

# **Statistics on drug use in Australia 2006**

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# **Statistics on drug use in Australia 2006**

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# Preface

*Statistics on drug use in Australia 2006* is the twelfth in a series originally titled *Statistics on drug abuse in Australia*, which was produced by the Australian Government Department of Health and Ageing. This publication is the fifth produced by the Australian Institute of Health and Welfare (AIHW). This edition includes additional material on illicit drug use by prisoners and juvenile offenders, alcohol use among those in the workforce, and more in-depth information on methamphetamine drug use. It provides a summary of major drug-use statistical collections, which leads interested readers to the sources of more detailed information.

The *National Drug Strategy 2004–2009* cites the development of a ‘Companion document’, which is intended to contain a detailed overview of Australian drug data and information pertaining to consumption and harms. The Australian Government Department of Health and Ageing commissioned the AIHW to produce this edition of *Statistics on drug use in Australia*, to fulfil the role of the *National Drug Strategy 2004–2009* ‘Companion document’.

This report includes data from the 2004 National Drug Strategy Household Survey, findings of which have been published in the AIHW publications *2004 National Drug Strategy Household Survey: first results*, *2004 National Drug Strategy Household Survey: state and territory supplement* and *2004 National Drug Strategy Household Survey: detailed findings*, as well as the 2004 edition of this report.

# Key points

## About this report

This report summarises the major drug-use statistical collections in Australia. It contains information on the use of tobacco, alcohol, illicit drugs and pharmaceuticals and examines the effects of drugs on health and crime. It also focuses on the use of treatment services and substance use in various population groups, such as in youth, Aboriginal and Torres Strait Islander peoples, pregnant women, prisoners and employees.

## Key findings

### Tobacco

- In 2004, 17% of Australians aged 14 years and over were daily smokers.
- Smoking rates have declined over the period 1991 to 2004.
- In 2004-05, the Australian Government collected over \$6.7 billion from the importation and sale of tobacco products.

### Alcohol

- In 2004, 9% of Australians drank daily, 41% drank weekly and 34% drank less than weekly.
- This pattern has remained relatively unchanged over the period 1991 to 2004.
- In 2004, 35% of Australians drank alcohol at levels considered risky or high risk for short-term harm and 10% at levels considered risky or high risk for long-term harm.

### Illicit drugs

- In 2004, 38% of Australians aged 14 years and over had used an illicit drug in their lifetime and 15% in the last 12 months.
- Marijuana/cannabis was the most common illicit drug used (34% had used in their lifetime).
- In 2004, 9% of Australians aged 14 years and over had used methamphetamine in their lifetime and 3% in the last 12 months.

## **Pharmaceuticals**

- In 2005, 234 million prescription medications were dispensed, of which 79% were subsidised by the Australian Government.
- Blood cholesterol medications were the top two medications in terms of cost to the Australian Government, frequency of dispensing, and prescribed daily dose.

## **Drugs and health**

- In 2003, an estimated 8% of the burden of disease was attributable to tobacco, 2% to alcohol and 2% to illicit drugs.
- In 2004, greater psychological distress was associated with marijuana/cannabis users than non-users.
- In 2005, 46% of injecting drug users had overdosed at some point in their lives.

## **Special populations**

- Use of tobacco and alcohol declined among secondary students between 1999 and 2005. The use of various illicit drugs either declined or remained stable.
- Births in mothers with opioid, stimulant or cannabis diagnoses were associated with several negative birth outcomes. For example, there was a substantially higher percentage of low birthweight babies born to mothers with opioid (28%) or cannabis (29%) diagnoses compared with those without such diagnoses (10%).
- In 2004–05, around half of Aboriginal and Torres Strait Islander peoples (52%) were current smokers, 23% had used marijuana/cannabis and 28% an illicit substance in the last 12 months.
- Nearly three-fifths (59%) of prisoners had a history of injecting drugs in 2004. These prisoners were more likely to test positive to hepatitis C (56%) and hepatitis B (27%) than non-injecting drug users in prison.
- Patterns of alcohol consumption were closely linked to the prevalence of negative work-related behaviours and absenteeism in 2001.

## **Treatment services**

- In 2004–05, alcohol was the most common principal drug of concern in treatment episodes (37%), followed by marijuana/cannabis (23%) and heroin (17%).
- There were 39,000 clients receiving pharmacotherapy treatment as at 30 June 2005: 72% were methadone maintenance clients and 28% buprenorphine clients.

## **Crime and law enforcement**

- Marijuana/cannabis accounted for 71% of illicit drug arrests in 2004–05.
- In 2005, one in 10 prisoners was imprisoned for drug-related offences.
- In 2003–04, 88% of juvenile detainees had used an illicit substance 6 months prior to arrest and 70% were intoxicated at the time of offence.

# Summary

## Tobacco

Based on the results of the 2004 National Drug Strategy Household Survey (NDSHS), 17% of the Australian population aged 14 years and over were daily smokers. Approximately one in four Australians (26%) was an ex-smoker and just over half the population (53%) had never smoked.

Overall, men were more likely than women to be smokers. In 2004, 19% of males were daily smokers, compared with 16% of females. People aged 20–29 years of age had the highest smoking rates, with 24% of this age group smoking daily.

Smoking rates declined over the period 1991 to 2004 (from 24% to 17% for daily smokers).

During the 2004–05 financial year, the Australian Government collected over \$6.7 billion in revenue from the importation and sale of tobacco products in Australia.

The decline in smoking rates in Australia over the past three decades has resulted in Australia being ranked one of the lowest of all countries in the Organisation for Economic Co-operation and Development (OECD) in terms of the prevalence of daily smoking.

## Alcohol

In 2004, around 84% of the population aged 14 years and over had consumed at least one full serve of alcohol in the last 12 months. People were most likely to drink either weekly (41%) or less than weekly (34%); 9% of Australians consumed alcohol on a daily basis. People aged 60 years and over recorded the highest prevalence of daily drinking (17%).

The pattern of alcohol consumption by the Australian population has remained relatively unchanged over the period 1991 to 2004.

Overall, males were more likely to consume alcohol daily (12%) or weekly (48%) compared with females (6% and 35% respectively).

Around one in five Australians (35%) aged 14 years and over consumed alcohol at risky or high-risk levels for short-term risk on at least one occasion in the last 12 months. One in ten Australians consumed alcohol at levels that are considered risky or high risk for alcohol-related harm in the long term.

Consistent with the trends in reported consumption, the apparent consumption of alcohol by Australians measured in litres per capita has remained stable during the past decade.

In 2003, Australia ranked 22nd highest in the world in terms of per capita consumption of alcohol, with approximately 7.2 litres equivalent of pure alcohol consumed per person. This corresponded to an annual per capita consumption of approximately 92 litres of beer, 20 litres of wine and 1 litre of pure alcohol from spirits.

## Illicit drugs

Based on responses to the 2004 NDSHS, 38% of Australians aged 14 years and over had used any illicit drug at least once in their lifetime, and 15% had used any illicit drug at least once in the last 12 months.

Marijuana/cannabis was the most common illicit drug used, with one in three persons (34%) having used it at least once in their lifetime and 11% of the population having used it in the previous 12 months.

Recent illicit drug use was most prevalent among persons aged between 18 and 29 years in 2004, with almost one in three people (31%) in this age bracket having used at least one illicit drug in the last 12 months.

The proportion of the population who had used any illicit drug in the last 12 months fluctuated between 1991 and 2004, reaching the same level in 2004 as the prevalence in 1991 (15%). While the proportion of people who had recently used marijuana/cannabis in 2004 (11%) was the lowest over this 13-year period, the proportion using ecstasy (3%) was the highest for that substance in the same period.

Methamphetamine use was relatively uncommon in Australia in 2004: around 3% aged 14 years and over had used it in the last 12 months and 9% in their lifetime. Powder was the most common form of methamphetamine used (74%). The majority of users reported taking the drug in their own home or at a friend's house (66%).

## Pharmaceuticals

Of the 234 million prescription medicines dispensed in 2005, 79% were subsidised by the Australian Government. The two prescription medicines distributed most frequently through community pharmacies, with the greatest cost to the government and with the highest defined daily dose per 1,000 population, were both medications prescribed for lipid reduction (lowering of blood cholesterol).

## Drugs and health

In 2003, it was estimated that 8% of the burden of disease in Australia was attributable to tobacco use and 2% to illicit drug use. Three per cent of the total burden of disease was attributable to alcohol consumption. However, alcohol was also estimated to prevent 1% of the burden of disease in 2003.

Among those seeking assistance from health professionals, depression and anxiety were the most common mental health problems for which injecting drug users sought assistance (68% and 38% respectively).

According to the annual Needle and Syringe Program (NSP) Survey, hepatitis C prevalence among people attending needle and syringe programs remained high over the period 1997 to 2005, at around 60%.

In 2005, 46% of injecting drug users surveyed had overdosed at some point in their lifetime. The death rate from accidental opioid overdose among people aged 15–54 years increased during the late 1990s, peaking at 101.9 deaths per million persons in 1999, before declining

sharply to 34.6 deaths per million persons in 2001. Since 2001, the death rate from accidental opioid overdose has declined slightly, to 31.3 deaths per million persons in 2004.

## **Special population groups**

### **Young people**

Based on results from a nationally representative study, smoking prevalence and alcohol consumption declined among secondary students aged 12–17 years between 1999 and 2005. The use of various illicit drugs by this population group either declined or remained stable during this time.

### **Aboriginal and Torres Strait Islander people**

In 2004–05, 16% of Aboriginal and Torres Strait Islander peoples drank at risky and high-risk levels in the last week; 24% had not consumed alcohol in the last 12 months. Approximately half (52%) of Aboriginal and Torres Strait Islander peoples reported that they were current smokers, 23% that they had used marijuana/cannabis in the last 12 months and 28% that they had used an illicit substance in the last 12 months.

### **Pregnant women**

Recent research linking birth records to hospital data indicates that mothers who give birth with an illicit drug-related diagnosis (opioids, stimulants or cannabis) are more likely to be younger, unmarried, Australian-born and Indigenous. Births in mothers with opioid, stimulant or cannabis diagnosis are linked to several negative birth outcomes (e.g. low birthweight).

