



Turning Point

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A STUDY OF PATIENT PATHWAYS IN ALCOHOL AND OTHER DRUG TREATMENT

Patient Pathways National Project

Supplementary Linkage Component

Lubman, D., Manning, V., Best, D., Berends, L.,
Garfield, J., Lloyd, B., Mugavin, J., Lam, T., Buykx, P.,
Matthews, S., Larner, A., Gao, C., Allsop, S., Room, R.

Final Report

Part of


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Final Report

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List of acronyms

ADIS	Alcohol and Drug Information System
AOD	Alcohol and Other Drug
AUDIT	Alcohol Use Disorders Identification Test
DH	Department of Health (Victoria)
ED	Emergency Department
VAED	Victorian Admitted Episodes Dataset
VEMD	Victorian Emergency Minimum Dataset
SLK	Statistical linkage key
VDL	Victorian Data Linkage

Summary of Results

Overall, decreases in acute service utilisation across emergency department and hospital inpatient settings were evident in the year following treatment engagement. These reductions were found across most client demographic characteristics, treatment types and drug use characteristics. ED presentations and hospital admissions with an acute alcohol-related or other drug-related diagnosis decreased in the year following treatment engagement, as did presentations and admissions for a non-AOD-related condition. This indicates improvements in both general health and also the experience of acute drug-related harm, such as severe intoxication or overdose. Injury presentations and admissions were also lower following treatment engagement, with larger reductions evident for clients who had been engaged in residential rehabilitation in their index year of treatment. There was stability in ED presentations and hospital admissions in the year prior to and the year following treatment engagement for alcohol-related chronic conditions, which reflects the long-term impacts (both morbidity and mortality) of heavy alcohol consumption, even following treatment and reduction or cessation in alcohol use.

Among the four subpopulations of AOD clients identified with risk factors of polydrug use on entry into AOD treatment, recent injecting drug use history, homeless status on entry into treatment, and forensic status on entry into treatment, overall reductions in ED and hospital utilisation were found following treatment engagement. This suggests that the effects of treatment on improving health and wellbeing, and reducing health system costs, are sustained for patients at higher risk of potential harm than the general AOD treatment population. It is important to acknowledge that there were varying levels of reduction of ED and hospital utilisation within these sub-groups when specific treatment, drug use and sociodemographic characteristics were examined. This offers opportunities for consideration of targeted approaches to identify and respond to risk for specific groups within these higher risk populations.

Reduction were observed in acute service utilisation across emergency department and hospital inpatient settings in the year following treatment engagement for clients who had reported polydrug use on entry into AOD treatment. These trends were found across most client demographic characteristics, treatment types and drug use characteristics. ED presentations and hospital admissions with an acute alcohol-related or other drug-related diagnosis decreased in the year following treatment engagement, as did presentations and admissions for an alcohol-related chronic condition, injury or other non-AOD-related condition. This indicates enhanced general health and also improvements in acute drug-related harm, including severe intoxication or overdose.

For clients who reported injecting drug use on entry into AOD treatment, acute service utilisation across emergency department and hospital inpatient settings declined in the year following treatment engagement. Once again, these reductions were found across most client demographic characteristics, treatment types and drug use characteristics. In the year following treatment engagement, ED presentations with an acute alcohol-related or other drug-related diagnosis decreased as did presentations and admissions for a non-AOD-related condition, indicating improvements in both general health and acute drug-related harm. There was stability in hospital admissions in the year prior to and the year following treatment engagement for alcohol-related chronic conditions, which may be explained by the long-term impact of heavy drinking, even

following treatment and reduction or cessation in alcohol use. Hospital admissions for injuries also remained stable before and after the index treatment year.

Homeless clients were more likely to present to emergency departments than the overall AOD treatment population. Decreases in acute service utilisation across emergency department and hospital inpatient settings were evident in the year following treatment engagement. These patterns were found across most client demographic characteristics, treatment types and drug use characteristics. ED presentations and hospital admissions declined for all conditions examined over the three years presented, which may represent enhancement of general health and wellbeing and short-term drug related harms, including acute overdose.

Forensic AOD clients were less likely to present to ED over the three years presented than the overall AOD treatment population. There were decreases in acute service utilisation across emergency department and hospital inpatient settings in the year following treatment engagement. Most client demographic characteristics, treatment types and drug use characteristics exhibited such reductions. There were reductions in ED presentations for all conditions examined in the year following treatment engagement.

It is important to note that many clients were still actively engaged in treatment in the year following the index year, and the full effects of treatment may not have been captured in such a short time between service engagement and outcome. Further exploration of client trajectories within and across treatment, health and other system is necessary at a population level to enable identification of transitions and outcomes of AOD treatment engagement within and across client populations.

Chapter 1: Introduction

This supplementary report focuses on the Victorian data linkage component of the *Patient Pathways Project*, which involved linking Victorian alcohol and drug treatment service data, emergency department presentations data and hospital admitted episodes data across three years.

The aim of the data linkage component was to provide evidence on people's engagement with medical and clinical services prior to and following engagement with specialist AOD treatment, and to obtain a better understanding of service utilisation by clients prior to, during and following AOD treatment engagement. The objectives are threefold.

1. To describe client characteristics, the proportion of clients that presented at hospital emergency departments, and the proportion of clients that become hospital inpatients.
2. To compare the health service utilisation by variables such as severity of problem, patient demographics, and AOD specialist service use.
3. To compare the health service utilisation between two jurisdictions in Australia.

The third objective was not achievable as WA data could not be accessed. An alternative was considered using Queensland data, however timely access was not possible. As an alternative to presenting data for an additional jurisdiction, analyses has been undertaken examining characteristics and patterns of ED and hospital utilisation for four subpopulations with risk factors for elevated rates of harm – AOD clients engaging in polydrug use on entry into treatment, AOD clients who had recently engaged in injecting drug use on entry into treatment, AOD clients who were homeless on entry into treatment and forensic clients. These results provide important information regarding outcomes and service utilisation for high risk populations.

Method

The use of administrative datasets provides cost-effective population level data for analysis of health, disease, treatment and service utilisation. Extending this use to record or data linkage in health research improves data utility. While Victorian AOD treatment, ED and hospitalisation datasets are available, data linkage has not been used to date to explore health service utilisation by Victorian AOD treatment clients. Data are presented examining patterns and characteristics of ED presentations and hospital admissions across three years – the year prior to AOD treatment engagement (2009/10), the year of AOD treatment engagement (2010/11) and the year following AOD treatment engagement (2011/12) – in order to determine change following treatment for AOD clients at a whole-of-population level.

Data sources

Three data sources are used:

- Victorian Alcohol and Drug Information System (ADIS),
- Victorian Emergency Minimum Dataset (VEMD), and
- Victorian Admitted Episodes Dataset (VAED).

Victorian Alcohol and Drug Information System (ADIS)

The Victorian Department of Health funds community-based agencies to provide specialist alcohol and drug treatment services across the state. The collection of client information is a mandatory requirement, and data is collated in ADIS. The ADIS database is a register of client-level data from government-funded, specialist AOD treatment services in Victoria. In this report, we present data from ADIS clients with a course of treatment start date between 1 July 2010 and 30 June 2011 (index year). A course of treatment is defined as the period of contact within defined dates of commencement and cessation between a client and a treatment provider or team of providers. Consequently any one client may have undertaken multiple courses of treatment in a given year, or across multiple years.

Victorian Emergency Minimum Dataset (VEMD)

VEMD contains demographic, administrative and clinical data detailing all presentations to Victorian public hospitals with a 24-hour Emergency Department (ED). VEMD data were included from 01 July 2009 through to 30 June 2012. The VEMD contains a range of information regarding each presentation. This includes three fields for International Classification of Disease-10 (ICD-10) diagnoses and a series of data items relating to injury surveillance. There are around 1.4 million VEMD presentations per annum for all diagnoses.

Victorian Admitted Episodes Dataset (VAED)

Hospitalisations were obtained from the Victorian Admitted Episodes Dataset (VAED), a database maintained by the Victorian DH. VAED records all acute hospital statistical separations (i.e. inpatient treatment episodes) in Victoria, and includes information on causes of admission (ICD-10 coding), age and sex. Statistical separations include admissions to different parts of the hospital (e.g. ICU discharge to general ward admissions). Separations are used as a proxy measure for hospitalisations. The term 'acute hospitals' refers to public, private and denominational hospitals, acute rehabilitation and extended care (sub-acute) facilities, day procedure centres and designated acute psychiatric units in public hospitals. Residential care (nursing homes), hostels, supported residential services and state managed psychiatric institutions are not included in the VAED. VAED data was included from 01 July 2009 through to 30 June 2012. There are around 2.1 million VAED separations per annum.

Measures

The datasets included client's encrypted identifier, demographics (e.g. gender, age groups, country of birth, and indigenous status), socioeconomic variables (e.g. employment status, living arrangement), AOD treatment variables (e.g. treatment type, primary drug of concern), admission, and diagnostic variables for ED and hospital admissions (e.g. ICD-10 code for principal diagnosis) (see Appendix 3.1 for detailed information of measures used in the report.)

Data Linkage Manipulation and Analysis

Data linkage

The linkage of the three selected datasets (ADIS, VEMD, and VAED) involved a series of processes designed to maximise the number of cases linked, but minimise the risk of incorrectly linked unrelated cases across the service settings included.

The Victorian Data Linkages (VDL) at Department of Health (DH) linked all three datasets (of which the DH is the data custodians). Linkage involved a probabilistic and deterministic matching, in a two-step process at VDL. First, the VEMD and VAED datasets underwent data cleaning via probabilistic matching, where multiple ED presentations or hospitalisations were identified for a single client. Second, deterministic matching was used to link ADIS to VEMD and VAED.

A statistical linkage key (SLK) was created based on aspects of family name, given name, date of birth and gender, with actual names and dates of birth omitted. VDL provided ADIS, VAED and VEMD records data files and SLK files separately to Turning Point via an online secure data exchange facility. VDL provided datasets were linked by Turning Point staff in two stages:

1. Records datasets were linked with SLK files. The ADIS dataset was linked with the ADIS SLK file using ADIS outlet ID and ADIS episode ID. The VAED dataset was linked with the VAED SLK file using VAED ID. The VEMD dataset was linked with the VEMD SLK file using VEMD ID
2. The ADIS dataset was linked with VAED and VEMD separately using SLK

Data cleaning

The research team at Turning Point undertook extensive data cleaning and preparation of ADIS, VEMD, and VAED datasets.

All data files received from VDL were first cleaned for missing values and miscoding (e.g. treatment start date was after treatment termination day). Then all data files were checked whether the record IDs were all unique identifiers (ADIS outlet ID, ADIS episode ID, VAED ID and VEMD ID). Records with duplicate record IDs were removed to ensure correct links of record data files with SLK files. After record data files were linked to SLK files, we were able to identify multiple records from one client.

Data were then checked for un-matched gender and age group codes for individual clients, to reduce possible mismatched cases introduced by probabilistic matching. Consistent age and gender for patients were first checked in the ADIS dataset, including different genders, jump of client's age groups in three years (e.g. client's age group changed from 5-9 years old in 09/10 to 15-19 years old in 10/11) or client's age in a year was older than the year after. Client records with mismatched age and gender were deleted in ADIS. The ADIS dataset was then linked with both VAED and VEMD using the SLK, and was used as a reference dataset for cleaning mismatched records in VAED and VEMD data (inconsistent gender and age group from multiple records of the same client). Patient characteristics, treatment types and drug use variables in ADIS dataset were also re-grouped to reduce reporting groups contain numbers less than five.

Data analysis

STATA 12 was used to conduct descriptive analysis. Chi square tests and associated p values were used to measure independence between variables. A categorical variable was created for each AOD client indicating whether the client had no ED presentation, presentation in a given year only (09/10, 10/11, 11/12) or in multiple years. Client sociodemographic, treatment type and drug using characteristics were compared against the created variable to indicate possible client subpopulations engaging with higher emergency services use. Number and percentage of AOD clients with ED presentations, median frequency of ED visits, median length of stay in ED in each of

three years were also described by client sociodemographic, treatment type and drug using characteristics. The same method is adopted for hospital admissions.

Each ED presentation /hospital admission was categorized to alcohol-related acute conditions, other drugs-related acute conditions, alcohol-related chronic conditions and non-AOD-related conditions according to the ICD-10 code for principal diagnosis (see Table 1). ED presentations with injury causes and hospital admissions with injury ICD-10 codes in other primary diagnoses (see Table 1) were categorized as injuries. Numbers and proportions of AOD client alcohol-related acute, other drugs-related acute, injuries alcohol-related, or chronic conditions and non-AOD-related ED presentations and hospital admissions in a given year were compared among clients with different treatment characteristics and primary drug of concern.

Table 1 Definition of disease categories for emergency department and hospital diagnoses

Disease categories	ICD-10
Alcohol-related acute conditions	Mental and behavioural disorders due to use of alcohol [F10], toxic effect of alcohol [T51.0, T51.1, T51.8, T51.9]
Other drugs-related acute conditions	Mental and behavioural disorders due to use of other drugs [F11-F19], toxic effect of other drugs [T36-T50]
Alcohol-related chronic conditions	Breast cancer [C50], colon cancer [C18], larynx cancer [C32], Liver cancer [C22], oesophagus cancer [C15], oral cavity and pharynx cancer [C00-C14], rectum cancer [C19-21], alcohol cardiomyopathy [I42.6], cardiac arrhythmias [I47-I49], haemorrhagic stroke [I60-I62, I69.0, I69.1, I69.2], hypertensive disease [I10-I15], ischaemic heart disease [I20-I25], ischaemic stroke [I63-I67, I69.3], alcoholic gastritis [K29.2], liver Cirrhosis [K70, K73-K74], pancreatitis [K85, K86.0, K86.1], HIV [B20-B24], lower respiratory infections [J10-J22], tuberculosis [A15-A19, B90]
Injuries	Transport accidents [V01-V99], falls[W00-W19], drowning [W65-W74], fires [X00-X09], poisonings [X40-X49,Y10-Y14,Y16-Y19], Self-inflicted injuries [X60-X64, X66-X84, Y87.0], violence [X85-Y09,Y87.1], other unintentional injuries [W20-W64, W75-W99, X10-X39, X50-X59, Y40-Y86, Y88, and Y89], other intentional injury [Y35], other injures with unknown intent [Y20-Y34] (ICD-10 code for injuries is not included in VEMD data and injuries were extracted from injury cause)
Non-AOD-related conditions	Other ICD-10 codes not listed above

Chapter 2: Results – Total AOD treatment population

Client characteristics and emergency department presentations

Table 2 shows the sociodemographic characteristics of AOD clients in 2010/11 (index year) and their ED engagement from 2009/10 to 2011/12. There were 25,229 AOD clients who started treatment in the index year. Over two-thirds (68%) were male, with the highest proportion of clients within the 25 to 34 year age group (29%). The majority of AOD clients were unemployed, living with family and residing in a private residence. Only half of the cohort resided in metropolitan Melbourne. While a minority of clients were either Aboriginal and/or Torres Strait Islander (7%), this is a higher proportion than the population distribution in Victoria.

More than half (52%) of the AOD clients did not present to ED over the three years. However, almost one-quarter (23%) presented on multiple occasions over the three years. These patterns varied across sociodemographic groups. Of note, 26% of females had multiple ED presentations, while 22% of males presented to ED on multiple occasions. The unemployed had higher proportions of multiple ED presentations than the employed. Those living alone had higher proportions of multiple ED presentations than those living with family or others. Being homeless was associated with higher proportions of multiple ED presentations, as was living in metropolitan Melbourne compared with the remainder of the state.

Table 3 shows these same sociodemographic characteristics by ED presentation, and indicates changes pre- and post-treatment. In general, the proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions of post-AOD treatment ED presentations (2011/12); this is true with respect to gender, age groups (with the exception of clients under 15 years), country of birth, Indigenous status, employment type (except 'other'), living status, accommodation status (except for 'in custody'), homeless status and region. Comparatively greater reductions in ED presentations were shown for AOD clients who were homeless than those with a home as well as for those with unstable accommodation than those living in a private residence.

Table 2 Sociodemographic characteristics by ED presentations, 2009/10 to 2011/12, among those who were AOD clients in 2010/11

	Number of AOD clients				ED in multiple years (%)	p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=25229)	13228 (52.4%)	2348 (9.3%)	1958 (7.8%)	1867 (7.4%)	5828 (23.1%)	
Gender						
Male (n=17198; 68.2%)	9163 (53.3%)	1662 (9.7%)	1362 (7.9%)	1293 (7.5%)	3718 (21.6%)	
Female (n=7982; 31.6%)	4016 (50.3%)	686 (8.6%)	596 (7.5%)	574 (7.2%)	2110 (26.4%)	<0.001
Age group						
0-14 (n=340; 1.3%)	202 (59.4%)	16 (4.7%)	29 (8.5%)	25 (7.4%)	68 (20.0%)	
15-24 (n=6654; 26.4%)	3485 (52.4%)	636 (9.6%)	504 (7.6%)	498 (7.5%)	1531 (23.0%)	
25-34 (n=7334; 29.1%)	3835 (52.3%)	691 (9.4%)	555 (7.6%)	534 (7.3%)	1719 (23.4%)	
35-44 (n=6220; 24.7%)	3276 (52.7%)	588 (9.5%)	477 (7.7%)	448 (7.2%)	1431 (23.0%)	
45-54 (n=3202; 12.7%)	1628 (50.8%)	300 (9.4%)	268 (8.4%)	249 (7.8%)	757 (23.6%)	
55-64 (n=1102; 4.4%)	580 (52.6%)	90 (8.2%)	98 (8.9%)	88 (8.0%)	246 (22.3%)	
65+ (n=377; 1.5%)	222 (58.9%)	27 (7.2%)	27 (7.2%)	25 (6.6%)	76 (20.2%)	0.183
Country of birth						
Australia (n=21501; 85.2%)	11149 (51.9%)	2010 (9.3%)	1656 (7.7%)	1565 (7.3%)	5121 (23.8%)	
Other (n=3728; 14.8%)	2079 (55.8%)	338 (9.1%)	302 (8.1%)	302 (8.1%)	707 (19.0%)	<0.001
Indigenous status						
Aboriginal and/or TSI origin (n=1832; 7.3%)	955 (52.1%)	164 (9.0%)	131 (7.2%)	126 (6.9%)	456 (24.9%)	
Neither Aboriginal nor TSI origin (n=20927; 82.9%)	10930 (52.2%)	1969 (9.4%)	1638 (7.8%)	1521 (7.3%)	4869 (23.3%)	
Unknown (n=2470; 9.8%)	1343 (54.4%)	215 (8.7%)	189 (7.7%)	220 (8.9%)	503 (20.4%)	0.002
Employment						
Employed (n=6239; 24.7%)	3576 (57.3%)	560 (9.0%)	496 (7.9%)	472 (7.6%)	1135 (18.2%)	
Unemployed (n=13587; 53.9%)	6728 (49.5%)	1315 (9.7%)	1050 (7.7%)	959 (7.1%)	3535 (26.0%)	
Other (n=4297; 17.0%)	2299 (53.5%)	371 (8.6%)	329 (7.7%)	358 (8.3%)	940 (21.9%)	
Unknown (n=1106; 4.4%)	625 (56.5%)	102 (9.2%)	83 (7.5%)	78 (7.1%)	218 (19.7%)	<0.001

	Number of AOD clients					
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	ED in multiple years (%)	p
Living status						
Lives alone (n=4434; 17.6%)	2173 (49.0%)	411 (9.3%)	359 (8.1%)	325 (7.3%)	1166 (26.3%)	
Lives with family (n=13486; 53.5%)	7323 (54.3%)	1223 (9.1%)	1063 (7.9%)	973 (7.2%)	2904 (21.5%)	
Lives with others (n=5455; 21.6%)	2722 (49.9%)	547 (10.0%)	397 (7.3%)	411 (7.5%)	1378 (25.3%)	
Unknown (n=1854; 7.3%)	1010 (54.5%)	167 (9.0%)	139 (7.5%)	158 (8.5%)	380 (20.5%)	<0.001
Accommodation status						
Private residence (n=18325; 72.6%)	9758 (53.2%)	1667 (9.1%)	1428 (7.8%)	1342 (7.3%)	4130 (22.5%)	
Unstable (n=2456; 9.7%)	1104 (45.0%)	241 (9.8%)	198 (8.1%)	159 (6.5%)	754 (30.7%)	
In custody (n=1253; 5.0%)	671 (53.6%)	138 (11.0%)	79 (6.3%)	135 (10.8%)	230 (18.4%)	
Other (n=1148; 4.6%)	550 (47.9%)	113 (9.8%)	86 (7.5%)	95 (8.3%)	304 (26.5%)	
Unknown (n=2047; 8.1%)	1145 (55.9%)	189 (9.2%)	167 (8.2%)	136 (6.6%)	410 (20.0%)	<0.001
Homeless status						
Homeless (n=1186; 4.7%)	523 (44.1%)	105 (8.9%)	97 (8.2%)	71 (6.0%)	390 (32.9%)	
Not homeless (n=23118; 91.6%)	12173 (52.7%)	2161 (9.3%)	1785 (7.7%)	1734 (7.5%)	5265 (22.8%)	
Unknown (n=925; 3.7%)	532 (57.5%)	82 (8.9%)	76 (8.2%)	62 (6.7%)	173 (18.7%)	<0.001
Region						
Metropolitan Melbourne (n=12346; 48.9%)	6024 (48.8%)	1203 (9.7%)	1074 (8.7%)	928 (7.5%)	3117 (25.2%)	
Rest of Victoria (n=7875; 31.2%)	4556 (57.9%)	633 (8.0%)	513 (6.5%)	506 (6.4%)	1667 (21.2%)	
Interstate (n=438; 1.7%)	228 (52.1%)	39 (8.9%)	38 (8.7%)	37 (8.4%)	96 (21.9%)	
Unknown (n=4570; 18.1%)	2420 (53.0%)	473 (10.4%)	333 (7.3%)	396 (8.7%)	948 (20.7%)	<0.001

Table 3 Sociodemographic characteristics by ED presentations in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	6890 (27.3%)	6742 (26.7%)	6356 (25.2%)
Gender			
Male (n=17198; 68.2%)	4514 (26.2%)	4390 (25.5%)	4142 (24.1%)
Female (n=7982; 31.6%)	2376 (29.8%)	2352 (29.5%)	2214 (27.7%)
Age group			
0-14 (n=340; 1.3%)	62 (18.2%)	81 (23.8%)	83 (24.4%)
15-24 (n=6654; 26.4%)	1822 (27.4%)	1743 (26.2%)	1693 (25.4%)
25-34 (n=7334; 29.1%)	2031 (27.7%)	1957 (26.7%)	1840 (25.1%)
35-44 (n=6220; 24.7%)	1699 (27.3%)	1652 (26.6%)	1542 (24.8%)
45-54 (n=3202; 12.7%)	898 (28.0%)	903 (28.2%)	835 (26.1%)
55-64 (n=1102; 4.4%)	286 (26.0%)	313 (28.4%)	283 (25.7%)
65+ (n=377; 1.5%)	92 (24.4%)	93 (24.7%)	80 (21.2%)
Country of birth			
Australia (n=21501; 85.2%)	6005 (27.9%)	5871 (27.3%)	5523 (25.7%)
Other (n=3728; 14.8%)	885 (23.7%)	871 (23.4%)	833 (22.3%)
Indigenous status			
Aboriginal and/or TSI origin (n=1832; 7.3%)	544 (29.7%)	499 (27.2%)	486 (26.5%)
Neither Aboriginal nor TSI origin (n=20927; 82.9%)	5743 (27.4%)	5645 (27.0%)	5274 (25.2%)
Unknown (n=2470; 9.8%)	603 (24.4%)	598 (24.2%)	596 (24.1%)
Employment			
Employed (n=6239; 24.7%)	1404 (22.5%)	1402 (22.5%)	1332 (21.3%)
Unemployed (n=13587; 53.9%)	4131 (30.4%)	3988 (29.4%)	3683 (27.1%)
Other (n=4297; 17.0%)	1080 (25.1%)	1091 (25.4%)	1101 (25.6%)
Unknown (n=1106; 4.4%)	275 (24.9%)	261 (23.6%)	240 (21.7%)
Living status			
Lives alone (n=4434; 17.6%)	1350 (30.4%)	1367 (30.8%)	1220 (27.5%)
Lives with family (n=13486; 53.5%)	3458 (25.6%)	3417 (25.3%)	3211 (23.8%)
Lives with others (n=5455; 21.6%)	1622 (29.7%)	1521 (27.9%)	1463 (26.8%)
Unknown (n=1854; 7.3%)	460 (24.8%)	437 (23.6%)	462 (24.9%)
Accommodation status			
Private residence (n=18325; 72.6%)	4874 (26.6%)	4822 (26.3%)	4502 (24.6%)
Unstable (n=2456; 9.7%)	863 (35.1%)	842 (34.3%)	738 (30.0%)
In custody (n=1253; 5.0%)	307 (24.5%)	249 (19.9%)	331 (26.4%)
Other (n=1148; 4.6%)	348 (30.3%)	330 (28.7%)	337 (29.4%)
Unknown (n=2047; 8.1%)	498 (24.3%)	499 (24.4%)	448 (21.9%)
Homeless status			
Homeless (n=1186; 4.7%)	431 (36.3%)	438 (36.9%)	367 (30.9%)
Not homeless (n=23118; 91.6%)	6243 (27.0%)	6089 (26.3%)	5797 (25.1%)
Unknown (n=925; 3.7%)	216 (23.4%)	215 (23.2%)	192 (20.8%)

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Region			
Metropolitan Melbourne (n=12346; 48.9%)	3632 (29.4%)	3656 (29.6%)	3319 (26.9%)
Rest of Victoria (n=7875; 31.2%)	1932 (24.5%)	1891 (24.0%)	1801 (22.9%)
Interstate (n=438; 1.7%)	120 (27.4%)	115 (26.3%)	102 (23.3%)
Unknown (n=4570; 18.1%)	1206 (26.4%)	1080 (23.6%)	1134 (24.8%)

Table 4 displays the treatment type and treatment characteristics of AOD clients by the pattern of their ED engagement from 2009/10 to 2011/12. In terms of treatment type, AOD clients most commonly received counselling (47%), followed by brokerage (16%) and other withdrawal services (10%). Overall, 74% completed their course of treatment.

There was some variability in patterns of ED utilisation across treatment types, with one-third of residential withdrawal clients, and over one-quarter of specialist pharmacotherapy clients presenting to emergency departments on multiple occasions over the three years presented.

Table 4 Treatment type and treatment characteristics by ED presentation, 2009/10 to 2011/12

	Number of AOD clients				ED in multiple years (%)	p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=25229)	13228 (52.4%)	2348 (9.3%)	1958 (7.8%)	1867 (7.4%)	5828 (23.1%)	
Treatment type						
Counselling (n=11919; 47.2%)	6376 (53.5%)	1089 (9.1%)	930 (7.8%)	828 (6.9%)	2696 (22.6%)	
Residential withdrawal (n=1962; 7.8%)	848 (43.2%)	169 (8.6%)	159 (8.1%)	141 (7.2%)	645 (32.9%)	
Other withdrawal (n=2582; 10.2%)	1419 (55.0%)	215 (8.3%)	218 (8.4%)	162 (6.3%)	568 (22.0%)	
Outreach (n=2368; 9.4%)	1205 (50.9%)	230 (9.7%)	192 (8.1%)	193 (8.2%)	548 (23.1%)	
Brokerage (n=3904; 15.5%)	2066 (52.9%)	422 (10.8%)	269 (6.9%)	350 (9.0%)	797 (20.4%)	
Aboriginal services (n=733; 2.9%)	415 (56.6%)	60 (8.2%)	40 (5.5%)	49 (6.7%)	169 (23.1%)	
Specialist pharmacotherapy (n=401; 1.6%)	166 (41.4%)	47 (11.7%)	37 (9.2%)	45 (11.2%)	106 (26.4%)	
Residential rehabilitation (n=176; 0.7%)	91 (51.7%)	18 (10.2%)	17 (9.7%)	11 (6.3%)	39 (22.2%)	
Supported accommodation (n=269; 1.1%)	129 (48.0%)	30 (11.2%)	19 (7.1%)	25 (9.3%)	66 (24.5%)	
Post withdrawal linkage (n=256; 1.0%)	158 (61.7%)	20 (7.8%)	16 (6.3%)	16 (6.3%)	46 (18.0%)	
Other/unknown (n=659; 2.6%)	355 (53.9%)	48 (7.3%)	61 (9.3%)	47 (7.1%)	148 (22.5%)	<0.001
Pharmacotherapy treatment						
Methadone (n=2166; 8.6%)	1068 (49.3%)	227 (10.5%)	180 (8.3%)	156 (7.2%)	535 (24.7%)	
Buprenorphine (n=711; 2.8%)	341 (48.0%)	75 (10.5%)	46 (6.5%)	72 (10.1%)	177 (24.9%)	
Naltrexone (n=327; 1.3%)	174 (53.2%)	25 (7.6%)	20 (6.1%)	15 (4.6%)	93 (28.4%)	
Other (n=1240; 4.9%)	640 (51.6%)	118 (9.5%)	102 (8.2%)	80 (6.5%)	300 (24.2%)	
None (n=20785; 82.4%)	11005 (52.9%)	1903 (9.2%)	1610 (7.7%)	1544 (7.4%)	4723 (22.7%)	0.001
Treatment termination status						
Completed treatment (n=18690; 74.1%)	9873 (52.8%)	1757 (9.4%)	1454 (7.8%)	1430 (7.7%)	4176 (22.3%)	
Not completed (n=6262; 24.8%)	3214 (51.3%)	558 (8.9%)	483 (7.7%)	420 (6.7%)	1587 (25.3%)	
Unknown (n=277; 1.1%)	141 (50.9%)	33 (11.9%)	21 (7.6%)	17 (6.1%)	65 (23.5%)	<0.001

Table 5 shows treatment type and treatment characteristics for AOD clients by ED presentation by year to show whether there was a change in ED utilisation pre- and post-treatment. Proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions post-AOD treatment (2011/12) for all treatment types, pharmacotherapy treatment types and treatment termination status reasons.

Table 5 Treatment type and treatment characteristics by ED presentations in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	6890 (27.3%)	6742 (26.7%)	6356 (25.2%)
Treatment type			
Counselling (n=11919; 47.2%)	3158 (26.5%)	3172 (26.6%)	2878 (24.1%)
Residential withdrawal (n=1962; 7.8%)	685 (34.9%)	705 (35.9%)	644 (32.8%)
Other withdrawal (n=2582; 10.2%)	655 (25.4%)	686 (26.6%)	609 (23.6%)
Outreach (n=2368; 9.4%)	658 (27.8%)	637 (26.9%)	614 (25.9%)
Brokerage (n=3904; 15.5%)	1038 (26.6%)	887 (22.7%)	967 (24.8%)
Aboriginal services (n=733; 2.9%)	195 (26.6%)	176 (24.0%)	188 (25.6%)
Specialist pharmacotherapy (n=401; 1.6%)	137 (34.2%)	122 (30.4%)	130 (32.4%)
Residential rehabilitation (n=176; 0.7%)	49 (27.8%)	42 (23.9%)	40 (22.7%)
Supported accommodation (n=269; 1.1%)	83 (30.9%)	74 (27.5%)	82 (30.5%)
Post withdrawal linkage (n=256; 1.0%)	62 (24.2%)	54 (21.1%)	53 (20.7%)
Other/unknown (n=659; 2.6%)	170 (25.8%)	187 (28.4%)	151 (22.9%)
Pharmacotherapy treatment			
Methadone (n=2166; 8.6%)	660 (30.5%)	603 (27.8%)	568 (26.2%)
Buprenorphine (n=711; 2.8%)	211 (29.7%)	194 (27.3%)	201 (28.3%)
Naltrexone (n=327; 1.3%)	105 (32.1%)	101 (30.9%)	85 (26.0%)
Other (n=1240; 4.9%)	359 (29.0%)	351 (28.3%)	303 (24.4%)
None (n=20785; 82.4%)	5555 (26.7%)	5493 (26.4%)	5199 (25.0%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	5000 (26.8%)	4855 (26.0%)	4639 (24.8%)
Not completed (n=6262; 24.8%)	1805 (28.8%)	1817 (29.0%)	1652 (26.4%)
Unknown (n=277; 1.1%)	85 (30.7%)	70 (25.3%)	65 (23.5%)

Table 6 shows that alcohol was most commonly the primary drug of concern (47%), followed by cannabis (22%) and heroin & other opioids (15%). The majority of clients did not attend an ED across the three years presented. Between 20% and 25% of all primary drug of concern groupings had multiple ED presentations, with multiple ED presentations least common among clients with amphetamines and other stimulants as the primary drug of concern.

The most common method of drug use was ingestion (49%), followed by smoking (20%). Injection as route of administration had a slightly higher prevalence of multiple ED presentations compared with smoking and inhaling. Those reporting no injecting drug use history accounted for over half of AOD clients. Any injecting drug use history had more ED activity, with the exception of ED presentations in 2011/12 only. Although differences were relatively small, over half (54%) of those who had never injected did not present to ED in the three years, and those who had not injected in the past 12 months (51%) did not present to ED in any year. However, over a quarter of those who reported injecting in the previous year (26.2%) had multiple ED presentations (Table 6).

Polydrug use was common, being recorded for 43% of AOD clients. There was little difference across ED presentations compared with those reporting no polydrug use. Those with polydrug use had a slightly lower proportion of ED presentations prior to treatment and higher proportion for multiple ED presentations, however the relationship was not statistically significant (Table 6).

Table 7 shows these same drug characteristics for AOD clients by ED presentation across the three years – the year prior to treatment, year of treatment, and the year post-treatment. In general, the proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions of post-AOD treatment ED presentations (2011/12) with the exception of clients with amphetamines and other stimulants as the primary drug of concern (no change), and inhalation as a method of use (no change).

Table 6 Drug use characteristics by ED presentations, 2009/10 to 2011/12

	Number of AOD clients				ED in multiple years (%)	p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=25229)	13228 (52.4%)	2348 (9.3%)	1958 (7.8%)	1867 (7.4%)	5828 (23.1%)	
Primary drug of concern						
Alcohol (n=11912; 47.2%)	6269 (52.6%)	1068 (9.0%)	887 (7.4%)	866 (7.3%)	2822 (23.7%)	
Cannabis (n=5663; 22.4%)	2998 (52.9%)	542 (9.6%)	418 (7.4%)	417 (7.4%)	1288 (22.7%)	
Heroin & other opioids (n=3863; 15.3%)	1924 (49.8%)	390 (10.1%)	329 (8.5%)	295 (7.6%)	925 (23.9%)	
Amphetamine & other stimulants (n=2198; 8.7%)	1154 (52.5%)	223 (10.1%)	196 (8.9%)	190 (8.6%)	435 (19.8%)	
Benzodiazepines & other tranquillisers (n=522; 2.1%)	291 (55.7%)	37 (7.1%)	43 (8.2%)	30 (5.7%)	121 (23.2%)	
Other (n=730; 2.9%)	403 (55.2%)	59 (8.1%)	55 (7.5%)	48 (6.6%)	165 (22.6%)	
Unknown (n=341; 1.4%)	189 (55.4%)	29 (8.5%)	30 (8.8%)	21 (6.2%)	72 (21.1%)	0.001
Method of use						
Ingest (n=12461; 49.4%)	6559 (52.6%)	1123 (9.0%)	946 (7.6%)	898 (7.2%)	2935 (23.6%)	
Smoke (n=5103; 20.2%)	2728 (53.5%)	493 (9.7%)	393 (7.7%)	386 (7.6%)	1103 (21.6%)	
Inject (n=3632; 14.4%)	1793 (49.4%)	380 (10.5%)	317 (8.7%)	264 (7.3%)	878 (24.2%)	
Sniff/inhale (n=1340; 5.3%)	718 (53.6%)	110 (8.2%)	99 (7.4%)	116 (8.7%)	297 (22.2%)	
Other/unknown (n=2693; 10.7%)	1430 (53.1%)	242 (9.0%)	203 (7.5%)	203 (7.5%)	615 (22.8%)	0.004
Polydrug use						
Yes (n=10899; 43.2%)	5604 (51.4%)	1024 (9.4%)	833 (7.6%)	824 (7.6%)	2614 (24.0%)	
No (n=9939; 39.4%)	5291 (53.2%)	926 (9.3%)	794 (8.0%)	711 (7.2%)	2217 (22.3%)	
Unknown (n=4391; 17.4%)	2333 (53.1%)	398 (9.1%)	331 (7.5%)	332 (7.6%)	997 (22.7%)	0.101
Injecting drug use history						
Never injected (n=12767; 50.6%)	6870 (53.8%)	1174 (9.2%)	980 (7.7%)	982 (7.7%)	2761 (21.6%)	
Within past 12 months (n=5135; 20.4%)	2471 (48.1%)	513 (10.0%)	429 (8.4%)	378 (7.4%)	1344 (26.2%)	
Over 12 months ago (n=2664; 10.6%)	1355 (50.9%)	264 (9.9%)	207 (7.8%)	206 (7.7%)	632 (23.7%)	
Unknown (n=4663; 18.5%)	2532 (54.3%)	397 (8.5%)	342 (7.3%)	301 (6.5%)	1091 (23.4%)	<0.001

Table 7 Drug use characteristics by ED presentations in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	6890 (27.3%)	6742 (26.7%)	6356 (25.2%)
Primary drug of concern			
Alcohol (n=11912; 47.2%)	3288 (27.6%)	3222 (27.0%)	3066 (25.7%)
Cannabis (n=5663; 22.4%)	1533 (27.1%)	1461 (25.8%)	1397 (24.7%)
Heroin & other opioids (n=3863; 15.3%)	1131 (29.3%)	1077 (27.9%)	996 (25.8%)
Amphetamine & other stimulants (n=2198; 8.7%)	536 (24.4%)	548 (24.9%)	528 (24.0%)
Benzodiazepines & other tranquillisers (n=522; 2.1%)	130 (24.9%)	147 (28.2%)	119 (22.8%)
Other (n=730; 2.9%)	193 (26.4%)	194 (26.6%)	175 (24.0%)
Unknown (n=341; 1.4%)	79 (23.2%)	93 (27.3%)	75 (22.0%)
Method of use			
Ingest (n=12461; 49.4%)	3432 (27.5%)	3386 (27.2%)	3175 (25.5%)
Smoke (n=5103; 20.2%)	1330 (26.1%)	1299 (25.5%)	1239 (24.3%)
Inject (n=3632; 14.4%)	1079 (29.7%)	1016 (28.0%)	933 (25.7%)
Sniff/inhale (n=1340; 5.3%)	338 (25.2%)	341 (25.4%)	336 (25.1%)
Other/unknown (n=2693; 10.7%)	711 (26.4%)	700 (26.0%)	673 (25.0%)
Polydrug use			
Yes (n=10899; 43.2%)	3071 (28.2%)	2968 (27.2%)	2853 (26.2%)
No (n=9939; 39.4%)	2662 (26.8%)	2640 (26.6%)	2398 (24.1%)
Unknown (n=4391; 17.4%)	1157 (26.3%)	1134 (25.8%)	1105 (25.2%)
Injecting drug use history			
Never injected (n=12767; 50.6%)	3309 (25.9%)	3256 (25.5%)	3100 (24.3%)
Within past 12 months (n=5135; 20.4%)	1588 (30.9%)	1516 (29.5%)	1409 (27.4%)
Over 12 months ago (n=2664; 10.6%)	743 (27.9%)	728 (27.3%)	710 (26.7%)
Unknown (n=4663; 18.5%)	1250 (26.8%)	1242 (26.6%)	1137 (24.4%)

Table 8 shows the overall median number of ED presentations and length of ED stay for AOD clients by year. There was no change over time, with one presentation pre- and post-treatment.

Table 8 Median number of ED presentations and median hours of ED stay for 2010/11 AOD clients, 2009/10 to 2011/12

	09/10 (N=6890)	10/11 (N=6742)	11/12 (N=6356)
Median number of ED presentations (interquartile range)	1(1,3)	2(1,3)	1(1,3)
Median hours of ED stay (interquartile range)	3.2(2.0, 5.2)	3.4(2.0, 5.5)	3.4(2.1, 5.3)

Table 9 shows the proportions of AOD clients diagnosed in the ED with an acute alcohol-related presentation by treatment characteristics and primary drug of concern. Overall, there was a decrease in the proportion of clients who presented to ED with an acute alcohol-related condition between the year prior to AOD treatment and the year following AOD treatment. While there was a decrease in acute alcohol-related ED presentations for clients who had completed their AOD treatment episode at the time of treatment termination, there was no reduction in such presentations for clients whose AOD treatment was not successfully completed at termination of treatment.

Table 9 ED presentations for alcohol-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	518 (2.1%)	604 (2.4%)	470 (1.9%)
Treatment type			
Counselling (n=11919; 47.2%)	213 (1.8%)	244 (2.0%)	200 (1.7%)
Residential withdrawal (n=1962; 7.8%)	116 (5.9%)	143 (7.3%)	95 (4.8%)
Other withdrawal (n=2582; 10.2%)	47 (1.8%)	80 (3.1%)	64 (2.5%)
Outreach (n=2368; 9.4%)	39 (1.6%)	38 (1.6%)	23 (1.0%)
Brokerage (n=3904; 15.5%)	53 (1.4%)	44 (1.1%)	42 (1.1%)
Aboriginal services (n=733; 2.9%)	9 (1.2%)	14 (1.9%)	8 (1.1%)
Specialist pharmacotherapy (n=401; 1.6%)	<5	5 (1.2%)	<5
Residential rehabilitation (n=176; 0.7%)	5 (2.8%)	<5	6 (3.4%)
Supported accommodation (n=269; 1.1%)	6 (2.2%)	8 (3.0%)	6 (2.2%)
Post withdrawal linkage (n=256; 1.0%)	9 (3.5%)	10 (3.9%)	9 (3.5%)
Other/unknown (n=659; 2.6%)	18 (2.7%)	16 (2.4%)	13 (2.0%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	374 (2.0%)	444 (2.4%)	334 (1.8%)
Not completed (n=6262; 24.8%)	134 (2.1%)	158 (2.5%)	132 (2.1%)
Unknown (n=277; 1.1%)	10 (3.6%)	<5	<5
Primary drug of concern			
Alcohol (n=11912; 47.2%)	412 (3.5%)	502 (4.2%)	392 (3.3%)
Cannabis (n=5663; 22.4%)	53 (0.9%)	51 (0.9%)	35 (0.6%)
Heroin & other opioids (n=3863; 15.3%)	24 (0.6%)	24 (0.6%)	20 (0.5%)
Amphetamine & other stimulants (n=2198; 8.7%)	18 (0.8%)	10 (0.5%)	9 (0.4%)
Benzodiazepines & other tranquillisers (n=522; 2.1%)	<5	9 (1.7%)	6 (1.1%)
Other (n=730; 2.9%)	<5	<5	6 (0.8%)
Unknown (n=341; 1.4%)	<5	5 (1.5%)	<5

Overall, there was a decrease in the proportion of other drug-related acute presentations to ED for AOD clients in the year following treatment engagement when compared with ED presentations in the year preceding treatment engagement (Table 10). Decreases in proportions of other drug-related acute ED presentations were evident for all treatment types except non-residential withdrawal, and for all drugs of concern on entry into AOD treatment except for cannabis (where there was no change), and amphetamines and other stimulants (which showed an increase in other drug-related acute presentations in the year following treatment engagement).

Table 10 ED presentations for other drug-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Other drug-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	602 (2.4%)	672 (2.7%)	504 (2.0%)
Treatment type			
Counselling (n=11919; 47.2%)	261 (2.2%)	297 (2.5%)	225 (1.9%)
Residential withdrawal (n=1962; 7.8%)	78 (4.0%)	98 (5.0%)	67 (3.4%)
Other withdrawal (n=2582; 10.2%)	46 (1.8%)	72 (2.8%)	53 (2.1%)
Outreach (n=2368; 9.4%)	54 (2.3%)	64 (2.7%)	45 (1.9%)
Brokerage (n=3904; 15.5%)	103 (2.6%)	76 (1.9%)	69 (1.8%)
Aboriginal services (n=733; 2.9%)	9 (1.2%)	12 (1.6%)	7 (1.0%)
Specialist pharmacotherapy (n=401; 1.6%)	17 (4.2%)	19 (4.7%)	16 (4.0%)
Residential rehabilitation (n=176; 0.7%)	<5	<5	<5
Supported accommodation (n=269; 1.1%)	9 (3.3%)	8 (3.0%)	8 (3.0%)
Post withdrawal linkage (n=256; 1.0%)	6 (2.3%)	10 (3.9%)	<5
Other/unknown (n=659; 2.6%)	17 (2.6%)	14 (2.1%)	7 (1.1%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	404 (2.2%)	434 (2.3%)	354 (1.9%)
Not completed (n=6262; 24.8%)	192 (3.1%)	231 (3.7%)	148 (2.4%)
Unknown (n=277; 1.1%)	6 (2.2%)	7 (2.5%)	<5
Primary drug of concern			
Alcohol (n=11912; 47.2%)	246 (2.1%)	248 (2.1%)	198 (1.7%)
Cannabis (n=5663; 22.4%)	97 (1.7%)	121 (2.1%)	95 (1.7%)
Heroin & other opioids (n=3863; 15.3%)	149 (3.9%)	173 (4.5%)	116 (3.0%)
Amphetamine & other stimulants (n=2198; 8.7%)	48 (2.2%)	65 (3.0%)	58 (2.6%)
Benzodiazepines & other tranquillisers (n=522; 2.1%)	28 (5.4%)	32 (6.1%)	23 (4.4%)
Other (n=730; 2.9%)	21 (2.9%)	21 (2.9%)	10 (1.4%)
Unknown (n=341; 1.4%)	13 (3.8%)	12 (3.5%)	<5

Table 11 shows the proportion of AOD clients diagnosed in the ED with an alcohol-related chronic condition across the three years by AOD treatment characteristics and primary drug of concern on entry into AOD treatment. Overall, there was stability in proportions of clients presenting with alcohol-related chronic conditions over the three years presented. This is likely a reflection of patterns of morbidity associated with alcohol-related chronic conditions, with need for acute treatment of recurring symptoms even after reduction or cessation of alcohol consumption.

