



Statistical Bulletin

Amphetamine Type Stimulants, Western Australia

This publication contains a suite of time series data to identify and understand trends in the abuse of amphetamine type stimulants (ATS) in Western Australia (WA). In addition to WA indicator data, additional relevant information about national patterns of abuse has also been included.

Caution should be exercised in interpretation of the indicator data, as it may have been collected for a specific purpose such as at the point of admission to a treatment program or may involve selective groups of persons not representative of the whole population, such as arrestees.

It may be useful to understand that some of the data in this publication can represent different points on a continuum of levels of seriousness. For instance, counselling calls received by the Alcohol and Drug Information Service (ADIS) may represent the earlier stages of when a drug is becoming more prevalent, whereas admissions to treatment services and mental health facilities may occur some time after the use of a drug has become more widespread and

entrenched so that greater numbers of individuals become dependent or experience other health problems.

This publication consists of two parts. The first part (a summary) examines some of the highlights of the data reviewed. The second part (an appendix) contains tables and figures of time series data which provide more detailed information.

1. Prevalence Indicators

Adult Prevalence (14 years +) - WA

WA results from the 2004 National Drug Strategy Household Survey (NDSHS) show there has been a consistent fall in annual prevalence over the past three surveys - from 6.0% in 1998 to 5.8% in 2001 and 4.5% in 2004. There were statistically significant reductions in both annual and monthly prevalence for 14 to 19 year olds and the monthly rate for all ages (Table 1, page 2).

The 2004 NDSH survey estimated there was in WA a total of 195,339 persons who had ever used amphetamines in their lifetime, a total of 71,505 who had used in the past 12 months and 31,178 who had used in the last month.

The highest annual rate of amphetamine use occurred in the 20 to 29 age group in 2004. Just over one in six (15.4%) used in the past year, having declined from 17.6% in 2001 and 21.4% in 1998.

Annual use of amphetamines in the 14 to 19 age group increased from 3.2% in 1995 to 11.7% in 2001 and then declined to 5.7% in 2004. Annual use by the 30 to 39 age group increased to 5.4% in 2004 from 4.6% in 2001, reflecting a similar increase nationally. See Figure 1, page 2.

Adult Prevalence (14 years +) - Australia

Annual prevalence from the 2004 NDSHS for all types of illicit drugs shows the national rate of 3.2% for amphetamines, with rates above the national average in Western Australia (4.5%), Australian Capital Territory (4.3%), South Australia (4.1%) and Northern Territory (3.9%).

Written by Greg Swensen (June 2007)

In Brief

- Community surveys indicate there have been reductions since 2001 in the prevalence rates of amphetamine use by West Australian adults.
- There were particularly pronounced reductions in the 14 to 19 age group with smaller reductions in 20 to 29 age group.
- In the 30 to 39 age group there has not been a similar decline in prevalence.
- There has been a decline in the use of amphetamines by school students in WA since 2002.
- Gender differences between male and female students have been identified, with higher female than male rates in some age groups.
- Amphetamine related attendances at specialist treatment programs has steadily increased in both number and a proportion of all attendances.
- Drug law enforcement activity has intensified with a growth in the proportion of all seizures involving amphetamines since 1998.

An analysis by the Australian Institute of Health and Welfare from the 1995, 1998, 2001 and 2004 surveys indicates that nationally there were statistically significant differences in prevalence from the 2001 to 2004 surveys for males in the 14 to 19 (from 5.7% to 4.0%), 20 to 29 (from 14.1% to 12.4%) and 30 to 39 (from 4.0% to 5.7%) age groups and for females in the 14 to 19 age group (from 6.8% to 4.9%).

Youth Prevalence (12-17 yrs) - WA

WA data from the 2005 Australian School Students Alcohol and Drugs (ASSAD) national survey found that fewer students reported use of amphetamine in the past year (6.5%) compared with the 2002 survey (10.3%). See Table 2, page 3.

The annual rate for WA for 2005 was somewhat higher than the national rate of 4.2%. Annual prevalence of amphetamine use by WA school students peaked in 1999 for both 12 to 15 year olds and 16 to 17 year olds - with declines occurring in both the 2002 and 2005 surveys (Figure 2, page 3).

In the 2005 survey students in WA only were asked about the use of dexamphetamine and other prescribed amphetamine like substances. Overall, 5.5% of school students reported using these substances in the last year. It is likely that use of non prescribed amphetamine like substances accounted for a significant amount of overall amphetamine use by school students.

Youth Prevalence (12-17 yrs) - Australia

Trends in age and sex specific rates for both WA and all Australian school students in 2005 found there were similar rates for males for most ages. However, higher rates were reported for 16 year olds in WA compared to national rates (11.5% vs 7.1%).

Whilst there were similar rates for females for WA and nationally in the youngest age groups, in WA rates were well above the national average in the four older age groups - 6.6% vs 3.1% (14 year olds), 11.7% vs 4.1% (15 year olds), 13.1% vs 5.8% (16 year olds) and 7.5% vs 4.6% (17 year olds).

Table 1
Estimated adult prevalence (%) of amphetamine use & number of users
age group & recency of use, WA, 2004

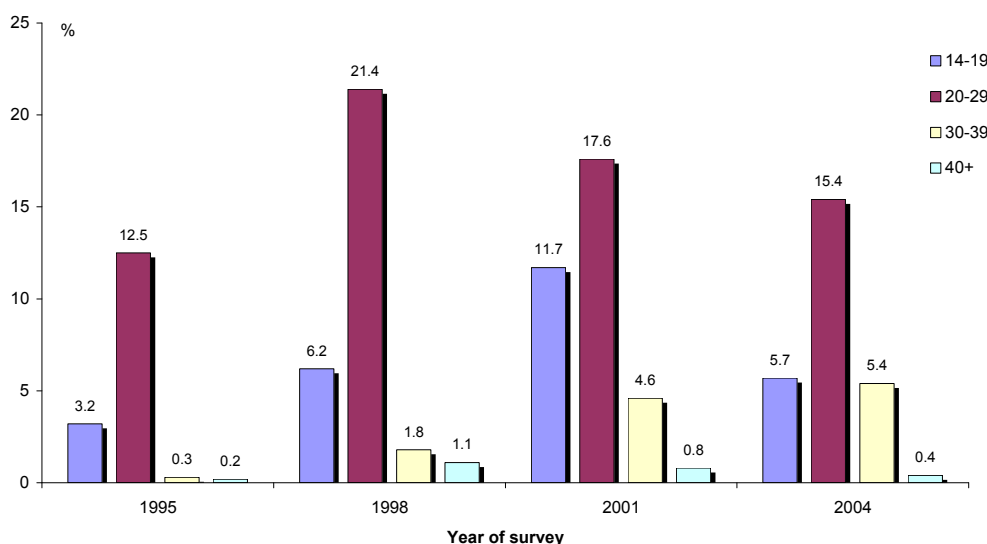
	Lifetime		Last 12 months		#	Last month		#
	n	%	n	%		n	%	
14-19	18,204	10.5	9,882	5.7	#	4,681	2.7	#
20-29	82,044	29.9	42,257	15.4		19,756	7.2	
30-39	60,321	20.5	15,889	5.4		5,002	1.7	
40+	34,770	4.0	3,477	0.4		1,739	0.2	
Total	195,339	12.2	71,505	4.5		31,178	1.9	#

Source: 2004 National Drug Strategy Household Survey, Western Australian Results. Perth, Epidemiology Branch, Department of Health & Drug and Alcohol Office, 2006 (Table 43).

Note: Rates shaded to indicate relative standard error greater than 50%.

2004 result significantly different from 2001 estimate at $p < 0.05$.

Figure 1
Trends in adult annual prevalence (%) of amphetamine use by
year of survey & age group, WA, 1995 - 2004



2. ADIS Telephone Calls

Detailed information is available from counselling calls received by ADIS for different types of drug, including amphetamines, since 1986. This data shows a series of cyclical variations in quarterly psychostimulant related counselling calls received by ADIS up to the March quarter 2007.

A detailed examination of the period from 1998 to the present in Figure 3 (page 4) shows that the quarterly number of amphetamine related counselling calls peaked in the latter part of 2000. After the 2000 peak, calls declined up to the end of 2002, however there has been some recent growth in quarterly calls from early 2003 up to the present.

Compared to the fall off in ADIS counselling calls after 2000, there was a pattern of steady growth in episodes at specialist service providers where amphetamines were the principal drug of concern. The number of quarterly episodes has steadily increased since early 1999 up to the present (Figure 3, page 4).

This divergence in trends between ADIS calls and attendances at treatment programs can be partly attributed to an increase in the total number of funded treatment services

Figure 2
Annual prevalence (%) of amphetamine use by WA school students by age group, 1996 - 2005

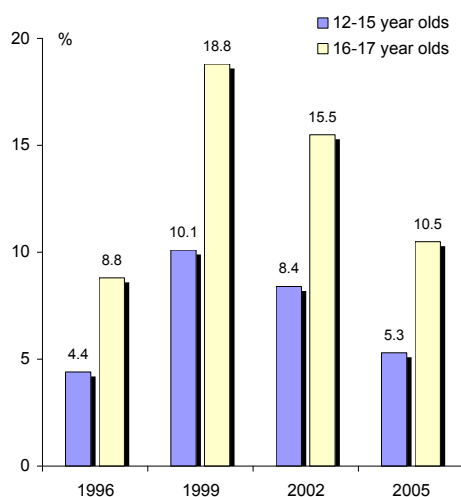


Table 2
Annual prevalence (%) of amphetamine use by WA school students by age group, 1996 - 2005

	Age group		
	12 - 15 yrs	16 - 17 yrs	12 - 17 yrs
1996	4.4	8.8	5.4
1999	10.1	18.8	11.9
2002	8.4	15.5	10.3
2005	5.3	10.5	6.5

which provided greater capacity for both outpatient and inpatient services. There is also a lag in admissions because of the time required to develop the necessary infrastructure of services to respond to increased amphetamine related problems in the community.

3. Treatment Services

There has been a marked growth in the number of quarterly episodes concerning amphetamines from the March quarter 1999 (208 episodes) to the December quarter 2006 (1,018 episodes), a nearly five fold increase (Figure 3, page 4).

Overall, the total annual number of episodes where amphetamines was the principal drug problem increased by 325%, from 942 in 1999 to 4,006 in 2006. Amphetamines have become more frequent as a problem being managed by treatment services in WA, rising from one in 10 (9.6%) in 1999 to one in five (22.3%) of the total number of episodes for all types of drug problems at all specialist service providers in 2006.

The growth in utilisation of treatment services in this State attributable to amphetamines is well above the national average. In the 2004/2005 report of the National Minimum Data Set (NMDS) the proportion of all episodes due to amphetamines was 26.3% in WA compared to 10.9% nationally. (*Note: The draft 2005/2006 NMDS report has a lower figure of 22.5% for WA.*)

There has also been a change in the age composition of the population presenting with an amphetamine related problems up to the end of 2006. Whereas from 1999 to the end of 2001 the most frequent episodes involved the 15 to 24 age group, since the March quarter 2002 the greatest number of episodes has involved the 25 to 34 age group.

Another notable trend from 1999 up to the present has been the steady increase in episodes involving the 35 to 44 age group, whereas there have been relatively few episodes involving the 45 years and older age group.

4. Mental Disorders

Trends in stimulant related hospital admissions related to mental disorders due to the abuse of stimulants for the period from 1999/2000 to 2005/2006 show that stimulant related disorders typically constituted about one in 10 of all mental and behavioural disorders due to psychoactive drug use, except for 2001/2002 and 2003/2004 when such episodes made up about one in eight of all drug related episodes.

Overall, hospitalisation due to stimulant related mental disorders increased from 1999/2000 to 2005/2006, from 1.1% to 1.7% of all separations for all types of mental disorders. There was a similar low proportion of stimulant

related mental disorders for treatment at outpatient public mental health services in WA - 1.5% of individuals attending due to stimulants in 2005/2006, down from a rate of 1.9% in 2001/2002.

Over the six year period from 2001 to 2006 there was a consistent pattern of about one in four individuals who were treated because of a drug related mental disorder being for stimulants.

A review of both inpatient and outpatient data to determine trends in these two treatment modalities, found that whilst there were relatively few inpatient episodes (about 100 per quarter), the number of quarterly outpatient episodes have steadily increased, from about 50 per quarter in 2002 to around 200 per quarter by the end of 2006.

A feature of both inpatient and outpatient episodes is that the most frequent type of admission involved the psychotic disorder sub group, whereas episodes involving other stimulant diagnostic sub groups remained relatively constant over the period.

The trend in outpatient episodes due to stimulant related mental disorders is illustrated in Figure 4 (page 5). This indicates, except for a small drop in the December quarter 2003, that quarterly episodes steadily grew throughout the period from mid 1999 to 2006.

Another feature of this data is that typically a greater proportion of all episodes have involved males as compared to females, except for a short period in late 2003 and early 2004.

5. Law Enforcement

Seizures

Overall, the annual number of amphetamine seizures in WA increased by 221%, from 1998 (1,060 seizures) to 2006 (3,404 seizures).

Over the nine year period the proportion of all quarterly drug seizures by WA police that have involved amphetamines steadily grew from the March quarter 1998 to the March quarter 2007, from 3.2% to 24.2%.

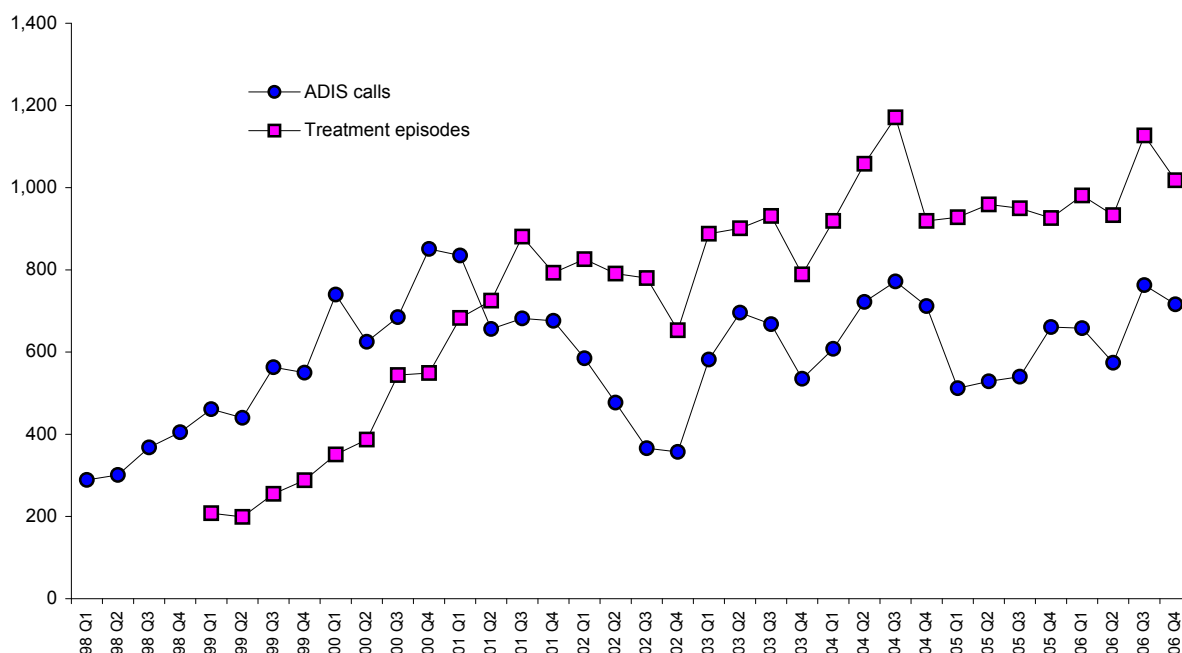
The trends in quarterly seizures involving amphetamines and other selected illicit drugs are likely to reflect shifts in the availability of some of the major drugs of concern (Figure 5, page 6).

For instance, this data may indicate there may be an inverse relationship between the operation of some illicit drug markets, as whilst the number of heroin and cannabis seizures has dropped since 1998, there has been a growth in the number of seizures involving amphetamines and other designer drugs, particularly since 2002.

DUMA Data

Drug Use Monitoring of Arrestees (DUMA) is a national project under the auspices of the Australian Institute of Criminology in conjunction with the WA Police Service and other Australian police services. The WA site provides quarterly patterns of drug use by persons arrested and detained at the East Perth lockup from 1999 to the present.

Figure 3
Quarterly amphetaminated related treatment episodes & ADIS counselling calls
WA, March quarter 1998 - December quarter 2006



There are a number of trends from DUMA urinalysis data concerning opiates and amphetamines. One trend has been that the detection of opiates has steadily declined in the East Perth lockup sample, from a peak of 30.0% in the March quarter 2000 to about 10% of arrestees since the beginning of 2006.

Another trend is the detection of amphetamines increased from one in eight (11.8%) in the March quarter 1999 to a peak of nearly half (48.9%) of all arrestees in the September quarter 2001.

After this peak the proportion of all arrestees at East Perth lockup who had used amphetamines just prior to their arrest declined to 29.0% in the September quarter 2005. Since late 2005 detected amphetamine use by arrestees has increased, with just under half (45.9%) of all arrestees confirmed positive in the March quarter 2007.

Purity analysis

A study was conducted on 676 specimens of methylamphetamine that were analysed by the Chemistry Centre in 2002. It has been noted in a number of reports that the majority of amphetamine type stimulant (ATS) seizures in WA and elsewhere in Australia involve methylamphetamine rather than amphetamine. The term 'methylamphetamine' is used to reflect the correct form of amphetamine that is available and detected by the police.

The average methylamphetamine purity of samples of ATS seized varied markedly depending on the form in which the drug was available, ranging from 1.9% for tablets, 6.3% for liquid and 23.3% for powder.

Overall, just under two thirds of these samples had purity levels of less than 20%, with 219 (32.4%) of samples having a purity level of less than 10% and 143 samples (21.2%) having a purity level between 10.0% and 19.9%.

The study also provides information about the presence of other substances in the 676 methylamphetamine samples. For instance, it was found ephedrine/pseudoephedrine was present in just under half of methylamphetamine analysed, being detected in 295 (43.6%) of samples and there were low frequencies of phenyl-2-propanone (a common by product and precursor to the methylamphetamine stage), amphetamine, caffeine and MDMA, being detected in 25 (3.7%), 28 (4.1%), 22 (3.3%) and 6 (0.9%) of all samples respectively.

There were 23 (3.4%) samples in which a number of other drugs were detected – paracetamol (6 samples), ketamine (4 samples), triplodine (3 samples), nicotinamide (3 samples), lignocaine (2 samples) and 1 sample where cocaine, doxylamine and codeine were detected.

Figure 4
Quarterly stimulant related psychiatric outpatient treatment episodes by sex
WA, September quarter 2000 - December quarter 2006

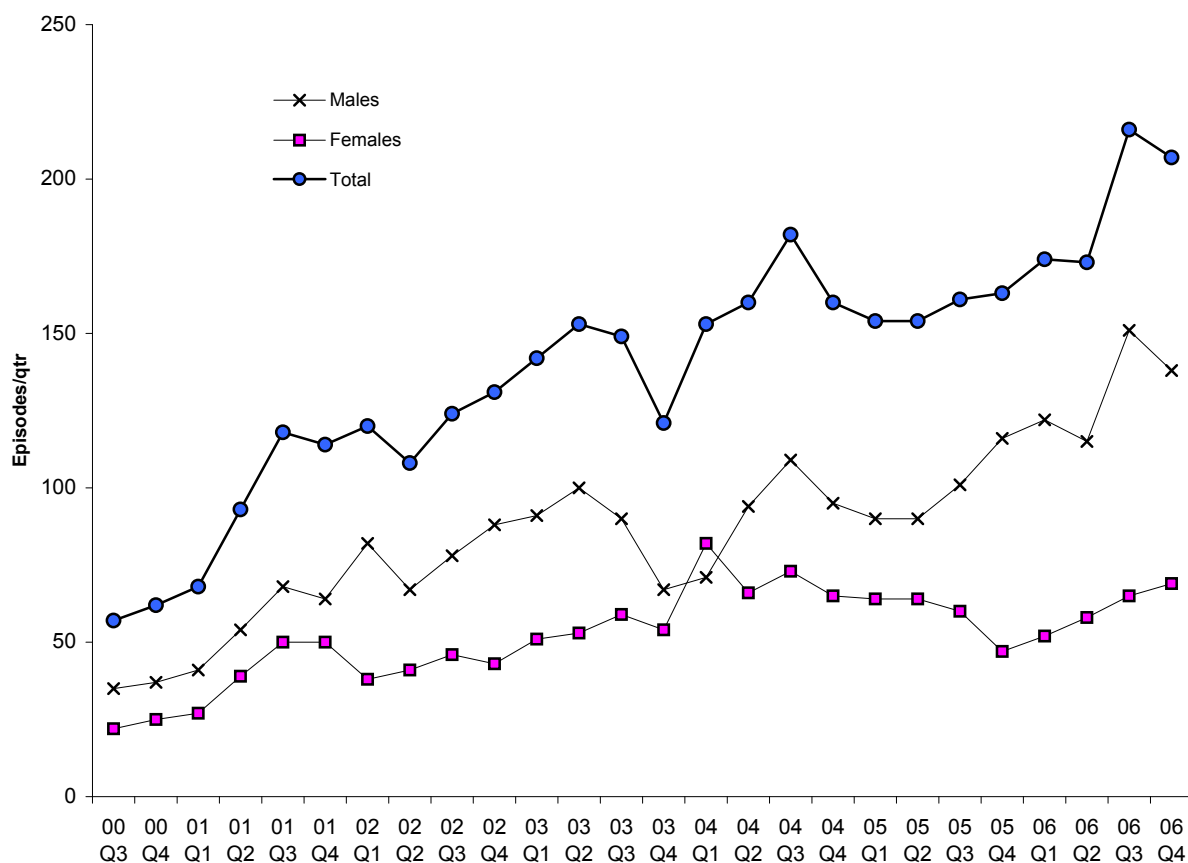
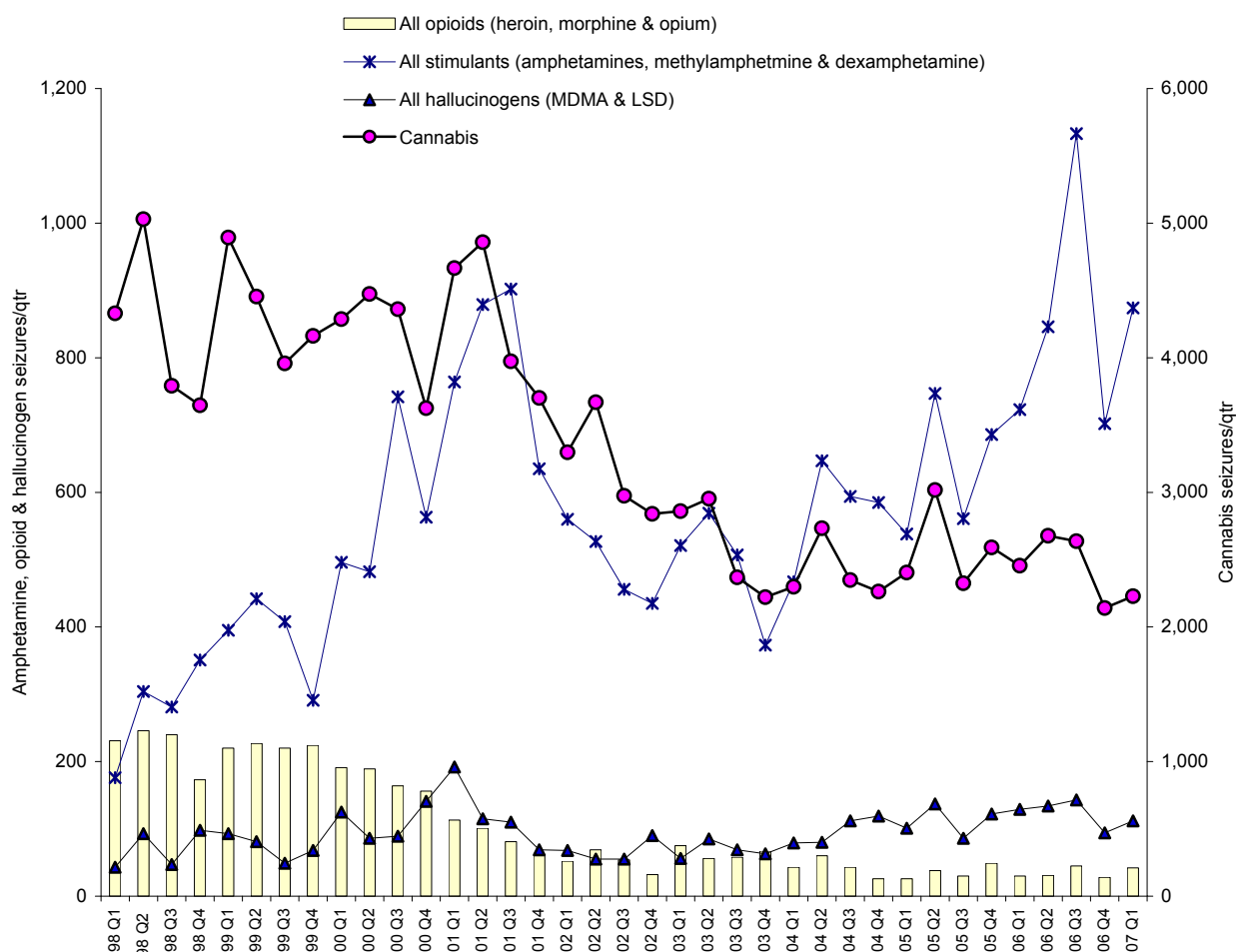