### **Prisoners**

In 2004, almost 60% of prisoners reported a history of injecting drug use. Prisoners who injected drugs were more likely to test positive for hepatitis C (56%) and hepatitis B (27%) than non-injecting drug users in prison. Less than 1% of prisoners in 2004 tested positive for the HIV antibody.

### **Employees**

Significant differences in the level of short-term and long-term risk levels were identified between industry groups for employed recent drinkers in 2001. Patterns of alcohol consumption were also closely linked to the prevalence of negative work-related behaviours and absenteeism. As the frequency of risky and high-risk alcohol consumption increased, so, too, did the proportion of employees missing days of work in the last 3 months, the proportion of people attending work under the influence of alcohol, and the proportion of employees who usually drank at work.

## **Treatment services**

In the 2004–05 Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS-NMDS) collection, alcohol was the most common principal drug of concern in treatment episodes (37%), followed by marijuana/cannabis (23%), heroin (17%) and meth/amphetamine (11%). The proportion of treatment episodes where alcohol was the principal drug of concern increased with age, while the proportion of episodes where marijuana/cannabis was the principal drug of concern decreased with age.

Treatment episodes for clients aged 20–29 years were the most diverse in terms of drug type, with roughly similar proportions of episodes for alcohol, marijuana/cannabis, heroin and meth/amphetamine.

In 2004–05, one-quarter of treatment episodes involved clients who identified themselves as current injectors.

Almost 39,000 clients were receiving pharmacotherapy treatment at 30 June 2005, with the majority of these treatments received from a private prescriber (70%). Excluding clients where the type of drug used could not be identified, there were 25,369 (72%) methadone maintenance therapy clients and 9,947 (28%) buprenorphine maintenance therapy clients.

## **Crime and law enforcement**

Marijuana/cannabis accounted for 71% of illicit drug arrests in 2004–05, compared with 13% of arrests related to amphetamine-type stimulants.

In 2004, one in ten sentenced prisoners was imprisoned for drug-related offences. The most common drug-related offence for which people were imprisoned was dealing/trafficking drugs.

Results based on the 2003–04 Drug Use Career of Offenders (DUCO) study show that 88% of juvenile detainees had used an illicit drug in the 6 months prior to their arrest, while 70% were intoxicated at the time of offence. The study also shows that juvenile detainees were 10 times more likely than adolescents in the general population to use amphetamine and hallucinogens and 16 times more likely to use inhalants.

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# Abbreviations

ABS	Australian Bureau of Statistics
ACC	Australian Crime Commission
AFP	Australian Federal Police
AIC	Australian Institute of Criminology
AIHW	Australian Institute of Health and Welfare
AODTS-NMDS	Alcohol and Other Drug Treatment Services National Minimum Data Set
ASSADS	Australian Secondary Students' Alcohol and Drug Survey
ATC	Anatomical Therapeutic Chemical
ATO	Australian Taxation Office
DALY	Disability-adjusted life year
DDD	Defined daily dose
DUCO	Drug Use Careers of Offenders
DUMA	Drug Use Monitoring in Australia
EDRS	Ecstasy and Related Drugs Reporting System
ERD	Ecstasy and related drug(s)
GHB	Gamma-hydroxybutyrate
IDRS	Illicit Drug Reporting System
MCDS	Ministerial Council on Drug Strategy
MDA	3,4 methylenedioxyamphetamine
MDMA	3,4 methylenedioxymethylamphetamine (ecstasy)
NCHECR	National Centre in HIV Epidemiology and Clinical Research
NDARC	National Drug and Alcohol Research Centre
NDS	National Drug Strategy
NDSHS	National Drug Strategy Household Survey
NSP	Needle and Syringe Program
OECD	Organisation for Economic Co-operation and Development
PDI	Party Drugs Initiative
PBS	Pharmaceutical Benefits Scheme
RPBS	Repatriation Pharmaceutical Benefits Scheme
SAAP	Supported Accommodation Assistance Program
UNODC	United Nations Office on Drugs and Crime

# Symbols

n.a.	Not available
–	Nil, or rounded to zero
. .	Not applicable
kg	Kilogram(s)
m	Million

# 1 Introduction

## National Drug Strategy

The National Drug Strategy (NDS), formerly the National Campaign Against Drug Abuse, was initiated in 1985 following a Special Premiers' Conference. From its inception the Strategy recognised the importance of a comprehensive, integrated approach to the harmful use of licit and illicit drugs and other substances. The aim is to achieve a balance between demand-reduction and supply-reduction measures to minimise the harmful effects of drugs in Australian society. The tangible social costs of drug use in Australia were estimated to be \$18.3 billion or approximately 5.5% of gross domestic product in 1998–99 (Collins & Lapsley 2002).

## National Drug Strategy 2004–2009

The National Drug Strategy 2004–2009 provides a framework for a coordinated, integrated approach to drug issues in the Australian community. The mission of the NDS is to improve health, social and economic outcomes by preventing the uptake of harmful drug use and reducing the harmful effects of licit and illicit drugs in Australian society.

The NDS is the responsibility of the Ministerial Council on Drug Strategy (MCDS). The MCDS is a national ministerial-level forum responsible for developing policies and programs to reduce the harm caused by drugs to individuals, families and communities in Australia. It is the peak policy- and decision-making body on licit and illicit drugs in Australia. It brings together Australian government, state and territory ministers responsible for health and law enforcement, and the Australian government minister responsible for education. The MCDS is responsible for ensuring that Australia has a nationally coordinated and integrated approach to reducing the substantial harm associated with drug use.

## About this report

This report is the twelfth in a series that was previously titled *Statistics on drug abuse in Australia*, first produced in 1985 under the auspices of the National Campaign Against Drug Abuse. It is the fifth edition produced by the Australian Institute of Health and Welfare (AIHW) under a schedule to the Memorandum of Understanding between the AIHW and the Australian Government Department of Health and Ageing.

*Statistics on drug use in Australia 2006* follows the format of past reports in this series. Chapters are either based on or incorporate all of the drug types covered by the National Drug Strategy 2004–2009: tobacco, alcohol, illicit drugs and pharmaceuticals. Within each of these chapters, data are provided on consumption and, to a lesser extent, drug-related behaviour.

Material added to this edition includes features on:

- use of methamphetamine
- prisoner illicit drug use
- drug use and crime in juveniles
- alcohol use in the workplace.

## Data sources

A large part of the data within this report was sourced from the 2004 National Drug Strategy Household Survey (NDSHS) managed by the AIHW. This was a comprehensive national survey of almost 30,000 Australians aged 12 years and over. The estimates for 2004 contained in this publication are based on information obtained from persons aged 12 years and over or 14 years and over (as specified) from the populations of all states and territories.

Additional data were obtained from the 1995, 1998 and 2001 NDSHS and the 1991 and 1993 National Campaign Against Drug Abuse Surveys.

Other relevant information was obtained from a range of sources:

- Australian Crime Commission
- Australian Bureau of Statistics
- Australian Customs Service
- Australian Institute of Criminology
- Australian Institute of Health and Welfare
- Australian Government Department of Health and Ageing
- Australian Taxation Office
- National Centre in HIV Epidemiology and Clinical Research
- National Drug and Alcohol Research Centre.

For more information, readers are directed to the references listed at the end of this publication. Background information was also obtained from the following web sites:

- <[www.abs.gov.au](http://www.abs.gov.au)>
- <[www.adf.org.au/index.asp](http://www.adf.org.au/index.asp)>
- <[www.aic.gov.au](http://www.aic.gov.au)>
- <[www.aihw.gov.au](http://www.aihw.gov.au)>
- <[www.health.gov.au](http://www.health.gov.au)>
- <[www.med.unsw.edu.au/nchecr](http://www.med.unsw.edu.au/nchecr)>
- <[ndarc.med.unsw.edu.au/ndarc.nsf](http://ndarc.med.unsw.edu.au/ndarc.nsf)>.

# 2 Tobacco

## Introduction

Tobacco is one of the most widely used legal drugs in Australia. This chapter focuses on tobacco consumption, both over time and in the present.

Tobacco consumption in Australia may be measured in two ways:

- directly, using estimates derived from population health surveys
- indirectly, looking at official clearances of tobacco and tobacco products through excise and customs.

The chapter begins with direct estimates of tobacco consumption using the 2004 National Drug Strategy Household Survey (NDSHS). The next section of the chapter contains indirect estimates of consumption using the volume of tobacco cleared through excise and customs, and government revenue derived from the sale of tobacco.

The chapter also presents data on tobacco use for selected countries.

## Reported consumption trends

The proportion of the Australian population aged 14 years and over who were daily smokers dropped from 24% in 1991 to 17% in 2004 (Table 2.1). The proportion of the population who were ex-smokers increased during this time, from 21% in 1991 to 26% in 1998, and remained stable in 2001 and 2004. The proportion of the population who had never smoked more than 100 cigarettes in their life also increased, from just under half (49%) in 1991, to just over half (53%) in 2004.

In 1991, over one-quarter (27%) of Australian males aged 14 years and over were daily smokers, but in 2004, less than one-fifth were daily smokers (19%). The proportion of males reporting that they had never smoked more than 100 cigarettes in their life increased from 42% in 1991 to 48% in 2004.

The proportion of females in the population aged 14 years and over who smoked daily or occasionally remained lower than that for males. In 1991, 22% of females aged 14 years and over reported smoking daily, compared with 16% in 2004. The proportion of females aged 14 years and over who had never smoked more than 100 cigarettes in their life increased from 56% in 1991 to 58% in 2004.