Table 11 ED presentations for alcohol-related chronic conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related chronic conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	463 (1.8%)	492 (2.0%)	442 (1.8%)
Treatment type			
Counselling (n=11919; 47.2%)	216 (1.8%)	224 (1.9%)	211 (1.8%)
Residential withdrawal (n=1962; 7.8%)	68 (3.5%)	78 (4.0%)	53 (2.7%)
Other withdrawal (n=2582; 10.2%)	52 (2.0%)	65 (2.5%)	62 (2.4%)
Outreach (n=2368; 9.4%)	21 (0.9%)	30 (1.3%)	16 (0.7%)
Brokerage (n=3904; 15.5%)	48 (1.2%)	49 (1.3%)	54 (1.4%)
Aboriginal services (n=733; 2.9%)	27 (3.7%)	17 (2.3%)	16 (2.2%)
Specialist pharmacotherapy (n=401; 1.6%)	7 (1.7%)	8 (2.0%)	6 (1.5%)
Residential rehabilitation (n=176; 0.7%)	<5	<5	<5
Supported accommodation (n=269; 1.1%)	<5	5 (1.9%)	5 (1.9%)
Post withdrawal linkage (n=256; 1.0%)	8 (3.1%)	5 (2.0%)	<5
Other/unknown (n=659; 2.6%)	8 (1.2%)	10 (1.5%)	13 (2.0%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	325 (1.7%)	347 (1.9%)	315 (1.7%)
Not completed (n=6262; 24.8%)	131 (2.1%)	136 (2.2%)	122 (1.9%)
Unknown (n=277; 1.1%)	7 (2.5%)	9 (3.2%)	5 (1.8%)
Primary drug of concern			
Alcohol (n=11912; 47.2%)	274 (2.3%)	302 (2.5%)	270 (2.3%)
Cannabis (n=5663; 22.4%)	74 (1.3%)	68 (1.2%)	70 (1.2%)
Heroin & other opioids (n=3863; 15.3%)	64 (1.7%)	70 (1.8%)	51 (1.3%)
Amphetamine & other stimulants (n=2198; 8.7%)	21 (1.0%)	19 (0.9%)	23 (1.0%)
Benzodiazepines & other tranquillisers (n=522; 2.1%)	<5	9 (1.7%)	12 (2.3%)
Other (n=730; 2.9%)	21 (2.9%)	16 (2.2%)	14 (1.9%)
Unknown (n=341; 1.4%)	5 (1.5%)	8 (2.3%)	<5

Following AOD treatment, there was a decrease in the proportion of clients presenting to ED with an injury (Table 12). Across all treatment types, primary drugs of concern, and treatment termination status categories, there were reductions in proportions of AOD clients diagnosed in the ED with injuries between the year preceding AOD treatment and the year following AOD treatment engagement.

Table 12 ED presentations for injuries by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Injuries		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	2924 (11.6%)	2717 (10.8%)	2507 (9.9%)
Treatment type			
Counselling (n=11919; 47.2%)	1302 (10.9%)	1213 (10.2%)	1123 (9.4%)
Residential withdrawal (n=1962; 7.8%)	259 (13.2%)	278 (14.2%)	245 (12.5%)
Other withdrawal (n=2582; 10.2%)	248 (9.6%)	250 (9.7%)	211 (8.2%)
Outreach (n=2368; 9.4%)	325 (13.7%)	292 (12.3%)	268 (11.3%)
Brokerage (n=3904; 15.5%)	503 (12.9%)	438 (11.2%)	424 (10.9%)
Aboriginal services (n=733; 2.9%)	89 (12.1%)	83 (11.3%)	77 (10.5%)
Specialist pharmacotherapy (n=401; 1.6%)	46 (11.5%)	41 (10.2%)	42 (10.5%)
Residential rehabilitation (n=176; 0.7%)	27 (15.3%)	15 (8.5%)	18 (10.2%)
Supported accommodation (n=269; 1.1%)	30 (11.2%)	19 (7.1%)	25 (9.3%)
Post withdrawal linkage (n=256; 1.0%)	25 (9.8%)	22 (8.6%)	24 (9.4%)
Other/unknown (n=659; 2.6%)	70 (10.6%)	66 (10.0%)	50 (7.6%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	2149 (11.5%)	1986 (10.6%)	1819 (9.7%)
Not completed (n=6262; 24.8%)	740 (11.8%)	709 (11.3%)	660 (10.5%)
Unknown (n=277; 1.1%)	35 (12.6%)	22 (7.9%)	28 (10.1%)
Primary drug of concern			
Alcohol (n=11912; 47.2%)	1441 (12.1%)	1369 (11.5%)	1187 (10.0%)
Cannabis (n=5663; 22.4%)	685 (12.1%)	619 (10.9%)	593 (10.5%)
Heroin & other opioids (n=3863; 15.3%)	413 (10.7%)	360 (9.3%)	342 (8.9%)
Amphetamine & other stimulants (n=2198; 8.7%)	238 (10.8%)	224 (10.2%)	239 (10.9%)
Benzodiazepines & other tranquillisers (n=522; 2.1%)	48 (9.2%)	40 (7.7%)	36 (6.9%)
Other (n=730; 2.9%)	73 (10.0%)	73 (10.0%)	72 (9.9%)
Unknown (n=341; 1.4%)	26 (7.6%)	32 (9.4%)	38 (11.1%)

ED presentations for non-AOD-related conditions are shown in Table 13 for the AOD client cohort. There was a small reduction in the proportion of clients presenting with non-AOD-related conditions in the year following AOD treatment, and this reduction was evident for most treatment types. While decreases in presentations were evident across most primary drugs of concern, there was no change in the proportion of clients with non-AOD-related presentation to ED where the primary drug of concern was benzodiazepines and other tranquilizers. For clients with a primary drug of concern of amphetamines and other stimulants on entry into AOD treatment, there was an increase in ED presentations with non-AOD-related diagnoses in the year following AOD treatment when compared with the year prior to AOD treatment.

Table 13 ED presentations for non-AOD-related conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Non-AOD-related conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	4828 (19.1%)	4923 (19.5%)	4642 (18.4%)
Treatment type			
Counselling (n=11919; 47.2%)	2209 (18.5%)	2344 (19.7%)	2092 (17.6%)
Residential withdrawal (n=1962; 7.8%)	502 (25.6%)	526 (26.8%)	482 (24.6%)
Other withdrawal (n=2582; 10.2%)	481 (18.6%)	523 (20.3%)	473 (18.3%)
Outreach (n=2368; 9.4%)	426 (18.0%)	433 (18.3%)	433 (18.3%)
Brokerage (n=3904; 15.5%)	698 (17.9%)	584 (15.0%)	678 (17.4%)
Aboriginal services (n=733; 2.9%)	132 (18.0%)	134 (18.3%)	131 (17.9%)
Specialist pharmacotherapy (n=401; 1.6%)	114 (28.4%)	103 (25.7%)	109 (27.2%)
Residential rehabilitation (n=176; 0.7%)	31 (17.6%)	29 (16.5%)	27 (15.3%)
Supported accommodation (n=269; 1.1%)	60 (22.3%)	60 (22.3%)	65 (24.2%)
Post withdrawal linkage (n=256; 1.0%)	47 (18.4%)	41 (16.0%)	43 (16.8%)
Other/unknown (n=659; 2.6%)	128 (19.4%)	146 (22.2%)	109 (16.5%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	3487 (18.7%)	3520 (18.8%)	3364 (18.0%)
Not completed (n=6262; 24.8%)	1283 (20.5%)	1350 (21.6%)	1233 (19.7%)
Unknown (n=277; 1.1%)	58 (20.9%)	53 (19.1%)	45 (16.2%)
Primary drug of concern			
Alcohol (n=11912; 47.2%)	2280 (19.1%)	2277 (19.1%)	2238 (18.8%)
Cannabis (n=5663; 22.4%)	1061 (18.7%)	1071 (18.9%)	1007 (17.8%)
Heroin & other opioids (n=3863; 15.3%)	853 (22.1%)	836 (21.6%)	758 (19.6%)
Amphetamine & other stimulants (n=2198; 8.7%)	338 (15.4%)	397 (18.1%)	356 (16.2%)
Benzodiazepines & other tranquillisers (n=522; 2.1%)	97 (18.6%)	125 (23.9%)	99 (19.0%)
Other (n=730; 2.9%)	142 (19.5%)	151 (20.7%)	133 (18.2%)
Unknown (n=341; 1.4%)	57 (16.7%)	66 (19.4%)	51 (15.0%)

Client characteristics and hospitalisations

Table 14 shows sociodemographic characteristics of AOD clients in 2010-2011 (index year) and hospitalisations from 2009/10 to 2011/12. Approximately two-thirds (68%) were male, with the highest proportion of clients aged 25-34 years (29%). A minority of clients were either Aboriginal and/or Torres Strait Islander (7%) although this was above the state population proportion. The majority were unemployed, living with family, in private residence and just under half were from metropolitan Melbourne.

Almost two-thirds of male clients and more than half of female clients were not admitted to hospital in any of the three years (64% of males and 52% of females). Almost one-quarter of females (23%) had multiple admissions, while only 14% of males were admitted on multiple occasions. The likelihood of hospital admission increased with age, as did multiple admissions. People who were under 35 years, employed, living with family, and from metropolitan Melbourne were least likely to be hospitalised across the three years of interest.

In general, the proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions following AOD treatment engagement (2011/12). This pattern was evident for gender, age groups (with the exception of clients under 15 years and between 55-64 years), country of birth, Indigenous status, employment type, living status, accommodation status (except for 'in custody'), homeless status and region (Table 15).

Table 14 Sociodemographic characteristics by hospital admission, 2009/10 to 2011/12

	Number of AOD clients					p
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	Admission in multiple years (%)	
Total (n=25229)	15119 (59.9%)	2167 (8.6%)	1929 (7.6%)	1801 (7.1%)	4213 (16.7%)	
Gender						
Male (n=17198; 68.2%)	10950 (63.7%)	1445 (8.4%)	1264 (7.3%)	1147 (6.7%)	2392 (13.9%)	
Female (n=7982; 31.6%)	4120 (51.6%)	722 (9.0%)	665 (8.3%)	654 (8.2%)	1821 (22.8%)	<0.001
Age group						
0-14 (n=340; 1.3%)	248 (72.9%)	22 (6.5%)	31 (9.1%)	22 (6.5%)	17 (5.0%)	
15-24 (n=6654; 26.4%)	4298 (64.6%)	561 (8.4%)	447 (6.7%)	487 (7.3%)	861 (12.9%)	
25-34 (n=7334; 29.1%)	4525 (61.7%)	623 (8.5%)	547 (7.5%)	524 (7.1%)	1115 (15.2%)	
35-44 (n=6220; 24.7%)	3568 (57.4%)	590 (9.5%)	512 (8.2%)	415 (6.7%)	1135 (18.2%)	
45-54 (n=3202; 12.7%)	1754 (54.8%)	262 (8.2%)	292 (9.1%)	237 (7.4%)	657 (20.5%)	
55-64 (n=1102; 4.4%)	548 (49.7%)	83 (7.5%)	81 (7.4%)	89 (8.1%)	301 (27.3%)	
65+ (n=377; 1.5%)	178 (47.2%)	26 (6.9%)	19 (5.0%)	27 (7.2%)	127 (33.7%)	<0.001
Country of birth						
Australia (n=21501; 85.2%)	12772 (59.4%)	1880 (8.7%)	1649 (7.7%)	1552 (7.2%)	3648 (17.0%)	
Other (n=3728; 14.8%)	2347 (63.0%)	287 (7.7%)	280 (7.5%)	249 (6.7%)	565 (15.2%)	0.001
Indigenous status						
Aboriginal and/or TSI origin (n=1832; 7.3%)	1135 (62.0%)	141 (7.7%)	123 (6.7%)	119 (6.5%)	314 (17.1%)	
Neither Aboriginal nor TSI origin (n=20927; 82.9%)	12400 (59.3%)	1842 (8.8%)	1625 (7.8%)	1524 (7.3%)	3536 (16.9%)	
Unknown (n=2470; 9.8%)	1584 (64.1%)	184 (7.4%)	181 (7.3%)	158 (6.4%)	363 (14.7%)	<0.001
Employment						
Employed (n=6239; 24.7%)	3951 (63.3%)	546 (8.8%)	490 (7.9%)	443 (7.1%)	809 (13.0%)	
Unemployed (n=13587; 53.9%)	7832 (57.6%)	1186 (8.7%)	1060 (7.8%)	942 (6.9%)	2567 (18.9%)	
Other (n=4297; 17.0%)	2621 (61.0%)	347 (8.1%)	312 (7.3%)	343 (8.0%)	674 (15.7%)	
Unknown (n=1106; 4.4%)	715 (64.6%)	88 (8.0%)	67 (6.1%)	73 (6.6%)	163 (14.7%)	<0.001

	Number of AOD clients					p
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	Admission in multiple years (%)	
Living status						
Lives alone (n=4434; 17.6%)	2465 (55.6%)	400 (9.0%)	356 (8.0%)	271 (6.1%)	942 (21.2%)	<0.001
Lives with family (n=13486; 53.5%)	8247 (61.2%)	1149 (8.5%)	1045 (7.7%)	988 (7.3%)	2057 (15.3%)	
Lives with others (n=5455; 21.6%)	3240 (59.4%)	455 (8.3%)	408 (7.5%)	391 (7.2%)	961 (17.6%)	
Unknown (n=1854; 7.3%)	1167 (62.9%)	163 (8.8%)	120 (6.5%)	151 (8.1%)	253 (13.6%)	
Accommodation status						
Private residence (n=18325; 72.6%)	10987 (60.0%)	1579 (8.6%)	1442 (7.9%)	1307 (7.1%)	3010 (16.4%)	<0.001
Unstable (n=2456; 9.7%)	1363 (55.5%)	209 (8.5%)	187 (7.6%)	140 (5.7%)	557 (22.7%)	
In custody (n=1253; 5.0%)	801 (63.9%)	109 (8.7%)	81 (6.5%)	112 (8.9%)	150 (12.0%)	
Other (n=1148; 4.6%)	642 (55.9%)	102 (8.9%)	78 (6.8%)	89 (7.8%)	237 (20.6%)	
Unknown (n=2047; 8.1%)	1326 (64.8%)	168 (8.2%)	141 (6.9%)	153 (7.5%)	259 (12.7%)	
Homeless status						
Homeless (n=1186; 4.7%)	632 (53.3%)	104 (8.8%)	91 (7.7%)	78 (6.6%)	281 (23.7%)	<0.001
Not homeless (n=23118; 91.6%)	13886 (60.1%)	2006 (8.7%)	1770 (7.7%)	1654 (7.2%)	3802 (16.4%)	
Unknown (n=925; 3.7%)	601 (65.0%)	57 (6.2%)	68 (7.4%)	69 (7.5%)	130 (14.1%)	
Region						
Metropolitan Melbourne (n=12346; 48.9%)	6952 (56.3%)	1069 (8.7%)	1033 (8.4%)	905 (7.3%)	2387 (19.3%)	<0.001
Rest of Victoria (n=7875; 31.2%)	5036 (63.9%)	612 (7.8%)	549 (7.0%)	507 (6.4%)	1171 (14.9%)	
Interstate (n=438; 1.7%)	280 (63.9%)	41 (9.4%)	33 (7.5%)	33 (7.5%)	51 (11.6%)	
Unknown (n=4570; 18.1%)	2851 (62.4%)	445 (9.7%)	314 (6.9%)	356 (7.8%)	604 (13.2%)	

Table 15 Sociodemographic characteristics by hospital admission in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	5367 (21.3%)	5301 (21.0%)	4983 (19.8%)
Gender			
Male (n=17198; 68.2%)	3227 (18.8%)	3200 (18.6%)	2926 (17.0%)
Female (n=7982; 31.6%)	2140 (26.8%)	2101 (26.3%)	2057 (25.8%)
Age group			
0-14 (n=340; 1.3%)	33 (9.7%)	44 (12.9%)	35 (10.3%)
15-24 (n=6654; 26.4%)	1174 (17.6%)	1123 (16.9%)	1120 (16.8%)
25-34 (n=7334; 29.1%)	1475 (20.1%)	1441 (19.6%)	1367 (18.6%)
35-44 (n=6220; 24.7%)	1486 (23.9%)	1403 (22.6%)	1279 (20.6%)
45-54 (n=3202; 12.7%)	761 (23.8%)	836 (26.1%)	732 (22.9%)
55-64 (n=1102; 4.4%)	313 (28.4%)	328 (29.8%)	329 (29.9%)
65+ (n=377; 1.5%)	125 (33.2%)	126 (33.4%)	121 (32.1%)
Country of birth			
Australia (n=21501; 85.2%)	4651 (21.6%)	4561 (21.2%)	4309 (20.0%)
Other (n=3728; 14.8%)	716 (19.2%)	740 (19.8%)	674 (18.1%)
Indigenous status			
Aboriginal and/or TSI origin (n=1832; 7.3%)	377 (20.6%)	372 (20.3%)	358 (19.5%)
Neither Aboriginal nor TSI origin (n=20927; 82.9%)	4526 (21.6%)	4464 (21.3%)	4186 (20.0%)
Unknown (n=2470; 9.8%)	464 (18.8%)	465 (18.8%)	439 (17.8%)
Employment			
Employed (n=6239; 24.7%)	1137 (18.2%)	1117 (17.9%)	1049 (16.8%)
Unemployed (n=13587; 53.9%)	3151 (23.2%)	3143 (23.1%)	2891 (21.3%)
Other (n=4297; 17.0%)	869 (20.2%)	848 (19.7%)	845 (19.7%)
Unknown (n=1106; 4.4%)	210 (19.0%)	193 (17.5%)	198 (17.9%)
Living status			
Lives alone (n=4434; 17.6%)	1136 (25.6%)	1127 (25.4%)	988 (22.3%)
Lives with family (n=13486; 53.5%)	2692 (20.0%)	2681 (19.9%)	2537 (18.8%)
Lives with others (n=5455; 21.6%)	1185 (21.7%)	1173 (21.5%)	1116 (20.5%)
Unknown (n=1854; 7.3%)	354 (19.1%)	320 (17.3%)	342 (18.4%)
Accommodation status			
Private residence (n=18325; 72.6%)	3863 (21.1%)	3860 (21.1%)	3575 (19.5%)
Unstable (n=2456; 9.7%)	641 (26.1%)	644 (26.2%)	565 (23.0%)
In custody (n=1253; 5.0%)	221 (17.6%)	193 (15.4%)	228 (18.2%)
Other (n=1148; 4.6%)	283 (24.7%)	263 (22.9%)	263 (22.9%)
Unknown (n=2047; 8.1%)	359 (17.5%)	341 (16.7%)	352 (17.2%)
Homeless status			
Homeless (n=1186; 4.7%)	317 (26.7%)	331 (27.9%)	291 (24.5%)
Not homeless (n=23118; 91.6%)	4897 (21.2%)	4803 (20.8%)	4520 (19.6%)
Unknown (n=925; 3.7%)	153 (16.5%)	167 (18.1%)	172 (18.6%)

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Region			
Metropolitan Melbourne (n=12346; 48.9%)	2897 (23.5%)	2975 (24.1%)	2694 (21.8%)
Rest of Victoria (n=7875; 31.2%)	1498 (19.0%)	1481 (18.8%)	1409 (17.9%)
Interstate (n=438; 1.7%)	78 (17.8%)	70 (16.0%)	71 (16.2%)
Unknown (n=4570; 18.1%)	894 (19.6%)	775 (17.0%)	809 (17.7%)

Table 16 displays the treatment type and treatment characteristics of AOD clients by the pattern of hospitalisation from 2009/10 to 2011/12. In terms of treatment type, most AOD clients received counselling (47%), followed by brokerage (16%) and other withdrawal services (10%). Overall, 74% had completed treatment when their treatment episode was terminated.

There was some variability in patterns of hospital utilisation across treatment types, with over one-quarter of residential withdrawal clients, and over ten per cent of outreach (14%) and brokerage (13%) clients presenting to hospital on multiple occasions over the three years presented.

Table 16 Treatment type and treatment characteristics by admissions, 2009/10 to 2011/12

	Number of AOD clients					p
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	Admission in multiple years (%)	
Total (n=25229)	15119 (59.9%)	2167 (8.6%)	1929 (7.6%)	1801 (7.1%)	4213 (16.7%)	
Treatment type						
Counselling (n=11919; 47.2%)	7185 (60.3%)	1015 (8.5%)	940 (7.9%)	822 (6.9%)	1957 (16.4%)	
Residential withdrawal (n=1962; 7.8%)	997 (50.8%)	172 (8.8%)	150 (7.6%)	139 (7.1%)	504 (25.7%)	
Other withdrawal (n=2582; 10.2%)	1495 (57.9%)	216 (8.4%)	217 (8.4%)	157 (6.1%)	497 (19.2%)	
Outreach (n=2368; 9.4%)	1486 (62.8%)	198 (8.4%)	167 (7.1%)	195 (8.2%)	322 (13.6%)	
Brokerage (n=3904; 15.5%)	2443 (62.6%)	381 (9.8%)	272 (7.0%)	314 (8.0%)	494 (12.7%)	
Aboriginal services (n=733; 2.9%)	499 (68.1%)	41 (5.6%)	41 (5.6%)	41 (5.6%)	111 (15.1%)	
Specialist pharmacotherapy (n=401; 1.6%)	208 (51.9%)	35 (8.7%)	36 (9.0%)	30 (7.5%)	92 (22.9%)	
Residential rehabilitation (n=176; 0.7%)	103 (58.5%)	12 (6.8%)	15 (8.5%)	13 (7.4%)	33 (18.8%)	
Supported accommodation (n=269; 1.1%)	139 (51.7%)	36 (13.4%)	20 (7.4%)	27 (10.0%)	47 (17.5%)	
Post withdrawal linkage (n=256; 1.0%)	171 (66.8%)	10 (3.9%)	13 (5.1%)	12 (4.7%)	50 (19.5%)	
Other/unknown (n=659; 2.6%)	393 (59.6%)	51 (7.7%)	58 (8.8%)	51 (7.7%)	106 (16.1%)	<0.001
Pharmacotherapy treatment						
Methadone (n=2166; 8.6%)	1207 (55.7%)	205 (9.5%)	194 (9.0%)	180 (8.3%)	380 (17.5%)	
Buprenorphine (n=711; 2.8%)	433 (60.9%)	55 (7.7%)	52 (7.3%)	47 (6.6%)	124 (17.4%)	
Naltrexone (n=327; 1.3%)	166 (50.8%)	30 (9.2%)	27 (8.3%)	24 (7.3%)	80 (24.5%)	
Other (n=1240; 4.9%)	680 (54.8%)	106 (8.5%)	113 (9.1%)	77 (6.2%)	264 (21.3%)	
None (n=20785; 82.4%)	12633 (60.8%)	1771 (8.5%)	1543 (7.4%)	1473 (7.1%)	3365 (16.2%)	<0.001
Treatment termination status						
Completed treatment (n=18690; 74.1%)	11304 (60.5%)	1613 (8.6%)	1434 (7.7%)	1355 (7.2%)	2984 (16.0%)	
Not completed (n=6262; 24.8%)	3651 (58.3%)	529 (8.4%)	471 (7.5%)	428 (6.8%)	1183 (18.9%)	
Unknown (n=277; 1.1%)	164 (59.2%)	25 (9.0%)	24 (8.7%)	18 (6.5%)	46 (16.6%)	<0.001

Table 17 shows treatment type and treatment characteristics for AOD clients by hospitalisation by year to show whether there was a change in hospital utilisation pre- and post-treatment. Proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions post-AOD treatment (2011/12) for all service types (with the exceptions of outreach and Aboriginal services), pharmacotherapy treatment types and treatment termination status reasons.

Table 17 Treatment type and treatment characteristics by admissions in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	5367 (21.3%)	5301 (21.0%)	4983 (19.8%)
Treatment type			
Counselling (n=11919; 47.2%)	2514 (21.1%)	2510 (21.1%)	2284 (19.2%)
Residential withdrawal (n=1962; 7.8%)	560 (28.5%)	569 (29.0%)	535 (27.3%)
Other withdrawal (n=2582; 10.2%)	587 (22.7%)	628 (24.3%)	537 (20.8%)
Outreach (n=2368; 9.4%)	425 (17.9%)	418 (17.7%)	435 (18.4%)
Brokerage (n=3904; 15.5%)	755 (19.3%)	645 (16.5%)	679 (17.4%)
Aboriginal services (n=733; 2.9%)	114 (15.6%)	134 (18.3%)	130 (17.7%)
Specialist pharmacotherapy (n=401; 1.6%)	113 (28.2%)	104 (25.9%)	105 (26.2%)
Residential rehabilitation (n=176; 0.7%)	42 (23.9%)	37 (21.0%)	34 (19.3%)
Supported accommodation (n=269; 1.1%)	73 (27.1%)	59 (21.9%)	63 (23.4%)
Post withdrawal linkage (n=256; 1.0%)	49 (19.1%)	53 (20.7%)	49 (19.1%)
Other/unknown (n=659; 2.6%)	135 (20.5%)	144 (21.9%)	132 (20.0%)
Pharmacotherapy treatment			
Methadone (n=2166; 8.6%)	496 (22.9%)	495 (22.9%)	456 (21.1%)
Buprenorphine (n=711; 2.8%)	143 (20.1%)	150 (21.1%)	142 (20.0%)
Naltrexone (n=327; 1.3%)	97 (29.7%)	96 (29.4%)	85 (26.0%)
Other (n=1240; 4.9%)	317 (25.6%)	322 (26.0%)	287 (23.1%)
None (n=20785; 82.4%)	4314 (20.8%)	4238 (20.4%)	4013 (19.3%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	3869 (20.7%)	3808 (20.4%)	3609 (19.3%)
Not completed (n=6262; 24.8%)	1438 (23.0%)	1436 (22.9%)	1320 (21.1%)
Unknown (n=277; 1.1%)	60 (21.7%)	57 (20.6%)	54 (19.5%)

Table 18 shows that alcohol was most commonly the primary drug of concern (47%), followed by cannabis (22%) and heroin & other opioids (15%). The majority of clients were not hospitalised across the three years presented. A higher proportion of clients with amphetamines or other stimulants as a primary drug of concern had hospitalisations over the three-year period, in contrast to a lower proportion of clients with benzodiazepines and other tranquilisers as a primary drug of concern. Between 12% and 21% of all primary drug of concern groupings had multiple hospitalisations, with multiple hospital admissions most common among clients with benzodiazepines and other tranquilisers, alcohol or heroin and other opioids as the primary drug of concern.

The most common method of drug use was ingestion (49%), followed by smoking (20%). Those whose route of administration was ingestion had a higher prevalence of multiple hospitalisations compared with an injecting route of administration. Those reporting no injecting drug use history accounted for over half of AOD clients. Clients with any injecting drug use history had more hospitalisation activity. Although differences were relatively small, a greater proportion (61%) of those who had never injected were not hospitalised in the three years compared with those who had injected within the past 12 months (57%) or greater than 12 months preceding AOD treatment engagement (58%). However, clients who had injected in the past 12 months demonstrated the highest proportion of multiple hospitalisations across the three years (18%) (Table 18). Polydrug use was common, being recorded for 43% of AOD clients. There was little difference across hospital admissions compared with those with no reported polydrug use.

Table 19 shows these same drug characteristics for AOD clients by hospitalisation across the three years – the year prior to treatment, year of treatment, and the year post-treatment. Proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions of post-AOD treatment hospital admissions (2011/12).

Table 18 Drug use characteristics by hospital admission, 2009/10 to 2011/12

	Number of AOD clients					p
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	Admission in multiple years (%)	
Total (n=25229)	15119 (59.9%)	2167 (8.6%)	1929 (7.6%)	1801 (7.1%)	4213 (16.7%)	
Primary drug of concern						
Alcohol (n=11912; 47.2%)	7004 (58.8%)	1003 (8.4%)	896 (7.5%)	825 (6.9%)	2184 (18.3%)	
Cannabis (n=5663; 22.4%)	3563 (62.9%)	487 (8.6%)	380 (6.7%)	397 (7.0%)	836 (14.8%)	
Heroin & other opioids (n=3863; 15.3%)	2231 (57.8%)	353 (9.1%)	328 (8.5%)	302 (7.8%)	649 (16.8%)	
Amphetamine & other stimulants (n=2198; 8.7%)	1388 (63.1%)	192 (8.7%)	181 (8.2%)	166 (7.6%)	271 (12.3%)	
Benzodiazepines & other tranquillisers (n=522; 2.1%)	292 (55.9%)	41 (7.9%)	46 (8.8%)	35 (6.7%)	108 (20.7%)	
Other (n=730; 2.9%)	440 (60.3%)	57 (7.8%)	67 (9.2%)	54 (7.4%)	112 (15.3%)	
Unknown (n=341; 1.4%)	201 (58.9%)	34 (10.0%)	31 (9.1%)	22 (6.5%)	53 (15.5%)	<0.001
Method of use						
Ingest (n=12461; 49.4%)	7307 (58.6%)	1045 (8.4%)	969 (7.8%)	857 (6.9%)	2283 (18.3%)	
Smoke (n=5103; 20.2%)	3235 (63.4%)	438 (8.6%)	343 (6.7%)	365 (7.2%)	722 (14.1%)	
Inject (n=3632; 14.4%)	2118 (58.3%)	319 (8.8%)	310 (8.5%)	278 (7.7%)	607 (16.7%)	
Sniff/inhale (n=1340; 5.3%)	837 (62.5%)	131 (9.8%)	102 (7.6%)	99 (7.4%)	171 (12.8%)	
Other/unknown (n=2693; 10.7%)	1622 (60.2%)	234 (8.7%)	205 (7.6%)	202 (7.5%)	430 (16.0%)	<0.001
Polydrug use						
Yes (n=10899; 43.2%)	6579 (60.4%)	971 (8.9%)	848 (7.8%)	773 (7.1%)	1728 (15.9%)	
No (n=9939; 39.4%)	5857 (58.9%)	828 (8.3%)	760 (7.6%)	706 (7.1%)	1788 (18.0%)	
Unknown (n=4391; 17.4%)	2683 (61.1%)	368 (8.4%)	321 (7.3%)	322 (7.3%)	697 (15.9%)	0.004
Injecting drug use history						
Never injected (n=12767; 50.6%)	7765 (60.8%)	1094 (8.6%)	948 (7.4%)	898 (7.0%)	2062 (16.2%)	
Within past 12 months (n=5135; 20.4%)	2934 (57.1%)	472 (9.2%)	437 (8.5%)	368 (7.2%)	924 (18.0%)	
Over 12 months ago (n=2664; 10.6%)	1548 (58.1%)	251 (9.4%)	197 (7.4%)	212 (8.0%)	456 (17.1%)	
Unknown (n=4663; 18.5%)	2872 (61.6%)	350 (7.5%)	347 (7.4%)	323 (6.9%)	771 (16.5%)	<0.001

Table 19 Drug use characteristics by hospital admission, 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	5367 (21.3%)	5301 (21.0%)	4983 (19.8%)
Primary drug of concern			
Alcohol (n=11912; 47.2%)	2678 (22.5%)	2687 (22.6%)	2480 (20.8%)
Cannabis (n=5663; 22.4%)	1108 (19.6%)	1029 (18.2%)	1016 (17.9%)
Heroin & other opioids (n=3863; 15.3%)	849 (22.0%)	827 (21.4%)	796 (20.6%)
Amphetamine & other stimulants (n=2198; 8.7%)	392 (17.8%)	387 (17.6%)	370 (16.8%)
Benzodiazepines & other tranquillisers (n=522; 2.1%)	123 (23.6%)	135 (25.9%)	120 (23.0%)
Other (n=730; 2.9%)	144 (19.7%)	165 (22.6%)	134 (18.4%)
Unknown (n=341; 1.4%)	73 (21.4%)	71 (20.8%)	67 (19.6%)
Method of use			
Ingest (n=12461; 49.4%)	2802 (22.5%)	2829 (22.7%)	2601 (20.9%)
Smoke (n=5103; 20.2%)	972 (19.0%)	918 (18.0%)	897 (17.6%)
Inject (n=3632; 14.4%)	780 (21.5%)	778 (21.4%)	730 (20.1%)
Sniff/inhale (n=1340; 5.3%)	258 (19.3%)	234 (17.5%)	226 (16.9%)
Other/unknown (n=2693; 10.7%)	555 (20.6%)	542 (20.1%)	529 (19.6%)
Polydrug use			
Yes (n=10899; 43.2%)	2293 (21.0%)	2192 (20.1%)	2072 (19.0%)
No (n=9939; 39.4%)	2209 (22.2%)	2235 (22.5%)	2052 (20.6%)
Unknown (n=4391; 17.4%)	865 (19.7%)	874 (19.9%)	859 (19.6%)
Injecting drug use history			
Never injected (n=12767; 50.6%)	2659 (20.8%)	2621 (20.5%)	2437 (19.1%)
Within past 12 months (n=5135; 20.4%)	1175 (22.9%)	1153 (22.5%)	1065 (20.7%)
Over 12 months ago (n=2664; 10.6%)	600 (22.5%)	574 (21.5%)	554 (20.8%)
Unknown (n=4663; 18.5%)	933 (20.0%)	953 (20.4%)	927 (19.9%)

The median number of admissions and median length of stay for AOD clients with treatment engagement in 2010/11 remained stable across each of the study years (Table 20).

Table 20 Median number of hospital admissions and length of stay

	09/10 (N=5367)	10/11 (N=5301)	11/12 (N=4983)
Median number of admissions (interquartile range)	1(1,2)	1(1,2)	1(1,2)
Median days of stay (interquartile range)	1.0(1.0, 2.5)	1.0(1.0, 3.0)	1.0(1.0, 3.0)

Table 21 shows the proportions of AOD clients diagnosed during a hospital admission with an alcohol-related acute condition by treatment characteristic and primary drug of concern. Overall, there was a decrease in the proportion of clients admitted to hospital with an alcohol-related acute condition between the year prior to AOD treatment and the year following AOD treatment. Comparing service types, the largest reductions in alcohol-related acute condition admissions were observed for residential rehabilitation and supported accommodation. While there were reductions in alcohol-related acute hospitalisations for clients who had both successfully and not successfully completed their AOD treatment episode at the time of treatment termination, the reduction was greater amongst clients who had completed treatment.

Table 21 Admissions for alcohol-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	425 (1.7%)	546 (2.2%)	404 (1.6%)
Treatment type			
Counselling (n=11919; 47.2%)	168 (1.4%)	221 (1.9%)	161 (1.4%)
Residential withdrawal (n=1962; 7.8%)	91 (4.6%)	113 (5.8%)	82 (4.2%)
Other withdrawal (n=2582; 10.2%)	60 (2.3%)	110 (4.3%)	68 (2.6%)
Outreach (n=2368; 9.4%)	16 (0.7%)	22 (0.9%)	25 (1.1%)
Brokerage (n=3904; 15.5%)	41 (1.1%)	33 (0.8%)	29 (0.7%)
Aboriginal services (n=733; 2.9%)	6 (0.8%)	11 (1.5%)	12 (1.6%)
Specialist pharmacotherapy (n=401; 1.6%)	<5	<5	<5
Residential rehabilitation (n=176; 0.7%)	11 (6.3%)	7 (4.0%)	5 (2.8%)
Supported accommodation (n=269; 1.1%)	10 (3.7%)	5 (1.9%)	<5
Post withdrawal linkage (n=256; 1.0%)	<5	10 (3.9%)	6 (2.3%)
Other/unknown (n=659; 2.6%)	16 (2.4%)	12 (1.8%)	8 (1.2%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	293 (1.6%)	391 (2.1%)	280 (1.5%)
Not completed (n=6262; 24.8%)	128 (2.0%)	151 (2.4%)	120 (1.9%)
Unknown (n=277; 1.1%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=11912; 47.2%)	357 (3.0%)	475 (4.0%)	343 (2.9%)
Cannabis (n=5663; 22.4%)	30 (0.5%)	34 (0.6%)	26 (0.5%)
Heroin & other opioids (n=3863; 15.3%)	20 (0.5%)	12 (0.3%)	16 (0.4%)
Amphetamine & other stimulants (n=2198; 8.7%)	9 (0.4%)	10 (0.5%)	10 (0.5%)
Benzodiazepines & other tranquillisers (n=522; 2.1%)	5 (1.0%)	6 (1.1%)	6 (1.1%)
Other (n=730; 2.9%)	<5	<5	<5
Unknown (n=341; 1.4%)	<5	5 (1.5%)	<5

Overall, there was a decrease in the proportion of other drug-related acute admissions for AOD clients in the year following treatment engagement when compared with admissions in the year preceding treatment engagement (Table 22). Decreases in proportions of other drug-related acute admissions were evident for all treatment types, except outreach and other withdrawal services, and for all primary drugs of concern, except cannabis and amphetamines and other stimulants.

Table 22 Admissions for other drug-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Other drug-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	446 (1.8%)	601 (2.4%)	408 (1.6%)
Treatment type			
Counselling (n=11919; 47.2%)	197 (1.7%)	280 (2.3%)	191 (1.6%)
Residential withdrawal (n=1962; 7.8%)	56 (2.9%)	75 (3.8%)	46 (2.3%)
Other withdrawal (n=2582; 10.2%)	34 (1.3%)	78 (3.0%)	41 (1.6%)
Outreach (n=2368; 9.4%)	36 (1.5%)	51 (2.2%)	45 (1.9%)
Brokerage (n=3904; 15.5%)	71 (1.8%)	64 (1.6%)	49 (1.3%)
Aboriginal services (n=733; 2.9%)	6 (0.8%)	12 (1.6%)	5 (0.7%)
Specialist pharmacotherapy (n=401; 1.6%)	16 (4.0%)	10 (2.5%)	10 (2.5%)
Residential rehabilitation (n=176; 0.7%)	6 (3.4%)	<5	<5
Supported accommodation (n=269; 1.1%)	9 (3.3%)	<5	<5
Post withdrawal linkage (n=256; 1.0%)	<5	11 (4.3%)	9 (3.5%)
Other/unknown (n=659; 2.6%)	11 (1.7%)	12 (1.8%)	5 (0.8%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	304 (1.6%)	395 (2.1%)	280 (1.5%)
Not completed (n=6262; 24.8%)	138 (2.2%)	200 (3.2%)	126 (2.0%)
Unknown (n=277; 1.1%)	<5	6 (2.2%)	<5
Primary drug of concern			
Alcohol (n=11912; 47.2%)	169 (1.4%)	214 (1.8%)	157 (1.3%)
Cannabis (n=5663; 22.4%)	71 (1.3%)	124 (2.2%)	81 (1.4%)
Heroin & other opioids (n=3863; 15.3%)	125 (3.2%)	131 (3.4%)	96 (2.5%)
Amphetamine & other stimulants (n=2198; 8.7%)	38 (1.7%)	60 (2.7%)	42 (1.9%)
Benzodiazepines & other tranquillisers (n=522; 2.1%)	20 (3.8%)	41 (7.9%)	18 (3.4%)
Other (n=730; 2.9%)	15 (2.1%)	24 (3.3%)	10 (1.4%)
Unknown (n=341; 1.4%)	8 (2.3%)	7 (2.1%)	<5

Table 23 shows the proportion of AOD clients diagnosed in hospital with an alcohol-related chronic condition across the three years by AOD treatment characteristics and primary drug of concern on entry into AOD treatment. Overall, there was stability in proportions of clients admitted with alcohol-related chronic conditions over the three years presented. This is likely a reflection of patterns of morbidity associated with alcohol-related chronic conditions, with need for treatment of recurring symptoms even after reduction or cessation of alcohol consumption.

Table 23 Admissions for alcohol-related chronic conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related chronic conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	334 (1.3%)	359 (1.4%)	329 (1.3%)
Treatment type			
Counselling (n=11919; 47.2%)	139 (1.2%)	165 (1.4%)	148 (1.2%)
Residential withdrawal (n=1962; 7.8%)	46 (2.3%)	52 (2.7%)	45 (2.3%)
Other withdrawal (n=2582; 10.2%)	55 (2.1%)	59 (2.3%)	46 (1.8%)
Outreach (n=2368; 9.4%)	13 (0.5%)	12 (0.5%)	14 (0.6%)
Brokerage (n=3904; 15.5%)	37 (0.9%)	33 (0.8%)	41 (1.1%)
Aboriginal services (n=733; 2.9%)	18 (2.5%)	16 (2.2%)	10 (1.4%)
Specialist pharmacotherapy (n=401; 1.6%)	8 (2.0%)	11 (2.7%)	7 (1.7%)
Residential rehabilitation (n=176; 0.7%)	<5	<5	<5
Supported accommodation (n=269; 1.1%)	6 (2.2%)	<5	<5
Post withdrawal linkage (n=256; 1.0%)	6 (2.3%)	5 (2.0%)	5 (2.0%)
Other/unknown (n=659; 2.6%)	5 (0.8%)	<5	7 (1.1%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	232 (1.2%)	261 (1.4%)	234 (1.3%)
Not completed (n=6262; 24.8%)	99 (1.6%)	95 (1.5%)	91 (1.5%)
Unknown (n=277; 1.1%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=11912; 47.2%)	219 (1.8%)	236 (2.0%)	223 (1.9%)
Cannabis (n=5663; 22.4%)	47 (0.8%)	38 (0.7%)	46 (0.8%)
Heroin & other opioids (n=3863; 15.3%)	38 (1.0%)	44 (1.1%)	36 (0.9%)
Amphetamine & other stimulants (n=2198; 8.7%)	10 (0.5%)	16 (0.7%)	8 (0.4%)
Benzodiazepines & other tranquillisers (n=522; 2.1%)	<5	9 (1.7%)	<5
Other (n=730; 2.9%)	14 (1.9%)	15 (2.1%)	10 (1.4%)
Unknown (n=341; 1.4%)	<5	<5	<5

Following AOD treatment, there was a decrease in the proportion of clients admitted to hospital with an injury (Table 24). There were reductions in proportions of AOD clients diagnosed in hospital with injuries between the year preceding and the year following AOD treatment engagement across all treatment types (residential withdrawal, other withdrawal and Aboriginal services) and primary drugs of concern (except amphetamine and other stimulants and benzodiazepines and other tranquilisers).

Table 24 Admissions for injuries by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Injuries		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	1297 (5.1%)	1300 (5.2%)	1238 (4.9%)
Treatment type			
Counselling (n=11919; 47.2%)	560 (4.7%)	595 (5.0%)	533 (4.5%)
Residential withdrawal (n=1962; 7.8%)	135 (6.9%)	143 (7.3%)	152 (7.7%)
Other withdrawal (n=2582; 10.2%)	124 (4.8%)	133 (5.2%)	131 (5.1%)
Outreach (n=2368; 9.4%)	141 (6.0%)	124 (5.2%)	111 (4.7%)
Brokerage (n=3904; 15.5%)	208 (5.3%)	180 (4.6%)	207 (5.3%)
Aboriginal services (n=733; 2.9%)	30 (4.1%)	36 (4.9%)	37 (5.0%)
Specialist pharmacotherapy (n=401; 1.6%)	29 (7.2%)	24 (6.0%)	25 (6.2%)
Residential rehabilitation (n=176; 0.7%)	12 (6.8%)	10 (5.7%)	5 (2.8%)
Supported accommodation (n=269; 1.1%)	9 (3.3%)	10 (3.7%)	12 (4.5%)
Post withdrawal linkage (n=256; 1.0%)	16 (6.3%)	14 (5.5%)	9 (3.5%)
Other/unknown (n=659; 2.6%)	33 (5.0%)	31 (4.7%)	16 (2.4%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	928 (5.0%)	938 (5.0%)	904 (4.8%)
Not completed (n=6262; 24.8%)	355 (5.7%)	354 (5.7%)	326 (5.2%)
Unknown (n=277; 1.1%)	14 (5.1%)	8 (2.9%)	8 (2.9%)
Primary drug of concern			
Alcohol (n=11912; 47.2%)	667 (5.6%)	699 (5.9%)	631 (5.3%)
Cannabis (n=5663; 22.4%)	271 (4.8%)	248 (4.4%)	241 (4.3%)
Heroin & other opioids (n=3863; 15.3%)	203 (5.3%)	198 (5.1%)	193 (5.0%)
Amphetamine & other stimulants (n=2198; 8.7%)	96 (4.4%)	81 (3.7%)	99 (4.5%)
Benzodiazepines & other tranquilisers (n=522; 2.1%)	21 (4.0%)	32 (6.1%)	25 (4.8%)
Other (n=730; 2.9%)	27 (3.7%)	33 (4.5%)	29 (4.0%)
Unknown (n=341; 1.4%)	12 (3.5%)	9 (2.6%)	20 (5.9%)

Hospitalisations for non-AOD-related conditions are shown in Table 25 for the AOD client cohort. There was a reduction in the proportion of clients admitted with non-AOD-related conditions in the year following AOD treatment. While this reduction was evident for most treatment types, an increase was observed in outreach, Aboriginal, post withdrawal and other/unknown services. Also, while decreases in admissions were evident for clients presenting to AOD services across most primary drugs of concern, there was no change in the proportion of non-AOD-related hospitalisation where the primary drug of concern was benzodiazepines and other tranquilizers. Non-AOD-related condition admissions declined from the year preceding treatment to the year following treatment engagement regardless of treatment termination status.

Table 25 Admissions for non-AOD-related conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Non-AOD-related conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=25229)	4110 (16.3%)	3992 (15.8%)	3931 (15.6%)
Treatment type			
Counselling (n=11919; 47.2%)	1968 (16.5%)	1921 (16.1%)	1843 (15.5%)
Residential withdrawal (n=1962; 7.8%)	425 (21.7%)	418 (21.3%)	411 (20.9%)
Other withdrawal (n=2582; 10.2%)	466 (18.0%)	473 (18.3%)	416 (16.1%)
Outreach (n=2368; 9.4%)	303 (12.8%)	288 (12.2%)	336 (14.2%)
Brokerage (n=3904; 15.5%)	536 (13.7%)	469 (12.0%)	495 (12.7%)
Aboriginal services (n=733; 2.9%)	84 (11.5%)	96 (13.1%)	104 (14.2%)
Specialist pharmacotherapy (n=401; 1.6%)	94 (23.4%)	91 (22.7%)	90 (22.4%)
Residential rehabilitation (n=176; 0.7%)	31 (17.6%)	30 (17.0%)	26 (14.8%)
Supported accommodation (n=269; 1.1%)	56 (20.8%)	51 (19.0%)	51 (19.0%)
Post withdrawal linkage (n=256; 1.0%)	39 (15.2%)	35 (13.7%)	40 (15.6%)
Other/unknown (n=659; 2.6%)	108 (16.4%)	120 (18.2%)	119 (18.1%)
Treatment termination status			
Completed treatment (n=18690; 74.1%)	2962 (15.8%)	2855 (15.3%)	2838 (15.2%)
Not completed (n=6262; 24.8%)	1103 (17.6%)	1089 (17.4%)	1048 (16.7%)
Unknown (n=277; 1.1%)	45 (16.2%)	48 (17.3%)	45 (16.2%)
Primary drug of concern			
Alcohol (n=11912; 47.2%)	2036 (17.1%)	1981 (16.6%)	1947 (16.3%)
Cannabis (n=5663; 22.4%)	853 (15.1%)	787 (13.9%)	799 (14.1%)
Heroin & other opioids (n=3863; 15.3%)	652 (16.9%)	655 (17.0%)	637 (16.5%)
Amphetamine & other stimulants (n=2198; 8.7%)	294 (13.4%)	284 (12.9%)	283 (12.9%)
Benzodiazepines & other tranquilisers (n=522; 2.1%)	94 (18.0%)	101 (19.3%)	98 (18.8%)
Other (n=730; 2.9%)	124 (17.0%)	122 (16.7%)	111 (15.2%)
Unknown (n=341; 1.4%)	57 (16.7%)	62 (18.2%)	56 (16.4%)

Chapter 3: Results – Self reported polydrug use

Client characteristics and emergency department presentations – polydrug use

Table 26 shows the sociodemographic characteristics of AOD clients reporting polydrug use in 2010/11 (index year) and their ED engagement from 2009/10 to 2011/12. There were 10,899 AOD clients who started treatment in the index year. Over two-thirds (71%) were male, with most clients being in the 25 to 34 year age group (34%). The highest proportion of AOD clients were unemployed (62%), living with family (50%) and residing in a private residence (70%). Less than half of the cohort resided in metropolitan Melbourne (45%). A minority of clients were either Aboriginal and/or Torres Strait Islander (9%), although this represented a higher proportion than represented in both the general population, and also the overall treatment population presented in Chapter 2.

