodes and 4% of clients) (Figure 4.2; tables SC.6 and SD.8).

This was consistent for both Indigenous (4%) and non-Indigenous clients (5%) (Table SC.8). In more than half (52%) of episodes with heroin as the principal drug of concern, the client reported additional drugs of concern, most commonly amphetamines (25%) and cannabis (19%) (tables SD.6 and SD.7).

Injecting was the most common method of use in most episodes where the principal drug of concern was heroin (81% of episodes) (Table SD.87). In almost 2 in 3 (63%) episodes, the client reported they had injected drugs in the previous 3 months, while 12% reported they last injected 3–12 months ago (injecting status was not reported for 7% of episodes) (Table SD.88).

Of the clients receiving treatment across multiple collection years, a similar proportion of clients received treatment for heroin as a main drug of concern (tables SCY.1–36):

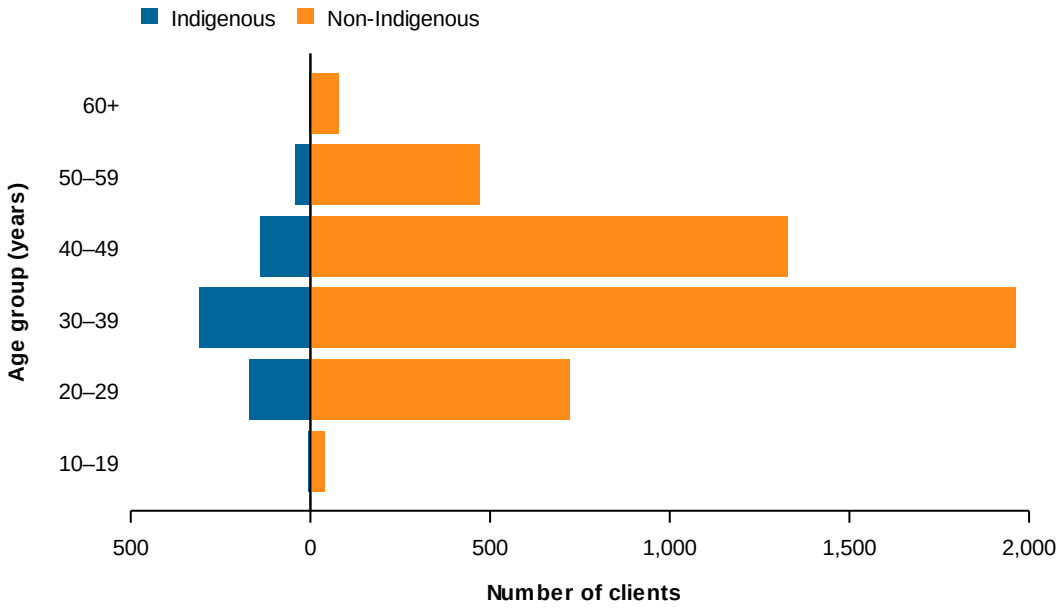
- Over 2 collection years from 2015–16 to 2016–17, 6% of clients received treatment for heroin.
- Over 3 collection years from 2014–15 to 2016–17, 8% of clients received treatment for heroin.
- Over 4 collection years from 2013–14 to 2016–17, over 1 in 10 (11%) of clients received treatment for heroin.

Over the 5 years to 2016–17, the proportion of episodes where heroin was the principal drug of concern fell steadily (from 8% to 5%) (Table SD.2).

Client demographics

Where heroin was the principal drug of concern, 67% of clients were male and 12% were Indigenous (tables SC.5 and SC.8). Indigenous Australians (136 per 100,000 population) were more likely to have received treatment than non-Indigenous Australians (26 per 100,000 population) (Table SC.26).

Clients with heroin as their principal drug of concern were most likely to be aged 30–39 (43%), followed by those aged 40–49 (28%), and those aged 20–29 (17%) (Table SC.7). Indigenous clients whose principal drug of concern was heroin tended to be younger: more than two-thirds of clients (72%) were aged 20–39; (46%) were aged 30–39; and over one-quarter (26%) of clients were aged 20–29; and 21% were aged 40–49 (Figure 4.13).



Note: Based on client records with a valid SLK.

Source: AIHW analysis of the AODTS NMDS.

Figure 4.13: Number of clients with heroin as the principal drug of concern, by age group (years) and Indigenous status, 2016–17

Treatment

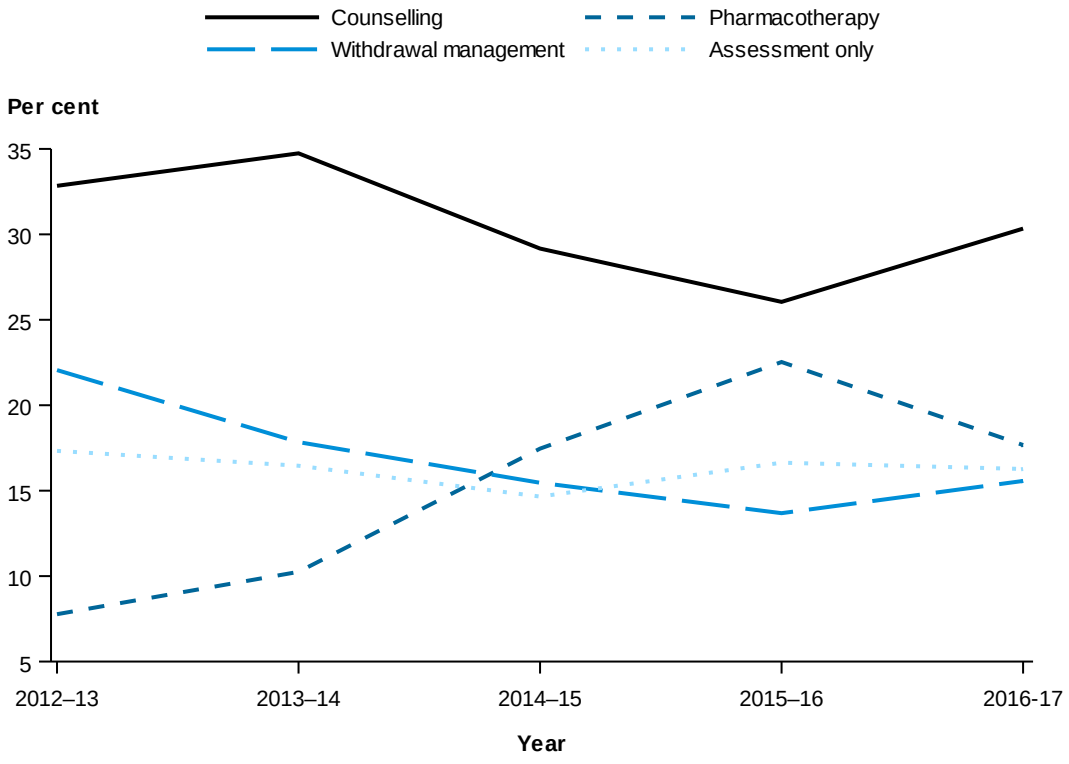
The most common source of referral for treatment episodes with heroin as the principal drug of concern was self/family (52%), followed by a health service (24%) and diversion programs (10%) (Table SD.85).

The most common main treatment types were counselling (30%), followed by pharmacotherapy (18%) and assessment only (16%) (Table SD.90). Note this collection does not include pharmacotherapy provided by opioid replacement therapy programs.

Treatment episodes with heroin as the principal drug of concern were most likely to take place in a non-residential treatment facility (76%) (Table SD.92).

Over the 5 years to 2016–17, the proportion of episodes with withdrawal management as the main treatment type for the principal drug of concern of heroin fell from 22% to 16% (Figure 4.14; Table SD.90).

The increase in the proportions for pharmacotherapy is mostly due to changes in the AODTS NMDS reporting specifications introduced for the first time in 2011–12, to allow pharmacotherapy to be reported as a primary treatment, in combination with some other form of treatment.



Source: Table SD.90.

Figure 4.14: Closed treatment episodes with heroin as the principal drug of concern, by the top 4 treatment types received, 2012–13 to 2016–17

About half (50%) of the episodes where heroin was the principal drug of concern lasted less than 1 month (21% ended within 1 day), and were mostly for the main treatment types of assessment only, pharmacotherapy, and withdrawal management (Table SE.25).

The median duration of episodes with heroin as the principal drug of concern was just over 4 weeks (29 days). Episodes with counselling as the main treatment lasted about 9 weeks (63 days), while episodes with support and case management lasted just over 7 weeks (52 days), and episodes with withdrawal management treatment lasted about 1 week (6 days) (Table SD.96).

More than half (53%) of closed episodes with heroin as the principal drug of concern ended with an expected cessation, and expected cessations were most common where the main treatment type was either assessment only or information and education only (both 86%). This is because these treatment types are usually completed within a day (Table SD.93).

4.6 Pharmaceuticals

Box 4.7: Pharmaceuticals

Pharmaceuticals are drugs that are available from a pharmacy—over the counter or by prescription—that may be subject to misuse (MCDS 2011).

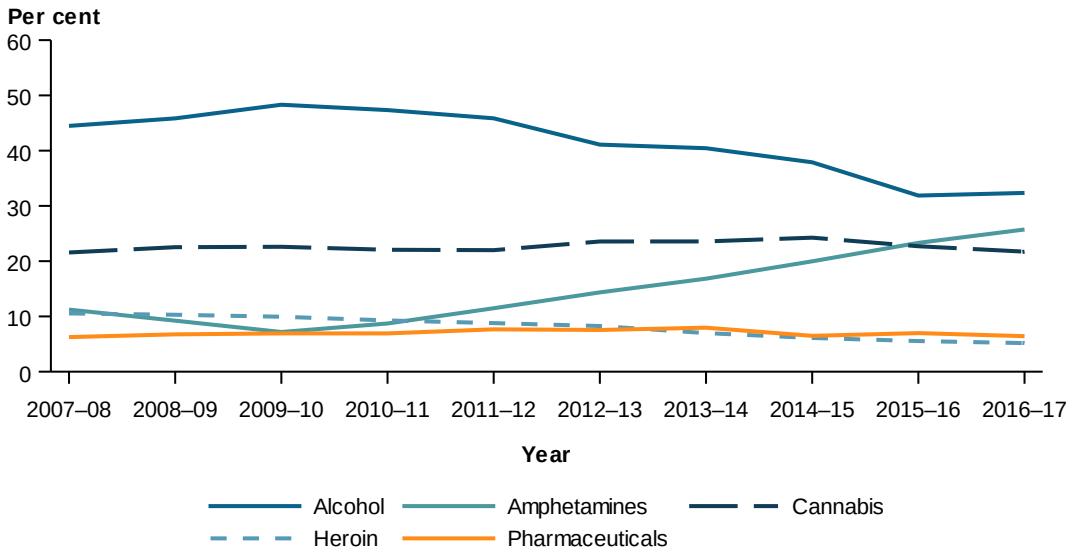
Pharmaceuticals are not listed as a broad drug group in the ASCDC classification. In the 2016–17 AODTS NMDS report, 10 drug types were identified as making up the group 'pharmaceuticals' for the purposes of this analysis: codeine; morphine; buprenorphine; oxycodone; methadone; benzodiazepines; steroids; other opioids; other analgesics; and other sedatives and hypnotics.

Further information corresponding to the ASCDC codes and classifications is provided in Appendix A.

Results from the National Drug Strategy Household Survey showed that in 2016:

- just under 1 in 20 (4.8%) Australians had misused a pharmaceutical in the last 12 months (pain-killers/opiates, tranquillisers, steroids, or methadone/buprenorphine) (AIHW 2017).

In 2016–17, there were 9,487 pharmaceutical-related closed treatment episodes reported as a principal drug of concern, equating to 6% of all episodes for a client's own use. Over the 10 years from 2007–08, the proportion of treatment episodes with a pharmaceutical drug as the principal drug of concern increased from 6% in 2007–08 to 8% in 2013–14, and then fell to 6% in 2016–17 (Figure 4.15).



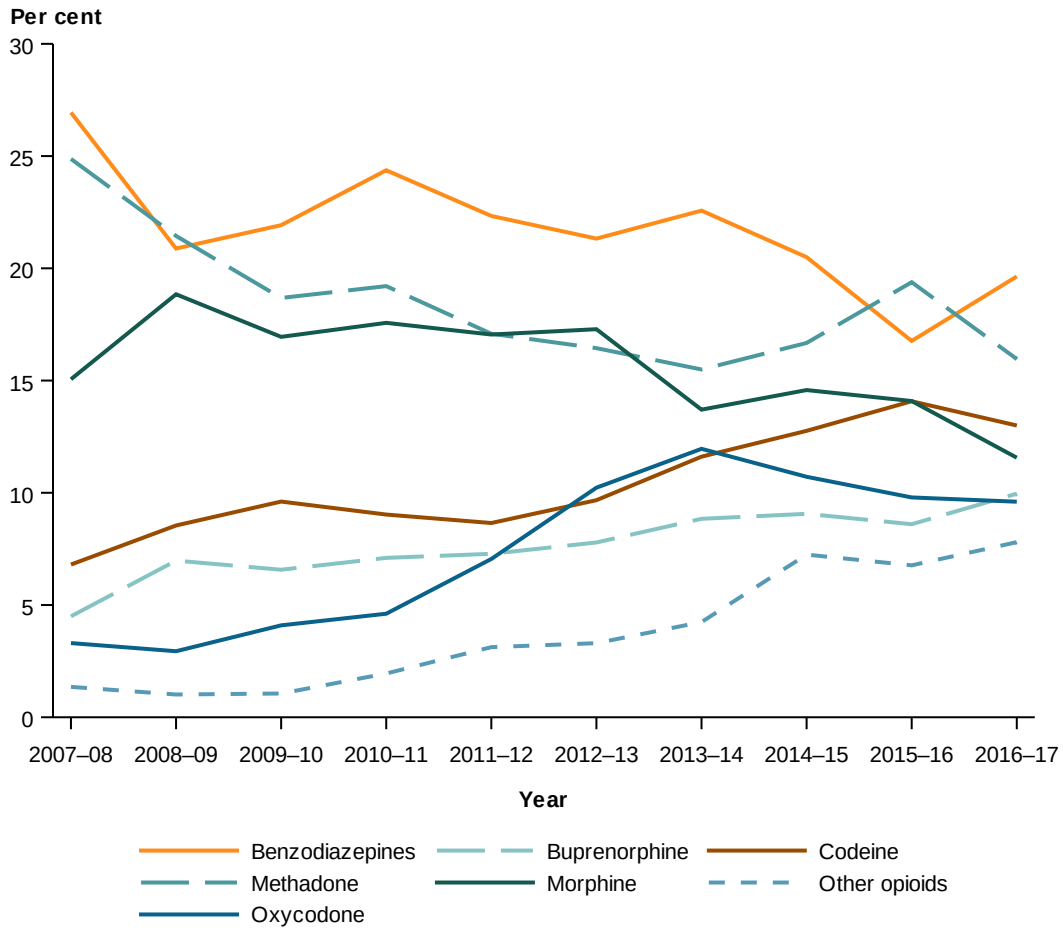
Source: Table SD.9.