**Table 2.1: Tobacco smoking status: proportion of the population aged 14 years and over, by sex, Australia, 1991 to 2004 (per cent)**

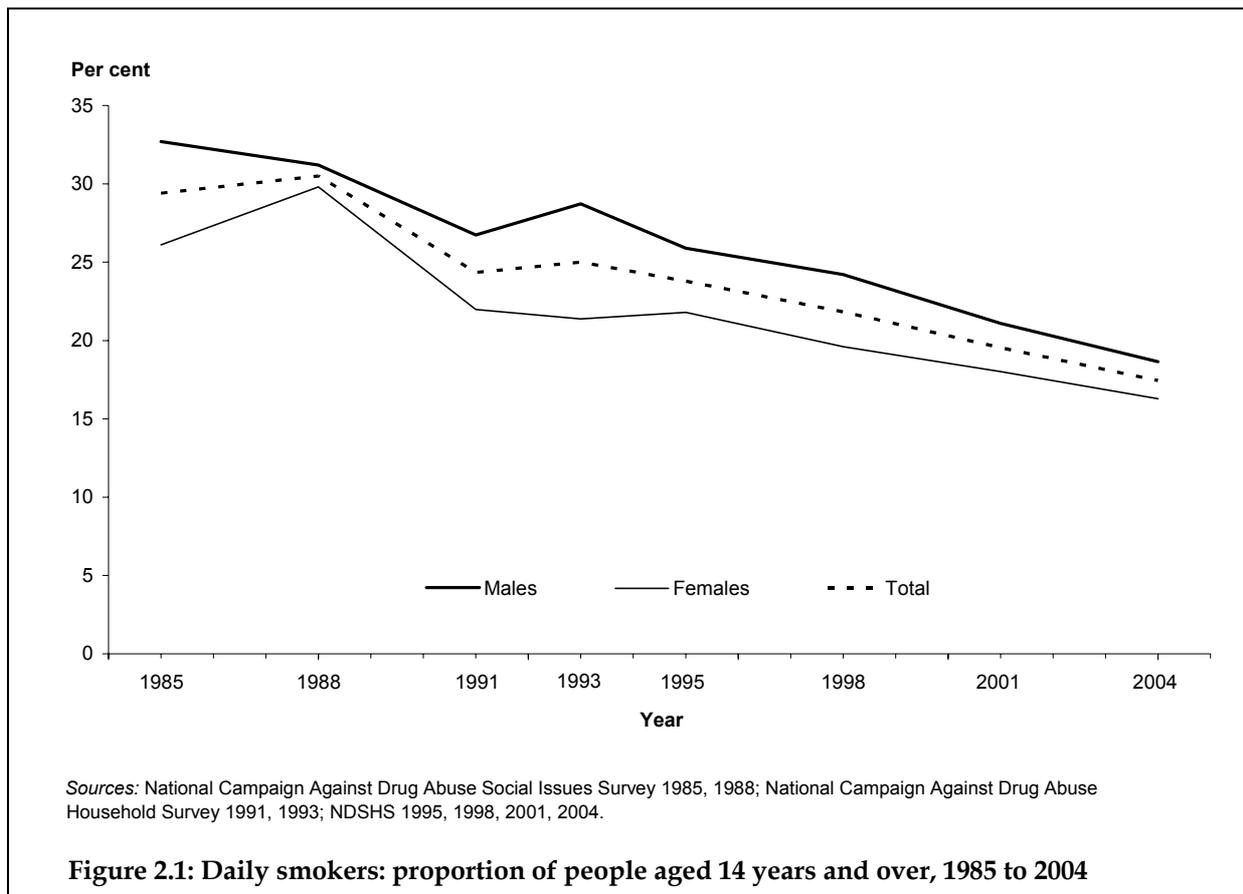
<b>Tobacco smoking status</b>	<b>1991</b>	<b>1993</b>	<b>1995</b>	<b>1998</b>	<b>2001</b>	<b>2004</b>
<b>Males</b>						
Daily	26.7	28.7	25.9	24.2	21.1	18.6
Weekly	3.0	2.1	1.8	2.0	2.0	2.0
Less than weekly	2.8	1.7	1.9	1.6	2.6	1.9
Ex-smokers <sup>(a)</sup>	25.1	25.6	23.6	28.3	29.6	29.2
Never smoked <sup>(b)</sup>	42.4	41.8	46.8	43.9	44.7	48.2
<b>Females</b>						
Daily	22.0	21.4	21.8	19.6	18.0	16.3
Weekly	2.7	2.5	1.3	1.6	1.3	1.2
Less than weekly	2.0	1.9	1.7	1.1	1.5	1.3
Ex-smokers <sup>(a)</sup>	17.7	17.9	17.0	23.4	22.9	23.6
Never smoked <sup>(b)</sup>	55.6	56.3	58.2	54.3	56.4	57.5
<b>Persons</b>						
Daily	24.3	25.0	23.8	21.8	19.5	17.4
Weekly	2.8	2.3	1.6	1.8	1.6	1.6
Less than weekly	2.4	1.8	1.8	1.3	2.0	1.6
Ex-smokers <sup>(a)</sup>	21.4	21.7	20.2	25.9	26.2	26.4
Never smoked <sup>(b)</sup>	49.0	49.1	52.6	49.2	50.6	52.9

(a) Smoked at least 100 cigarettes (manufactured and/or roll-your-own) or the equivalent amount of tobacco in their life, and no longer smoke.

(b) Never smoked 100 cigarettes (manufactured and/or roll-your-own) or the equivalent amount of tobacco in their life.

Sources: National Campaign Against Drug Abuse Household Survey 1991, 1993; NDSHS 1995, 1998, 2001, 2004.

Daily smoking rates for Australians aged 14 years and over have declined by 40% between 1985 and 2004 (Figure 2.1). In 1985, 29% of Australians aged 14 years and over smoked daily, and this proportion had dropped to 17% in 2004. Rates for males have declined a little more sharply than for females, dropping by 43% between 1985 and 2004, compared with a 38% decline for females.



## Consumption by age and sex

In 2004, persons aged 20–29 years were more likely to be daily or occasional smokers than persons in any other age group, with 24% smoking daily, 3% smoking weekly and 3% smoking less than weekly (Table 2.2).

Persons aged 60 years and over were least likely to be daily smokers (9%) and most likely to be ex-smokers (39%). The next least prevalent age group for daily smoking was 14–19-year-olds, at 11%.

Males were more likely to smoke than females in every age group, except at ages 14–19 years. Some 10% of males aged 14–19 years were daily smokers, compared with 12% of females aged 14–19 years.

**Table 2.2: Tobacco smoking status: proportion of the population aged 14 years and over, by age group and sex, Australia, 2004 (per cent)**

Tobacco smoking status	14–19	20–29	30–39	40–49	50–59	60+	All ages
<b>Males</b>							
Daily	9.5	24.0	23.8	22.6	18.1	11.0	18.6
Weekly	1.9	3.8	2.5	1.8	1.9	0.5	2.0
Less than weekly	1.3	3.4	2.9	2.0	1.3	0.5	1.9
Ex-smokers <sup>(a)</sup>	3.6	12.7	23.0	30.9	41.0	51.9	29.2
Never smoked <sup>(b)</sup>	83.8	56.2	47.8	42.7	37.7	36.1	48.2
<b>Females</b>							
Daily	11.9	22.9	21.8	20.1	14.4	7.1	16.3
Weekly	1.3	2.5	1.9	1.0	0.6	0.4	1.2
Less than weekly	1.0	2.5	2.0	1.6	0.8	0.2	1.3
Ex-smokers <sup>(a)</sup>	3.0	14.5	26.6	30.8	27.8	28.5	23.6
Never smoked <sup>(b)</sup>	82.7	57.5	47.7	46.4	56.5	63.9	57.5
<b>Persons</b>							
Daily	10.7	23.5	22.8	21.3	16.3	8.9	17.4
Weekly	1.6	3.2	2.2	1.4	1.2	0.4	1.6
Less than weekly	1.2	2.9	2.4	1.8	1.0	0.3	1.6
Ex-smokers <sup>(a)</sup>	3.3	13.6	24.8	30.9	34.4	39.3	26.4
Never smoked <sup>(b)</sup>	83.3	56.9	47.7	44.6	47.1	51.0	52.9

(a) Smoked at least 100 cigarettes (manufactured and/or roll-your-own) or the equivalent amount of tobacco in their life, and no longer smoke.

(b) Never smoked 100 cigarettes (manufactured and/or roll-your-own) or the equivalent amount of tobacco in their life.

Source: NDSHS 2004.

## Apparent consumption trends

Apparent tobacco consumption in Australia is measured by the amount of tobacco cleared through excise and customs. However, these estimates do not take into account the volume of cigarettes bought duty free by Australian international travellers, or any tobacco that is obtained illicitly within Australia.

In 1999–00, data on the volume of tobacco cleared through excise and customs began to be collected and reported by number of sticks (i.e. number of cigarettes), rather than by kilogram weight. Therefore, comparisons made in this section describe separately the trend before and after this year.

While the volume of cigarettes and loose tobacco cleared through excise on domestically-produced products remained stable from 1995–96 to 1998–99, the amount of tobacco cleared through customs on imported products decreased from 16.8 million kilograms in 1995–96 to 12.4 million kilograms in 1998–99 (Table 2.3).

Following an initial high of 25.6 billion sticks in 1999–00, the rate of clearance has remained fairly stable, around 23 billion sticks for the past five periods. The stability in the number of cigarettes attracting excise in recent years does not correspond to the decline in smoking rates described earlier in this chapter, nor does it correspond to the decline in the estimated number of Australians who smoke, coupled with a decline in the amount of cigarettes consumed per smoker between 2001 and 2004.

The volume of tobacco cleared through customs between 1999–00 and 2004–05 displayed fluctuations from year to year, the greatest being in 2002–03, when 29.1 million kilograms of loose tobacco was cleared through customs (Table 2.3). This was around double to more than double the amount for any other year between 1999–00 and 2004–05. The amount of customs duty collected that year did not reflect this increase, as unmanufactured tobacco is not subject to customs duty.

Changes in the domestic tobacco industry may have influenced imports of unmanufactured tobacco. Since the mid-1990s, there has been a decline in demand for tobacco sourced from North Queensland by Australia's major cigarette manufacturers (Geis et al. 2003). It is also possible that in 2002–03 Australia was in a similar situation to many other tobacco-importing countries, and needed to rebuild stocks that had been depleted over several years beforehand (USDA 2002). The sharp decrease in the volume of loose tobacco cleared through customs in 2003–04 may then be explained by an existing build-up of stock carried over from the previous year.