Just over half (51%) of the AOD clients did not present to ED over the three years. However, just under one-quarter (24%) presented on multiple occasions over the three years. These patterns varied across sociodemographic groups. Of note, 29% of females had multiple ED presentations, while 22% of males presented to ED on multiple occasions. Non-Australian born clients had a lower prevalence of multiple ED presentations (19%). Clients who were unemployed had higher proportions of multiple ED presentations than clients who were employed. Those living alone had higher proportions of multiple ED presentations than those living with family or others. Being homeless was associated with higher proportions of multiple ED presentations (33%) compared with those who were not homeless (23%), as was living in metropolitan Melbourne compared with the remainder of Victoria.

Table 27 shows these same sociodemographic characteristics by ED presentation (for those reporting polydrug use), and indicates changes pre- and post-treatment. In general, the proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions of post-AOD treatment ED presentations (2011/12); this is true with respect to gender, age groups (with the exception of clients under 15 years), country of birth, Indigenous status, being unemployed, living status accommodation status (except in custody), homeless status and region. Comparatively greater reductions in ED presentations were shown for AOD clients who had unstable accommodation relative to those in a private residence, and for clients who were homeless than for those with a home.

Table 26 Sociodemographic characteristics by ED presentations, 2009/10 to 2011/12, among those who were AOD clients in 2010/11 – polydrug use group

	Number of AOD clients					p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	ED in multiple years (%)	
Total (n=10899)	5604 (51.4%)	1024 (9.4%)	833 (7.6%)	824 (7.6%)	2614 (24.0%)	
Gender						
Male (n=7715; 70.8%)	4047 (52.5%)	757 (9.8%)	607 (7.9%)	592 (7.7%)	1712 (22.2%)	
Female (n=3169; 29.1%)	1542 (48.7%)	267 (8.4%)	226 (7.1%)	232 (7.3%)	902 (28.5%)	<0.001
Age group						
0-14 (n=123; 1.1%)	68 (55.3%)	6 (4.9%)	12 (9.8%)	8 (6.5%)	29 (23.6%)	
15-24 (n=3217; 29.5%)	1641 (51.0%)	311 (9.7%)	249 (7.7%)	234 (7.3%)	782 (24.3%)	
25-34 (n=3689; 33.8%)	1868 (50.6%)	348 (9.4%)	283 (7.7%)	270 (7.3%)	920 (24.9%)	
35-44 (n=2568; 23.6%)	1325 (51.6%)	248 (9.7%)	183 (7.1%)	193 (7.5%)	619 (24.1%)	
45-54 (n=994; 9.1%)	520 (52.3%)	88 (8.9%)	84 (8.5%)	95 (9.6%)	207 (20.8%)	
55-64 (n=253; 2.3%)	135 (53.4%)	22 (8.7%)	21 (8.3%)	22 (8.7%)	53 (20.9%)	
65+ (n=55; 0.5%)	47 (85.5%)	<5	<5	<5	<5	0.004
Country of birth						
Australia (n=9629; 88.3%)	4893 (50.8%)	904 (9.4%)	736 (7.6%)	721 (7.5%)	2375 (24.7%)	
Other (n=1270; 11.7%)	711 (56.0%)	120 (9.4%)	97 (7.6%)	103 (8.1%)	239 (18.8%)	<0.001
Indigenous status						
Aboriginal and/or TSI origin (n=961; 8.8%)	488 (50.8%)	84 (8.7%)	70 (7.3%)	68 (7.1%)	251 (26.1%)	
Neither Aboriginal nor TSI origin (n=9027; 82.8%)	4628 (51.3%)	861 (9.5%)	702 (7.8%)	676 (7.5%)	2160 (23.9%)	
Unknown (n=911; 8.4%)	488 (53.6%)	79 (8.7%)	61 (6.7%)	80 (8.8%)	203 (22.3%)	0.376
Employment						
Employed (n=2124; 19.5%)	1203 (56.6%)	197 (9.3%)	165 (7.8%)	170 (8.0%)	389 (18.3%)	
Unemployed (n=6764; 62.1%)	3363 (49.7%)	650 (9.6%)	505 (7.5%)	485 (7.2%)	1761 (26.0%)	
Other (n=1700; 15.6%)	874 (51.4%)	150 (8.8%)	140 (8.2%)	152 (8.9%)	384 (22.6%)	
Unknown (n=311; 2.9%)	164 (52.7%)	27 (8.7%)	23 (7.4%)	17 (5.5%)	80 (25.7%)	<0.001

	Number of AOD clients					
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	ED in multiple years (%)	p
Living status						
Lives alone (n=1837; 16.9%)	923 (50.2%)	165 (9.0%)	137 (7.5%)	137 (7.5%)	475 (25.9%)	0.006
Lives with family (n=5490; 50.4%)	2902 (52.9%)	497 (9.1%)	445 (8.1%)	406 (7.4%)	1240 (22.6%)	
Lives with others (n=2825; 25.9%)	1393 (49.3%)	301 (10.7%)	201 (7.1%)	213 (7.5%)	717 (25.4%)	
Unknown (n=747; 6.9%)	386 (51.7%)	61 (8.2%)	50 (6.7%)	68 (9.1%)	182 (24.4%)	
Accommodation status						
Private residence (n=7644; 70.1%)	4030 (52.7%)	705 (9.2%)	576 (7.5%)	560 (7.3%)	1773 (23.2%)	<0.001
Unstable (n=1318; 12.1%)	582 (44.2%)	137 (10.4%)	113 (8.6%)	89 (6.8%)	397 (30.1%)	
In custody (n=877; 8.0%)	464 (52.9%)	87 (9.9%)	59 (6.7%)	100 (11.4%)	167 (19.0%)	
Other (n=504; 4.6%)	230 (45.6%)	50 (9.9%)	41 (8.1%)	45 (8.9%)	138 (27.4%)	
Unknown (n=556; 5.1%)	298 (53.6%)	45 (8.1%)	44 (7.9%)	30 (5.4%)	139 (25.0%)	
Homeless status						
Homeless (n=687; 6.3%)	306 (44.5%)	57 (8.3%)	54 (7.9%)	43 (6.3%)	227 (33.0%)	<0.001
Not homeless (n=10061; 92.3%)	5217 (51.9%)	956 (9.5%)	768 (7.6%)	775 (7.7%)	2345 (23.3%)	
Unknown (n=151; 1.4%)	81 (53.6%)	11 (7.3%)	11 (7.3%)	6 (4.0%)	42 (27.8%)	
Region						
Metropolitan Melbourne (n=4845; 44.5%)	2256 (46.6%)	488 (10.1%)	431 (8.9%)	348 (7.2%)	1322 (27.3%)	<0.001
Rest of Victoria (n=3602; 33.0%)	2066 (57.4%)	280 (7.8%)	231 (6.4%)	249 (6.9%)	776 (21.5%)	
Interstate (n=191; 1.8%)	104 (54.5%)	20 (10.5%)	14 (7.3%)	12 (6.3%)	41 (21.5%)	
Unknown (n=2261; 20.7%)	1178 (52.1%)	236 (10.4%)	157 (6.9%)	215 (9.5%)	475 (21.0%)	

Table 27 Sociodemographic characteristics by ED presentations in 2009/10, 2010/11 and 2011/12 – polydrug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	3071 (28.2%)	2968 (27.2%)	2853 (26.2%)
Gender			
Male (n=7715; 70.8%)	2066 (26.8%)	1991 (25.8%)	1912 (24.8%)
Female (n=3169; 29.1%)	1005 (31.7%)	977 (30.8%)	941 (29.7%)
Age group			
0-14 (n=123; 1.1%)	26 (21.1%)	33 (26.8%)	32 (26.0%)
15-24 (n=3217; 29.5%)	916 (28.5%)	891 (27.7%)	858 (26.7%)
25-34 (n=3689; 33.8%)	1065 (28.9%)	1034 (28.0%)	969 (26.3%)
35-44 (n=2568; 23.6%)	742 (28.9%)	684 (26.6%)	663 (25.8%)
45-54 (n=994; 9.1%)	252 (25.4%)	258 (26.0%)	260 (26.2%)
55-64 (n=253; 2.3%)	65 (25.7%)	63 (24.9%)	67 (26.5%)
65+ (n=55; 0.5%)	5 (9.1%)	5 (9.1%)	<5
Country of birth			
Australia (n=9629; 88.3%)	2759 (28.7%)	2685 (27.9%)	2573 (26.7%)
Other (n=1270; 11.7%)	312 (24.6%)	283 (22.3%)	280 (22.0%)
Indigenous status			
Aboriginal and/or TSI origin (n=961; 8.8%)	288 (30.0%)	279 (29.0%)	268 (27.9%)
Neither Aboriginal nor TSI origin (n=9027; 82.8%)	2548 (28.2%)	2456 (27.2%)	2360 (26.1%)
Unknown (n=911; 8.4%)	235 (25.8%)	233 (25.6%)	225 (24.7%)
Employment			
Employed (n=2124; 19.5%)	487 (22.9%)	476 (22.4%)	473 (22.3%)
Unemployed (n=6764; 62.1%)	2045 (30.2%)	1949 (28.8%)	1847 (27.3%)
Other (n=1700; 15.6%)	449 (26.4%)	451 (26.5%)	459 (27.0%)
Unknown (n=311; 2.9%)	90 (28.9%)	92 (29.6%)	74 (23.8%)
Living status			
Lives alone (n=1837; 16.9%)	557 (30.3%)	532 (29.0%)	501 (27.3%)
Lives with family (n=5490; 50.4%)	1462 (26.6%)	1458 (26.6%)	1365 (24.9%)
Lives with others (n=2825; 25.9%)	846 (29.9%)	785 (27.8%)	772 (27.3%)
Unknown (n=747; 6.9%)	206 (27.6%)	193 (25.8%)	215 (28.8%)
Accommodation status			
Private residence (n=7644; 70.1%)	2084 (27.3%)	2015 (26.4%)	1932 (25.3%)
Unstable (n=1318; 12.1%)	464 (35.2%)	452 (34.3%)	396 (30.0%)
In custody (n=877; 8.0%)	208 (23.7%)	184 (21.0%)	242 (27.6%)
Other (n=504; 4.6%)	158 (31.3%)	152 (30.2%)	151 (30.0%)
Unknown (n=556; 5.1%)	157 (28.2%)	165 (29.7%)	132 (23.7%)
Homeless status			
Homeless (n=687; 6.3%)	246 (35.8%)	255 (37.1%)	211 (30.7%)
Not homeless (n=10061; 92.3%)	2784 (27.7%)	2664 (26.5%)	2604 (25.9%)
Unknown (n=151; 1.4%)	41 (27.2%)	49 (32.5%)	38 (25.2%)

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Region			
Metropolitan Melbourne (n=4845; 44.5%)	1536 (31.7%)	1513 (31.2%)	1356 (28.0%)
Rest of Victoria (n=3602; 33.0%)	877 (24.3%)	884 (24.5%)	862 (23.9%)
Interstate (n=191; 1.8%)	55 (28.8%)	46 (24.1%)	43 (22.5%)
Unknown (n=2261; 20.7%)	603 (26.7%)	525 (23.2%)	592 (26.2%)

Table 28 displays treatment type and treatment characteristics of AOD clients reporting polydrug use by the pattern of their ED engagement from 2009/10 to 2011/12. In terms of treatment type, AOD clients most commonly received counselling (43%), followed by brokerage (20%), outreach (10%) and other withdrawal services (9%). Overall, 74% completed their course of treatment.

There was some variability in patterns of ED utilisation across service types, with around one-third of residential withdrawal clients and specialist pharmacotherapy clients presenting to emergency departments on multiple occasions over the three years presented.

Table 28 Treatment type and treatment characteristics by ED presentation, 2009/10 to 2011/12 – polydrug use group

	Number of AOD clients					p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	ED in multiple years (%)	
Total (n=10899)	5604 (51.4%)	1024 (9.4%)	833 (7.6%)	824 (7.6%)	2614 (24.0%)	
Treatment type						
Counselling (n=4649; 42.7%)	2406 (51.8%)	439 (9.4%)	359 (7.7%)	333 (7.2%)	1112 (23.9%)	
Residential withdrawal (n=921; 8.5%)	409 (44.4%)	82 (8.9%)	81 (8.8%)	68 (7.4%)	281 (30.5%)	
Other withdrawal (n=1028; 9.4%)	600 (58.4%)	71 (6.9%)	72 (7.0%)	71 (6.9%)	214 (20.8%)	
Outreach (n=1034; 9.5%)	507 (49.0%)	102 (9.9%)	92 (8.9%)	74 (7.2%)	259 (25.0%)	
Brokerage (n=2150; 19.7%)	1129 (52.5%)	231 (10.7%)	145 (6.7%)	208 (9.7%)	437 (20.3%)	
Aboriginal services (n=386; 3.5%)	201 (52.1%)	32 (8.3%)	19 (4.9%)	23 (6.0%)	111 (28.8%)	
Specialist pharmacotherapy (n=174; 1.6%)	63 (36.2%)	20 (11.5%)	17 (9.8%)	14 (8.0%)	60 (34.5%)	
Residential rehabilitation (n=97; 0.9%)	52 (53.6%)	11 (11.3%)	7 (7.2%)	7 (7.2%)	20 (20.6%)	
Supported accommodation (n=149; 1.4%)	72 (48.3%)	17 (11.4%)	11 (7.4%)	14 (9.4%)	35 (23.5%)	
Post withdrawal linkage (n=123; 1.1%)	79 (64.2%)	9 (7.3%)	7 (5.7%)	5 (4.1%)	23 (18.7%)	
Other/unknown (n=188; 1.7%)	86 (45.7%)	10 (5.3%)	23 (12.2%)	7 (3.7%)	62 (33.0%)	<0.001
Pharmacotherapy treatment						
Methadone (n=1260; 11.6%)	625 (49.6%)	132 (10.5%)	101 (8.0%)	89 (7.1%)	313 (24.8%)	
Buprenorphine (n=404; 3.7%)	182 (45.0%)	50 (12.4%)	27 (6.7%)	39 (9.7%)	106 (26.2%)	
Naltrexone (n=127; 1.2%)	62 (48.8%)	11 (8.7%)	7 (5.5%)	6 (4.7%)	41 (32.3%)	
Other (n=535; 4.9%)	289 (54.0%)	46 (8.6%)	40 (7.5%)	37 (6.9%)	123 (23.0%)	
None (n=8573; 78.7%)	4446 (51.9%)	785 (9.2%)	658 (7.7%)	653 (7.6%)	2031 (23.7%)	0.117
Treatment termination status						
Completed treatment (n=8089; 74.2%)	4211 (52.1%)	780 (9.6%)	627 (7.8%)	633 (7.8%)	1838 (22.7%)	
Not completed (n=2747; 25.2%)	1360 (49.5%)	235 (8.6%)	203 (7.4%)	188 (6.8%)	761 (27.7%)	
Unknown (n=63; 0.6%)	33 (52.4%)	9 (14.3%)	<5	<5	15 (23.8%)	<0.001

Table 29 shows treatment type and treatment characteristics for AOD clients reporting polydrug use by ED presentation by year to show whether there was a change in ED utilisation pre- and post-treatment. Proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions post-AOD treatment (2011/12) for most treatment types (exceptions other withdrawal, and supported accommodation).

Table 29 Treatment type and treatment characteristics by ED presentations in 2009/10, 2010/11 and 2011/12 – polydrug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	3071 (28.2%)	2968 (27.2%)	2853 (26.2%)
Treatment type			
Counselling (n=4649; 42.7%)	1301 (28.0%)	1289 (27.7%)	1183 (25.4%)
Residential withdrawal (n=921; 8.5%)	300 (32.6%)	308 (33.4%)	285 (30.9%)
Other withdrawal (n=1028; 9.4%)	242 (23.5%)	243 (23.6%)	239 (23.2%)
Outreach (n=1034; 9.5%)	306 (29.6%)	305 (29.5%)	284 (27.5%)
Brokerage (n=2150; 19.7%)	568 (26.4%)	478 (22.2%)	552 (25.7%)
Aboriginal services (n=386; 3.5%)	119 (30.8%)	112 (29.0%)	111 (28.8%)
Specialist pharmacotherapy (n=174; 1.6%)	69 (39.7%)	68 (39.1%)	65 (37.4%)
Residential rehabilitation (n=97; 0.9%)	24 (24.7%)	23 (23.7%)	22 (22.7%)
Supported accommodation (n=149; 1.4%)	44 (29.5%)	38 (25.5%)	46 (30.9%)
Post withdrawal linkage (n=123; 1.1%)	32 (26.0%)	26 (21.1%)	23 (18.7%)
Other/unknown (n=188; 1.7%)	66 (35.1%)	78 (41.5%)	43 (22.9%)
Pharmacotherapy treatment			
Methadone (n=1260; 11.6%)	384 (30.5%)	340 (27.0%)	338 (26.8%)
Buprenorphine (n=404; 3.7%)	133 (32.9%)	118 (29.2%)	110 (27.2%)
Naltrexone (n=127; 1.2%)	47 (37.0%)	41 (32.3%)	37 (29.1%)
Other (n=535; 4.9%)	150 (28.0%)	138 (25.8%)	126 (23.6%)
None (n=8573; 78.7%)	2357 (27.5%)	2331 (27.2%)	2242 (26.2%)
Treatment termination status			
Completed treatment (n=8089; 74.2%)	2202 (27.2%)	2110 (26.1%)	2068 (25.6%)
Not completed (n=2747; 25.2%)	848 (30.9%)	843 (30.7%)	769 (28.0%)
Unknown (n=63; 0.6%)	21 (33.3%)	15 (23.8%)	16 (25.4%)

Table 30 shows that alcohol was most commonly the primary drug of concern (38%), followed by cannabis (27%) and heroin & other opioids (20%). The majority of clients did not attend an ED across the three years presented. Between 21% and 27% of all primary drug of concern groupings had multiple ED presentations, with multiple ED presentations least common among clients with amphetamines and other stimulants as the primary drug of concern. The most common methods of drug use were ingestion (43%) and smoking (26%). Those who injected had a higher prevalence of multiple ED presentations compared with other modalities. Those reporting no injecting drug use history accounted for two-fifths of AOD clients. Recent (within the past 12 months) injecting drug use history was associated with more ED activity and higher prevalence of multiple presentations.

Table 30 Drug use characteristics by ED presentations, 2009/10 to 2011/12 – polydrug use group

	Number of AOD clients				ED in multiple years (%)	p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=10899)	5604 (51.4%)	1024 (9.4%)	833 (7.6%)	824 (7.6%)	2614 (24.0%)	
Primary drug of concern						
Alcohol (n=4003; 36.7%)	2097 (52.4%)	341 (8.5%)	287 (7.2%)	319 (8.0%)	959 (24.0%)	
Cannabis (n=2963; 27.2%)	1515 (51.1%)	290 (9.8%)	215 (7.3%)	231 (7.8%)	712 (24.0%)	
Heroin & other opioids (n=2184; 20.0%)	1067 (48.9%)	218 (10.0%)	187 (8.6%)	156 (7.1%)	556 (25.5%)	
Amphetamine & other stimulants (n=1188; 10.9%)	613 (51.6%)	135 (11.4%)	93 (7.8%)	94 (7.9%)	253 (21.3%)	
Benzodiazepines & other tranquillisers (n=255; 2.3%)	130 (51.0%)	22 (8.6%)	21 (8.2%)	13 (5.1%)	69 (27.1%)	
Other (n=291; 2.7%)	172 (59.1%)	18 (6.2%)	29 (10.0%)	10 (3.4%)	62 (21.3%)	
Unknown (n=15; 0.1%)	10 (66.7%)	<5	<5	<5	<5	0.004
Method of use						
Ingest (n=4720; 43.3%)	2471 (52.4%)	408 (8.6%)	346 (7.3%)	360 (7.6%)	1135 (24.0%)	
Smoke (n=2866; 26.3%)	1493 (52.1%)	288 (10.0%)	220 (7.7%)	214 (7.5%)	651 (22.7%)	
Inject (n=2345; 21.5%)	1147 (48.9%)	236 (10.1%)	195 (8.3%)	164 (7.0%)	603 (25.7%)	
Sniff/inhale (n=847; 7.8%)	426 (50.3%)	80 (9.4%)	63 (7.4%)	79 (9.3%)	199 (23.5%)	
Other/unknown (n=121; 1.1%)	67 (55.4%)	12 (9.9%)	9 (7.4%)	7 (5.8%)	26 (21.5%)	0.138
Injecting drug use history						
Never injected (n=4417; 40.5%)	2386 (54.0%)	412 (9.3%)	331 (7.5%)	361 (8.2%)	927 (21.0%)	
Within past 12 months (n=3252; 29.8%)	1538 (47.3%)	326 (10.0%)	257 (7.9%)	226 (6.9%)	905 (27.8%)	
Over 12 months ago (n=1522; 14.0%)	799 (52.5%)	151 (9.9%)	119 (7.8%)	121 (8.0%)	332 (21.8%)	
Unknown (n=1708; 15.7%)	881 (51.6%)	135 (7.9%)	126 (7.4%)	116 (6.8%)	450 (26.3%)	<0.001

Table 31 shows these same drug characteristics for AOD clients (reporting polydrug use) by ED presentation across the three years – the year prior to treatment, year of treatment, and the year post-treatment. Proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions of post-AOD treatment ED presentations (2011/12) for all primary drugs of concern, methods of use and injecting drug use history.

Table 31 Drug use characteristics by ED presentations in 2009/10, 2010/11 and 2011/12 – polydrug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	3071 (28.2%)	2968 (27.2%)	2853 (26.2%)
Primary drug of concern			
Alcohol (n=4003; 36.7%)	1102 (27.5%)	1090 (27.2%)	1074 (26.8%)
Cannabis (n=2963; 27.2%)	844 (28.5%)	787 (26.6%)	779 (26.3%)
Heroin & other opioids (n=2184; 20.0%)	663 (30.4%)	633 (29.0%)	578 (26.5%)
Amphetamine & other stimulants (n=1188; 10.9%)	315 (26.5%)	295 (24.8%)	292 (24.6%)
Benzodiazepines & other tranquillisers (n=255; 2.3%)	79 (31.0%)	78 (30.6%)	66 (25.9%)
Other (n=291; 2.7%)	67 (23.0%)	81 (27.8%)	60 (20.6%)
Unknown (n=15; 0.1%)	<5	<5	<5
Method of use			
Ingest (n=4720; 43.3%)	1310 (27.8%)	1295 (27.4%)	1243 (26.3%)
Smoke (n=2866; 26.3%)	780 (27.2%)	744 (26.0%)	727 (25.4%)
Inject (n=2345; 21.5%)	718 (30.6%)	669 (28.5%)	629 (26.8%)
Sniff/inhale (n=847; 7.8%)	231 (27.3%)	229 (27.0%)	227 (26.8%)
Other/unknown (n=121; 1.1%)	32 (26.4%)	31 (25.6%)	27 (22.3%)
Injecting drug use history			
Never injected (n=4417; 40.5%)	1130 (25.6%)	1096 (24.8%)	1085 (24.6%)
Within past 12 months (n=3252; 29.8%)	1049 (32.3%)	987 (30.4%)	925 (28.4%)
Over 12 months ago (n=1522; 14.0%)	400 (26.3%)	380 (25.0%)	385 (25.3%)
Unknown (n=1708; 15.7%)	492 (28.8%)	505 (29.6%)	458 (26.8%)

Table 32 shows the overall median number of ED presentations and length of ED stay for AOD clients by year. There was no change over time, with one presentation pre- and post-treatment.

Table 32 Median number of ED presentations and median hours of ED stay for 2010/11 AOD clients, 2009/10 to 2011/12 – polydrug use group

	09/10 (N=3071)	10/11 (N=2968)	11/12 (N=2853)
Median number of attendances (interquartile range)	1(1,3)	2(1,3)	1(1,3)
Median hours of stay (interquartile range)	3.1(1.8, 4.9)	3.3(2.0, 5.2)	3.3(2.0, 5.2)

Table 33 shows the proportions of AOD clients (reporting polydrug use) diagnosed in the ED with an acute alcohol-related presentation by treatment characteristic and primary drug of concern. Overall there were no difference in the proportion of clients who presented to ED with an acute alcohol-related condition between the year prior to AOD treatment and the year following AOD treatment.

Table 33 ED presentations for alcohol-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – polydrug use group

	Alcohol-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	171 (1.6%)	202 (1.9%)	157 (1.4%)
Treatment type			
Counselling (n=4649; 42.7%)	68 (1.5%)	80 (1.7%)	71 (1.5%)
Residential withdrawal (n=921; 8.5%)	25 (2.7%)	41 (4.5%)	28 (3.0%)
Other withdrawal (n=1028; 9.4%)	16 (1.6%)	24 (2.3%)	18 (1.8%)
Outreach (n=1034; 9.5%)	13 (1.3%)	16 (1.5%)	9 (0.9%)
Brokerage (n=2150; 19.7%)	32 (1.5%)	18 (0.8%)	15 (0.7%)
Aboriginal services (n=386; 3.5%)	<5	8 (2.1%)	<5
Specialist pharmacotherapy (n=174; 1.6%)	<5	<5	<5
Residential rehabilitation (n=97; 0.9%)	<5	<5	<5
Supported accommodation (n=149; 1.4%)	<5	<5	<5
Post withdrawal linkage (n=123; 1.1%)	<5	<5	<5
Other/unknown (n=188; 1.7%)	6 (3.2%)	5 (2.7%)	<5
Treatment termination status			
Completed treatment (n=8089; 74.2%)	131 (1.6%)	146 (1.8%)	109 (1.3%)
Not completed (n=2747; 25.2%)	40 (1.5%)	54 (2.0%)	47 (1.7%)
Unknown (n=63; 0.6%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=4003; 36.7%)	107 (2.7%)	142 (3.5%)	110 (2.7%)
Cannabis (n=2963; 27.2%)	34 (1.1%)	33 (1.1%)	24 (0.8%)
Heroin & other opioids (n=2184; 20.0%)	18 (0.8%)	15 (0.7%)	10 (0.5%)
Amphetamine & other stimulants (n=1188; 10.9%)	8 (0.7%)	6 (0.5%)	7 (0.6%)
Benzodiazepines & other tranquillisers (n=255; 2.3%)	<5	5 (2.0%)	<5
Other (n=291; 2.7%)	<5	<5	<5
Unknown (n=15; 0.1%)	<5	<5	<5

Overall, there was a small decrease in the proportion of other drug-related acute presentations to ED for AOD clients in the year following treatment engagement when compared with ED presentations in the year preceding treatment engagement (Table 34).

Table 34 ED presentations for other drug-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – polydrug use group

	Other drug-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	329 (3.0%)	358 (3.3%)	279 (2.6%)
Treatment type			
Counselling (n=4649; 42.7%)	134 (2.9%)	137 (2.9%)	113 (2.4%)
Residential withdrawal (n=921; 8.5%)	41 (4.5%)	55 (6.0%)	38 (4.1%)
Other withdrawal (n=1028; 9.4%)	13 (1.3%)	28 (2.7%)	26 (2.5%)
Outreach (n=1034; 9.5%)	31 (3.0%)	40 (3.9%)	24 (2.3%)
Brokerage (n=2150; 19.7%)	70 (3.3%)	51 (2.4%)	49 (2.3%)
Aboriginal services (n=386; 3.5%)	<5	10 (2.6%)	5 (1.3%)
Specialist pharmacotherapy (n=174; 1.6%)	13 (7.5%)	14 (8.0%)	9 (5.2%)
Residential rehabilitation (n=97; 0.9%)	<5	<5	<5
Supported accommodation (n=149; 1.4%)	8 (5.4%)	6 (4.0%)	7 (4.7%)
Post withdrawal linkage (n=123; 1.1%)	5 (4.1%)	7 (5.7%)	<5
Other/unknown (n=188; 1.7%)	10 (5.3%)	8 (4.3%)	<5
Treatment termination status			
Completed treatment (n=8089; 74.2%)	226 (2.8%)	236 (2.9%)	200 (2.5%)
Not completed (n=2747; 25.2%)	102 (3.7%)	119 (4.3%)	78 (2.8%)
Unknown (n=63; 0.6%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=4003; 36.7%)	96 (2.4%)	112 (2.8%)	73 (1.8%)
Cannabis (n=2963; 27.2%)	64 (2.2%)	68 (2.3%)	68 (2.3%)
Heroin & other opioids (n=2184; 20.0%)	105 (4.8%)	105 (4.8%)	76 (3.5%)
Amphetamine & other stimulants (n=1188; 10.9%)	35 (2.9%)	38 (3.2%)	38 (3.2%)
Benzodiazepines & other tranquillisers (n=255; 2.3%)	20 (7.8%)	23 (9.0%)	17 (6.7%)
Other (n=291; 2.7%)	9 (3.1%)	11 (3.8%)	6 (2.1%)
Unknown (n=15; 0.1%)	<5	<5	<5

Table 35 shows the proportion of AOD clients diagnosed in the ED with an alcohol-related chronic condition across the three years by AOD treatment characteristics and primary drug of concern on entry into AOD treatment. Overall, there was stability in proportions of clients presenting with alcohol-related chronic conditions over the three years presented. Clients engaging in Aboriginal services showed a decrease in presentations to the ED for alcohol-related chronic conditions.

Table 35 ED presentations for alcohol-related chronic conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – polydrug use group

	Alcohol-related chronic conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	176 (1.6%)	186 (1.7%)	151 (1.4%)
Treatment type			
Counselling (n=4649; 42.7%)	72 (1.5%)	75 (1.6%)	63 (1.4%)
Residential withdrawal (n=921; 8.5%)	19 (2.1%)	29 (3.1%)	14 (1.5%)
Other withdrawal (n=1028; 9.4%)	24 (2.3%)	24 (2.3%)	21 (2.0%)
Outreach (n=1034; 9.5%)	7 (0.7%)	12 (1.2%)	<5
Brokerage (n=2150; 19.7%)	19 (0.9%)	23 (1.1%)	24 (1.1%)
Aboriginal services (n=386; 3.5%)	21 (5.4%)	12 (3.1%)	10 (2.6%)
Specialist pharmacotherapy (n=174; 1.6%)	<5	<5	<5
Residential rehabilitation (n=97; 0.9%)	<5	<5	<5
Supported accommodation (n=149; 1.4%)	<5	<5	<5
Post withdrawal linkage (n=123; 1.1%)	<5	<5	<5
Other/unknown (n=188; 1.7%)	<5	<5	5 (2.7%)
Treatment termination status			
Completed treatment (n=8089; 74.2%)	123 (1.5%)	136 (1.7%)	107 (1.3%)
Not completed (n=2747; 25.2%)	52 (1.9%)	48 (1.7%)	44 (1.6%)
Unknown (n=63; 0.6%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=4003; 36.7%)	89 (2.2%)	90 (2.2%)	68 (1.7%)
Cannabis (n=2963; 27.2%)	38 (1.3%)	34 (1.1%)	39 (1.3%)
Heroin & other opioids (n=2184; 20.0%)	31 (1.4%)	39 (1.8%)	20 (0.9%)
Amphetamine & other stimulants (n=1188; 10.9%)	10 (0.8%)	9 (0.8%)	12 (1.0%)
Benzodiazepines & other tranquillisers (n=255; 2.3%)	<5	7 (2.7%)	5 (2.0%)
Other (n=291; 2.7%)	5 (1.7%)	6 (2.1%)	7 (2.4%)
Unknown (n=15; 0.1%)	<5	<5	<5

Following AOD treatment, there was a decrease in the proportion of clients presenting to ED with an injury (Table 36). Across all treatment types, most primary drugs of concern, and treatment termination status categories, there were reductions in proportions of AOD clients diagnosed in the ED with injuries between the year preceding AOD treatment and the year following AOD treatment engagement.

Table 36 ED presentations for injuries by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – polydrug use group

	Injuries		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	1359 (12.5%)	1207 (11.1%)	1170 (10.7%)
Treatment type			
Counselling (n=4649; 42.7%)	564 (12.1%)	508 (10.9%)	497 (10.7%)
Residential withdrawal (n=921; 8.5%)	134 (14.5%)	133 (14.4%)	112 (12.2%)
Other withdrawal (n=1028; 9.4%)	98 (9.5%)	94 (9.1%)	85 (8.3%)
Outreach (n=1034; 9.5%)	145 (14.0%)	129 (12.5%)	120 (11.6%)
Brokerage (n=2150; 19.7%)	263 (12.2%)	236 (11.0%)	241 (11.2%)
Aboriginal services (n=386; 3.5%)	57 (14.8%)	44 (11.4%)	43 (11.1%)
Specialist pharmacotherapy (n=174; 1.6%)	29 (16.7%)	24 (13.8%)	21 (12.1%)
Residential rehabilitation (n=97; 0.9%)	13 (13.4%)	7 (7.2%)	11 (11.3%)
Supported accommodation (n=149; 1.4%)	17 (11.4%)	7 (4.7%)	18 (12.1%)
Post withdrawal linkage (n=123; 1.1%)	14 (11.4%)	8 (6.5%)	11 (8.9%)
Other/unknown (n=188; 1.7%)	25 (13.3%)	17 (9.0%)	11 (5.9%)
Treatment termination status			
Completed treatment (n=8089; 74.2%)	993 (12.3%)	872 (10.8%)	827 (10.2%)
Not completed (n=2747; 25.2%)	357 (13.0%)	330 (12.0%)	336 (12.2%)
Unknown (n=63; 0.6%)	9 (14.3%)	5 (7.9%)	7 (11.1%)
Primary drug of concern			
Alcohol (n=4003; 36.7%)	521 (13.0%)	482 (12.0%)	453 (11.3%)
Cannabis (n=2963; 27.2%)	395 (13.3%)	334 (11.3%)	345 (11.6%)
Heroin & other opioids (n=2184; 20.0%)	248 (11.4%)	221 (10.1%)	190 (8.7%)
Amphetamine & other stimulants (n=1188; 10.9%)	139 (11.7%)	115 (9.7%)	134 (11.3%)
Benzodiazepines & other tranquillisers (n=255; 2.3%)	32 (12.5%)	26 (10.2%)	19 (7.5%)
Other (n=291; 2.7%)	23 (7.9%)	27 (9.3%)	28 (9.6%)
Unknown (n=15; 0.1%)	<5	<5	<5

ED presentations for non-AOD-related conditions are shown in Table 37 for the AOD client cohort. Overall there was a small reduction in the proportion of clients presenting with non-AOD-related conditions in the year following AOD treatment, however there was variability across service types (increases for specialist pharmacotherapy, supported accommodation, and substantial decrease for post withdrawal linkage), and primary drug of concern (decrease for heroin & other opioids).

Table 37 ED presentations for non-AOD-related conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – polydrug use group

	Non-AOD-related conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	2154 (19.8%)	2203 (20.2%)	2086 (19.1%)
Treatment type			
Counselling (n=4649; 42.7%)	901 (19.4%)	967 (20.8%)	851 (18.3%)
Residential withdrawal (n=921; 8.5%)	210 (22.8%)	230 (25.0%)	214 (23.2%)
Other withdrawal (n=1028; 9.4%)	185 (18.0%)	187 (18.2%)	187 (18.2%)
Outreach (n=1034; 9.5%)	207 (20.0%)	211 (20.4%)	206 (19.9%)
Brokerage (n=2150; 19.7%)	390 (18.1%)	326 (15.2%)	388 (18.0%)
Aboriginal services (n=386; 3.5%)	83 (21.5%)	90 (23.3%)	81 (21.0%)
Specialist pharmacotherapy (n=174; 1.6%)	53 (30.5%)	57 (32.8%)	58 (33.3%)
Residential rehabilitation (n=97; 0.9%)	15 (15.5%)	15 (15.5%)	13 (13.4%)
Supported accommodation (n=149; 1.4%)	30 (20.1%)	31 (20.8%)	34 (22.8%)
Post withdrawal linkage (n=123; 1.1%)	27 (22.0%)	21 (17.1%)	19 (15.4%)
Other/unknown (n=188; 1.7%)	53 (28.2%)	68 (36.2%)	35 (18.6%)
Treatment termination status			
Completed treatment (n=8089; 74.2%)	1528 (18.9%)	1559 (19.3%)	1498 (18.5%)
Not completed (n=2747; 25.2%)	609 (22.2%)	632 (23.0%)	577 (21.0%)
Unknown (n=63; 0.6%)	17 (27.0%)	12 (19.0%)	11 (17.5%)
Primary drug of concern			
Alcohol (n=4003; 36.7%)	766 (19.1%)	782 (19.5%)	784 (19.6%)
Cannabis (n=2963; 27.2%)	576 (19.4%)	571 (19.3%)	559 (18.9%)
Heroin & other opioids (n=2184; 20.0%)	506 (23.2%)	496 (22.7%)	446 (20.4%)
Amphetamine & other stimulants (n=1188; 10.9%)	203 (17.1%)	226 (19.0%)	195 (16.4%)
Benzodiazepines & other tranquillisers (n=255; 2.3%)	54 (21.2%)	64 (25.1%)	56 (22.0%)
Other (n=291; 2.7%)	48 (16.5%)	62 (21.3%)	44 (15.1%)
Unknown (n=15; 0.1%)	<5	<5	<5

Client characteristics and hospitalisations – polydrug use

Table 38 shows sociodemographic characteristics of AOD clients reporting polydrug use in 2010-2011 (index year) and hospitalisations from 2009/10 to 2011/12. Over two-thirds (71%) were male, with the highest proportion of clients aged 25-34 years (34%). A minority of clients were either Aboriginal and/or Torres Strait Islander (9%) although this was above the state population proportion. The majority were unemployed (62%), living with family (50%) and in private residence (70%).

Almost two thirds of male clients and more than half of female clients were not admitted to hospital in any of the three years (64% of males and 51% of females). Over one-fifth of females (22%) had multiple admissions, while only 13% of males were admitted on multiple occasions. The likelihood of hospital admission increased with age until age 65 years, as did multiple admissions. People who were under 35 years, employed, and from non-metropolitan Melbourne were least likely to be hospitalised across the three years of interest.

The proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions following AOD treatment engagement (2011/12) for all sociodemographic characteristics (Table 39).

Table 38 Sociodemographic characteristics by hospital admission, 2009/10 to 2011/12 – polydrug use group

	Number of AOD clients				Admissions in multiple years (%)	p
	No Admissions (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=10899)	6579 (60.4%)	971 (8.9%)	848 (7.8%)	773 (7.1%)	1728 (15.9%)	
Gender						
Male (n=7715; 70.8%)	4945 (64.1%)	656 (8.5%)	583 (7.6%)	509 (6.6%)	1022 (13.2%)	
Female (n=3169; 29.1%)	1619 (51.1%)	315 (9.9%)	265 (8.4%)	264 (8.3%)	706 (22.3%)	<0.001
Age group						
0-14 (n=123; 1.1%)	83 (67.5%)	10 (8.1%)	14 (11.4%)	7 (5.7%)	9 (7.3%)	
15-24 (n=3217; 29.5%)	2025 (62.9%)	292 (9.1%)	231 (7.2%)	240 (7.5%)	429 (13.3%)	
25-34 (n=3689; 33.8%)	2237 (60.6%)	305 (8.3%)	294 (8.0%)	276 (7.5%)	577 (15.6%)	
35-44 (n=2568; 23.6%)	1485 (57.8%)	265 (10.3%)	203 (7.9%)	163 (6.3%)	452 (17.6%)	
45-54 (n=994; 9.1%)	575 (57.8%)	79 (7.9%)	84 (8.5%)	68 (6.8%)	188 (18.9%)	
55-64 (n=253; 2.3%)	134 (53.0%)	19 (7.5%)	20 (7.9%)	17 (6.7%)	63 (24.9%)	
65+ (n=55; 0.5%)	40 (72.7%)	<5	<5	<5	10 (18.2%)	<0.001
Country of birth						
Australia (n=9629; 88.3%)	5755 (59.8%)	885 (9.2%)	742 (7.7%)	690 (7.2%)	1557 (16.2%)	
Other (n=1270; 11.7%)	824 (64.9%)	86 (6.8%)	106 (8.3%)	83 (6.5%)	171 (13.5%)	0.001
Indigenous status						
Aboriginal and/or TSI origin (n=961; 8.8%)	576 (59.9%)	83 (8.6%)	71 (7.4%)	60 (6.2%)	171 (17.8%)	
Neither Aboriginal nor TSI origin (n=9027; 82.8%)	5407 (59.9%)	820 (9.1%)	709 (7.9%)	662 (7.3%)	1429 (15.8%)	
Unknown (n=911; 8.4%)	596 (65.4%)	68 (7.5%)	68 (7.5%)	51 (5.6%)	128 (14.1%)	0.045
Employment						
Employed (n=2124; 19.5%)	1366 (64.3%)	192 (9.0%)	163 (7.7%)	144 (6.8%)	259 (12.2%)	
Unemployed (n=6764; 62.1%)	3995 (59.1%)	588 (8.7%)	544 (8.0%)	473 (7.0%)	1164 (17.2%)	
Other (n=1700; 15.6%)	1027 (60.4%)	160 (9.4%)	124 (7.3%)	134 (7.9%)	255 (15.0%)	
Unknown (n=311; 2.9%)	191 (61.4%)	31 (10.0%)	17 (5.5%)	22 (7.1%)	50 (16.1%)	<0.001

	Number of AOD clients				Admissions in multiple years (%)	p
	No Admissions (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Living status						
Lives alone (n=1837; 16.9%)	1051 (57.2%)	165 (9.0%)	159 (8.7%)	106 (5.8%)	356 (19.4%)	<0.001
Lives with family (n=5490; 50.4%)	3377 (61.5%)	476 (8.7%)	430 (7.8%)	385 (7.0%)	822 (15.0%)	
Lives with others (n=2825; 25.9%)	1710 (60.5%)	255 (9.0%)	209 (7.4%)	208 (7.4%)	443 (15.7%)	
Unknown (n=747; 6.9%)	441 (59.0%)	75 (10.0%)	50 (6.7%)	74 (9.9%)	107 (14.3%)	
Accommodation status						
Private residence (n=7644; 70.1%)	4635 (60.6%)	663 (8.7%)	606 (7.9%)	538 (7.0%)	1202 (15.7%)	<0.001
Unstable (n=1318; 12.1%)	753 (57.1%)	121 (9.2%)	114 (8.6%)	74 (5.6%)	256 (19.4%)	
In custody (n=877; 8.0%)	563 (64.2%)	89 (10.1%)	52 (5.9%)	74 (8.4%)	99 (11.3%)	
Other (n=504; 4.6%)	286 (56.7%)	46 (9.1%)	40 (7.9%)	39 (7.7%)	93 (18.5%)	
Unknown (n=556; 5.1%)	342 (61.5%)	52 (9.4%)	36 (6.5%)	48 (8.6%)	78 (14.0%)	
Homeless status						
Homeless (n=687; 6.3%)	382 (55.6%)	56 (8.2%)	61 (8.9%)	46 (6.7%)	142 (20.7%)	0.028
Not homeless (n=10061; 92.3%)	6109 (60.7%)	902 (9.0%)	776 (7.7%)	712 (7.1%)	1562 (15.5%)	
Unknown (n=151; 1.4%)	88 (58.3%)	13 (8.6%)	11 (7.3%)	15 (9.9%)	24 (15.9%)	
Region						
Metropolitan Melbourne (n=4845; 44.5%)	2703 (55.8%)	441 (9.1%)	432 (8.9%)	362 (7.5%)	907 (18.7%)	<0.001
Rest of Victoria (n=3602; 33.0%)	2308 (64.1%)	289 (8.0%)	261 (7.2%)	216 (6.0%)	528 (14.7%)	
Interstate (n=191; 1.8%)	128 (67.0%)	19 (9.9%)	11 (5.8%)	15 (7.9%)	18 (9.4%)	
Unknown (n=2261; 20.7%)	1440 (63.7%)	222 (9.8%)	144 (6.4%)	180 (8.0%)	275 (12.2%)	

Table 39 Sociodemographic characteristics by hospital admission in 2009/10, 2010/11 and 2011/12 – polydrug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	2293 (21.0%)	2192 (20.1%)	2072 (19.0%)
Gender			
Male (n=7715; 70.8%)	1422 (18.4%)	1380 (17.9%)	1261 (16.3%)
Female (n=3169; 29.1%)	871 (27.5%)	812 (25.6%)	811 (25.6%)
Age group			
0-14 (n=123; 1.1%)	17 (13.8%)	20 (16.3%)	14 (11.4%)
15-24 (n=3217; 29.5%)	605 (18.8%)	562 (17.5%)	551 (17.1%)
25-34 (n=3689; 33.8%)	749 (20.3%)	746 (20.2%)	706 (19.1%)
35-44 (n=2568; 23.6%)	624 (24.3%)	550 (21.4%)	516 (20.1%)
45-54 (n=994; 9.1%)	220 (22.1%)	236 (23.7%)	209 (21.0%)
55-64 (n=253; 2.3%)	69 (27.3%)	67 (26.5%)	67 (26.5%)
65+ (n=55; 0.5%)	9 (16.4%)	11 (20.0%)	9 (16.4%)
Country of birth			
Australia (n=9629; 88.3%)	2077 (21.6%)	1950 (20.3%)	1869 (19.4%)
Other (n=1270; 11.7%)	216 (17.0%)	242 (19.1%)	203 (16.0%)
Indigenous status			
Aboriginal and/or TSI origin (n=961; 8.8%)	214 (22.3%)	205 (21.3%)	188 (19.6%)
Neither Aboriginal nor TSI origin (n=9027; 82.8%)	1914 (21.2%)	1819 (20.2%)	1732 (19.2%)
Unknown (n=911; 8.4%)	165 (18.1%)	168 (18.4%)	152 (16.7%)
Employment			
Employed (n=2124; 19.5%)	385 (18.1%)	362 (17.0%)	333 (15.7%)
Unemployed (n=6764; 62.1%)	1477 (21.8%)	1459 (21.6%)	1357 (20.1%)
Other (n=1700; 15.6%)	363 (21.4%)	318 (18.7%)	324 (19.1%)
Unknown (n=311; 2.9%)	68 (21.9%)	53 (17.0%)	58 (18.6%)
Living status			
Lives alone (n=1837; 16.9%)	454 (24.7%)	439 (23.9%)	377 (20.5%)
Lives with family (n=5490; 50.4%)	1096 (20.0%)	1074 (19.6%)	997 (18.2%)
Lives with others (n=2825; 25.9%)	587 (20.8%)	547 (19.4%)	550 (19.5%)
Unknown (n=747; 6.9%)	156 (20.9%)	132 (17.7%)	148 (19.8%)
Accommodation status			
Private residence (n=7644; 70.1%)	1587 (20.8%)	1538 (20.1%)	1446 (18.9%)
Unstable (n=1318; 12.1%)	315 (23.9%)	319 (24.2%)	277 (21.0%)
In custody (n=877; 8.0%)	162 (18.5%)	126 (14.4%)	147 (16.8%)
Other (n=504; 4.6%)	121 (24.0%)	109 (21.6%)	101 (20.0%)
Unknown (n=556; 5.1%)	108 (19.4%)	100 (18.0%)	101 (18.2%)
Homeless status			
Homeless (n=687; 6.3%)	162 (23.6%)	184 (26.8%)	151 (22.0%)
Not homeless (n=10061; 92.3%)	2101 (20.9%)	1981 (19.7%)	1887 (18.8%)
Unknown (n=151; 1.4%)	30 (19.9%)	27 (17.9%)	34 (22.5%)

Region	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Metropolitan Melbourne (n=4845; 44.5%)	1141 (23.6%)	1159 (23.9%)	1033 (21.3%)
Rest of Victoria (n=3602; 33.0%)	695 (19.3%)	658 (18.3%)	626 (17.4%)
Interstate (n=191; 1.8%)	31 (16.2%)	24 (12.6%)	31 (16.2%)
Unknown (n=2261; 20.7%)	426 (18.8%)	351 (15.5%)	382 (16.9%)

Table 40 displays the treatment type and treatment characteristics of AOD clients reporting polydrug use by the pattern of hospitalisation from 2009/10 to 2011/12. In terms of treatment type, most AOD clients received counselling (43%), followed by brokerage (20%), outreach (10%) and other withdrawal (9%). Overall, 74% had completed treatment when their treatment episode was terminated.