Figure 4.15: Proportion of closed treatment episodes for the top 5 principal drugs of concern, 2007–08 to 2016–17 (%)

In 2016–17, benzodiazepines represented the largest proportion of closed episodes for a single drug type within the pharmaceutical group (20%), followed by methadone (16%), codeine (including over the counter) (13%) and oxycodone (10%) (Figure 4.16; Table SD.146).

The proportions of treatment episodes for morphine, methadone and benzodiazepines have been decreasing over the 10-year period, while the proportions for codeine, oxycodone and buprenorphine have been increasing. Treatment episodes for codeine as a principal drug of concern almost doubled (from 7% to 13%) and oxycodone treatment episodes tripled (from 3% in 2007–08 to 10% in 2016–17), despite a fall since 2013–14 when it was 12%. Over the same period, treatment episodes for methadone as a principal drug of concern fell by 9 percentage points (from 25% to 16%) and benzodiazepines fell by 7 percentage points (from 27% to 20%) (Figure 4.16; Table SD.146).

In general, pharmaceuticals were more likely to be listed as an additional drug of concern (9%) for treatment purposes than as the principal drug of concern (6%) (Table SD.146).



Source: Table SD.9.

Figure 4.16: Proportion of closed treatment episodes for selected pharmaceutical drugs of concern, 2007–08 to 2016–17 (%)

Client demographics

Where pharmaceuticals were the principal drug of concern in 2016–17, over half (58%) of the clients were male and around 1 in 8 were Indigenous (12%). Female clients were more likely to report individual pharmaceutical drug types, with a higher proportion of female clients (53%) receiving treatment for codeine as their principal drug of concern (tables SD.3 and SD.5).

The most common age group for clients seeking treatment for pharmaceuticals as a principal drug of concern were aged 30–39 (37%), followed by clients aged 40–49 (24%) and 20–29 (21%) (Table SD.4).

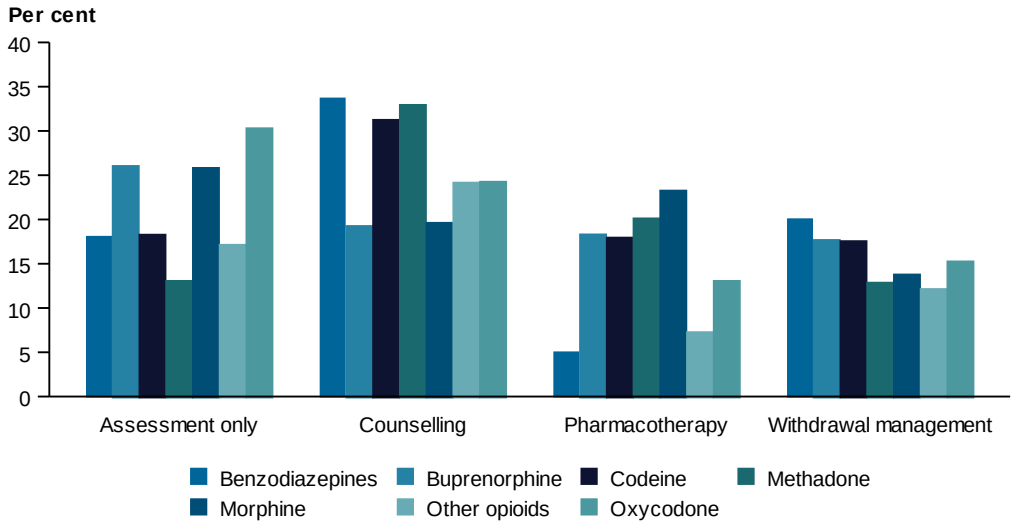
Pharmaceuticals were more likely to be reported as an additional drug of concern in closed treatment episodes (9%)—the most common principal drugs of concern reported in combination with pharmaceuticals as an additional drug of concern were amphetamines (34%), alcohol (20%) and cannabis (16%) (Table SD.7).

Treatment

Almost half of the referrals for treatment episodes where pharmaceuticals were the principal drug of concern were for self/family (47%), followed by a health service (38%) (Table SD.149).

The most common main treatment types for episodes where pharmaceuticals were the principal drug of concern were counselling (28%), assessment only (21%) and withdrawal management (16%), followed by pharmacotherapy (14%) (Table SD.148).

For individual pharmaceuticals, the relative proportions of treatment episodes for each main treatment type varied substantially. For example, where benzodiazepines were the primary drug of concern, there was a higher proportion of episodes with counselling (34%) or withdrawal management (20%) as the main treatment types. In contrast, buprenorphine had the lowest proportion for counselling (19.0%), and methadone had the lowest proportion for withdrawal management (13%). Methadone (13%) also had the lowest proportion of episodes where assessment only was the main treatment type, while oxycodone (30%) had the highest. Differences for pharmacotherapy were also substantial, ranging from 23% for morphine to 5% for benzodiazepines (Figure 4.17; Table SD.148).



Source: Table SD.148.

Figure 4.17: Proportion of main treatment type for selected pharmaceuticals as the principal drug of concern, 2016–17 (%)

In 2016–17, for treatment episodes with pharmaceuticals as a principal drug of concern, clients were more likely to have ever injected a drug, than for treatment episodes for most other drugs of concern. In almost one-third of treatment episodes for pharmaceuticals (31%), clients reported injecting within the last 3 months and 17% injected over 12 months ago, whereas for treatment episodes for all other principal drugs, clients were more likely to report having never injected (60% of treatment episodes) (Table SD.11).

Over half (58%) of treatment episodes for pharmaceuticals as the principal drug of concern ended with an expected cessation, while 1 in 5 (19%) ended unexpectedly. Of the principal drugs of concern identified as comprising the pharmaceuticals group, steroids had the

highest proportion (78%) of treatment episodes ending with an expected cessation, followed by methadone (64%), and codeine and benzodiazepines (both 60%). Morphine had the lowest proportion (41%) of treatment episodes ending with an expected cessation. The proportion of treatment episodes ending with an unexpected cessation was highest for morphine (27%), followed by codeine (22%), and oxycodone and other analgesics (both 20%), and lowest for steroids (8%) (Table SD.150).

4.7 Selected other drugs

A number of other drugs make up a smaller proportion of overall treatment services. These drugs may be less prominent in treatment services because they are less common, or users may be less likely to seek treatment. Information about nicotine, ecstasy and benzodiazepines is specifically included in this section, due to the size of the population using these drugs and/or harms associated with use of those drugs (see Box 4.7).

Results from the National Drug Strategy Household Survey showed that in 2016:

- almost 1 in 7 Australians were current smokers and 1 in 8 were daily smokers
- while smoking rates have been on a long-term downward trend, for the first time in over 2 decades, the daily smoking rate among people aged 14 and over did not significantly decline between 2013 and 2016 (from 13% to 12%)
- two per cent of Australians aged 14 and over used ecstasy in the previous 12 months
- Ecstasy use did not change significantly, falling slightly from 2.5% in 2013 to 2.2% in 2016.

Box 4.7: Drug descriptions

Nicotine

Nicotine is the stimulant drug in tobacco smoke. It is highly addictive and causes dependency (ADCA 2013). Tobacco use (9%) was the highest risk factor contributing to the total burden of disease and injury in Australia in 2011 (AIHW 2016). The health effects of smoking include premature death and tobacco-related illnesses such as cancer, chronic obstructive pulmonary disease and heart disease.

Ecstasy

Ecstasy is the popular street name for a range of drugs said to contain the substance 3, 4 methylenedioxymethamphetamine (MDMA), an entactogenic stimulant with hallucinogenic properties. Ecstasy is usually sold in tablet or pill form, but is sometimes found in capsule or powder form. The short-term effects of ecstasy include euphoria, feelings of wellbeing and closeness to others, and increased energy. Harms include psychosis, heart attack and stroke. Little is known about the long-term effects of ecstasy use, but there is some research linking regular and heavy use of ecstasy to memory problems and depression (ADCA 2013).

Benzodiazepines

Benzodiazepines are depressant drugs—they slow down the activity of the central nervous system, and the speed of messages going between the brain and the body. Formerly known as ‘minor tranquillisers’, benzodiazepines are most commonly prescribed by doctors to relieve stress and anxiety, and to aid sleep. They are a drug of dependence, and are associated with fatal and non-fatal overdose among opioid users. Some people use benzodiazepines illegally to become intoxicated or to come down from the effects of stimulants, such as amphetamines or cocaine (ADF 2013).

These selected drugs of concern—nicotine, ecstasy, benzodiazepines—were more likely to be reported as an additional drug of concern rather than a principal drug of concern (tables 4.1 and SD.8). Nicotine was reported as a principal drug of concern in only 1.3% of treatment episodes, but in 18% of episodes as an additional drug of concern. Clients seeking treatment for ecstasy were younger—aged 10–29 (93%)—and were more likely to be male (83%). Over 7 in 10 (72%) clients seeking treatment for benzodiazepines were aged over 30 and almost half were female (48%) (Table 4.1).

Table 4.1: Summary characteristics of clients treated for selected drugs of concern, 2016–17 (%)

	Nicotine	Ecstasy	Benzodiazepines
Sex[a]			
Male	56.2	83.3	52.1
Female	43.8	16.6	47.7
Indigenous status[a][b]			
Indigenous	13.4	3.0	7.8
Non-Indigenous	82.6	93.9	88.2
Age[a]			
10–19	16.4	35.8	6.3
20–29	23.9	56.9	22.1
30–39	21.1	5.3	28.1
40–49	16.9	1.9	22.1
50+	21.8	0.1	21.4
Drugs of concern			
Principal drug of concern	1.3	0.7	1.0
Additional drug of concern	18.0	1.9	4.1
Referral to treatment			
Self/family	23.3	16.0	46.8
Health service	37.7	8.8	39.3
Corrections	2.6	2.8	2.2
Diversion	29.1	70.0	4.9
Other	7.4	2.5	6.9
Main treatment type			
Counselling	29.9	27.6	33.7
Information and education only	10.4	41.2	5.6
Assessment only	30.7	20.4	18.0
Withdrawal management	12.4	1.3	20.0
Other[c] [d]	16.7	9.5	22.7
Treatment setting			
Non-residential treatment facility	67.1	84.1	68.4
Residential treatment facility	1.6	2.5	12.4
Other[d]	31.3	13.3	19.3
Treatment completion			
Expected cessation	77.6	87.2	60.1
Unexpected cessation	11.8	7.9	16.9
Other[e]	10.7	4.9	23.0
Median duration	**4 days**	**1 day**	**16 days**

(a) Based on valid SLK client data.
(b) The proportion of clients for Indigenous status may not sum to the total, due to missing or not reported data.
(c) Includes support and case management only, pharmacotherapy, other and rehabilitation.
(d) Includes where treatment is delivered in the client's own home or usual place of residence or in an outreach setting.
(e) Includes administrative cessation.
Sources: Tables SC.5–7, SD.66, SD.69, SD.73, SD.76–79, SD.99, SD.106, SD.108–110, SD.114–117, SD.122, SD.124–126.

The proportion of episodes with either nicotine, ecstasy or benzodiazepines as the principal drug of concern has remained stable at around 0.5% to 2% for each drug each year since 2012–13 (Table SD.9). Typically, these 3 principal drugs of concern have together contributed around 3% to 4% of the total number of treatment episodes each year since 2012–13.

Over the 5 years to 2016–17, the proportion of closed treatment episodes for clients with these drugs as additional drugs of concern varied—ecstasy fell from 3% to 2%, and benzodiazepines fell from 7% to 4%. Nicotine fell from 23% to 18% in 2016–17 (Table SD.9).

Nicotine

In 2016–17, nicotine was a principal drug of concern in just 1.3% of treatment episodes (2,584), but an additional drug of concern in 18% of treatment episodes (34,672) (Table SD.9). Since 2007–08, the proportion of episodes with nicotine as the principal drug has remained stable at 1% to 2% (Table SD.9). Reasons for the low proportion of episodes in which nicotine was the principal drug include the wide availability of support and treatment for nicotine use in the community, such as through general practitioners, pharmacies, helplines or web services. People might also view AOD treatment services as most appropriate for drug use that is beyond the expertise of general practitioners. However, therapy to quit smoking is becoming an integral part of some AOD services as a parallel treatment with other drugs of concern.

Client demographics

Where nicotine was a principal drug of concern, 56% of clients were male and 13% were Indigenous Australians. Over 3 in 5 clients with nicotine as a principal drug of concern were aged under 40 years (61%) and 22% were aged over 50 (tables 4.1 and SC.5–SC.7).

Nicotine was more commonly reported as an additional drug of concern (18%)—the most commonly reported principal drugs of concern in combination with nicotine as an additional drug of concern were alcohol (33%) and cannabis (30%) (tables SD.7–SD.8).