## **Government revenue**

Over the past decade there have been four sources of government revenue related to the consumption of tobacco products: excise on domestic goods, customs duty on imported products, the goods and services tax, and business franchise fees. This last tax, collected by state and territory governments, was discontinued in 1997 following a High Court determination that such taxes could not be imposed by the states and territories. Between 1997 and June 2000, the Australian Government collected additional excise duty as a 'surcharge' and refunded this to the states and territories as 'revenue replacement payments'. With the introduction of the goods and services tax (GST) in July 2000, the surcharge was effectively rolled into the base excise rates.

In the context of the above, the net government revenue associated with tobacco products increased from \$4.3 billion in 1995–96 to nearly \$6.7 billion in 2004–05 (Table 2.4). The majority of this revenue comes from excise, which grew steadily in the early 2000s but has levelled in recent years despite indexation of the rates. The increase in excise collected between 2001–02 and 2002–03 can partly be explained by increased compliance activities in the tobacco growing areas of Victoria and Queensland which reduced the diversion of legally grown tobacco to the illicit market (ATO 2005). The amount of customs duty paid on tobacco products increased almost fivefold over this period, from \$108 million in 1995–96 to \$519 million in 2004–05.

**Table 2.3: Volume of tobacco cleared through excise and customs, Australia, 1995-96 to 2004-05**

Duty and product	1995-96	1996-97	1997-98	1998-99	1999-00 <sup>(a)</sup>	2000-01	2001-02	2002-03	2003-04	2004-05						
	Loose ('000 kg)	Loose ('000 kg)	By stick (m)	Loose ('000 kg)	By stick (m)	Loose ('000 kg)	By stick (m)	Loose ('000 kg)	By stick (m)	Loose ('000 kg)	By stick (m)					
<b>Excise</b>																
Cigarettes	19,273	19,435	19,103	18,602	..	25,587	..	23,061	..	22,613	..	23,557	..	23,516	..	22,819
Other tobacco	656	753 <sup>(b)</sup>	714	670 <sup>(c)</sup>	640	..	650	..	800	..	..	..	590	..	550	..
<b>Total excise</b>	<b>19,929</b>	<b>20,188<sup>(c)</sup></b>	<b>19,816</b>	<b>19,272<sup>(c)</sup></b>	<b>640</b>	<b>25,587</b>	<b>610</b>	<b>23,061</b>	<b>800</b>	<b>22,613</b>	<b>800</b>	<b>23,557</b>	<b>590</b>	<b>23,516</b>	<b>550</b>	<b>22,819</b>
<b>Customs</b>																
Cigarettes	288	350	266	272	179	481	19	860	18	801	17	946	15	655	12	854
Cigars, etc. <sup>(d)</sup>	70	71	84	97	91	6	89	12	89	12	91	15	92	13	101	14
Other manufactured tobacco <sup>(e)</sup>	975	911	910	788	570	..	828	..	838	..	1,447	..	1,011	..	1,106	..
Unmanufactured tobacco <sup>(f)</sup>	15,432	15,050	14,399	11,290	13,153	..	14,213	..	10,479	..	27,582	..	9,135	..	11,927	..
<b>Total customs</b>	<b>16,765</b>	<b>16,382</b>	<b>15,659</b>	<b>12,447</b>	<b>13,994</b>	<b>487</b>	<b>15,149</b>	<b>872</b>	<b>11,424</b>	<b>813</b>	<b>29,137</b>	<b>961</b>	<b>10,254</b>	<b>668</b>	<b>13,146</b>	<b>868</b>

(a) Coding changes from duty paid on weight to duty paid on number of sticks of cigarettes.

(b) Figure estimated based on data available.

(c) Excludes data not available due to confidentiality restrictions.

(d) Includes cigars, cigarillos and cheroots.

(e) Includes homogenised or reconstituted tobacco and tobacco extracts and essences.

(f) Much of this tobacco would have been used in the manufacture of cigarettes. When estimating the total amount of tobacco consumed in Australia, it should therefore be excluded from the total.

Sources: Australian Bureau of Statistics, unpublished data; Australian Taxation Office, unpublished data.

**Table 2.4: Government revenue related to the sale of tobacco, Australia, 1995–96 to 2004–05 (\$m)**

Duty	1995–96	1996–97	1997–98	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04	2004–05
<b>Excise</b>										
Base	1,614	1,713	1,649	1,634	1,659	4,637	4,841	5,212	5,240	5,220
Surcharge <sup>(a)</sup>	..	..	2,384	3,061	3,139	61 <sup>(b)</sup>	..	..	..	..
<b>Total excise</b>	<b>1,614</b>	<b>1,713</b>	<b>4,033</b>	<b>4,695</b>	<b>4,798</b>	<b>4,698</b>	<b>4,841</b>	<b>5,212</b>	<b>5,240</b>	<b>5,220</b>
<b>Customs</b>										
Cigarettes	24	29	51	63	133	174	170	206	147	194
Cigars, etc. <sup>(c)</sup>	6	6	18	22	23	24	26	28	28	31
Other manufactured tobacco <sup>(d)</sup>	79	76	173	169	131	178	203	217	273	293
<b>Total customs</b>	<b>108</b>	<b>111</b>	<b>242</b>	<b>255</b>	<b>286</b>	<b>376</b>	<b>399</b>	<b>450</b>	<b>448</b>	<b>519</b>
<b>State franchise taxes<sup>(e)</sup></b>	<b>2,621</b>	<b>2,855</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>
<b>GST<sup>(e)</sup></b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>843</b>	<b>871</b>	<b>901</b>	<b>929</b>	<b>937</b>
<b>Total</b>	<b>4,343</b>	<b>4,679</b>	<b>4,275</b>	<b>4,950</b>	<b>5,084</b>	<b>5,917</b>	<b>6,111</b>	<b>6,563</b>	<b>6,617</b>	<b>6,676</b>

(a) State franchise taxes were discontinued in August 1997 following a High Court determination that such taxes could not be imposed by the states and territories. Between August 1997 and June 2000 the Australian Government collected additional excise duty, referred to as a 'surcharge', and paid this to the states and territories under the so-called 'safety net' provisions as revenue replacement payments. With the introduction of GST, these replacement payments were no longer required but a similar level of excise (with indexation) continued to be collected.

(b) This figure relates to surcharge revenue from 1990–2000 processed in the following year.

(c) Includes cigars, cigarillos and cheroots.

(d) Includes homogenised or reconstituted tobacco and tobacco extracts and essences.

(e) GST values are estimated as one-eleventh of household final consumption expenditure.

Note: This table has been substantially revised since previous editions of *Statistics on drug use in Australia*.

Sources: ATO 2006, 2002; ABS 2006a, 2005, 2004, 2002a, 2002b; Australian Customs Service, unpublished data.

## International comparisons

International comparisons are useful for allowing informed discussion to occur at many levels, and for assessing the effectiveness of different drugs policies throughout the world. However, comparative analyses of drug use in different countries are difficult due to cultural and political differences, and the legal framework of drug laws can differ greatly. In addition, each country has unique surveys and data collection methodologies, which make comparisons difficult. For example, the United States of America uses large-scale household surveys that specifically address drug-use patterns and drug-related issues. In contrast, Great Britain collects drug-use data as subsets from the Health Survey of England and the British Crime Survey. This section presents data on tobacco use for selected countries.

Prevalence of daily smoking varies considerably among OECD countries, ranging from about one in three of the adult population in the Netherlands and Hungary, to less than one in five in the United States of America, Canada, Sweden and Australia (Table 2.5).

All countries included in Table 2.5 have seen a decline in the prevalence of daily smoking from 1975 to 2005, with major reductions in the early part of this period and a slowing of the decline in the last decade.

The decline in smoking rates in Australia over the past three decades has resulted in Australia being ranked one of the lowest of all countries in the OECD in terms of the prevalence of daily smoking, behind Canada, Sweden and the United States.

**Table 2.5: Prevalence of daily smoking, population aged 15 years and over, selected countries, 1975 to 2005**

Country	1975	1985	1995	2005
Hungary	n.a.	34.5 <sup>1</sup>	35.5 <sup>1</sup>	30.4 <sup>2</sup>
Netherlands	53.0	39.0	36.0	30.0 <sup>1</sup>
Japan	45.7	39.2	37.0	29.4 <sup>1</sup>
Belgium	n.a.	38.4	28.5	27.0 <sup>2</sup>
Ireland	45.6 <sup>2</sup>	34.5	28.0 <sup>1</sup>	27.0 <sup>3</sup>
Denmark	53.0	46.5	35.5	26.0 <sup>1</sup>
United Kingdom	42.0 <sup>1</sup>	33.0 <sup>1</sup>	28.0 <sup>1</sup>	25.0 <sup>1</sup>
Norway	40.0	37.0	33.0	25.0
Germany	34.8 <sup>3</sup>	n.a.	22.9	24.3 <sup>2</sup>
Czech Republic	n.a.	n.a.	26.2 <sup>1</sup>	24.1 <sup>3</sup>
France	n.a.	27.0 <sup>3</sup>	29.0	23.0 <sup>1</sup>
Luxembourg	n.a.	33.0 <sup>2</sup>	33.0 <sup>3</sup>	23.0
Italy	n.a.	29.1 <sup>1</sup>	25.6	22.3
New Zealand	36.0 <sup>1</sup>	30.0	27.0	22.0 <sup>1</sup>
Finland	26.6 <sup>3</sup>	22.8	24.0	21.8
Iceland	n.a.	33.0 <sup>2</sup>	26.8	19.5
<b>Australia</b>	<b>38.4<sup>1</sup></b>	<b>30.6<sup>1</sup></b>	<b>24.1</b>	<b>17.7<sup>1</sup></b>
United States	37.1 <sup>1</sup>	30.1	20.1	17.0 <sup>1</sup>
Sweden	n.a.	28.5	22.8	16.2 <sup>1</sup>
Canada	39.0 <sup>3</sup>	30.4	24.5 <sup>1</sup>	15.0 <sup>1</sup>

### Notes

1. <sup>1</sup> <sup>2</sup> <sup>3</sup> data from 1, 2 or 3 previous years.