There was some variability in patterns of hospital utilisation across treatment types, with over one-fifth of residential withdrawal clients (22%), one-fifth of post withdrawal linkage and over one-quarter (29%) of specialist pharmacotherapy clients presenting to hospital on multiple occasions over the three years presented.

Table 41 shows treatment type and treatment characteristics for AOD clients reporting polydrug use by hospitalisation by year to show whether there was a change in hospital utilisation pre- and post-treatment. Proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions post-AOD treatment (2011/12) overall and for most treatment types (exceptions included residential withdrawal and Aboriginal services), all pharmacotherapy treatment types and all treatment termination status reasons.

Table 40 Treatment type and treatment characteristics by admissions, 2009/10 to 2011/12 – polydrug use group

	Number of AOD clients				Admissions in multiple years (%)	p
	No admissions (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=10899)	6579 (60.4%)	971 (8.9%)	848 (7.8%)	773 (7.1%)	1728 (15.9%)	
Treatment type						
Counselling (n=4649; 42.7%)	2832 (60.9%)	396 (8.5%)	371 (8.0%)	323 (6.9%)	727 (15.6%)	
Residential withdrawal (n=921; 8.5%)	483 (52.4%)	81 (8.8%)	81 (8.8%)	76 (8.3%)	200 (21.7%)	
Other withdrawal (n=1028; 9.4%)	628 (61.1%)	92 (8.9%)	78 (7.6%)	55 (5.4%)	175 (17.0%)	
Outreach (n=1034; 9.5%)	619 (59.9%)	98 (9.5%)	81 (7.8%)	86 (8.3%)	150 (14.5%)	
Brokerage (n=2150; 19.7%)	1377 (64.0%)	210 (9.8%)	138 (6.4%)	171 (8.0%)	254 (11.8%)	
Aboriginal services (n=386; 3.5%)	239 (61.9%)	29 (7.5%)	26 (6.7%)	22 (5.7%)	70 (18.1%)	
Specialist pharmacotherapy (n=174; 1.6%)	87 (50.0%)	15 (8.6%)	18 (10.3%)	<5	50 (28.7%)	
Residential rehabilitation (n=97; 0.9%)	57 (58.8%)	7 (7.2%)	11 (11.3%)	5 (5.2%)	17 (17.5%)	
Supported accommodation (n=149; 1.4%)	78 (52.3%)	22 (14.8%)	15 (10.1%)	15 (10.1%)	19 (12.8%)	
Post withdrawal linkage (n=123; 1.1%)	90 (73.2%)	<5	5 (4.1%)	<5	24 (19.5%)	
Other/unknown (n=188; 1.7%)	89 (47.3%)	19 (10.1%)	24 (12.8%)	14 (7.4%)	42 (22.3%)	<0.001
Pharmacotherapy treatment						
Methadone (n=1260; 11.6%)	709 (56.3%)	124 (9.8%)	113 (9.0%)	92 (7.3%)	222 (17.6%)	
Buprenorphine (n=404; 3.7%)	241 (59.7%)	31 (7.7%)	34 (8.4%)	24 (5.9%)	74 (18.3%)	
Naltrexone (n=127; 1.2%)	57 (44.9%)	15 (11.8%)	12 (9.4%)	13 (10.2%)	30 (23.6%)	
Other (n=535; 4.9%)	316 (59.1%)	41 (7.7%)	49 (9.2%)	36 (6.7%)	93 (17.4%)	
None (n=8573; 78.7%)	5256 (61.3%)	760 (8.9%)	640 (7.5%)	608 (7.1%)	1309 (15.3%)	0.006
Treatment termination status						
Completed treatment (n=8089; 74.2%)	4944 (61.1%)	736 (9.1%)	628 (7.8%)	578 (7.1%)	1203 (14.9%)	
Not completed (n=2747; 25.2%)	1606 (58.5%)	226 (8.2%)	216 (7.9%)	188 (6.8%)	511 (18.6%)	
Unknown (n=63; 0.6%)	29 (46.0%)	9 (14.3%)	<5	7 (11.1%)	14 (22.2%)	<0.001

Table 41 Treatment type and treatment characteristics by admissions in 2009/10, 2010/11 and 2011/12 – polydrug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	2293 (21.0%)	2192 (20.1%)	2072 (19.0%)
Treatment type			
Counselling (n=4649; 42.7%)	954 (20.5%)	940 (20.2%)	862 (18.5%)
Residential withdrawal (n=921; 8.5%)	232 (25.2%)	239 (26.0%)	237 (25.7%)
Other withdrawal (n=1028; 9.4%)	229 (22.3%)	217 (21.1%)	191 (18.6%)
Outreach (n=1034; 9.5%)	211 (20.4%)	198 (19.1%)	193 (18.7%)
Brokerage (n=2150; 19.7%)	399 (18.6%)	327 (15.2%)	357 (16.6%)
Aboriginal services (n=386; 3.5%)	78 (20.2%)	83 (21.5%)	78 (20.2%)
Specialist pharmacotherapy (n=174; 1.6%)	57 (32.8%)	53 (30.5%)	46 (26.4%)
Residential rehabilitation (n=97; 0.9%)	23 (23.7%)	21 (21.6%)	16 (16.5%)
Supported accommodation (n=149; 1.4%)	35 (23.5%)	31 (20.8%)	30 (20.1%)
Post withdrawal linkage (n=123; 1.1%)	23 (18.7%)	23 (18.7%)	18 (14.6%)
Other/unknown (n=188; 1.7%)	52 (27.7%)	60 (31.9%)	44 (23.4%)
Pharmacotherapy treatment			
Methadone (n=1260; 11.6%)	298 (23.7%)	280 (22.2%)	254 (20.2%)
Buprenorphine (n=404; 3.7%)	81 (20.0%)	90 (22.3%)	81 (20.0%)
Naltrexone (n=127; 1.2%)	40 (31.5%)	39 (30.7%)	36 (28.3%)
Other (n=535; 4.9%)	113 (21.1%)	121 (22.6%)	109 (20.4%)
None (n=8573; 78.7%)	1761 (20.5%)	1662 (19.4%)	1592 (18.6%)
Treatment termination status			
Completed treatment (n=8089; 74.2%)	1650 (20.4%)	1560 (19.3%)	1478 (18.3%)
Not completed (n=2747; 25.2%)	624 (22.7%)	617 (22.5%)	578 (21.0%)
Unknown (n=63; 0.6%)	19 (30.2%)	15 (23.8%)	16 (25.4%)

Table 42 shows that alcohol was most commonly the primary drug of concern (37%), followed by cannabis (27%) and heroin & other opioids (20%). The majority of clients were not hospitalised across the three years presented. A lower proportion of clients with benzodiazepines and other tranquillisers as a primary drug of concern had no hospitalisations over the three-year period, in contrast to a higher proportion of clients with cannabis and amphetamines and other stimulants as a primary drug of concern. Between 13% and 22% of all primary drug of concern groupings had multiple hospitalisations, with multiple hospital admissions most common among clients with benzodiazepine.

The most common method of drug use was ingestion (43%), followed by smoking (26%). Those whose route of administration was ingestion had a higher prevalence of multiple hospitalisations relative to other administration routes. Those reporting no injecting drug use history accounted for 41% of AOD clients. Clients with any injecting drug use history had more hospitalisation activity (Table 42).

Table 43 shows these same drug characteristics for AOD clients by hospitalisation across the three years – the year prior to treatment, year of treatment, and the year post-treatment. Proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions of post-AOD treatment hospital admissions (2011/12).

Table 42 Drug characteristics by hospital admission, 2009/10 to 2011/12 – polydrug use group

	Number of AOD clients					p
	No Admissions (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	Admissions in multiple years (%)	
Total (n=10899)	6579 (60.4%)	971 (8.9%)	848 (7.8%)	773 (7.1%)	1728 (15.9%)	
Primary drug of concern						
Alcohol (n=4003; 36.7%)	2402 (60.0%)	355 (8.9%)	306 (7.6%)	273 (6.8%)	667 (16.7%)	
Cannabis (n=2963; 27.2%)	1845 (62.3%)	258 (8.7%)	204 (6.9%)	211 (7.1%)	445 (15.0%)	
Heroin & other opioids (n=2184; 20.0%)	1256 (57.5%)	208 (9.5%)	189 (8.7%)	163 (7.5%)	368 (16.8%)	
Amphetamine & other stimulants (n=1188; 10.9%)	738 (62.1%)	112 (9.4%)	97 (8.2%)	93 (7.8%)	148 (12.5%)	
Benzodiazepines & other tranquillisers (n=255; 2.3%)	135 (52.9%)	22 (8.6%)	24 (9.4%)	17 (6.7%)	57 (22.4%)	
Other (n=291; 2.7%)	193 (66.3%)	16 (5.5%)	27 (9.3%)	15 (5.2%)	40 (13.7%)	
Unknown (n=15; 0.1%)	10 (66.7%)	<5	<5	<5	<5	0.003
Method of use						
Ingest (n=4720; 43.3%)	2803 (59.4%)	415 (8.8%)	384 (8.1%)	314 (6.7%)	804 (17.0%)	
Smoke (n=2866; 26.3%)	1804 (62.9%)	253 (8.8%)	188 (6.6%)	210 (7.3%)	411 (14.3%)	
Inject (n=2345; 21.5%)	1365 (58.2%)	213 (9.1%)	198 (8.4%)	180 (7.7%)	389 (16.6%)	
Sniff/inhale (n=847; 7.8%)	533 (62.9%)	79 (9.3%)	66 (7.8%)	58 (6.8%)	111 (13.1%)	
Other/unknown (n=121; 1.1%)	74 (61.2%)	11 (9.1%)	12 (9.9%)	11 (9.1%)	13 (10.7%)	0.006
Injecting drug use history						
Never injected (n=4417; 40.5%)	2788 (63.1%)	384 (8.7%)	322 (7.3%)	309 (7.0%)	614 (13.9%)	
Within past 12 months (n=3252; 29.8%)	1843 (56.7%)	308 (9.5%)	278 (8.5%)	228 (7.0%)	595 (18.3%)	
Over 12 months ago (n=1522; 14.0%)	927 (60.9%)	143 (9.4%)	108 (7.1%)	112 (7.4%)	232 (15.2%)	
Unknown (n=1708; 15.7%)	1021 (59.8%)	136 (8.0%)	140 (8.2%)	124 (7.3%)	287 (16.8%)	<0.001

Table 43 Drug characteristics by hospital admission, 2009/10, 2010/11 and 2011/12 – polydrug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	2293 (21.0%)	2192 (20.1%)	2072 (19.0%)
Primary drug of concern			
Alcohol (n=4003; 36.7%)	876 (21.9%)	838 (20.9%)	785 (19.6%)
Cannabis (n=2963; 27.2%)	588 (19.8%)	543 (18.3%)	535 (18.1%)
Heroin & other opioids (n=2184; 20.0%)	490 (22.4%)	466 (21.3%)	437 (20.0%)
Amphetamine & other stimulants (n=1188; 10.9%)	224 (18.9%)	208 (17.5%)	205 (17.3%)
Benzodiazepines & other tranquillisers (n=255; 2.3%)	68 (26.7%)	71 (27.8%)	63 (24.7%)
Other (n=291; 2.7%)	44 (15.1%)	64 (22.0%)	43 (14.8%)
Unknown (n=15; 0.1%)	<5	<5	<5
Method of use			
Ingest (n=4720; 43.3%)	1045 (22.1%)	1021 (21.6%)	932 (19.7%)
Smoke (n=2866; 26.3%)	553 (19.3%)	510 (17.8%)	510 (17.8%)
Inject (n=2345; 21.5%)	513 (21.9%)	492 (21.0%)	469 (20.0%)
Sniff/inhale (n=847; 7.8%)	160 (18.9%)	149 (17.6%)	140 (16.5%)
Other/unknown (n=121; 1.1%)	22 (18.2%)	20 (16.5%)	21 (17.4%)
Injecting drug use history			
Never injected (n=4417; 40.5%)	850 (19.2%)	808 (18.3%)	761 (17.2%)
Within past 12 months (n=3252; 29.8%)	764 (23.5%)	727 (22.4%)	682 (21.0%)
Over 12 months ago (n=1522; 14.0%)	317 (20.8%)	295 (19.4%)	287 (18.9%)
Unknown (n=1708; 15.7%)	362 (21.2%)	362 (21.2%)	342 (20.0%)

The median number of admissions and median length of stay for AOD clients with treatment engagement in 2010/11 remained stable across each of the study years (Table 44).

Table 44 Median number of hospital admissions and length of stay – polydrug use group

	09/10 (N=2293)	10/11 (N=2192)	11/12 (N=2072)
Median number of attendances (interquartile range)	1(1,2)	1(1,2)	1(1,2)
Median days of stay (interquartile range)	1.0(1.0, 2.7)	1.0(1.0, 3.0)	1.0(1.0, 3.0)

Table 45 shows the proportions of AOD clients diagnosed during a hospital admission with an alcohol-related acute condition by treatment characteristic and primary drug of concern. Overall, there was a small decrease in the proportion of clients admitted to hospital with an alcohol-related acute condition between the year prior to AOD treatment and the year following AOD treatment.

Table 45 Admissions for alcohol-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – polydrug use group

	Alcohol-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	138 (1.3%)	178 (1.6%)	123 (1.1%)
Treatment type			
Counselling (n=4649; 42.7%)	54 (1.2%)	70 (1.5%)	41 (0.9%)
Residential withdrawal (n=921; 8.5%)	21 (2.3%)	33 (3.6%)	24 (2.6%)
Other withdrawal (n=1028; 9.4%)	14 (1.4%)	36 (3.5%)	20 (1.9%)
Outreach (n=1034; 9.5%)	6 (0.6%)	6 (0.6%)	11 (1.1%)
Brokerage (n=2150; 19.7%)	20 (0.9%)	12 (0.6%)	10 (0.5%)
Aboriginal services (n=386; 3.5%)	<5	5 (1.3%)	7 (1.8%)
Specialist pharmacotherapy (n=174; 1.6%)	<5	<5	<5
Residential rehabilitation (n=97; 0.9%)	5 (5.2%)	5 (5.2%)	<5
Supported accommodation (n=149; 1.4%)	6 (4.0%)	<5	<5
Post withdrawal linkage (n=123; 1.1%)	<5	5 (4.1%)	<5
Other/unknown (n=188; 1.7%)	6 (3.2%)	<5	<5
Treatment termination status			
Completed treatment (n=8089; 74.2%)	92 (1.1%)	126 (1.6%)	84 (1.0%)
Not completed (n=2747; 25.2%)	45 (1.6%)	51 (1.9%)	38 (1.4%)
Unknown (n=63; 0.6%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=4003; 36.7%)	93 (2.3%)	132 (3.3%)	86 (2.1%)
Cannabis (n=2963; 27.2%)	20 (0.7%)	28 (0.9%)	15 (0.5%)
Heroin & other opioids (n=2184; 20.0%)	15 (0.7%)	7 (0.3%)	9 (0.4%)
Amphetamine & other stimulants (n=1188; 10.9%)	5 (0.4%)	6 (0.5%)	7 (0.6%)
Benzodiazepines & other tranquillisers (n=255; 2.3%)	<5	<5	<5
Other (n=291; 2.7%)	<5	<5	<5
Unknown (n=15; 0.1%)	<5	<5	<5

Overall, there was a small decrease in the proportion of other drug-related acute admissions for AOD clients in the year following treatment engagement when compared with admissions in the year preceding treatment engagement (Table 46). There was a larger decrease in proportions of other drug-related acute admissions where heroin and other opioids was the primary drug of concern.

Table 46 Admissions for other drug-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – polydrug use group

	Other drug-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	253 (2.3%)	302 (2.8%)	216 (2.0%)
Treatment type			
Counselling (n=4649; 42.7%)	102 (2.2%)	130 (2.8%)	95 (2.0%)
Residential withdrawal (n=921; 8.5%)	32 (3.5%)	40 (4.3%)	23 (2.5%)
Other withdrawal (n=1028; 9.4%)	16 (1.6%)	30 (2.9%)	20 (1.9%)
Outreach (n=1034; 9.5%)	21 (2.0%)	27 (2.6%)	24 (2.3%)
Brokerage (n=2150; 19.7%)	50 (2.3%)	43 (2.0%)	36 (1.7%)
Aboriginal services (n=386; 3.5%)	5 (1.3%)	10 (2.6%)	<5
Specialist pharmacotherapy (n=174; 1.6%)	10 (5.7%)	7 (4.0%)	6 (3.4%)
Residential rehabilitation (n=97; 0.9%)	<5	<5	<5
Supported accommodation (n=149; 1.4%)	5 (3.4%)	<5	<5
Post withdrawal linkage (n=123; 1.1%)	<5	6 (4.9%)	5 (4.1%)
Other/unknown (n=188; 1.7%)	6 (3.2%)	<5	<5
Treatment termination status			
Completed treatment (n=8089; 74.2%)	174 (2.2%)	207 (2.6%)	156 (1.9%)
Not completed (n=2747; 25.2%)	78 (2.8%)	93 (3.4%)	59 (2.1%)
Unknown (n=63; 0.6%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=4003; 36.7%)	63 (1.6%)	80 (2.0%)	59 (1.5%)
Cannabis (n=2963; 27.2%)	49 (1.7%)	74 (2.5%)	52 (1.8%)
Heroin & other opioids (n=2184; 20.0%)	92 (4.2%)	78 (3.6%)	57 (2.6%)
Amphetamine & other stimulants (n=1188; 10.9%)	28 (2.4%)	36 (3.0%)	27 (2.3%)
Benzodiazepines & other tranquillisers (n=255; 2.3%)	16 (6.3%)	25 (9.8%)	14 (5.5%)
Other (n=291; 2.7%)	5 (1.7%)	9 (3.1%)	7 (2.4%)
Unknown (n=15; 0.1%)	<5	<5	<5

Table 47 shows the proportion of AOD clients diagnosed in hospital with an alcohol-related chronic condition across the three years by AOD treatment characteristics and primary drug of concern on entry into AOD treatment. Overall, there was a small decrease in the proportion of clients admitted with alcohol-related chronic conditions over the three years presented.

Table 47 Admissions for alcohol-related chronic conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – polydrug use group

	Alcohol-related chronic conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	127 (1.2%)	131 (1.2%)	101 (0.9%)
Treatment type			
Counselling (n=4649; 42.7%)	36 (0.8%)	45 (1.0%)	43 (0.9%)
Residential withdrawal (n=921; 8.5%)	16 (1.7%)	23 (2.5%)	12 (1.3%)
Other withdrawal (n=1028; 9.4%)	24 (2.3%)	23 (2.2%)	11 (1.1%)
Outreach (n=1034; 9.5%)	7 (0.7%)	5 (0.5%)	<5
Brokerage (n=2150; 19.7%)	18 (0.8%)	18 (0.8%)	19 (0.9%)
Aboriginal services (n=386; 3.5%)	13 (3.4%)	9 (2.3%)	<5
Specialist pharmacotherapy (n=174; 1.6%)	5 (2.9%)	6 (3.4%)	<5
Residential rehabilitation (n=97; 0.9%)	<5	<5	<5
Supported accommodation (n=149; 1.4%)	<5	<5	<5
Post withdrawal linkage (n=123; 1.1%)	<5	<5	<5
Other/unknown (n=188; 1.7%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=8089; 74.2%)	94 (1.2%)	96 (1.2%)	76 (0.9%)
Not completed (n=2747; 25.2%)	33 (1.2%)	35 (1.3%)	25 (0.9%)
Unknown (n=63; 0.6%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=4003; 36.7%)	72 (1.8%)	71 (1.8%)	51 (1.3%)
Cannabis (n=2963; 27.2%)	26 (0.9%)	18 (0.6%)	24 (0.8%)
Heroin & other opioids (n=2184; 20.0%)	19 (0.9%)	24 (1.1%)	16 (0.7%)
Amphetamine & other stimulants (n=1188; 10.9%)	<5	<5	<5
Benzodiazepines & other tranquillisers (n=255; 2.3%)	<5	7 (2.7%)	<5
Other (n=291; 2.7%)	5 (1.7%)	8 (2.7%)	<5
Unknown (n=15; 0.1%)	<5	<5	<5

Following AOD treatment, there was a decrease in the proportion of clients admitted to hospital with an injury (Table 48). There were reductions in proportions of AOD clients diagnosed in hospital with injuries between the year preceding and the year following AOD treatment engagement across some treatment types, including counselling and outreach; and primary drugs especially benzodiazepines and other tranquillisers).

Table 48 Admissions for injuries by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – polydrug use group

	Injuries		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	609 (5.6%)	567 (5.2%)	526 (4.8%)
Treatment type			
Counselling (n=4649; 42.7%)	231 (5.0%)	220 (4.7%)	186 (4.0%)
Residential withdrawal (n=921; 8.5%)	65 (7.1%)	62 (6.7%)	68 (7.4%)
Other withdrawal (n=1028; 9.4%)	61 (5.9%)	59 (5.7%)	47 (4.6%)
Outreach (n=1034; 9.5%)	70 (6.8%)	64 (6.2%)	51 (4.9%)
Brokerage (n=2150; 19.7%)	115 (5.3%)	98 (4.6%)	117 (5.4%)
Aboriginal services (n=386; 3.5%)	23 (6.0%)	24 (6.2%)	26 (6.7%)
Specialist pharmacotherapy (n=174; 1.6%)	15 (8.6%)	14 (8.0%)	13 (7.5%)
Residential rehabilitation (n=97; 0.9%)	<5	<5	<5
Supported accommodation (n=149; 1.4%)	5 (3.4%)	7 (4.7%)	7 (4.7%)
Post withdrawal linkage (n=123; 1.1%)	9 (7.3%)	5 (4.1%)	5 (4.1%)
Other/unknown (n=188; 1.7%)	12 (6.4%)	10 (5.3%)	5 (2.7%)
Treatment termination status			
Completed treatment (n=8089; 74.2%)	434 (5.4%)	406 (5.0%)	376 (4.6%)
Not completed (n=2747; 25.2%)	170 (6.2%)	158 (5.8%)	149 (5.4%)
Unknown (n=63; 0.6%)	5 (7.9%)	<5	<5
Primary drug of concern			
Alcohol (n=4003; 36.7%)	235 (5.9%)	250 (6.2%)	212 (5.3%)
Cannabis (n=2963; 27.2%)	168 (5.7%)	133 (4.5%)	131 (4.4%)
Heroin & other opioids (n=2184; 20.0%)	112 (5.1%)	114 (5.2%)	109 (5.0%)
Amphetamine & other stimulants (n=1188; 10.9%)	67 (5.6%)	39 (3.3%)	58 (4.9%)
Benzodiazepines & other tranquillisers (n=255; 2.3%)	16 (6.3%)	18 (7.1%)	7 (2.7%)
Other (n=291; 2.7%)	11 (3.8%)	13 (4.5%)	8 (2.7%)
Unknown (n=15; 0.1%)	<5	<5	<5

Hospitalisations for non-AOD-related conditions are shown in Table 49 for the AOD client cohort. There was a small reduction in the proportion of clients admitted with non-AOD-related conditions in the year following AOD treatment. While this reduction was evident for most treatment types, an increase was observed for Aboriginal services. Non-AOD-related condition admissions declined from the year preceding treatment to the year following treatment engagement regardless of treatment termination status. Larger decreases were evident where the primary drug of concern was heroin and other opioids. There was an increase in non-AOD hospital admissions where benzodiazepines and other tranquillisers were the primary drug of concern.

Table 49 Admissions for non-AOD-related conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – polydrug use group

	Non-AOD-related conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=10899)	1699 (15.6%)	1625 (14.9%)	1614 (14.8%)
Treatment type			
Counselling (n=4649; 42.7%)	733 (15.8%)	711 (15.3%)	694 (14.9%)
Residential withdrawal (n=921; 8.5%)	182 (19.8%)	171 (18.6%)	186 (20.2%)
Other withdrawal (n=1028; 9.4%)	170 (16.5%)	160 (15.6%)	140 (13.6%)
Outreach (n=1034; 9.5%)	147 (14.2%)	130 (12.6%)	148 (14.3%)
Brokerage (n=2150; 19.7%)	267 (12.4%)	236 (11.0%)	253 (11.8%)
Aboriginal services (n=386; 3.5%)	55 (14.2%)	57 (14.8%)	62 (16.1%)
Specialist pharmacotherapy (n=174; 1.6%)	47 (27.0%)	45 (25.9%)	40 (23.0%)
Residential rehabilitation (n=97; 0.9%)	17 (17.5%)	17 (17.5%)	14 (14.4%)
Supported accommodation (n=149; 1.4%)	25 (16.8%)	26 (17.4%)	22 (14.8%)
Post withdrawal linkage (n=123; 1.1%)	17 (13.8%)	16 (13.0%)	14 (11.4%)
Other/unknown (n=188; 1.7%)	39 (20.7%)	56 (29.8%)	41 (21.8%)
Treatment termination status			
Completed treatment (n=8089; 74.2%)	1213 (15.0%)	1152 (14.2%)	1140 (14.1%)
Not completed (n=2747; 25.2%)	472 (17.2%)	460 (16.7%)	460 (16.7%)
Unknown (n=63; 0.6%)	14 (22.2%)	13 (20.6%)	14 (22.2%)
Primary drug of concern			
Alcohol (n=4003; 36.7%)	653 (16.3%)	592 (14.8%)	611 (15.3%)
Cannabis (n=2963; 27.2%)	430 (14.5%)	406 (13.7%)	409 (13.8%)
Heroin & other opioids (n=2184; 20.0%)	371 (17.0%)	370 (16.9%)	345 (15.8%)
Amphetamine & other stimulants (n=1188; 10.9%)	155 (13.0%)	158 (13.3%)	157 (13.2%)
Benzodiazepines & other tranquillisers (n=255; 2.3%)	48 (18.8%)	53 (20.8%)	54 (21.2%)
Other (n=291; 2.7%)	39 (13.4%)	44 (15.1%)	35 (12.0%)
Unknown (n=15; 0.1%)	<5	<5	<5

Chapter 4: Results - Injecting drug use

Client characteristics and emergency department presentations

Table 50 shows the sociodemographic characteristics of AOD clients reporting injecting drug use in 2010/11 (index year) and their ED engagement from 2009/10 to 2011/12. There were 5135 AOD clients who started treatment in the index year. Over two-thirds (68%) were male, with the highest proportion of clients within the 25 to 34 year age group (43%). The majority of AOD clients were unemployed (72%) and residing in a private residence (67%). Over half of the cohort resided in metropolitan Melbourne (56%). While a minority of clients were either Aboriginal and/or Torres Strait Islander (7%), this is a higher proportion than the population distribution in Victoria.

Almost half (48%) of the AOD clients did not present to ED over the three years. However, over one-quarter (26%) presented on multiple occasions over the three years. These patterns varied across sociodemographic groups. Of note, 29% of females had multiple ED presentations, while 25% of males presented to ED on multiple occasions. Those who had unstable accommodation or were homeless had a higher proportion of multiple ED presentations.

Table 51 shows these same sociodemographic characteristics by ED presentation, and indicates changes pre- and post-treatment among this injecting drug using group. In general, the proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions of post-AOD treatment ED presentations (2011/12); this is true with respect to gender, age groups, country of birth, Indigenous status, employment type, living status, accommodation status, homeless status and region. Comparatively greater reductions in ED presentations were shown for AOD clients who were 15 to 24 year olds, non Australian born, Aboriginal or TSI origin and homeless.

Table 50 Sociodemographic characteristics by ED presentations, 2009/10 to 2011/12, among those who were AOD clients in 2010/11 – injecting drug use group

	Number of AOD clients				ED in multiple years (%)	p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=5135)	2471 (48.1%)	513 (10.0%)	429 (8.4%)	378 (7.4%)	1344 (26.2%)	
Gender						
Male (n=3500; 68.2%)	1733 (49.5%)	349 (10.0%)	293 (8.4%)	255 (7.3%)	870 (24.9%)	0.014
Female (n=1630; 31.7%)	733 (45.0%)	164 (10.1%)	136 (8.3%)	123 (7.5%)	474 (29.1%)	
Age group						
0-14 (n=20; 0.4%)	10 (50.0%)	<5	<5	<5	6 (30.0%)	0.021
15-24 (n=780; 15.2%)	344 (44.1%)	88 (11.3%)	61 (7.8%)	58 (7.4%)	229 (29.4%)	
25-34 (n=2223; 43.3%)	1081 (48.6%)	207 (9.3%)	173 (7.8%)	154 (6.9%)	608 (27.4%)	
35-44 (n=1587; 30.9%)	781 (49.2%)	165 (10.4%)	140 (8.8%)	115 (7.2%)	386 (24.3%)	
45-54 (n=464; 9.0%)	221 (47.6%)	44 (9.5%)	49 (10.6%)	42 (9.1%)	108 (23.3%)	
55-64 (n=50; 1.0%)	24 (48.0%)	8 (16.0%)	<5	8 (16.0%)	7 (14.0%)	
65+ (n=11; 0.2%)	>7(>63.6%)	<5	<5	<5	<5	
Country of birth						
Australia (n=4426; 86.2%)	2083 (47.1%)	438 (9.9%)	362 (8.2%)	332 (7.5%)	1211 (27.4%)	<0.001
Other (n=709; 13.8%)	388 (54.7%)	75 (10.6%)	67 (9.4%)	46 (6.5%)	133 (18.8%)	
Indigenous status						
Aboriginal and/or TSI origin (n=367; 7.1%)	169 (46.0%)	38 (10.4%)	29 (7.9%)	17 (4.6%)	114 (31.1%)	0.226
Neither Aboriginal nor TSI origin (n=4354; 84.8%)	2109 (48.4%)	434 (10.0%)	367 (8.4%)	322 (7.4%)	1122 (25.8%)	
Unknown (n=414; 8.1%)	193 (46.6%)	41 (9.9%)	33 (8.0%)	39 (9.4%)	108 (26.1%)	
Employment						
Employed (n=744; 14.5%)	411 (55.2%)	67 (9.0%)	55 (7.4%)	50 (6.7%)	161 (21.6%)	0.011
Unemployed (n=3695; 72.0%)	1718 (46.5%)	380 (10.3%)	310 (8.4%)	269 (7.3%)	1018 (27.6%)	
Other (n=595; 11.6%)	294 (49.4%)	57 (9.6%)	52 (8.7%)	52 (8.7%)	140 (23.5%)	
Unknown (n=101; 2.0%)	48 (47.5%)	9 (8.9%)	12 (11.9%)	7 (6.9%)	25 (24.8%)	

	Number of AOD clients				ED in multiple years (%)	p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Living status						
Lives alone (n=1042; 20.3%)	494 (47.4%)	93 (8.9%)	84 (8.1%)	74 (7.1%)	297 (28.5%)	<0.001
Lives with family (n=2357; 45.9%)	1222 (51.8%)	223 (9.5%)	205 (8.7%)	173 (7.3%)	534 (22.7%)	
Lives with others (n=1404; 27.3%)	613 (43.7%)	159 (11.3%)	113 (8.0%)	100 (7.1%)	419 (29.8%)	
Unknown (n=332; 6.5%)	142 (42.8%)	38 (11.4%)	27 (8.1%)	31 (9.3%)	94 (28.3%)	
Accommodation status						
Private residence (n=3455; 67.3%)	1727 (50.0%)	330 (9.6%)	276 (8.0%)	257 (7.4%)	865 (25.0%)	0.003
Unstable (n=878; 17.1%)	364 (41.5%)	93 (10.6%)	84 (9.6%)	59 (6.7%)	278 (31.7%)	
In custody (n=280; 5.5%)	136 (48.6%)	36 (12.9%)	17 (6.1%)	26 (9.3%)	65 (23.2%)	
Other (n=271; 5.3%)	125 (46.1%)	29 (10.7%)	28 (10.3%)	21 (7.7%)	68 (25.1%)	
Unknown (n=251; 4.9%)	119 (47.4%)	25 (10.0%)	24 (9.6%)	15 (6.0%)	68 (27.1%)	
Homeless status						
Homeless (n=460; 9.0%)	185 (40.2%)	42 (9.1%)	41 (8.9%)	30 (6.5%)	162 (35.2%)	0.001
Not homeless (n=4557; 88.7%)	2231 (49.0%)	456 (10.0%)	378 (8.3%)	342 (7.5%)	1150 (25.2%)	
Unknown (n=118; 2.3%)	55 (46.6%)	15 (12.7%)	10 (8.5%)	6 (5.1%)	32 (27.1%)	
Region						
Metropolitan Melbourne (n=2897; 56.4%)	1321 (45.6%)	318 (11.0%)	270 (9.3%)	210 (7.2%)	778 (26.9%)	0.002
Rest of Victoria (n=1188; 23.1%)	627 (52.8%)	91 (7.7%)	81 (6.8%)	88 (7.4%)	301 (25.3%)	
Interstate (n=60; 1.2%)	36 (60.0%)	<5	<5	<5	13 (21.7%)	
Unknown (n=990; 19.3%)	487 (49.2%)	100 (10.1%)	75 (7.6%)	76 (7.7%)	252 (25.5%)	

Table 51 Sociodemographic characteristics by ED presentations in 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	1588 (30.9%)	1516 (29.5%)	1409 (27.4%)
Gender			
Male (n=3500; 68.2%)	1036 (29.6%)	998 (28.5%)	914 (26.1%)
Female (n=1630; 31.7%)	552 (33.9%)	518 (31.8%)	495 (30.4%)
Age group			
0-14 (n=20; 0.4%)	<5	6 (30.0%)	7 (35.0%)
15-24 (n=780; 15.2%)	277 (35.5%)	250 (32.1%)	236 (30.3%)
25-34 (n=2223; 43.3%)	695 (31.3%)	660 (29.7%)	616 (27.7%)
35-44 (n=1587; 30.9%)	471 (29.7%)	446 (28.1%)	419 (26.4%)
45-54 (n=464; 9.0%)	128 (27.6%)	143 (30.8%)	119 (25.6%)
55-64 (n=50; 1.0%)	13 (26.0%)	10 (20.0%)	12 (24.0%)
65+ (n=11; 0.2%)	<5	<5	<5
Country of birth			
Australia (n=4426; 86.2%)	1407 (31.8%)	1351 (30.5%)	1264 (28.6%)
Other (n=709; 13.8%)	181 (25.5%)	165 (23.3%)	145 (20.5%)
Indigenous status			
Aboriginal and/or TSI origin (n=367; 7.1%)	132 (36.0%)	123 (33.5%)	108 (29.4%)
Neither Aboriginal nor TSI origin (n=4354; 84.8%)	1323 (30.4%)	1274 (29.3%)	1181 (27.1%)
Unknown (n=414; 8.1%)	133 (32.1%)	119 (28.7%)	120 (29.0%)
Employment			
Employed (n=744; 14.5%)	191 (25.7%)	181 (24.3%)	165 (22.2%)
Unemployed (n=3695; 72.0%)	1192 (32.3%)	1148 (31.1%)	1062 (28.7%)
Other (n=595; 11.6%)	173 (29.1%)	156 (26.2%)	158 (26.6%)
Unknown (n=101; 2.0%)	32 (31.7%)	31 (30.7%)	24 (23.8%)
Living status			
Lives alone (n=1042; 20.3%)	333 (32.0%)	341 (32.7%)	299 (28.7%)
Lives with family (n=2357; 45.9%)	649 (27.5%)	631 (26.8%)	578 (24.5%)
Lives with others (n=1404; 27.3%)	490 (34.9%)	449 (32.0%)	423 (30.1%)
Unknown (n=332; 6.5%)	116 (34.9%)	95 (28.6%)	109 (32.8%)
Accommodation status			
Private residence (n=3455; 67.3%)	1025 (29.7%)	975 (28.2%)	912 (26.4%)
Unstable (n=878; 17.1%)	309 (35.2%)	324 (36.9%)	274 (31.2%)
In custody (n=280; 5.5%)	89 (31.8%)	59 (21.1%)	81 (28.9%)
Other (n=271; 5.3%)	84 (31.0%)	80 (29.5%)	72 (26.6%)
Unknown (n=251; 4.9%)	81 (32.3%)	78 (31.1%)	70 (27.9%)
Homeless status			
Homeless (n=460; 9.0%)	179 (38.9%)	182 (39.6%)	148 (32.2%)
Not homeless (n=4557; 88.7%)	1367 (30.0%)	1299 (28.5%)	1230 (27.0%)
Unknown (n=118; 2.3%)	42 (35.6%)	35 (29.7%)	31 (26.3%)

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Region			
Metropolitan Melbourne (n=2897; 56.4%)	939 (32.4%)	895 (30.9%)	813 (28.1%)
Rest of Victoria (n=1188; 23.1%)	328 (27.6%)	341 (28.7%)	314 (26.4%)
Interstate (n=60; 1.2%)	15 (25.0%)	13 (21.7%)	14 (23.3%)
Unknown (n=990; 19.3%)	306 (30.9%)	267 (27.0%)	268 (27.1%)

Table 52 displays the service type and treatment characteristics of AOD clients by the pattern of their ED engagement from 2009/10 to 2011/12. In terms of treatment type, AOD clients who reported injecting drug use most commonly received counselling (44%), followed by brokerage (16%) and residential withdrawal (13%). Overall, 69% completed their course of treatment, lower than the total AOD treatment cohort.

Just under half (48%) of those reporting injecting drug use did not have an ED presentation across the three years, while just over one-quarter (26%) had multiple ED presentations. There was some variability in patterns of ED utilisation across service types, with over half of other withdrawal clients (52%), brokerage (51%), Aboriginal services (57%) and post withdrawal linkage (68%) having no ED presentations across the three years. Conversely, just under one third of residential rehabilitation (30%) and specialist pharmacotherapy (31%) clients presented to emergency departments on multiple occasions over the three years presented.

Table 53 shows service type and treatment characteristics for AOD clients by ED presentation by year to show whether there was a change in ED utilisation pre- and post-treatment. Proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions post-AOD treatment (2011/12) for most service types (except other withdrawal and Aboriginal services), pharmacotherapy treatment types and treatment termination status reasons.

Table 52 Treatment type and treatment characteristics by ED presentation, 2009/10 to 2011/12 – injecting drug use group

	Number of AOD clients				ED in multiple years (%)	p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=5135)	2471 (48.1%)	513 (10.0%)	429 (8.4%)	378 (7.4%)	1344 (26.2%)	
Treatment type						
Counselling (n=2255; 43.9%)	1090 (48.3%)	225 (10.0%)	197 (8.7%)	154 (6.8%)	589 (26.1%)	
Residential withdrawal (n=642; 12.5%)	277 (43.1%)	61 (9.5%)	56 (8.7%)	56 (8.7%)	192 (29.9%)	
Other withdrawal (n=454; 8.8%)	237 (52.2%)	39 (8.6%)	41 (9.0%)	37 (8.1%)	100 (22.0%)	
Outreach (n=352; 6.9%)	159 (45.2%)	39 (11.1%)	30 (8.5%)	27 (7.7%)	97 (27.6%)	
Brokerage (n=816; 15.9%)	412 (50.5%)	89 (10.9%)	52 (6.4%)	60 (7.4%)	203 (24.9%)	
Aboriginal services (n=124; 2.4%)	71 (57.3%)	7 (5.6%)	7 (5.6%)	5 (4.0%)	34 (27.4%)	
Specialist pharmacotherapy (n=194; 3.8%)	75 (38.7%)	20 (10.3%)	19 (9.8%)	19 (9.8%)	61 (31.4%)	
Residential rehabilitation (n=64; 1.2%)	32 (50.0%)	9 (14.1%)	<5	<5	15 (23.4%)	
Supported accommodation (n=88; 1.7%)	39 (44.3%)	15 (17.0%)	9 (10.2%)	8 (9.1%)	17 (19.3%)	
Post withdrawal linkage (n=68; 1.3%)	46 (67.6%)	5 (7.4%)	<5	<5	14 (20.6%)	
Other/unknown (n=78; 1.5%)	33 (42.3%)	<5	13 (16.7%)	6 (7.7%)	22 (28.2%)	0.003
Pharmacotherapy treatment						
Methadone (n=1396; 27.2%)	678 (48.6%)	144 (10.3%)	121 (8.7%)	93 (6.7%)	360 (25.8%)	
Buprenorphine (n=470; 9.2%)	222 (47.2%)	50 (10.6%)	31 (6.6%)	47 (10.0%)	120 (25.5%)	
Naltrexone (n=64; 1.2%)	29 (45.3%)	6 (9.4%)	6 (9.4%)	6 (9.4%)	17 (26.6%)	
Other (n=311; 6.1%)	159 (51.1%)	36 (11.6%)	23 (7.4%)	24 (7.7%)	69 (22.2%)	
None (n=2894; 56.4%)	1383 (47.8%)	277 (9.6%)	248 (8.6%)	208 (7.2%)	778 (26.9%)	0.633
Treatment termination status						
Completed treatment (n=3531; 68.8%)	1732 (49.1%)	352 (10.0%)	295 (8.4%)	266 (7.5%)	886 (25.1%)	
Not completed (n=1540; 30.0%)	710 (46.1%)	151 (9.8%)	126 (8.2%)	108 (7.0%)	445 (28.9%)	
Unknown (n=64; 1.2%)	29 (45.3%)	10 (15.6%)	8 (12.5%)	<5	13 (20.3%)	0.119

Table 53 Treatment type and treatment characteristics by ED presentations in 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	1588 (30.9%)	1516 (29.5%)	1409 (27.4%)
Treatment type			
Counselling (n=2255; 43.9%)	685 (30.4%)	686 (30.4%)	597 (26.5%)
Residential withdrawal (n=642; 12.5%)	217 (33.8%)	211 (32.9%)	203 (31.6%)
Other withdrawal (n=454; 8.8%)	118 (26.0%)	125 (27.5%)	119 (26.2%)
Outreach (n=352; 6.9%)	121 (34.4%)	110 (31.3%)	98 (27.8%)
Brokerage (n=816; 15.9%)	257 (31.5%)	201 (24.6%)	215 (26.3%)
Aboriginal services (n=124; 2.4%)	33 (26.6%)	36 (29.0%)	35 (28.2%)
Specialist pharmacotherapy (n=194; 3.8%)	70 (36.1%)	69 (35.6%)	67 (34.5%)
Residential rehabilitation (n=64; 1.2%)	19 (29.7%)	13 (20.3%)	15 (23.4%)
Supported accommodation (n=88; 1.7%)	27 (30.7%)	20 (22.7%)	25 (28.4%)
Post withdrawal linkage (n=68; 1.3%)	18 (26.5%)	13 (19.1%)	14 (20.6%)
Other/unknown (n=78; 1.5%)	23 (29.5%)	32 (41.0%)	21 (26.9%)
Pharmacotherapy treatment			
Methadone (n=1396; 27.2%)	442 (31.7%)	394 (28.2%)	368 (26.4%)
Buprenorphine (n=470; 9.2%)	140 (29.8%)	133 (28.3%)	131 (27.9%)
Naltrexone (n=64; 1.2%)	19 (29.7%)	20 (31.3%)	18 (28.1%)
Other (n=311; 6.1%)	96 (30.9%)	81 (26.0%)	70 (22.5%)
None (n=2894; 56.4%)	891 (30.8%)	888 (30.7%)	822 (28.4%)
Treatment termination status			
Completed treatment (n=3531; 68.8%)	1057 (29.9%)	1006 (28.5%)	937 (26.5%)
Not completed (n=1540; 30.0%)	509 (33.1%)	492 (31.9%)	460 (29.9%)
Unknown (n=64; 1.2%)	22 (34.4%)	18 (28.1%)	12 (18.8%)

Table 54 shows that heroin and other opioids was most commonly the primary drug of concern (51%), followed by alcohol (17%) and cannabis (14%). This represented a different pattern than for all AOD clients, where alcohol was the most common primary drug of concern. Polydrug use was also more prevalent (63%) among the injecting drug use group compared with the total AOD client population (47%).

While the majority of AOD clients did not attend an ED across the three years presented, less than half (48%) of the injecting drug use group had no ED presentations, and over one-quarter (26%) had multiple ED presentations. Between 22% and 33% of all primary drug of concern groupings had multiple ED presentations, with multiple ED presentations least common among clients with amphetamines and other stimulants as the primary drug of concern, and most common among benzodiazepine and other tranquillisers as the primary drug of concern (31%). This latter figure was substantially higher than for the overall AOD client group. Those reporting no polydrug use had a significantly lower proportion (22%) of multiple ED presentations relative to those who reported polydrug use (28%).

Table 55 shows these same drug use characteristics for AOD clients by ED presentation across the three years – the year prior to treatment, year of treatment, and the year post-treatment. In general, the proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions of post-AOD treatment ED presentations (2011/12) with the exception of clients with alcohol as the primary drug of concern and among those who sniff or inhale as a method of use. For all named primary drugs of concern except alcohol, the reduction was substantial.