Treatment

The most common source of referral for treatment episodes where nicotine was the principal drug of concern was a health service (38%), followed by police or court diversion programs (29%) and self/family (23%) (Table 4.1).

Assessment only (31%), counselling (30%) and other (17%) were the most common main treatment types (tables 4.1 and SD.74).

Treatment episodes where nicotine was the principal drug of concern were most likely to take place in a non-residential treatment facility (67%) (tables 4.1 and SD.76).

Almost two-thirds (63%) of episodes with nicotine as the principal drug lasted less than 1 month (47% ended within 1 day, and were mostly an assessment only) (Table SE.25). The median duration of episodes with nicotine as the principal drug of concern was 4 days (tables 4.1 and SD.79).

Almost three-quarters (78%) of episodes with nicotine as the principal drug of concern ended with an expected cessation, while 12% ended unexpectedly (Table 4.1). Expected cessations were most common where the main treatment type was assessment only (37%) (Table SD.78).

Ecstasy

Ecstasy was a principal drug in less than 1% of episodes (1,342 closed episodes), and an additional drug of concern in 2% (3,581) of closed episodes in 2016–17.

The proportion of episodes with ecstasy as a principal drug has remained stable up to 1% of all closed treatment episodes since 2007–08, but as an additional drug of concern, it decreased from 6% of episodes in 2008–09 to 2% in 2016–17 (tables 4.1 and SD.7–SE.9).

Client demographics

Where ecstasy was the principal drug of concern, over 8 in 10 (83%) clients were male and 3% were Indigenous. Over half of the clients (57%) with ecstasy as a principal drug of concern were aged 20–29, and 36% were aged 10–19 (tables 4.1 and SD.115–SD.116).

Ecstasy was more likely to be reported as an additional drug of concern—the most common principal drugs of concern that were reported in combination with ecstasy as an additional drug of concern were alcohol (37%) and cannabis (25%) (Table SD.7).

Treatment

In almost three-quarters (70%) of treatment episodes where ecstasy was the principal drug of concern, the client's source of referral was from police and court diversion (tables 4.1 and SD.125).

The most common main treatment type for episodes where ecstasy was the principal drug was information and education only (49%), followed by assessment only (22%) and counselling (18%) (Table SD.121).

Treatment episodes where ecstasy was the principal drug of concern were most likely to take place in a non-residential treatment facility (88%) (Table SD.124).

Almost three-quarters (72%) of episodes with ecstasy as the principal drug lasted less than 1 month (57% ended within 1 day) (Table SE.25). The median duration of episodes with ecstasy as the principal drug of concern was 1 day (Table SD.127).

Almost 9 in 10 (87%) episodes with ecstasy as the principal drug of concern ended with an expected cessation, while 7% ended unexpectedly. Expected cessations were most common where the main treatment type was information and education only (49%) (Table SD.126).

Benzodiazepines

In 2016–17, benzodiazepines were a principal drug of concern in 1% of treatment episodes (1,863 episodes) and an additional drug of concern in 4% of treatment episodes (7,913 episodes) (Table 4.1). In the 10 years from 2007–08, the proportion of episodes with benzodiazepines as the principal drug only changed by 1 percentage point (Table SD.9).

Client demographics

Where benzodiazepines were the principal drug of concern, just over half (52%) of the clients were male and 8% were Indigenous. Over 7 in 10 clients (71%) with benzodiazepines as a principal drug of concern were aged over 30 years (Table 4.1).

Benzodiazepines were more likely to be an additional drug of concern—the most common principal drugs of concern in combination with benzodiazepines as an additional drug of concern were alcohol and cannabis (both 17%), and amphetamines (15%) (Table SD.7).

Treatment

The most common source of referral for treatment episodes with benzodiazepines as the principal drug of concern was self/family (47%), followed by a health service (39%) (Table 4.1).

The most common main treatment type for episodes with benzodiazepines as the principal drug of concern was counselling (34%), followed by other types of treatment (23%) and withdrawal management (20%) (tables 4.1 and SD.106).

Treatment episodes with benzodiazepines as the principal drug of concern were most likely to take place in a non-residential treatment facility (68%). Counselling was the main treatment provided (42% of episodes) in a non-residential treatment facility, followed by withdrawal management (16%) (Table SD.110).

Where benzodiazepines were the principal drug of concern, nearly 3 in 5 (59%) episodes lasted less than 1 month, and 25% of episodes lasted up to 3 months (Table SE.25). The median duration of episodes with benzodiazepines as the principal drug of concern was over 2 weeks (16 days) (tables 4.1 and SD.111).

Around 3 in 5 (60%) episodes with benzodiazepines as the principal drug of concern ended with an expected cessation, while 17% ended unexpectedly. Expected cessations were more common for episodes where the main treatment type was counselling (29%) or withdrawal management (22%) (Table SD.110).

5 Treatment provided

5.1 Introduction

There are a number of treatment types available to assist people with problematic drug use in Australia. Most aim to reduce the harm of drug use, while others use a structured drug-free setting with abstinence-oriented interventions.

This chapter presents information on the treatment types provided by publicly funded AOD treatment agencies in Australia. Information on clients and treatment agencies is included in the AODTS NMDS when a treatment episode provided to a client is closed (see Box 4.1). Treatment is available to help people deal with their own drug use, and to support the family and friends of people using drugs.

Box 5.1: Treatment provided key facts

In 2016–17:

- counselling was the most common treatment type (40%)
- self/family was the most common source of referral for treatment episodes (38%)
- around 4 in 5 (80%) closed treatment episodes ended within 3 months
- the median duration of closed treatment episodes was 3 weeks (20 days)
- around 2 in 3 (63%) closed treatment episodes had an expected cessation
- most of the treatment episodes provided to clients for their own drug use were for male clients (66%), whereas most clients seeking treatment for someone else's drug use were female (65%)
- clients seeking treatment for someone else's drug use were older—over half (55%) were aged 40 and over, compared with over two-thirds (68%) of clients seeking treatment for their own drug use were aged 10–39.

Over the 5-year period to 2016–17:

- the proportion of episodes for each main treatment type has remained stable, with counselling and assessment only being the most common types of treatment. Support and case management only has become the third most common type of treatment over the previous 2 years
- of clients receiving some form of treatment over multiple years; 2% (6,277) received treatment over 3 years from 2014–15 to 2016–17 and over 1% (5,193) of clients received treatment over the 4 years from 2013–14 to 2016–17
- the median duration of closed episodes for the client's own drug use decreased from 22 days to 19 days
- the proportion of episodes with an expected cessation remained stable at 63%.

5.2 Characteristics of clients and episodes

In 2016–17, 127,404 clients received 200,751 treatment episodes from AOD treatment agencies. Most of the clients were seeking treatment for their own drug use—a total of 122,077 clients (or 96% of episodes)—and were more likely to be male (68% of clients). Conversely, clients seeking treatment for someone else's drug use were more likely to be female (66%) (tables SC.1 and SC.2).

Around 1 in 7 clients who received treatment in 2016–17 were Indigenous Australians—15% of those receiving treatment for their own drug use, and 11% of those receiving treatment for someone else's drug use (Table SC.4).

In 2016–17, more than half (56%) of clients seeking treatment for their own drug use were aged 20–39. Clients seeking treatment for someone else's drug use were older—over half (59%) were aged 40 and over, compared with just under one-third (31%) of those receiving treatment for their own drug use (Table SC.3).

Nationally, in 2016–17, 7 out of 10 (71%) closed treatment episodes were provided in *Major cities,* 16% in *Inner regional* areas and 9% in *Outer regional* areas. Relatively few treatment episodes were provided in *Remote* (3%) or *Very remote* areas (1%) (Table SA.4).

In 2016–17, most (83%) clients received treatment at a single agency, 13% at 2 agencies, and 4% of clients received treatment at 3 or more agencies (Table SC.23). Nationally, the number of clients presenting to publicly funded AOD services decreased slightly between 2015–16 and 2016–17.

Nationally, a total of 370,777 closed treatment episodes were provided to clients over the 4 most recent collection years, 2013–14, 2014–15, 2015–16 and 2016–17. Of these closed episodes, varying proportions of clients received some form of treatment across multiple collection years (tables 5.1 and SC.28):

- 5.1% (18,858) of clients received treatment in the 2 most recent collection years; that is, in both 2015–16 and 2016–17
- 1.7% (6,277) of clients received treatment in the 3 most recent collection years; that is, in each year from 2014–15 to 2016–17
- 1.4% (5,193) of clients received treatment in all 4 collection years; that is, in each year from 2013–14 to 2016–17
- about 1 in 5 clients (21% or 77,889 clients) received treatment in 2016–17 only, and a similar proportion (20% or 72,809 clients) received treatment in 2015–16 only.

Table 5.1: Summary characteristics of clients[a] who received treatment in multiple years (%)

	Clients in 2015–16 and 2016–17	Clients in 2014–15, 2015–16 and 2016–17	Clients in 2013–14, 2014–15, 2015–16 and 2016–17
Total proportion of clients over 4 collection years	**5.1%**	**1.7%**	**1.4%**
Sex[a]			
Male	65.5	63.7	62.8
Female	34.5	36.3	37.2
Client type[a]			
Own drug use	97.7	98.4	98.7
Other's drug use	2.3	1.6	1.3
Indigenous status[a] [b]			
Indigenous	14.1	14.5	13.3
Non-Indigenous	82.5	82.8	84.2
Age[a]			
10–19	10.4	7.8	5.9
20–29	28.1	26.2	23.5
30–39	29.9	32.2	34.2
40–49	20.4	22.1	23.8
50+	11.3	11.8	12.7
Principal drugs of concern			
Alcohol	30.7	34.4	37.5
Amphetamines	26.2	26.3	22.9
Cannabis	18.2	14.9	13.1
Heroin	6.0	8.1	10.6
Referral to treatment			
Self/family	37.8	43.8	47.2
Health service	26.9	27.0	27.4
Corrections	14.7	11.7	10.0
Diversion	13.2	10.0	8.4
Other	7.5	7.5	7.0
Main treatment type			
Counselling	36.4	36.7	33.7
Information and education only	5.5	3.9	3.3
Support and case management only	16.1	14.0	13.8
Assessment only	16.9	20.4	12.8
Withdrawal management	13.2	13.7	17.6
Other[c] [d]	11.9	16.4	18.9
Treatment setting			
Non-residential treatment facility	63.5	61.8	61.2
Residential treatment facility	13.4	18.1	20.9
Other[d]	23.1	20.1	17.9
Treatment completion			
Expected cessation	77.6	55.5	57.0
Unexpected cessation	11.8	21.1	19.9
Other[e]	10.7	23.5	23.2

(a) Based on valid SLK client data–no imputation applied to data.

(b) The proportion of clients for Indigenous status may not sum to the total, due to missing or not reported data.

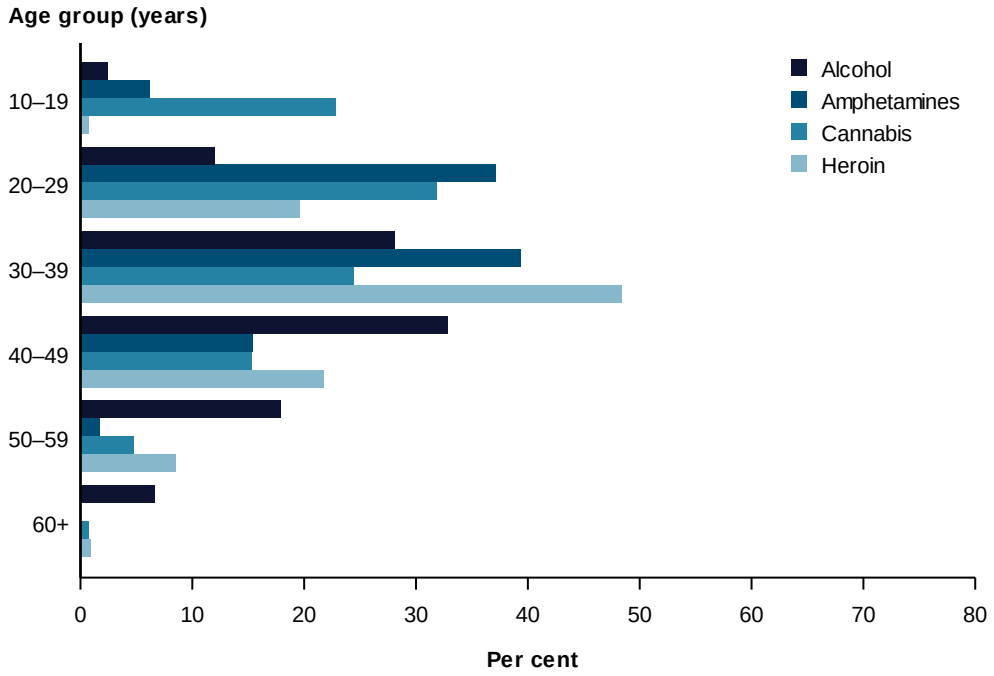
(c) Includes pharmacotherapy, other and rehabilitation.

(d) Includes where treatment is delivered in the client's own home or usual place of residence or in an outreach setting.

Sources: Tables SC.28, SCY.1–SCY.37.

Clients receiving treatment over the 4-year period from 2013–14 to 2016–17 were:

- more likely to be older where heroin was the principal drug of concern—with 48% aged 30–39 and 22% aged 40–49
- more likely to be younger where cannabis was the principal drug of concern—with 32% aged 20–29 and 23% aged 10–19
- most likely to be aged 20–39 where amphetamines were the principal drug of concern (77%)
- more likely to be older where alcohol was the principal drug of concern—with 2% aged 10–19 and 57% aged 40 or over. Alcohol was the most common principal drug of concern for more than one-third of clients (38%) (Figure 5.1; Table SCY.29).