Figure 5
Quarterly seizures of stimulants & selected drugs, March quarter 1998 - March quarter 2007

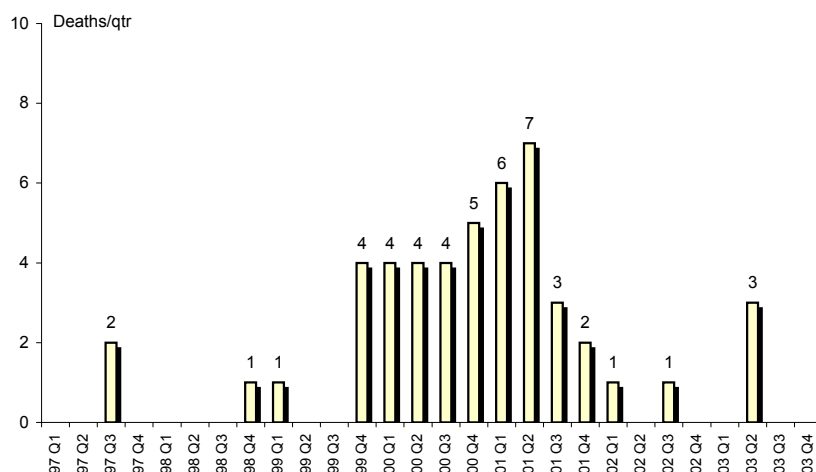


6. Mortality

A special analysis to identify those deaths in WA between 1997 and 2003 that involved designer drugs, such as amphetamine, methylamphetamine, PMA (paramethoxyamphetamine), ecstasy or MDMA (meth-

ylenedioxymetamphetamine), MDA (3,4-methylenedioxymethylamphetamine) and ketamine. There was a total of 48 designer drug related deaths most of which occurred between late 1999 and mid 2001. Since 2002 there has been very few quarterly deaths attributable to either external causes or medical conditions involving designer drugs (Figure 6).

Figure 6
Quarterly methylamphetamine & other designer drug related deaths, WA, 1997 - 2003



Statistical Bulletin

Amphetamine Type Stimulants: Data Tables & Figures

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Explanatory Notes

What are amphetamines?

The term 'amphetamine' was originally used to refer to the sulphate form of amphetamine which was most commonly available in the 1980s throughout Australia. Strict legislative controls on the availability of the main precursor chemicals in WA and the other Australian jurisdictions were implemented in the early 1990s.

Accordingly, the clandestine laboratories which manufacture illicit amphetamine developed different processes for 'cooking' amphetamine. This meant that during the early 1990s the proportion of amphetamine type stimulants (ATS), such as the methylamphetamine form increased, so

that over recent years the market has become dominated by this form instead of the sulphate form.

Amphetamine is synthetically derived from betaphenethylamine to form a substance similar in structure and effect to the naturally occurring stimulant ephedrine and the hormone adrenalin. As the major source of pseudoephedrine is from tablets that are available as Schedule 3 over the counter drugs, measures implemented in recent years restrict the sale of these products from pharmacies.

The synthesis of amphetamine is a complex series of stages involving the transformation from an oily base, to a putty like substance and then conversion into a crystalline powder which may be white, yellow or brown. As end users of 'amphetamines' are not able to readily distinguish whether the synthesis has reached the methylamphetamine stage, users are likely to be using amphetamine in the mistaken belief that it is methylamphetamine.

What are methylamphetamines?

Methylamphetamine (also known as methamphetamine) is usually produced as a powder, though it can be a purple/red liquid. Crystalline methylamphetamine hydrochloride, a purified form of methylamphetamine is often called 'ice' and is a transparent rock-like crystal with a clear hue which dissolves in water.

Many of the street names, such as ice, 'crystal', 'meth' and 'speed', are used interchangeably. Paste or 'base' methylamphetamine is generally a lower purity form of the drug and usually found as an orange/brown putty-like substance or gel containing little dilutant or cutting agent. (The base would need to be further refined to produce the higher purity crystalline form.)

The Australian illicit drug report 2001-02 suggests that the primary method of producing ATS in Australia is from pseudoephedrine, using the hypophosphorous acid method. Other methods also noted in the report are the hydriodic acid/red phosphorous method, the phenyl-2-propanone method and the 'Nazi' method.

The 'Nazi' method is believed to be the preferred means of manufacture in WA, involving dissolved metal reduction. This process results in an extremely hazardous reduction as metals such as sodium and lithium react violently with water, creating heat and releasing hydrogen gas and therefore has the potential to cause explosions. The process also releases large quantities of ammonia gas which is very toxic to those present and those in the near vicinity.

1. ADIS Telephone Calls: 1986 - 2007

Table A1-1

Quarterly psychostimulant related counselling telephone calls,
September quarter 1986 - March quarter 2007

Year	Quarter	No. calls	Year	Quarter	No. calls
1986	March	-	1997	March	229
	June	-		June	186
	September	36		September	237
	December	32		December	276
	Total	68		Total	928
1987	March	36	1998	March	289
	June	41		June	301
	September	34		September	368
	December	83		December	405
	Total	194		Total	1,363
1988	March	70	1999	March	461
	June	42		June	440
	September	115		September	563
	December	123		December	550
	Total	350		Total	2,014
1989	March	83	2000	March	740
	June	164		June	625
	September	131		September	685
	December	136		December	851
	Total	514		Total	2,901
1990	March	175	2001	March	835
	June	234		June	656
	September	293		September	682
	December	327		December	676
	Total	1,029		Total	2,849
1991	March	332	2002	March	585
	June	304		June	477
	September	453		September	366
	December	359		December	357
	Total	1,448		Total	1,785
1992	March	335	2003	March	582
	June	393		June	696
	September	410		September	668
	December	460		December	535
	Total	1,598		Total	2,481
1993	March	463	2004	March	608
	June	503		June	722
	September	501		September	772
	December	410		December	712
	Total	1,877		Total	2,814
1994	March	451	2005	March	512
	June	550		June	529
	September	527		September	540
	December	517		December	661
	Total	2,045		Total	2,242
1995	March	711	2006	March	658
	June	481		June	574
	September	383		September	763
	December	273		December	716
	Total	1,848		Total	2,711
1996	March	215	2007	March	650
	June	177			
	September	191			
	December	270			
	Total	853			

Source: Alcohol & Drug Information
Service, Drug & Alcohol Office

Figure A1-1
Quarterly psychostimulant related counselling telephone calls
June quarter 1986 - March quarter 2007

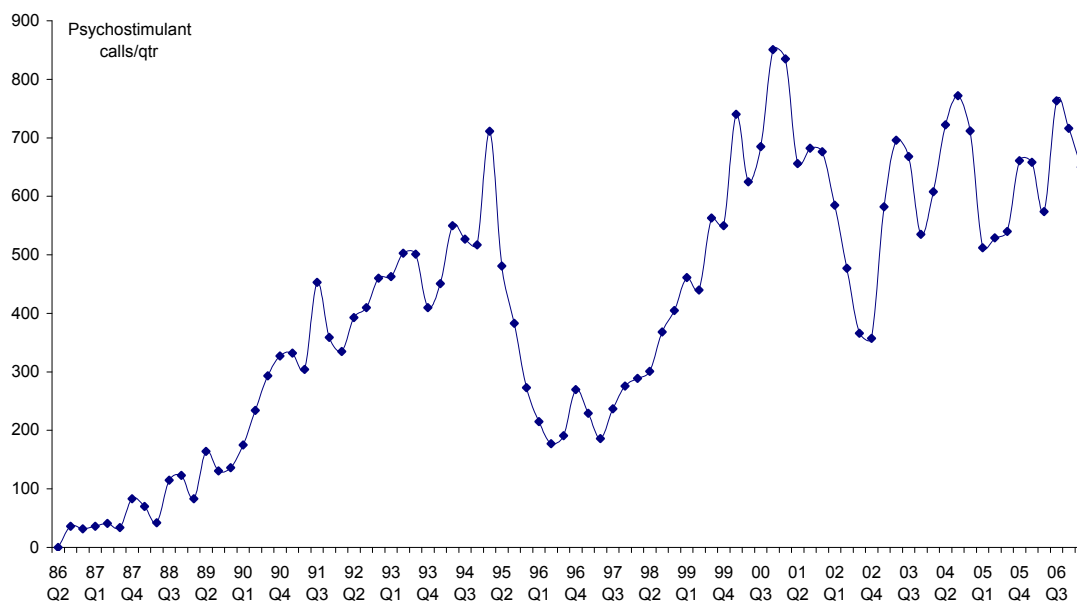
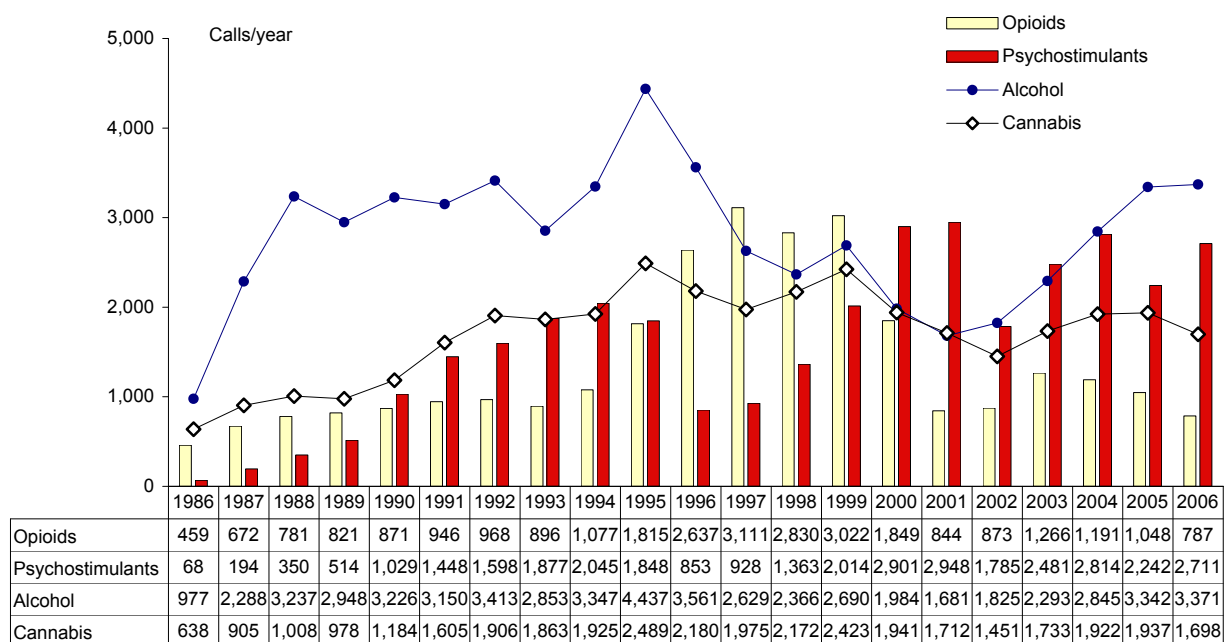


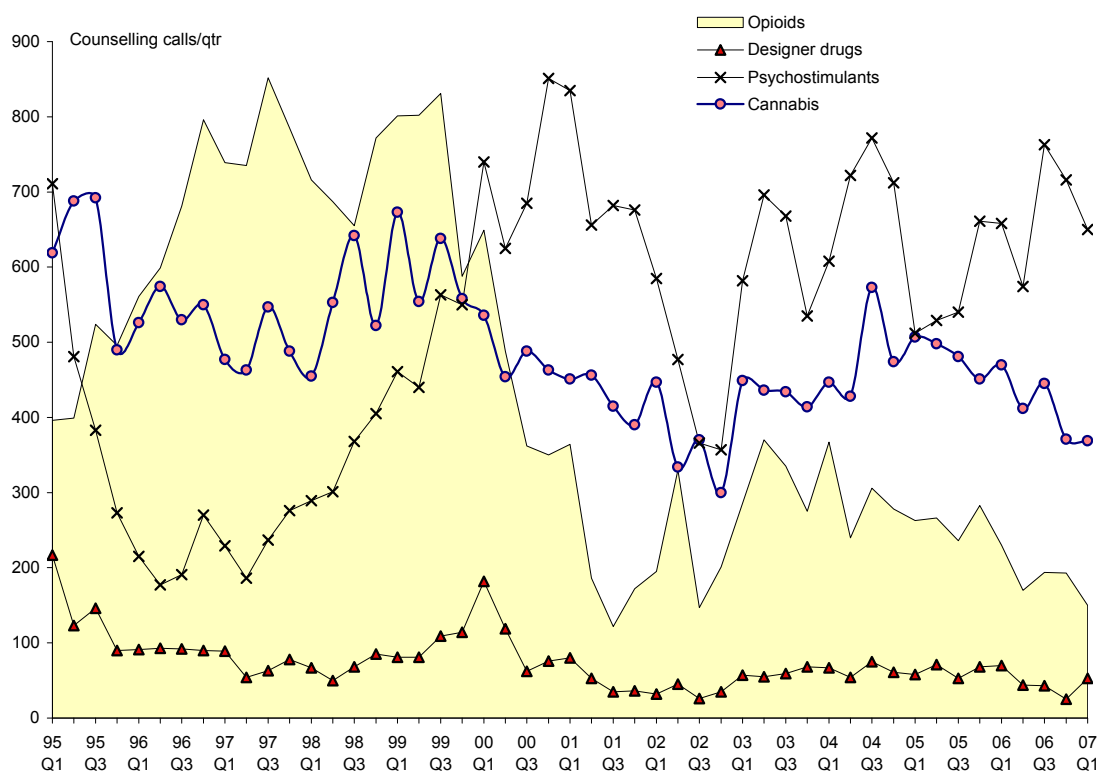
Figure A1-2
Annual counselling calls - alcohol, cannabis, opioids & psychostimulants, 1986 - 2006



Source: Alcohol & Drug Information Service, Drug & Alcohol Office

Figure A1-3

Quarterly illicit drug related counselling calls, March quarter 1995 - March quarter 2007



2. Prevalence Indicators

2.1 Adult Prevalence, WA: 1995 - 2004

Table A2-1

Lifetime prevalence (%) of amphetamine use by sex & age group, WA, 1995 - 2004

	1995	1998	2001	2004
Males				
14-19	4.8	8.0	14.6	12.2
20-29	30.1	43.1	30.2	33.8
30-39	13.2	18.2	20.5	25.9
40+	4.2	4.7	4.8	5.7
Total	11.0	15.9	13.2	15.1
Females				
14-19	8.4	5.8	12.8	8.7
20-29	21.1	15.8	27.4	25.8
30-39	3.0	5.3	11.6	15.1
40+	0.9	1.1	3.2	2.3
Total	6.1	5.4	10.3	9.3
Persons				
14-19	6.5	6.9	13.8	10.5
20-29	25.4	29.7	28.8	29.9
30-39	8.2	11.7	15.6	20.5
40+	2.5	2.8	4.0	4.0
Total	8.6	10.6	11.8	12.2

Table A2-2

Annual prevalence (%) of amphetamine use by sex & age group, WA, 1995 - 2004

	1995	1998	2001	2004
Males				
14-19	4.8	6.6	11.6	5.4
20-29	14.7	36.0	20.1	18.9
30-39	-	3.0	5.3	6.5
40+	-	2.3	1.1	0.6
Total	3.2	10.1	6.5	5.5
Females				
14-19	1.4	5.8	11.8	6.0
20-29	10.6	6.2	15.2	11.8
30-39	0.7	0.6	3.9	4.3
40+	0.3	-	0.4	0.2
Total	2.6	2.0	5.0	3.5
Persons				
14-19	3.2	6.2	11.7	5.7
20-29	12.5	21.4	17.6	15.4
30-39	0.3	1.8	4.6	5.4
40+	0.2	1.1	0.8	0.4
Total	2.9	6.0	5.8	4.5

Table A2-3

Monthly prevalence (%) of amphetamine use by sex & age group, WA, 1995 - 2004

	1995	1998	2001	2004
Males				
14-19	-	2.0	8.5	3.6
20-29	1.7	4.0	10.4	9.3
30-39	-	0.4	2.4	1.1
40+	-	-	0.9	0.2
Total	0.3	1.2	3.8	2.4
Females				
14-19	-	2.7	6.9	1.7
20-29	-	1.9	6.3	5.1
30-39	-	0.6	2.5	2.3
40+	-	-	0.4	0.1
Total	-	0.8	2.6	1.5
Persons				
14-19	-	2.4	7.7	2.7
20-29	0.8	3.0	8.4	7.2
30-39	-	0.5	2.5	1.7
40+	-	-	0.6	0.2
Total	0.1	1.0	3.2	1.9

Source: 1998 National Drug Strategy Household Survey. Western Australia results. Canberra, Australian Institute of Health & Welfare, 2000; 2001 National Drug Strategy Household Survey. First results for Western Australia. Perth, Drug & Alcohol Office, 2003; 2004 National Drug Strategy Household Survey, Western Australian Results. Perth, Epidemiology Branch, Department of Health & Drug and Alcohol Office, 2006

Note: Rates shaded to indicate relative standard error greater than 50%.
2004 result significantly different from 2001 estimate at $p < 0.05$.