2. <sup>1</sup> <sup>2</sup> <sup>3</sup> data from 1, 2 or 3 following years.

Source: OECD 2006.

A similar pattern across countries was observed for per capita consumption of tobacco, ranging from 3,500 grams per capita (aged 15 years and over) in Greece down to 1,000 grams in Finland (Table 2.6). Unlike prevalence, not all countries have seen a reduction in consumption, with notable increases in Greece since the early 1990s.

Worldwide, tobacco consumption seems to have been in decline since around 1996. Per capita demand for cigarettes in the industrialised countries started to decline in the early 1980s, and while per capita demand has not declined overall in countries outside the OECD, demand growth has slowed down since about 1995, and no longer compensates for declining demand in the industrialised countries (van Liemt 2002). World unmanufactured tobacco supply was projected to decline nearly 14% in 2002 in an effort to bring supplies more in line with consumption (USDA 2002).

**Table 2.6: Tobacco consumption, grams per capita, population aged 15 years and over, selected countries, 1975 to 2005**

Country	1975	1985	1995	2005
Greece	n.a.	n.a.	3,230	3,538 <sup>2</sup>
Germany	2,673	2,388	2,250	2,046
Turkey	1,388	1,259	2,329	1,869 <sup>1</sup>
Hungary	2,890	2,705	1,833	1,786 <sup>2</sup>
Sweden	2,040	2,040	1,675	1,654 <sup>1</sup>
Denmark	2,179	2,000	1,692	1,567 <sup>1</sup>
Iceland	2,992	2,833	2,059	1,532
United States	3,506	2,676	1,905	1,452 <sup>1</sup>
France	n.a.	2,409	2,075	1,321
<b>Australia</b>	<b>3,205</b>	<b>2,393</b>	<b>1,488</b>	<b>1,315<sup>2</sup></b>
United Kingdom	2,600	2,348	1,871	1,178 <sup>1</sup>
Norway	2,130	1,960	1,661	1,142
Canada	3,136	2,610	1,672	1,108 <sup>1</sup>
New Zealand	3,232	2,493	1,474	1,033
Finland	1,746	1,379	1,072	1,007 <sup>1</sup>

Note: <sup>1</sup> <sup>2</sup> <sup>3</sup> data from 1, 2 or 3 previous years.

Source: OECD 2006.

# 3 Alcohol

## Introduction

Alcohol is the most widely used psychoactive, or mood-changing, recreational drug in Australia (ADF 2003a). This chapter looks at alcohol consumption patterns by Australians, both over time and in the present.

Alcohol consumption in Australia may be measured in two ways:

- directly, using estimates derived from population health surveys
- indirectly, looking at industry data and official clearances through excise and customs.

The chapter begins with direct estimates of alcohol consumption using the 2004 National Drug Strategy Household Survey (NDSHS). The next section of the chapter contains indirect estimates of consumption using information on alcohol available for consumption and government revenue derived from the sale of alcohol.

This chapter also presents data on alcohol consumption for selected countries.

## Reported consumption trends

The pattern of alcohol consumption by the Australian population has remained relatively unchanged over the period 1991 to 2004 (Table 3.1).

Based on results of the 2004 NDSHS, 84% of the population aged 14 years and over had consumed at least one full serve of alcohol in the last 12 months, while 9% of Australians drank alcohol on a daily basis. The proportion of persons drinking daily has shown little variation since the early 1990s. Compared with stable proportions of daily drinkers, proportions of people drinking weekly or less than weekly have fluctuated slightly over the period 1991 to 2004. In 2004, 41% of the population consumed alcohol on a weekly basis and a further one in three people drank less than weekly.

The proportion of ex-drinkers generally declined between 1991 and 2004, reaching 7% in 2004.

**Table 3.1: Alcohol drinking status: proportion of the population aged 14 years and over, Australia, 1991 to 2004 (per cent)**

Alcohol drinking status	1991	1993	1995	1998	2001	2004
Daily	10.2	8.5	8.8	8.5	8.3	8.9
Weekly	41.0	39.9	35.2	40.1	39.5	41.2
Less than weekly	30.4	29.5	34.3	31.9	34.6	33.5
Ex-drinker <sup>(a)</sup>	12.0	9.0	9.5	10.0	8.0	7.1
Never a full serve of alcohol	6.5	13.0	12.2	9.4	9.6	9.3

(a) Has consumed at least a full serve of alcohol, but not in the last 12 months.

Sources: National Campaign Against Drug Abuse Household Survey 1991, 1993; NDSHS 1995, 1998, 2001, 2004.

## Consumption by age and sex

In 2004, the proportion of the population that were daily drinkers noticeably increased with age, ranging from less than 1% of 14–19-year-olds to 17% of persons aged 60 years and over (Table 3.2). The proportion of ex-drinkers in the population also increased with age. The proportion of weekly drinkers peaked at ages 40–49 years. Almost half the population in this age group consumed alcohol on a weekly basis.

In general, males were twice as likely to be daily drinkers (12%) compared with females (6%). Males were also more likely to drink weekly (48%) than females (35%). Conversely, women were more likely than men to drink less than weekly, to be an ex-drinker, or to abstain from drinking alcohol. Females aged 14–19 years appeared less likely than males of the same age to abstain from alcohol, though this was not a statistically significant variation. The alcohol consumption patterns of young people are explored in more detail in Chapter 7.

**Table 3.2: Alcohol drinking status: proportion of the population aged 14 years and over, by age group and sex, Australia, 2004 (per cent)**

Alcohol drinking status	Age group						All
	14–19	20–29	30–39	40–49	50–59	60+	
<b>Males</b>							
Daily	0.7	4.5	8.7	11.9	17.5	23.3	12.0
Weekly	26.6	56.7	55.0	54.2	47.0	38.7	47.6
Less than weekly	42.2	30.9	27.3	25.4	25.0	20.7	27.5
Ex-drinker <sup>(a)</sup>	2.6	3.0	5.1	5.6	6.8	10.7	6.0
Never a full serve of alcohol	27.7	4.9	3.8	3.0	3.7	6.6	6.9
<b>Females</b>							
Daily	0.4	1.3	3.2	6.3	8.4	11.4	5.8
Weekly	22.2	38.4	38.9	43.0	35.6	28.3	35.0
Less than weekly	49.9	47.0	44.8	36.9	36.5	28.7	39.4
Ex-drinker <sup>(a)</sup>	2.5	6.8	6.4	7.0	9.2	13.4	8.2
Never a full serve of alcohol	25.0	6.6	6.6	6.8	10.3	18.2	11.6
<b>Persons</b>							
Daily	0.6	2.9	6.0	9.1	12.9	17.0	8.9
Weekly	24.4	47.6	46.9	48.6	41.3	33.1	41.2
Less than weekly	46.0	38.9	36.2	31.2	30.8	25.0	33.5
Ex-drinker <sup>(a)</sup>	2.6	4.9	5.8	6.3	8.0	12.2	7.1
Never a full serve of alcohol	26.4	5.7	5.2	4.9	7.0	12.8	9.3

(a) Has consumed at least a full serve of alcohol, but not in the last 12 months.

Source: NDSHS 2004.

## Risk of alcohol-related harm in the long term and short term

According to Australian Alcohol Guidelines, long-term risk can be defined as the level of risk associated with regular daily patterns of drinking, measured by the total amount of alcohol typically consumed per week. Short-term risk can be defined as the risk of harm (particularly injury or death) in the short term that is associated with given levels of drinking on a single day.

Guidelines have been developed separately for men and women. A given amount of alcohol usually affects women more than men because of their lower average body mass and the different ways their bodies process alcohol (NHMRC 2001).

In 2004, 16.4% of those aged 14 years and over had not consumed alcohol in the previous 12 months (Table 3.3). Almost 10% of people drank at risky or high-risk levels for long-term risk and 35% drank at risky or high-risk levels for short-term risk. The proportion of people who had drunk alcohol at levels considered low risk for harm in the short term and long term was 47%. The proportion who had drunk at levels considered risky or high risk in both the short term and long term was 9%.

Males were more likely than females to drink at low risk levels for long-term risk but risky to high risk levels for short-term risk. Thirty-one per cent of males drank at risky or high risk levels in the short term while remaining a low risk for long-term harm. Twenty-two per cent of females fell within this category.

**Table 3.3: Long-term and annual short-term risk of harm from alcohol, population aged 14 years and over, 2004 (per cent)**

Long-term risk	Short-term risk <sup>(a)</sup>			Total
	Abstainer	Low risk	Risky or high risk	
<b>Males</b>				
Abstainer	12.9	..	..	12.9
Low risk	..	45.7	31.3	77.0
Risky or high risk	..	1.2	9.0	10.1
<b>Total</b>	<b>12.9</b>	<b>46.8</b>	<b>40.3</b>	<b>100.0</b>
<b>Females</b>				
Abstainer	19.8	..	..	19.8
Low risk	..	48.2	22.3	70.6
Risky or high risk	..	1.2	8.4	9.6
<b>Total</b>	<b>19.8</b>	<b>49.4</b>	<b>30.7</b>	<b>100.0</b>
<b>Persons</b>				
Abstainer	16.4	..	..	16.4
Low risk	..	47.0	26.8	73.7
Risky or high risk	..	1.2	8.7	9.9
<b>Total</b>	<b>16.4</b>	<b>48.2</b>	<b>35.4</b>	<b>100.0</b>

(a) At least once in the past year.

Source: NDSHS 2004.