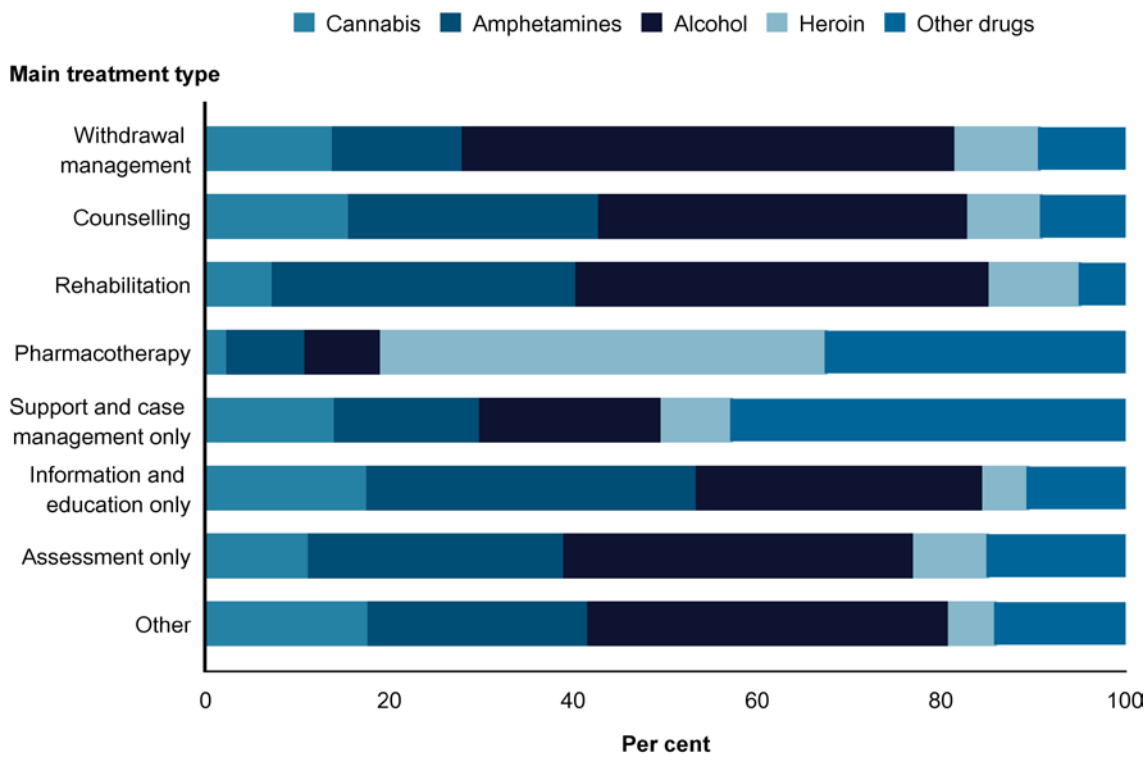


Source: Table SCY.29.

Figure 5.1: Clients who received treatment over four years, 2013–14, 2014–15, 2015–16 and 2016–17, by age group (years) and selected drugs of concern (%)

For clients receiving treatment from 2013–14 to 2016–17:

- counselling was the most common treatment type for all clients (33%), followed by withdrawal management (18%) and support and case management (14%) (Table SCY.36)
- rehabilitation was more commonly provided to clients with a principal drug of concern of alcohol (45%) or amphetamines (33%) (Figure 5.2 and Table SCY.36)
- pharmacotherapy was the most common main treatment for almost half of clients (48%) where heroin was a principal drug of concern (Figure 5.2 and Table SCY.36).



Source: Table SCY.36.

Figure 5.2: Clients who received treatment in all four years, 2013–14, 2014–15, 2015–16 and 2016–17, by main treatment and selected drugs of concern (%)

5.3 Referral to treatment

In 2016–17, the most common source of referral for treatment episodes was self/family for both clients receiving treatment for their own drug use (37%), and clients receiving treatment for someone else's drug use (57%). Referral episodes from a health service were also common for both groups (28% and 22%, respectively), while referral episodes from police or court diversion programs accounted for 17% of episodes for clients receiving treatment for their own drug use (Table SE.16).

Clients referred by diversion programs were younger—with 20% of these episodes being for clients aged 10–19, 35% for those aged 20–29 and 24% for those aged 30–39 (Table SE.16).

Over the 5 years to 2016–17, the proportion of treatment episodes with self/family referrals for clients' own drug use rose very slightly from 41% in 2012–13 to 42% in 2013–14, then fell to 37% in 2016–17. Self/family referrals for someone else's drug use followed a similar trend, increasing from 50% in 2012–13 to 64% in 2014–15, then falling to 57% in 2016–17. The proportion of treatment episodes where the client was referred by health services rose over the same period for both clients seeking treatment for their own drug use (24% in 2012–13 to 28% in 2016–17) and for someone else's drug use (14% in 2012–13 to 22% in 2016–17) (Table SE.15).

In 2016–17, the source of referral varied according to clients' principal drugs of concern. Self/family was the most common source of referral episodes for clients receiving treatment for the principal drugs of heroin (52%), alcohol (43%) and amphetamines (42%) (Table 5.2). Where cannabis was the principal drug of concern, diversion (36% of episodes) was the most common source of referral, followed by self/family referrals (28% of episodes). Clients receiving treatment for alcohol as their principal drug of concern were less likely to be referred through diversion (8% of episodes) when compared with clients receiving treatment for cannabis (36% of episodes), amphetamines (19%) or heroin (10%). Around 7 in 10 (70%) treatment episodes for clients whose principal drug of concern was ecstasy were referred to treatment through police or court diversion programs (see Chapter 4 for further information).

Table 5.2: Closed treatment episodes, by principal drug of concern and source of referral, 2016–17 (%)

Principal drug of concern	Self/family	Health service	Corrections	Diversion	Other	Total
Analgesics						
Codeine	51.8	40.4	0.6	1.5	5.7	100
Morphine	50.8	32.4	7.2	4.6	5.1	100
Buprenorphine	48.9	32.0	11.7	2.1	5.3	100
Heroin	52.2	24.4	7.3	10.5	5.6	100
Methadone	36.9	46.6	5.5	4.8	6.2	100
Total analgesics	*50.4*	*30.3*	*6.4*	*7.4*	*5.5*	*100*
Sedatives and hypnotics						
Alcohol	42.5	36.6	4.7	8.3	7.9	100
Benzodiazepines	46.8	39.3	2.1	4.9	6.9	100
Total sedatives and hypnotics	*42.6*	*36.6*	*4.9*	*8.3*	*8.9*	*100*
Stimulants and hallucinogens						
Amphetamines	41.9	24.2	8.7	18.6	6.5	100
Ecstasy	15.9	8.8	2.8	70.0	2.5	100
Cocaine	39.9	16.5	6.8	31.3	0.1	100
Nicotine	23.3	37.7	2.6	29.1	7.4	100
Total stimulants and hallucinogens	*40.2*	*24.3*	*8.2*	*20.9*	*6.4*	*100*
Cannabis	**27.9**	**24.1**	**5.6**	**35.7**	**6.8**	**100**
Volatile solvents	**16.1**	**31.6**	**3.5**	**21.4**	**27.4**	**100**

Source: Table SD.17.

Over the 5 years to 2016–17, treatment episodes where alcohol was the principal drug of concern and self/family was the source of referral decreased slightly, from 45% in 2012–13 to 43% in 2016–17. Where cannabis was reported as the principal drug of concern, the proportion of diversion referrals reported over this period increased (from 32% to 36%), whereas the proportion of referral episodes from self/family decreased (from 31% to 28%) (Table SD.17).

5.4 Duration of treatment

In 2016–17, around 4 in 5 (80%) closed episodes ended within 3 months (80% for clients receiving treatment for their own drug use, and 76% for someone else's drug use). Over the 5 years to 2016–17, the proportion of episodes for clients' own drug use that ended within 3 months remained fairly stable (80%) (Table SE.21).

Nationally, the median duration of closed episodes was just under 3 weeks (19 days) for clients' own drug use, and just over 5 weeks (36 days) for clients receiving treatment for someone else's drug use. The median duration of closed episodes for clients' own drug use fell slightly over the 5 years—from 22 days in 2012–13 to 19 days in 2016–17 (Table SE.22).

5.5 Treatment completion

Reasons for clients no longer receiving treatment from an AOD treatment service include expected cessations (for example, treatment was completed), unexpected cessations (for example, non-compliance) and administrative cessation (for example, client transferred to another service provider) (see Glossary and Box 4.1).

In 2016–17, around 3 in 5 (62%) treatment episodes for the client's own drug use were expected or completed cessations. Unexpected cessations accounted for one-fifth (20%) of closed treatment episodes, 12% of cessations were for other reasons and 6% were due to administrative cessation. This pattern was broadly similar for completions for clients who received treatment for someone else's drug use, with the exception of unexpected episode cessations, which were lower (13%, compared with 20% for own drug use) (Table 5.3).

Table 5.3: Closed treatment episodes, by reason for cessation and client type, 2016–17 (%)

Reason for cessation	Own drug use	Other's drug use
Expected cessation	62.4	70.2
Unexpected cessation	19.9	12.8
Administrative cessation	5.7	3.0
Other	12.0	14.0
Total	**100.0**	**100.0**

Source: Table SE.18.

In 2016–17, treatment episodes with an expected cessation were highest where ecstasy was the principal drug of concern (87%), followed by nicotine (78%), and volatile solvents and cannabis (both 73%). The lowest proportion of expected cessations was for episodes with morphine as the principal drug of concern (41%) (Table 5.4).

About one-quarter (27%) of treatment episodes where morphine was the principal drug of concern had an unexpected cessation, followed by amphetamines (26%) and codeine (22%), while ecstasy had the lowest proportion (8%) (Table 5.4).

Table 5.4: Closed treatment episodes, by principal drug of concern and reason for cessation, 2016–17 (%)

Principal drug of concern	Expected cessation	Unexpected cessation	Administrative cessation	Other	Total
Analgesics					
Codeine	60.4	22.1	10.7	6.7	100
Morphine	40.7	27.2	17.9	14.3	100
Buprenorphine	54.6	17.0	15.8	12.6	100
Heroin	60.5	20.9	6.5	12.1	100
Methadone	63.9	13.1	11.2	11.7	100
Total analgesics	*59.0*	*20.3*	*9.5*	*11.2*	*100*
Sedatives and hypnotics					
Alcohol	65.7	20.2	6.8	7.3	100
Benzodiazepines	60.1	16.9	9.0	14.0	100
Total sedatives and hypnotics	*65.6*	*20.1*	*6.8*	*7.5*	*100*
Stimulants and hallucinogens					
Amphetamines	61.0	26.4	5.6	7.0	100
Ecstasy	87.2	7.9	1.9	3.1	100
Cocaine	69.7	20.4	3.2	6.7	100
Nicotine	77.6	11.8	4.8	5.9	100
Total stimulants and hallucinogens	*62.6*	*25.1*	*5.3*	*7.0*	*100*
Cannabis	**72.8**	**17.7**	**4.1**	**5.4**	**100**
Volatile solvents	**73.2**	**16.0**	**5.7**	**5.1**	**100**

Source: Table SE.12.

Over the 5 years to 2016–17, treatment episodes that ended in an expected cessation have remained relatively stable (falling by less than 1 percentage point) (Table SD.16). The increase in expected cessation was greatest for episodes where heroin and methadone were the principal drug of concern (both increased by 7 percentage points). Decreases in expected cessation were reported for treatment episodes for volatile solvents (3 percentage points) and morphine and cocaine (both 2 percentage points).

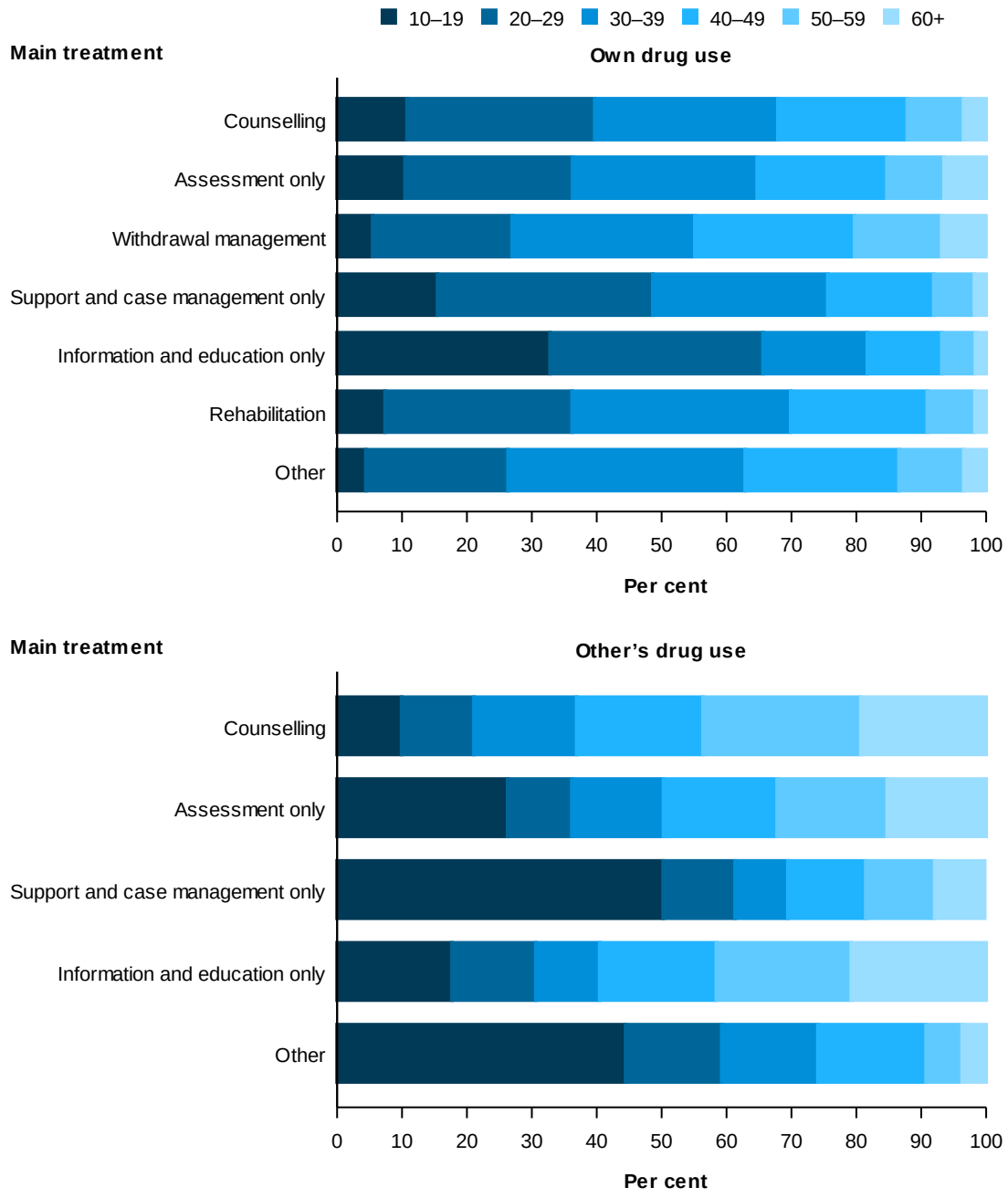
Over the same period, unexpected cessation increased for episodes where volatile solvents and cocaine were the principal drug of concern (6 percentage points and 5 percentage points respectively), and decreased by 3 percentage points for both benzodiazepines and methadone episodes (Table SD.16).