Figure A2-1
Trends in lifetime prevalence (%) of amphetamine use by age group
WA, 1995 - 2004

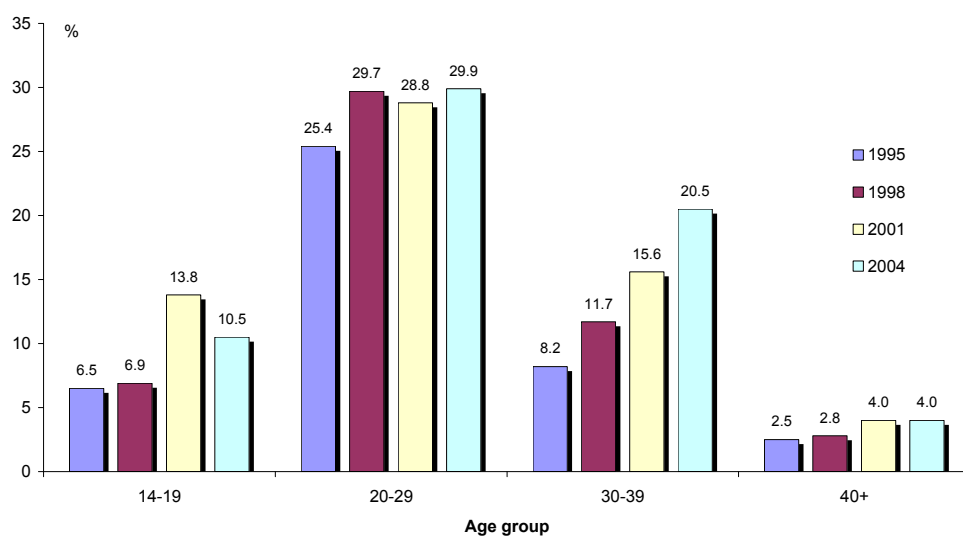


Figure A2-2
Trends in monthly prevalence (%) of amphetamine use by age group
WA, 1995 - 2004

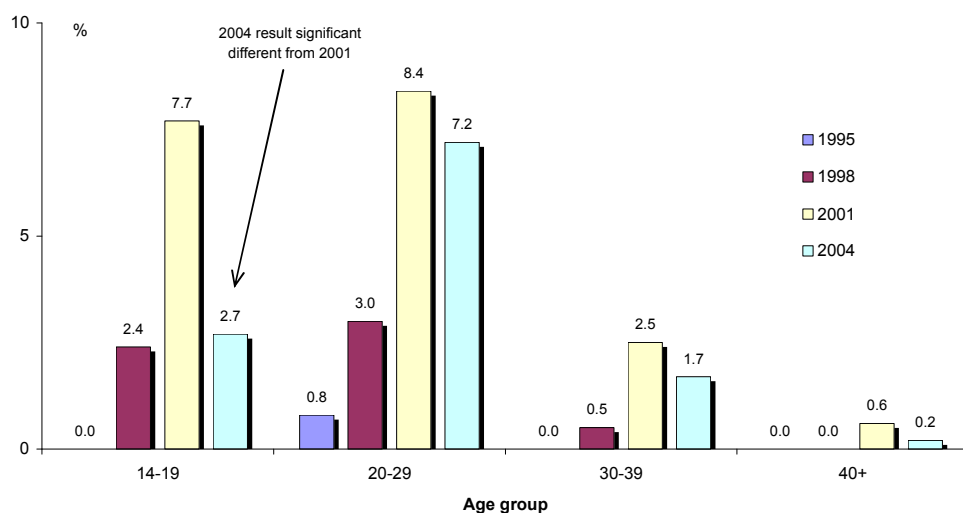


Figure A2-3
Lifetime prevalence (%) of amphetamine use by sex and age group, WA, 2004

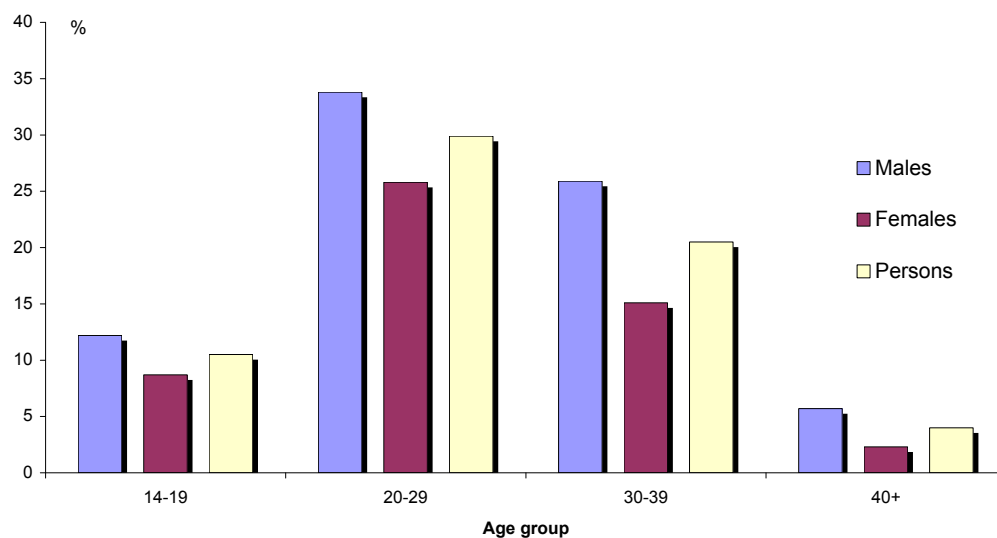


Figure A2-4
Annual prevalence (%) of amphetamine use by sex and age group, WA, 2004

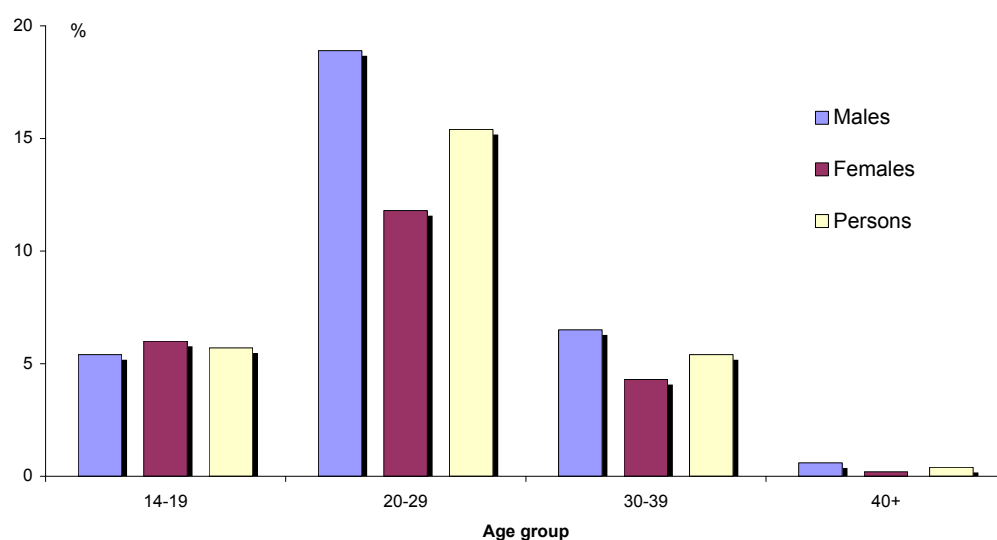


Figure A2-5
Monthly prevalence (%) of amphetamine use by sex and age group, WA, 2004

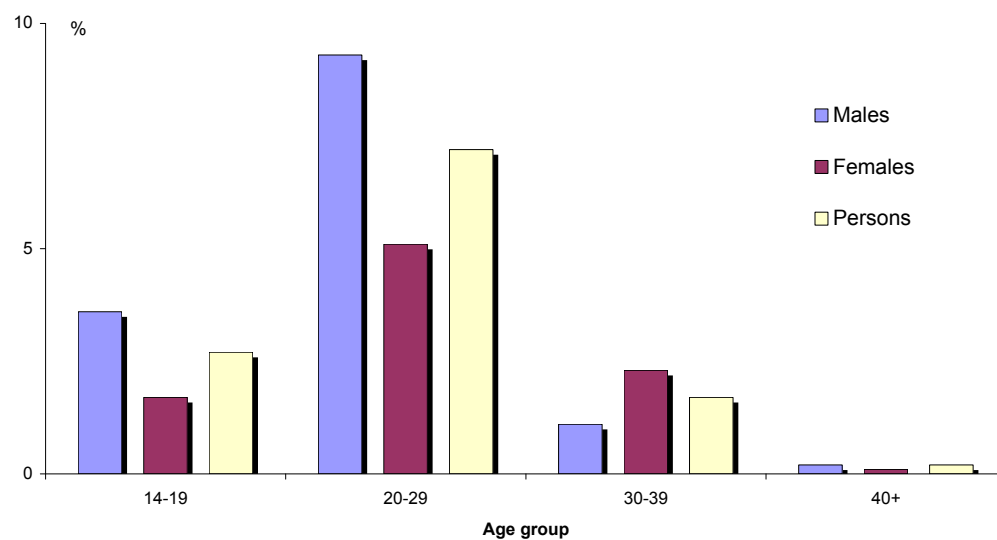


Figure A2-6
Trends in lifetime prevalence (%) of amphetamine use, WA, 1995 - 2004

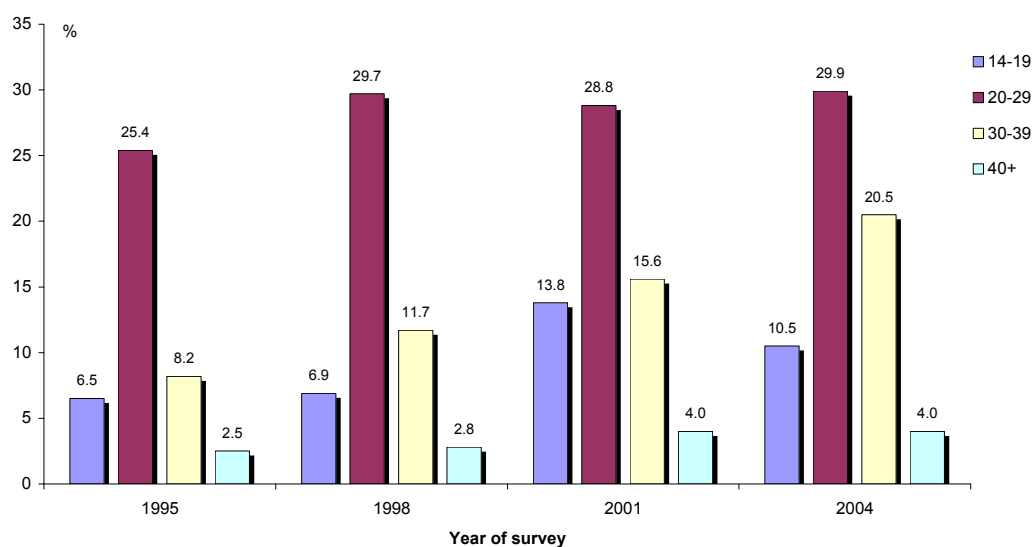


Figure A2-7
Trends in monthly prevalence (%) of amphetamine use, WA, 1995 - 2004

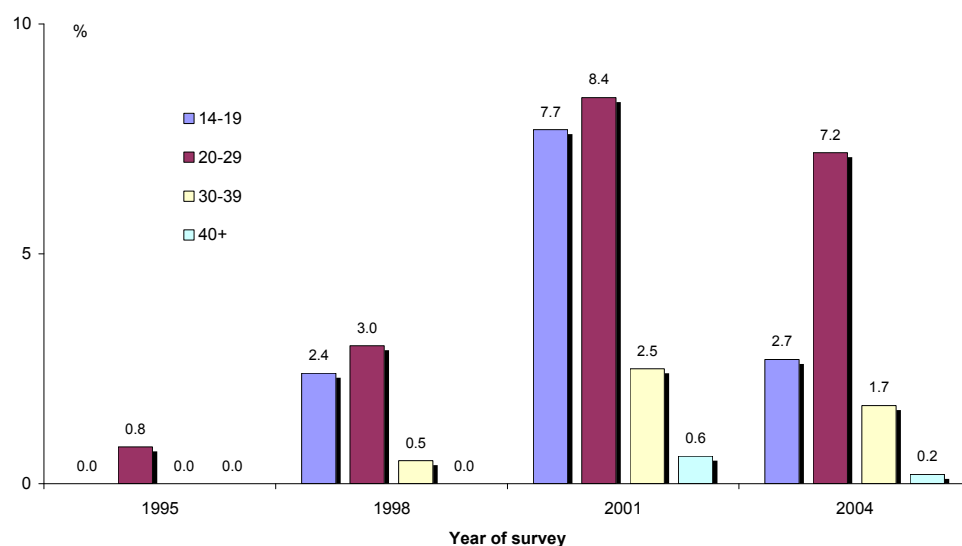


Figure A2-8
Trends in adult annual prevalence (%) of amphetamine use by age group & year of survey, WA, 1995 - 2004

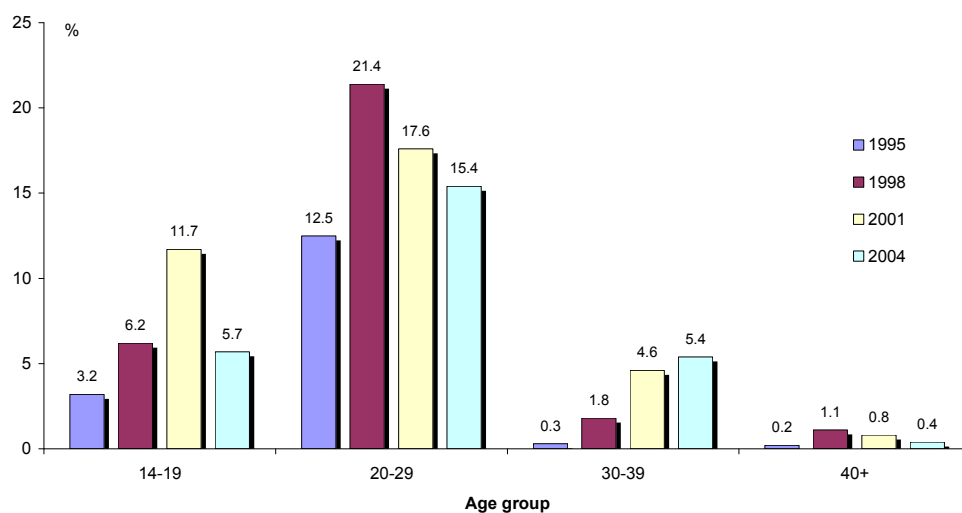


Table A2-4

Estimated prevalence (%) of amphetamine use & number of users by sex, age group & recency of use, WA, 2004

	Lifetime		Last 12 months		Last month	
	n	%	n	%	n	%
Males						
14-19	10,382	12.2	4,795	5.4	3,196	3.6
20-29	47,299	33.8	26,448	18.9	13,014	9.3
30-39	38,234	25.9	9,595	6.5	1,624	1.1
40+	24,289	5.7	2,557	0.6	852	0.2
Total	120,654	15.1	43,395	5.5	18,687	2.4
Females						
14-19	7,359	8.7	5,075	6.0	1,438	1.7
20-29	34,690	25.8	15,866	11.8	6,857	5.1
30-39	22,141	15.1	6,305	4.3	3,372	2.3
40+	10,192	2.3	886	0.2	443	0.1
Total	74,381	9.3	28,132	3.5	12,111	1.5
Total						
14-19	18,204	10.5	9,882	5.7 #	4,681	2.7 #
20-29	82,044	29.9	42,257	15.4	19,756	7.2
30-39	60,321	20.5	15,889	5.4	5,002	1.7
40+	34,770	4.0	3,477	0.4	1,739	0.2
Total	195,339	12.2	71,505	4.5	31,178	1.9 #

Source: 2004 National Drug Strategy Household Survey, Western Australian Results. Perth, Epidemiology Branch, Department of Health & Drug and Alcohol Office, 2006 (Table 43).

Note: Rates shaded to indicate relative standard error greater than 50%.
2004 result significantly different from 2001 estimate at p<0.05.

Table A2-5

Annual prevalence (%) of use of selected illicit drugs by Health Region, WA, 2004

	Cannabis	Amphetamines	Ecstasy	Any Illicit
Metropolitan				
North Metro	14.4	5.2	4.9	18.3
South Metro	12.4	4.0	4.1	16.1
Country				
Goldfields - South East Coastal	22.5	5.3	7.7	25.3
Great Southern	11.3	2.4	0.5	11.5
Kimberley	30.2	7.8	3.8	35.9
Midwest-Murchison	14.0	3.6	4.1	18.4
Pilbara-Gascoyne	14.9	2.5	-	16.7
South West	13.1	5.7	3.2	14.8
Wheatbelt	4.7	-	-	11.4
State	13.7	4.5	4.1	17.3

Source: 2004 National Drug Strategy Household Survey, Western Australian Results. Perth, Epidemiology Branch, Department of Health & Drug and Alcohol Office, 2006 (Table 17).

Note: Rates shaded to indicate relative standard error greater than 50%.

2.2 Adult Prevalence, Australia: 1995 - 2004

Table A2-6

Annual prevalence (%) of illicit drug use by Australian jurisdiction, 2004

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	AUST
Marijuana/cannabis	10.7	9.8	12.1	13.7	11.7	10.9	14.0	20.9	11.3
Painkillers/analgesics ^(b)	2.8	3.3	3.4	2.7	2.9	3.9	2.7	5.2	3.1
Tranquillisers/sleeping pills ^(b)	1.1	1.0	1.0	1.3	0.7	0.7	0.7	1.3	1.0
Steroids ^(b)	<0.1	0.1	-	<0.1	<0.1	-	-	0.4	<0.1
Barbiturates ^(b)	<0.1	0.2	0.2	0.3	0.3	-	*0.3	0.4	0.2
Inhalants	0.4	0.4	0.5	0.5	0.4	*0.4	0.9	0.2	0.4
Heroin	0.1	0.3	0.1	0.2	0.2	<0.1	<0.1	<0.1	0.2
Methadone ^(c)	<0.1	0.1	<0.1	<0.1	<0.1	0.2	0.4	<0.1	0.1
Other opiates/opioids ^(b)	0.2	0.2	0.2	0.3	0.1	0.6	0.2	0.8	0.2
Meth/amphetamine (speed) ^(b)	3.1	2.8	3.0	4.5	4.1	1.8	4.3	3.9	3.2
Cocaine	1.2	1.2	0.7	1.2	0.7	0.2	1.6	1.0	1.0
Hallucinogens	0.6	0.7	0.9	0.6	0.7	0.6	1.0	0.6	0.7
Ecstasy ^(d)	3.5	3.1	3.4	4.1	2.8	1.6	6.0	3.7	3.4
Ketamine	0.3	0.3	0.3	<0.1	0.1	-	0.2	0.6	0.3
GHB	0.1	0.2	0.2	<0.1	0.1	-	0.1	0.3	0.1
Injected drugs	0.3	0.4	0.4	0.9	0.6	0.5	0.3	0.6	0.4
Any illicit drug	14.6	14.3	15.9	17.3	15.4	15.4	17.6	26.0	15.3

Source: 2004 National Drug Strategy Household Survey, State and Territory Supplement. Canberra, Australian Institute of Health and Welfare, 2005.

Note: ^(a) Used in the past 12 months; ^(b) For non medical purposes; ^(c) Non-maintenance; ^(d) In previous surveys this included 'designer drugs'.
 <0.1 non zero result less than 0.1%.
 Shaded areas indicate rates with a relative standard error greater than 50%.

Table A2-7

Annual prevalence (%) of amphetamine use, Australia, 1995 - 2004

	Males				Females			
	1995	1998	2001	2004	1995	1998	2001	2004
14-19	2.9	5.5	5.7	4.0 #	1.9	6.3	6.8	4.9 #
20-29	10.5	16.4	14.1	12.4 #	6.3	7.6	8.2	9.0
30-39	2.1	4.1	4.0	5.7 #	0.5	1.2	2.2	2.5
40+	0.3	0.7	0.6	0.7	0.2	0.3	0.3	0.2
Total	2.8	5.0	4.2	4.0	1.5	2.5	2.7	2.5

Source: 2001 National Drug Strategy Household Survey: First results. Canberra, Australian Institute of Health & Welfare, 2002; 2004 National Drug Strategy Household Survey: First results. Canberra, Australian Institute of Health & Welfare, 2005.

Note: # 2004 result significantly different from 2001 result (2-tailed p = 0.05).

Table A2-8

Estimated prevalence (%) of meth/amphetamine use & number of users by sex, age group & recency of use, Australia, 2004

	Proportion (%)		Number	
	Lifetime	Last year	Lifetime	Last year
Males				
14-19	6.6	4.0	56,400	33,700
20-29	24.3	12.4	340,200	173,900
30-39	19.8	5.7	293,600	83,700
40+	4.8	0.7	200,100	29,600
Total	11.0	4.0	890,500	321,600
Females				
14-19	6.5	4.9	53,000	39,800
20-29	17.9	9.0	243,100	121,900
30-39	12.3	2.5	185,000	37,300
40+	2.6	0.2	122,700	9,800
Total	7.3	2.5	607,600	210,900
Persons				
14-19	6.6	4.4	109,300	73,600
20-29	21.1	10.7	582,400	295,300
30-39	16.0	4.1	477,800	120,700
40+	3.6	0.4	322,700	39,400
Total	9.1	3.2	1,497,000	532,100

Source: 2004 National Drug Household Survey: First results. Canberra, Australian Institute of Health & Welfare, 2005.

Figure A2-9

Lifetime prevalence (%) of meth/amphetamine use by age group, Australia, 2004

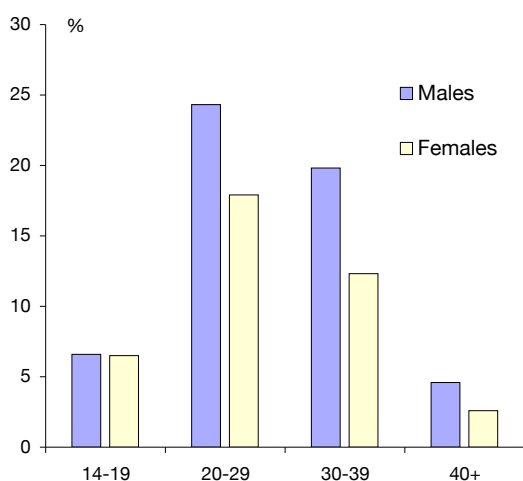
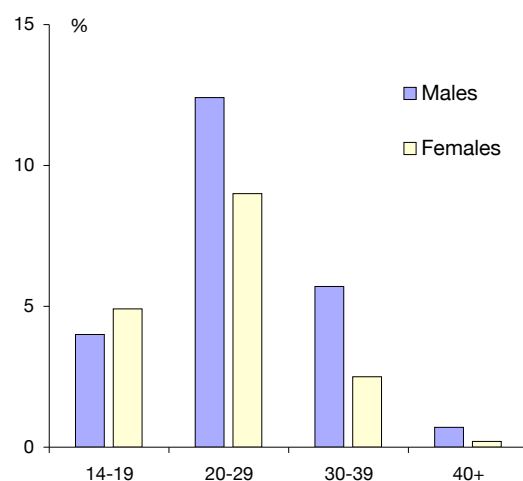


Figure A2-10

Annual prevalence (%) of meth/amphetamine use by age group, Australia, 2004



2.3 Youth Prevalence, WA: 1996 - 2005

Table A2-9

Estimates of prevalence (%) of amphetamine use by WA school students by age, sex & recency, 2005

	12	13	14	15	16	17	Total
Males							
Lifetime	3.5	5.1	8.0	9.5	15.6	9.8	8.2
In past year	2.8	3.1	6.4	7.4	11.5	6.8	6.1
In past month	1.8	1.5	2.8	2.7	7.0	4.2	3.1
In past week	1.6	1.5	1.7	1.3	4.3	2.9	2.0
Females							
Lifetime	2.7	2.6	7.4	14.2	16.3	13.4	8.8
In past year	1.9	2.3	6.6	11.7	13.1	7.5	7.0
In past month	1.5	1.3	3.8	7.1	5.2	3.1	3.7
In past week	1.2	0.8	1.1	4.1	3.3	2.0	2.0
Total							
Lifetime	3.1	3.9	7.7	11.9	16.0	11.6	8.5
In past year	2.4	2.7	6.5	9.7	12.3	7.1	6.5
In past month	1.7	1.4	3.3	4.9	6.1	3.7	3.4
In past week	1.4	1.1	1.4	2.7	3.8	2.5	2.0

Source: Miller J & Lang A. *ASSAD drug report 2005*. Perth, Drug and Alcohol Office, 2007 (Table 3.7).

Table A2-10

Estimates of prevalence (%) of non prescribed amphetamine like drug use by WA school students by age, sex & recency, 2005

	12	13	14	15	16	17	Total
Males							
Lifetime	2.3	3.2	7.9	10.1	12.0	10.6	7.1
In past year	1.1	1.3	6.2	6.6	8.5	7.8	4.8
In past month	1.1	0.7	3.9	3.2	5.0	3.9	2.8
In past week	0.8	0.4	2.5	2.0	2.0	2.5	1.6
Females							
Lifetime	1.1	3.0	7.8	12.2	15.3	11.4	7.9
In past year	1.1	2.1	6.2	10.1	12.5	7.0	6.2
In past month	1.1	0.7	2.3	5.3	3.7	2.8	2.6
In past week	1.1	0.3	1.5	3.4	1.9	1.2	1.6
Total							
Lifetime	1.7	3.1	7.9	11.1	13.7	11.0	7.5
In past year	1.1	1.7	6.2	8.3	10.5	7.4	5.5
In past month	1.1	0.7	3.1	4.2	4.4	3.3	2.7
In past week	0.9	0.4	2.0	2.7	2.0	1.8	1.6

Source: Miller J & Lang A. *ASSAD drug report 2005*. Perth, Drug and Alcohol Office, 2007 (Table 3.9).