Table 54 Drug use characteristics by ED presentations, 2009/10 to 2011/12 – injecting drug use group

	Number of AOD clients					p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	ED in multiple years (%)	
Total (n=5135)	2471 (48.1%)	513 (10.0%)	429 (8.4%)	378 (7.4%)	1344 (26.2%)	
Primary drug of concern						
Alcohol (n=849; 16.5%)	385 (45.3%)	67 (7.9%)	71 (8.4%)	70 (8.2%)	256 (30.2%)	
Cannabis (n=728; 14.2%)	362 (49.7%)	78 (10.7%)	44 (6.0%)	54 (7.4%)	190 (26.1%)	
Heroin & other opioids (n=2621; 51.0%)	1260 (48.1%)	274 (10.5%)	234 (8.9%)	188 (7.2%)	665 (25.4%)	
Amphetamine & other stimulants (n=638; 12.4%)	313 (49.1%)	70 (11.0%)	56 (8.8%)	47 (7.4%)	152 (23.8%)	
Benzodiazepines & other tranquillisers (n=113; 2.2%)	50 (44.2%)	12 (10.6%)	9 (8.0%)	7 (6.2%)	35 (31.0%)	
Other (n=147; 2.9%)	86 (58.5%)	8 (5.4%)	12 (8.2%)	8 (5.4%)	33 (22.4%)	
Unknown (n=39; 0.8%)	15 (38.5%)	<5	<5	<5	13 (33.3%)	0.113
Method of use						
Ingest (n=1066; 20.8%)	494 (46.3%)	91 (8.5%)	88 (8.3%)	80 (7.5%)	313 (29.4%)	
Smoke (n=591; 11.5%)	295 (49.9%)	67 (11.3%)	38 (6.4%)	43 (7.3%)	148 (25.0%)	
Inject (n=2926; 57.0%)	1414 (48.3%)	307 (10.5%)	258 (8.8%)	202 (6.9%)	745 (25.5%)	
Sniff/inhale (n=170; 3.3%)	91 (53.5%)	12 (7.1%)	9 (5.3%)	13 (7.6%)	45 (26.5%)	
Other/unknown (n=382; 7.4%)	177 (46.3%)	36 (9.4%)	36 (9.4%)	40 (10.5%)	93 (24.3%)	0.065
Polydrug use						
Yes (n=3252; 63.3%)	1538 (47.3%)	326 (10.0%)	257 (7.9%)	226 (6.9%)	905 (27.8%)	
No (n=1183; 23.0%)	597 (50.5%)	121 (10.2%)	109 (9.2%)	94 (7.9%)	262 (22.1%)	
Unknown (n=700; 13.6%)	336 (48.0%)	66 (9.4%)	63 (9.0%)	58 (8.3%)	177 (25.3%)	0.027

Table 55 Drug use characteristics by ED presentations in 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	1588 (30.9%)	1516 (29.5%)	1409 (27.4%)
Primary drug of concern			
Alcohol (n=849; 16.5%)	268 (31.6%)	288 (33.9%)	278 (32.7%)
Cannabis (n=728; 14.2%)	227 (31.2%)	192 (26.4%)	199 (27.3%)
Heroin & other opioids (n=2621; 51.0%)	814 (31.1%)	766 (29.2%)	688 (26.2%)
Amphetamine & other stimulants (n=638; 12.4%)	188 (29.5%)	179 (28.1%)	161 (25.2%)
Benzodiazepines & other tranquillisers (n=113; 2.2%)	41 (36.3%)	38 (33.6%)	34 (30.1%)
Other (n=147; 2.9%)	37 (25.2%)	38 (25.9%)	35 (23.8%)
Unknown (n=39; 0.8%)	13 (33.3%)	15 (38.5%)	14 (35.9%)
Method of use			
Ingest (n=1066; 20.8%)	340 (31.9%)	358 (33.6%)	324 (30.4%)
Smoke (n=591; 11.5%)	180 (30.5%)	152 (25.7%)	158 (26.7%)
Inject (n=2926; 57.0%)	908 (31.0%)	849 (29.0%)	767 (26.2%)
Sniff/inhale (n=170; 3.3%)	48 (28.2%)	45 (26.5%)	50 (29.4%)
Other/unknown (n=382; 7.4%)	112 (29.3%)	112 (29.3%)	110 (28.8%)
Polydrug use			
Yes (n=3252; 63.3%)	1049 (32.3%)	987 (30.4%)	925 (28.4%)
No (n=1183; 23.0%)	335 (28.3%)	324 (27.4%)	290 (24.5%)
Unknown (n=700; 13.6%)	204 (29.1%)	205 (29.3%)	194 (27.7%)

Table 56 shows the overall median number of ED presentations and length of ED stay for AOD clients by year. There was a decrease over time, with two presentations pre- and one presentation post-treatment.

Table 56 Median number of ED presentations and median hours of ED stay for 2010/11 AOD clients, 2009/10 to 2011/12 – injecting drug use group

	09/10 (N=1588)	10/11 (N=1516)	11/12 (N=1409)
Median number of attendances (interquartile range)	2(1,3)	2(1,3)	1(1,3)
Median hours of stay (interquartile range)	3.2(2.0, 5.0)	3.5(2.0, 5.5)	3.4(2.1, 5.3)

Table 57 shows the proportions of AOD clients reporting injecting drug use, diagnosed in the ED with an acute alcohol-related presentation by treatment characteristic and primary drug of concern. Overall, change was negligible over time.

Table 57 ED presentations for alcohol-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Alcohol-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	75 (1.5%)	66 (1.3%)	66 (1.3%)
Treatment type			
Counselling (n=2255; 43.9%)	29 (1.3%)	21 (0.9%)	25 (1.1%)
Residential withdrawal (n=642; 12.5%)	17 (2.6%)	25 (3.9%)	17 (2.6%)
Other withdrawal (n=454; 8.8%)	6 (1.3%)	<5	7 (1.5%)
Outreach (n=352; 6.9%)	7 (2.0%)	<5	<5
Brokerage (n=816; 15.9%)	10 (1.2%)	5 (0.6%)	<5
Aboriginal services (n=124; 2.4%)	<5	<5	<5
Specialist pharmacotherapy (n=194; 3.8%)	<5	<5	<5
Residential rehabilitation (n=64; 1.2%)	<5	<5	<5
Supported accommodation (n=88; 1.7%)	<5	<5	<5
Post withdrawal linkage (n=68; 1.3%)	<5	<5	<5
Other/unknown (n=78; 1.5%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3531; 68.8%)	54 (1.5%)	48 (1.4%)	38 (1.1%)
Not completed (n=1540; 30.0%)	20 (1.3%)	18 (1.2%)	28 (1.8%)
Unknown (n=64; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=849; 16.5%)	32 (3.8%)	37 (4.4%)	34 (4.0%)
Cannabis (n=728; 14.2%)	9 (1.2%)	8 (1.1%)	9 (1.2%)
Heroin & other opioids (n=2621; 51.0%)	24 (0.9%)	13 (0.5%)	16 (0.6%)
Amphetamine & other stimulants (n=638; 12.4%)	7 (1.1%)	5 (0.8%)	5 (0.8%)
Benzodiazepines & other tranquillisers (n=113; 2.2%)	<5	<5	<5
Other (n=147; 2.9%)	<5	<5	<5
Unknown (n=39; 0.8%)	<5	<5	<5

Overall, there was a decrease in the proportion of other drug-related acute presentations to ED for AOD clients in the year following treatment engagement when compared with ED presentations in the year preceding treatment engagement (Table 58). Decreases in proportions of other drug-related acute ED presentations were evident for most treatment types except residential withdrawal and other withdrawal. Decreases were also noted for all treatment termination outcomes, and drugs of concern on entry into AOD treatment.

Table 58 ED presentations for other drug-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Other drug-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	219 (4.3%)	265 (5.2%)	177 (3.4%)
Treatment type			
Counselling (n=2255; 43.9%)	89 (3.9%)	115 (5.1%)	67 (3.0%)
Residential withdrawal (n=642; 12.5%)	27 (4.2%)	44 (6.9%)	30 (4.7%)
Other withdrawal (n=454; 8.8%)	18 (4.0%)	22 (4.8%)	21 (4.6%)
Outreach (n=352; 6.9%)	17 (4.8%)	15 (4.3%)	13 (3.7%)
Brokerage (n=816; 15.9%)	40 (4.9%)	34 (4.2%)	28 (3.4%)
Aboriginal services (n=124; 2.4%)	<5	7 (5.6%)	<5
Specialist pharmacotherapy (n=194; 3.8%)	14 (7.2%)	14 (7.2%)	8 (4.1%)
Residential rehabilitation (n=64; 1.2%)	<5	<5	<5
Supported accommodation (n=88; 1.7%)	<5	<5	<5
Post withdrawal linkage (n=68; 1.3%)	5 (7.4%)	6 (8.8%)	<5
Other/unknown (n=78; 1.5%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3531; 68.8%)	138 (3.9%)	162 (4.6%)	118 (3.3%)
Not completed (n=1540; 30.0%)	78 (5.1%)	100 (6.5%)	58 (3.8%)
Unknown (n=64; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=849; 16.5%)	35 (4.1%)	48 (5.7%)	28 (3.3%)
Cannabis (n=728; 14.2%)	30 (4.1%)	33 (4.5%)	20 (2.7%)
Heroin & other opioids (n=2621; 51.0%)	115 (4.4%)	135 (5.2%)	91 (3.5%)
Amphetamine & other stimulants (n=638; 12.4%)	16 (2.5%)	24 (3.8%)	26 (4.1%)
Benzodiazepines & other tranquillisers (n=113; 2.2%)	14 (12.4%)	13 (11.5%)	8 (7.1%)
Other (n=147; 2.9%)	7 (4.8%)	6 (4.1%)	<5
Unknown (n=39; 0.8%)	<5	6 (15.4%)	<5

Table 59 shows the proportion of AOD clients diagnosed in the ED with an alcohol-related chronic condition across the three years by AOD treatment characteristics and primary drug of concern on entry into AOD treatment. Overall, there was a decrease in proportions of clients presenting with alcohol-related chronic conditions over the three years presented. Decreases were evident across treatment types and primary drugs of concern.

Table 59 ED presentations for alcohol-related chronic conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Alcohol-related chronic conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	91 (1.8%)	101 (2.0%)	69 (1.3%)
Treatment type			
Counselling (n=2255; 43.9%)	33 (1.5%)	36 (1.6%)	31 (1.4%)
Residential withdrawal (n=642; 12.5%)	11 (1.7%)	20 (3.1%)	10 (1.6%)
Other withdrawal (n=454; 8.8%)	12 (2.6%)	10 (2.2%)	7 (1.5%)
Outreach (n=352; 6.9%)	6 (1.7%)	12 (3.4%)	<5
Brokerage (n=816; 15.9%)	11 (1.3%)	8 (1.0%)	7 (0.9%)
Aboriginal services (n=124; 2.4%)	10 (8.1%)	5 (4.0%)	<5
Specialist pharmacotherapy (n=194; 3.8%)	<5	6 (3.1%)	<5
Residential rehabilitation (n=64; 1.2%)	<5	<5	<5
Supported accommodation (n=88; 1.7%)	<5	<5	<5
Post withdrawal linkage (n=68; 1.3%)	<5	<5	<5
Other/unknown (n=78; 1.5%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3531; 68.8%)	55 (1.6%)	63 (1.8%)	39 (1.1%)
Not completed (n=1540; 30.0%)	34 (2.2%)	35 (2.3%)	29 (1.9%)
Unknown (n=64; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=849; 16.5%)	23 (2.7%)	26 (3.1%)	16 (1.9%)
Cannabis (n=728; 14.2%)	11 (1.5%)	12 (1.6%)	9 (1.2%)
Heroin & other opioids (n=2621; 51.0%)	44 (1.7%)	51 (1.9%)	34 (1.3%)
Amphetamine & other stimulants (n=638; 12.4%)	8 (1.3%)	6 (0.9%)	8 (1.3%)
Benzodiazepines & other tranquillisers (n=113; 2.2%)	<5	<5	<5
Other (n=147; 2.9%)	<5	<5	<5
Unknown (n=39; 0.8%)	<5	<5	<5

Following AOD treatment, there was a decrease in the proportion of clients presenting to ED with an injury (Table 60). Across all treatment types, treatment termination status categories and most primary drugs of concern, there were reductions in proportions of AOD clients diagnosed in the ED with injuries between the year preceding AOD treatment and the year following AOD treatment engagement.

Table 60 ED presentations for injuries by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Injuries		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	630 (12.3%)	562 (10.9%)	537 (10.5%)
Treatment type			
Counselling (n=2255; 43.9%)	273 (12.1%)	252 (11.2%)	238 (10.6%)
Residential withdrawal (n=642; 12.5%)	89 (13.9%)	82 (12.8%)	82 (12.8%)
Other withdrawal (n=454; 8.8%)	38 (8.4%)	42 (9.3%)	46 (10.1%)
Outreach (n=352; 6.9%)	51 (14.5%)	45 (12.8%)	38 (10.8%)
Brokerage (n=816; 15.9%)	101 (12.4%)	90 (11.0%)	74 (9.1%)
Aboriginal services (n=124; 2.4%)	11 (8.9%)	9 (7.3%)	9 (7.3%)
Specialist pharmacotherapy (n=194; 3.8%)	29 (14.9%)	27 (13.9%)	23 (11.9%)
Residential rehabilitation (n=64; 1.2%)	11 (17.2%)	<5	7 (10.9%)
Supported accommodation (n=88; 1.7%)	11 (12.5%)	<5	9 (10.2%)
Post withdrawal linkage (n=68; 1.3%)	7 (10.3%)	<5	8 (11.8%)
Other/unknown (n=78; 1.5%)	9 (11.5%)	<5	<5
Treatment termination status			
Completed treatment (n=3531; 68.8%)	417 (11.8%)	387 (11.0%)	346 (9.8%)
Not completed (n=1540; 30.0%)	208 (13.5%)	173 (11.2%)	186 (12.1%)
Unknown (n=64; 1.2%)	5 (7.8%)	<5	5 (7.8%)
Primary drug of concern			
Alcohol (n=849; 16.5%)	107 (12.6%)	134 (15.8%)	110 (13.0%)
Cannabis (n=728; 14.2%)	97 (13.3%)	77 (10.6%)	83 (11.4%)
Heroin & other opioids (n=2621; 51.0%)	310 (11.8%)	257 (9.8%)	239 (9.1%)
Amphetamine & other stimulants (n=638; 12.4%)	84 (13.2%)	67 (10.5%)	65 (10.2%)
Benzodiazepines & other tranquillisers (n=113; 2.2%)	13 (11.5%)	11 (9.7%)	14 (12.4%)
Other (n=147; 2.9%)	15 (10.2%)	11 (7.5%)	18 (12.2%)
Unknown (n=39; 0.8%)	<5	5 (12.8%)	8 (20.5%)

ED presentations for non-AOD-related conditions are shown in Table 61 for the AOD client cohort reporting injecting drug use. There was a small reduction in the proportion of clients presenting with non-AOD-related conditions in the year following AOD treatment, and this reduction was evident for most treatment types. There was a notable reduction for those receiving outreach and post withdrawal linkage. While decreases in presentations were evident across most primary drugs of concern, there was an increase in the proportion of clients with non-AOD-related presentation to ED where the primary drug of concern was alcohol.

Table 61 ED presentations for non-AOD-related conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Non-AOD-related conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	1177 (22.9%)	1146 (22.3%)	1064 (20.7%)
Treatment type			
Counselling (n=2255; 43.9%)	498 (22.1%)	518 (23.0%)	438 (19.4%)
Residential withdrawal (n=642; 12.5%)	163 (25.4%)	158 (24.6%)	155 (24.1%)
Other withdrawal (n=454; 8.8%)	94 (20.7%)	98 (21.6%)	90 (19.8%)
Outreach (n=352; 6.9%)	95 (27.0%)	75 (21.3%)	71 (20.2%)
Brokerage (n=816; 15.9%)	186 (22.8%)	140 (17.2%)	167 (20.5%)
Aboriginal services (n=124; 2.4%)	27 (21.8%)	30 (24.2%)	29 (23.4%)
Specialist pharmacotherapy (n=194; 3.8%)	57 (29.4%)	60 (30.9%)	57 (29.4%)
Residential rehabilitation (n=64; 1.2%)	9 (14.1%)	9 (14.1%)	8 (12.5%)
Supported accommodation (n=88; 1.7%)	17 (19.3%)	16 (18.2%)	19 (21.6%)
Post withdrawal linkage (n=68; 1.3%)	15 (22.1%)	12 (17.6%)	12 (17.6%)
Other/unknown (n=78; 1.5%)	16 (20.5%)	30 (38.5%)	18 (23.1%)
Treatment termination status			
Completed treatment (n=3531; 68.8%)	780 (22.1%)	760 (21.5%)	701 (19.9%)
Not completed (n=1540; 30.0%)	381 (24.7%)	373 (24.2%)	355 (23.1%)
Unknown (n=64; 1.2%)	16 (25.0%)	13 (20.3%)	8 (12.5%)
Primary drug of concern			
Alcohol (n=849; 16.5%)	205 (24.1%)	205 (24.1%)	218 (25.7%)
Cannabis (n=728; 14.2%)	170 (23.4%)	141 (19.4%)	144 (19.8%)
Heroin & other opioids (n=2621; 51.0%)	611 (23.3%)	588 (22.4%)	517 (19.7%)
Amphetamine & other stimulants (n=638; 12.4%)	126 (19.7%)	140 (21.9%)	119 (18.7%)
Benzodiazepines & other tranquillisers (n=113; 2.2%)	28 (24.8%)	33 (29.2%)	27 (23.9%)
Other (n=147; 2.9%)	26 (17.7%)	29 (19.7%)	28 (19.0%)
Unknown (n=39; 0.8%)	11 (28.2%)	10 (25.6%)	11 (28.2%)

Client characteristics and hospitalisations – injecting drug use

Table 62 shows sociodemographic characteristics of AOD clients in 2010-2011 (index year) and hospitalisations from 2009/10 to 2011/12. Approximately two-thirds (68%) were male, with the highest proportion of clients were aged 25-34 years (43%). A minority of clients were Aboriginal and/or Torres Strait Islander (7%). The highest proportion were unemployed (72%), living with family (46%), in private residence (67%) and from metropolitan Melbourne.

Almost two thirds of male clients (61%) and just under half (48%) of female clients were not admitted to hospital in any of the three years. One-quarter of females had multiple admissions, while only 15% of males were admitted on multiple occasions. The likelihood of hospital admission increased with age. People who were under 35 years, non-Australian born, employed and living with family were least likely to be hospitalised across the three years of interest.

In general, the proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions following AOD treatment engagement (2011/12). This pattern was evident across gender, age groups (with the exception of clients 55 years and over), country of birth, Indigenous status, employment type, living status (especially those living alone), accommodation status, homeless status and region (Table 63).

Table 62 Sociodemographic characteristics by hospital admission, 2009/10 to 2011/12 – injecting drug use group

	Number of AOD clients				Admissions in multiple years (%)	p
	No Admissions (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=5135)	2934 (57.1%)	472 (9.2%)	437 (8.5%)	368 (7.2%)	924 (18.0%)	
Gender						
Male (n=3500; 68.2%)	2148 (61.4%)	308 (8.8%)	283 (8.1%)	238 (6.8%)	523 (14.9%)	<0.001
Female (n=1630; 31.7%)	781 (47.9%)	164 (10.1%)	154 (9.4%)	130 (8.0%)	401 (24.6%)	
Age group						
0-14 (n=20; 0.4%)	13 (65.0%)	<5	<5	<5	<5	0.091
15-24 (n=780; 15.2%)	442 (56.7%)	82 (10.5%)	44 (5.6%)	64 (8.2%)	148 (19.0%)	
25-34 (n=2223; 43.3%)	1302 (58.6%)	196 (8.8%)	183 (8.2%)	148 (6.7%)	394 (17.7%)	
35-44 (n=1587; 30.9%)	898 (56.6%)	145 (9.1%)	156 (9.8%)	114 (7.2%)	274 (17.3%)	
45-54 (n=464; 9.0%)	247 (53.2%)	44 (9.5%)	49 (10.6%)	35 (7.5%)	89 (19.2%)	
55-64 (n=50; 1.0%)	26 (52.0%)	5 (10.0%)	<5	5 (10.0%)	13 (26.0%)	
65+ (n=11; 0.2%)	6 (54.5%)	<5	<5	<5	<5	
Country of birth						
Australia (n=4426; 86.2%)	2492 (56.3%)	417 (9.4%)	380 (8.6%)	319 (7.2%)	818 (18.5%)	0.036
Other (n=709; 13.8%)	442 (62.3%)	55 (7.8%)	57 (8.0%)	49 (6.9%)	106 (15.0%)	
Indigenous status						
Aboriginal and/or TSI origin (n=367; 7.1%)	220 (59.9%)	24 (6.5%)	33 (9.0%)	18 (4.9%)	72 (19.6%)	0.122
Neither Aboriginal nor TSI origin (n=4354; 84.8%)	2471 (56.8%)	421 (9.7%)	373 (8.6%)	317 (7.3%)	772 (17.7%)	
Unknown (n=414; 8.1%)	243 (58.7%)	27 (6.5%)	31 (7.5%)	33 (8.0%)	80 (19.3%)	
Employment						
Employed (n=744; 14.5%)	438 (58.9%)	83 (11.2%)	59 (7.9%)	57 (7.7%)	107 (14.4%)	0.143
Unemployed (n=3695; 72.0%)	2100 (56.8%)	329 (8.9%)	326 (8.8%)	252 (6.8%)	688 (18.6%)	
Other (n=595; 11.6%)	336 (56.5%)	50 (8.4%)	48 (8.1%)	52 (8.7%)	109 (18.3%)	
Unknown (n=101; 2.0%)	60 (59.4%)	10 (9.9%)	<5	7 (6.9%)	20 (19.8%)	

	Number of AOD clients				Admissions in multiple years (%)	p
	No Admissions (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Living status						
Lives alone (n=1042; 20.3%)	557 (53.5%)	101 (9.7%)	96 (9.2%)	57 (5.5%)	231 (22.2%)	<0.001
Lives with family (n=2357; 45.9%)	1412 (59.9%)	204 (8.7%)	204 (8.7%)	171 (7.3%)	366 (15.5%)	
Lives with others (n=1404; 27.3%)	780 (55.6%)	130 (9.3%)	112 (8.0%)	114 (8.1%)	268 (19.1%)	
Unknown (n=332; 6.5%)	185 (55.7%)	37 (11.1%)	25 (7.5%)	26 (7.8%)	59 (17.8%)	
Accommodation status						
Private residence (n=3455; 67.3%)	1997 (57.8%)	307 (8.9%)	300 (8.7%)	251 (7.3%)	600 (17.4%)	0.009
Unstable (n=878; 17.1%)	460 (52.4%)	81 (9.2%)	78 (8.9%)	57 (6.5%)	202 (23.0%)	
In custody (n=280; 5.5%)	174 (62.1%)	30 (10.7%)	17 (6.1%)	24 (8.6%)	35 (12.5%)	
Other (n=271; 5.3%)	157 (57.9%)	28 (10.3%)	25 (9.2%)	14 (5.2%)	47 (17.3%)	
Unknown (n=251; 4.9%)	146 (58.2%)	26 (10.4%)	17 (6.8%)	22 (8.8%)	40 (15.9%)	
Homeless status						
Homeless (n=460; 9.0%)	233 (50.7%)	42 (9.1%)	42 (9.1%)	34 (7.4%)	109 (23.7%)	0.071
Not homeless (n=4557; 88.7%)	2633 (57.8%)	421 (9.2%)	387 (8.5%)	324 (7.1%)	792 (17.4%)	
Unknown (n=118; 2.3%)	68 (57.6%)	9 (7.6%)	8 (6.8%)	10 (8.5%)	23 (19.5%)	
Region						
Metropolitan Melbourne (n=2897; 56.4%)	1583 (54.6%)	260 (9.0%)	270 (9.3%)	219 (7.6%)	565 (19.5%)	<0.001
Rest of Victoria (n=1188; 23.1%)	734 (61.8%)	103 (8.7%)	89 (7.5%)	62 (5.2%)	200 (16.8%)	
Interstate (n=60; 1.2%)	36 (60.0%)	8 (13.3%)	<5	7 (11.7%)	6 (10.0%)	
Unknown (n=990; 19.3%)	581 (58.7%)	101 (10.2%)	75 (7.6%)	80 (8.1%)	153 (15.5%)	

Table 63 Sociodemographic characteristics by hospital admission in 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	1175 (22.9%)	1153 (22.5%)	1065 (20.7%)
Gender			
Male (n=3500; 68.2%)	701 (20.0%)	695 (19.9%)	628 (17.9%)
Female (n=1630; 31.7%)	474 (29.1%)	458 (28.1%)	437 (26.8%)
Age group			
0-14 (n=20; 0.4%)	<5	<5	<5
15-24 (n=780; 15.2%)	184 (23.6%)	159 (20.4%)	173 (22.2%)
25-34 (n=2223; 43.3%)	499 (22.4%)	492 (22.1%)	440 (19.8%)
35-44 (n=1587; 30.9%)	364 (22.9%)	361 (22.7%)	326 (20.5%)
45-54 (n=464; 9.0%)	109 (23.5%)	121 (26.1%)	105 (22.6%)
55-64 (n=50; 1.0%)	15 (30.0%)	12 (24.0%)	15 (30.0%)
65+ (n=11; 0.2%)	<5	<5	<5
Country of birth			
Australia (n=4426; 86.2%)	1042 (23.5%)	1006 (22.7%)	941 (21.3%)
Other (n=709; 13.8%)	133 (18.8%)	147 (20.7%)	124 (17.5%)
Indigenous status			
Aboriginal and/or TSI origin (n=367; 7.1%)	80 (21.8%)	88 (24.0%)	71 (19.3%)
Neither Aboriginal nor TSI origin (n=4354; 84.8%)	1008 (23.2%)	973 (22.3%)	891 (20.5%)
Unknown (n=414; 8.1%)	87 (21.0%)	92 (22.2%)	103 (24.9%)
Employment			
Employed (n=744; 14.5%)	159 (21.4%)	143 (19.2%)	134 (18.0%)
Unemployed (n=3695; 72.0%)	852 (23.1%)	860 (23.3%)	781 (21.1%)
Other (n=595; 11.6%)	138 (23.2%)	132 (22.2%)	129 (21.7%)
Unknown (n=101; 2.0%)	26 (25.7%)	18 (17.8%)	21 (20.8%)
Living status			
Lives alone (n=1042; 20.3%)	290 (27.8%)	274 (26.3%)	232 (22.3%)
Lives with family (n=2357; 45.9%)	476 (20.2%)	484 (20.5%)	449 (19.0%)
Lives with others (n=1404; 27.3%)	324 (23.1%)	326 (23.2%)	317 (22.6%)
Unknown (n=332; 6.5%)	85 (25.6%)	69 (20.8%)	67 (20.2%)
Accommodation status			
Private residence (n=3455; 67.3%)	760 (22.0%)	763 (22.1%)	700 (20.3%)
Unstable (n=878; 17.1%)	240 (27.3%)	239 (27.2%)	216 (24.6%)
In custody (n=280; 5.5%)	58 (20.7%)	42 (15.0%)	49 (17.5%)
Other (n=271; 5.3%)	63 (23.2%)	62 (22.9%)	43 (15.9%)
Unknown (n=251; 4.9%)	54 (21.5%)	47 (18.7%)	57 (22.7%)
Homeless status			
Homeless (n=460; 9.0%)	124 (27.0%)	136 (29.6%)	115 (25.0%)
Not homeless (n=4557; 88.7%)	1027 (22.5%)	994 (21.8%)	922 (20.2%)
Unknown (n=118; 2.3%)	24 (20.3%)	23 (19.5%)	28 (23.7%)

Region

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Metropolitan Melbourne (n=2897; 56.4%)	683 (23.6%)	718 (24.8%)	646 (22.3%)
Rest of Victoria (n=1188; 23.1%)	261 (22.0%)	238 (20.0%)	220 (18.5%)
Interstate (n=60; 1.2%)	11 (18.3%)	7 (11.7%)	12 (20.0%)
Unknown (n=990; 19.3%)	220 (22.2%)	190 (19.2%)	187 (18.9%)

Table 64 displays the treatment type and treatment characteristics of AOD clients reporting injecting use by the pattern of hospitalisation from 2009/10 to 2011/12. In terms of treatment type, most clients received counselling (44%), followed by brokerage (16%) and residential withdrawal services (13%). Overall, 69% had completed treatment.

There was some variability in patterns of hospital utilisation across treatment types, with over one-fifth of residential withdrawal (22%), other withdrawal (19%) and one-quarter of specialist pharmacotherapy clients presenting to hospital on multiple occasions over the three years presented. This was statistically significant.

Table 65 shows treatment type and treatment characteristics for AOD clients by hospitalisation by year to show whether there was a change in hospital utilisation pre- and post-treatment. Proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions post-AOD treatment (2011/12) for most treatment types (exceptions include: Aboriginal services, specialist pharmacotherapy and post withdrawal linkage). Residential rehabilitation and other withdrawal showed substantial reductions post treatment.

Table 64 Treatment type and treatment characteristics by admissions, 2009/10 to 2011/12 – injecting drug use group

	Number of AOD clients				Admissions in multiple years (%)	p
	No Admissions (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=5135)	2934 (57.1%)	472 (9.2%)	437 (8.5%)	368 (7.2%)	924 (18.0%)	
Treatment type						
Counselling (n=2255; 43.9%)	1295 (57.4%)	205 (9.1%)	192 (8.5%)	163 (7.2%)	400 (17.7%)	
Residential withdrawal (n=642; 12.5%)	325 (50.6%)	67 (10.4%)	58 (9.0%)	50 (7.8%)	142 (22.1%)	
Other withdrawal (n=454; 8.8%)	260 (57.3%)	43 (9.5%)	43 (9.5%)	21 (4.6%)	87 (19.2%)	
Outreach (n=352; 6.9%)	209 (59.4%)	36 (10.2%)	20 (5.7%)	28 (8.0%)	59 (16.8%)	
Brokerage (n=816; 15.9%)	485 (59.4%)	80 (9.8%)	66 (8.1%)	65 (8.0%)	120 (14.7%)	
Aboriginal services (n=124; 2.4%)	88 (71.0%)	<5	9 (7.3%)	<5	20 (16.1%)	
Specialist pharmacotherapy (n=194; 3.8%)	100 (51.5%)	13 (6.7%)	17 (8.8%)	15 (7.7%)	49 (25.3%)	
Residential rehabilitation (n=64; 1.2%)	46 (71.9%)	<5	<5	<5	7 (10.9%)	
Supported accommodation (n=88; 1.7%)	41 (46.6%)	13 (14.8%)	11 (12.5%)	12 (13.6%)	11 (12.5%)	
Post withdrawal linkage (n=68; 1.3%)	51 (75.0%)	<5	<5	<5	12 (17.6%)	
Other/unknown (n=78; 1.5%)	34 (43.6%)	5 (6.4%)	15 (19.2%)	7 (9.0%)	17 (21.8%)	<0.001
Pharmacotherapy treatment						
Methadone (n=1396; 27.2%)	792 (56.7%)	130 (9.3%)	119 (8.5%)	105 (7.5%)	250 (17.9%)	
Buprenorphine (n=470; 9.2%)	285 (60.6%)	35 (7.4%)	35 (7.4%)	31 (6.6%)	84 (17.9%)	
Naltrexone (n=64; 1.2%)	34 (53.1%)	5 (7.8%)	7 (10.9%)	7 (10.9%)	11 (17.2%)	
Other (n=311; 6.1%)	176 (56.6%)	29 (9.3%)	33 (10.6%)	19 (6.1%)	54 (17.4%)	
None (n=2894; 56.4%)	1647 (56.9%)	273 (9.4%)	243 (8.4%)	206 (7.1%)	525 (18.1%)	0.941
Treatment termination status						
Completed treatment (n=3531; 68.8%)	2027 (57.4%)	323 (9.1%)	309 (8.8%)	267 (7.6%)	605 (17.1%)	
Not completed (n=1540; 30.0%)	870 (56.5%)	139 (9.0%)	122 (7.9%)	101 (6.6%)	308 (20.0%)	
Unknown (n=64; 1.2%)	37 (57.8%)	10 (15.6%)	6 (9.4%)	<5	11 (17.2%)	0.057

Table 65 Treatment type and treatment characteristics by admissions in 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	1175 (22.9%)	1153 (22.5%)	1065 (20.7%)
Treatment type			
Counselling (n=2255; 43.9%)	506 (22.4%)	510 (22.6%)	465 (20.6%)
Residential withdrawal (n=642; 12.5%)	178 (27.7%)	161 (25.1%)	167 (26.0%)
Other withdrawal (n=454; 8.8%)	109 (24.0%)	114 (25.1%)	83 (18.3%)
Outreach (n=352; 6.9%)	77 (21.9%)	66 (18.8%)	73 (20.7%)
Brokerage (n=816; 15.9%)	179 (21.9%)	153 (18.8%)	147 (18.0%)
Aboriginal services (n=124; 2.4%)	14 (11.3%)	27 (21.8%)	21 (16.9%)
Specialist pharmacotherapy (n=194; 3.8%)	53 (27.3%)	51 (26.3%)	55 (28.4%)
Residential rehabilitation (n=64; 1.2%)	11 (17.2%)	9 (14.1%)	7 (10.9%)
Supported accommodation (n=88; 1.7%)	20 (22.7%)	21 (23.9%)	19 (21.6%)
Post withdrawal linkage (n=68; 1.3%)	10 (14.7%)	10 (14.7%)	12 (17.6%)
Other/unknown (n=78; 1.5%)	18 (23.1%)	31 (39.7%)	16 (20.5%)
Pharmacotherapy treatment			
Methadone (n=1396; 27.2%)	326 (23.4%)	311 (22.3%)	283 (20.3%)
Buprenorphine (n=470; 9.2%)	89 (18.9%)	98 (20.9%)	96 (20.4%)
Naltrexone (n=64; 1.2%)	12 (18.8%)	17 (26.6%)	15 (23.4%)
Other (n=311; 6.1%)	70 (22.5%)	74 (23.8%)	68 (21.9%)
None (n=2894; 56.4%)	678 (23.4%)	653 (22.6%)	603 (20.8%)
Treatment termination status			
Completed treatment (n=3531; 68.8%)	785 (22.2%)	769 (21.8%)	713 (20.2%)
Not completed (n=1540; 30.0%)	373 (24.2%)	367 (23.8%)	343 (22.3%)
Unknown (n=64; 1.2%)	17 (26.6%)	17 (26.6%)	9 (14.1%)

Table 66 shows that heroin and other opioids were most commonly the primary drug of concern (51%), followed by alcohol (17%) and cannabis (14%). The majority of clients who reported injecting drug use were not hospitalised across the three years presented. A higher proportion of clients with benzodiazepines and other stimulants and alcohol as a primary drug of concern had hospitalisations over the three-year period. Between 10% and 22% of all primary drug of concern groupings had multiple hospitalisations, with multiple hospital admissions most common among clients with benzodiazepines and other tranquilisers, alcohol or cannabis as the primary drug of concern.

The most common method of drug use was injecting (57%), followed by ingestion (21%). Those whose route of administration was smoking had a higher prevalence of multiple hospitalisations compared with all other routes of administration. Polydrug use was common, being recorded for 63% of AOD clients reporting injecting drug use.

Table 67 shows these same drug characteristics for AOD clients reporting injecting drug use by hospitalisation across the three years – the year prior to treatment, year of treatment, and the year post-treatment. Proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions of post-AOD treatment hospital admissions (2011/12) overall and for all primary drugs of concern and methods of use.

Table 66 Drug use characteristics by hospital admission, 2009/10 to 2011/12 – injecting drug use group

	Number of AOD clients					p
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	Admission in multiple years (%)	
Total (n=5135)	2934 (57.1%)	472 (9.2%)	437 (8.5%)	368 (7.2%)	924 (18.0%)	
Primary drug of concern						
Alcohol (n=849; 16.5%)	456 (53.7%)	74 (8.7%)	88 (10.4%)	58 (6.8%)	173 (20.4%)	
Cannabis (n=728; 14.2%)	430 (59.1%)	67 (9.2%)	45 (6.2%)	48 (6.6%)	138 (19.0%)	
Heroin & other opioids (n=2621; 51.0%)	1481 (56.5%)	250 (9.5%)	224 (8.5%)	200 (7.6%)	466 (17.8%)	
Amphetamine & other stimulants (n=638; 12.4%)	390 (61.1%)	58 (9.1%)	50 (7.8%)	41 (6.4%)	99 (15.5%)	
Benzodiazepines & other tranquillisers (n=113; 2.2%)	59 (52.2%)	11 (9.7%)	9 (8.0%)	9 (8.0%)	25 (22.1%)	
Other (n=147; 2.9%)	98 (66.7%)	9 (6.1%)	15 (10.2%)	10 (6.8%)	15 (10.2%)	
Unknown (n=39; 0.8%)	20 (51.3%)	<5	6 (15.4%)	<5	8 (20.5%)	0.083
Method of use						
Ingest (n=1066; 20.8%)	557 (52.3%)	98 (9.2%)	118 (11.1%)	84 (7.9%)	209 (19.6%)	
Smoke (n=591; 11.5%)	346 (58.5%)	58 (9.8%)	29 (4.9%)	40 (6.8%)	118 (20.0%)	
Inject (n=2926; 57.0%)	1692 (57.8%)	266 (9.1%)	249 (8.5%)	207 (7.1%)	512 (17.5%)	
Sniff/inhale (n=170; 3.3%)	106 (62.4%)	18 (10.6%)	14 (8.2%)	7 (4.1%)	25 (14.7%)	
Other/unknown (n=382; 7.4%)	233 (61.0%)	32 (8.4%)	27 (7.1%)	30 (7.9%)	60 (15.7%)	0.005
Polydrug use						
Yes (n=3252; 63.3%)	1843 (56.7%)	308 (9.5%)	278 (8.5%)	228 (7.0%)	595 (18.3%)	
No (n=1183; 23.0%)	673 (56.9%)	103 (8.7%)	109 (9.2%)	86 (7.3%)	212 (17.9%)	
Unknown (n=700; 13.6%)	418 (59.7%)	61 (8.7%)	50 (7.1%)	54 (7.7%)	117 (16.7%)	0.740

Table 67 Drug use characteristics by hospital admission, 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	1175 (22.9%)	1153 (22.5%)	1065 (20.7%)
Primary drug of concern			
Alcohol (n=849; 16.5%)	210 (24.7%)	225 (26.5%)	196 (23.1%)
Cannabis (n=728; 14.2%)	171 (23.5%)	154 (21.2%)	144 (19.8%)
Heroin & other opioids (n=2621; 51.0%)	603 (23.0%)	577 (22.0%)	555 (21.2%)
Amphetamine & other stimulants (n=638; 12.4%)	129 (20.2%)	125 (19.6%)	118 (18.5%)
Benzodiazepines & other tranquillisers (n=113; 2.2%)	32 (28.3%)	29 (25.7%)	28 (24.8%)
Other (n=147; 2.9%)	21 (14.3%)	30 (20.4%)	16 (10.9%)
Unknown (n=39; 0.8%)	9 (23.1%)	13 (33.3%)	8 (20.5%)
Method of use			
Ingest (n=1066; 20.8%)	268 (25.1%)	279 (26.2%)	249 (23.4%)
Smoke (n=591; 11.5%)	147 (24.9%)	122 (20.6%)	125 (21.2%)
Inject (n=2926; 57.0%)	651 (22.2%)	639 (21.8%)	593 (20.3%)
Sniff/inhale (n=170; 3.3%)	31 (18.2%)	34 (20.0%)	25 (14.7%)
Other/unknown (n=382; 7.4%)	78 (20.4%)	79 (20.7%)	73 (19.1%)
Polydrug use			
Yes (n=3252; 63.3%)	764 (23.5%)	727 (22.4%)	682 (21.0%)
No (n=1183; 23.0%)	266 (22.5%)	281 (23.8%)	244 (20.6%)
Unknown (n=700; 13.6%)	145 (20.7%)	145 (20.7%)	139 (19.9%)

The median number of admissions and median length of stay for AOD clients with treatment engagement in 2010/11 remained stable across each of the study years (Table 68).

Table 68 Median number of hospital admissions and length of stay – injecting drug use group

	09/10 (N=1175)	10/11 (N=1153)	11/12 (N=1065)
Median number of attendances (interquartile range)	1(1,2)	1(1,2)	1(1,2)
Median days of stay (interquartile range)	1.0(1.0, 3.0)	1.0(1.0, 3.0)	1.0(1.0, 3.0)

Table 69 shows the proportions of AOD clients diagnosed during a hospital admission with an alcohol-related acute condition by treatment characteristic and primary drug of concern. Overall, there was no change in the proportion of clients admitted to hospital with an alcohol-related acute condition between the year prior to AOD treatment and the year following AOD treatment. There were negligible changes across treatment type, treatment termination status and primary drug of concern. Please note numbers are quite small.

Table 69 Admissions for alcohol-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Alcohol-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	59 (1.1%)	56 (1.1%)	55 (1.1%)
Treatment type			
Counselling (n=2255; 43.9%)	23 (1.0%)	20 (0.9%)	18 (0.8%)
Residential withdrawal (n=642; 12.5%)	13 (2.0%)	22 (3.4%)	14 (2.2%)
Other withdrawal (n=454; 8.8%)	<5	5 (1.1%)	5 (1.1%)
Outreach (n=352; 6.9%)	<5	<5	5 (1.4%)
Brokerage (n=816; 15.9%)	7 (0.9%)	<5	<5
Aboriginal services (n=124; 2.4%)	<5	<5	<5
Specialist pharmacotherapy (n=194; 3.8%)	<5	<5	<5
Residential rehabilitation (n=64; 1.2%)	<5	<5	<5
Supported accommodation (n=88; 1.7%)	<5	<5	<5
Post withdrawal linkage (n=68; 1.3%)	<5	<5	<5
Other/unknown (n=78; 1.5%)	5 (6.4%)	<5	<5
Treatment termination status			
Completed treatment (n=3531; 68.8%)	37 (1.0%)	33 (0.9%)	30 (0.8%)
Not completed (n=1540; 30.0%)	21 (1.4%)	22 (1.4%)	25 (1.6%)
Unknown (n=64; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=849; 16.5%)	28 (3.3%)	32 (3.8%)	31 (3.7%)
Cannabis (n=728; 14.2%)	5 (0.7%)	7 (1.0%)	6 (0.8%)
Heroin & other opioids (n=2621; 51.0%)	17 (0.6%)	9 (0.3%)	11 (0.4%)
Amphetamine & other stimulants (n=638; 12.4%)	6 (0.9%)	5 (0.8%)	6 (0.9%)
Benzodiazepines & other tranquillisers (n=113; 2.2%)	<5	<5	<5
Other (n=147; 2.9%)	<5	<5	<5
Unknown (n=39; 0.8%)	<5	<5	<5

Overall, there was a small decrease in the proportion of other drug-related acute admissions for AOD clients in the year following treatment compared with admissions in the year preceding treatment (Table 70). Small decreases in proportions of other drug-related acute admissions were evident for several treatment types, except other withdrawal and outreach. Results were inconsistent for primary drug of concern.

Table 70 Admissions for other drug-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Other drug-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	165 (3.2%)	212 (4.1%)	142 (2.8%)
Treatment type			
Counselling (n=2255; 43.9%)	74 (3.3%)	103 (4.6%)	64 (2.8%)
Residential withdrawal (n=642; 12.5%)	21 (3.3%)	29 (4.5%)	17 (2.6%)
Other withdrawal (n=454; 8.8%)	13 (2.9%)	18 (4.0%)	16 (3.5%)
Outreach (n=352; 6.9%)	10 (2.8%)	16 (4.5%)	12 (3.4%)
Brokerage (n=816; 15.9%)	26 (3.2%)	26 (3.2%)	20 (2.5%)
Aboriginal services (n=124; 2.4%)	<5	5 (4.0%)	<5
Specialist pharmacotherapy (n=194; 3.8%)	9 (4.6%)	7 (3.6%)	5 (2.6%)
Residential rehabilitation (n=64; 1.2%)	<5	<5	<5
Supported accommodation (n=88; 1.7%)	<5	<5	<5
Post withdrawal linkage (n=68; 1.3%)	<5	5 (7.4%)	<5
Other/unknown (n=78; 1.5%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3531; 68.8%)	105 (3.0%)	129 (3.7%)	94 (2.7%)
Not completed (n=1540; 30.0%)	58 (3.8%)	79 (5.1%)	47 (3.1%)
Unknown (n=64; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=849; 16.5%)	24 (2.8%)	39 (4.6%)	23 (2.7%)
Cannabis (n=728; 14.2%)	22 (3.0%)	27 (3.7%)	25 (3.4%)
Heroin & other opioids (n=2621; 51.0%)	92 (3.5%)	105 (4.0%)	69 (2.6%)
Amphetamine & other stimulants (n=638; 12.4%)	14 (2.2%)	21 (3.3%)	15 (2.4%)
Benzodiazepines & other tranquillisers (n=113; 2.2%)	7 (6.2%)	12 (10.6%)	7 (6.2%)
Other (n=147; 2.9%)	<5	5 (3.4%)	<5
Unknown (n=39; 0.8%)	<5	<5	<5

Table 71 shows the proportion of AOD clients reporting injection drug use who were diagnosed in hospital with an alcohol-related chronic condition across the three years by AOD treatment characteristics and primary drug of concern on entry into AOD treatment. Overall, there was a reduction in proportions of clients admitted with alcohol-related chronic conditions over the three years presented.

Table 71 Admissions for alcohol-related chronic conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Alcohol-related chronic conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	60 (1.2%)	63 (1.2%)	40 (0.8%)
Treatment type			
Counselling (n=2255; 43.9%)	20 (0.9%)	24 (1.1%)	15 (0.7%)
Residential withdrawal (n=642; 12.5%)	10 (1.6%)	7 (1.1%)	9 (1.4%)
Other withdrawal (n=454; 8.8%)	8 (1.8%)	10 (2.2%)	5 (1.1%)
Outreach (n=352; 6.9%)	<5	<5	<5
Brokerage (n=816; 15.9%)	11 (1.3%)	5 (0.6%)	<5
Aboriginal services (n=124; 2.4%)	5 (4.0%)	<5	<5
Specialist pharmacotherapy (n=194; 3.8%)	<5	8 (4.1%)	<5
Residential rehabilitation (n=64; 1.2%)	<5	<5	<5
Supported accommodation (n=88; 1.7%)	<5	<5	<5
Post withdrawal linkage (n=68; 1.3%)	<5	<5	<5
Other/unknown (n=78; 1.5%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3531; 68.8%)	44 (1.2%)	44 (1.2%)	24 (0.7%)
Not completed (n=1540; 30.0%)	16 (1.0%)	18 (1.2%)	15 (1.0%)
Unknown (n=64; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=849; 16.5%)	20 (2.4%)	17 (2.0%)	9 (1.1%)
Cannabis (n=728; 14.2%)	11 (1.5%)	<5	8 (1.1%)
Heroin & other opioids (n=2621; 51.0%)	23 (0.9%)	34 (1.3%)	21 (0.8%)
Amphetamine & other stimulants (n=638; 12.4%)	<5	<5	<5
Benzodiazepines & other tranquillisers (n=113; 2.2%)	<5	<5	<5
Other (n=147; 2.9%)	<5	<5	<5
Unknown (n=39; 0.8%)	<5	<5	<5

Following AOD treatment, there was no decrease in the proportion of clients admitted to hospital with an injury (Table 72). There were reductions in proportions of AOD clients diagnosed in hospital with injuries between the year preceding and the year following AOD treatment engagement for outreach only. This reduction was quite substantial. Other changes were negligible and varied across treatment types.