5.6 Treatment types

Counselling was the most common treatment type provided to all clients in 2016–17 (43%), followed by assessment only (16%) and support and case management only (14%). This pattern was consistent for clients receiving treatment for their own drug use, while for clients receiving treatment for someone else's drug use the most common treatment type was counselling (77%), followed by support and case management only (8%) and information and education only (7%) (Table SC.15).

In 2016–17, the majority of clients seeking treatment for their own drug use were aged 20–49 for all treatment types (ranging from 74% to 85%), with the exception of information and education only, where the majority of clients were aged 10–39 (82%) (Figure 5.3; Table SC.16).

The age of clients varied by treatment type for those seeking treatment for someone else's drug use. The majority of clients receiving counselling for someone else's drug use were aged 40 or older (63%), while the highest proportions of those receiving either support and case management only or assessment only for someone else's drug use were aged 10–19 (50% and 26%, respectively) (Figure 5.3; Table SC.16).



Source: Table SC.15.

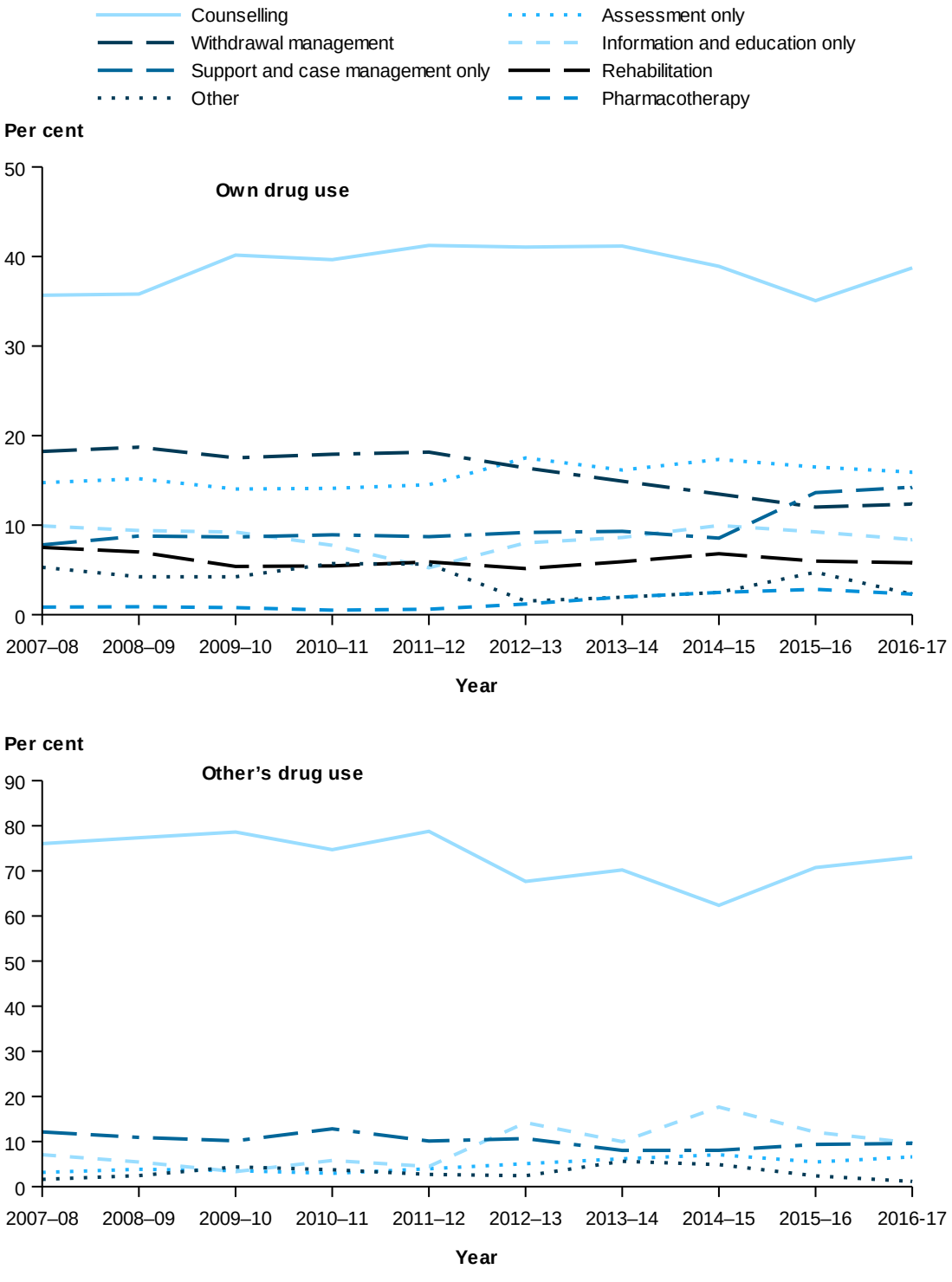
Figure 5.3: Main treatment, by client type and age group (years), 2016–17

In 2016–17, the most common source of referral for clients was self/family (32%). This was consistent for all treatment types, with the exception of support and case management only, where correctional service was the most common source of referral (47%) and information and education only, where police and court diversion was the most common source of referral (66%) (Table SC.18).

Nearly two-thirds (62%) of clients had an expected cessation (for example, their treatment was completed). This varied by treatment type—from 35% of clients receiving support and case management only to 93% of those clients receiving information and education only (Table SC.20).

Overall, since 2007–08, the proportion of episodes for each main treatment type for clients seeking treatment for their own drug use has remained fairly stable, with counselling, withdrawal management, and assessment only being the most common types of treatment.

Counselling continues to be the most common main treatment type provided to clients seeking treatment for their own drug use, comprising about 2 in 5 episodes since 2007–08. In 2012–13, assessment only replaced withdrawal as the second most common main treatment type, and this pattern of main treatment type has subsequently remained consistent. For those seeking treatment for someone else's drug use, counselling, information and education only, and support and case management only have remained the most common main treatment types over the 10-year period (Figure 5.4; tables ST.4 and ST.7.2).



Note: Withdrawal, rehabilitation and pharmacotherapy treatment is not available for clients seeking treatment for other's drug use.

Source: Table ST.4.

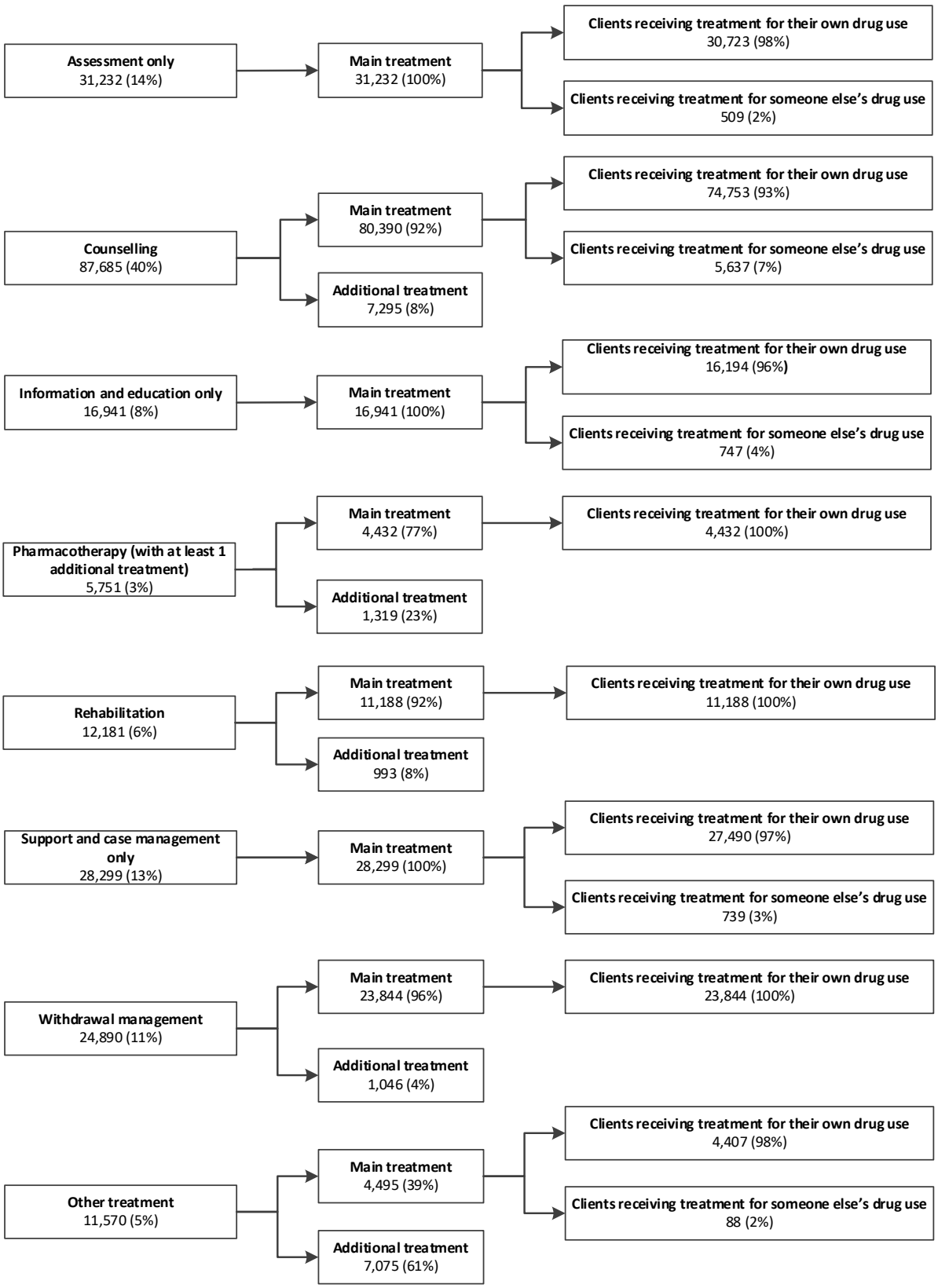
Figure 5.4: Closed treatment episodes, by client type and main treatment type, 2007–08 to 2016–17

Since 2007–08, the proportion of episodes for clients seeking treatment for their own drug use with counselling as the main treatment type increased from 2007–08 to 2011–12 (from 36% to 41%), but decreased to 39% in 2016–17. Episodes with withdrawal management as the main treatment type have seen a steady decrease (from 18% to 12%) over the same period. However, treatment episodes for support and case management increased from 8% to 14% in the 10-year period (Table ST.4).

For clients seeking treatment for someone else's drug use, the majority of episodes provided counselling as the main treatment type over the same period—76% of episodes in 2007–08, falling to 62% in 2014–15, and increasing to 73% in 2016–17. Episodes with information and education only as the main treatment type increased over the same period (from 7% to 10%) (Table ST.4).

In 2016–17, across remoteness areas, counselling was the most common treatment type in all regions. Withdrawal management (detoxification) as a main treatment type for clients' own drug use was more common in *Major cities* (13%) than in other areas. The lowest proportion of treatment episodes for withdrawal management was in *Very remote* areas (4.7%), but for support and case management only the lowest proportion was in *Remote* areas (3.8%) (Table SA.9).

The majority of closed treatment episodes (96%) were provided to clients for their own drug use, with treatment for the drug use of others accounting for 4% of episodes (Table ST.1). A similar pattern was recorded across all treatment types, with the proportion of episodes provided for the client's own drug use ranging from 100% where the main treatment type was either pharmacotherapy, rehabilitation or withdrawal management, to 93% where counselling was the main treatment type (Figure 5.5).



Sources: Tables ST.1, ST.2 and ST.4.

Figure 5.5: Summary treatment characteristics (main and additional) of closed episodes, 2016–17

Counselling

Counselling is the most common treatment type for problematic alcohol and/or other drug use and can include cognitive behaviour therapy, brief intervention, relapse intervention and motivational interviewing (ADCA 2013).

In 2016–17, counselling was reported as a main treatment type in 40% (80,390) of all treatment episodes. Almost 2 in 5 (39%) treatment episodes for clients seeking help for their own drug use received counselling as a main treatment; this proportion was 73% for someone else's drug use (Table ST.4).

Younger males were more likely to receive counselling for their own drug use (66% of treatment episodes), with 58% of these episodes being provided to those aged 20–39. Clients receiving counselling for someone else's drug use were more likely to be female (66% of episodes) and aged 40 and over (64%) (Table ST.19).

For clients seeking treatment for their own drug use, around 1 in 6 (17%) closed treatment episodes with a main treatment type of counselling were for Indigenous clients. For episodes where clients received treatment due to someone else's drug use, 11% of clients identified as Indigenous (Table ST.21).