Note: Amphetamine like drugs refers to tablets such as dexamphetamine or Ritalin that were not prescribed by a doctor.

Table A2-11

Estimates of prevalence (%) of amphetamine use by WA school students by age group, sex & recency, 1996 - 2005

	12 - 15 year olds				16 - 17 year olds			
	1996	1999	2002	2005	1996	1999	2002	2005
Lifetime								
Males	6.3	13.0	11.0	6.6	11.2	24.8	17.8	13.5
Females	5.3	10.9	9.8	6.7	9.9	21.3	21.7	15.3
Total	5.8	12.0	10.4	6.6	10.5	23.0	19.6	14.4
Yearly								
Males	5	11	na	5.0	10	20	na	9.8
Females	4	9	na	5.6	8	17	na	11.1
Total	4.4	10.1	8.4	5.3	8.8	18.8	15.5	10.5
Month								
Males	2.6	6.8	4.9	2.2	5.0	10.5	7.1	6.0
Females	1.9	4.9	4.6	3.4	1.5	7.3	8.7	4.5
Total	2.2	5.9	4.7	2.8	3.2	8.8	7.8	5.2

Source: Miller J & Lang A. *ASSAD drug report 2005*. Perth, Drug and Alcohol Office, 2007 (Table 4.6; Table 3.7).
Department of Health, Population Health Division & Centre for Behavioural Research in Cancer, Anti Cancer Council of Victoria. Drug use among 12-17 year old Western Australian school students in 1999: A summary report. Perth: Population Health Division, Department of Health, 2002 (Table 11).

Note: Shaded areas indicate rates that regression analysis found significantly different result from 2005 estimate at $p < 0.05$.

Table A2-12

Estimates of prevalence (%) of use of amphetamine & non prescribed amphetamine like drugs by WA school students by sex & recency, 12-17 year olds, 2005

	Amphetamines		Non prescribed amphetamine like drugs	
	n	%	n	%
Males				
Lifetime	7,249	8.2	6,276	7.1
In past year	5,392	6.1	4,243	4.8
In past month	2,740	3.1	2,475	2.8
In past week	1,768	2.0	1,414	1.6
Females				
Lifetime	7,407	8.8	6,650	7.9
In past year	5,892	7.0	5,219	6.2
In past month	3,114	3.7	2,189	2.6
In past week	1,683	2.0	1,347	1.6
Total				
Lifetime	14,669	8.5	12,943	7.5
In past year	11,217	6.5	9,492	5.5
In past month	5,868	3.4	4,659	2.7
In past week	3,451	2.0	2,761	1.6

Source: Miller J & Lang A. *ASSAD drug report 2005*. Perth, Drug and Alcohol Office, 2007 (Table 3.7 & Table 3.9).

Figure A2-11
Estimate of prevalence (%) by WA school students aged 12 to 17 years who have ever used amphetamines, 2005

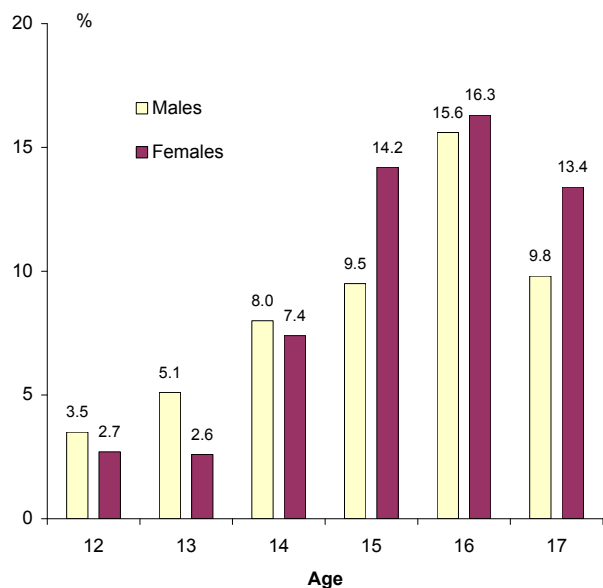


Figure A2-13
Estimate of prevalence (%) by WA school students aged 12 to 17 years who used amphetamines in past month, 2005

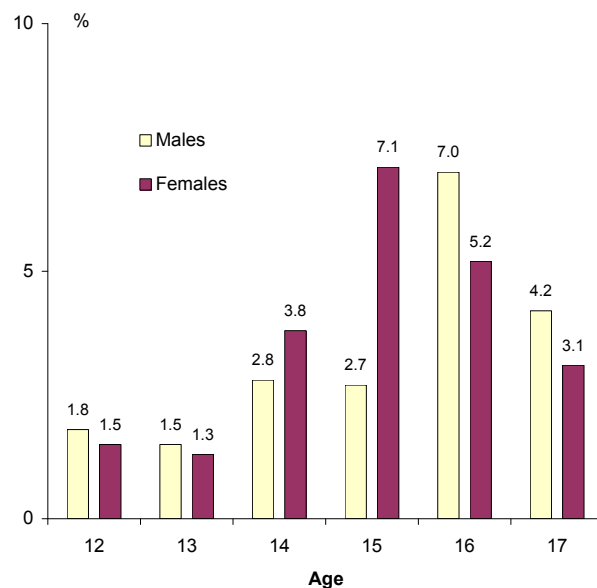


Figure A2-12
Estimate of prevalence (%) by WA school students aged 12 to 17 years who used amphetamines in past year, 2005

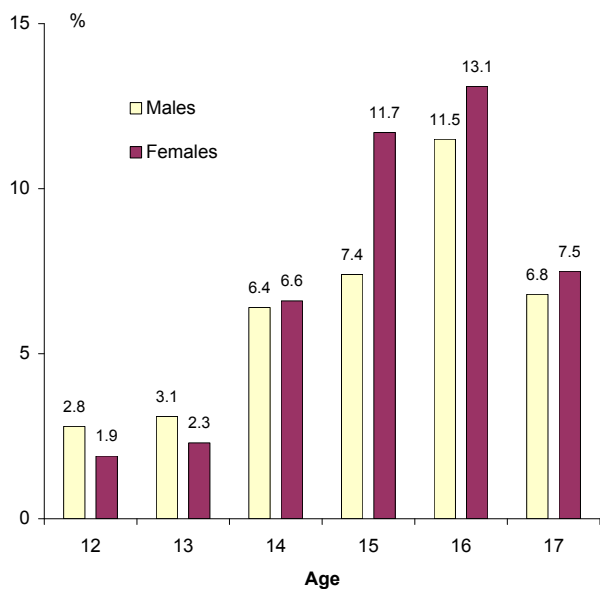


Figure A2-14
Estimate of prevalence (%) by WA school students aged 12 to 17 years who used amphetamines in past week, 2005

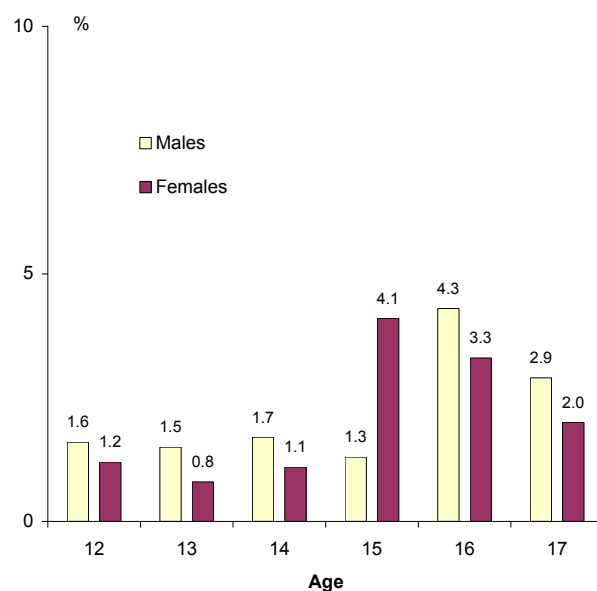


Figure A2-15
Estimates of prevalence (%) of amphetamine use by WA school students
aged 12 to 15 years, 1996 - 2005

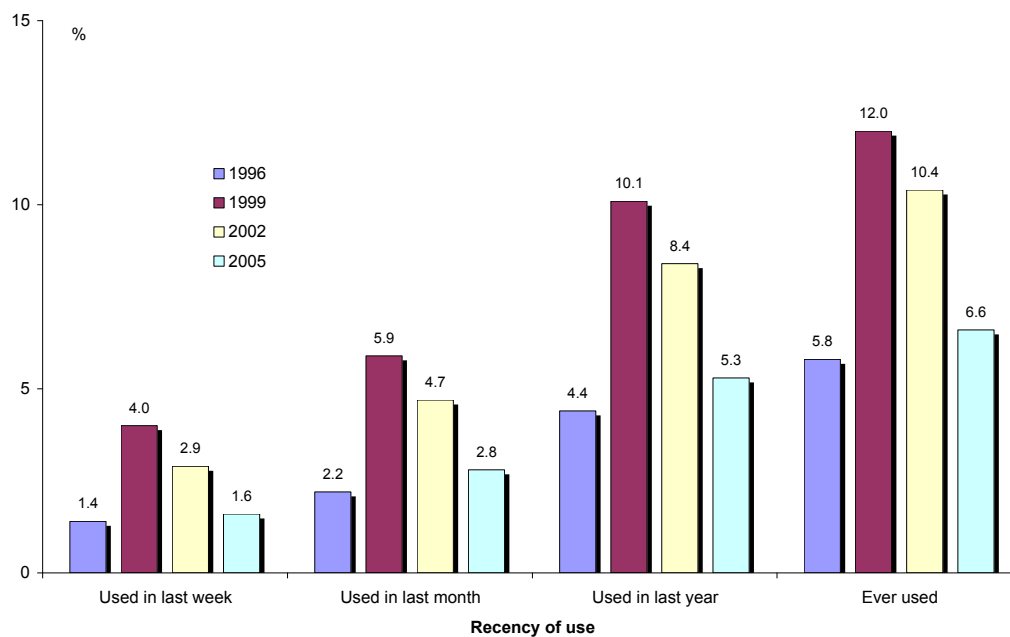
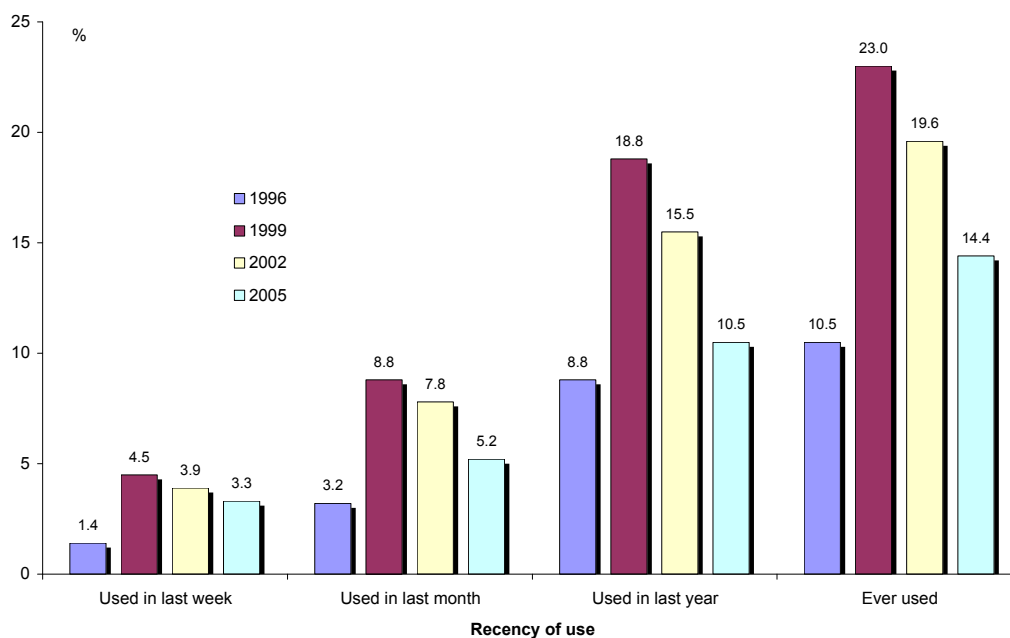


Figure A2-16
Estimates of prevalence (%) of amphetamine use by WA school students
aged 16 to 17 years, 1996 - 2005



2.4 Youth Prevalence, Australia: 2005

Table A2-13

**Estimated prevalence (%) of amphetamine use by school students by age, sex & recency
Australia vs WA, 2005**

	12		13		14		15		16		17		Total	
	Aus	WA	Aus	WA	Aus	WA	Aus	WA	Aus	WA	Aus	WA	Aus	WA
Males														
Lifetime	2.9	3.5	3.3	5.1	6.4	8.0	7.9	9.5	8.7	15.6	7.9	9.8	6.0	8.2
In past year	2.1	2.8	2.7	3.1	5.4	6.4	7.1	7.4	7.1	11.5	6.2	6.8	4.9	6.1
In past month	1.6	1.8	1.9	1.5	3.1	2.8	4.6	2.7	3.7	7.0	3.2	4.2	3.0	3.1
In past week	na	1.6	na	1.5	na	1.7	na	1.3	na	4.3	na	2.9	na	2.0
Females														
Lifetime	2.4	2.7	2.5	2.6	4.1	7.4	5.4	14.2	8.0	16.3	6.5	13.4	4.7	8.8
In past year	1.9	1.9	1.8	2.3	3.1	6.6	4.1	11.7	5.8	13.1	4.6	7.5	3.4	7.0
In past month	1.3	1.5	0.9	1.3	2.1	3.8	2.3	7.1	2.5	5.2	1.7	3.1	1.8	3.7
In past week	na	1.2	na	0.8	na	1.1	na	4.1	na	3.3	na	2.0	na	2.0
Persons														
Lifetime	2.7	3.1	2.9	3.9	5.3	7.7	6.6	11.9	8.3	16.0	7.2	11.6	5.3	8.5
In past year	2.0	2.4	2.3	2.7	4.3	6.5	5.6	9.7	6.4	12.3	5.4	7.1	4.2	6.5
In past month	1.4	1.7	1.4	1.4	2.6	3.3	3.5	4.9	3.1	6.1	2.4	3.7	2.4	3.4
In past week	na	1.4	na	1.1	na	1.4	na	2.7	na	3.8	na	2.5	na	2.0

Source: White V. Australian secondary students' use of over the counter and illicit substances in 1999. Carlton, Vic, Centre for Behavioural Research in Cancer, Cancer Council of Victoria, 2001.
Population Health Division, Dept of Health WA & Centre for Behavioural Research in Cancer. Drug use among 12 to 17 year old Western Australian school students in 1999. Perth, Population Health Division, Department of Health & Anti Cancer Council of Victoria, 2002.

Figure A2-17
**Estimated annual prevalence (%) of
amphetamine use by male school students
Australia vs WA, 2005**

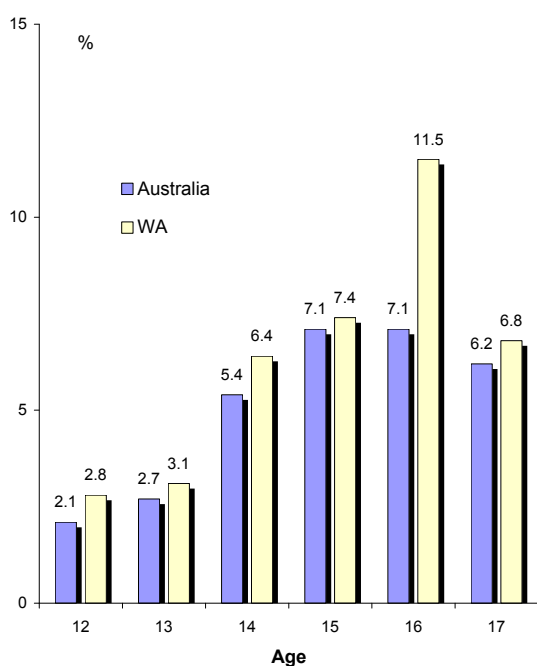
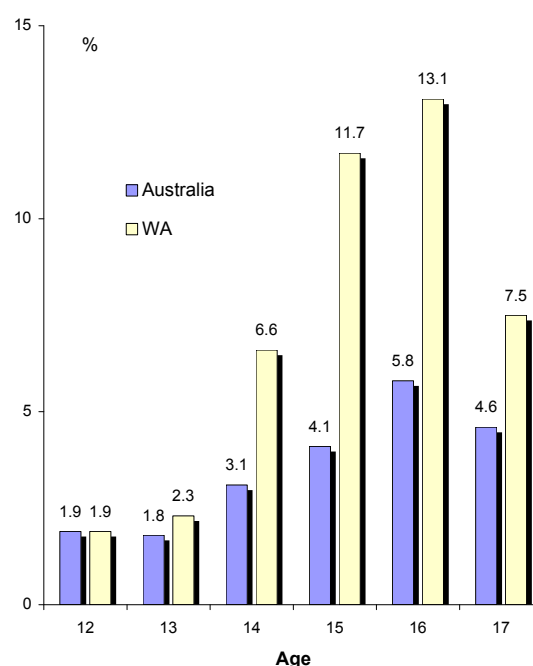


Figure A2-18
**Estimated annual prevalence (%) of
amphetamine use by female school students
Australia vs WA, 2005**



3. Treatment Services

3.1 Specialist Alcohol & Drug Service Providers: 1999 - 2006

Table A3-1
Quarterly amphetamine related treatment episodes by sex
March quarter 1999 - December quarter 2006

Year	Quarter	Amphetamine episodes				% all episodes	All episodes
		Female	Male	Unknown	Total		
1999	March	78	128	2	208	9.1	2,280
	June	72	119	-	191	7.9	2,431
	September	83	172	-	255	9.3	2,754
	December	112	176	-	288	12.2	2,360
2000	March	103	248	-	351	11.7	3,003
	June	129	258	-	387	12.4	3,111
	September	180	364	-	544	14.3	3,811
	December	197	352	-	549	15.8	3,465
2001	March	237	445	1	683	17.2	3,971
	June	271	453	1	725	20.2	3,584
	September	318	562	1	881	23.1	3,816
	December	282	511	-	793	23.5	3,374
2002	March	300	526	-	826	21.5	3,846
	June	261	530	-	791	20.7	3,820
	September	282	498	-	780	19.9	3,927
	December	233	419	1	653	18.5	3,532
2003	March	298	590	-	888	20.7	4,300
	June	268	633	-	901	21.7	4,154
	September	298	633	-	931	21.9	4,251
	December	260	529	-	789	19.5	4,047
2004	March	294	625	-	919	20.5	4,492
	June	338	720	-	1,058	25.1	4,213
	September	396	775	-	1,171	25.1	4,668
	December	291	628	-	919	23.1	3,971
2005	March	342	586	-	928	21.2	4,369
	June	355	604	-	959	21.4	4,476
	September	318	632	-	950	21.2	4,486
	December	317	609	-	926	22.0	4,210
2006	March	305	676	-	981	21.1	4,649
	June	321	612	-	933	20.8	4,496
	September	393	734	-	1,127	23.5	4,790
	December	346	672	-	1,018	24.2	4,205

Source: Drug & Alcohol Office.

Note: This data covers the Statewide network of Community Drug Service Teams, Next Step services and other NGOs funded by DAO including specific services for youth, women, families, Aboriginal people and residential rehabilitation programs.