## Apparent consumption trends

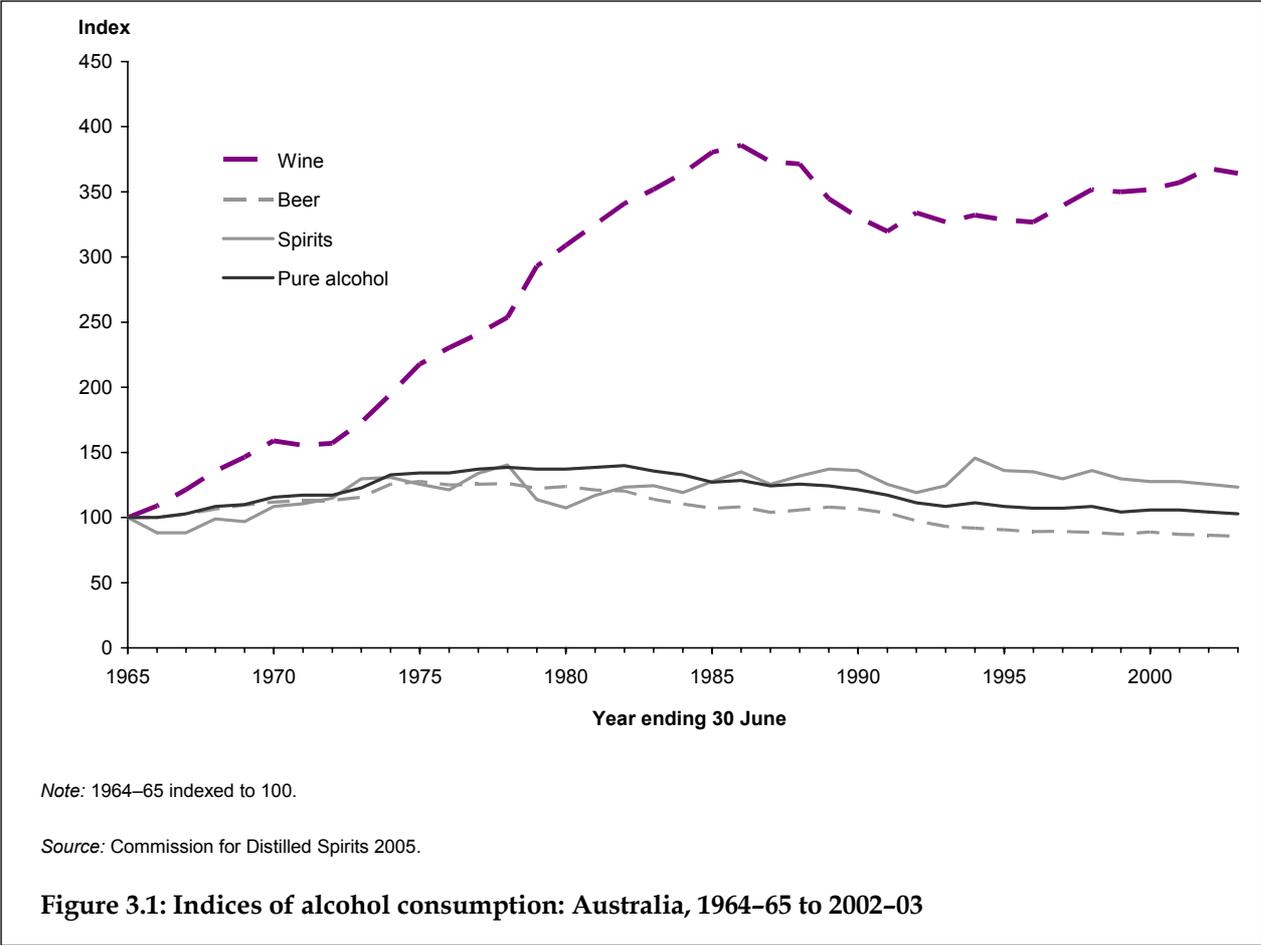
Apparent consumption of alcohol is measured in litres per person, using the amount of alcohol available relative to the population size.

There was a steady increase in the apparent consumption of alcohol in Australia for the period 1964–65 to 1981–82 measured in litres of pure alcohol per capita (Figure 3.1). This was followed by a decline – from 9.8 litres per capita in 1981–82 to 7.2 litres per capita in 2002–03. Apparent consumption of alcohol per capita in 2002–03 had reached a similar level to that recorded for 1964–65 (7.0 litres per capita).

Of the three types of alcohol displayed in Figure 3.1, wine showed the greatest increase in consumption over the last 40 years. Between the mid-1960s and the mid-1980s, consumption of wine increased almost fourfold, peaking at 21.6 litres per person in 1985–86. Since the late 1980s the total amount of wine consumed per person per year has ranged between 18 and 21 litres per person.

Relative to wine, consumption of beer and spirits by the Australian population has remained more stable over time. Consumption of beer peaked in the mid-1970s at 136.5 litres of beer per person (1974–75), falling to 91.5 litres of beer per person in 2002–03. Consumption of spirits peaked more recently, at 1.4 litres per person in 1993–94; in the following 8 years it declined, reaching 1.2 litres per person in 2002–03.

Note that the information on litres of alcohol per capita presented in Figure 3.1 is measured using the whole Australian population, while the data contained in Table 3.4 pertain to the Australian population aged 15 years and over.



In the 9 years between 1996–97 and 2004–05, apparent alcohol consumption by Australians aged 15 years and over has remained stable at 10 litres per person per year (Table 3.4). There was little variation during this time period between apparent consumption of beer, wine and spirits, with half that consumption being beer, around one-third wine (3 litres per person per year) and the remainder spirits (2 litres per person per year).

It is worthwhile to keep these trends in mind when observing the relatively stable consumption patterns over the past decade discussed previously in this chapter, and when considering the following statistics on government revenue obtained from the sale of alcohol.

**Table 3.4: Alcohol available for consumption and apparent per person consumption by persons aged 15 years and over, Australia, 1996–97 to 2004–05**

<b>Available for consumption</b>	<b>1996–97</b>	<b>1997–98</b>	<b>1998–99</b>	<b>1999–00</b>	<b>2000–01</b>	<b>2001–02</b>	<b>2002–03</b>	<b>2003–04</b>	<b>2004–05</b>
	('000 litres of alcohol)								
Beer	77,155	76,963	76,545	76,283	77,521	74,678	78,355	74,853	74,279
Wine	39,726	41,947	42,739	44,367	45,112	45,270	47,440	49,182	50,804
Spirit	24,713	26,518	26,298	28,354	31,689	28,204	29,365	32,925	34,481
<b>Total</b>	<b>141,594</b>	<b>145,428</b>	<b>145,582</b>	<b>149,004</b>	<b>154,322</b>	<b>148,152</b>	<b>155,160</b>	<b>156,960</b>	<b>159,564</b>
	(litres of pure alcohol per person)								
<b>Apparent consumption</b>									
Beer	5.3	5.2	5.2	5.1	5.1	4.8	5.0	4.7	4.6
Wine	2.7	2.9	2.9	2.9	3.0	2.9	3.0	3.1	3.1
Spirit	1.7	1.8	1.8	1.9	2.1	1.8	1.9	2.1	2.1
<b>Total</b>	<b>9.8</b>	<b>9.9</b>	<b>9.8</b>	<b>9.9</b>	<b>10.0</b>	<b>9.5</b>	<b>9.8</b>	<b>9.8</b>	<b>9.8</b>

Source: ABS 2006b.

## Government revenue

Government revenue is an indirect measure used to estimate consumption. The following information demonstrates that revenue is prone to fluctuate from year to year due to changes in government policy and/or regulations. However, these estimates still provide valuable information on trends in locally produced and imported alcohol.

Like tobacco taxes, there are four areas from which state and territory governments and the Australian Government collect revenue on alcohol: excise on domestic goods, customs duty on imported products, sales tax (to June 2000) or goods and services tax coupled with wine equalisation tax (from July 2000), and business franchise fees. As with tobacco, this last tax – collected by state and territory governments – was discontinued in 1997 following a High Court determination that such taxes could not be imposed by the states and territories. Between 1997 and June 2000, the Australian Government collected additional sales tax as a ‘surcharge’ and refunded this to the states and territories as ‘revenue replacement payments’. With the introduction of the GST in July 2000 (and therefore no further collection of sales tax), a similar level of duty was collected as increased excise on beer and spirits.

The net government revenue associated with alcohol increased from \$3.6 billion in 1995–96 to an estimated \$5.1 billion in 2004–05 (Table 3.5). The amount of revenue raised from excise remained relatively stable over the period 1996–97 to 1999–00, but increased noticeably in 2000–01 due to the higher excise rates introduced in 2000–01 to offset the abolition of wholesale sales tax (ATO 2005). While the excise duty collected on beer has remained relatively stable since those changes, excise duty collected for spirits has trebled between 2000–01 and 2004–05. Hence, the share of excise collected from spirits as a component of total excise collection increased from 17% in 2001–02 to 31% in 2004–05. This increase is largely due to a change in the treatment of imported spirits used to make ready-to-drink beverages by mixing with Australian-manufactured soft drinks and other ingredients. Prior to 1 February 2002, imported spirits used for this purpose were subject to customs duty. From 1 February 2002, these spirits were subject to excise duty rather than customs duty (ATO 2005). This change is partly reflected in the decrease of customs duty collected from spirits from \$1,074 million in 2000–01 to \$980 million in 2004–05.

While customs revenue on imported wine has remained stable during the period from 1995–96 to 2004–05, the revenue from customs duty on imported beer has increased considerably, from \$7 million in 1995–96 to \$83 million in 2004–05.