For both client types, around 1 in 7 episodes with a main treatment type of counselling lasted 1 day (16% for own drug use and 14% for someone else's use), while over half (54% and 52%, respectively) lasted from over 30 days up to 6 months (Table ST.26).

Over the 5 years to 2016–17, for clients receiving counselling for their own drug use, the proportion of episodes ending within 1 month remained relatively stable, rising from 33% in 2012–13 to 34% in 2016–17, while the proportion of episodes lasting more than 1 month fell from 69% to 66% (Table ST.27).

Over the same period, for clients receiving counselling for someone else's drug use, the proportion of closed episodes lasting 1 day fell from 16% to 14%, while the proportion lasting 6 months or more rose from 9% to 11% (Table ST.27).

Assessment only

Although all service providers would normally include an assessment component in all treatment types, assessment only episodes are those for which only an assessment has been provided to the client.

In 2016–17, 14% (31,232) of all treatment episodes reported a main treatment type of assessment only. Around 1 in 6 (16%) treatment episodes for clients seeking help for their own drug use received assessment only as a main treatment; this proportion was 3% for clients seeking help for someone else's drug use (Table ST.4).

Younger males; that is, those aged 10–39, were more likely to receive assessment only as treatment for their own drug use—66% of treatment episodes, with almost 9 in 10 (86%) of these episodes provided to those aged 20–39. Clients receiving assessment only treatment for someone else's drug use were more likely to be female (51%), with 63% of those females aged 40 and over (Table ST.41).

Over the 5 years to 2016–17, for clients seeking treatment for their own drug use, the proportion of assessment only treatment episodes for clients aged 10–19 and 20–29 both decreased from 11% to 9% and 29% to 26%, respectively. The proportion of assessment only episodes for those aged 60 and over continued to increase over the 5 years, rising from 3% in 2012–13 to 5% in 2016–17.

For clients seeking treatment for someone else's drug use, there was an increase in the proportion of assessment only episodes for clients aged 10–19, from 8% to 28%, over the 5-year period. Around 3 in 5 (60%) assessment only treatment episodes were provided to clients aged 40 and over in 2012–13, compared with almost half (47%) in 2016–17 (Table ST.42).

Where the main treatment type was assessment only, 15% of closed treatment episodes for clients' own drug use were for Indigenous clients, and 17% of episodes were for someone else's drug use (Table ST.43).

Almost two-thirds (65%) of all assessment only treatment episodes lasted just 1 day. For clients seeking treatment for their own drug use, almost two-thirds (65%) of assessment only treatment episodes last just 1 day, while almost 9 in 10 (86%) assessment episodes for those seeking treatment for someone else's drug use lasted just 1 day (Table ST.45).

Over the 5 years to 2016–17, for clients seeking treatment for their own drug use, the proportion of closed assessment only episodes ending within 1 day fell from 69% to 65%, while the proportion of assessment only episodes lasting 2–29 days rose from 19% to 22%.

For those clients seeking treatment for someone else's drug use, the proportion of closed assessment only episodes ending within 1 day increased from 2012–13 to 2016–17 (from 83% to 86%), while assessment only episodes lasting 2–29 days increased from 7% to 9% over the same period. The proportion of closed assessment only treatment episodes lasting between 3 and 6 months fell from 4% to 1% (Table ST.46). It is important to note that these trends are influenced by differences in jurisdictional service delivery practices, and data quality improvement over time.

Withdrawal management

Withdrawal management (detoxification) includes medicated and non-medicated treatment to help manage, reduce or stop the use of a drug of concern. This type of treatment is not available for clients seeking treatment for someone else's drug use.

In 2016–17, 12% (23,844) of treatment episodes with a main treatment type of withdrawal management were provided to clients for their own drug use (Table ST.4). Almost two-thirds (62%) of these episodes were provided to male clients and 1 in 10 (11%) were for Indigenous clients (tables ST.30 and ST.32).

Withdrawal treatment episodes as a main treatment type were most commonly provided to clients whose principal drug of concern was either alcohol (46%), amphetamines (21%) or cannabis (17%) (Table ST.33).

More than half (53%) of all withdrawal management treatment episodes were provided for those aged 30–39 (28%) or 40–49 (25%) (Table ST.31). Over 4 in 5 treatment episodes for withdrawal management (83%) lasted less than 1 month (Table ST.38).

Over the 5 years from 2012–13, the proportion of closed withdrawal management episodes ending within 1 month increased from 77% to 83%, while the proportion of episodes lasting longer than 1 month fell from 23% to 17% (Table ST.38).

Support and case management only

Support includes activities such as providing emotional support to a client who occasionally calls an agency worker. Case management is usually more structured than support. It can assume a more holistic approach, taking into account all client needs (including general welfare needs) and it encompasses assessment, planning, linking, monitoring and advocacy (Vanderplaschen et al. 2007).

In 2016–17, around 14% (28,229) of all treatment episodes reported a main treatment type of support and case management only. Over 1 in 7 (14%) treatment episodes for clients seeking help for their own drug use received support and case management only as a main treatment, and 10% were for someone else's drug use (Table ST.4).

Over two-thirds (69%) of the closed support and case management only treatment episodes provided to clients for their own drug use were for males, half (50%) were for clients aged 10–29 and 8% of episodes were for Indigenous clients. Female clients were more likely to be Indigenous than were male clients (11% compared with 7%) (tables ST.49–51).

For clients seeking treatment for someone else's drug use, 61% of support and case management only treatment episodes were for females, 42% were for clients aged 10–19 and 1 in 14 (7%) were for Indigenous clients. Around 1 in 14 (7%) male clients were Indigenous, and around 1 in 14 (7%) female clients were Indigenous (tables ST.49–51).

Over the 5 years to 2016–17, there was a decrease in the proportion of support and case management only episodes provided to younger clients. For both client types, the proportion provided to those aged 10–19 decreased (from 26% to 16% of episodes for clients receiving treatment for their own drug use, and from 51% to 42% for clients seeking treatment for someone else's drug use) (Table ST.50).

Half (50%) of the support and case management only treatment episodes provided to clients for their own drug use were provided to those aged 10–19 (16%) or 20–29 (33%).

For both client types, the proportion of support and case management only episodes lasting over 12 months were similar (1.6% for own drug use and 2.3% for someone else's drug use), while the proportion of episodes lasting 1 day was higher for clients receiving treatment for their own drug use (40%, compared with 16% for someone else's use) (tables ST.50 and ST.54).

Over the 5 years to 2016–17, the proportion of closed treatment episodes lasting 1 day for clients seeking treatment for their own drug use, where support and case management only was provided, rose substantially—from 9% in 2012–13 to 40% in 2016–17. Over the same period, for clients seeking treatment for someone else's drug use, the proportion of episodes provided rose from 12% to 16% (Table ST.54).

Information and education only

In 2016–17, 8% (16,941) of all treatment episodes reported a main treatment type of information and education only. Over 1 in 12 (8%) treatment episodes for clients seeking help for their own drug use received information and education only as a main treatment; this proportion was 10% for those seeking treatment for someone else's drug use (Table ST.4).

Clients receiving information and education only for their own drug use were most likely to be male (68%) and younger (30% of episodes were for clients aged 10–19, and 32% for clients aged 20–29). For someone else's drug use, clients were more likely to be female (70%), and older (55% of episodes were for clients aged 40 and over).

Over the 5 years to 2016–17, the age profile of all clients receiving information and education only treatment for their own use remained relatively stable. However, for clients seeking treatment for someone else's drug use, the proportion of clients aged 10–19 decreased significantly, from 26% in 2012–13 to 10% in 2016–17, with a peak of 57% in 2014–15 (tables ST.57–58).

Around 1 in 7 (15%) information and education only episodes for clients seeking treatment for their own drug use were provided to those who identified as Indigenous, compared with

around 1 in 12 (8%) episodes where clients sought treatment for someone else's drug use (Table ST.59).

As expected for this type of treatment, about 4 in 5 (79%) information and education only episodes for clients lasted just 1 day for clients seeking treatment for their own drug use; for those seeking treatment for someone else's drug use, this proportion was almost 3 in 5 (59%) (Table ST.62).

Over the 5 years to 2016–17, for clients receiving information and education only treatment for their own drug use, the proportion of closed episodes ending within 1 day decreased from 82% to 79%, while the proportion of episodes lasting 30–90 days increased from 6% to 8% (Table ST.62).

Over the same period, for those clients seeking treatment for someone else's drug use, the proportion of information and education only episodes ending within 1 day decreased from 77% to 59%, while the proportion of episodes lasting 2–29 days increased from 8% to 20% (Table ST.62). It is important to note that these trends were influenced by differences in jurisdictional program practices over time.

Rehabilitation

Rehabilitation focuses on helping clients to cease their drug use, and to prevent psychological, legal, financial, social and physical consequences of problematic drug use. Rehabilitation can be delivered in a number of ways, including residential treatment services, therapeutic communities and community-based rehabilitation services (AIHW 2011). This type of treatment is not available for clients seeking treatment for someone else's drug use.

In 2016–17, 6% (11,188) of closed treatment episodes with a main treatment type of rehabilitation were provided to clients for their own drug use. Almost two-thirds (64%) of these episodes were provided to male clients and 23% were for Indigenous clients (tables ST.4, ST.65 and ST.67).

Rehabilitation treatment episodes as a main treatment type were most commonly provided to clients whose principal drug of concern was either amphetamines (41%), alcohol (36%) or cannabis (11%) (Table ST.68).

Almost two-thirds (64%) of the treatment episodes provided for rehabilitation were for clients aged 20–29 (30%) or 30–39 (34%). More than one-third (37%) of the episodes lasted 1–3 months, while a further 30% lasted 2–29 days (tables ST.66 and ST.73).

Over the 5 years to 2016–17, the duration of closed treatment episodes for rehabilitation for those clients seeking treatment for their own drug use remained relatively stable (Table ST.73).

Pharmacotherapy

Pharmacotherapy is the replacement of a person's drug of choice with a legally prescribed and dispensed substitute. Pharmacotherapy programs are available for a range of drugs, including alcohol and opioids. Where a pharmacotherapy is used for withdrawal, it is included in the 'withdrawal' category.

Only episodes where pharmacotherapy was an additional treatment, or where it was the main treatment with an additional treatment provided, are included in the AODTS NMDS. Episodes where pharmacotherapy was the main treatment and no additional treatment was provided are excluded.

Pharmacotherapy is only available to clients receiving treatment for their own drug use. Because most pharmacotherapy services are outside the scope of the AODTS NMDS, the data presented on pharmacotherapy episodes are a significant under-representation. More information on opioid pharmacotherapy treatment provided in Australia is available from the AIHW's National Opioid Pharmacotherapy Statistics at <https://www.aihw.gov.au/reports/alcohol-other-drug-treatment-services/nopsad-2017/contents/summary>.

For services that were in scope of the AODTS NMDS in 2016–17, 3% (5,751) of treatment episodes were provided with a treatment type of pharmacotherapy (main or additional). Over one-quarter (29% or 1,319) of these treatment episodes reported pharmacotherapy as an additional treatment (tables ST.2 and ST.75).

Two-thirds (66%) of pharmacotherapy treatment episodes were provided to male clients and 11% were for Indigenous clients. Over two-thirds (67%) of episodes were for those aged 30–39 (42%) or 40–49 (25%). A further 18% were for clients aged 20–29, while just 2% were for clients aged 60 and over (tables ST.76–78).

Pharmacotherapy treatment episodes as a main treatment type were most commonly provided to clients whose principal drug of concern was either heroin (40%), amphetamines (13%) or alcohol (11%) (Table ST.79).

Of the closed episodes where pharmacotherapy was the main treatment type, 1 in 5 closed episodes (21%) lasted over 12 months, while a further one-third (33%) lasted 3–12 months (Table ST.84).

More than two-fifths (40%) of pharmacotherapy episodes had heroin as a principal drug of concern, while almost 1 in 8 (13%) had a principal drug of amphetamines.

Pharmacotherapy is commonly reported as an additional treatment in the AODTS NMDS. The most common principal drugs of concern with additional treatment episodes of pharmacotherapy include alcohol (40%), amphetamines (22%) and cannabis (14%) (Table ST.80).

Appendix A: Data and methods

Age

Age is calculated as at the start of the episode.

Data collection process

For most states and territories, the data provided for the national collection are a subset of a more detailed jurisdictional data set used for planning and policy. Figure A1 shows the processes involved in constructing the national data.