Table 72 Admissions for injuries by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12- injecting drug use group

	Injuries		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	289 (5.6%)	293 (5.7%)	288 (5.6%)
Treatment type			
Counselling (n=2255; 43.9%)	116 (5.1%)	131 (5.8%)	113 (5.0%)
Residential withdrawal (n=642; 12.5%)	46 (7.2%)	45 (7.0%)	56 (8.7%)
Other withdrawal (n=454; 8.8%)	23 (5.1%)	29 (6.4%)	25 (5.5%)
Outreach (n=352; 6.9%)	32 (9.1%)	20 (5.7%)	16 (4.5%)
Brokerage (n=816; 15.9%)	47 (5.8%)	40 (4.9%)	51 (6.3%)
Aboriginal services (n=124; 2.4%)	<5	<5	<5
Specialist pharmacotherapy (n=194; 3.8%)	10 (5.2%)	14 (7.2%)	14 (7.2%)
Residential rehabilitation (n=64; 1.2%)	<5	<5	<5
Supported accommodation (n=88; 1.7%)	<5	<5	<5
Post withdrawal linkage (n=68; 1.3%)	<5	<5	<5
Other/unknown (n=78; 1.5%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3531; 68.8%)	180 (5.1%)	197 (5.6%)	188 (5.3%)
Not completed (n=1540; 30.0%)	107 (6.9%)	93 (6.0%)	99 (6.4%)
Unknown (n=64; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=849; 16.5%)	55 (6.5%)	70 (8.2%)	62 (7.3%)
Cannabis (n=728; 14.2%)	48 (6.6%)	40 (5.5%)	44 (6.0%)
Heroin & other opioids (n=2621; 51.0%)	141 (5.4%)	143 (5.5%)	141 (5.4%)
Amphetamine & other stimulants (n=638; 12.4%)	33 (5.2%)	22 (3.4%)	27 (4.2%)
Benzodiazepines & other tranquillisers (n=113; 2.2%)	5 (4.4%)	10 (8.8%)	6 (5.3%)
Other (n=147; 2.9%)	6 (4.1%)	7 (4.8%)	6 (4.1%)
Unknown (n=39; 0.8%)	<5	<5	<5

Hospitalisations for non-AOD-related conditions are shown in Table 73 for the AOD client cohort reporting injecting drug use. There was a small overall reduction in the proportion of clients admitted with a non-AOD-related condition in the year following AOD treatment. While this reduction was evident for most treatment types, an increase was observed in outreach, Aboriginal services and post withdrawal. Also, while decreases in hospitalisations were evident for clients presenting to AOD services across most primary drugs of concern, there was no change in the proportion of non-AOD-related hospitalisation where the primary drug of concern was heroin and other opioids or amphetamines and other stimulants.

Table 73 Admissions for non-AOD-related conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12 – injecting drug use group

	Non-AOD-related conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=5135)	897 (17.5%)	888 (17.3%)	836 (16.3%)
Treatment type			
Counselling (n=2255; 43.9%)	397 (17.6%)	387 (17.2%)	374 (16.6%)
Residential withdrawal (n=642; 12.5%)	136 (21.2%)	125 (19.5%)	130 (20.2%)
Other withdrawal (n=454; 8.8%)	88 (19.4%)	94 (20.7%)	64 (14.1%)
Outreach (n=352; 6.9%)	52 (14.8%)	47 (13.4%)	62 (17.6%)
Brokerage (n=816; 15.9%)	124 (15.2%)	112 (13.7%)	100 (12.3%)
Aboriginal services (n=124; 2.4%)	8 (6.5%)	18 (14.5%)	17 (13.7%)
Specialist pharmacotherapy (n=194; 3.8%)	47 (24.2%)	43 (22.2%)	46 (23.7%)
Residential rehabilitation (n=64; 1.2%)	9 (14.1%)	7 (10.9%)	<5
Supported accommodation (n=88; 1.7%)	16 (18.2%)	18 (20.5%)	14 (15.9%)
Post withdrawal linkage (n=68; 1.3%)	8 (11.8%)	6 (8.8%)	10 (14.7%)
Other/unknown (n=78; 1.5%)	12 (15.4%)	31 (39.7%)	15 (19.2%)
Treatment termination status			
Completed treatment (n=3531; 68.8%)	601 (17.0%)	591 (16.7%)	562 (15.9%)
Not completed (n=1540; 30.0%)	281 (18.2%)	285 (18.5%)	266 (17.3%)
Unknown (n=64; 1.2%)	15 (23.4%)	12 (18.8%)	8 (12.5%)
Primary drug of concern			
Alcohol (n=849; 16.5%)	160 (18.8%)	170 (20.0%)	151 (17.8%)
Cannabis (n=728; 14.2%)	130 (17.9%)	118 (16.2%)	103 (14.1%)
Heroin & other opioids (n=2621; 51.0%)	464 (17.7%)	444 (16.9%)	447 (17.1%)
Amphetamine & other stimulants (n=638; 12.4%)	96 (15.0%)	103 (16.1%)	95 (14.9%)
Benzodiazepines & other tranquillisers (n=113; 2.2%)	25 (22.1%)	22 (19.5%)	21 (18.6%)
Other (n=147; 2.9%)	18 (12.2%)	19 (12.9%)	13 (8.8%)
Unknown (n=39; 0.8%)	<5	12 (30.8%)	6 (15.4%)

Chapter 5: Results – Clients who were homeless on entry into treatment

Client characteristics and emergency department presentations

Table 74 shows the sociodemographic characteristics of AOD clients who were homeless on entry into treatment in 2010/11 (index year) and their ED engagement from 2009/10 to 2011/12. There were 1,186 homeless AOD clients who started treatment in the index year. Two-thirds (67%) were male, with the highest proportion of clients within the 25 to 34 year age group (31%). The majority of homeless AOD clients were unemployed. Just over half of the cohort resided in metropolitan Melbourne. While a minority of clients were either Aboriginal and/or Torres Strait Islander (12%), this was a higher proportion than the population distribution in Victoria, and higher than in the AOD client cohort overall (7%, refer to Table 2 in Chapter 2).

Less than half (44%) of homeless AOD clients did not present to ED over the three years, a lower proportion than in the overall treatment population, where 52% had no ED presentations over the three years (refer to Table 2 Chapter 2). However, around one-third presented on multiple occasions over the three years, compared with just under one-quarter of the overall AOD treatment cohort.

Table 75 shows these same sociodemographic characteristics by ED presentation, and indicates changes pre- and post-treatment. In general, the proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions of post-AOD treatment ED presentations (2011/12), with larger reductions in presentations than those seen for the overall AOD treatment population (see Table 3 in Chapter 2). While ED presentations reduced substantially for clients residing in metropolitan Melbourne, the reduction in ED presentations among homeless clients in regional Victoria was negligible.

Table 74 Sociodemographic characteristics of homeless clients by ED presentations, 2009/10 to 2011/12

	Number of AOD clients					p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	ED in multiple years (%)	
Total (n=1186)	523 (44.1%)	105 (8.9%)	97 (8.2%)	71 (6.0%)	390 (32.9%)	
Gender						
Male (n=794; 66.9%)	349 (44.0%)	78 (9.8%)	64 (8.1%)	46 (5.8%)	257 (32.4%)	0.566
Female (n=392; 33.1%)	174 (44.4%)	27 (6.9%)	33 (8.4%)	25 (6.4%)	133 (33.9%)	
Age group						
0-14 (n=12; 1.0%)	7 (58.3%)	<5	<5	<5	<5	0.691
15-24 (n=305; 25.7%)	139 (45.6%)	31 (10.2%)	23 (7.5%)	23 (7.5%)	89 (29.2%)	
25-34 (n=366; 30.9%)	170 (46.4%)	28 (7.7%)	30 (8.2%)	19 (5.2%)	119 (32.5%)	
35-44 (n=321; 27.1%)	132 (41.1%)	30 (9.3%)	26 (8.1%)	17 (5.3%)	116 (36.1%)	
45-54 (n=147; 12.4%)	56 (38.1%)	14 (9.5%)	11 (7.5%)	11 (7.5%)	55 (37.4%)	
55-64 (n=30; 2.5%)	15 (50.0%)	<5	<5	<5	8 (26.7%)	
65+ (n=5; 0.4%)	<5	<5	<5	<5	<5	
Country of birth						
Australia (n=1040; 87.7%)	460 (44.2%)	96 (9.2%)	85 (8.2%)	60 (5.8%)	339 (32.6%)	0.686
Other (n=146; 12.3%)	63 (43.2%)	9 (6.2%)	12 (8.2%)	11 (7.5%)	51 (34.9%)	
Indigenous status						
Aboriginal and/or TSI origin (n=141; 11.9%)	67 (47.5%)	10 (7.1%)	12 (8.5%)	8 (5.7%)	44 (31.2%)	0.964
Neither Aboriginal nor TSI origin (n=971; 81.9%)	424 (43.7%)	90 (9.3%)	77 (7.9%)	58 (6.0%)	322 (33.2%)	
Unknown (n=74; 6.2%)	32 (43.2%)	5 (6.8%)	8 (10.8%)	5 (6.8%)	24 (32.4%)	
Employment						
Employed (n=65; 5.5%)	31 (47.7%)	5 (7.7%)	<5	<5	21 (32.3%)	0.357
Unemployed (n=989; 83.4%)	427 (43.2%)	90 (9.1%)	84 (8.5%)	54 (5.5%)	334 (33.8%)	
Other (n=107; 9.0%)	51 (47.7%)	10 (9.3%)	8 (7.5%)	12 (11.2%)	26 (24.3%)	
Unknown (n=25; 2.1%)	14 (56.0%)	<5	<5	<5	9 (36.0%)	

	Number of AOD clients					p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	ED in multiple years (%)	
Living status						
Lives alone (n=340; 28.7%)	145 (42.6%)	23 (6.8%)	34 (10.0%)	17 (5.0%)	121 (35.6%)	0.243
Lives with family (n=188; 15.9%)	91 (48.4%)	21 (11.2%)	17 (9.0%)	14 (7.4%)	45 (23.9%)	
Lives with others (n=451; 38.0%)	202 (44.8%)	43 (9.5%)	32 (7.1%)	27 (6.0%)	147 (32.6%)	
Unknown (n=207; 17.5%)	85 (41.1%)	18 (8.7%)	14 (6.8%)	13 (6.3%)	77 (37.2%)	
Accommodation status						
Private residence (n=224; 18.9%)	121 (54.0%)	19 (8.5%)	14 (6.3%)	14 (6.3%)	56 (25.0%)	0.043
Unstable (n=706; 59.5%)	295 (41.8%)	66 (9.3%)	63 (8.9%)	44 (6.2%)	238 (33.7%)	
In custody (n=7; 0.6%)	<5	<5	<5	<5	<5	
Other (n=157; 13.2%)	59 (37.6%)	14 (8.9%)	17 (10.8%)	9 (5.7%)	58 (36.9%)	
Unknown (n=92; 7.8%)	47 (51.1%)	5 (5.4%)	<5	<5	35 (38.0%)	
Region						
Metropolitan Melbourne (n=668; 56.3%)	273 (40.9%)	60 (9.0%)	59 (8.8%)	39 (5.8%)	237 (35.5%)	0.421
Rest of Victoria (n=374; 31.5%)	181 (48.4%)	32 (8.6%)	26 (7.0%)	27 (7.2%)	108 (28.9%)	
Interstate (n=20; 1.7%)	10 (50.0%)	<5	<5	<5	5 (25.0%)	
Unknown (n=124; 10.5%)	59 (47.6%)	10 (8.1%)	10 (8.1%)	5 (4.0%)	40 (32.3%)	

Table 75 Sociodemographic characteristics of homeless clients by ED presentations in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	431 (36.3%)	438 (36.9%)	367 (30.9%)
Gender			
Male (n=794; 66.9%)	296 (37.3%)	291 (36.6%)	239 (30.1%)
Female (n=392; 33.1%)	135 (34.4%)	147 (37.5%)	128 (32.7%)
Age group			
0-14 (n=12; 1.0%)	<5	<5	<5
15-24 (n=305; 25.7%)	111 (36.4%)	97 (31.8%)	93 (30.5%)
25-34 (n=366; 30.9%)	126 (34.4%)	135 (36.9%)	103 (28.1%)
35-44 (n=321; 27.1%)	123 (38.3%)	128 (39.9%)	111 (34.6%)
45-54 (n=147; 12.4%)	62 (42.2%)	61 (41.5%)	48 (32.7%)
55-64 (n=30; 2.5%)	8 (26.7%)	12 (40.0%)	9 (30.0%)
65+ (n=5; 0.4%)	<5	<5	<5
Country of birth			
Australia (n=1040; 87.7%)	376 (36.2%)	382 (36.7%)	321 (30.9%)
Other (n=146; 12.3%)	55 (37.7%)	56 (38.4%)	46 (31.5%)
Indigenous status			
Aboriginal and/or TSI origin (n=141; 11.9%)	50 (35.5%)	55 (39.0%)	41 (29.1%)
Neither Aboriginal nor TSI origin (n=971; 81.9%)	355 (36.6%)	355 (36.6%)	304 (31.3%)
Unknown (n=74; 6.2%)	26 (35.1%)	28 (37.8%)	22 (29.7%)
Employment			
Employed (n=65; 5.5%)	23 (35.4%)	24 (36.9%)	18 (27.7%)
Unemployed (n=989; 83.4%)	370 (37.4%)	376 (38.0%)	311 (31.4%)
Other (n=107; 9.0%)	31 (29.0%)	30 (28.0%)	29 (27.1%)
Unknown (n=25; 2.1%)	7 (28.0%)	8 (32.0%)	9 (36.0%)
Living status			
Lives alone (n=340; 28.7%)	129 (37.9%)	143 (42.1%)	109 (32.1%)
Lives with family (n=188; 15.9%)	56 (29.8%)	57 (30.3%)	51 (27.1%)
Lives with others (n=451; 38.0%)	166 (36.8%)	154 (34.1%)	129 (28.6%)
Unknown (n=207; 17.5%)	80 (38.6%)	84 (40.6%)	78 (37.7%)
Accommodation status			
Private residence (n=224; 18.9%)	67 (29.9%)	63 (28.1%)	56 (25.0%)
Unstable (n=706; 59.5%)	267 (37.8%)	276 (39.1%)	219 (31.0%)
In custody (n=7; 0.6%)	<5	<5	<5
Other (n=157; 13.2%)	60 (38.2%)	68 (43.3%)	53 (33.8%)
Unknown (n=92; 7.8%)	33 (35.9%)	27 (29.3%)	36 (39.1%)
Region			
Metropolitan Melbourne (n=668; 56.3%)	263 (39.4%)	268 (40.1%)	215 (32.2%)
Rest of Victoria (n=374; 31.5%)	115 (30.7%)	117 (31.3%)	114 (30.5%)
Interstate (n=20; 1.7%)	8 (40.0%)	6 (30.0%)	<5
Unknown (n=124; 10.5%)	45 (36.3%)	47 (37.9%)	36 (29.0%)

Table 76 displays the treatment type and treatment characteristics of homeless AOD clients by the pattern of their ED engagement from 2009/10 to 2011/12. In terms of treatment type, homeless AOD clients most commonly received counselling (47%), followed residential withdrawal (13%) and outreach (11%), which differed from the overall treatment population, where the three most common treatment types were counselling, brokerage and other withdrawal services (see Table 4). Overall, 60% completed their course of treatment – lower than the overall treatment cohort completion rate of 74%.

Table 77 shows treatment type and treatment characteristics for homeless AOD clients by ED presentation by year to enable exploration of whether there was a change in ED utilisation pre- and post-treatment. Proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions post-AOD treatment (2011/12) for all treatment types (except Aboriginal services), pharmacotherapy treatment types and treatment termination status reasons.

Table 76 Treatment type and treatment characteristics of homeless clients by ED presentation, 2009/10 to 2011/12

	Number of AOD clients				ED in multiple years (%)	p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=1186)	523 (44.1%)	105 (8.9%)	97 (8.2%)	71 (6.0%)	390 (32.9%)	
Treatment type						
Counselling (n=557; 47.0%)	240 (43.1%)	48 (8.6%)	45 (8.1%)	35 (6.3%)	189 (33.9%)	
Residential withdrawal (n=155; 13.1%)	69 (44.5%)	14 (9.0%)	14 (9.0%)	7 (4.5%)	51 (32.9%)	
Other withdrawal (n=94; 7.9%)	48 (51.1%)	8 (8.5%)	9 (9.6%)	<5	27 (28.7%)	
Outreach (n=127; 10.7%)	57 (44.9%)	11 (8.7%)	9 (7.1%)	9 (7.1%)	41 (32.3%)	
Brokerage (n=<5)	<5	<5	<5	<5	<5	
Aboriginal services (n=76; 6.4%)	42 (55.3%)	5 (6.6%)	5 (6.6%)	<5	20 (26.3%)	
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5	<5	<5	
Residential rehabilitation (n=11; 0.9%)	5 (45.5%)	<5	<5	<5	<5	
Supported accommodation (n=99; 8.3%)	41 (41.4%)	11 (11.1%)	7 (7.1%)	10 (10.1%)	30 (30.3%)	
Post withdrawal linkage (n=11; 0.9%)	<5	<5	<5	<5	5 (45.5%)	
Other/unknown (n=43; 3.6%)	13 (30.2%)	<5	6 (14.0%)	<5	20 (46.5%)	0.675
Pharmacotherapy treatment						
Methadone (n=145; 12.2%)	63 (43.4%)	16 (11.0%)	12 (8.3%)	9 (6.2%)	45 (31.0%)	
Buprenorphine (n=51; 4.3%)	19 (37.3%)	<5	<5	5 (9.8%)	19 (37.3%)	
Naltrexone (n=20; 1.7%)	7 (35.0%)	<5	<5	<5	8 (40.0%)	
Other (n=58; 4.9%)	29 (50.0%)	<5	5 (8.6%)	<5	18 (31.0%)	
None (n=912; 76.9%)	405 (44.4%)	79 (8.7%)	76 (8.3%)	52 (5.7%)	300 (32.9%)	0.932
Treatment termination status						
Completed treatment (n=716; 60.4%)	305 (42.6%)	66 (9.2%)	57 (8.0%)	46 (6.4%)	242 (33.8%)	
Not completed (n=456; 38.4%)	214 (46.9%)	36 (7.9%)	37 (8.1%)	25 (5.5%)	144 (31.6%)	
Unknown (n=14; 1.2%)	<5	<5	<5	<5	<5	0.276

Table 77 Treatment type and treatment characteristics of homeless clients by ED presentations in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	431 (36.3%)	438 (36.9%)	367 (30.9%)
Treatment type			
Counselling (n=557; 47.0%)	203 (36.4%)	208 (37.3%)	172 (30.9%)
Residential withdrawal (n=155; 13.1%)	58 (37.4%)	60 (38.7%)	45 (29.0%)
Other withdrawal (n=94; 7.9%)	29 (30.9%)	32 (34.0%)	25 (26.6%)
Outreach (n=127; 10.7%)	46 (36.2%)	44 (34.6%)	42 (33.1%)
Brokerage (n=<5)	<5	<5	<5
Aboriginal services (n=76; 6.4%)	21 (27.6%)	25 (32.9%)	22 (28.9%)
Specialist pharmacotherapy (n=11; 0.9%)	6 (54.5%)	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	5 (45.5%)	<5
Supported accommodation (n=99; 8.3%)	37 (37.4%)	32 (32.3%)	36 (36.4%)
Post withdrawal linkage (n=11; 0.9%)	>7(>63.6%)	6 (54.5%)	<5
Other/unknown (n=43; 3.6%)	21 (48.8%)	23 (53.5%)	15 (34.9%)
Pharmacotherapy treatment			
Methadone (n=145; 12.2%)	55 (37.9%)	50 (34.5%)	43 (29.7%)
Buprenorphine (n=51; 4.3%)	20 (39.2%)	22 (43.1%)	19 (37.3%)
Naltrexone (n=20; 1.7%)	10 (50.0%)	6 (30.0%)	9 (45.0%)
Other (n=58; 4.9%)	21 (36.2%)	21 (36.2%)	16 (27.6%)
None (n=912; 76.9%)	325 (35.6%)	339 (37.2%)	280 (30.7%)
Treatment termination status			
Completed treatment (n=716; 60.4%)	266 (37.2%)	267 (37.3%)	229 (32.0%)
Not completed (n=456; 38.4%)	158 (34.6%)	165 (36.2%)	135 (29.6%)
Unknown (n=14; 1.2%)	7 (50.0%)	6 (42.9%)	<5

Table 78 shows that alcohol was most commonly the primary drug of concern (41%), followed by heroin and other opioids (25%) and cannabis (22%), with the proportion of homeless clients with heroin & other opioids as the primary drug of concern being substantially higher than in the overall treatment population (25% vs 15%). Around one third of all primary drug of concern groupings had multiple ED presentations, with multiple ED presentations less common in the overall AOD treatment cohort – where multiple presentations were evident for 20% to 25% of clients across all primary drugs of concern.

The most common method of drug use was ingestion (42%), followed by injecting (25%). Injection as route of administration had a slightly higher prevalence of multiple ED presentations compared with smoking and inhaling. Those reporting no injecting drug use history accounted for over half of AOD clients overall, but only 30% of homeless clients.

Polydrug use was more common among homeless clients (58%) than for AOD clients overall (43%). There was little difference across ED presentations compared with those reporting no polydrug use.

Table 79 shows these same drug characteristics for homeless AOD clients by ED presentation across the three years – the year prior to treatment, year of treatment, and the year post-treatment. In general, the proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions of post-AOD treatment ED presentations (2011/12) with the exception of history of injecting drug use, but not in the preceding 12 months.

Table 78 Drug use characteristics of homeless clients by ED presentations, 2009/10 to 2011/12

	Number of AOD clients				ED in multiple years (%)	p
	No ED (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=1186)	523 (44.1%)	105 (8.9%)	97 (8.2%)	71 (6.0%)	390 (32.9%)	
Primary drug of concern						
Alcohol (n=488; 41.1%)	220 (45.1%)	43 (8.8%)	42 (8.6%)	27 (5.5%)	156 (32.0%)	
Cannabis (n=263; 22.2%)	126 (47.9%)	22 (8.4%)	15 (5.7%)	16 (6.1%)	84 (31.9%)	
Heroin & other opioids (n=290; 24.5%)	118 (40.7%)	28 (9.7%)	26 (9.0%)	18 (6.2%)	100 (34.5%)	
Amphetamine & other stimulants (n=86; 7.3%)	36 (41.9%)	6 (7.0%)	8 (9.3%)	7 (8.1%)	29 (33.7%)	
Benzodiazepines & other tranquillisers (n=13; 1.1%)	5 (38.5%)	<5	<5	<5	<5	
Other (n=27; 2.3%)	11 (40.7%)	<5	<5	<5	9 (33.3%)	
Unknown (n=19; 1.6%)	7 (36.8%)	<5	<5	<5	9 (47.4%)	0.903
Method of use						
Ingest (n=503; 42.4%)	226 (44.9%)	45 (8.9%)	49 (9.7%)	27 (5.4%)	156 (31.0%)	
Smoke (n=224; 18.9%)	107 (47.8%)	17 (7.6%)	17 (7.6%)	15 (6.7%)	68 (30.4%)	
Inject (n=297; 25.0%)	121 (40.7%)	30 (10.1%)	24 (8.1%)	17 (5.7%)	105 (35.4%)	
Sniff/inhale (n=65; 5.5%)	30 (46.2%)	<5	<5	5 (7.7%)	23 (35.4%)	
Other/unknown (n=97; 8.2%)	39 (40.2%)	9 (9.3%)	<5	7 (7.2%)	38 (39.2%)	0.752
Polydrug use						
Yes (n=687; 57.9%)	306 (44.5%)	57 (8.3%)	54 (7.9%)	43 (6.3%)	227 (33.0%)	
No (n=322; 27.2%)	134 (41.6%)	33 (10.2%)	31 (9.6%)	16 (5.0%)	108 (33.5%)	
Unknown (n=177; 14.9%)	83 (46.9%)	15 (8.5%)	12 (6.8%)	12 (6.8%)	55 (31.1%)	0.843
Injecting drug use history						
Never injected (n=350; 29.5%)	169 (48.3%)	28 (8.0%)	26 (7.4%)	25 (7.1%)	102 (29.1%)	
Within past 12 months (n=460; 38.8%)	185 (40.2%)	42 (9.1%)	41 (8.9%)	30 (6.5%)	162 (35.2%)	
Over 12 months ago (n=132; 11.1%)	60 (45.5%)	11 (8.3%)	9 (6.8%)	8 (6.1%)	44 (33.3%)	
Unknown (n=244; 20.6%)	109 (44.7%)	24 (9.8%)	21 (8.6%)	8 (3.3%)	82 (33.6%)	0.541

Table 79 Drug use characteristics of homeless clients by ED presentations in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	431 (36.3%)	438 (36.9%)	367 (30.9%)
Primary drug of concern			
Alcohol (n=488; 41.1%)	167 (34.2%)	185 (37.9%)	147 (30.1%)
Cannabis (n=263; 22.2%)	92 (35.0%)	82 (31.2%)	80 (30.4%)
Heroin & other opioids (n=290; 24.5%)	117 (40.3%)	113 (39.0%)	94 (32.4%)
Amphetamine & other stimulants (n=86; 7.3%)	30 (34.9%)	34 (39.5%)	26 (30.2%)
Benzodiazepines & other tranquillisers (n=13; 1.1%)	6 (46.2%)	<5	<5
Other (n=27; 2.3%)	10 (37.0%)	10 (37.0%)	9 (33.3%)
Unknown (n=19; 1.6%)	9 (47.4%)	10 (52.6%)	8 (42.1%)
Method of use			
Ingest (n=503; 42.4%)	171 (34.0%)	190 (37.8%)	146 (29.0%)
Smoke (n=224; 18.9%)	71 (31.7%)	73 (32.6%)	70 (31.3%)
Inject (n=297; 25.0%)	120 (40.4%)	115 (38.7%)	97 (32.7%)
Sniff/inhale (n=65; 5.5%)	26 (40.0%)	22 (33.8%)	21 (32.3%)
Other/unknown (n=97; 8.2%)	43 (44.3%)	38 (39.2%)	33 (34.0%)
Polydrug use			
Yes (n=687; 57.9%)	246 (35.8%)	255 (37.1%)	211 (30.7%)
No (n=322; 27.2%)	122 (37.9%)	124 (38.5%)	104 (32.3%)
Unknown (n=177; 14.9%)	63 (35.6%)	59 (33.3%)	52 (29.4%)
Injecting drug use history			
Never injected (n=350; 29.5%)	117 (33.4%)	118 (33.7%)	98 (28.0%)
Within past 12 months (n=460; 38.8%)	179 (38.9%)	182 (39.6%)	148 (32.2%)
Over 12 months ago (n=132; 11.1%)	45 (34.1%)	47 (35.6%)	46 (34.8%)
Unknown (n=244; 20.6%)	90 (36.9%)	91 (37.3%)	75 (30.7%)

Table 80 shows the overall median number of ED presentations and length of ED stay for homeless AOD clients by year. There was a median of two presentations pre- and post-treatment, and one presentation in the index year.

Table 80 Median number of ED presentations and median hours of ED stay for 2010/11 AOD homeless clients, 2009/10 to 2011/12

	09/10 (N=431)	10/11 (N=438)	11/12 (N=367)
Median number of attendances (interquartile range)	2(1,3)	2(1,4)	2(1,3)
Median hours of stay (interquartile range)	3.3(2.1, 5.3)	3.7(2.3, 5.5)	3.6(2.2, 5.4)

Table 81 shows the proportions of homeless AOD clients diagnosed in the ED with an acute alcohol-related presentation by treatment characteristic and primary drug of concern. Overall, there was a decrease in the proportion of clients who presented to ED with an acute alcohol-related condition between the year prior to AOD treatment and the year following AOD treatment. Increases were evident for residential withdrawal and other withdrawal treatment types.

Table 81 ED presentations for alcohol-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	52 (4.4%)	58 (4.9%)	45 (3.8%)
Treatment type			
Counselling (n=557; 47.0%)	22 (3.9%)	28 (5.0%)	17 (3.1%)
Residential withdrawal (n=155; 13.1%)	12 (7.7%)	13 (8.4%)	13 (8.4%)
Other withdrawal (n=94; 7.9%)	6 (6.4%)	6 (6.4%)	7 (7.4%)
Outreach (n=127; 10.7%)	7 (5.5%)	<5	<5
Brokerage (n=<5)	<5	<5	<5
Aboriginal services (n=76; 6.4%)	<5	<5	<5
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	<5	<5
Supported accommodation (n=99; 8.3%)	<5	<5	<5
Post withdrawal linkage (n=11; 0.9%)	<5	<5	<5
Other/unknown (n=43; 3.6%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=716; 60.4%)	37 (5.2%)	37 (5.2%)	33 (4.6%)
Not completed (n=456; 38.4%)	15 (3.3%)	20 (4.4%)	12 (2.6%)
Unknown (n=14; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=488; 41.1%)	41 (8.4%)	51 (10.5%)	38 (7.8%)
Cannabis (n=263; 22.2%)	6 (2.3%)	<5	<5
Heroin & other opioids (n=290; 24.5%)	<5	<5	<5
Amphetamine & other stimulants (n=86; 7.3%)	<5	<5	<5
Benzodiazepines & other tranquillisers (n=13; 1.1%)	<5	<5	<5
Other (n=27; 2.3%)	<5	<5	<5
Unknown (n=19; 1.6%)	<5	<5	<5

Overall, there was a decrease in the proportion of other drug-related acute presentations to ED for homeless AOD clients in the year following treatment engagement when compared with ED presentations in the year preceding treatment engagement (Table 82).

Table 82 ED presentations for other drug-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Other drug-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	52 (4.4%)	68 (5.7%)	36 (3.0%)
Treatment type			
Counselling (n=557; 47.0%)	25 (4.5%)	36 (6.5%)	19 (3.4%)
Residential withdrawal (n=155; 13.1%)	<5	6 (3.9%)	<5
Other withdrawal (n=94; 7.9%)	<5	<5	<5
Outreach (n=127; 10.7%)	5 (3.9%)	5 (3.9%)	<5
Brokerage (n=<5)	<5	<5	<5
Aboriginal services (n=76; 6.4%)	<5	<5	<5
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	<5	<5
Supported accommodation (n=99; 8.3%)	7 (7.1%)	5 (5.1%)	5 (5.1%)
Post withdrawal linkage (n=11; 0.9%)	<5	<5	<5
Other/unknown (n=43; 3.6%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=716; 60.4%)	31 (4.3%)	42 (5.9%)	17 (2.4%)
Not completed (n=456; 38.4%)	20 (4.4%)	25 (5.5%)	19 (4.2%)
Unknown (n=14; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=488; 41.1%)	14 (2.9%)	18 (3.7%)	11 (2.3%)
Cannabis (n=263; 22.2%)	7 (2.7%)	10 (3.8%)	<5
Heroin & other opioids (n=290; 24.5%)	22 (7.6%)	26 (9.0%)	17 (5.9%)
Amphetamine & other stimulants (n=86; 7.3%)	<5	9 (10.5%)	<5
Benzodiazepines & other tranquillisers (n=13; 1.1%)	<5	<5	<5
Other (n=27; 2.3%)	<5	<5	<5
Unknown (n=19; 1.6%)	<5	<5	<5

Table 83 shows the proportion of homeless AOD clients diagnosed in the ED with an alcohol-related chronic condition across the three years by AOD treatment characteristics and primary drug of concern on entry into AOD treatment. Overall, there was stability in proportions of clients presenting with alcohol-related chronic conditions over the three years presented. This is likely a reflection of patterns of morbidity associated with alcohol-related chronic conditions, with need for acute treatment of recurring symptoms even after reduction or cessation of alcohol consumption.

Table 83 ED presentations for alcohol-related chronic conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related chronic conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	33 (2.8%)	49 (4.1%)	32 (2.7%)
Treatment type			
Counselling (n=557; 47.0%)	18 (3.2%)	22 (3.9%)	16 (2.9%)
Residential withdrawal (n=155; 13.1%)	<5	12 (7.7%)	<5
Other withdrawal (n=94; 7.9%)	<5	<5	<5
Outreach (n=127; 10.7%)	<5	<5	<5
Brokerage (n=<5)	<5	<5	<5
Aboriginal services (n=76; 6.4%)	5 (6.6%)	<5	<5
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	<5	<5
Supported accommodation (n=99; 8.3%)	<5	<5	<5
Post withdrawal linkage (n=11; 0.9%)	<5	<5	<5
Other/unknown (n=43; 3.6%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=716; 60.4%)	19 (2.7%)	30 (4.2%)	18 (2.5%)
Not completed (n=456; 38.4%)	14 (3.1%)	17 (3.7%)	14 (3.1%)
Unknown (n=14; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=488; 41.1%)	18 (3.7%)	27 (5.5%)	17 (3.5%)
Cannabis (n=263; 22.2%)	5 (1.9%)	10 (3.8%)	5 (1.9%)
Heroin & other opioids (n=290; 24.5%)	7 (2.4%)	8 (2.8%)	7 (2.4%)
Amphetamine & other stimulants (n=86; 7.3%)	<5	<5	<5
Benzodiazepines & other tranquillisers (n=13; 1.1%)	<5	<5	<5
Other (n=27; 2.3%)	<5	<5	<5
Unknown (n=19; 1.6%)	<5	<5	<5

Following AOD treatment, there was a decrease in the proportion of homeless AOD clients presenting to ED with an injury (Table 84). Across all treatment types (except other withdrawal), primary drugs of concern (except 'other'), and treatment termination status categories, there were reductions in proportions of homeless AOD clients diagnosed in the ED with injuries between the year preceding AOD treatment and the year following AOD treatment engagement.

Table 84 ED presentations for injuries by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Injuries		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	179 (15.1%)	176 (14.8%)	133 (11.2%)
Treatment type			
Counselling (n=557; 47.0%)	85 (15.3%)	79 (14.2%)	62 (11.1%)
Residential withdrawal (n=155; 13.1%)	20 (12.9%)	31 (20.0%)	17 (11.0%)
Other withdrawal (n=94; 7.9%)	12 (12.8%)	17 (18.1%)	13 (13.8%)
Outreach (n=127; 10.7%)	22 (17.3%)	20 (15.7%)	12 (9.4%)
Brokerage (n=<5)	<5	<5	<5
Aboriginal services (n=76; 6.4%)	9 (11.8%)	14 (18.4%)	10 (13.2%)
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	<5	<5
Supported accommodation (n=99; 8.3%)	15 (15.2%)	<5	11 (11.1%)
Post withdrawal linkage (n=11; 0.9%)	<5	<5	<5
Other/unknown (n=43; 3.6%)	11 (25.6%)	<5	5 (11.6%)
Treatment termination status			
Completed treatment (n=716; 60.4%)	108 (15.1%)	107 (14.9%)	81 (11.3%)
Not completed (n=456; 38.4%)	67 (14.7%)	69 (15.1%)	51 (11.2%)
Unknown (n=14; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=488; 41.1%)	70 (14.3%)	77 (15.8%)	48 (9.8%)
Cannabis (n=263; 22.2%)	44 (16.7%)	31 (11.8%)	36 (13.7%)
Heroin & other opioids (n=290; 24.5%)	41 (14.1%)	49 (16.9%)	29 (10.0%)
Amphetamine & other stimulants (n=86; 7.3%)	11 (12.8%)	7 (8.1%)	9 (10.5%)
Benzodiazepines & other tranquillisers (n=13; 1.1%)	<5	<5	<5
Other (n=27; 2.3%)	5 (18.5%)	5 (18.5%)	5 (18.5%)
Unknown (n=19; 1.6%)	<5	5 (26.3%)	6 (31.6%)

ED presentations for non-AOD-related conditions are shown in Table 85 for the homeless AOD client cohort. There was a small reduction in the proportion of clients presenting with non-AOD-related conditions in the year following AOD treatment, and this reduction was evident for most treatment types. Decreases in presentations were evident across known primary drugs of concern.

Table 85 ED presentations for non-AOD-related conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Non-AOD-related conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	323 (27.2%)	352 (29.7%)	292 (24.6%)
Treatment type			
Counselling (n=557; 47.0%)	154 (27.6%)	169 (30.3%)	142 (25.5%)
Residential withdrawal (n=155; 13.1%)	42 (27.1%)	42 (27.1%)	34 (21.9%)
Other withdrawal (n=94; 7.9%)	24 (25.5%)	24 (25.5%)	18 (19.1%)
Outreach (n=127; 10.7%)	33 (26.0%)	36 (28.3%)	33 (26.0%)
Brokerage (n=<5))	<5	<5	<5
Aboriginal services (n=76; 6.4%)	15 (19.7%)	21 (27.6%)	16 (21.1%)
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	<5	<5
Supported accommodation (n=99; 8.3%)	27 (27.3%)	26 (26.3%)	28 (28.3%)
Post withdrawal linkage (n=11; 0.9%)	<5	6 (54.5%)	<5
Other/unknown (n=43; 3.6%)	18 (41.9%)	23 (53.5%)	12 (27.9%)
Treatment termination status			
Completed treatment (n=716; 60.4%)	200 (27.9%)	218 (30.4%)	180 (25.1%)
Not completed (n=456; 38.4%)	117 (25.7%)	130 (28.5%)	110 (24.1%)
Unknown (n=14; 1.2%)	6 (42.9%)	<5	<5
Primary drug of concern			
Alcohol (n=488; 41.1%)	127 (26.0%)	144 (29.5%)	115 (23.6%)
Cannabis (n=263; 22.2%)	63 (24.0%)	68 (25.9%)	60 (22.8%)
Heroin & other opioids (n=290; 24.5%)	90 (31.0%)	92 (31.7%)	81 (27.9%)
Amphetamine & other stimulants (n=86; 7.3%)	24 (27.9%)	28 (32.6%)	20 (23.3%)
Benzodiazepines & other tranquillisers (n=13; 1.1%)	5 (38.5%)	<5	<5
Other (n=27; 2.3%)	7 (25.9%)	7 (25.9%)	6 (22.2%)
Unknown (n=19; 1.6%)	7 (36.8%)	9 (47.4%)	7 (36.8%)

Client characteristics and hospitalisations

Table 86 shows sociodemographic characteristics of homeless AOD clients in 2010-2011 (index year) and hospitalisations from 2009/10 to 2011/12. Around half of male and female clients were not admitted to hospital in any of the three years (56% of males and 49% of females). Around one-quarter of females (27%) and males (22%) had multiple admissions. The likelihood of hospital admission increased with age, as did multiple admissions.

In general, the proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions following AOD treatment engagement (2011/12). This pattern was evident for males (small increase for females), age groups (with the exception of clients aged 15 to 24 years), country of birth, Indigenous status and metropolitan Melbourne region. (Table 87).

Table 86 Sociodemographic characteristics of homeless clients by hospital admission, 2009/10 to 2011/12

	Number of AOD clients				Admission in multiple years (%)	p
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=1186)	632 (53.3%)	104 (8.8%)	91 (7.7%)	78 (6.6%)	281 (23.7%)	
Gender						
Male (n=794; 66.9%)	442 (55.7%)	71 (8.9%)	59 (7.4%)	48 (6.0%)	174 (21.9%)	
Female (n=392; 33.1%)	190 (48.5%)	33 (8.4%)	32 (8.2%)	30 (7.7%)	107 (27.3%)	0.133
Age group						
0-14 (n=12; 1.0%)	>8(>66.7%)	<5	<5	<5	<5	
15-24 (n=305; 25.7%)	180 (59.0%)	27 (8.9%)	16 (5.2%)	23 (7.5%)	59 (19.3%)	
25-34 (n=366; 30.9%)	206 (56.3%)	30 (8.2%)	26 (7.1%)	26 (7.1%)	78 (21.3%)	
35-44 (n=321; 27.1%)	150 (46.7%)	28 (8.7%)	31 (9.7%)	22 (6.9%)	90 (28.0%)	
45-54 (n=147; 12.4%)	69 (46.9%)	17 (11.6%)	16 (10.9%)	5 (3.4%)	40 (27.2%)	
55-64 (n=30; 2.5%)	15 (50.0%)	<5	<5	<5	10 (33.3%)	
65+ (n=5; 0.4%)	<5	<5	<5	<5	<5	0.174
Country of birth						
Australia (n=1040; 87.7%)	548 (52.7%)	93 (8.9%)	80 (7.7%)	71 (6.8%)	248 (23.8%)	
Other (n=146; 12.3%)	84 (57.5%)	11 (7.5%)	11 (7.5%)	7 (4.8%)	33 (22.6%)	0.783
Indigenous status						
Aboriginal and/or TSI origin (n=141; 11.9%)	76 (53.9%)	11 (7.8%)	12 (8.5%)	8 (5.7%)	34 (24.1%)	
Neither Aboriginal nor TSI origin (n=971; 81.9%)	516 (53.1%)	86 (8.9%)	73 (7.5%)	66 (6.8%)	230 (23.7%)	
Unknown (n=74; 6.2%)	40 (54.1%)	7 (9.5%)	6 (8.1%)	<5	17 (23.0%)	0.999
Employment						
Employed (n=65; 5.5%)	32 (49.2%)	<5	6 (9.2%)	5 (7.7%)	20 (30.8%)	
Unemployed (n=989; 83.4%)	521 (52.7%)	91 (9.2%)	77 (7.8%)	60 (6.1%)	240 (24.3%)	
Other (n=107; 9.0%)	65 (60.7%)	8 (7.5%)	5 (4.7%)	11 (10.3%)	18 (16.8%)	
Unknown (n=25; 2.1%)	14 (56.0%)	<5	<5	<5	<5	0.268

	Number of AOD clients				Admission in multiple years (%)	p
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Living status						
Lives alone (n=340; 28.7%)	171 (50.3%)	32 (9.4%)	30 (8.8%)	22 (6.5%)	85 (25.0%)	0.852
Lives with family (n=188; 15.9%)	105 (55.9%)	13 (6.9%)	13 (6.9%)	15 (8.0%)	42 (22.3%)	
Lives with others (n=451; 38.0%)	246 (54.5%)	40 (8.9%)	35 (7.8%)	23 (5.1%)	107 (23.7%)	
Unknown (n=207; 17.5%)	110 (53.1%)	19 (9.2%)	13 (6.3%)	18 (8.7%)	47 (22.7%)	
Accommodation status						
Private residence (n=224; 18.9%)	124 (55.4%)	20 (8.9%)	19 (8.5%)	13 (5.8%)	48 (21.4%)	0.623
Unstable (n=706; 59.5%)	371 (52.5%)	62 (8.8%)	53 (7.5%)	44 (6.2%)	176 (24.9%)	
In custody (n=7; 0.6%)	<5	<5	<5	<5	<5	
Other (n=157; 13.2%)	80 (51.0%)	14 (8.9%)	9 (5.7%)	12 (7.6%)	42 (26.8%)	
Unknown (n=92; 7.8%)	53 (57.6%)	8 (8.7%)	10 (10.9%)	9 (9.8%)	12 (13.0%)	
Region						
Metropolitan Melbourne (n=668; 56.3%)	337 (50.4%)	55 (8.2%)	61 (9.1%)	44 (6.6%)	171 (25.6%)	0.283
Rest of Victoria (n=374; 31.5%)	215 (57.5%)	31 (8.3%)	24 (6.4%)	25 (6.7%)	79 (21.1%)	
Interstate (n=20; 1.7%)	11 (55.0%)	<5	<5	<5	<5	
Unknown (n=124; 10.5%)	69 (55.6%)	14 (11.3%)	5 (4.0%)	8 (6.5%)	28 (22.6%)	

Table 87 Sociodemographic characteristics of homeless clients by hospital admission in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	317 (26.7%)	331 (27.9%)	291 (24.5%)
Gender			
Male (n=794; 66.9%)	201 (25.3%)	215 (27.1%)	173 (21.8%)
Female (n=392; 33.1%)	116 (29.6%)	116 (29.6%)	118 (30.1%)
Age group			
0-14 (n=12; 1.0%)	<5	<5	<5
15-24 (n=305; 25.7%)	68 (22.3%)	63 (20.7%)	70 (23.0%)
25-34 (n=366; 30.9%)	92 (25.1%)	95 (26.0%)	82 (22.4%)
35-44 (n=321; 27.1%)	97 (30.2%)	105 (32.7%)	95 (29.6%)
45-54 (n=147; 12.4%)	49 (33.3%)	53 (36.1%)	33 (22.4%)
55-64 (n=30; 2.5%)	9 (30.0%)	11 (36.7%)	7 (23.3%)
65+ (n=5; 0.4%)	<5	<5	<5
Country of birth			
Australia (n=1040; 87.7%)	280 (26.9%)	290 (27.9%)	265 (25.5%)
Other (n=146; 12.3%)	37 (25.3%)	41 (28.1%)	26 (17.8%)
Indigenous status			
Aboriginal and/or TSI origin (n=141; 11.9%)	36 (25.5%)	42 (29.8%)	33 (23.4%)
Neither Aboriginal nor TSI origin (n=971; 81.9%)	265 (27.3%)	269 (27.7%)	239 (24.6%)
Unknown (n=74; 6.2%)	16 (21.6%)	20 (27.0%)	19 (25.7%)
Employment			
Employed (n=65; 5.5%)	18 (27.7%)	24 (36.9%)	19 (29.2%)
Unemployed (n=989; 83.4%)	269 (27.2%)	284 (28.7%)	243 (24.6%)
Other (n=107; 9.0%)	25 (23.4%)	18 (16.8%)	25 (23.4%)
Unknown (n=25; 2.1%)	5 (20.0%)	5 (20.0%)	<5
Living status			
Lives alone (n=340; 28.7%)	100 (29.4%)	107 (31.5%)	79 (23.2%)
Lives with family (n=188; 15.9%)	45 (23.9%)	48 (25.5%)	46 (24.5%)
Lives with others (n=451; 38.0%)	118 (26.2%)	122 (27.1%)	111 (24.6%)
Unknown (n=207; 17.5%)	54 (26.1%)	54 (26.1%)	55 (26.6%)
Accommodation status			
Private residence (n=224; 18.9%)	60 (26.8%)	55 (24.6%)	49 (21.9%)
Unstable (n=706; 59.5%)	190 (26.9%)	210 (29.7%)	178 (25.2%)
In custody (n=7; 0.6%)	<5	<5	<5
Other (n=157; 13.2%)	50 (31.8%)	45 (28.7%)	44 (28.0%)
Unknown (n=92; 7.8%)	15 (16.3%)	18 (19.6%)	18 (19.6%)
Region			
Metropolitan Melbourne (n=668; 56.3%)	184 (27.5%)	211 (31.6%)	169 (25.3%)
Rest of Victoria (n=374; 31.5%)	89 (23.8%)	87 (23.3%)	91 (24.3%)
Interstate (n=20; 1.7%)	7 (35.0%)	<5	<5
Unknown (n=124; 10.5%)	37 (29.8%)	30 (24.2%)	28 (22.6%)

Table 88 displays the treatment type and treatment characteristics of homeless AOD clients by the pattern of hospitalisation from 2009/10 to 2011/12. There was some variability in patterns of hospital utilisation across treatment types, with over one-quarter of counselling and residential withdrawal clients presenting to hospital on multiple occasions over the three years presented.

Table 89 shows treatment type and treatment characteristics for homeless AOD clients by hospitalisation by year to show whether there was a change in hospital utilisation pre- and post-treatment. Proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions post-AOD treatment (2011/12) for all treatment types (with the exceptions of Aboriginal services, supported accommodation and other/unknown treatment type) and treatment termination status reasons.