Table A3-2
Annual treatment episodes by drug group, 1999 - 2006

	1999	2000	2001	2002	2003	2004	2005	2006
Alcohol	2,400	3,047	3,745	3,877	4,615	4,826	5,478	6,311
Amphetamines	942	1,831	3,082	3,050	3,509	4,067	3,763	4,059
Cannabis	1,349	1,890	2,640	3,152	3,072	2,725	2,928	2,712
Heroin	2,461	3,067	1,596	1,584	1,739	1,902	1,724	1,198
Other drugs								
Benzodiazapines	102	159	187	178	244	251	191	199
Cocaine	20	25	18	14	22	25	21	31
Ecstasy	27	32	24	30	34	41	51	57
Methadone	7	201	287	208	241	342	423	439
Other opioids	124	350	320	435	581	605	617	796
Sedatives/hypnotics	1	7	9	17	15	17	17	21
Stimulants and hallucinogens	1	13	9	6	47	100	65	62
Tobacco	18	40	116	139	59	57	69	62
Volatile substances	115	88	108	105	88	95	84	64
Other drug/not stated	733	1,644	798	262	357	336	188	250
Sub total	1,148	2,559	1,876	1,394	1,688	1,869	1,726	1,981
Non drug	1,525	996	1,806	2,068	2,129	1,955	1,922	1,879
Total all drugs	9,825	13,390	14,745	15,125	16,752	17,344	17,541	18,140
(per cent column)								
Alcohol	24.4	22.8	25.4	25.6	27.5	27.8	31.2	34.8
Amphetamines	9.6	13.7	20.9	20.2	20.9	23.4	21.5	22.4
Cannabis	13.7	14.1	17.9	20.8	18.3	15.7	16.7	15.0
Heroin	25.0	22.9	10.8	10.5	10.4	11.0	9.8	6.6
Other drugs	11.7	19.1	12.7	9.2	10.1	10.8	9.8	10.9
Non drug	15.5	7.4	12.2	13.7	12.7	11.3	11.0	10.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Drug & Alcohol Office

Figure A3-1
Annual alcohol, amphetamine, cannabis, opioid & 'other' drug treatment episodes, 1999 - 2006

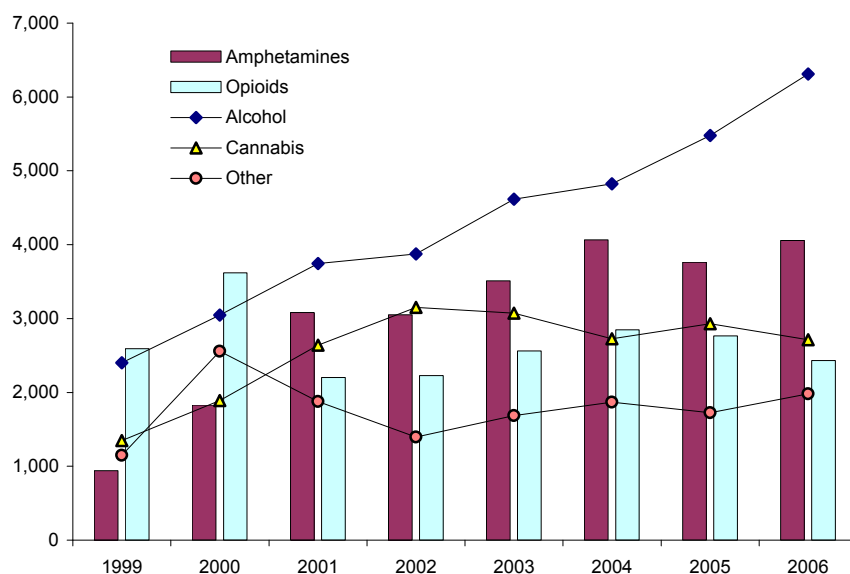


Figure A3-2

Proportion (%) of quarterly amphetamine related treatment episodes of all treatment episodes - all persons & juveniles, March quarter 1999 - December quarter 2006

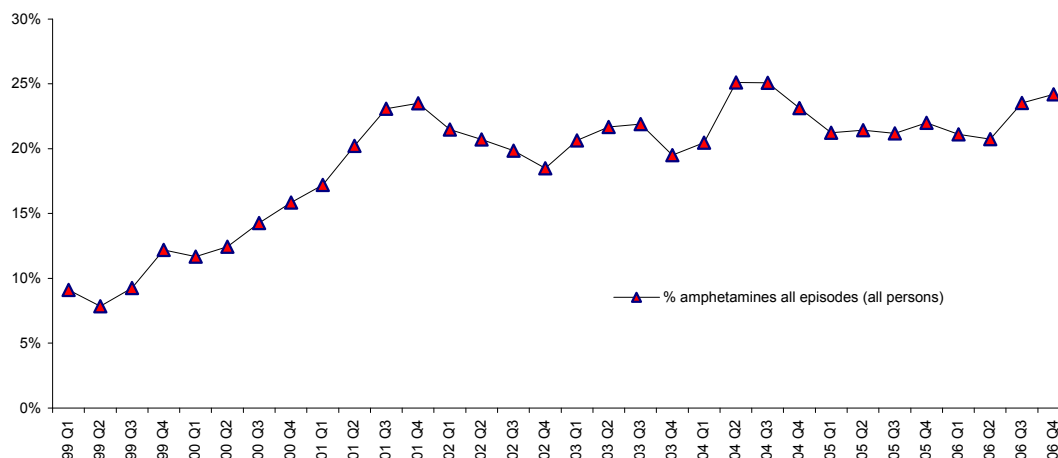


Figure A3-3

**Quarterly amphetamine related treatment episodes by age group
March quarter 1999 - December quarter 2006**

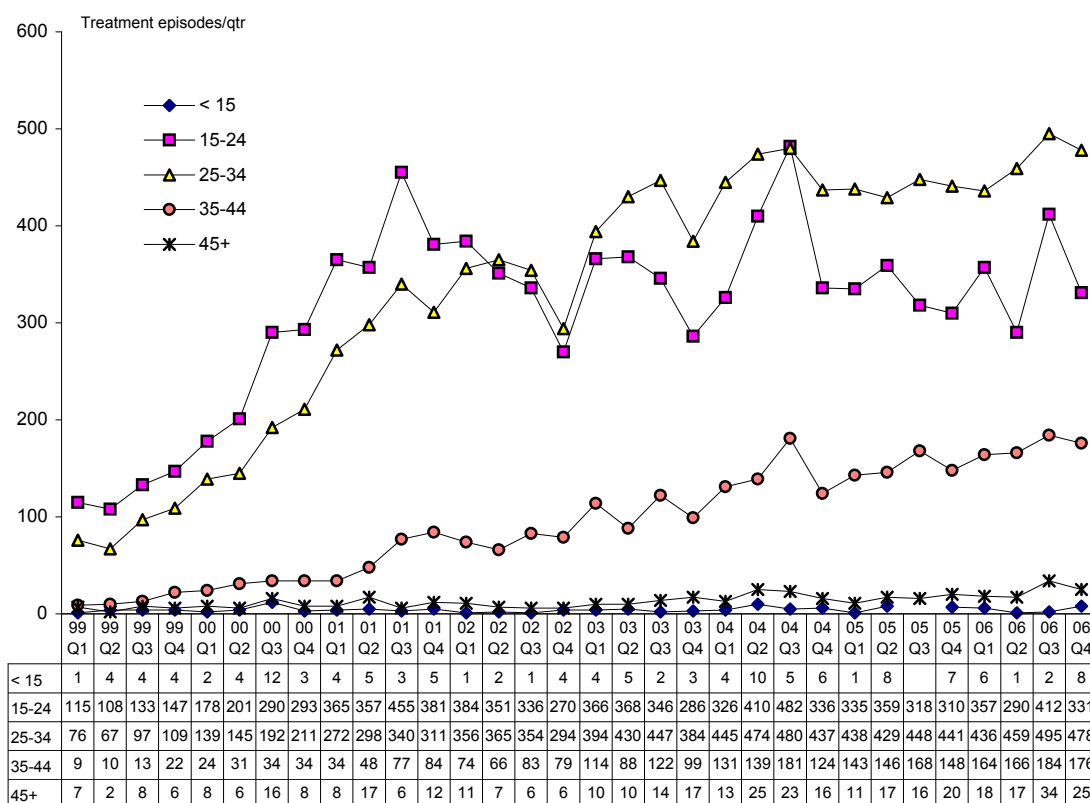


Figure A3-4
Quarterly amphetamine related treatment episodes by sex
March quarter 1999 - December quarter 2006

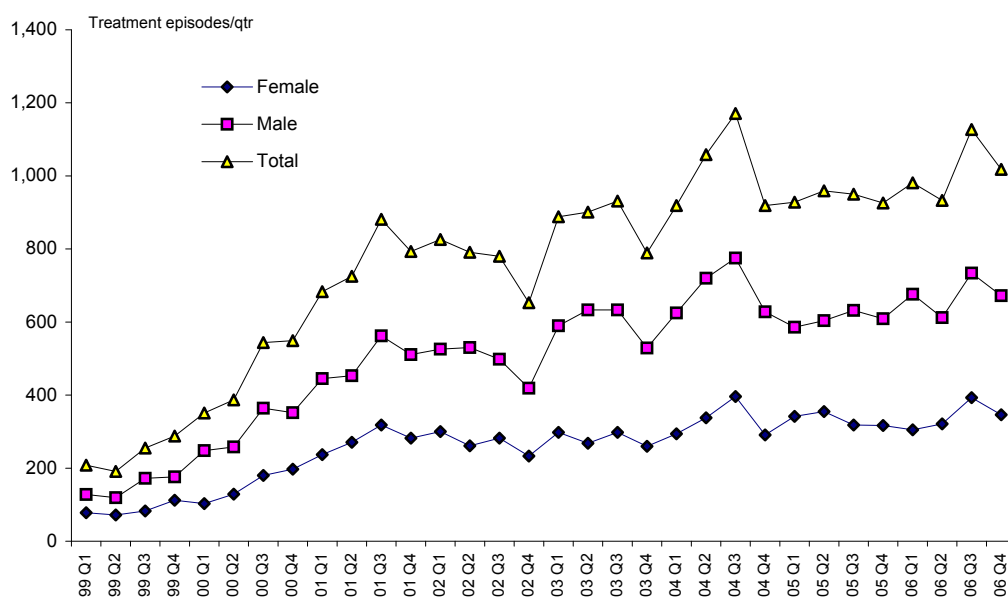


Table A3-3
Annual amphetamine related treatment episodes by Health Region & source of referral, 2006

	Drug treat- ment service	Justice	Diversion	Family	Health/ medical	Self	Other	Total
Metro								
East Metro	85	295	203	114	129	455	49	1,329
North Metro	57	131	141	97	122	308	32	888
South Metro	81	234	199	114	93	482	30	1,223
Country								
Goldfields	-	19	8	7	5	21		60
Great Southern	2	36	26	7	10	19	1	101
Kimberley	1	1	5	4	3	9		23
Midwest	9	16	-	3	7	31	2	68
Pilbara	2	14	1	7	18	16	3	61
South West	11	35	19	25	38	56	16	200
Wheatbelt	2	30	9	8	12	16	2	79
Interstate/unknown	2	-	1	1	5	6	2	17
Total	252	810	612	387	442	1,419	137	4,059
(per cent column)								
Metro								
East Metro	33.7	36.3	33.2	29.5	29.2	32.1	35.8	32.7
North Metro	22.6	16.2	23.0	25.1	27.6	21.7	23.4	21.9
South Metro	33.1	28.9	32.5	29.5	21.0	34.0	21.9	30.4
Country								
Goldfields		2.3	1.3	1.8	1.1	1.5	0.0	1.5
Great Southern	0.8	4.4	4.2	1.8	2.3	1.3	0.7	2.5
Kimberley	0.4	0.1	0.8	1.0	0.7	0.6	0.0	0.6
Midwest	3.6	2.0		0.8	1.6	2.2	1.5	1.7
Pilbara	0.8	1.7	0.2	1.8	4.1	1.1	2.2	1.5
South West	4.4	4.3	3.1	6.5	8.6	3.9	11.7	4.9
Wheatbelt	0.8	3.7	1.5	2.1	2.7	1.1	1.5	1.9
Interstate/unknown	0.8		0.2	0.3	1.1	0.4	1.5	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(per cent row)								
Metro								
East Metro	6.4	21.1	15.3	8.6	9.7	34.2	3.7	100.0
North Metro	6.4	14.8	15.9	10.9	13.7	34.7	3.6	100.0
South Metro	6.6	19.0	16.1	9.2	7.1	39.1	2.6	100.0
Country								
Goldfields		31.7	13.3	11.7	8.3	35.0	0.0	100.0
Great Southern	2.0	35.6	25.7	6.9	9.9	18.8	1.0	100.0
Kimberley	4.3	4.3	21.7	17.4	13.0	39.1		100.0
Midwest	13.2	23.5		4.4	10.3	45.6	2.9	100.0
Pilbara	3.3	23.0	1.6	11.5	29.5	26.2	4.9	100.0
South West	5.5	17.5	9.5	12.5	19.0	28.0	8.0	100.0
Wheatbelt	2.5	38.0	11.4	10.1	15.2	20.3	2.5	100.0
Interstate/unknown	11.8		5.9	5.9	29.4	35.3	11.8	100.0
Total	6.2	20.0	15.1	9.5	10.9	35.0	3.4	100.0

Figure A3-5
Source of referral (%) of amphetamine related treatment episodes - metro Health Regions, 2006

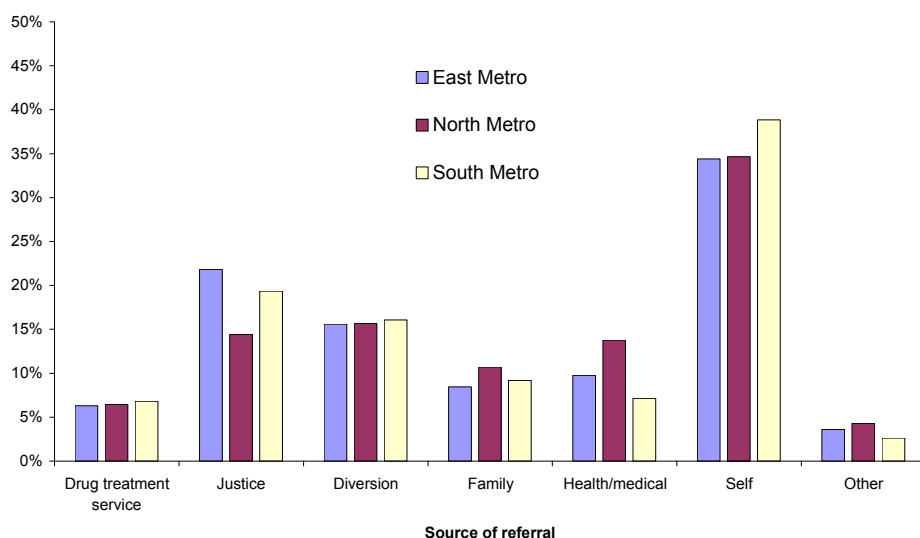


Figure A3-6
Source of referral (%) of amphetamine related treatment episodes - country Health Regions, 2006

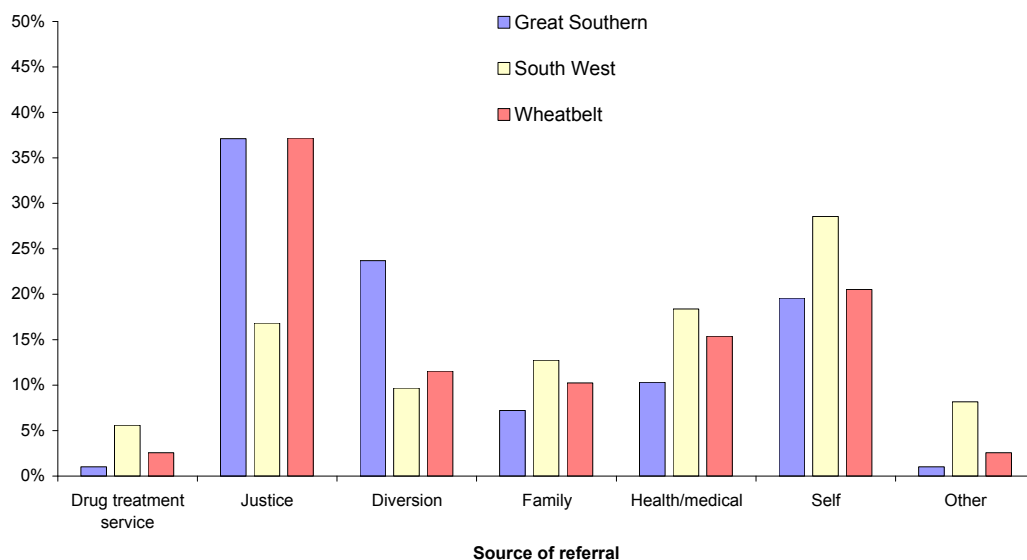
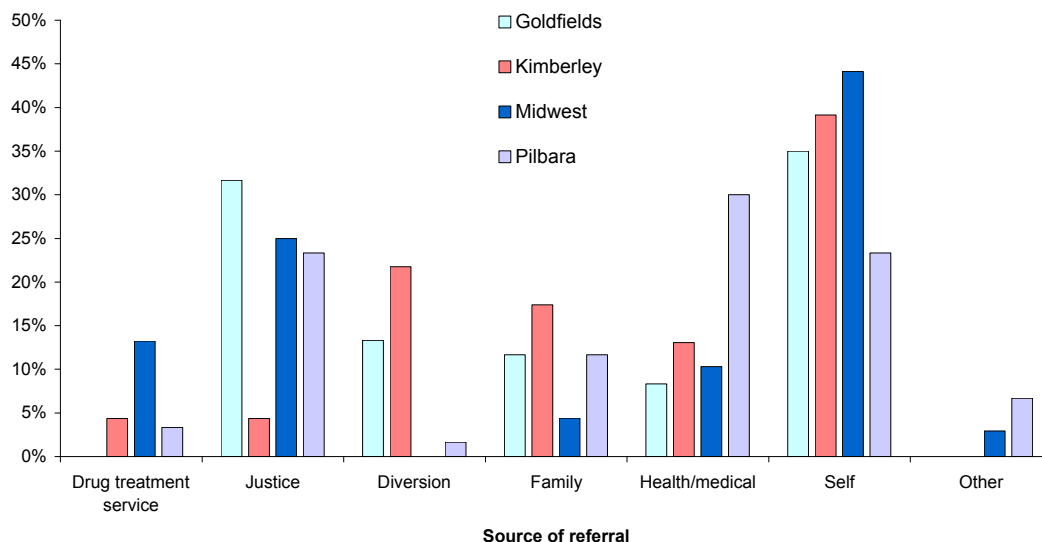


Figure A3-7
Source of referral (%) of amphetamine related treatment episodes - country Health Regions, 2006



4. Mental Disorders Due to Psychoactive Drug Use

Public Mental Health Services: Unique Individuals, 2001 - 2006

Table A4-1

Annual number of unique individuals who had at least one drug related treatment episode at a public mental health service by drug group, 2001 - 2006

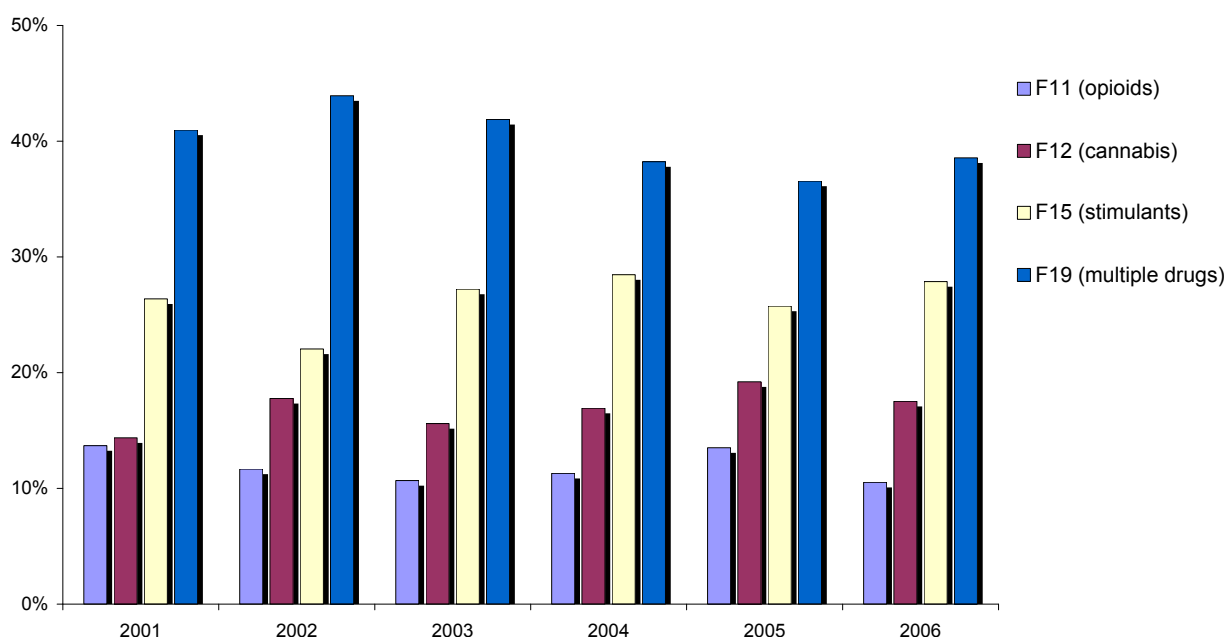
	Cannabis (F12)		Opioids (F11)		Sedatives/ hypnotics (F13)		Stimulants (F15)		Multiple drugs (F19)		Other drugs (F14, F16)		All drugs
	n	%	n	%	n	%	n	%	n	%	n	%	
2001	272	14.4	259	13.7	64	3.4	499	26.4	775	41.0	23	1.2	1,892
2002	329	17.8	216	11.7	69	3.7	408	22.0	813	43.9	16	0.9	1,851
2003	314	15.6	215	10.7	77	3.8	548	27.2	843	41.9	16	0.8	2,013
2004	364	16.9	243	11.3	84	3.9	612	28.5	822	38.2	25	1.2	2,150
2005	418	19.2	294	13.5	81	3.7	560	25.7	795	36.6	27	1.2	2,175
2006	393	17.5	236	10.5	101	4.5	625	27.9	865	38.6	23	1.0	2,243

Source: Mental Health Information System, Department of Health.

Note: Based on last known diagnosis in year of separation at public mental health inpatient or outpatient services.

Figure A4-1

Proportion (%) of total annual number of unique individuals who had a drug related treatment episode at a public mental health service by drug group, 2001 - 2006



Public Mental Health Services: All Mental Behavioural Disorders, 1999/2000 - 2005/2006

Table A4-2

Inpatient stimulant related morbidity, mental & behavioural disorders, 1999/2000 - 2005/2006

	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Disorders due to stimulants (F15)							
Separations	310	491	580	424	511	460	448
Length of stay (days)	1,610	2,376	3,293	2,163	2,850	2,610	1,967
Disorders due to cocaine (F14)							
Separations	2	-	2	1	6	4	4
Length of stay (days)	7	-	4	9	16	6	13
Total disorders due to psychoactive drug use							
Separations	3,838	4,417	4,308	4,044	3,964	4,226	4,565
Length of stay (days)	21,057	23,363	23,044	23,370	19,680	21,121	19,709
% stimulant separations/total disorders due to psychoactive drug use							
Stimulant (F15) separations	8.1%	11.1%	13.5%	10.5%	12.9%	10.9%	9.8%
Cocaine (F14) separations	0.1%	-	<0.1%	<0.1%	0.2%	0.1%	0.1%
Total disorders due to all mental diagnoses							
Separations	29,052	29,650	29,274	25,845	26,274	28,003	25,885
Length of stay (days)	278,780	279,340	259,926	275,530	287,629	283,215	264,226
% stimulant separations/total disorders due to all mental diagnoses							
Stimulant (F15) separations	1.1%	1.7%	2.0%	1.6%	1.9%	1.6%	1.7%
Cocaine (F14) separations	<0.1%	-	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%

Source: Mental Health Information System, Department of Health.

Note: Based on financial year of separation.

Table A4-3

Outpatient stimulant related morbidity, mental & behavioural disorders, 2001/2002 - 2005/2006

	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Disorders due to stimulants (F15)					
Unique individuals	499	408	548	612	560
Total disorders due to psychoactive drug use					
Unique individuals	1,892	1,851	2,013	2,150	2,175
% stimulant separations/total disorders due to psychoactive drug use					
Unique individuals (%)	26.4%	22.0%	27.2%	28.5%	25.7%
Total disorders due to all mental diagnoses					
Unique individuals	26,763	28,945	31,438	34,267	36,809
Occasions of service	399,995	413,776	420,901	468,315	496,667
% stimulant separations/total disorders due to all mental diagnoses					
Unique individuals (%)	1.9%	1.4%	1.7%	1.8%	1.5%

Source: Mental Health Information System, Department of Health.

Note: Based on financial year of separation.

Annual data from Table A4-1 used as count of unique individuals.

Inpatient Mental Health Services: Drug Related Episodes, 2000 - 2006

Table A4-4

Annual drug related psychiatric inpatient treatment episodes by drug group, 2001 - 2006

	Cannabis (F12)		Opioids (F11)		Sedatives/ hypnotics (F13)		Stimulants (F15)		Multiple drugs (F19)		Other drugs (F14, F16)		All drugs
	n	%	n	%	n	%	n	%	n	%	n	%	
2001	154	11.7	249	19.0	62	4.7	449	34.2	391	29.8	8	0.6	1,313
2002	205	17.3	190	16.1	55	4.7	350	29.6	376	31.8	6	0.5	1,182
2003	170	14.5	176	15.0	50	4.3	428	36.6	337	28.8	9	0.8	1,170
2004	205	16.8	186	15.3	63	5.2	443	36.4	307	25.2	13	1.1	1,217
2005	193	17.2	220	19.6	47	4.2	368	32.8	283	25.2	11	1.0	1,122
2006	172	15.5	144	12.9	55	4.9	384	34.5	350	31.4	8	0.7	1,113

Source: Mental Health Information System, Department of Health.