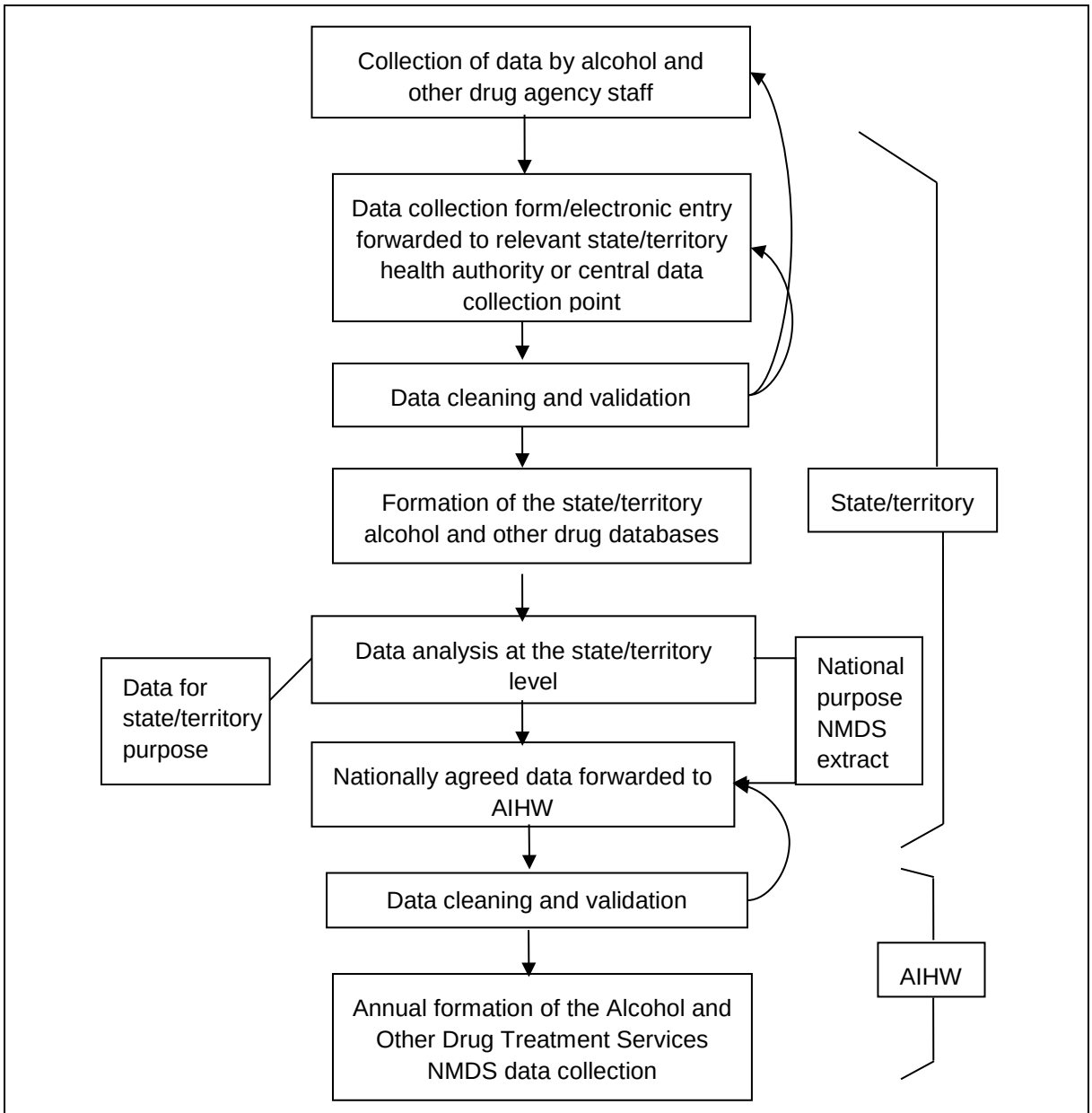


Figure A.1: Alcohol and other drug treatment data collection flowchart

Drugs of concern

The AODTS NMDS contains data on drugs of concern that are coded using the ABS's Australian Standard Classification of Drugs of Concern (ASCDC) (ABS 2011a). In this report, these drugs are grouped (Table A1).

Table A1: Groupings of drugs of concern

Group	ASCDC codes	Category	Includes
Analgesics	1000–1999	Codeine	
		Morphine	
		Buprenorphine	
		Heroin	
		Methadone	
		Other opioids	Oxycodone, fentanyl, pethidine
		Other analgesics	Paracetamol
Sedatives and hypnotics	2000–2999	Alcohol	Ethanol, methanol and other alcohols
		Benzodiazepines	Clonazepam, diazepam and temazepam
		Other sedatives and hypnotics	Ketamine, nitrous oxide, barbiturates and kava
Stimulants and hallucinogens	3000–3999	Amphetamines	Amphetamine, dexamphetamine and methamphetamine
		Ecstasy (MDMA)	
		Cocaine	
		Nicotine	
		Other stimulants and hallucinogens	Volatile nitrates, ephedra alkaloids, phenethylamines, tryptamines and caffeine
Cannabinoids	7000–7199	Cannabis	
Other	4000–6999 9000–9999	Other	Anabolic agents and selected hormones, antidepressants and antipsychotics, volatile solvents, diuretics and opioid antagonists
Not stated	0000–0002	Not stated	

In this report, pharmaceutical drugs were grouped using 10 drug types, making up the pharmaceuticals group for the purposes of the analysis. These drugs correspond to the ASCDC codes and classifications (Table A2).

Table A2: Pharmaceutical drugs of concern, ASCDC codes and classifications

Drug category	ASCDC code	ASCDC classification (broad group and narrow group/s)	Drug description (ASCDC base level unit/s)
Codeine	1101	**Analgesics** Organic opiate analgesics	Codeine
Morphine	1102	**Analgesics** Organic opiate analgesics	Morphine
Buprenorphine	1201	**Analgesics** Semisynthetic opioid analgesics	Buprenorphine
Oxycodone	1203	**Analgesics** Semisynthetic opioid analgesics	Oxycodone
Methadone	1305	**Analgesics** Synthetic opioid analgesics	Methadone
Benzodiazepines	2400–2499	**Sedatives and hypnotics** Benzodiazepines	Benzodiazepines n.f.d., alprazolam, clonazepam, diazepam, flunitrazepam, lorazepam, nitrazepam, oxazepam, temazepam, benzodiazepines n.e.c.
Steroids	4000–4999	**Anabolic agents and selected hormones** Anabolic androgenic steroids Beta2 agonists Peptide hormones, mimetics and analogues Other anabolic agents and selected hormones Not further defined	Anabolic agents and selected steroids n.f.d., anabolic androgenic steroids n.f.d., boldene, dehydroepiandrosterone, fluoxymesterone, mesterolone, methandriol, methenolone, nandrolone, oxandrolone, stanozolol, testosterone, anabolic androgenic steroids n.e.c., beta2 agonists n.f.d., eformoterol, fenoterol, salbutamol, beta2 agonists n.e.c., peptide hormones, mimetics and analogues n.f.d., chorionic gonadotrophin, corticotrophin, erythropoietin, growth hormone, insulin, peptide hormones, mimetics and analogues n.e.c., other anabolic agents and selected hormones n.f.d., sulfonylurea hypoglycaemic agents, tamoxifen, thyroxine, other anabolic agents and selected hormones n.e.c.
Other opioids	1100, 1199, 1200, 1298–1299, 1300–1304, 1306–1399	**Analgesics** Organic opiate analgesics Semisynthetic opioid analgesics Synthetic opioid analgesics Not further defined	Organic opiate analgesics n.f.d., organic opiate analgesics n.e.c., semisynthetic opioid analgesics n.f.d., semisynthetic opioid analgesics n.e.c., synthetic opioid analgesics n.f.d., fentanyl, fentanyl analogues, levomethadyl acetate hydrochloride, meperidine analogues, pethidine, tramadol, synthetic opioid analgesics n.e.c.
Other analgesics	0005, 1000, 1400–1499	**Analgesics** Non-opioid analgesics Not further defined	Analgesics n.f.d., non-opioid analgesics n.f.d., acetylsalicylic acid, paracetamol, ibuprofen, non-opioid analgesics n.e.c.
Other sedatives and hypnotics	2000, 2200–2299, 2300–2399, 2500–2599, 2900–2999	**Sedatives and hypnotics** Anaesthetics Barbiturates Gamma-hydroxybutyrate (GHB) type drugs and analogues Other sedatives and hypnotics	Sedatives and hypnotics n.f.d., anaesthetics n.f.d., ketamine, nitrous oxide, phencyclidine, propofol, anaesthetics n.e.c., barbiturates n.f.d., amylobarbitone, methylphenobarbitone, phenobarbitone, barbiturates n.e.c., GHB-type drugs and analogues n.f.d., GHB, gamma-butyrolactone, 1,4-butanediol, GHB-type drugs and analogues n.e.c., other sedatives and hypnotics n.f.d., chlormethiazole, kava lactones, zopclone, doxylamine, promethazine, zolpidem, other sedatives and hypnotics n.e.c.

n.f.d—not further defined; n.e.c—not elsewhere classified.

Duration

Duration is calculated in whole days, and only for closed episodes.

Population rates

In this publication, crude rates were calculated using the ABS's estimated resident population at the midpoint of the data range—that is, rates for 2016–17 data were calculated using the estimated resident population at 31 December 2016.

Reason for cessation

The AODTS NMDS contains data on the reason an episode ended (reason for cessation). In this report, these reasons are grouped (Table A3), but data for the individual end reasons are available in the online supplementary tables.

A different method was used for grouping end reasons in reports released before 2014, so trend comparisons across reports should be made with caution. It is possible to compare data at the individual end reasons using the supplementary tables.

Table A3: Grouping of cessation reasons, by indicative outcome type

Outcome type	Reason for cessation
Expected cessation	Treatment completed
	Ceased to participate at expiation
	Ceased to participate by mutual agreement
Unexpected cessation	Ceased to participate against advice
	Ceased to participate without notice
	Ceased to participate due to non-compliance
Administrative cessation	Change in main treatment type
	Change in delivery setting
	Change in principal drug of concern
	Transferred to another service provider
Other	Drug court or sanctioned by court diversion service
	Imprisoned (other than drug court sanctioned)
	Died
	Other
	Not stated

Remoteness area

This report uses the ABS's Australian Statistical Geography Standard (ASGS) Remoteness Structure 2011 (ABS 2011b) to analyse the remoteness of AOD treatment agencies. This structure allows areas that share common characteristics of remoteness to be classified into broad geographic regions of Australia. These areas are:

- Major cities
- Inner regional
- Outer regional
- Remote
- Very remote.

The remoteness structure divides each state and territory into several regions based on their relative access to services.

Examples of urban centres in each remoteness area are:

- *Major cities* Canberra, Newcastle
- *Inner regional* Hobart, Bendigo
- *Outer regional* Cairns, Darwin
- *Remote* Katherine, Mount Isa
- *Very remote* Tennant Creek, Meekatharra.

For this report, the remoteness of the agency was determined using the Statistical Area level 2 (SA2) of the agency. Some statistical areas are split between multiple remoteness areas. Where this was the case, the data were weighted according to the proportion of the population of the statistical areas in each remoteness area.

The Australian Statistical Geography Standard ASGS has replaced the Australian Standard Geographical Classification 2006 (ABS 2006), which was used in previous reports to calculate remoteness areas. Therefore, remoteness data for 2011–12 and previous years are not comparable with those for 2012–13 and subsequent years.

Service sectors

From 2008–09, agencies funded by the Department of Health under the Non-Government Organisation Treatment Grants Program (NGOTGP) were classified as non-government agencies. Before this, many of these agencies were classified as government agencies. As a result, trends in service sectors of agencies should be interpreted with caution.

Source of referral—diversion

Diversion from the criminal justice system by police or court diversion programs.

Throughout Australia, there are programs that divert people who have been apprehended or sentenced for a minor drugs offence from the criminal justice system. Many of these diversions result in clients receiving drug treatment services, who have been referred to treatment agencies as part of a drug diversion program. Since the 1980s, Australian governments have supported programs aimed at diverting from the criminal justice system people who have been apprehended or sentenced with a minor drugs offence.

In Australia, drug diversion program come in two main forms:

- **Police diversion** occurs when an offence is first detected by a law enforcement officer. It usually applies for minor use or possession offences, often relating to cannabis, and can involve the offender being cautioned, receiving a fine and/or having to attend education or assessment sessions.
- **Court diversion** occurs after a charge is laid. It usually applies for offences where criminal behaviour was related to drug use (for example, burglary or public order offence). Bail-based programs generally involve assessment and treatment, while pre- and post-sentence programs (including drug courts) tend to involve intensive treatment, and are aimed at repeat offenders.

Trends

Trend data may differ from data published in previous versions of *Alcohol and other drug treatment services in Australia,* due to data revisions.

Appendix B: Imputation methodology for AOD clients

From the inception of the AODTS NMDS, data have been collected only about treatment episodes provided by AOD treatment services. Data about the clients those episodes relate to have not been available at a national level. An SLK was introduced into the AODTS NMDS for the 2012–13 collection to enable the number of clients receiving treatment to be counted, while continuing to ensure the privacy of these individuals receiving treatment.

An imputation strategy for the collection was developed to correct for the impact of invalid or missing SLKs on the total number of clients. This strategy takes into account several factors relating to the number of episodes per client, and makes assumptions relating to spread across agencies. It also takes into consideration the likelihood that an episode with a missing SLK relates to a client that has already been counted through other episodes with a valid SLK.

To ensure an accurate representation of the AODTS client population, imputation was applied to the 2012–13, 2013–14 and 2015–16 AODTS NMDS to account for the proportion of valid SLKs being less than 95% for these years. The national rate of valid SLKs for these years was largely affected by low proportions of valid SLKs in New South Wales.

Attributing the number of clients to a set of missing SLK records

The AODTS NMDS collects information at the service record level. Service records are associated with individual clients through an SLK. There are a number of records that have missing or invalid SLK data that cannot be attributed to a client. This leads to an under-reporting of the total number of clients using the services, as some (but not all) of the records will belong to clients who are not observed via a valid SLK.

This document describes the method of using the available data—after making several assumptions about the behaviour of the whole population—to estimate the total number of clients.

Imputation groups

Imputation groups are formed to improve the performance of the estimates. The service records were grouped according to properties that are thought to influence the behaviour of clients and the quality of SLK data, and then the imputation was performed at this imputation group level.

Possible properties used to develop groups include location, provider size (measured by number of service records) and service type. The data are also grouped according to any subpopulations that are going to be reported upon, such as jurisdiction.

The final imputation groups were formed by balancing the often-competing priorities of having homogenous groups, and the need to have groups large enough to ensure that the imputation is robust.

Assumptions and approximations

Assumption 1: randomness and independence

This imputation method assumes that whichever service provider a client attends for each incidence of service is random and independent of any other incidents of service the client may have. It is further assumed that the validity or otherwise of the SLK recorded on each

service record is random, and independent of both the client and the service provider with which the record is associated.

Assumption 2: distribution of the number of service records per client

This method also assumes that the distribution of the number of records per client for all clients is similar to that observed using the subset of records with valid SLKs.

Approximation 1: no client has more than 10 service records

This imputation method uses the approximation that no client has more than 10 service records.

In order to implement this approximation, any clients observed to have more than 10 service records were treated as if they had only 10, and the proportion of clients with 10 service records calculated accordingly.