**Table 3.5: Government revenue related to the sale of alcohol, Australia, 1995–96 to 2004–05 (\$m)**

Duty	1995–96	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02	2002–03	2003–04	2004–05
Excise										
Beer	845	875	876	874	883	1,697	1,657	1,679	1,638	1,653
Spirits	201	164	142	144	155	238	339	560	662	739
<i>Total excise</i>	<i>1,045</i>	<i>1,040</i>	<i>1,018</i>	<i>1,018</i>	<i>1,039</i>	<i>1,935</i>	<i>1,996</i>	<i>2,239</i>	<i>2,300</i>	<i>2,392</i>
Customs										
Beer	7	9	12	14	14	36	45	56	72	83
Wine	4	3	4	4	4	3	4	4	5	5
Spirits	565	645	717	720	751	1,074	1,062	950	966	980
<i>Total customs</i>	<i>577</i>	<i>657</i>	<i>732</i>	<i>737</i>	<i>770</i>	<i>1,113</i>	<i>1,111</i>	<i>1,010</i>	<i>1,043</i>	<i>1,067</i>
<i>State franchise taxes<sup>(a)</sup></i>	<i>735</i>	<i>774</i>	<i>..</i>							
Sales tax										
Wholesale sales tax	1,274	1,407	1,482	1,618	1,669	..	..	..	..	..
Surcharge <sup>(a)</sup>	..	..	769	996	1,036	..	..	..	..	..
<i>Total sales tax</i>	<i>1,274</i>	<i>1,407</i>	<i>2,251</i>	<i>2,614</i>	<i>2,705</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>
<i>Wine equalisation tax<sup>(b)</sup></i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>523</i>	<i>640</i>	<i>669</i>	<i>704</i>	<i>682</i>
<i>GST<sup>(c)</sup></i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>716</i>	<i>751</i>	<i>809</i>	<i>875</i>	<i>916</i>
<b>Total</b>	<b>3,631</b>	<b>3,878</b>	<b>4,001</b>	<b>4,370</b>	<b>4,513</b>	<b>4,287</b>	<b>4,499</b>	<b>4,728</b>	<b>4,922</b>	<b>5,058</b>

(a) State franchise taxes were discontinued in August 1997 following a High Court determination that such taxes could not be imposed by the states and territories. Between August 1997 and June 2000 the Australian Government collected an additional 15% sales tax, referred to as a 'surcharge', and paid this to the states and territories under the so-called 'safety net' provisions as revenue replacement payments. With the introduction of GST (and the removal of wholesale sales tax), these replacement payments were no longer required but a similar level of revenue continued to be collected as increased excise.

(b) The Wine Equalisation Tax, currently levied at 29% of the wholesale sales value of wine, was introduced along with the GST to replace the 41% sales tax on wine.

(c) GST values are estimated as one-eleventh of household final consumption expenditure.

Note: This table has been substantially revised since previous editions of *Statistics on drug use in Australia*.

Sources: ATO 2006, 2000; ABS 2006a, 2005, 2004, 2002a, 2002b; Australian Customs Service, unpublished data.

## International comparisons

As mentioned in Chapter 2, international comparisons are useful for assessing the effectiveness of different drugs policies throughout the world. This section presents data on alcohol use for selected countries.

Alcohol consumption is highly prevalent in many countries of the world. For those countries where it is not, in most cases consumption is influenced by cultural or religious constraints. Hence, international comparisons of population prevalence essentially place countries into two groups: those where it is the norm to consume, and those where it is not. A more useful indicator of consumption is total litres of pure alcohol per capita (or per capita aged 15 years and over), which has been shown to be correlated with other measures of alcohol-related harm.

In 2003, Luxembourg reported the highest per capita consumption of pure alcohol, at 12.6 litres per person – largely driven by its high consumption of wine and beer (Table 3.6). Among the top 40 countries listed, there is least variation in the per capita consumption of beer, ranging from 157.0 litres per capita in the Czech Republic to 27.5 litres in Taiwan. This compares with a more than 30-fold variation in wine consumption, ranging from 66.1 litres per capita in Luxembourg to 1.9 litres per capita in Cuba.

Australia ranked 22nd highest in the world in terms of per capita consumption of alcohol, with approximately 7 litres equivalent of pure alcohol consumed per person. This corresponded to an annual per capita consumption of 91.5 litres of beer, 20.4 litres of wine and 1.2 litres of pure alcohol from spirits.

**Table 3.6: Per capita consumption of alcoholic beverages, selected countries<sup>(a)</sup>, 2003<sup>(b)</sup>**

Rank	Total pure alcohol <sup>(c)</sup>		Beer		Wine		Spirits (pure alcohol)	
	Country	Litres	Country	Litres	Country	Litres	Country	Litres
1	Luxembourg	12.6	Czech Republic	157.0	Luxembourg	66.1	Russia	6.2
2	Hungary	11.4	Republic of Ireland	141.2	France	48.5	Latvia	6.1
3	Czech Republic	11.0	Germany	117.5	Italy	47.5	Cyprus	3.9
4	Republic of Ireland	10.8	Austria	110.6	Portugal	42.0	Czech Republic	3.8
5	Germany	10.2	Luxembourg	101.6	Switzerland	40.9	Japan	3.6
6	Spain	10.0	United Kingdom	101.5	Hungary	37.4	Hungary	3.5
7	United Kingdom	9.6	Belgium	96.2	Argentina	34.6	Slovak Republic	3.5
8	Portugal	9.6	Denmark	96.2	Greece	33.8	Thailand	3.1
9	Denmark	9.5	<b>Australia</b>	<b>91.5</b>	Uruguay	33.3	China	3.0
10	Austria	9.3	Slovak Republic	88.4	Denmark	32.6	Spain	2.4
11	France	9.3	Venezuela	82.1	Spain	30.6	France	2.4
12	Cyprus	9.0	USA	81.6	Austria	29.8	Canada	2.1
13	Switzerland	9.0	Finland	80.2	Finland	26.3	Bulgaria	2.1
14	Belgium	8.8	Poland	79.0	Germany	23.6	Finland	2.1
15	Russia	8.7	Netherlands	78.7	Belgium	23.0	Germany	2.0
16	Slovak Republic	8.5	Spain	78.3	Romania	23.0	Republic of Ireland	2.0
17	Romania	8.1	Estonia	75.0	Malta	22.3	Romania	2.0
18	Latvia	8.1	New Zealand	72.8	Bulgaria	21.3	USA	1.9
19	Netherlands	7.9	Hungary	72.2	<b>Australia</b>	<b>20.4</b>	Chile	1.8
20	Finland	7.9	Canada	67.8	United Kingdom	20.1	Colombia	1.8
21	Greece	7.7	Romania	67.0	Netherlands	19.6	United Kingdom	1.8
22	<b>Australia</b>	<b>7.2</b>	Cyprus	60.0	New Zealand	19.1	Guyana	1.7
23	Canada	7.0	Portugal	58.7	Chile	18.0	Greece	1.6
24	Italy	6.9	Switzerland	58.1	Cyprus	17.8	Luxembourg	1.6
25	New Zealand	6.8	South Africa	56.0	Czech Republic	16.8	Switzerland	1.6
26	USA	6.8	Iceland	55.8	Sweden	16.6	Netherlands	1.5
27	Poland	6.7	Sweden	54.2	Republic of Ireland	15.2	Brazil	1.5
28	Estonia	6.5	Norway	50.5	Slovak Republic	13.0	New Zealand	1.6
29	Japan	6.5	Brazil	49.7	Norway	12.4	Austria	1.4
30	Argentina	6.2	Mexico	46.9	Iceland	12.0	Belgium	1.4
31	Uruguay	5.9	Paraguay	43.7	Poland	11.9	Cuba	1.4
32	Iceland	5.4	Greece	40.4	Canada	11.0	Portugal	1.4
33	Chile	5.2	Colombia	40.1	USA	9.5	Estonia	1.3
34	Bulgaria	5.0	Malta	39.7	South Africa	8.6	Poland	1.3
35	Malta	4.9	Latvia	36.6	Russia	8.6	Iceland	1.2
36	Sweden	4.9	Argentina	35.7	Latvia	3.6	<b>Australia</b>	<b>1.2</b>
37	South Africa	4.6	France	35.5	Estonia	3.4	Denmark	1.1
38	Venezuela	4.6	Russia	32.8	Japan	2.9	Uruguay	1.1
39	Norway	4.4	Italy	30.1	Tunisia	2.8	Sweden	0.9
40	Thailand	4.3	Taiwan	27.5	Cuba	1.9	Norway	0.8

(a) Top 45 ranked countries based on per capita consumption of total pure alcohol.

(b) Calendar year for all countries except Australia, Canada, New Zealand and Taiwan.

(c) As published: conversion factors from wine and beer not known for individual countries.

Source: Commission for Distilled spirits 2005.

The pattern of change over time in per capita alcohol consumption varies among the OECD countries (Table 3.7). For the majority, including Australia, there appears to have been a peak of consumption in the 1970s and 1980s with a tapering off in the 1990s and early twenty-first century. A few countries, notably the Republic of Ireland, the United Kingdom and Denmark, have seen an increase in consumption over the past 40 years, while Portugal, France and Italy have experienced a considerable decline over this period.

**Table 3.7: Alcohol consumption, litres of pure alcohol per capita, population aged 15 years and over, selected countries, 1965 to 2005**

Country	1965	1975	1985	1995	2005
Luxembourg	n.a.	15.5	14.6	14.4	15.5 <sup>2</sup>
Republic of Ireland	5.8	9.2	10.0	11.5	13.6 <sup>1</sup>
Hungary	8.9	12.6	14.7	12.2	13.2 <sup>2</sup>
Portugal	19.6	18.4	17.2	14.6	11.4 <sup>2</sup>
Czech Republic	n.a.	n.a.	11.8	11.6	11.5 <sup>1</sup>
Spain	15.4	19.5	15.1	11.4	11.7 <sup>2</sup>
Austria	13.6	14.5	12.1	11.9	11.1 <sup>2</sup>
Denmark	6.5	11.5	12.3	12.1	11.4 <sup>1</sup>
United Kingdom	6.1	9.0	9.3	9.4	11.5 <sup>1</sup>
Switzerland	13.7	13.7	13.5	11.4	10.7 <sup>1</sup>
France	n.a.	20.5	17.3	15.3	14.0 <sup>2</sup>
Germany	10.2	15.9	14.0	11.1	10.1 <sup>1</sup>
Belgium	10.3	13.3	12.9	11.1	10.7 <sup>2</sup>
<b>Australia</b>	<b>10.0</b>	<b>12.9</b>	<b>11.7</b>	<b>9.6</b>	<b>9.8<sup>2</sup></b>
Greece	n.a.	10.9 <sup>1</sup>	11.3	10.5	9.2 <sup>3</sup>
Finland	3.3	8.0	8.0	8.3	9.9 <sup>1</sup>
New Zealand	5.8	11.5	10.8	9.4	9.4
Slovak Republic	10.5	14.3	13.9	10.3	9.4 <sup>1</sup>
Italy	n.a.	15.3	12.1	10.4	8.0 <sup>2</sup>
Poland	n.a.	n.a.	9.4	8.2	8.1 <sup>2</sup>
United States	8.6	10.2	9.9	8.1	8.4 <sup>2</sup>
Japan	5.3	6.7	7.3	7.9	7.6 <sup>2</sup>
Canada	7.8	10.9	9.8	7.4	7.9 <sup>2</sup>
Sweden	5.7	7.6	6.1	6.2	6.5 <sup>1</sup>
Iceland	3.2	4.0	4.4	4.8	7.1
Norway	3.7	5.5	5.2	4.8	6.2 <sup>1</sup>
Mexico	n.a.	n.a.	4.5	5.1	4.6 <sup>2</sup>
Turkey	0.9	1.8	1.7	1.7	1.5 <sup>2</sup>

*Notes*

1. '1 '2 '3 data from 1, 2 or 3 previous years.