Note: Other drugs includes cocaine (F14 and hallucinogens (F16).

Figure A4-2

**Quarterly stimulant related inpatient treatment episodes by diagnostic group
September quarter 2000 - December quarter 2006**

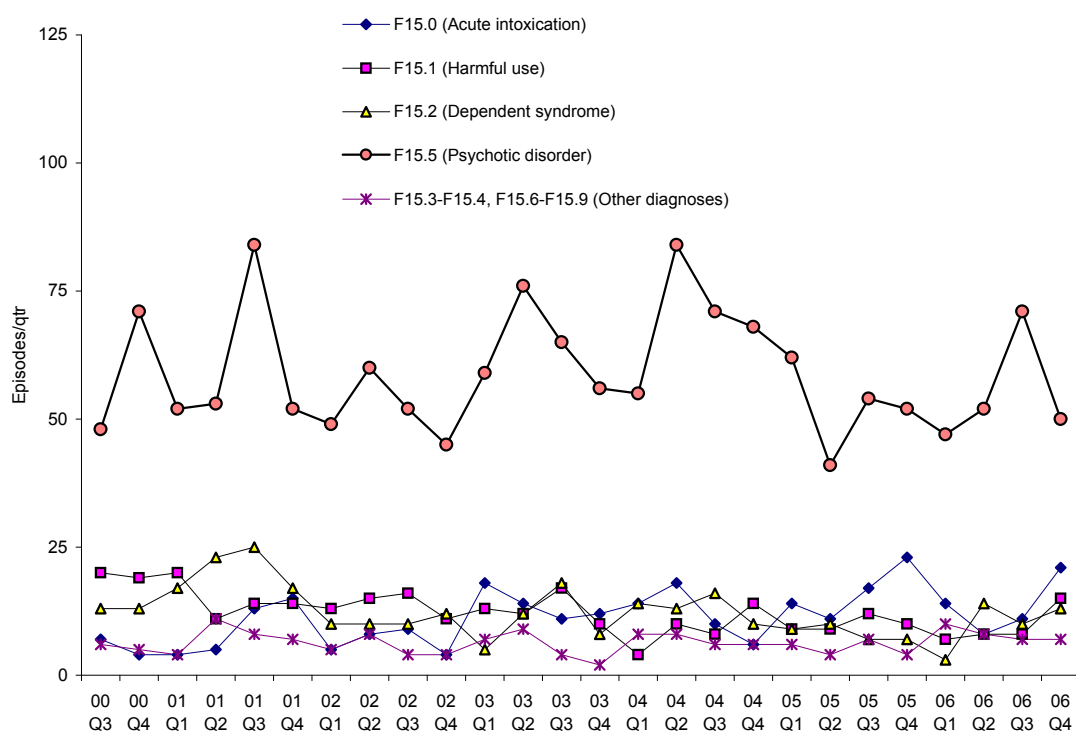


Figure A4-3
Quarterly stimulant related psychiatric inpatient treatment episodes by sex
September quarter 2000 - December quarter 2006

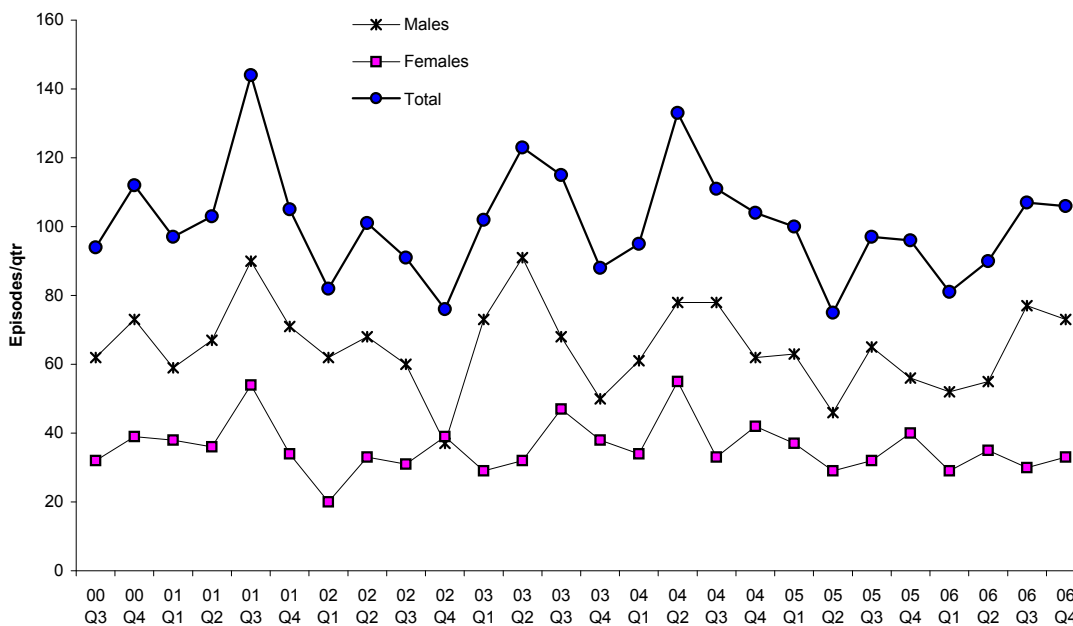


Figure A4-4
Quarterly stimulant related psychiatric inpatient treatment episodes by age group
September quarter 2000 - December quarter 2006

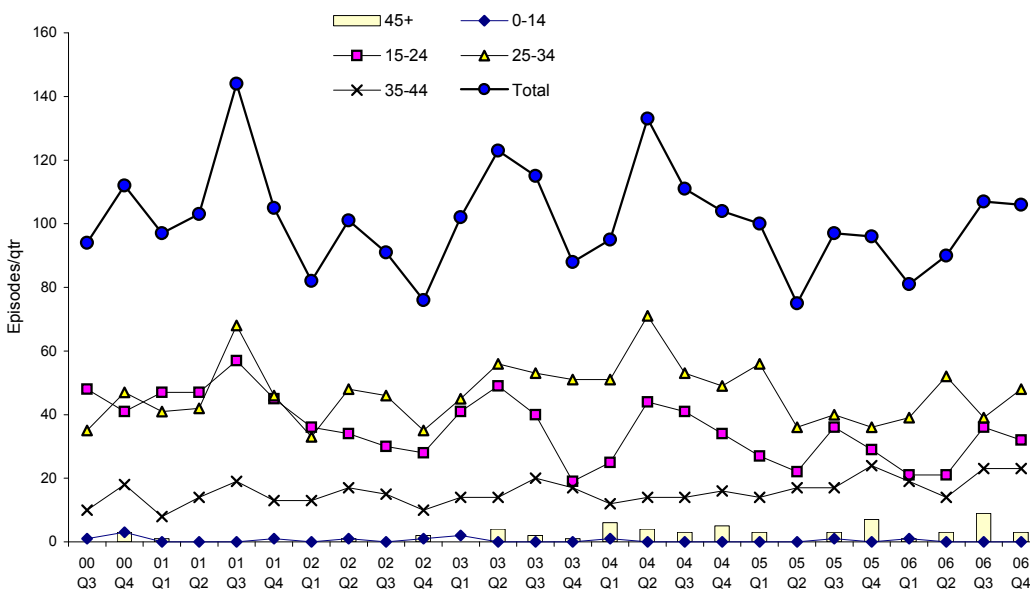


Table A4-5

Quarterly stimulant related psychiatric inpatient treatment episodes by diagnostic group, September quarter 2000 - December quarter 2006

	Acute intoxication (F15.0)	Harmful use (F15.1)	Dependent syndrome (F15.2)	Psychotic disorder (F15.5)	Other diagnoses (F15.3-F15.4, F15.6-F15.9)	Total
2000						
Qtr 1						
Qtr 2						
Qtr 3	7	20	13	48	6	94
Qtr 4	4	19	13	71	5	112
Total	11	39	26	119	11	206
2001						
Qtr 1	4	20	17	52	4	97
Qtr 2	5	11	23	53	11	103
Qtr 3	13	14	25	84	8	144
Qtr 4	15	14	17	52	7	105
Total	37	59	82	241	30	449
2002						
Qtr 1	5	13	10	49	5	82
Qtr 2	8	15	10	60	8	101
Qtr 3	9	16	10	52	4	91
Qtr 4	4	11	12	45	4	76
Total	26	55	42	206	21	350
2003						
Qtr 1	18	13	5	59	7	102
Qtr 2	14	12	12	76	9	123
Qtr 3	11	17	18	65	4	115
Qtr 4	12	10	8	56	2	88
Total	55	52	43	256	22	428
2004						
Qtr 1	14	4	14	55	8	95
Qtr 2	18	10	13	84	8	133
Qtr 3	10	8	16	71	6	111
Qtr 4	6	14	10	68	6	104
Total	48	36	53	278	28	443
2005						
Qtr 1	14	9	9	62	6	100
Qtr 2	11	9	10	41	4	75
Qtr 3	17	12	7	54	7	97
Qtr 4	23	10	7	52	4	96
Total	65	40	33	209	21	368
2006						
Qtr 1	14	7	3	47	10	81
Qtr 2	8	8	14	52	8	90
Qtr 3	11	8	10	71	7	107
Qtr 4	21	15	13	50	7	106
Total	54	38	40	220	32	384

Source: Mental Health Information System, Department of Health.

Note: Shading indicates data not available.

Table A4-6

Quarterly stimulant related psychiatric inpatient treatment episodes by age group, September quarter 2000 - December quarter 2006: males

	<15	15-24	25-34	35-44	45+	Total
2000						
Qtr 1						
Qtr 2						
Qtr 3	1	30	22	9	-	62
Qtr 4	2	26	30	12	3	73
Total	3	56	52	21	3	135
2001						
Qtr 1	-	29	23	6	1	59
Qtr 2	-	28	30	9	-	67
Qtr 3	-	42	40	8	-	90
Qtr 4	1	31	31	8	-	71
Total	1	130	124	31	1	287
2002						
Qtr 1	-	28	25	9	-	62
Qtr 2	-	22	32	13	1	68
Qtr 3	-	15	31	14	-	60
Qtr 4	1	13	19	2	2	37
Total	1	78	107	38	3	227
2003						
Qtr 1	2	26	34	11	-	73
Qtr 2	-	36	42	11	2	91
Qtr 3	-	21	34	11	2	68
Qtr 4	-	11	33	5	1	50
Total	2	94	143	38	5	282
2004						
Qtr 1	-	16	35	7	3	61
Qtr 2	-	26	43	8	1	78
Qtr 3	-	33	35	10	-	78
Qtr 4	-	22	31	7	2	62
Total	-	97	144	32	6	279
2005						
Qtr 1	-	21	32	9	1	63
Qtr 2	-	13	21	12	-	46
Qtr 3	-	24	24	15	2	65
Qtr 4	-	15	22	16	3	56
Total	-	73	99	52	6	230
2006						
Qtr 1	-	14	26	12	-	52
Qtr 2	-	14	29	11	1	55
Qtr 3	-	25	27	17	8	77
Qtr 4	-	24	31	17	1	73
Total	-	77	113	57	10	257

Source: Mental Health Information System, Department of Health.

Note: Shading indicates data not available.

Table A4-7

Quarterly stimulant related psychiatric inpatient treatment episodes by age group, September quarter 2000 - December quarter 2006: females

	<15	15-24	25-34	35-44	45+	Total
2000						
Qtr 1						
Qtr 2						
Qtr 3	-	18	13	1	-	32
Qtr 4	1	15	17	6	-	39
Total	1	33	30	7	-	71
2001						
Qtr 1	-	18	18	2	-	38
Qtr 2	-	19	12	5	-	36
Qtr 3	-	15	28	11	-	54
Qtr 4	-	14	15	5	-	34
Total	-	66	73	23	-	162
2002						
Qtr 1	-	8	8	4	-	20
Qtr 2	1	12	16	4	-	33
Qtr 3	-	15	15	1	-	31
Qtr 4	-	15	16	8	-	39
Total	1	50	55	17	-	123
2003						
Qtr 1	-	15	11	3	-	29
Qtr 2	-	13	14	3	2	32
Qtr 3	-	19	19	9	-	47
Qtr 4	-	8	18	12	-	38
Total	-	55	62	27	2	146
2004						
Qtr 1	1	9	16	5	3	34
Qtr 2	-	18	28	6	3	55
Qtr 3	-	8	18	4	3	33
Qtr 4	-	12	18	9	3	42
Total	1	47	80	24	12	164
2005						
Qtr 1	-	6	24	5	2	37
Qtr 2	-	9	15	5	-	29
Qtr 3	1	12	16	2	1	32
Qtr 4	-	14	14	8	4	40
Total	1	41	69	20	7	138
2006						
Qtr 1	1	7	13	7	1	29
Qtr 2	-	7	23	3	2	35
Qtr 3	-	11	12	6	1	30
Qtr 4	-	8	17	6	2	33
Total	1	33	65	22	6	127

Source: Mental Health Information System, Department of Health.

Note: Shading indicates data not available.

Table A4-8
Quarterly stimulant related psychiatric inpatient
treatment episodes by age group, September
quarter 2000 - December quarter 2006: persons

	<15	15-24	25-34	35-44	45+	Total
2000						
Qtr 1						
Qtr 2						
Qtr 3	1	48	35	10	-	94
Qtr 4	3	41	47	18	3	112
Total	4	89	82	28	3	206
2001						
Qtr 1	-	47	41	8	1	97
Qtr 2	-	47	42	14	-	103
Qtr 3	-	57	68	19	-	144
Qtr 4	1	45	46	13	-	105
Total	1	196	197	54	1	449
2002						
Qtr 1	-	36	33	13	-	82
Qtr 2	1	34	48	17	1	101
Qtr 3	-	30	46	15	-	91
Qtr 4	1	28	35	10	2	76
Total	2	128	162	55	3	350
2003						
Qtr 1	2	41	45	14	-	102
Qtr 2	-	49	56	14	4	123
Qtr 3	-	40	53	20	2	115
Qtr 4	-	19	51	17	1	88
Total	2	149	205	65	7	428
2004						
Qtr 1	1	25	51	12	6	95
Qtr 2	-	44	71	14	4	133
Qtr 3	-	41	53	14	3	111
Qtr 4	-	34	49	16	5	104
Total	1	144	224	56	18	443
2005						
Qtr 1	-	27	56	14	3	100
Qtr 2	-	22	36	17	-	75
Qtr 3	1	36	40	17	3	97
Qtr 4	-	29	36	24	7	96
Total	1	114	168	72	13	368
2006						
Qtr 1	1	21	39	19	1	81
Qtr 2	-	21	52	14	3	90
Qtr 3	-	36	39	23	9	107
Qtr 4	-	32	48	23	3	106
Total	1	110	178	79	16	384

Source: Mental Health Information System, Department of Health.

Note: Shading indicates data not available.

Outpatient Mental Health Services: Drug Related Episodes, 2000 - 2006

Table A4-9

Annual drug related psychiatric outpatient treatment episodes by drug group, 2001 - 2006

	Cannabis (F12)		Opioids (F11)		Sedatives/ hypnotics (F13)		Stimulants (F15)		Multiple drugs (F19)		Other drugs (F14, F16)		All drugs
	n	%	n	%	n	%	n	%	n	%	n	%	
2001	462	19.0	130	5.3	29	1.2	393	16.2	1,371	56.4	47	1.9	2,432
2002	551	18.7	155	5.3	65	2.2	483	16.4	1,644	55.9	43	1.5	2,941
2003	584	18.8	148	4.8	74	2.4	565	18.2	1,691	54.4	48	1.5	3,110
2004	615	18.8	179	5.5	69	2.1	655	20.1	1,686	51.7	60	1.8	3,264
2005	727	20.7	181	5.2	67	1.9	632	18.0	1,848	52.7	49	1.4	3,504
2006	804	20.5	214	5.5	105	2.7	770	19.7	1,951	49.9	70	1.8	3,914

Source: Mental Health Information System, Department of Health.

Note: Other drugs includes cocaine (F14 and hallucinogens (F16).

Figure A4-5

**Quarterly stimulant related psychiatric outpatient treatment episodes by diagnostic group
September quarter 2000 - December quarter 2006**

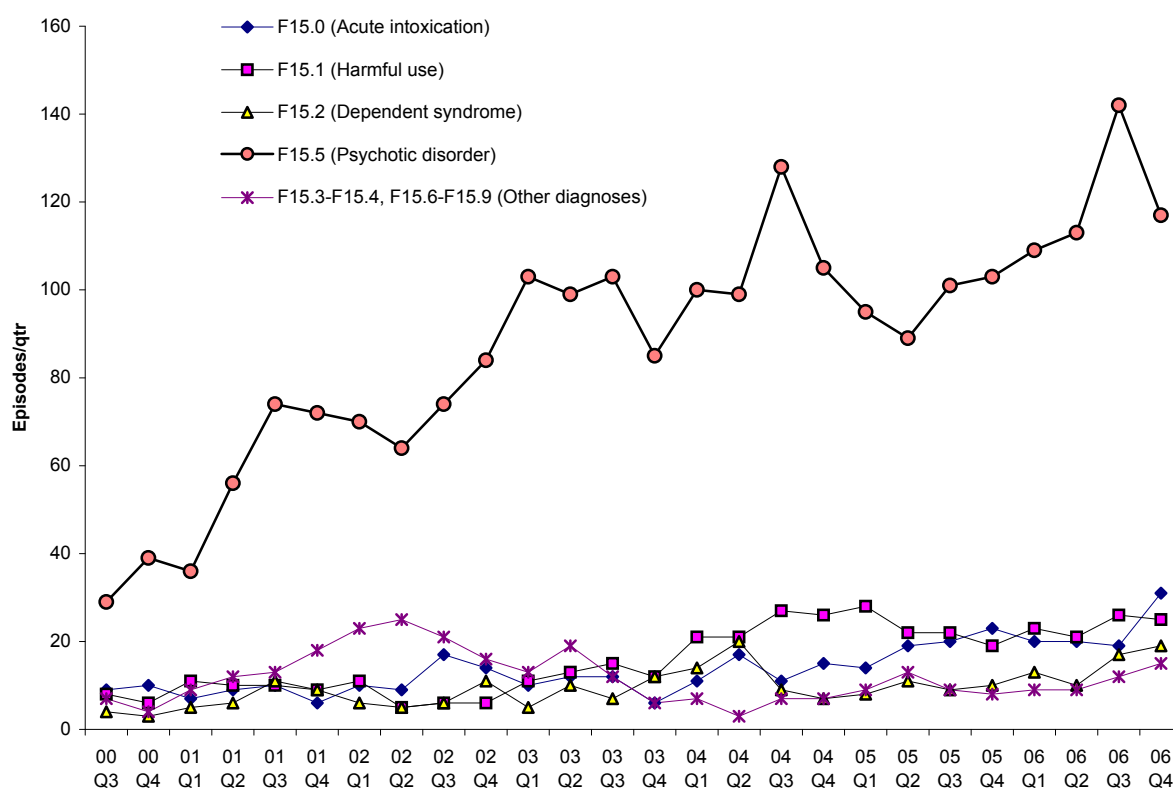


Figure A4-6

Quarterly stimulant related psychiatric outpatient treatment episodes by age group
September quarter 2000 - December quarter 2006

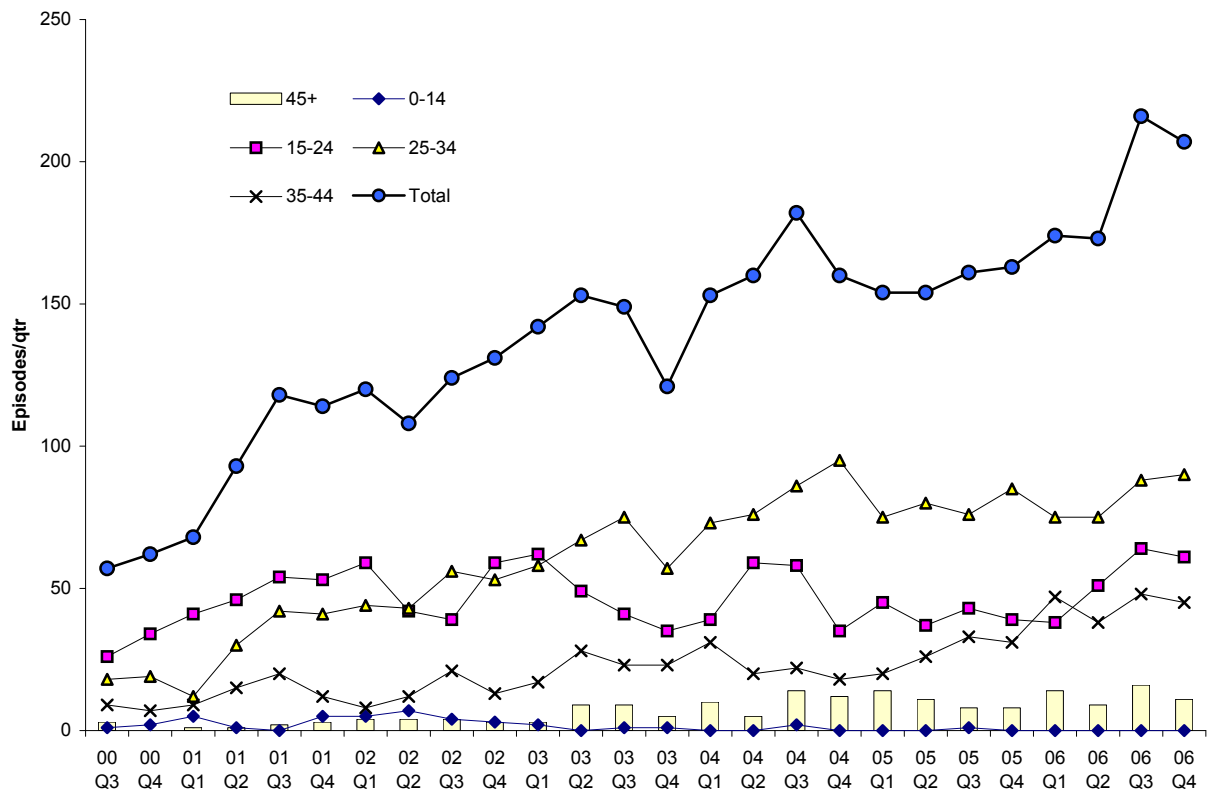


Table A4-10

Quarterly stimulant related psychiatric outpatient treatment episodes by diagnostic group, September quarter 2000 - December quarter 2006

	Acute intoxication (F15.0)	Harmful use (F15.1)	Dependent syndrome (F15.2)	Psychotic disorder (F15.5)	Other diagnoses (F15.3-F15.4, F15.6-F15.9)	Total
2000						
Qtr 1						
Qtr 2						
Qtr 3	9	8	4	29	7	57
Qtr 4	10	6	3	39	4	62
Total	19	14	7	68	11	119
2001						
Qtr 1	7	11	5	36	9	68
Qtr 2	9	10	6	56	12	93
Qtr 3	10	10	11	74	13	118
Qtr 4	6	9	9	72	18	114
Total	32	40	31	238	52	393
2002						
Qtr 1	10	11	6	70	23	120
Qtr 2	9	5	5	64	25	108
Qtr 3	17	6	6	74	21	124
Qtr 4	14	6	11	84	16	131
Total	50	28	28	292	85	483
2003						
Qtr 1	10	11	5	103	13	142
Qtr 2	12	13	10	99	19	153
Qtr 3	12	15	7	103	12	149
Qtr 4	6	12	12	85	6	121
Total	40	51	34	390	50	565
2004						
Qtr 1	11	21	14	100	7	153
Qtr 2	17	21	20	99	3	160
Qtr 3	11	27	9	128	7	182
Qtr 4	15	26	7	105	7	160
Total	54	95	50	432	24	655
2005						
Qtr 1	14	28	8	95	9	154
Qtr 2	19	22	11	89	13	154
Qtr 3	20	22	9	101	9	161
Qtr 4	23	19	10	103	8	163
Total	76	91	38	388	39	632
2006						
Qtr 1	20	23	13	109	9	174
Qtr 2	20	21	10	113	9	173
Qtr 3	19	26	17	142	12	216
Qtr 4	31	25	19	117	15	207
Total	90	95	59	481	45	770

Source: Mental Health Information System, Department of Health.