Notation

The definition of the notation used in this document is as follows:

N_t: the (unknown) total number of clients

N_t': the imputed total number of clients

N_{SLK1}: the number of clients observed using the records with a valid SLK

P_{SLK1}: the proportion of clients with at least 1 service record with a valid SLK

P_{Ni}: the (unknown) proportion of clients with i service records

P_{Ni}': the imputed proportion of clients with i service records

$P_{Ni,SLK1}$: the proportion of clients with i service records as observed using records with valid SLKs

n_t: the total number of service records

$n_t|N_t, P_{Ni}$: the number of service records given the total number of clients and the proportions of clients with i service records, $i = 1,2, \ldots 10$

n_{SLK1}: the number of service records with a valid SLK

n_{SLK0}: the number of service records with an invalid SLK

p_{SLK0}: the proportion of service records with an invalid SLK.

Methodology

Given Assumption 1 and Approximation 1, the proportion of clients who have at least 1 service record with a valid SLK is:

$$P_{SLK1} = \sum_{i=1}^{10} P_{Ni}\left(1 - p_{SLK0}^{i}\right)$$

Now:

$$N_{SLK1} = P_{SLK1} \times N_t$$

so it follows that the total number of clients is:

$$N_t = \frac{N_{SLK1}}{P_{SLK1}}$$

To resolve this equation for N_t the values of the P_{Ni} is required. These are unknown, given it is not possible to observe the whole population due to the records with invalid SLK values. This method imputes the unknown P_{Ni} using numerical methods, then uses these values to impute N_t.

The process starts with the distribution of number of records per client that were observed using the records with valid SLKs $(P_{Ni,SLK1})$. These values are then adjusted so that the following conditions are met.

Constraint 1

The sum of the imputed proportions is equal to 1. That is:

$$\sum_{i=1}^{10} P'_{Ni} = 1$$

Constraint 2

The imputed proportion of clients with 1 service record is less than or equal to the observed equivalent proportion among clients with records with valid SLKs. That is:

$$P'_{N1} \leq P_{N1,SLK1}$$

This constraint is used because some of the clients observed to have only 1 record will, in fact, have additional records with invalid SLKs. It is unlikely that the true proportion of clients with 1 service record is higher than that observed using records with valid SLKs.

Constraint 3

The total number of service records that the imputed total number of clients and the imputed distribution of records per client imply is equal to the observed number of service records.

That is:

$$n_t | N'_t, P'_{Ni} = N'_t \sum_{i=1}^{10} (i \times P'_{Ni}) = n_t.$$

This constraint is used to ensure that the imputed values are consistent with the observed number of records.

Penalty function

Under Assumption 2 we want to limit how much the imputed proportions differ from the proportions observed via the records with valid SLK data. To achieve this we use a penalty function that increases as the distance between the imputed and observed proportions increases. This function is defined to be:

$$f\left(P_{N1,SLK1}, P_{N2,SLK1}, \ldots, P_{N10,SLK1}, P'_{N1}, P'_{N2}, \ldots, P'_{N10}\right) = \sum_{i=1}^{10} \frac{\left(P'_{Ni} - P_{Ni,SLK1}\right)^2}{P_{Ni,SLK1}}$$

Using numerical methods, the $P'_{N1}, P'_{N2}, \ldots P'_{N10}$ are chosen such that the penalty function is minimised, subject to the 3 constraints.

The final step is to use the imputed proportions to calculate the imputed total number of clients:

$$N'_t = \frac{N_{SLK1}}{\sum_{i=1}^{10} P'_{Ni}\left(1 - p^i_{SLK0}\right)}$$

The resulting number is then rounded to the nearest integer.

Discussion

This imputation technique uses available information to impute the total number of clients. The methodology takes into account the proportion of records with invalid SLK data, and the distribution of the number of service records per client, as observed via the records with valid SLK data. It is apparent that the assumptions made do not hold for every client or service record. It is reasonable to expect that a client's attendance at a service provider will be affected by location and any prior contact they had with a provider. It should also be noted that some service providers failed to collect SLK for any service record during the reference period.

Despite the known cases where Assumption 1 does not hold, it is reasonable to hope that, across the population as a whole, the assumption is a reasonable representation of the populations of clients and service records.

It is believed that the impact of Approximation 1 will be small because, given Assumption 1, the chance that a client with more than 10 service records is not observed via a record with a valid SLK is extremely small. The chance diminishes as the proportion of records with an invalid SLK decreases and across jurisdictions the highest proportion observed is about 0.3. It should also be noted that the largest proportion of clients with 10 or more service records observed in the data at the jurisdiction level was only 0.007.

There are many different penalty functions that could be used in this imputation. The function used was chosen because, compared with the other penalty functions investigated, it produced imputed proportions that were generally as close or closer to the observed proportions. It also most consistently resulted in a distribution that was similar in shape to the observed distribution of the number of records per client.

Glossary

additional drugs: Clients receiving treatment for their own drug use nominate a principal drug of concern that has led them to seek treatment and additional drugs of concern, of which up to 5 are recorded in the AODTS NMDS. Clients receiving treatment for someone else's drug use do not nominate drugs of concern.

additional treatment type: Clients receive 1 main treatment type in each episode and additional treatment types as appropriate, of which up to 4 are recorded in the AODTS NMDS.

administrative cessation: Includes episodes that ended due to a change in main treatment type, delivery setting or principal drug of concern, or where the client was transferred to another service provider.

alcohol: A central nervous system depressant made from fermented starches. Alcohol inhibits brain functions, dampens the motor and sensory centres and makes judgement, coordination and balance more difficult.

amphetamines: Stimulants that include methamphetamine, also known as methylamphetamine. Amphetamines speed up the messages going between the brain and the body. Common names are speed, fast, up, uppers, louee, goey and whiz. Crystal methamphetamine is also known as ice, shabu, crystal meth, base, whiz, goey or glass.

Australian Standard Geographical Classification (ASGC): Common framework defined by the Australian Bureau of Statistics for collection and dissemination of geographically classified statistics. The ASGC was implemented in 1984 and the final release was in 2011. It has been replaced by the Australian Statistical Geography Standard (ASGS).

Australian Statistical Geography Standard (ASGS): Common framework defined by the Australian Bureau of Statistics for collection and dissemination of geographically classified statistics. The ASGS replaced the Australian Standard Geographical Classification (ASGC) in July 2011.

benzodiazepines: Also known as minor tranquillisers, these drugs are most commonly prescribed by doctors to relieve stress and anxiety, and to help people sleep. Common names include Benzos, tranx, sleepers, downers, pills, serras (Serepax®), moggies (Mogadon®) and normies (Normison®).

client type: The status of a person in terms of whether the treatment episode concerns their own alcohol and/or other drug use or that of another person. Clients may seek treatment or assistance concerning their own alcohol and/or other drug use, or treatment and/or assistance in relation to the alcohol and/or other drug use of another person.

client counts: Includes:

- distinct clients—where the total number refers to the actual number of clients counted
- estimated clients—where the number of clients is estimated using imputed numbers (see **imputation methodology**).

closed treatment episode: A period of contact between a client and a treatment provider, or team of providers. An episode is closed when treatment is completed, there has been no further contact between the client and the treatment provider for 3 months, or when treatment is ceased (see **reason for cessation**).

cocaine: A drug that belongs to a group of drugs known as stimulants. Cocaine is extracted from the leaves of the coca bush (*Erythroxylum coca*). Some of the common names for cocaine include C, coke, nose candy, snow, white lady, toot, Charlie, blow, white dust and stardust.

diversion client type: Clients who received at least 1 AOD treatment episode during a collection year resulting from a referral by a police or court diversion program. The 2 subtypes in this group are:

- diversion only clients—received treatment as a result of diversion referrals only
- diversion client with non-diversion episodes—received at least 1 treatment episode of treatment resulting from a diversion referral, but also received at least 1 treatment episode resulting from a non-diversion referral in a collection year.

ecstasy (MDMA): The popular street name for a range of drugs containing the substance 3, 4-methylenedioxymethamphetamine (MDMA)—a stimulant with hallucinogenic properties. Common names for ecstasy include Adam, Eve, MDMA, X, E, the X, XTC and the love drug.

expected cessation: Includes episodes where the treatment was completed, or where the client ceased to participate at expiation, or by mutual agreement.

GHB: stands for gamma hydroxybutyrate, which is a central nervous system depressant. Common names for GHB include, G, Grievous Bodily Harm, fantasy, liquid E, liquid ecstasy and blue nitro.

government agency: An agency that operates from the public accounts of the Australian Government or a state or territory government, is part of the general government sector, and is financed mainly from taxation.

heroin: One of a group of drugs known as opioids, which are strong pain-killers with addictive properties. Heroin and other opioids are classified as depressant drugs. Common names for heroin include smack, skag, dope, H, junk, hammer, slow, gear, harry, big harry, horse, black tar, China white, Chinese H, white dynamite, dragon, elephant, boy, home-bake or poison.

illicit drug use: Includes:

- the use of illegal drugs—drugs that are prohibited from manufacture, sale, or possession in Australia, such as cannabis, cocaine, heroin and ecstasy
- misuse, non-medical or extra-medical use of pharmaceuticals—drugs that are available from a pharmacy, over-the-counter, or by prescription, which may be subject to misuse, such as opioid-based pain relief medications, opioid substitution therapies, benzodiazepines, over-the-counter codeine and steroids
- use of other psychoactive substances—legal or illegal, potentially used in a harmful way, such as kava, or inhalants such as petrol, paint or glue (but not including tobacco or alcohol).

licit drug use: The use of legal drugs in a legal manner, including tobacco smoking and alcohol consumption.

main treatment type: The principal activity that is determined at assessment by the treatment provider to treat the client's alcohol or other drug problem for the principal drug of concern.

median: The midpoint of a list of observations ranked from the smallest to the largest.

nicotine: The highly addictive stimulant drug in tobacco.

non-government agency: An agency that receives some government funding, but is not controlled by the government, and is directed by a group of officers or an executive committee. A non-government agency may be an income tax-exempt charity.

principal drug of concern: The main substance that the client stated led them to seek treatment from an alcohol and drug treatment agency.

reason for cessation: The reason the client ceased to receive a treatment episode from an alcohol and other drug treatment service. The client can have:

- ceased to participate against advice—here the service provider is aware of the client's intention to stop participating in treatment, and the client ceases despite advice from staff that such action is against the client's best interest
- ceased to participate at expiation—where the client has fulfilled their obligation to satisfy expiation requirements (for example, participation in a treatment program to avoid having a criminal conviction being recorded against them) as part of a police or court diversion scheme, and chooses not to continue with further treatment
- ceased to participate by mutual agreement—where the client ceases participation by mutual agreement with the service provider, even though the treatment plan has not been completed. This may include situations where the client has moved out of the area
- ceased to participate involuntarily—where the service provider stops the treatment due to non-compliance with the rules or conditions of the program
- ceased to participate without notice
- a change in the delivery setting
- a change in the principal drug of concern
- a change in the main treatment type
- died
- been to a drug court or sanctioned by court diversion service—where the client is returned to court or jail due to non-compliance with the program
- been imprisoned (other than sanctioned by a drug court or diversion service)
- completed treatment—where the treatment was completed as planned
- been transferred to another service provider—including where the service provider is no longer the most appropriate, and the client is transferred or referred to another service. For example, transfers could occur for clients between non-residential and residential services, or between residential services and a hospital—excludes situations where the original treatment was completed before the client transferred to a different provider for other treatment.

referral source: The source from which the client was transferred or referred to the alcohol and other drug treatment service.

standard drink: Contains 10 grams of alcohol (equivalent to 12.5 millilitres of alcohol). Also referred to as a full serve.

tobacco: A plant, *Nicotiana tabacum*, whose leaves are dried and used for smoking and chewing and in snuff. Its major pharmacologically active substance is the alkaloid nicotine (see **nicotine**).

treatment episode: The period of contact between a client and a treatment provider or a team of providers. Each treatment episode has 1 principal drug of concern and 1 main treatment type. If the principal drug or main treatment changes, then a new episode is recorded.

treatment type: The type of activity that is used to treat the client's alcohol or other drug problem, which includes:

- assessment only—where only assessment is provided to the client (service providers would normally include an assessment component in all treatment types)
- counselling—can include cognitive behaviour therapy, brief intervention, relapse intervention and motivational interviewing
- information and education only
- pharmacotherapy—where the client receives another type of treatment in the same treatment episode, and includes drugs such as naltrexone, buprenorphine and methadone used as maintenance therapies or relapse prevention for people who are addicted to certain types of opioids. Where a pharmacotherapy is used for withdrawal, it is included in the **withdrawal** category. Due to the complexity of the pharmacotherapy sector, this report provides only limited information on agencies whose sole function is to provide pharmacotherapy
- rehabilitation—focuses on supporting clients in stopping their drug use, and to prevent psychological, legal, financial, social and physical consequences of problematic drug use. Rehabilitation can be delivered in several ways, including residential treatment services, therapeutic communities and community-based rehabilitation services
- support and case management only—support includes helping a client who occasionally calls an agency worker for emotional support, while case management is usually more structured than 'support'. It can assume a more holistic approach, taking into account all client needs (including general welfare needs) and it includes assessment, planning, linking, monitoring and advocacy
- withdrawal management (detoxification)—includes medicated and non-medicated treatment to help manage, reduce or stop the use of a drug of concern.

unexpected cessation: Includes episodes where the client ceased to participate against advice, without notice, or due to non-compliance.

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In 2016–17, 836 publicly-funded alcohol and other drug treatment services provided just over 200,000 treatment episodes to an estimated 127,000 clients.

The top four drugs that led clients to seek treatment were alcohol (32% of all treatment episodes), amphetamines (26%), cannabis (22%) and heroin (5%). The proportion of closed treatment episodes where clients were receiving treatment for amphetamines has more than doubled over the last 10 years, from 11% of treatment episodes in 2007–08 to 27% in 2016–17. Two-thirds (66%) of all clients receiving treatment in 2016–17 were male and the median age of clients remains at 33 years.

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