Table 88 Treatment type and treatment characteristics of homeless clients by admissions, 2009/10 to 2011/12

	Number of AOD clients				Admission in multiple years (%)	p
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=1186)	632 (53.3%)	104 (8.8%)	91 (7.7%)	78 (6.6%)	281 (23.7%)	
Treatment type						
Counselling (n=557; 47.0%)	301 (54.0%)	40 (7.2%)	45 (8.1%)	27 (4.8%)	144 (25.9%)	
Residential withdrawal (n=155; 13.1%)	74 (47.7%)	18 (11.6%)	11 (7.1%)	13 (8.4%)	39 (25.2%)	
Other withdrawal (n=94; 7.9%)	47 (50.0%)	15 (16.0%)	9 (9.6%)	<5	19 (20.2%)	
Outreach (n=127; 10.7%)	76 (59.8%)	12 (9.4%)	6 (4.7%)	7 (5.5%)	26 (20.5%)	
Brokerage (n=<5)	<5	<5	<5	<5	<5	
Aboriginal services (n=76; 6.4%)	46 (60.5%)	<5	5 (6.6%)	<5	17 (22.4%)	
Specialist pharmacotherapy (n=11; 0.9%)	>7(>63.6%)	<5	<5	<5	<5	
Residential rehabilitation (n=11; 0.9%)	>7(>63.6%)	<5	<5	<5	<5	
Supported accommodation (n=99; 8.3%)	49 (49.5%)	11 (11.1%)	5 (5.1%)	17 (17.2%)	17 (17.2%)	
Post withdrawal linkage (n=11; 0.9%)	6 (54.5%)	<5	<5	<5	<5	
Other/unknown (n=43; 3.6%)	17 (39.5%)	<5	9 (20.9%)	<5	12 (27.9%)	0.005
Pharmacotherapy treatment						
Methadone (n=145; 12.2%)	78 (53.8%)	15 (10.3%)	10 (6.9%)	10 (6.9%)	32 (22.1%)	
Buprenorphine (n=51; 4.3%)	26 (51.0%)	<5	5 (9.8%)	<5	13 (25.5%)	
Naltrexone (n=20; 1.7%)	10 (50.0%)	<5	<5	<5	5 (25.0%)	
Other (n=58; 4.9%)	28 (48.3%)	6 (10.3%)	<5	<5	16 (27.6%)	
None (n=912; 76.9%)	490 (53.7%)	77 (8.4%)	70 (7.7%)	60 (6.6%)	215 (23.6%)	1.000
Treatment termination status						
Completed treatment (n=716; 60.4%)	367 (51.3%)	65 (9.1%)	61 (8.5%)	47 (6.6%)	176 (24.6%)	
Not completed (n=456; 38.4%)	255 (55.9%)	37 (8.1%)	30 (6.6%)	31 (6.8%)	103 (22.6%)	
Unknown (n=14; 1.2%)	>10(>71.4%)	<5	<5	<5	<5	0.515

Table 89 Treatment type and treatment characteristics of homeless clients by admissions in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	317 (26.7%)	331 (27.9%)	291 (24.5%)
Treatment type			
Counselling (n=557; 47.0%)	151 (27.1%)	169 (30.3%)	131 (23.5%)
Residential withdrawal (n=155; 13.1%)	50 (32.3%)	46 (29.7%)	40 (25.8%)
Other withdrawal (n=94; 7.9%)	31 (33.0%)	23 (24.5%)	20 (21.3%)
Outreach (n=127; 10.7%)	32 (25.2%)	26 (20.5%)	29 (22.8%)
Brokerage (n=<5)	<5	<5	<5
Aboriginal services (n=76; 6.4%)	12 (15.8%)	20 (26.3%)	19 (25.0%)
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	<5	<5
Supported accommodation (n=99; 8.3%)	23 (23.2%)	19 (19.2%)	31 (31.3%)
Post withdrawal linkage (n=11; 0.9%)	<5	<5	<5
Other/unknown (n=43; 3.6%)	11 (25.6%)	21 (48.8%)	13 (30.2%)
Pharmacotherapy treatment			
Methadone (n=145; 12.2%)	40 (27.6%)	37 (25.5%)	32 (22.1%)
Buprenorphine (n=51; 4.3%)	12 (23.5%)	17 (33.3%)	14 (27.5%)
Naltrexone (n=20; 1.7%)	5 (25.0%)	6 (30.0%)	6 (30.0%)
Other (n=58; 4.9%)	18 (31.0%)	18 (31.0%)	18 (31.0%)
None (n=912; 76.9%)	242 (26.5%)	253 (27.7%)	221 (24.2%)
Treatment termination status			
Completed treatment (n=716; 60.4%)	196 (27.4%)	212 (29.6%)	176 (24.6%)
Not completed (n=456; 38.4%)	118 (25.9%)	117 (25.7%)	114 (25.0%)
Unknown (n=14; 1.2%)	<5	<5	<5

Table 90 shows that the majority of clients were not hospitalised across the three years presented. Between 15% and 28% of all primary drug of concern groupings had multiple hospitalisations, with multiple hospital admissions most common among clients with alcohol as the primary drug of concern.

Those whose route of administration was ingestion had a higher prevalence of multiple hospitalisations compared with other groups.

Hospitalisation and multiple hospital admissions were more common among homeless clients who were identified as polydrug users (Table 90).

Table 91 shows these same drug characteristics for homeless AOD clients by hospitalisation across the three years – the year prior to treatment, year of treatment, and the year post-treatment. Proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions of post-AOD treatment hospital admissions (2011/12).

Table 90 Drug use characteristics of homeless clients by hospital admission, 2009/10 to 2011/12

	Number of AOD clients				Admission in multiple years (%)	p
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=1186)	632 (53.3%)	104 (8.8%)	91 (7.7%)	78 (6.6%)	281 (23.7%)	
Primary drug of concern						
Alcohol (n=488; 41.1%)	240 (49.2%)	47 (9.6%)	32 (6.6%)	31 (6.4%)	138 (28.3%)	
Cannabis (n=263; 22.2%)	155 (58.9%)	16 (6.1%)	20 (7.6%)	19 (7.2%)	53 (20.2%)	
Heroin & other opioids (n=290; 24.5%)	151 (52.1%)	31 (10.7%)	23 (7.9%)	22 (7.6%)	63 (21.7%)	
Amphetamine & other stimulants (n=86; 7.3%)	54 (62.8%)	8 (9.3%)	7 (8.1%)	<5	13 (15.1%)	
Benzodiazepines & other tranquillisers (n=13; 1.1%)	7 (53.8%)	<5	<5	<5	<5	
Other (n=27; 2.3%)	16 (59.3%)	<5	<5	<5	6 (22.2%)	
Unknown (n=19; 1.6%)	9 (47.4%)	<5	<5	<5	5 (26.3%)	0.115
Method of use						
Ingest (n=503; 42.4%)	247 (49.1%)	47 (9.3%)	40 (8.0%)	29 (5.8%)	140 (27.8%)	
Smoke (n=224; 18.9%)	137 (61.2%)	17 (7.6%)	11 (4.9%)	15 (6.7%)	44 (19.6%)	
Inject (n=297; 25.0%)	156 (52.5%)	28 (9.4%)	24 (8.1%)	24 (8.1%)	65 (21.9%)	
Sniff/inhale (n=65; 5.5%)	39 (60.0%)	<5	9 (13.8%)	<5	11 (16.9%)	
Other/unknown (n=97; 8.2%)	53 (54.6%)	10 (10.3%)	7 (7.2%)	6 (6.2%)	21 (21.6%)	0.130
Polydrug use						
Yes (n=687; 57.9%)	382 (55.6%)	56 (8.2%)	61 (8.9%)	46 (6.7%)	142 (20.7%)	
No (n=322; 27.2%)	150 (46.6%)	30 (9.3%)	18 (5.6%)	19 (5.9%)	105 (32.6%)	
Unknown (n=177; 14.9%)	100 (56.5%)	18 (10.2%)	12 (6.8%)	13 (7.3%)	34 (19.2%)	0.003
Injecting drug use history						
Never injected (n=350; 29.5%)	204 (58.3%)	30 (8.6%)	17 (4.9%)	19 (5.4%)	80 (22.9%)	
Within past 12 months (n=460; 38.8%)	233 (50.7%)	42 (9.1%)	42 (9.1%)	34 (7.4%)	109 (23.7%)	
Over 12 months ago (n=132; 11.1%)	65 (49.2%)	12 (9.1%)	14 (10.6%)	6 (4.5%)	35 (26.5%)	
Unknown (n=244; 20.6%)	130 (53.3%)	20 (8.2%)	18 (7.4%)	19 (7.8%)	57 (23.4%)	0.420

Table 91 Drug use characteristics of homeless clients by hospital admission, 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	317 (26.7%)	331 (27.9%)	291 (24.5%)
Primary drug of concern			
Alcohol (n=488; 41.1%)	153 (31.4%)	151 (30.9%)	137 (28.1%)
Cannabis (n=263; 22.2%)	53 (20.2%)	63 (24.0%)	63 (24.0%)
Heroin & other opioids (n=290; 24.5%)	77 (26.6%)	77 (26.6%)	69 (23.8%)
Amphetamine & other stimulants (n=86; 7.3%)	20 (23.3%)	18 (20.9%)	11 (12.8%)
Benzodiazepines & other tranquillisers (n=13; 1.1%)	<5	6 (46.2%)	<5
Other (n=27; 2.3%)	6 (22.2%)	8 (29.6%)	5 (18.5%)
Unknown (n=19; 1.6%)	5 (26.3%)	8 (42.1%)	<5
Method of use			
Ingest (n=503; 42.4%)	154 (30.6%)	163 (32.4%)	137 (27.2%)
Smoke (n=224; 18.9%)	49 (21.9%)	45 (20.1%)	54 (24.1%)
Inject (n=297; 25.0%)	77 (25.9%)	81 (27.3%)	69 (23.2%)
Sniff/inhale (n=65; 5.5%)	10 (15.4%)	18 (27.7%)	11 (16.9%)
Other/unknown (n=97; 8.2%)	27 (27.8%)	24 (24.7%)	20 (20.6%)
Polydrug use			
Yes (n=687; 57.9%)	162 (23.6%)	184 (26.8%)	151 (22.0%)
No (n=322; 27.2%)	114 (35.4%)	106 (32.9%)	101 (31.4%)
Unknown (n=177; 14.9%)	41 (23.2%)	41 (23.2%)	39 (22.0%)
Injecting drug use history			
Never injected (n=350; 29.5%)	96 (27.4%)	88 (25.1%)	73 (20.9%)
Within past 12 months (n=460; 38.8%)	124 (27.0%)	136 (29.6%)	115 (25.0%)
Over 12 months ago (n=132; 11.1%)	39 (29.5%)	44 (33.3%)	34 (25.8%)
Unknown (n=244; 20.6%)	58 (23.8%)	63 (25.8%)	69 (28.3%)

The median number of admissions and median length of stay for homeless AOD clients with treatment engagement in 2010/11 remained stable prior to and following treatment engagement (Table 92).

Table 92 Median number of hospital admissions and length of stay

	09/10 (N=317)	10/11 (N=331)	11/12 (N=291)
Median number of attendances (interquartile range)	1(1,2)	2(1,3)	1(1,3)
Median days of stay (interquartile range)	1.0(1.0, 3.0)	1.3(1.0, 4.0)	1.3(1.0, 3.8)

Table 93 shows the proportions of homeless AOD clients diagnosed during a hospital admission with an alcohol-related acute condition by treatment characteristic and primary drug of concern. Overall, there was a decrease in the proportion of clients admitted to hospital with an alcohol-related acute condition between the year prior to AOD treatment and the year following AOD treatment. While there was a reduction in alcohol-related acute hospitalisations for clients who had successfully their AOD treatment episode at the time of treatment termination, there was an increase in admissions for clients who had not completed treatment.

Table 93 Admissions for alcohol-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	34 (2.9%)	47 (4.0%)	31 (2.6%)
Treatment type			
Counselling (n=557; 47.0%)	11 (2.0%)	17 (3.1%)	14 (2.5%)
Residential withdrawal (n=155; 13.1%)	10 (6.5%)	13 (8.4%)	7 (4.5%)
Other withdrawal (n=94; 7.9%)	5 (5.3%)	7 (7.4%)	<5
Outreach (n=127; 10.7%)	<5	<5	<5
Brokerage (n=<5)	<5	<5	<5
Aboriginal services (n=76; 6.4%)	<5	<5	<5
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	<5	<5
Supported accommodation (n=99; 8.3%)	<5	<5	<5
Post withdrawal linkage (n=11; 0.9%)	<5	<5	<5
Other/unknown (n=43; 3.6%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=716; 60.4%)	22 (3.1%)	32 (4.5%)	18 (2.5%)
Not completed (n=456; 38.4%)	12 (2.6%)	15 (3.3%)	13 (2.9%)
Unknown (n=14; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=488; 41.1%)	29 (5.9%)	42 (8.6%)	24 (4.9%)
Cannabis (n=263; 22.2%)	<5	<5	<5
Heroin & other opioids (n=290; 24.5%)	<5	<5	<5
Amphetamine & other stimulants (n=86; 7.3%)	<5	<5	<5
Benzodiazepines & other tranquillisers (n=13; 1.1%)	<5	<5	<5
Other (n=27; 2.3%)	<5	<5	<5
Unknown (n=19; 1.6%)	<5	<5	<5

Overall, there was a decrease in the proportion of other drug-related acute admissions for homeless AOD clients in the year following treatment engagement when compared with admissions in the year preceding treatment engagement (Table 94). Decreases in proportions of other drug-related acute admissions were evident regardless of treatment completion status.

Table 94 Admissions for other drug-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Other drug-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	48 (4.0%)	60 (5.1%)	33 (2.8%)
Treatment type			
Counselling (n=557; 47.0%)	29 (5.2%)	33 (5.9%)	16 (2.9%)
Residential withdrawal (n=155; 13.1%)	5 (3.2%)	10 (6.5%)	<5
Other withdrawal (n=94; 7.9%)	<5	<5	<5
Outreach (n=127; 10.7%)	<5	<5	<5
Brokerage (n=<5)	<5	<5	<5
Aboriginal services (n=76; 6.4%)	<5	5 (6.6%)	<5
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	<5	<5
Supported accommodation (n=99; 8.3%)	<5	<5	<5
Post withdrawal linkage (n=11; 0.9%)	<5	<5	<5
Other/unknown (n=43; 3.6%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=716; 60.4%)	31 (4.3%)	33 (4.6%)	21 (2.9%)
Not completed (n=456; 38.4%)	17 (3.7%)	27 (5.9%)	12 (2.6%)
Unknown (n=14; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=488; 41.1%)	16 (3.3%)	21 (4.3%)	9 (1.8%)
Cannabis (n=263; 22.2%)	8 (3.0%)	8 (3.0%)	7 (2.7%)
Heroin & other opioids (n=290; 24.5%)	15 (5.2%)	22 (7.6%)	13 (4.5%)
Amphetamine & other stimulants (n=86; 7.3%)	<5	5 (5.8%)	<5
Benzodiazepines & other tranquillisers (n=13; 1.1%)	<5	<5	<5
Other (n=27; 2.3%)	<5	<5	<5
Unknown (n=19; 1.6%)	<5	<5	<5

Table 95 shows the proportion of homeless AOD clients diagnosed in hospital with an alcohol-related chronic condition across the three years by AOD treatment characteristics and primary drug of concern on entry into AOD treatment. Overall, there was a decrease in proportions of clients admitted with alcohol-related chronic conditions over the three years presented.

Table 95 Admissions for alcohol-related chronic conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related chronic conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	27 (2.3%)	23 (1.9%)	23 (1.9%)
Treatment type			
Counselling (n=557; 47.0%)	13 (2.3%)	14 (2.5%)	10 (1.8%)
Residential withdrawal (n=155; 13.1%)	<5	<5	<5
Other withdrawal (n=94; 7.9%)	5 (5.3%)	<5	<5
Outreach (n=127; 10.7%)	<5	<5	<5
Brokerage (n=<5)	<5	<5	<5
Aboriginal services (n=76; 6.4%)	<5	<5	<5
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	<5	<5
Supported accommodation (n=99; 8.3%)	<5	<5	<5
Post withdrawal linkage (n=11; 0.9%)	<5	<5	<5
Other/unknown (n=43; 3.6%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=716; 60.4%)	17 (2.4%)	18 (2.5%)	16 (2.2%)
Not completed (n=456; 38.4%)	10 (2.2%)	5 (1.1%)	7 (1.5%)
Unknown (n=14; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=488; 41.1%)	18 (3.7%)	13 (2.7%)	12 (2.5%)
Cannabis (n=263; 22.2%)	<5	<5	<5
Heroin & other opioids (n=290; 24.5%)	<5	6 (2.1%)	5 (1.7%)
Amphetamine & other stimulants (n=86; 7.3%)	<5	<5	<5
Benzodiazepines & other tranquillisers (n=13; 1.1%)	<5	<5	<5
Other (n=27; 2.3%)	<5	<5	<5
Unknown (n=19; 1.6%)	<5	<5	<5

Following AOD treatment, there was a decrease in the proportion of homeless clients admitted to hospital with an injury (Table 96). There was a reduction in the proportion of homeless AOD clients diagnosed in hospital with injuries between the year preceding and the year following AOD treatment where treatment had not been completed, and an increase in injury-related admissions for clients who had completed AOD treatment.

Table 96 Admissions for injuries by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Injuries		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	81 (6.8%)	92 (7.8%)	77 (6.5%)
Treatment type			
Counselling (n=557; 47.0%)	39 (7.0%)	52 (9.3%)	35 (6.3%)
Residential withdrawal (n=155; 13.1%)	12 (7.7%)	9 (5.8%)	13 (8.4%)
Other withdrawal (n=94; 7.9%)	6 (6.4%)	10 (10.6%)	<5
Outreach (n=127; 10.7%)	14 (11.0%)	9 (7.1%)	8 (6.3%)
Brokerage (n=<5)	<5	<5	<5
Aboriginal services (n=76; 6.4%)	<5	6 (7.9%)	5 (6.6%)
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	<5	<5
Supported accommodation (n=99; 8.3%)	<5	<5	7 (7.1%)
Post withdrawal linkage (n=11; 0.9%)	<5	<5	<5
Other/unknown (n=43; 3.6%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=716; 60.4%)	46 (6.4%)	58 (8.1%)	50 (7.0%)
Not completed (n=456; 38.4%)	35 (7.7%)	33 (7.2%)	27 (5.9%)
Unknown (n=14; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=488; 41.1%)	42 (8.6%)	47 (9.6%)	42 (8.6%)
Cannabis (n=263; 22.2%)	10 (3.8%)	14 (5.3%)	14 (5.3%)
Heroin & other opioids (n=290; 24.5%)	23 (7.9%)	23 (7.9%)	17 (5.9%)
Amphetamine & other stimulants (n=86; 7.3%)	<5	<5	<5
Benzodiazepines & other tranquillisers (n=13; 1.1%)	<5	<5	<5
Other (n=27; 2.3%)	<5	<5	<5
Unknown (n=19; 1.6%)	<5	<5	<5

Hospitalisations for non-AOD-related conditions are shown in Table 97 for the homeless AOD client cohort. There was a small reduction in the proportion of clients admitted with non-AOD-related conditions in the year following AOD treatment. While this reduction was evident for some treatment types, an increase was observed in outreach, Aboriginal services, supported accommodation and other/unknown services. Also, while decreases in admissions were evident for clients presenting to AOD services across most primary drugs of concern, there was an increase in the proportion of non-AOD-related hospitalisation where the primary drug of concern was cannabis. Non-AOD-related condition admissions declined from the year preceding treatment to the year following treatment engagement regardless of treatment termination status.

Table 97 Admissions for non-AOD-related conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Non-AOD-related conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=1186)	239 (20.2%)	255 (21.5%)	231 (19.5%)
Treatment type			
Counselling (n=557; 47.0%)	114 (20.5%)	131 (23.5%)	106 (19.0%)
Residential withdrawal (n=155; 13.1%)	34 (21.9%)	39 (25.2%)	32 (20.6%)
Other withdrawal (n=94; 7.9%)	27 (28.7%)	15 (16.0%)	16 (17.0%)
Outreach (n=127; 10.7%)	22 (17.3%)	15 (11.8%)	24 (18.9%)
Brokerage (n=<5)	<5	<5	<5
Aboriginal services (n=76; 6.4%)	9 (11.8%)	14 (18.4%)	13 (17.1%)
Specialist pharmacotherapy (n=11; 0.9%)	<5	<5	<5
Residential rehabilitation (n=11; 0.9%)	<5	<5	<5
Supported accommodation (n=99; 8.3%)	17 (17.2%)	17 (17.2%)	24 (24.2%)
Post withdrawal linkage (n=11; 0.9%)	<5	<5	<5
Other/unknown (n=43; 3.6%)	9 (20.9%)	21 (48.8%)	12 (27.9%)
Treatment termination status			
Completed treatment (n=716; 60.4%)	147 (20.5%)	161 (22.5%)	142 (19.8%)
Not completed (n=456; 38.4%)	89 (19.5%)	92 (20.2%)	88 (19.3%)
Unknown (n=14; 1.2%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=488; 41.1%)	114 (23.4%)	121 (24.8%)	111 (22.7%)
Cannabis (n=263; 22.2%)	43 (16.3%)	47 (17.9%)	49 (18.6%)
Heroin & other opioids (n=290; 24.5%)	56 (19.3%)	57 (19.7%)	53 (18.3%)
Amphetamine & other stimulants (n=86; 7.3%)	14 (16.3%)	12 (14.0%)	8 (9.3%)
Benzodiazepines & other tranquillisers (n=13; 1.1%)	<5	6 (46.2%)	<5
Other (n=27; 2.3%)	6 (22.2%)	5 (18.5%)	<5
Unknown (n=19; 1.6%)	<5	7 (36.8%)	<5

Chapter 6: Results – Forensic Clients

Client characteristics and emergency department presentations

Table 98 shows the sociodemographic characteristics of forensic AOD clients on entry into treatment in 2010/11 (index year) and their ED engagement from 2009/10 to 2011/12. There were 4,320 forensic AOD clients who started treatment in the index year. Most (80%) were male, with the highest proportion of clients within the 15 to 24 year age group (37%). The majority of forensic AOD clients were unemployed. While a minority of clients were Aboriginal and/or Torres Strait Islander (7%), this was a higher proportion than the population distribution in Victoria, but the same as the AOD client cohort overall (7%, refer to Table 2 in Chapter 2).

More than half (56%) of forensic AOD clients had no presentations to ED over the three years, a higher proportion than in the overall treatment population, where 52% had no ED presentations over the three years (refer to Table 2 in Chapter 2). Around one-fifth presented on multiple occasions over the three years, compared with just under one-quarter of the overall AOD treatment cohort.

Table 99 shows these same sociodemographic characteristics by ED presentation, and indicates changes pre- and post-treatment. In general, the proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions of post-AOD treatment ED presentations (2011/12).

Table 98 Sociodemographic characteristics of forensic clients by ED presentations, 2009/10 to 2011/12

	Number of AOD clients					p
	No ED (%)	ED 09/10 only (%)	ED 10/11 only (%)	ED 11/12 only (%)	ED in multiple years (%)	
Total (n=4320)	2423 (56.1%)	390 (9.0%)	355 (8.2%)	302 (7.0%)	850 (19.7%)	
Gender						
Male (n=3450; 79.9%)	1951 (56.6%)	310 (9.0%)	298 (8.6%)	244 (7.1%)	647 (18.8%)	0.009
Female (n=853; 19.7%)	455 (53.3%)	80 (9.4%)	57 (6.7%)	58 (6.8%)	203 (23.8%)	
Age group						
0-14 (n=48; 1.1%)	23 (47.9%)	<5	6 (12.5%)	5 (10.4%)	12 (25.0%)	0.740
15-24 (n=1597; 37.0%)	909 (56.9%)	133 (8.3%)	129 (8.1%)	113 (7.1%)	313 (19.6%)	
25-34 (n=1391; 32.2%)	768 (55.2%)	130 (9.3%)	118 (8.5%)	99 (7.1%)	276 (19.8%)	
35-44 (n=883; 20.4%)	488 (55.3%)	86 (9.7%)	67 (7.6%)	52 (5.9%)	190 (21.5%)	
45-54 (n=320; 7.4%)	185 (57.8%)	33 (10.3%)	28 (8.8%)	25 (7.8%)	49 (15.3%)	
55-64 (n=63; 1.5%)	38 (60.3%)	5 (7.9%)	5 (7.9%)	6 (9.5%)	9 (14.3%)	
65+ (n=18; 0.4%)	12 (66.7%)	<5	<5	<5	<5	
Country of birth						
Australia (n=3508; 81.2%)	1934 (55.1%)	323 (9.2%)	290 (8.3%)	243 (6.9%)	718 (20.5%)	0.044
Other (n=812; 18.8%)	489 (60.2%)	67 (8.3%)	65 (8.0%)	59 (7.3%)	132 (16.3%)	
Indigenous status						
Aboriginal and/or TSI origin (n=312; 7.2%)	170 (54.5%)	27 (8.7%)	20 (6.4%)	15 (4.8%)	80 (25.6%)	0.008
Neither Aboriginal nor TSI origin (n=3472; 80.4%)	1920 (55.3%)	325 (9.4%)	298 (8.6%)	247 (7.1%)	682 (19.6%)	
Unknown (n=536; 12.4%)	333 (62.1%)	38 (7.1%)	37 (6.9%)	40 (7.5%)	88 (16.4%)	
Employment						
Employed (n=1251; 29.0%)	773 (61.8%)	102 (8.2%)	106 (8.5%)	80 (6.4%)	190 (15.2%)	<0.001
Unemployed (n=2248; 52.0%)	1174 (52.2%)	228 (10.1%)	181 (8.1%)	152 (6.8%)	513 (22.8%)	
Other (n=471; 10.9%)	263 (55.8%)	34 (7.2%)	42 (8.9%)	37 (7.9%)	95 (20.2%)	
Unknown (n=350; 8.1%)	213 (60.9%)	26 (7.4%)	26 (7.4%)	33 (9.4%)	52 (14.9%)	

Living status						
Lives alone (n=554; 12.8%)	275 (49.6%)	56 (10.1%)	47 (8.5%)	42 (7.6%)	134 (24.2%)	
Lives with family (n=2523; 58.4%)	1435 (56.9%)	235 (9.3%)	213 (8.4%)	169 (6.7%)	471 (18.7%)	
Lives with others (n=797; 18.4%)	440 (55.2%)	66 (8.3%)	63 (7.9%)	56 (7.0%)	172 (21.6%)	
Unknown (n=446; 10.3%)	273 (61.2%)	33 (7.4%)	32 (7.2%)	35 (7.8%)	73 (16.4%)	0.035
Accommodation status						
Private residence (n=3182; 73.7%)	1815 (57.0%)	285 (9.0%)	250 (7.9%)	224 (7.0%)	608 (19.1%)	
Unstable (n=435; 10.1%)	214 (49.2%)	47 (10.8%)	42 (9.7%)	21 (4.8%)	111 (25.5%)	
In custody (n=47; 1.1%)	23 (48.9%)	5 (10.6%)	5 (10.6%)	<5	11 (23.4%)	
Other (n=127; 2.9%)	61 (48.0%)	11 (8.7%)	11 (8.7%)	10 (7.9%)	34 (26.8%)	
Unknown (n=529; 12.2%)	310 (58.6%)	42 (7.9%)	47 (8.9%)	44 (8.3%)	86 (16.3%)	0.015
Homeless status						
Homeless (n=161; 3.7%)	71 (44.1%)	12 (7.5%)	14 (8.7%)	7 (4.3%)	57 (35.4%)	
Not homeless (n=3860; 89.4%)	2173 (56.3%)	356 (9.2%)	314 (8.1%)	267 (6.9%)	750 (19.4%)	
Unknown (n=299; 6.9%)	179 (59.9%)	22 (7.4%)	27 (9.0%)	28 (9.4%)	43 (14.4%)	<0.001
Region						
Metropolitan Melbourne (n=2670; 61.8%)	1417 (53.1%)	258 (9.7%)	247 (9.3%)	206 (7.7%)	542 (20.3%)	
Rest of Victoria (n=1315; 30.4%)	814 (61.9%)	108 (8.2%)	76 (5.8%)	69 (5.2%)	248 (18.9%)	
Interstate (n=155; 3.6%)	79 (51.0%)	14 (9.0%)	15 (9.7%)	20 (12.9%)	27 (17.4%)	
Unknown (n=180; 4.2%)	113 (62.8%)	10 (5.6%)	17 (9.4%)	7 (3.9%)	33 (18.3%)	<0.001

Table 99 Sociodemographic characteristics of forensic clients by ED presentations in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	ED 09/10 (%)	ED 10/11 (%)	ED 11/12 (%)
Total (n=4320)	1049 (24.3%)	1037 (24.0%)	933 (21.6%)
Gender			
Male (n=3450; 79.9%)	804 (23.3%)	814 (23.6%)	719 (20.8%)
Female (n=853; 19.7%)	245 (28.7%)	223 (26.1%)	214 (25.1%)
Age group			
0-14 (n=48; 1.1%)	11 (22.9%)	15 (31.3%)	14 (29.2%)
15-24 (n=1597; 37.0%)	375 (23.5%)	380 (23.8%)	348 (21.8%)
25-34 (n=1391; 32.2%)	347 (24.9%)	337 (24.2%)	305 (21.9%)
35-44 (n=883; 20.4%)	231 (26.2%)	216 (24.5%)	197 (22.3%)
45-54 (n=320; 7.4%)	71 (22.2%)	74 (23.1%)	54 (16.9%)
55-64 (n=63; 1.5%)	12 (19.0%)	12 (19.0%)	12 (19.0%)
65+ (n=18; 0.4%)	<5	<5	<5
Country of birth			
Australia (n=3508; 81.2%)	876 (25.0%)	872 (24.9%)	776 (22.1%)
Other (n=812; 18.8%)	173 (21.3%)	165 (20.3%)	157 (19.3%)
Indigenous status			
Aboriginal and/or TSI origin (n=312; 7.2%)	91 (29.2%)	87 (27.9%)	78 (25.0%)
Neither Aboriginal nor TSI origin (n=3472; 80.4%)	848 (24.4%)	843 (24.3%)	748 (21.5%)
Unknown (n=536; 12.4%)	110 (20.5%)	107 (20.0%)	107 (20.0%)
Employment			
Employed (n=1251; 29.0%)	249 (19.9%)	248 (19.8%)	219 (17.5%)
Unemployed (n=2248; 52.0%)	629 (28.0%)	603 (26.8%)	531 (23.6%)
Other (n=471; 10.9%)	109 (23.1%)	115 (24.4%)	112 (23.8%)
Unknown (n=350; 8.1%)	62 (17.7%)	71 (20.3%)	71 (20.3%)
Living status			
Lives alone (n=554; 12.8%)	161 (29.1%)	158 (28.5%)	141 (25.5%)
Lives with family (n=2523; 58.4%)	603 (23.9%)	579 (22.9%)	525 (20.8%)
Lives with others (n=797; 18.4%)	200 (25.1%)	204 (25.6%)	174 (21.8%)
Unknown (n=446; 10.3%)	85 (19.1%)	96 (21.5%)	93 (20.9%)
Accommodation status			
Private residence (n=3182; 73.7%)	754 (23.7%)	740 (23.3%)	669 (21.0%)
Unstable (n=435; 10.1%)	133 (30.6%)	134 (30.8%)	106 (24.4%)
In custody (n=47; 1.1%)	14 (29.8%)	14 (29.8%)	12 (25.5%)
Other (n=127; 2.9%)	42 (33.1%)	33 (26.0%)	35 (27.6%)
Unknown (n=529; 12.2%)	106 (20.0%)	116 (21.9%)	111 (21.0%)
Homeless status			
Homeless (n=161; 3.7%)	62 (38.5%)	62 (38.5%)	44 (27.3%)
Not homeless (n=3860; 89.4%)	931 (24.1%)	911 (23.6%)	832 (21.6%)
Unknown (n=299; 6.9%)	56 (18.7%)	64 (21.4%)	57 (19.1%)

Region	Number of AOD clients		
	ED 09/10 (%)	ED 10/11 (%)	ED 11/12 (%)
Metropolitan Melbourne (n=2670; 61.8%)	682 (25.5%)	674 (25.2%)	606 (22.7%)
Rest of Victoria (n=1315; 30.4%)	296 (22.5%)	282 (21.4%)	256 (19.5%)
Interstate (n=155; 3.6%)	35 (22.6%)	36 (23.2%)	38 (24.5%)
Unknown (n=180; 4.2%)	36 (20.0%)	45 (25.0%)	33 (18.3%)

Table 100 displays the treatment type and treatment characteristics of forensic AOD clients by the pattern of their ED engagement from 2009/10 to 2011/12. In terms of treatment type, forensic AOD clients most commonly received counselling (72%), followed by outreach (16%) and Aboriginal services (3%), which differed from the overall treatment population, where the three most common treatment types were counselling, brokerage and other withdrawal services (Table 100). Overall, 74% completed their course of treatment – which was the same as the overall treatment cohort completion rate of 74%. Multiple presentations were more common among forensic clients who were engaged in residential withdrawal, other withdrawal or Aboriginal services than those engaged in counselling or outreach. Forensic clients who completed their treatment episode were less likely to present to ED on multiple occasions (17%) than those who had not completed their treatment (25%).

Table 101 shows treatment type and treatment characteristics for forensic AOD clients by ED presentation by year to enable exploration of whether there was a change in ED utilisation pre- and post-treatment. Proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions post-AOD treatment (2011/12) for all service types (except Aboriginal services, supported accommodation and other/unknown treatment types), pharmacotherapy treatment types (except naltrexone) and treatment termination status reasons.

Table 100 Treatment type and treatment characteristics of forensic clients by ED presentation, 2009/10 to 2011/12

	Number of AOD clients					p
	No ED (%)	ED 09/10 only (%)	ED 10/11 only (%)	ED 11/12 only (%)	ED in multiple years (%)	
Total (n=4320)	2423 (56.1%)	390 (9.0%)	355 (8.2%)	302 (7.0%)	850 (19.7%)	
Treatment type						
Counselling (n=3105; 71.9%)	1767 (56.9%)	287 (9.2%)	249 (8.0%)	203 (6.5%)	599 (19.3%)	
Residential withdrawal (n=88; 2.0%)	39 (44.3%)	10 (11.4%)	11 (12.5%)	<5	26 (29.5%)	
Other withdrawal (n=76; 1.8%)	34 (44.7%)	7 (9.2%)	5 (6.6%)	6 (7.9%)	24 (31.6%)	
Outreach (n=670; 15.5%)	359 (53.6%)	57 (8.5%)	61 (9.1%)	58 (8.7%)	135 (20.1%)	
Brokerage (n=5; 0.1%)	<5	<5	<5	<5	<5	
Aboriginal services (n=118; 2.7%)	61 (51.7%)	10 (8.5%)	5 (4.2%)	7 (5.9%)	35 (29.7%)	
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5	<5	<5	
Residential rehabilitation (n=10; 0.2%)	>6(>60.0%)	<5	<5	<5	<5	
Supported accommodation (n=20; 0.5%)	9 (45.0%)	<5	<5	<5	<5	
Post withdrawal linkage (n=<5))	<5	<5	<5	<5	<5	
Other/unknown (n=218; 5.0%)	139 (63.8%)	15 (6.9%)	19 (8.7%)	20 (9.2%)	25 (11.5%)	0.014
Pharmacotherapy treatment						
Methadone (n=382; 8.8%)	196 (51.3%)	35 (9.2%)	34 (8.9%)	26 (6.8%)	91 (23.8%)	
Buprenorphine (n=116; 2.7%)	52 (44.8%)	15 (12.9%)	15 (12.9%)	7 (6.0%)	27 (23.3%)	
Naltrexone (n=42; 1.0%)	20 (47.6%)	<5	5 (11.9%)	<5	12 (28.6%)	
Other (n=146; 3.4%)	76 (52.1%)	18 (12.3%)	8 (5.5%)	10 (6.8%)	34 (23.3%)	
None (n=3634; 84.1%)	2079 (57.2%)	321 (8.8%)	293 (8.1%)	255 (7.0%)	686 (18.9%)	0.056
Treatment termination status						
Completed treatment (n=3212; 74.4%)	1839 (57.3%)	299 (9.3%)	272 (8.5%)	231 (7.2%)	571 (17.8%)	
Not completed (n=1044; 24.2%)	552 (52.9%)	87 (8.3%)	78 (7.5%)	67 (6.4%)	260 (24.9%)	
Unknown (n=64; 1.5%)	32 (50.0%)	<5	5 (7.8%)	<5	19 (29.7%)	<0.001

Table 101 Treatment type and treatment characteristics of forensic clients by ED presentation in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	ED 09/10 (%)	ED 10/11 (%)	ED 11/12 (%)
Total (n=4320)	1049 (24.3%)	1037 (24.0%)	933 (21.6%)
Treatment type			
Counselling (n=3105; 71.9%)	753 (24.3%)	737 (23.7%)	647 (20.8%)
Residential withdrawal (n=88; 2.0%)	32 (36.4%)	30 (34.1%)	23 (26.1%)
Other withdrawal (n=76; 1.8%)	25 (32.9%)	25 (32.9%)	23 (30.3%)
Outreach (n=670; 15.5%)	167 (24.9%)	160 (23.9%)	154 (23.0%)
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	34 (28.8%)	35 (29.7%)	35 (29.7%)
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	5 (25.0%)	7 (35.0%)	5 (25.0%)
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	30 (13.8%)	39 (17.9%)	41 (18.8%)
Pharmacotherapy treatment			
Methadone (n=382; 8.8%)	112 (29.3%)	102 (26.7%)	91 (23.8%)
Buprenorphine (n=116; 2.7%)	32 (27.6%)	40 (34.5%)	28 (24.1%)
Naltrexone (n=42; 1.0%)	10 (23.8%)	17 (40.5%)	12 (28.6%)
Other (n=146; 3.4%)	46 (31.5%)	37 (25.3%)	32 (21.9%)
None (n=3634; 84.1%)	849 (23.4%)	841 (23.1%)	770 (21.2%)
Treatment termination status			
Completed treatment (n=3212; 74.4%)	731 (22.8%)	724 (22.5%)	658 (20.5%)
Not completed (n=1044; 24.2%)	296 (28.4%)	293 (28.1%)	260 (24.9%)
Unknown (n=64; 1.5%)	22 (34.4%)	20 (31.3%)	15 (23.4%)

Table 102 shows that alcohol was most commonly the primary drug of concern (34%), followed by cannabis (29%) and amphetamines and other stimulants (17%). Around one-fifth of all primary drug of concern groupings had multiple ED presentations, with the exception of benzodiazepines and other tranquilisers (40%), and other drugs of concern (33%).

The most common method of drug use was ingestion (36%), followed by smoking (25%). Injection as route of administration had a higher prevalence of multiple ED presentations compared with other methods. Multiple ED presentations were less common among those reporting no injecting drug use history compared with forensic clients with any injecting drug use history.

Polydrug use was more common among forensic clients (46%) than for AOD clients overall (43%). A higher proportion of clients reporting polydrug use presented to ED on multiple occasions over the three year period compared with those reporting no polydrug use.

Table 103 shows these same drug characteristics for forensic AOD clients by ED presentation across the three years – the year prior to treatment, year of treatment, and the year following treatment. In general, the proportions of pre-AOD treatment ED presentations (2009/10) were higher than the proportions of post-AOD treatment ED presentations (2011/12) with the exception of history of injecting drug use, but not in the preceding 12 months.

Table 102 Drug use characteristics of forensic clients by ED presentations, 2009/10 to 2011/12

	Number of AOD clients					p
	No ED (%)	ED 09/10 only (%)	ED 10/11 only (%)	ED 11/12 only (%)	ED in multiple years (%)	
Total (n=4320)	2423 (56.1%)	390 (9.0%)	355 (8.2%)	302 (7.0%)	850 (19.7%)	
Primary drug of concern						
Alcohol (n=1446; 33.5%)	842 (58.2%)	137 (9.5%)	108 (7.5%)	99 (6.8%)	260 (18.0%)	
Cannabis (n=1255; 29.1%)	725 (57.8%)	106 (8.4%)	93 (7.4%)	80 (6.4%)	251 (20.0%)	
Heroin & other opioids (n=688; 15.9%)	357 (51.9%)	64 (9.3%)	67 (9.7%)	47 (6.8%)	153 (22.2%)	
Amphetamine & other stimulants (n=725; 16.8%)	389 (53.7%)	67 (9.2%)	69 (9.5%)	66 (9.1%)	134 (18.5%)	
Benzodiazepines & other tranquillisers (n=38; 0.9%)	18 (47.4%)	<5	<5	<5	15 (39.5%)	
Other (n=91; 2.1%)	45 (49.5%)	8 (8.8%)	6 (6.6%)	<5	30 (33.0%)	
Unknown (n=77; 1.8%)	47 (61.0%)	6 (7.8%)	9 (11.7%)	8 (10.4%)	7 (9.1%)	0.001
Method of use						
Ingest (n=1551; 35.9%)	893 (57.6%)	146 (9.4%)	120 (7.7%)	100 (6.4%)	292 (18.8%)	
Smoke (n=1082; 25.0%)	625 (57.8%)	95 (8.8%)	80 (7.4%)	73 (6.7%)	209 (19.3%)	
Inject (n=649; 15.0%)	307 (47.3%)	67 (10.3%)	69 (10.6%)	46 (7.1%)	160 (24.7%)	
Sniff/inhale (n=289; 6.7%)	150 (51.9%)	23 (8.0%)	26 (9.0%)	24 (8.3%)	66 (22.8%)	
Other/unknown (n=749; 17.3%)	448 (59.8%)	59 (7.9%)	60 (8.0%)	59 (7.9%)	123 (16.4%)	0.001
Polydrug use						
Yes (n=1989; 46.0%)	1074 (54.0%)	185 (9.3%)	156 (7.8%)	129 (6.5%)	445 (22.4%)	
No (n=1355; 31.4%)	773 (57.0%)	128 (9.4%)	114 (8.4%)	102 (7.5%)	238 (17.6%)	
Unknown (n=976; 22.6%)	576 (59.0%)	77 (7.9%)	85 (8.7%)	71 (7.3%)	167 (17.1%)	0.008
Injecting drug use history						
Never injected (n=2105; 48.7%)	1230 (58.4%)	196 (9.3%)	175 (8.3%)	153 (7.3%)	351 (16.7%)	
Within past 12 months (n=939; 21.7%)	467 (49.7%)	90 (9.6%)	90 (9.6%)	64 (6.8%)	228 (24.3%)	
Over 12 months ago (n=315; 7.3%)	169 (53.7%)	26 (8.3%)	22 (7.0%)	24 (7.6%)	74 (23.5%)	
Unknown (n=961; 22.2%)	557 (58.0%)	78 (8.1%)	68 (7.1%)	61 (6.3%)	197 (20.5%)	<0.001

Table 103 Drug use characteristics of forensic clients by ED presentations in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	ED 09/10 (%)	ED 10/11 (%)	ED 11/12 (%)
Total (n=4320)	1049 (24.3%)	1037 (24.0%)	933 (21.6%)
Primary drug of concern			
Alcohol (n=1446; 33.5%)	339 (23.4%)	322 (22.3%)	292 (20.2%)
Cannabis (n=1255; 29.1%)	297 (23.7%)	291 (23.2%)	270 (21.5%)
Heroin & other opioids (n=688; 15.9%)	187 (27.2%)	189 (27.5%)	164 (23.8%)
Amphetamine & other stimulants (n=725; 16.8%)	167 (23.0%)	172 (23.7%)	163 (22.5%)
Benzodiazepines & other tranquillisers (n=38; 0.9%)	14 (36.8%)	16 (42.1%)	10 (26.3%)
Other (n=91; 2.1%)	32 (35.2%)	33 (36.3%)	21 (23.1%)
Unknown (n=77; 1.8%)	13 (16.9%)	14 (18.2%)	13 (16.9%)
Method of use			
Ingest (n=1551; 35.9%)	374 (24.1%)	358 (23.1%)	318 (20.5%)
Smoke (n=1082; 25.0%)	257 (23.8%)	250 (23.1%)	224 (20.7%)
Inject (n=649; 15.0%)	191 (29.4%)	196 (30.2%)	169 (26.0%)
Sniff/inhale (n=289; 6.7%)	74 (25.6%)	79 (27.3%)	70 (24.2%)
Other/unknown (n=749; 17.3%)	153 (20.4%)	154 (20.6%)	152 (20.3%)
Polydrug use			
Yes (n=1989; 46.0%)	532 (26.7%)	513 (25.8%)	462 (23.2%)
No (n=1355; 31.4%)	314 (23.2%)	309 (22.8%)	275 (20.3%)
Unknown (n=976; 22.6%)	203 (20.8%)	215 (22.0%)	196 (20.1%)
Injecting drug use history			
Never injected (n=2105; 48.7%)	473 (22.5%)	449 (21.3%)	414 (19.7%)
Within past 12 months (n=939; 21.7%)	266 (28.3%)	274 (29.2%)	238 (25.3%)
Over 12 months ago (n=315; 7.3%)	79 (25.1%)	83 (26.3%)	80 (25.4%)
Unknown (n=961; 22.2%)	231 (24.0%)	231 (24.0%)	201 (20.9%)

Table 104 shows the overall median number of ED presentations and length of ED stay for forensic AOD clients by year. There was a median of one presentation in each year.

Table 104 Median number of ED presentations and median hours of ED stay for 2010/11 AOD forensic clients, 2009/10 to 2011/12

	ED 09/10 (N=1049)	ED 10/11 (N=1037)	ED 11/12 (N=933)
Median number of attendances (interquartile range)	1(1,2)	1(1,2)	1(1,2)
Median hours of stay (interquartile range)	3.1(1.9, 4.9)	3.1(1.9, 4.9)	3.2(1.9, 5.0)

Table 105 shows the proportions of forensic AOD clients diagnosed in the ED with an acute alcohol-related presentation by treatment characteristic and primary drug of concern. Overall, there was a decrease in the proportion of clients who presented to ED with an acute alcohol-related condition between the year prior to AOD treatment and the year following AOD treatment. In each of the three years presented, there were few presentations for alcohol-related acute conditions among forensic AOD clients.

Table 105 ED presentations for alcohol-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related acute conditions		
	ED 09/10 (%)	ED 10/11 (%)	ED 11/12 (%)
Total (n=4320)	45 (1.0%)	49 (1.1%)	33 (0.8%)
Treatment type			
Counselling (n=3105; 71.9%)	34 (1.1%)	32 (1.0%)	23 (0.7%)
Residential withdrawal (n=88; 2.0%)	<5	<5	<5
Other withdrawal (n=76; 1.8%)	<5	<5	<5
Outreach (n=670; 15.5%)	7 (1.0%)	9 (1.3%)	6 (0.9%)
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	<5	<5	<5
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	<5	<5	<5
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3212; 74.4%)	28 (0.9%)	28 (0.9%)	20 (0.6%)
Not completed (n=1044; 24.2%)	14 (1.3%)	21 (2.0%)	12 (1.1%)
Unknown (n=64; 1.5%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=1446; 33.5%)	20 (1.4%)	30 (2.1%)	19 (1.3%)
Cannabis (n=1255; 29.1%)	13 (1.0%)	11 (0.9%)	7 (0.6%)
Heroin & other opioids (n=688; 15.9%)	<5	<5	<5
Amphetamine & other stimulants (n=725; 16.8%)	6 (0.8%)	<5	<5
Benzodiazepines & other tranquillisers (n=38; 0.9%)	<5	<5	<5
Other (n=91; 2.1%)	<5	<5	<5
Unknown (n=77; 1.8%)	<5	<5	<5

Overall, there was a decrease in the proportion of other drug-related acute presentations to ED for forensic AOD clients in the year following treatment engagement when compared with ED presentations in the year preceding treatment engagement (Table 106).