Note: Shading indicates data not available.

Table A4-11

Quarterly stimulant related psychiatric outpatient treatment episodes by age group, September quarter 2000 - December quarter 2006: males

	<15	15-24	25-34	35-44	45+	Total
2000						
Qtr 1						
Qtr 2						
Qtr 3	1	16	13	5	-	35
Qtr 4	2	19	12	4	-	37
Total	3	35	25	9	-	72
2001						
Qtr 1	5	23	6	7	-	41
Qtr 2	1	26	20	7	-	54
Qtr 3	-	43	18	7	-	68
Qtr 4	4	34	25	1	-	64
Total	10	126	69	22	-	227
2002						
Qtr 1	3	40	32	3	4	82
Qtr 2	6	28	24	6	3	67
Qtr 3	4	25	36	9	4	78
Qtr 4	3	39	39	4	3	88
Total	16	132	131	22	14	315
2003						
Qtr 1	2	43	36	8	2	91
Qtr 2	-	36	44	19	1	100
Qtr 3	1	31	37	17	4	90
Qtr 4	1	26	25	12	3	67
Total	4	136	142	56	10	348
2004						
Qtr 1	-	23	31	12	5	71
Qtr 2	-	43	44	4	3	94
Qtr 3	-	41	54	8	6	109
Qtr 4	-	24	61	6	4	95
Total	-	131	190	30	18	369
2005						
Qtr 1	-	29	49	6	6	90
Qtr 2	-	29	50	9	2	90
Qtr 3	-	35	47	15	4	101
Qtr 4	-	33	56	20	7	116
Total	-	126	202	50	19	397
2006						
Qtr 1	-	33	50	31	8	122
Qtr 2	-	39	52	19	5	115
Qtr 3	-	52	60	28	11	151
Qtr 4	-	38	63	29	8	138
Total	-	162	225	107	32	526

Source: Mental Health Information System, Department of Health.

Note: Shading indicates data not available.

Table A4-12

Quarterly stimulant related psychiatric outpatient treatment episodes by age group, September quarter 2000 - December quarter 2006: females

	<15	15-24	25-34	35-44	45+	Total
2000						
Qtr 1						
Qtr 2						
Qtr 3	-	10	5	4	3	22
Qtr 4	-	15	7	3	-	25
Total	-	25	12	7	3	47
2001						
Qtr 1	-	18	6	2	1	27
Qtr 2	-	20	10	8	1	39
Qtr 3	-	11	24	13	2	50
Qtr 4	1	19	16	11	3	50
Total	1	68	56	34	7	166
2002						
Qtr 1	2	19	12	5	-	38
Qtr 2	1	14	19	6	1	41
Qtr 3	-	14	20	12	-	46
Qtr 4	-	20	14	9	-	43
Total	3	67	65	32	1	168
2003						
Qtr 1	-	19	22	9	1	51
Qtr 2	-	13	23	9	8	53
Qtr 3	-	10	38	6	5	59
Qtr 4	-	9	32	11	2	54
Total	-	51	115	35	16	217
2004						
Qtr 1	-	16	42	19	5	82
Qtr 2	-	16	32	16	2	66
Qtr 3	2	17	32	14	8	73
Qtr 4	-	11	34	12	8	65
Total	2	60	140	61	23	286
2005						
Qtr 1	-	16	26	14	8	64
Qtr 2	-	8	30	17	9	64
Qtr 3	1	8	29	18	4	60
Qtr 4	-	6	29	11	1	47
Total	1	38	114	60	22	236
2006						
Qtr 1	-	5	25	16	6	52
Qtr 2	-	12	23	19	4	58
Qtr 3	-	12	28	20	5	65
Qtr 4	-	23	27	16	3	69
Total	-	52	103	71	18	244

Source: Mental Health Information System, Department of Health.

Note: Shading indicates data not available.

Table A4-13
Quarterly stimulant related outpatient treatment
episodes by age group, September quarter
2000 - December quarter 2006: persons

	<15	15-24	25-34	35-44	45+	Total
2000						
Qtr 1						
Qtr 2						
Qtr 3	1	26	18	9	3	57
Qtr 4	2	34	19	7	-	62
Total	3	60	37	16	3	119
2001						
Qtr 1	5	41	12	9	1	68
Qtr 2	1	46	30	15	1	93
Qtr 3	-	54	42	20	2	118
Qtr 4	5	53	41	12	3	114
Total	11	194	125	56		393
2002					7	
Qtr 1	5	59	44	8	4	120
Qtr 2	7	42	43	12	4	108
Qtr 3	4	39	56	21	4	124
Qtr 4	3	59	53	13	3	131
Total	19	199	196	54	15	483
2003						
Qtr 1	2	62	58	17	3	142
Qtr 2	-	49	67	28	9	153
Qtr 3	1	41	75	23	9	149
Qtr 4	1	35	57	23	5	121
Total	4	187	257	91	26	565
2004						
Qtr 1	-	39	73	31	10	153
Qtr 2	-	59	76	20	5	160
Qtr 3	2	58	86	22	14	182
Qtr 4	-	35	95	18	12	160
Total	2	191	330	91	41	655
2005						
Qtr 1	-	45	75	20	14	154
Qtr 2	-	37	80	26	11	154
Qtr 3	1	43	76	33	8	161
Qtr 4	-	39	85	31	8	163
Total	1	164	316	110	41	632
2006						
Qtr 1	-	38	75	47	14	174
Qtr 2	-	51	75	38	9	173
Qtr 3	-	64	88	48	16	216
Qtr 4	-	61	90	45	11	207
Total	-	214	328	178	40	770

Source: Mental Health Information System, Department of Health.

Note: Shading indicates data not available.

Self Reported Health Conditions: 2004

Table A4-14

Self reported health conditions (%) by selected drug use status, Australia, 2004

Respondents could select more than one condition in response to the question "In the last 12 months have you been diagnosed or treated for ..."

	Diabetes	Heart diseases	Asthma	Cancer	Mental illness
Tobacco smoking status					
Daily	3.4	10.8	9.4	2.0	15.3
Other recent smoker	2.5	9.0	7.2	1.0	7.6
Non smoker	4.4	17.4	7.5	2.5	7.8
Risk of short term alcohol related harm					
Abstainer	7.2	20.8	8.1	3.0	8.9
Low risk	4.3	17.2	7.5	2.5	8.7
Risky	2.0	9.8	7.6	1.9	10.0
High risk	1.3	7.2	9.3	1.2	11.1
Cannabis					
Used in last month	0.9	4.0	10.1	1.0	16.5
Not used in last month	4.4	16.8	7.6	2.5	8.6
Inhalants					
Used in last month	2.1	8.9	15.9	7.5	22.1
Not used in last month	4.2	15.9	7.8	2.4	9.1
Heroin					
Used in last month	-	2.8	16.2	-	50.3
Not used in last month	4.2	15.9	7.8	2.4	9.1
Meth/amphetamines					
Used in last month	1.2	4.0	13.9	1.9	19.8
Not used in last month	4.2	16.1	7.7	2.4	9.0
Cocaine					
Used in last month	1.2	1.5	8.4	-	13.1
Not used in last month	4.2	15.9	7.8	2.4	9.1
Ecstasy					
Used in last month	0.7	0.8	11.8	0.3	16.0
Not used in last month	4.2	16.1	7.7	2.4	9.0
Any illicit drug					
Used in last month	2.0	7.4	9.7	1.5	16.6
Not used in last month	4.3	16.5	7.6	2.5	8.3
All persons (aged 14 years+)	4.2	16.0	7.8	2.4	9.1

Source: 2004 National Drug Strategy Household Survey: Detailed findings. AIHW Cat. No. PHE 68. Canberra, Australian Institute of Health & Welfare 2005 (Table 20.2).

Note: Shading indicates relative standard error greater than 50%.

- zero or rounded as zero.

Mental illness included depression, anxiety disorder, schizophrenia, bipolar disorder and eating disorder or other form of psychosis.

5. Criminal Justice Indicators

Drug Seizures, WA: 1998 - 2006

Table A5-1
Annual number of seizures by type of drug, WA, 1998 - 2002

	1998		1999		2000		2001		2002	
	n	%	n	%	n	%	n	%	n	%
Amphetamines	1,060	5.3	1,448	6.9	2,172	10.0	3,024	13.3	1,822	11.3
Cannabis	16,798	84.1	17,467	82.7	16,746	77.2	17,198	75.4	12,781	79.4
Cocaine	79	0.4	12	0.1	31	0.1	50	0.2	12	0.1
Dexamphetamine	52	0.3	88	0.4	111	0.5	156	0.7	156	1.0
Heroin	852	4.3	808	3.8	661	3.1	296	1.3	218	1.4
Ecstasy (MDMA)	190	1.0	214	1.0	337	1.6	407	1.8	137	0.9
LSD	91	0.5	77	0.4	104	0.5	47	0.2	21	0.1
MDA	-	-	-	-	-	-	32	0.1	29	0.2
Morphine	27	0.1	40	0.2	25	0.1	43	0.2	64	0.4
Opium	11	0.1	43	0.2	14	0.1	18	0.1	6	0.1
Other	251	1.3	255	1.2	379	1.8	433	1.9	282	1.8
Unknown	551	2.8	660	3.1	1,101	5.1	1,091	4.8	571	3.5
Total	19,962	100.0	21,112	100.0	21,681	100.0	22,795	100.0	16,099	100.0

Source: Crime Information Unit, WA Police Service

Note: Amphetamines includes both amphetamine and methylamphetamine seizures.

Table A5-2
Annual number of seizures by type of drug, WA, 2003 - 2006

	2003		2004		2005		2006	
	n	%	n	%	n	%	n	%
Amphetamines	1,910	13.9	2,287	16.9	2,532	17.1	3,404	22.1
Cannabis	10,403	75.4	9,644	71.1	10,337	69.7	9,911	64.3
Cocaine	20	0.1	31	0.2	23	0.2	30	0.2
Dexamphetamine	60	0.4	6	<0.1	-	-	-	-
Ecstasy (MDMA)	245	1.8	384	2.8	422	2.8	482	3.1
Heroin	181	1.3	153	1.1	139	0.9	131	0.8
LSD	16	0.1	6	<0.1	24	0.2	18	0.1
MDA	12	0.1	-	-	-	-	-	-
Morphine	50	0.4	12	0.1	-	-	-	-
Opium	25	0.2	7	0.1	4	<0.1	3	<0.1
Other	534	3.9	528	3.9	717	4.8	725	4.7
Unknown	313	2.5	500	3.7	639	4.3	721	4.7
Total	13,794	100.0	13,558	100.0	14,837	100.0	15,425	100.0

Source: Crime Information Unit, WA Police Service

Note: Amphetamines includes both amphetamine and methylamphetamine seizures.

Table A5-3

Quarterly seizures of amphetamines and all drugs, March quarter 1998 - March quarter 2007

	n	%	All seizures		n	%	All seizures
1998				2003			
Mar qtr	161	3.2	4,968	Mar qtr	386	10.3	3,746
Jun qtr	281	4.7	5,989	Jun qtr	446	11.4	3,919
Sep qtr	255	5.6	4,556	Sep qtr	415	12.9	3,229
Dec qtr	322	7.2	4,449	Dec qtr	322	11.1	2,900
Total	1,019	5.1	19,962	Total	1,569	11.4	13,794
1999				2004			
Mar qtr	365	6.3	5,771	Mar qtr	453	14.7	3,079
Jun qtr	388	7.1	5,473	Jun qtr	636	16.5	3,850
Sep qtr	367	7.5	4,898	Sep qtr	594	17.6	3,372
Dec qtr	240	4.8	4,970	Dec qtr	585	18.0	3,257
Total	1,360	6.4	21,112	Total	2,268	16.7	13,558
2000				2005			
Mar qtr	435	8.1	5,391	Mar qtr	538	16.2	3,327
Jun qtr	436	7.8	5,600	Jun qtr	747	17.2	4,331
Sep qtr	667	11.5	5,816	Sep qtr	561	16.6	3,377
Dec qtr	478	9.8	4,874	Dec qtr	686	18.0	3,802
Total	2,016	9.3	21,681	Total	2,532	17.1	14,837
2001				2006			
Mar qtr	681	11.0	6,181	Mar qtr	723	19.3	3,750
Jun qtr	756	11.9	6,372	Jun qtr	846	20.9	4,048
Sep qtr	690	12.9	5,358	Sep qtr	1,133	25.9	4,380
Dec qtr	548	11.2	4,884	Dec qtr	702	21.6	3,247
Total	2,675	11.7	22,795	Total	3,404	22.1	15,425
2002				2007			
Mar qtr	475	11.3	4,189	Mar qtr	874	24.2	3,617
Jun qtr	450	9.8	4,570				
Sep qtr	372	9.9	3,755				
Dec qtr	342	9.5	3,585				
Total	1,639	10.2	16,099				

Source: Crime Information Unit, WA Police Service

Note: Amphetamines includes both amphetamine and methylamphetamine seizures.

Figure A5-1

Quarterly stimulant seizures, March quarter 1998 - March quarter 2007

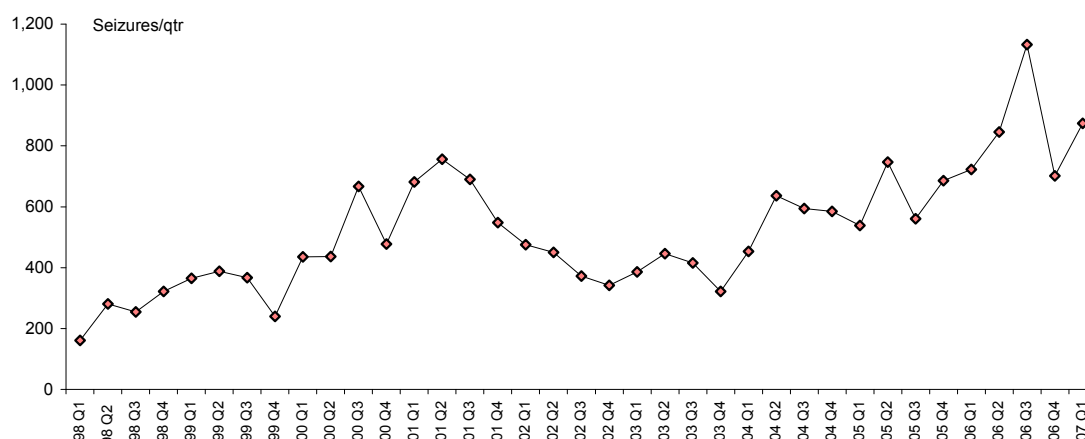
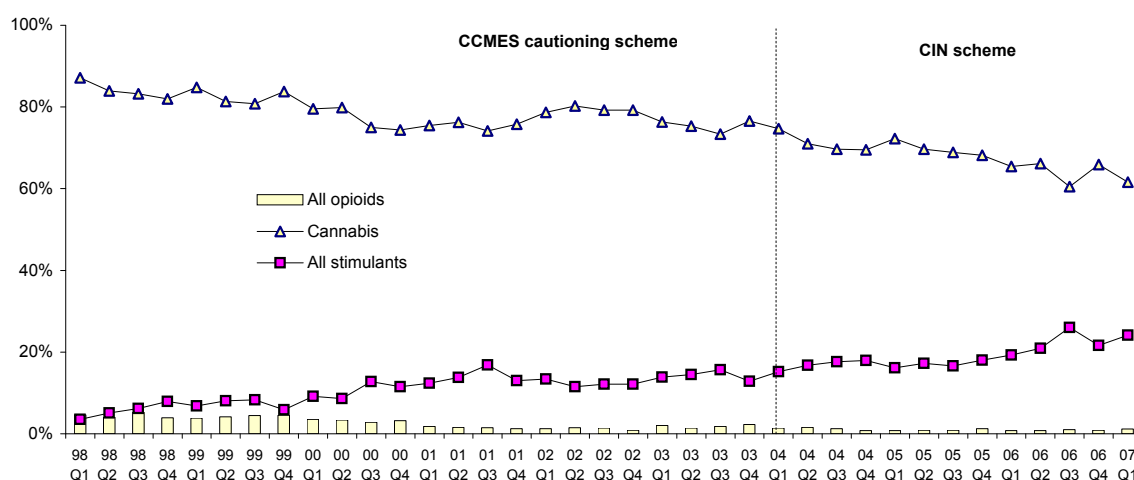


Figure A5-2
Proportion (%) of cannabis & stimulant seizures of all drug seizures
March quarter 1998 - March quarter 2007



Purity analysis, WA: 2002

Table A5-4
Analysis of methylamphetamine, 2002 - distribution of 676 samples by weight (gms) & purity (%)

Weight (gms)	Purity (%)						Total
	0.1-9.9	10.0-19.9	20.0-29.9	30.0-39.9	40.0-49.9	50+	
0-0.4	95	40	22	12	7	24	200
0.5-0.9	32	25	19	10	9	3	98
1.0-1.4	17	12	2	3	-	4	38
1.5-1.9	10	7	3	3	2	2	27
2.0-2.9	14	6	14	7	2	11	54
3.0-3.9	11	12	15	14	3	6	61
4.0-4.9	1	2	4	3	1	3	14
5.0-5.9	5	2	6	3	2	2	20
6.0-6.9	1	4	3	2	3	5	18
7.0-7.9	4	-	2	2	-	1	9
8.0-8.9	1	-	1	1	1	2	6
9.0-9.9	3	3	-	4	-	1	11
10.0-49.9	19	25	20	11	4	12	91
50.0+	6	5	-	4	7	7	29
Total	219	143	111	79	41	83	676

Source: WA Police Service & Chemistry Centre

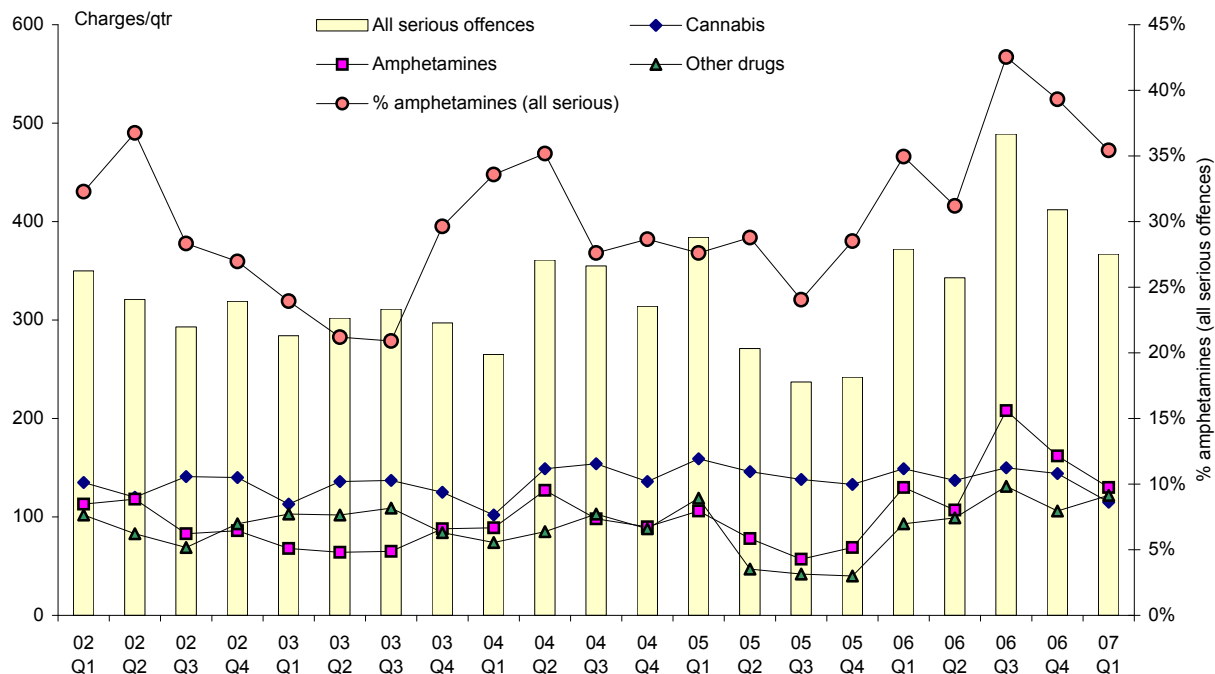
Table A5-5
Analysis of methylamphetamine, 2002 - drugs detected in 676 samples

	Form of drug				Total	%
	Tablets	Liquid	Crystal	Powder		
Methylamphetamine	9	12	1	641	664	98.2
Ephedrine/pseudoephedrine	1	2	1	291	295	43.6
Phenyl-2-propanone	-	-	-	-	25	3.7
Amphetamine	-	-	-	28	28	4.1
Caffeine	-	-	-	22	22	3.3
MDMA	2	-	-	4	6	0.9
Other	3	-	-	20	23	3.4

Drug Convictions - Courts of Petty Sessions: 1999 - 2007

Figure A5-3

Quarterly serious drug charges heard in Courts of Petty Sessions by type of drug
March quarter 1999 - March quarter 2007



DUMA (Drug Use Monitoring Arrestees): 1999 - 2007

Figure A5-4

Quarterly positive test results (%), opiates & amphetamines - DUMA, East Perth Lockup
March quarter 1999 - March quarter 2007