Table 106 ED presentations for other drug-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Other drug-related acute conditions		
	ED 09/10 (%)	ED 10/11 (%)	ED 11/12 (%)
Total (n=4320)	79 (1.8%)	94 (2.2%)	67 (1.6%)
Treatment type			
Counselling (n=3105; 71.9%)	57 (1.8%)	66 (2.1%)	53 (1.7%)
Residential withdrawal (n=88; 2.0%)	7 (8.0%)	5 (5.7%)	<5
Other withdrawal (n=76; 1.8%)	<5	<5	<5
Outreach (n=670; 15.5%)	9 (1.3%)	13 (1.9%)	8 (1.2%)
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	<5	<5	<5
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	<5	<5	<5
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3212; 74.4%)	51 (1.6%)	56 (1.7%)	43 (1.3%)
Not completed (n=1044; 24.2%)	28 (2.7%)	36 (3.4%)	23 (2.2%)
Unknown (n=64; 1.5%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=1446; 33.5%)	19 (1.3%)	19 (1.3%)	16 (1.1%)
Cannabis (n=1255; 29.1%)	17 (1.4%)	18 (1.4%)	16 (1.3%)
Heroin & other opioids (n=688; 15.9%)	25 (3.6%)	31 (4.5%)	15 (2.2%)
Amphetamine & other stimulants (n=725; 16.8%)	8 (1.1%)	14 (1.9%)	14 (1.9%)
Benzodiazepines & other tranquillisers (n=38; 0.9%)	5 (13.2%)	<5	<5
Other (n=91; 2.1%)	<5	6 (6.6%)	<5
Unknown (n=77; 1.8%)	<5	<5	<5

Table 107 shows the proportion of forensic AOD clients diagnosed in the ED with an alcohol-related chronic condition across the three years by AOD treatment characteristics and primary drug of concern on entry into AOD treatment. Overall, there was a reduction in the proportion of clients presenting with alcohol-related chronic conditions over the three years presented.

Table 107 ED presentations for alcohol-related chronic conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related chronic conditions		
	ED 09/10 (%)	ED 10/11 (%)	ED 11/12 (%)
Total (n=4320)	50 (1.2%)	51 (1.2%)	34 (0.8%)
Treatment type			
Counselling (n=3105; 71.9%)	40 (1.3%)	41 (1.3%)	25 (0.8%)
Residential withdrawal (n=88; 2.0%)	<5	<5	<5
Other withdrawal (n=76; 1.8%)	<5	<5	<5
Outreach (n=670; 15.5%)	<5	5 (0.7%)	<5
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	<5	<5	<5
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	<5	<5	<5
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3212; 74.4%)	32 (1.0%)	33 (1.0%)	24 (0.7%)
Not completed (n=1044; 24.2%)	16 (1.5%)	15 (1.4%)	10 (1.0%)
Unknown (n=64; 1.5%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=1446; 33.5%)	16 (1.1%)	20 (1.4%)	16 (1.1%)
Cannabis (n=1255; 29.1%)	13 (1.0%)	12 (1.0%)	10 (0.8%)
Heroin & other opioids (n=688; 15.9%)	15 (2.2%)	13 (1.9%)	6 (0.9%)
Amphetamine & other stimulants (n=725; 16.8%)	<5	<5	<5
Benzodiazepines & other tranquillisers (n=38; 0.9%)	<5	<5	<5
Other (n=91; 2.1%)	<5	<5	<5
Unknown (n=77; 1.8%)	<5	<5	<5

Following AOD treatment, there was a decrease in the proportion of forensic AOD clients presenting to ED with an injury (Table 108). Across all treatment types (except other withdrawal, Aboriginal services and other/unknown treatment types), primary drugs of concern, and treatment termination status categories, there were reductions in proportions of forensic AOD clients diagnosed in the ED with injuries between the year preceding AOD treatment and the year following AOD treatment engagement.

Table 108 ED presentations for injuries by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Injuries		
	ED 09/10 (%)	ED 10/11 (%)	ED 11/12 (%)
Total (n=4320)	518 (12.0%)	492 (11.4%)	426 (9.9%)
Treatment type			
Counselling (n=3105; 71.9%)	373 (12.0%)	347 (11.2%)	280 (9.0%)
Residential withdrawal (n=88; 2.0%)	13 (14.8%)	12 (13.6%)	12 (13.6%)
Other withdrawal (n=76; 1.8%)	11 (14.5%)	8 (10.5%)	12 (15.8%)
Outreach (n=670; 15.5%)	92 (13.7%)	83 (12.4%)	83 (12.4%)
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	13 (11.0%)	19 (16.1%)	17 (14.4%)
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	<5	<5	<5
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	12 (5.5%)	23 (10.6%)	19 (8.7%)
Treatment termination status			
Completed treatment (n=3212; 74.4%)	371 (11.6%)	351 (10.9%)	301 (9.4%)
Not completed (n=1044; 24.2%)	139 (13.3%)	134 (12.8%)	120 (11.5%)
Unknown (n=64; 1.5%)	8 (12.5%)	7 (10.9%)	5 (7.8%)
Primary drug of concern			
Alcohol (n=1446; 33.5%)	179 (12.4%)	168 (11.6%)	148 (10.2%)
Cannabis (n=1255; 29.1%)	145 (11.6%)	150 (12.0%)	130 (10.4%)
Heroin & other opioids (n=688; 15.9%)	77 (11.2%)	73 (10.6%)	51 (7.4%)
Amphetamine & other stimulants (n=725; 16.8%)	88 (12.1%)	74 (10.2%)	75 (10.3%)
Benzodiazepines & other tranquillisers (n=38; 0.9%)	8 (21.1%)	5 (13.2%)	5 (13.2%)
Other (n=91; 2.1%)	15 (16.5%)	17 (18.7%)	11 (12.1%)
Unknown (n=77; 1.8%)	6 (7.8%)	5 (6.5%)	6 (7.8%)

ED presentations for non-AOD-related conditions are shown in Table 109 for the forensic AOD client cohort. There was a small reduction in the proportion of clients presenting with non-AOD-related conditions in the year following AOD treatment, and this reduction was evident for most treatment types. Decreases in presentations were evident across primary drugs of concern, with the exception of amphetamines and other stimulants.

Table 109 ED presentations for non-AOD-related conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Non-AOD-related conditions		
	ED 09/10 (%)	ED 10/11 (%)	ED 11/12 (%)
Total (n=4320)	658 (15.2%)	698 (16.2%)	616 (14.3%)
Treatment type			
Counselling (n=3105; 71.9%)	474 (15.3%)	504 (16.2%)	446 (14.4%)
Residential withdrawal (n=88; 2.0%)	22 (25.0%)	22 (25.0%)	13 (14.8%)
Other withdrawal (n=76; 1.8%)	20 (26.3%)	19 (25.0%)	15 (19.7%)
Outreach (n=670; 15.5%)	96 (14.3%)	98 (14.6%)	90 (13.4%)
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	21 (17.8%)	23 (19.5%)	19 (16.1%)
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	<5	7 (35.0%)	<5
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	21 (9.6%)	22 (10.1%)	27 (12.4%)
Treatment termination status			
Completed treatment (n=3212; 74.4%)	451 (14.0%)	475 (14.8%)	429 (13.4%)
Not completed (n=1044; 24.2%)	192 (18.4%)	209 (20.0%)	176 (16.9%)
Unknown (n=64; 1.5%)	15 (23.4%)	14 (21.9%)	11 (17.2%)
Primary drug of concern			
Alcohol (n=1446; 33.5%)	218 (15.1%)	200 (13.8%)	183 (12.7%)
Cannabis (n=1255; 29.1%)	182 (14.5%)	190 (15.1%)	180 (14.3%)
Heroin & other opioids (n=688; 15.9%)	125 (18.2%)	145 (21.1%)	121 (17.6%)
Amphetamine & other stimulants (n=725; 16.8%)	97 (13.4%)	120 (16.6%)	104 (14.3%)
Benzodiazepines & other tranquillisers (n=38; 0.9%)	10 (26.3%)	12 (31.6%)	6 (15.8%)
Other (n=91; 2.1%)	19 (20.9%)	22 (24.2%)	13 (14.3%)
Unknown (n=77; 1.8%)	7 (9.1%)	9 (11.7%)	9 (11.7%)

Client characteristics and hospitalisations

Table 110 shows sociodemographic characteristics of forensic AOD clients in 2010-2011 (index year) and hospitalisations from 2009/10 to 2011/12. Around one-third of all forensic clients were hospitalised at least once over the three year period examined, with 30% of male clients and 45% of female clients admitted to hospital in any of the three years. Around one-fifth of females (19%) and one-tenth of males had multiple admissions. The likelihood of hospital admission increased with age, as did multiple admissions.

In general, the proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions following AOD treatment engagement (2011/12). This pattern was evident across gender, age, country of birth, employment status, Indigenous status, accommodation status (with the exception of clients who were in custody), and region (Table 111).

Table 110 Sociodemographic characteristics of forensic clients by hospital admission, 2009/10 to 2011/12

	Number of AOD clients					p
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	Admissions in multiple years (%)	
Total (n=4320)	2870 (66.4%)	363 (8.4%)	323 (7.5%)	265 (6.1%)	499 (11.6%)	
Gender						
Male (n=3450; 79.9%)	2380 (69.0%)	289 (8.4%)	240 (7.0%)	202 (5.9%)	339 (9.8%)	<0.001
Female (n=853; 19.7%)	473 (55.5%)	74 (8.7%)	83 (9.7%)	63 (7.4%)	160 (18.8%)	
Age group						
0-14 (n=48; 1.1%)	30 (62.5%)	<5	6 (12.5%)	<5	5 (10.4%)	0.013
15-24 (n=1597; 37.0%)	1104 (69.1%)	135 (8.5%)	98 (6.1%)	106 (6.6%)	154 (9.6%)	
25-34 (n=1391; 32.2%)	936 (67.3%)	112 (8.1%)	106 (7.6%)	76 (5.5%)	161 (11.6%)	
35-44 (n=883; 20.4%)	560 (63.4%)	77 (8.7%)	72 (8.2%)	54 (6.1%)	120 (13.6%)	
45-54 (n=320; 7.4%)	199 (62.2%)	28 (8.8%)	31 (9.7%)	20 (6.3%)	42 (13.1%)	
55-64 (n=63; 1.5%)	29 (46.0%)	6 (9.5%)	10 (15.9%)	<5	14 (22.2%)	
65+ (n=18; 0.4%)	12 (66.7%)	<5	<5	<5	<5	
Country of birth						
Australia (n=3508; 81.2%)	2292 (65.3%)	301 (8.6%)	265 (7.6%)	225 (6.4%)	425 (12.1%)	0.019
Other (n=812; 18.8%)	578 (71.2%)	62 (7.6%)	58 (7.1%)	40 (4.9%)	74 (9.1%)	
Indigenous status						
Aboriginal and/or TSI origin (n=312; 7.2%)	204 (65.4%)	26 (8.3%)	23 (7.4%)	13 (4.2%)	46 (14.7%)	0.007
Neither Aboriginal nor TSI origin (n=3472; 80.4%)	2273 (65.5%)	307 (8.8%)	272 (7.8%)	219 (6.3%)	401 (11.5%)	
Unknown (n=536; 12.4%)	393 (73.3%)	30 (5.6%)	28 (5.2%)	33 (6.2%)	52 (9.7%)	

	Number of AOD clients					
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)	Admissions in multiple years (%)	p
Employment						
Employed (n=1251; 29.0%)	866 (69.2%)	109 (8.7%)	99 (7.9%)	76 (6.1%)	101 (8.1%)	0.003
Unemployed (n=2248; 52.0%)	1455 (64.7%)	193 (8.6%)	168 (7.5%)	131 (5.8%)	301 (13.4%)	
Other (n=471; 10.9%)	307 (65.2%)	32 (6.8%)	37 (7.9%)	34 (7.2%)	61 (13.0%)	
Unknown (n=350; 8.1%)	242 (69.1%)	29 (8.3%)	19 (5.4%)	24 (6.9%)	36 (10.3%)	
Living status						
Lives alone (n=554; 12.8%)	337 (60.8%)	59 (10.6%)	40 (7.2%)	27 (4.9%)	91 (16.4%)	0.002
Lives with family (n=2523; 58.4%)	1711 (67.8%)	198 (7.8%)	201 (8.0%)	146 (5.8%)	267 (10.6%)	
Lives with others (n=797; 18.4%)	515 (64.6%)	70 (8.8%)	54 (6.8%)	61 (7.7%)	97 (12.2%)	
Unknown (n=446; 10.3%)	307 (68.8%)	36 (8.1%)	28 (6.3%)	31 (7.0%)	44 (9.9%)	
Accommodation status						
Private residence (n=3182; 73.7%)	2124 (66.8%)	260 (8.2%)	253 (8.0%)	196 (6.2%)	349 (11.0%)	<0.001
Unstable (n=435; 10.1%)	273 (62.8%)	42 (9.7%)	32 (7.4%)	23 (5.3%)	65 (14.9%)	
In custody (n=47; 1.1%)	24 (51.1%)	<5	<5	9 (19.1%)	7 (14.9%)	
Other (n=127; 2.9%)	77 (60.6%)	8 (6.3%)	7 (5.5%)	6 (4.7%)	29 (22.8%)	
Unknown (n=529; 12.2%)	372 (70.3%)	49 (9.3%)	28 (5.3%)	31 (5.9%)	49 (9.3%)	
Homeless status						
Homeless (n=161; 3.7%)	95 (59.0%)	7 (4.3%)	9 (5.6%)	8 (5.0%)	42 (26.1%)	<0.001
Not homeless (n=3860; 89.4%)	2572 (66.6%)	337 (8.7%)	292 (7.6%)	234 (6.1%)	425 (11.0%)	
Unknown (n=299; 6.9%)	203 (67.9%)	19 (6.4%)	22 (7.4%)	23 (7.7%)	32 (10.7%)	
Region						
Metropolitan Melbourne (n=2670; 61.8%)	1705 (63.9%)	235 (8.8%)	209 (7.8%)	198 (7.4%)	323 (12.1%)	<0.001
Rest of Victoria (n=1315; 30.4%)	941 (71.6%)	95 (7.2%)	88 (6.7%)	47 (3.6%)	144 (11.0%)	
Interstate (n=155; 3.6%)	106 (68.4%)	17 (11.0%)	13 (8.4%)	9 (5.8%)	10 (6.5%)	
Unknown (n=180; 4.2%)	118 (65.6%)	16 (8.9%)	13 (7.2%)	11 (6.1%)	22 (12.2%)	

Table 111 Sociodemographic characteristics of forensic clients by hospital admission in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=4320)	745 (17.2%)	698 (16.2%)	625 (14.5%)
Gender			
Male (n=3450; 79.9%)	544 (15.8%)	503 (14.6%)	438 (12.7%)
Female (n=853; 19.7%)	201 (23.6%)	195 (22.9%)	187 (21.9%)
Age group			
0-14 (n=48; 1.1%)	9 (18.8%)	10 (20.8%)	6 (12.5%)
15-24 (n=1597; 37.0%)	245 (15.3%)	223 (14.0%)	210 (13.1%)
25-34 (n=1391; 32.2%)	238 (17.1%)	223 (16.0%)	199 (14.3%)
35-44 (n=883; 20.4%)	169 (19.1%)	158 (17.9%)	146 (16.5%)
45-54 (n=320; 7.4%)	65 (20.3%)	61 (19.1%)	45 (14.1%)
55-64 (n=63; 1.5%)	16 (25.4%)	21 (33.3%)	14 (22.2%)
65+ (n=18; 0.4%)	<5	<5	5 (27.8%)
Country of birth			
Australia (n=3508; 81.2%)	624 (17.8%)	585 (16.7%)	529 (15.1%)
Other (n=812; 18.8%)	121 (14.9%)	113 (13.9%)	96 (11.8%)
Indigenous status			
Aboriginal and/or TSI origin (n=312; 7.2%)	62 (19.9%)	60 (19.2%)	43 (13.8%)
Neither Aboriginal nor TSI origin (n=3472; 80.4%)	610 (17.6%)	576 (16.6%)	506 (14.6%)
Unknown (n=536; 12.4%)	73 (13.6%)	62 (11.6%)	76 (14.2%)
Employment			
Employed (n=1251; 29.0%)	184 (14.7%)	178 (14.2%)	144 (11.5%)
Unemployed (n=2248; 52.0%)	424 (18.9%)	395 (17.6%)	349 (15.5%)
Other (n=471; 10.9%)	80 (17.0%)	83 (17.6%)	79 (16.8%)
Unknown (n=350; 8.1%)	57 (16.3%)	42 (12.0%)	53 (15.1%)
Living status			
Lives alone (n=554; 12.8%)	124 (22.4%)	107 (19.3%)	98 (17.7%)
Lives with family (n=2523; 58.4%)	409 (16.2%)	401 (15.9%)	330 (13.1%)
Lives with others (n=797; 18.4%)	140 (17.6%)	133 (16.7%)	130 (16.3%)
Unknown (n=446; 10.3%)	72 (16.1%)	57 (12.8%)	67 (15.0%)
Accommodation status			
Private residence (n=3182; 73.7%)	523 (16.4%)	522 (16.4%)	445 (14.0%)
Unstable (n=435; 10.1%)	94 (21.6%)	78 (17.9%)	71 (16.3%)
In custody (n=47; 1.1%)	9 (19.1%)	9 (19.1%)	14 (29.8%)
Other (n=127; 2.9%)	28 (22.0%)	32 (25.2%)	26 (20.5%)
Unknown (n=529; 12.2%)	91 (17.2%)	57 (10.8%)	69 (13.0%)
Homeless status			
Homeless (n=161; 3.7%)	41 (25.5%)	44 (27.3%)	36 (22.4%)
Not homeless (n=3860; 89.4%)	657 (17.0%)	612 (15.9%)	542 (14.0%)
Unknown (n=299; 6.9%)	47 (15.7%)	42 (14.0%)	47 (15.7%)

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Region			
Metropolitan Melbourne (n=2670; 61.8%)	481 (18.0%)	459 (17.2%)	424 (15.9%)
Rest of Victoria (n=1315; 30.4%)	209 (15.9%)	188 (14.3%)	156 (11.9%)
Interstate (n=155; 3.6%)	26 (16.8%)	22 (14.2%)	14 (9.0%)
Unknown (n=180; 4.2%)	29 (16.1%)	29 (16.1%)	31 (17.2%)

Table 112 displays the treatment type and treatment characteristics of forensic AOD clients by the pattern of hospitalisation from 2009/10 to 2011/12. A greater proportion of forensic clients who did not complete their treatment episode were admitted to hospital on multiple occasions over the three years presented when compared with forensic clients who completed treatment.

Table 113 shows treatment type and treatment characteristics for forensic AOD clients by hospitalisation by year to show whether there was a change in hospital utilisation pre- and post-treatment. Proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions post-AOD treatment (2011/12) for all service types (with the exception of Aboriginal services), pharmacotherapy type (except buprenorphine) and treatment termination status reasons.

Table 112 Treatment type and treatment characteristics of forensic clients by admissions, 2009/10 to 2011/12

	Number of AOD clients				Admissions in multiple years (%)	p
	No Admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=4320)	2870 (66.4%)	363 (8.4%)	323 (7.5%)	265 (6.1%)	499 (11.6%)	
Treatment type						
Counselling (n=3105; 71.9%)	2072 (66.7%)	262 (8.4%)	247 (8.0%)	179 (5.8%)	345 (11.1%)	
Residential withdrawal (n=88; 2.0%)	47 (53.4%)	8 (9.1%)	8 (9.1%)	6 (6.8%)	19 (21.6%)	
Other withdrawal (n=76; 1.8%)	44 (57.9%)	11 (14.5%)	<5	<5	15 (19.7%)	
Outreach (n=670; 15.5%)	445 (66.4%)	53 (7.9%)	40 (6.0%)	56 (8.4%)	76 (11.3%)	
Brokerage (n=5; 0.1%)	<5	<5	<5	<5	<5	
Aboriginal services (n=118; 2.7%)	84 (71.2%)	8 (6.8%)	5 (4.2%)	5 (4.2%)	16 (13.6%)	
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5	<5	<5	
Residential rehabilitation (n=10; 0.2%)	>6(>60.0%)	<5	<5	<5	<5	
Supported accommodation (n=20; 0.5%)	11 (55.0%)	<5	<5	<5	<5	
Post withdrawal linkage (n=<5)	<5	<5	<5	<5	<5	
Other/unknown (n=218; 5.0%)	151 (69.3%)	18 (8.3%)	12 (5.5%)	16 (7.3%)	21 (9.6%)	0.092
Pharmacotherapy treatment						
Methadone (n=382; 8.8%)	227 (59.4%)	35 (9.2%)	34 (8.9%)	30 (7.9%)	56 (14.7%)	
Buprenorphine (n=116; 2.7%)	79 (68.1%)	5 (4.3%)	9 (7.8%)	8 (6.9%)	15 (12.9%)	
Naltrexone (n=42; 1.0%)	24 (57.1%)	<5	5 (11.9%)	<5	6 (14.3%)	
Other (n=146; 3.4%)	98 (67.1%)	12 (8.2%)	15 (10.3%)	5 (3.4%)	16 (11.0%)	
None (n=3634; 84.1%)	2442 (67.2%)	308 (8.5%)	260 (7.2%)	218 (6.0%)	406 (11.2%)	0.250
Treatment termination status						
Completed treatment (n=3212; 74.4%)	2155 (67.1%)	270 (8.4%)	248 (7.7%)	204 (6.4%)	335 (10.4%)	
Not completed (n=1044; 24.2%)	674 (64.6%)	90 (8.6%)	68 (6.5%)	59 (5.7%)	153 (14.7%)	
Unknown (n=64; 1.5%)	41 (64.1%)	<5	7 (10.9%)	<5	11 (17.2%)	0.010

Table 113 Treatment type and treatment characteristics of forensic clients by admissions in 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=4320)	745 (17.2%)	698 (16.2%)	625 (14.5%)
Treatment type			
Counselling (n=3105; 71.9%)	524 (16.9%)	510 (16.4%)	430 (13.8%)
Residential withdrawal (n=88; 2.0%)	24 (27.3%)	21 (23.9%)	17 (19.3%)
Other withdrawal (n=76; 1.8%)	23 (30.3%)	14 (18.4%)	13 (17.1%)
Outreach (n=670; 15.5%)	112 (16.7%)	99 (14.8%)	109 (16.3%)
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	18 (15.3%)	16 (13.6%)	18 (15.3%)
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	6 (30.0%)	6 (30.0%)	<5
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	34 (15.6%)	26 (11.9%)	33 (15.1%)
Pharmacotherapy treatment			
Methadone (n=382; 8.8%)	77 (20.2%)	78 (20.4%)	71 (18.6%)
Buprenorphine (n=116; 2.7%)	13 (11.2%)	20 (17.2%)	20 (17.2%)
Naltrexone (n=42; 1.0%)	8 (19.0%)	11 (26.2%)	6 (14.3%)
Other (n=146; 3.4%)	24 (16.4%)	26 (17.8%)	17 (11.6%)
None (n=3634; 84.1%)	623 (17.1%)	563 (15.5%)	511 (14.1%)
Treatment termination status			
Completed treatment (n=3212; 74.4%)	520 (16.2%)	507 (15.8%)	444 (13.8%)
Not completed (n=1044; 24.2%)	212 (20.3%)	179 (17.1%)	171 (16.4%)
Unknown (n=64; 1.5%)	13 (20.3%)	12 (18.8%)	10 (15.6%)

Table 114 shows that the majority of clients were not hospitalised across the three years presented. Between 10% and 16% of all primary drug of concern groupings had multiple hospitalisations.

Those whose route of administration was injection had a higher prevalence of multiple hospitalisations compared with other groups. A lower proportion of multiple hospital admissions was evident for forensic clients with no history of injecting drug use when compared with forensic clients with any injecting history.

Table 115 shows these same drug characteristics for forensic AOD clients by hospitalisation across the three years – the year prior to treatment, year of treatment, and the year post-treatment. Proportions of pre-AOD treatment hospital admissions (2009/10) were higher than the proportions of post-AOD treatment hospital admissions (2011/12).

Table 114 Drug use characteristics of forensic clients by hospital admission, 2009/10 to 2011/12

	Number of AOD clients				Admissions in multiple years (%)	p
	No admission (%)	09/10 only (%)	10/11 only (%)	11/12 only (%)		
Total (n=4320)	2870 (66.4%)	363 (8.4%)	323 (7.5%)	265 (6.1%)	499 (11.6%)	
Primary drug of concern						
Alcohol (n=1446; 33.5%)	967 (66.9%)	123 (8.5%)	98 (6.8%)	89 (6.2%)	169 (11.7%)	
Cannabis (n=1255; 29.1%)	864 (68.8%)	107 (8.5%)	83 (6.6%)	60 (4.8%)	141 (11.2%)	
Heroin & other opioids (n=688; 15.9%)	430 (62.5%)	53 (7.7%)	62 (9.0%)	51 (7.4%)	92 (13.4%)	
Amphetamine & other stimulants (n=725; 16.8%)	484 (66.8%)	60 (8.3%)	59 (8.1%)	51 (7.0%)	71 (9.8%)	
Benzodiazepines & other tranquillisers (n=38; 0.9%)	24 (63.2%)	<5	<5	<5	6 (15.8%)	
Other (n=91; 2.1%)	50 (54.9%)	10 (11.0%)	14 (15.4%)	<5	13 (14.3%)	
Unknown (n=77; 1.8%)	51 (66.2%)	7 (9.1%)	<5	8 (10.4%)	7 (9.1%)	0.089
Method of use						
Ingest (n=1551; 35.9%)	1033 (66.6%)	129 (8.3%)	112 (7.2%)	93 (6.0%)	184 (11.9%)	
Smoke (n=1082; 25.0%)	742 (68.6%)	86 (7.9%)	77 (7.1%)	56 (5.2%)	121 (11.2%)	
Inject (n=649; 15.0%)	402 (61.9%)	46 (7.1%)	63 (9.7%)	50 (7.7%)	88 (13.6%)	
Sniff/inhale (n=289; 6.7%)	184 (63.7%)	34 (11.8%)	29 (10.0%)	16 (5.5%)	26 (9.0%)	
Other/unknown (n=749; 17.3%)	509 (68.0%)	68 (9.1%)	42 (5.6%)	50 (6.7%)	80 (10.7%)	0.022
Polydrug use						
Yes (n=1989; 46.0%)	1301 (65.4%)	159 (8.0%)	158 (7.9%)	124 (6.2%)	247 (12.4%)	
No (n=1355; 31.4%)	913 (67.4%)	123 (9.1%)	100 (7.4%)	74 (5.5%)	145 (10.7%)	
Unknown (n=976; 22.6%)	656 (67.2%)	81 (8.3%)	65 (6.7%)	67 (6.9%)	107 (11.0%)	0.482
Injecting drug use history						
Never injected (n=2105; 48.7%)	1426 (67.7%)	182 (8.6%)	153 (7.3%)	124 (5.9%)	220 (10.5%)	
Within past 12 months (n=939; 21.7%)	581 (61.9%)	71 (7.6%)	83 (8.8%)	69 (7.3%)	135 (14.4%)	
Over 12 months ago (n=315; 7.3%)	210 (66.7%)	27 (8.6%)	20 (6.3%)	16 (5.1%)	42 (13.3%)	
Unknown (n=961; 22.2%)	653 (68.0%)	83 (8.6%)	67 (7.0%)	56 (5.8%)	102 (10.6%)	0.042

Table 115 Drug use characteristics of forensic clients by hospital admission, 2009/10, 2010/11 and 2011/12

	Number of AOD clients		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=4320)	745 (17.2%)	698 (16.2%)	625 (14.5%)
Primary drug of concern			
Alcohol (n=1446; 33.5%)	257 (17.8%)	223 (15.4%)	207 (14.3%)
Cannabis (n=1255; 29.1%)	212 (16.9%)	188 (15.0%)	166 (13.2%)
Heroin & other opioids (n=688; 15.9%)	117 (17.0%)	137 (19.9%)	118 (17.2%)
Amphetamine & other stimulants (n=725; 16.8%)	117 (16.1%)	112 (15.4%)	100 (13.8%)
Benzodiazepines & other tranquillisers (n=38; 0.9%)	8 (21.1%)	5 (13.2%)	8 (21.1%)
Other (n=91; 2.1%)	22 (24.2%)	25 (27.5%)	11 (12.1%)
Unknown (n=77; 1.8%)	12 (15.6%)	8 (10.4%)	15 (19.5%)
Method of use			
Ingest (n=1551; 35.9%)	279 (18.0%)	245 (15.8%)	223 (14.4%)
Smoke (n=1082; 25.0%)	176 (16.3%)	171 (15.8%)	143 (13.2%)
Inject (n=649; 15.0%)	107 (16.5%)	134 (20.6%)	115 (17.7%)
Sniff/inhale (n=289; 6.7%)	56 (19.4%)	49 (17.0%)	32 (11.1%)
Other/unknown (n=749; 17.3%)	127 (17.0%)	99 (13.2%)	112 (15.0%)
Polydrug use			
Yes (n=1989; 46.0%)	351 (17.6%)	339 (17.0%)	297 (14.9%)
No (n=1355; 31.4%)	233 (17.2%)	218 (16.1%)	180 (13.3%)
Unknown (n=976; 22.6%)	161 (16.5%)	141 (14.4%)	148 (15.2%)
Injecting drug use history			
Never injected (n=2105; 48.7%)	349 (16.6%)	327 (15.5%)	275 (13.1%)
Within past 12 months (n=939; 21.7%)	169 (18.0%)	187 (19.9%)	171 (18.2%)
Over 12 months ago (n=315; 7.3%)	61 (19.4%)	51 (16.2%)	46 (14.6%)
Unknown (n=961; 22.2%)	166 (17.3%)	133 (13.8%)	133 (13.8%)

The median number of admissions and median length of stay for forensic AOD clients with treatment engagement in 2010/11 remained stable prior to and following treatment engagement (Table 116).

Table 116 Median number of hospital admissions and length of stay

	09/10 (N=745)	10/11 (N=698)	11/12 (N=625)
Median number of admissions (interquartile range)	1(1,2)	1(1,2)	1(1,2)
Median days of stay (interquartile range)	1.0(1.0, 2.0)	1.0(1.0, 2.0)	1.0(1.0, 2.0)

Table 117 shows the proportions of forensic AOD clients diagnosed during a hospital admission with an alcohol-related acute condition by treatment characteristic and primary drug of concern. Overall, there was a decrease in the proportion of clients admitted to hospital with an alcohol-related acute condition between the year prior to AOD treatment and the year following AOD treatment. Numbers of admissions for alcohol-related acute conditions were low over the three years presented.

Table 117 Admissions for alcohol-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=4320)	29 (0.7%)	36 (0.8%)	25 (0.6%)
Treatment type			
Counselling (n=3105; 71.9%)	21 (0.7%)	24 (0.8%)	12 (0.4%)
Residential withdrawal (n=88; 2.0%)	<5	<5	<5
Other withdrawal (n=76; 1.8%)	<5	<5	<5
Outreach (n=670; 15.5%)	<5	5 (0.7%)	10 (1.5%)
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	<5	<5	<5
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	<5	<5	<5
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3212; 74.4%)	17 (0.5%)	20 (0.6%)	13 (0.4%)
Not completed (n=1044; 24.2%)	12 (1.1%)	16 (1.5%)	12 (1.1%)
Unknown (n=64; 1.5%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=1446; 33.5%)	18 (1.2%)	23 (1.6%)	14 (1.0%)
Cannabis (n=1255; 29.1%)	8 (0.6%)	9 (0.7%)	5 (0.4%)
Heroin & other opioids (n=688; 15.9%)	<5	<5	5 (0.7%)
Amphetamine & other stimulants (n=725; 16.8%)	<5	<5	<5
Benzodiazepines & other tranquillisers (n=38; 0.9%)	<5	<5	<5
Other (n=91; 2.1%)	<5	<5	<5
Unknown (n=77; 1.8%)	<5	<5	<5

Overall, there was an increase in the proportion of other drug-related acute admissions for forensic AOD clients in the year following treatment engagement when compared with admissions in the year preceding treatment engagement (Table 118). Numbers of admissions for other drug-related acute conditions were low over the three years presented.

Table 118 Admissions for other drug-related acute conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Other drug-related acute conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=4320)	44 (1.0%)	71 (1.6%)	55 (1.3%)
Treatment type			
Counselling (n=3105; 71.9%)	32 (1.0%)	48 (1.5%)	40 (1.3%)
Residential withdrawal (n=88; 2.0%)	<5	<5	<5
Other withdrawal (n=76; 1.8%)	<5	<5	<5
Outreach (n=670; 15.5%)	6 (0.9%)	15 (2.2%)	8 (1.2%)
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	<5	<5	<5
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	<5	<5	<5
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3212; 74.4%)	29 (0.9%)	43 (1.3%)	32 (1.0%)
Not completed (n=1044; 24.2%)	15 (1.4%)	27 (2.6%)	23 (2.2%)
Unknown (n=64; 1.5%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=1446; 33.5%)	13 (0.9%)	16 (1.1%)	11 (0.8%)
Cannabis (n=1255; 29.1%)	10 (0.8%)	10 (0.8%)	11 (0.9%)
Heroin & other opioids (n=688; 15.9%)	9 (1.3%)	24 (3.5%)	17 (2.5%)
Amphetamine & other stimulants (n=725; 16.8%)	5 (0.7%)	12 (1.7%)	12 (1.7%)
Benzodiazepines & other tranquillisers (n=38; 0.9%)	<5	<5	<5
Other (n=91; 2.1%)	<5	5 (5.5%)	<5
Unknown (n=77; 1.8%)	<5	<5	<5

Table 119 shows the proportion of forensic AOD clients diagnosed in hospital with an alcohol-related chronic condition across the three years by AOD treatment characteristics and primary drug of concern on entry into AOD treatment. Overall, there was a decrease in proportions of clients admitted with alcohol-related chronic conditions over the three years presented.

Table 119 Admissions for alcohol-related chronic conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Alcohol-related chronic conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=4320)	26 (0.6%)	30 (0.7%)	18 (0.4%)
Treatment type			
Counselling (n=3105; 71.9%)	18 (0.6%)	23 (0.7%)	14 (0.5%)
Residential withdrawal (n=88; 2.0%)	<5	<5	<5
Other withdrawal (n=76; 1.8%)	<5	<5	<5
Outreach (n=670; 15.5%)	<5	<5	<5
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	<5	<5	<5
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	<5	<5	<5
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	<5	<5	<5
Treatment termination status			
Completed treatment (n=3212; 74.4%)	15 (0.5%)	24 (0.7%)	14 (0.4%)
Not completed (n=1044; 24.2%)	10 (1.0%)	6 (0.6%)	<5
Unknown (n=64; 1.5%)	<5	<5	<5
Primary drug of concern			
Alcohol (n=1446; 33.5%)	11 (0.8%)	11 (0.8%)	8 (0.6%)
Cannabis (n=1255; 29.1%)	8 (0.6%)	8 (0.6%)	<5
Heroin & other opioids (n=688; 15.9%)	<5	6 (0.9%)	<5
Amphetamine & other stimulants (n=725; 16.8%)	<5	<5	<5
Benzodiazepines & other tranquillisers (n=38; 0.9%)	<5	<5	<5
Other (n=91; 2.1%)	<5	<5	<5
Unknown (n=77; 1.8%)	<5	<5	<5

Following AOD treatment, there was a decrease in the proportion of forensic clients admitted to hospital with an injury (Table 120). There was a reduction in the proportion of forensic AOD clients diagnosed in hospital with injuries between the year preceding and the year following AOD treatment for most characteristics presented, with an increase in presentations for injuries among forensic clients whose primary drug of concern on entry into treatment was amphetamines and other stimulants.

Table 120 Admissions for injuries by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Injuries		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=4320)	213 (4.9%)	185 (4.3%)	180 (4.2%)
Treatment type			
Counselling (n=3105; 71.9%)	148 (4.8%)	121 (3.9%)	119 (3.8%)
Residential withdrawal (n=88; 2.0%)	5 (5.7%)	<5	9 (10.2%)
Other withdrawal (n=76; 1.8%)	6 (7.9%)	5 (6.6%)	6 (7.9%)
Outreach (n=670; 15.5%)	40 (6.0%)	34 (5.1%)	34 (5.1%)
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	7 (5.9%)	9 (7.6%)	6 (5.1%)
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	<5	<5	<5
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	5 (2.3%)	9 (4.1%)	5 (2.3%)
Treatment termination status			
Completed treatment (n=3212; 74.4%)	141 (4.4%)	134 (4.2%)	134 (4.2%)
Not completed (n=1044; 24.2%)	67 (6.4%)	48 (4.6%)	44 (4.2%)
Unknown (n=64; 1.5%)	5 (7.8%)	<5	<5
Primary drug of concern			
Alcohol (n=1446; 33.5%)	78 (5.4%)	73 (5.0%)	68 (4.7%)
Cannabis (n=1255; 29.1%)	62 (4.9%)	45 (3.6%)	44 (3.5%)
Heroin & other opioids (n=688; 15.9%)	34 (4.9%)	32 (4.7%)	29 (4.2%)
Amphetamine & other stimulants (n=725; 16.8%)	29 (4.0%)	28 (3.9%)	34 (4.7%)
Benzodiazepines & other tranquillisers (n=38; 0.9%)	<5	<5	<5
Other (n=91; 2.1%)	5 (5.5%)	<5	<5
Unknown (n=77; 1.8%)	<5	<5	<5

Hospitalisations for non-AOD-related conditions are shown in Table 121 for the forensic AOD client cohort. There was a reduction in the proportion of clients admitted with non-AOD-related conditions in the year following AOD treatment. While a decrease was evident for most treatment types, an increase was observed for Aboriginal services. Also, while decreases in admissions were evident for clients presenting to AOD services across most primary drugs of concern, there was an increase in the proportion of non-AOD-related hospitalisations where the primary drug of concern was heroin and other opioids. Non-AOD-related condition admissions declined from the year preceding treatment to the year following treatment engagement regardless of treatment termination status.

Table 121 Admissions for non-AOD-related conditions by AOD treatment type, primary drug of concern and treatment termination status, 2009/10, 2010/11 and 2011/12

	Non-AOD-related conditions		
	09/10 (%)	10/11 (%)	11/12 (%)
Total (n=4320)	547 (12.7%)	498 (11.5%)	469 (10.9%)
Treatment type			
Counselling (n=3105; 71.9%)	380 (12.2%)	374 (12.0%)	325 (10.5%)
Residential withdrawal (n=88; 2.0%)	18 (20.5%)	15 (17.0%)	9 (10.2%)
Other withdrawal (n=76; 1.8%)	19 (25.0%)	10 (13.2%)	9 (11.8%)
Outreach (n=670; 15.5%)	80 (11.9%)	62 (9.3%)	78 (11.6%)
Brokerage (n=5; 0.1%)	<5	<5	<5
Aboriginal services (n=118; 2.7%)	12 (10.2%)	9 (7.6%)	15 (12.7%)
Specialist pharmacotherapy (n=6; 0.1%)	<5	<5	<5
Residential rehabilitation (n=10; 0.2%)	<5	<5	<5
Supported accommodation (n=20; 0.5%)	5 (25.0%)	5 (25.0%)	<5
Post withdrawal linkage (n=<5)	<5	<5	<5
Other/unknown (n=218; 5.0%)	30 (13.8%)	18 (8.3%)	28 (12.8%)
Treatment termination status			
Completed treatment (n=3212; 74.4%)	391 (12.2%)	359 (11.2%)	329 (10.2%)
Not completed (n=1044; 24.2%)	147 (14.1%)	129 (12.4%)	131 (12.5%)
Unknown (n=64; 1.5%)	9 (14.1%)	10 (15.6%)	9 (14.1%)
Primary drug of concern			
Alcohol (n=1446; 33.5%)	181 (12.5%)	151 (10.4%)	149 (10.3%)
Cannabis (n=1255; 29.1%)	157 (12.5%)	133 (10.6%)	125 (10.0%)
Heroin & other opioids (n=688; 15.9%)	86 (12.5%)	105 (15.3%)	94 (13.7%)
Amphetamine & other stimulants (n=725; 16.8%)	95 (13.1%)	80 (11.0%)	74 (10.2%)
Benzodiazepines & other tranquillisers (n=38; 0.9%)	<5	5 (13.2%)	5 (13.2%)
Other (n=91; 2.1%)	16 (17.6%)	18 (19.8%)	11 (12.1%)
Unknown (n=77; 1.8%)	8 (10.4%)	6 (7.8%)	11 (14.3%)

Appendix

Supplementary information for linkage component

Measures

ADIS measure definitions (Department of Human Services, 2006):

Gender – gender of the client (49 clients with undetermined gender not included 0.2%)

Indigenous status – Indigenous status of the client

Aboriginal and /or TSI origin: includes Aboriginal but not TSI origin, TSI but not Aboriginal origin and both Aboriginal and TSI origin

Neither Aboriginal nor TSI origin

Unknown

Employment status– employment status of the client at the start of the episode

Employed: includes full time, part time or self-employed

Unemployed: the client is without paid work and is seeking employment

Other: include retired, on sickness benefits, a pensioner, home duties, child not at school, student and other

Living status – living arrangement of the client at the start of episode

Lives alone

Lives with family: include living with spouse/ partner, children, parents, other relatives

Lives with others: include living with housemates, in group household and other

Unknown: include not applicable and not stated/ inadequately described

Accommodation status– accommodation status of the client at the start of episode

Private residence: include private owned/purchasing residence, private rental residence, public rental residence, independent unit within retirement village and private residence rented from Aboriginal community

Unstable: include boarding house/private hotel, short-term crisis, emergency or transitional accommodation facility, supported accommodation or supported living facility not including AOD treatment residence, public place/temporary shelter/homeless

In custody: include prison/remand centre/youth training centre and statutory client accommodation (not prison/remand centre/youth training centre)

Other: include AOD treatment residence, institutional setting (includes residential aged care & psychiatric/mental health community care) and other

Unknown

Homeless status – client was coded as homeless if, and only if, he or she has inadequate access to safe and securing housing

Region – region the client resides in at the start of the episode (derived from client's postcode)

Metropolitan Melbourne: include Western Metro, Northern Metro, Eastern Metropolitan and Southern Metro

Rest of VIC: include Barwon, Grampians, Loddon-Mallee, Hume, Gippsland

Interstate: include New South Wales, Queensland, South Australia, Western Australia, Tasmania, Northern Territory and Australian Capital Territory
Unknown

Service Type– service type for the episode

Counselling, Consultancy and Continuing Care (CCCC): CCCC services provide a range of services and support. These services span - assessment, treatment and consultancy, referral and ongoing case management

Brokerage: A service for exclusive use of clients involved in the criminal justice system. Clients who have received sentences are assessed, a treatment plan developed, and the necessary treatment organised

Outreach: is a service that provides assessment, support and case coordination and support with alcohol and drug issues in the clients own environment. This group also includes the pharmacotherapy outreach service. This service provides support to the client aimed at enhancing the role of the involved medical practitioner to retain clients in treatment. Also the mobile overdose response service is included in this group. This service offers overdoes survivor's information, support and assistance in accessing rehabilitation services

Residential withdrawal: a community residential drug withdrawal service for young people and adults, with an emphasis on short length of stay

Aboriginal services: include community AOD workers and resource workers. The former includes information provision, education activities, development and maintenance of community linkages, referrals, counselling interventions, advice, liaising with programs and advocacy. AOD resource workers offers an alternative to incarceration due to being found alcohol and drug affected in public. Short-term accommodation is provided in a safe environment that aims to meet the needs of the client through advocacy and referral

Residential rehabilitation: residential treatment with 24/7 staff coverage. The average program length is three months. A range of interventions are provided in this time aiming to provide lasting change and re-integration into the community

Specialist pharmacotherapy: while pharmacotherapy is usually administered through a registered medical practitioner, specialist pharmacotherapy is utilised where there are associated complex medical, psychiatric or psychological problems. Specialist pharmacotherapy services operate in association with a general hospital

Supported accommodation: provides short-term support in a safe, drug-free environment

Post withdrawal linkage: a service aimed at ensuring 'linkages' are in place encouraging clients to remain off drugs and relapse prevention. Clients who have undergone drug withdrawal are eligible for this service involving counselling support in their local area

Other withdrawal services include three types of service. (1) home based withdrawal services – provided where withdrawal syndrome is mild to moderate in severity and where the client can be supported by a family member or friend in their home; (2) Outpatient withdrawal services – provided to clients who are experiencing a withdrawal syndrome that can be managed without admission to a residential service; (3) Rural withdrawal Service: this service combined a short hospital stay with a period of home based withdrawal

Other services includes: (1) peer support – provides mutual information and support from individuals with personal; experience of alcohol and drug use; (2) day program – aimed at young people who are either linked or involved in treatment. The service focuses on life skills, vocational and recreational based programs; (3) outdoor therapy – aimed at young

people experiencing or at risk of AOD related difficulties; (4) ante & post natal support – an outpatient service for women who are pregnant who have identified chemical dependency; (5) parent support program – a therapeutic service for families of drug users, spanning information for assistance and rehabilitation; (6) client education –for first time offenders of a small amount of drugs in possession or as part of the cannabis cautioning program

Pharmacotherapy treatment– whether the client is receiving pharmacotherapy at the start of this episode.

Treatment termination status– the reason for termination of treatment

Completed treatment

Not completed: include change in main treatment type, change in the principle drug of concern, referred to another service, ceased without explanation, left against advice, left by mutual agreement, hospitalised/medical condition, requested to leave by service, ceased to participate at expiation, drug court and/or sanctioned by court diversion service, imprisoned, other than drug court sanctioned deceased and other

Unknown

Primary drug of concern – client’s primary drug of concern at start of the episode.

Alcohol

Cannabis

Heroin & other opioids: include heroin, opioid analgesics, methadone, morphine, buprenorphine, codeine

Amphetamine & other stimulants: include amphetamine, ecstasy, cocaine, stimulants and hallucinogens n.f.d. and psychostimulants n.f.d.

Benzodiazepines & other tranquillisers: include benzodiazepines, sedatives / hypnotics and barbiturates

Other: include caffeine, nicotine, LSD, antidepressants, antipsychotics, analgesics n.f.d., anabolic steroids and selected hormones and volatile substances

Unknown

Method of use – client’s method (often described as route) of administration of the primary drug of concern

Polydrug use – whether the client uses more than one drug simultaneously to gain an effect

Injecting drug use history – client’s history of injecting as a method of administering drugs, includes intravenous, intramuscular and subcutaneous forms of injection. Recent use includes use in the past 12 months; previous use includes any history of injecting more than 12 months ago.

VEMD variables

Diagnoses– diagnoses were reported by medical practitioner reflecting disease conditions and circumstances impacting on treatment. One principal diagnosis and up to 2 additional diagnoses can be reported International Classification of Diseases, 10th Revision, Australian Modification (ICD-10-AM) 7th Ed., in accordance with the Australian Coding Standards (ACS)
Length of ED Stay– length of stay of patient in Emergency Department (calculated in minutes) includes ALL departure status classes.

Injury cause– event, circumstances or condition associated with the occurrence of injury, poisoning or adverse effect.

VAED variables

Diagnoses—ICD-10-AM diagnosis codes include one principle diagnosis and up to 39 other diagnosis including: other primary diagnoses, associated conditions, complications and morphologies.

Length of stay— the length of stay is calculated by summing the total patient days in each of the status segments minus leave with and without permission days.