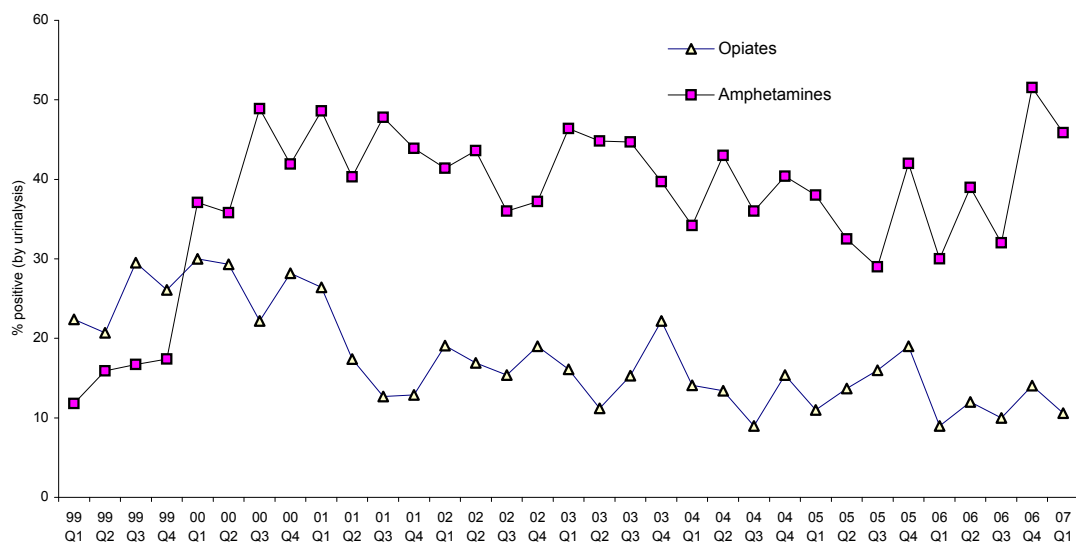


Table A5-6
Quarterly positive test results (%) by type of drug, East Perth Lockup
March quarter 1999 - March quarter 2007

		Sample size	Cannabis	Opiates			MDMA (ecstasy)	Amphetamines		Benzo-diazepines
				Opiates	Heroin	Methadone		Amphetamines	Methamphetamine	
1999	Qtr 1	76	63.2	22.4	17.1	3.9	1.3	11.8	7.9	15.8
	Qtr 2	82	59.8	20.7	17.5	-	1.2	15.9	15.0	13.4
	Qtr 3	78	60.3	29.5	29.5	7.7	1.3	16.7	15.4	28.2
	Qtr 4	69	59.4	26.1	15.9	8.7	-	17.4	13.0	17.4
2000	Qtr 1	70	58.6	30.0	21.4	7.1	-	37.1	28.6	34.3
	Qtr 2	123	60.2	29.3	23.0	4.9	-	35.8	33.6	30.9
	Qtr 3	90	61.1	22.2	16.9	4.4	-	48.9	42.7	18.9
	Qtr 4	117	64.1	28.2	24.8	6.0	0.9	41.9	37.6	29.9
2001	Qtr 1	144	66.7	26.4	23.6	5.6	-	48.6	46.5	32.6
	Qtr 2	144	65.3	17.4	11.8	3.5	0.7	40.3	37.5	20.8
	Qtr 3	134	67.2	12.7	9.0	3.7	2.3	47.8	44.4	26.1
	Qtr 4	139	61.2	12.9	10.1	5.0	-	43.9	41.0	23.7
2002	Qtr 1	152	64.5	19.1	11.8	6.6	2.0	41.4	36.8	23.0
	Qtr 2	172	64.5	16.9	12.2	4.1	-	43.6	37.2	22.7
	Qtr 3	136	59.6	15.4	9.6	0.7	1.5	36.0	31.6	22.8
	Qtr 4	137	63.5	19.0	10.9	2.9	1.5	37.2	32.8	27.7
2003	Qtr 1	112	56.3	16.1	11.6	3.6	-	46.4	42.0	20.5
	Qtr 2	116	56.9	11.2	6.1	3.4	-	44.8	40.9	25.0
	Qtr 3	150	58.7	15.3	10.7	8.7	3.3	44.7	42.7	24.7
	Qtr 4	126	60.3	22.2	15.1	7.1	0.8	39.7	29.4	41.3
2004	Qtr 1	149	56.5	14.1	10.7	4.7	1.3	34.2	31.5	27.5
	Qtr 2	142	61.3	13.4	9.9	5.6	1.4	43.0	41.5	23.0
	Qtr 3	101	69.0	9.0	4.0	3.0	3.0	36.0	33.0	27.0
	Qtr 4	136	66.9	15.4	11.0	3.7	2.2	40.4	36.0	25.7
2005	Qtr 1	103	65.0	11.0	5.0	4.0	3.0	38.0	33.0	18.0
	Qtr 2	117	62.4	13.7	10.3	4.3	1.7	32.5	29.1	17.1
	Qtr 3	116	58.0	16.0	14.0	3.0	4.0	29.0	27.0	25.0
	Qtr 4	111	62.0	19.0	10.0	5.0	3.0	42.0	40.0	23.0
2006	Qtr 1	140	54.0	9.0	6.0	4.0	1.0	30.0	27.0	23.0
	Qtr 2	119	58.0	12.0	5.0	4.0	1.0	39.0	35.0	26.0
	Qtr 3	114	64.0	10.0	6.0	3.0	6.0	32.0	31.0	19.0
	Qtr 4	64	68.8	14.1	12.5	6.3	1.6	51.6	43.8	12.5
2007	Qtr 1	86	43.5	10.6	7.1	1.2	3.5	45.9	34.1	27.1

Source: WA Police Service & Australian Institute of Criminology. DUMA WA dataset.

Trends in Arrests: Australia & WA: 1995/1996 - 2005/2006

Table A5-7

Annual amphetamine offences by type of offence - arrests, Australia, 1995/1996 - 2004/2005

	Amphetamine offences				All types of drug offences				Amphetamines %
	Consumer	Provider	Total	% provider	Consumer	Provider	Unknown	Total	
1995/1996	3,118	1,096	4,214	26.0	73,800	24,994	-	98,794	4.3
1996/1997	2,702	1,205	3,907	30.8	60,733	24,313	-	85,046	4.6
1997/1998	3,339	1,417	4,766	29.7	60,774	23,348	-	84,122	5.7
1998/1999	4,976	1,608	6,584	24.4	65,836	17,688	-	83,524	7.9
1999/2000	6,252	1,829	8,081	22.6	66,723	14,601	-	81,324	9.9
2000/2001	6,768	2,071	8,839	23.4	63,766	12,697	-	76,463	11.6
2001/2002	5,815	2,212	8,027	27.6	58,768	14,457	-	73,225	11.0
2002/2003	5,914	2,340	8,254	28.3	59,657	14,753	-	74,410	11.1
2003/2004	6,734	2,805	9,539	29.4	62,829	15,451	-	78,280	12.2
2004/2005	7,297	2,696	9,993	27.0	62,209	14,613	511	76,822	12.9
2005/2006	8,183	3,623	11,848	30.6	63,520	14,756	257	78,533	15.1

Source: Australian Bureau of Criminal Intelligence & Australian Crime Commission. Australian Illicit Drug Reports (Annual).

Note: Totals may exceed sum of table components due to inclusion of unknown offence type.

Table A5-8

Annual amphetamine offences by type of offence - arrests, WA, 1995/1996 - 2005/2006

	Amphetamine offences				All types of drug offences			Amphetamines %
	Consumer	Provider	Total	% provider	Consumer	Provider	Total	
1995/1996	348	154	502	30.7	9,611	5,357	14,968	3.4
1996/1997	324	164	488	33.6	9,062	5,026	14,088	3.5
1997/1998	403	264	667	39.6	8,309	4,989	13,298	5.0
1998/1999	547	148	695	21.3	5,489	1,753	7,242	9.6
1999/2000	810	292	1,102	26.5	6,914	1,914	8,828	12.5
2000/2001	1,308	446	1,754	25.4	7,956	2,114	10,070	17.4
2001/2002	1,231	494	1,725	28.6	7,513	2,016	9,529	18.1
2002/2003	901	395	1,296	30.5	6,009	1,818	7,858	16.5
2003/2004	1,171	538	1,709	31.5	8,399	2,184	10,619	16.1
2004/2005	1,405	634	2,039	31.1	10,463	2,364	12,880	15.8
2005/2006	1,379	515	1,903	27.1	9,061	1,657	10,780	17.7

Source: Australian Bureau of Criminal Intelligence & Australian Crime Commission. Australian Illicit Drug Reports (Annual).

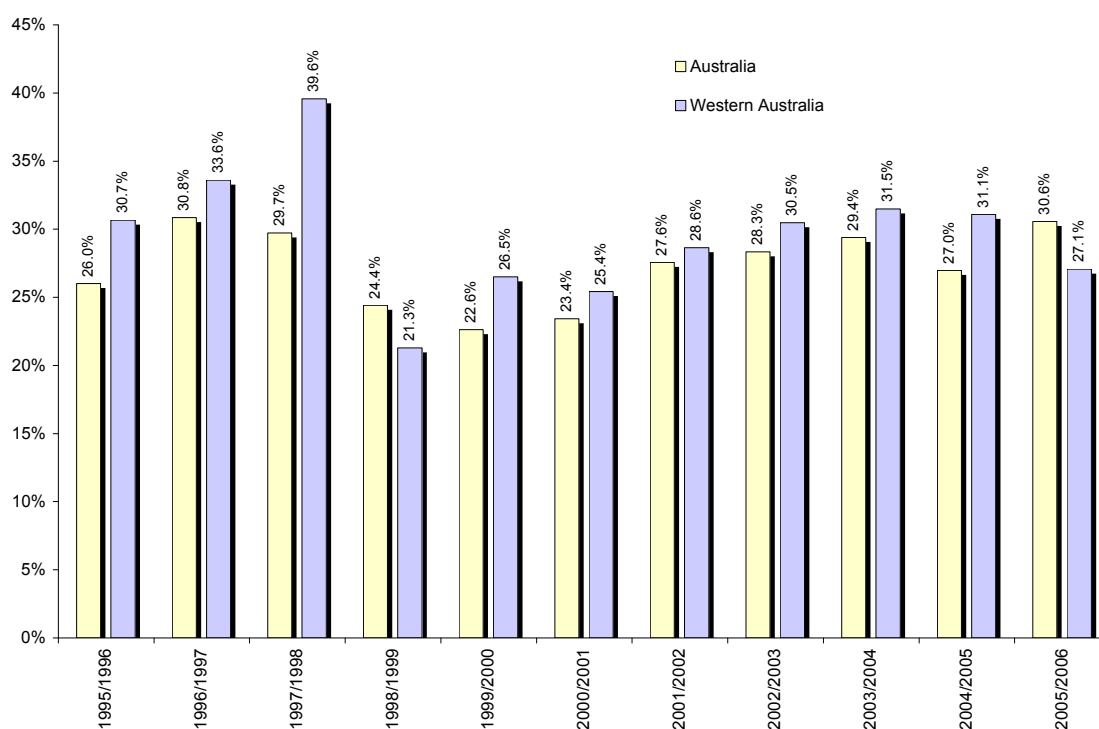
Note: Totals may exceed sum of table components due to inclusion of unknown offence type.

Table A5-9**Annual amphetamine offences by jurisdiction - arrests only, 1995/1996 - 2004/2005**

Year	NSW	VIC	QLD	SA	WA	Tas	NT	ACT	Australia
1995/1996	1,272	1,633	560	173	502	42	13	19	4,214
1996/1997	1,265	639	1,147	310	488	20	22	16	3,907
1997/1998	1,612	744	1,305	379	667	15	26	18	4,766
1998/1999	2,352	1,028	1,814	623	695	7	42	23	6,584
1999/2000	2,786	1,140	2,158	743	1,104	28	124	na	8,083
2000/2001	2,841	1,263	1,992	711	1,758	70	160	56	8,851
2001/2002	2,043	1,608	2,007	475	1,725	89	56	60	8,063
2002/2003	2,070	1,842	2,533	388	1,300	66	50	64	8,313
2003/2004	2,001	2,240	3,000	451	1,711	39	52	99	9,593
2004/2005	1,942	2,174	3,337	314	2,045	69	93	94	10,068
2005/2006	2,462	2,838	3,844	518	1,903	83	94	106	11,848

Source: Australian Bureau of Criminal Intelligence & Australian Crime Commission. Australian Illicit Drug Reports (Annual).

Note: Totals may exceed sum of table components due to inclusion of unknown offence type.
Excludes infringement notices.

Figure A5-5**Proportion (%) of all amphetamine offences as provider offences
WA vs Australia, 1995/1996 - 2005/2006**

6. Special Analyses

Designer Drug Related Mortality, WA: 1997 - 2003

Published cause of death data such as published by the National Drug and Alcohol Research Centre in annual reports concerning accidental drug induced deaths is based on those cases where death is attributable to external causes such as poisoning (ie 'overdoses').

This data under enumerates the number of cases as it does not identify additional deaths due to other causes, such as medical conditions caused by the use of methylamphetamine and other designer drugs. A special analysis was done to provide a more complete picture of these deaths by analysis of toxicological data in the Coronial Database to identify additional cases.

This identified those deaths that occurred between 1997 and 2003 which involved designer drugs, such as amphetamine, methylamphetamine, PMA (paramethoxyamphetamine), ecstasy or MDMA (methylenedioxymetamphetamine), MDA (3,4-methylenedioxymethylamphetamine) and ketamine.

The files for each of these deaths were examined to determine the circumstances surrounding the incident and the role identified by the Coroner that designer drugs played in being the primary or related cause of death.

Results

From 1997 to 2003 there was a total of 48 designer drug related deaths in WA (Table A6-1). Overall, the majority of these deaths were due to external causes and the remainder due to medical conditions. In relation to the deaths due to external causes, more than eight out of 10 were overdoses, ie where death arose from the toxic effects of the drug itself and the remainder involved other external causes such as immersion.

There were a variety of cardiovascular events that were involved in those deaths due to medical conditions, such

as cardiac arrest, cardiac arrhythmia, cardiac dysrhythmia, myocardial infarction or coronary arteriosclerosis. There were also a number of other cases where death arose from other medical conditions such as asthma, cerebral haemorrhage and epileptiform seizure.

All of these medical conditions were found by the Coroner to have occurred as a consequence of the use of designer drugs.

From 1997 to mid 1999 there were very few designer drug related deaths in WA, with only 2 deaths in the September quarter 1997 and 1 death in both the December 1998 and March 1999 quarters (Table A6-1).

However, in late 1999 there was a marked increase in the number of quarterly designer drug related deaths, from 4 in the December quarter 1999 to a peak of 7 in the June quarter 2001. After mid 2001 the number of deaths decreased to 1 in the March quarter 2002. Since early 2002 there have been very few deaths with 3 recorded in the June quarter 2003.

Typically most of the designer drug related deaths have involved people in their late 20s to early 30s, with an average age of about 30 years, except for 1998.

As complete data is not available for the years 2004 up to the present it is not possible to determine more recent trends.

Coroner's verdict

Just over one third of all designer drug deaths in WA over the seven year period from 1997 to 2003 were found by a Coroner to be due to one or more medical conditions caused by the use of designer drugs. The importance of medical conditions is confirmed by overseas research which has also highlighted that the use of designer drugs can result in medical complications.

Extracts from a sample of the Coroner's findings and a narrative of the circumstances provide an understanding of typical circumstances of these deaths.

"Coronary arteriosclerosis associated with recent use of methylamphetamine" (male 36 years). Witness statements noted that about 24 hours after injecting amphetamines this man complained of hot flushes, sweating and shivering. These were symptoms he had experienced a number of times in the preceding six months following amphetamine use and each time he had refused medical assistance.

Table A6-1
Quarterly designer drug related deaths
WA, 1997 - 2003

	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total
1997	-	-	2	-	2
1998	-	-	-	1	1
1999	1	-	-	4	5
2000	4	4	4	5	17
2001	6	7	3	2	18
2002	1	-	1	-	2
2003	-	3	-	-	3

“Coronary arteriosclerosis with thrombosis and methylamphetamine effect (open finding)” (male 37 years). This death occurred as a result of a heart attack due to coronary arteriosclerosis and the use of methylamphetamines was considered to have contributed to the heart attack.

“Intracerebral haemorrhage (massive) in association with arteriovenous malformation (natural causes)” (female 20 years). This death occurred on the day following recreational use of amphetamine tablets at a party. This woman collapsed in the shower, became unconscious and died four days later in an intensive care unit. It was found that she had vascular abnormalities which may have burst due to very high blood pressure (systemic hypertension) that occurred following amphetamine use.

“Consistent with acute cardiac dysrhythmia in a woman with focal coronary artery atherosclerotic and methylamphetamine/amphetamine effect (accident).” (female 24 years). This woman had a pattern of injecting amphetamines with her partner on weekends. Toxicology tests confirmed the presence of methylamphetamine/amphetamine. However, while the levels were not directly fatal, they had potential to create vulnerability to acute cardiac dysrhythmia in a person already cardiologically vulnerable on account of having focal coronary artery disease.

The following Coroner’s findings are concerned with those cases where the toxic effects of the drugs were the underlying cause of death:

- *“Amphetamine effect (accident)”* (female 42 years);
- *“Acute amphetamine toxicity (accident)”* (male 24 years);
- *“Combined drug toxicity (accident) (male 22 years)”*;
- *“Acute combined drug effect (amphetamines, methadone, cannabis, benzodiazepines) (accident)”* (female 32 years).

In these and similar cases there was evidence of amphetamine use in the period immediately prior to death. In a number of these cases the person had also used other substances such as cannabis, alcohol and prescription drugs.

In other cases the Coroner’s verdict referred to the effect of amphetamines in association with other substances, for example *“Aspiration of vomitus in association with alcohol and amphetamine effect (accident)”*, *“Combined drug toxicity (accident)”* or *“Combined drug effect (accident)”*.

The role of PMA (paramethoxyamphetamine) as a contributing cause of death was specifically noted in the verdicts of three cases. All these deaths involved combinations of amphetamine type drugs and ecstasy which also contained PMA.

It was found that a small number of all designer drug related deaths involved Aboriginal persons. There appear to have been relatively few cases where any of these individuals had sought treatment with a specialist drug and alcohol agency.

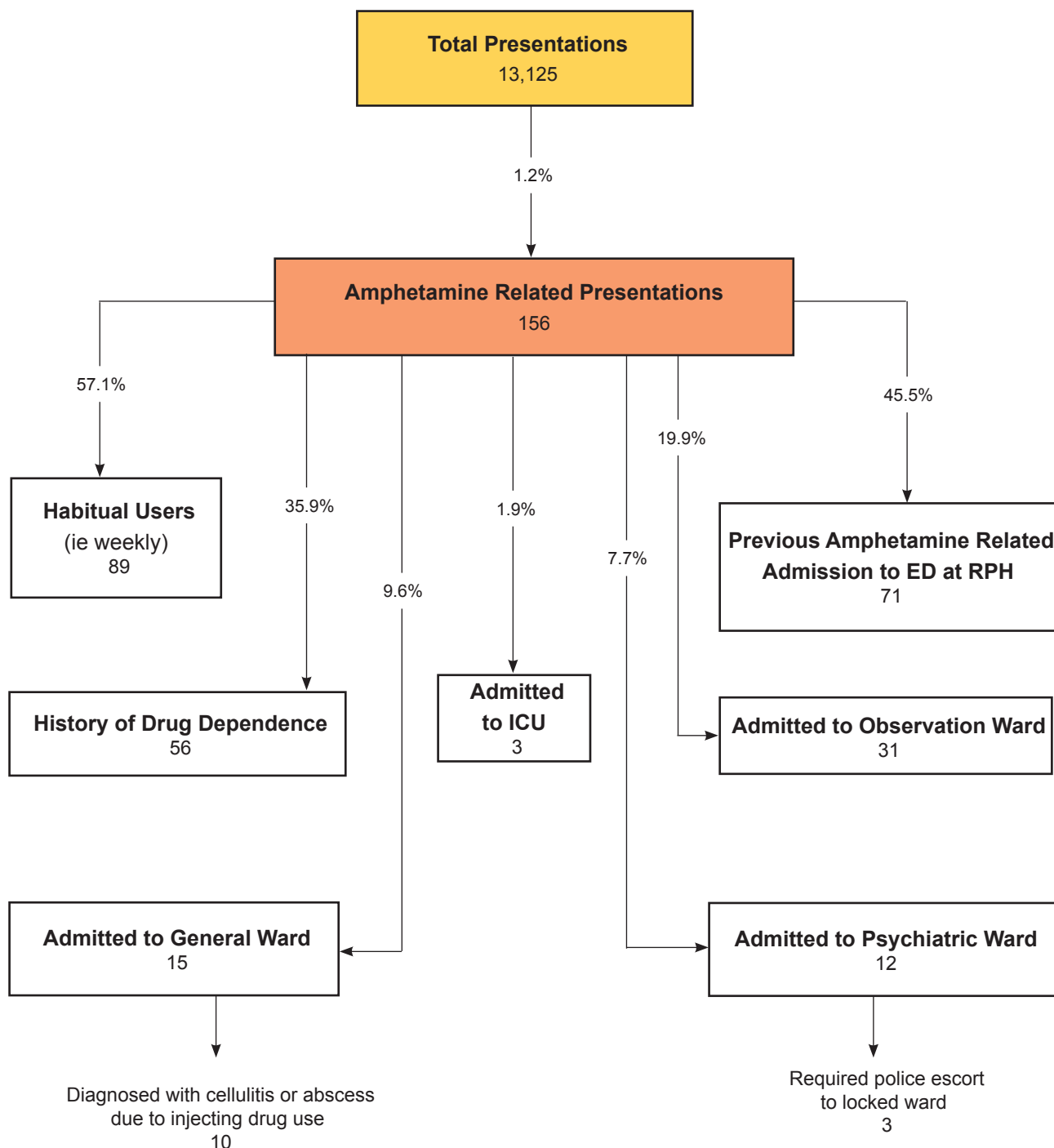
There were four cases where an individual had attended a naltrexone program, including one with a naltrexone implant.

There were also four cases where psychiatric treatment had been undertaken, usually due to self harm incidents and one case where dexamphetamines had been prescribed over a period of time.

Amphetamine Related Acute Morbidity: August - November 2005

Study of amphetamine related presentations at Emergency Department, Royal Perth Hospital

3 August - 20 November 2005



Source: Gray SD, Fatovich DM, McCoubrie DL & Daly FF. 'Amphetamine related presentations to an inner city tertiary emergency hospital: a prospective evaluation.' (2007) 186 *Medical Journal of Australia* 336-339.