2. 1 2 3 data from 1, 2 or 3 following years.

Source: OECD 2006.

# 4 Illicit drug use

## Introduction

An illicit drug is defined as a drug whose production, sale or possession is prohibited (MCDS 2004). Illicit drugs such as marijuana, heroin, ecstasy and cocaine; the use of volatile substances such as glue, solvent and petrol as inhalants; and the non-medical use of prescribed drugs are all considered illicit for the purposes of this report.

The subject of this chapter is patterns of illicit drug use in Australia. The relevance of illicit drugs to areas such as health and crime are the subject of other chapters in this publication.

This chapter provides a summary of illicit drug use in Australia in 2004, and presents trends in illicit drug use over the period 1991 to 2004. It also contains a new feature section on methamphetamine use, which includes data sourced from the 2004 National Drug Strategy Household Survey (NDSHS) and the 2005 Ecstasy and Related Drugs Reporting System (EDRS, formerly known as the Party Drugs Initiative or PDI) and Illicit Drug Reporting System (IDRS) studies.

## Measures of illicit drug use

Based on responses to the 2004 NDSHS, 38% of the Australian population aged 14 years and over had used any illicit drug at least once in their lifetime, and 15% had used any illicit drug at least once in the previous 12 months (Table 4.1).

Marijuana/cannabis was the most common illicit drug used, with one in three persons (34%) having used it at least once in their lifetime and 11% of the population having used it in the previous 12 months.

In 2004, the five most common illicit drugs ever used were marijuana/cannabis (34%), meth/amphetamine (9%), hallucinogens, ecstasy (both 8%), and pain-killers/analgesics for non-medical purposes (6%).

The six most common illicit drugs used in the previous 12 months were marijuana/cannabis (11%), ecstasy, meth/amphetamine, and pain-killers/analgesics for non-medical purposes (all 3%), tranquillisers/sleeping pills and cocaine (1%).

The average age of first use of illicit drugs ranged from 18.6 years for inhalants, to 25.2 years for tranquillisers/sleeping pills and steroids for non-medical purposes. The average age of initiation was 18.7 years for marijuana/cannabis, 20.8 years for meth/amphetamine and 22.8 years for ecstasy.

**Table 4.1: Summary of illicit drug use: proportion of the population aged 14 years and over, Australia, 2004**

Substance/behaviour	Drugs ever used <sup>(a)</sup>	Drugs recently used <sup>(b)</sup>	Mean age of initiation
	(per cent)	(per cent)	(years)
Marijuana/cannabis	33.6	11.3	18.7
Pain-killers/analgesics <sup>(c)</sup>	5.5	3.1	23.4
Tranquillisers/sleeping pills <sup>(c)</sup>	2.8	1.0	25.2
Steroids <sup>(c)</sup>	0.3	—	25.2
Barbiturates <sup>(c)</sup>	1.1	0.2	19.6
Inhalants	2.5	0.4	18.6
Heroin	1.4	0.2	21.2
Methadone <sup>(d)</sup>	0.3	0.1	24.8
Other opiates/opioids <sup>(c)</sup>	1.4	0.2	n.a.
Meth/amphetamine (speed) <sup>(c)</sup>	9.1	3.2	20.8
Cocaine	4.7	1.0	23.5
Hallucinogens	7.5	0.7	19.5
Ecstasy	7.5	3.4	22.8
Ketamine	1.0	0.3	23.7
GHB	0.5	0.1	23.7
Injected drugs	1.9	0.4	21.7
Any illicit drug	38.1	15.3	19.4
None of the above	61.9	84.7	..

(a) Used at least once in lifetime.

(b) Used in the last 12 months.

(c) For non-medical purposes.

(d) Non-maintenance.

Source: NDSHS 2004.

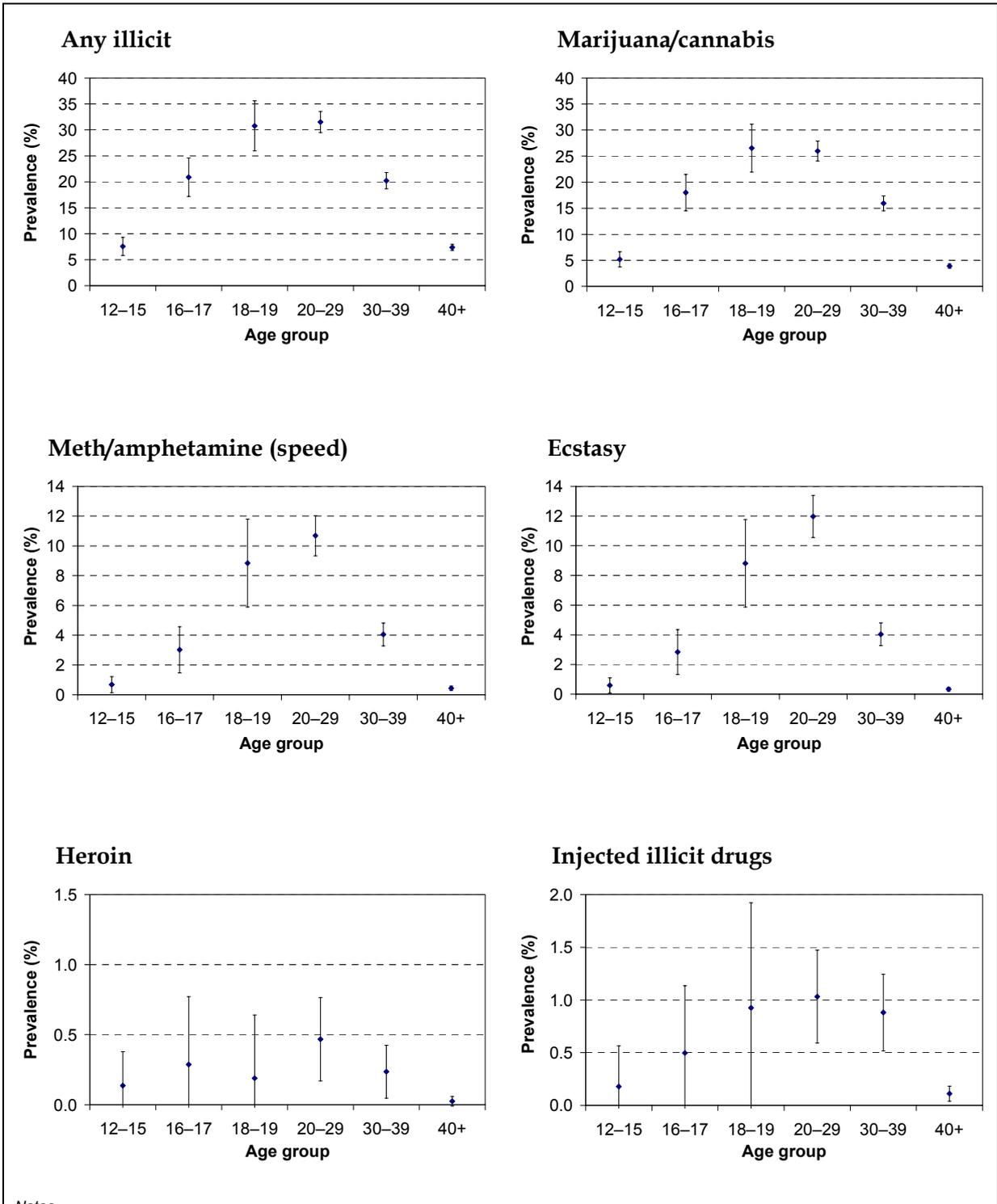
## Recent illicit drug use by age

Recent illicit drug use was most prevalent among persons aged between 18 and 29 years in 2004 (Figure 4.1). Almost one in three people (31%) in this age bracket had used at least one illicit drug and one in four had used marijuana/cannabis in the previous 12 months.

Approximately one in eight people aged 20–29 years recently used ecstasy, and around one in 10 used meth/amphetamine in the last 12 months. Similar proportions of persons aged 18–19 years had recently used ecstasy and meth/amphetamine, each at 9%.

Young people aged 12–15 years were significantly less likely to use any illicit drug and/or marijuana/cannabis compared with persons in all other age groups between 16 and 39 years.

Note that for some very low prevalence results for heroin and injecting drugs, the confidence interval includes zero.



**Notes**

1. The above graphs are drawn to different scales.
2. Statistics reported for 'injected illicit drugs' are based on those people aged 14 years and over.

Source: NDSHS 2004.

**Figure 4.1: Prevalence and 95% confidence intervals of drug use in the last 12 months, selected illicit drugs, persons aged 12 years and over, by age group, Australia, 2004**

## National trends

The use of any illicit drug during the previous 12 months rose and fell between 1991 and 2004, reaching the same level in 2004 as the prevalence in 1991 (15%) (Table 4.2).

The recent use of marijuana/cannabis also fluctuated, with the proportion of users in 2004 (11%) dropping to the lowest proportion seen in the 13-year period.

The proportions of people using other types of illicit drugs have remained stable or decreased since 1998, with the exception of ecstasy, which reached 3% in 2004, the highest prevalence for this substance in the 13-year period.

**Table 4.2: Summary of recent<sup>(a)</sup> illicit drug use: proportion of the population aged 14 years and over, by drug type, Australia, 1991 to 2004 (per cent)**

Substance/behaviour	1991	1993	1995	1998	2001	2004
Marijuana/cannabis	13.7	12.7	13.1	17.9	12.9	11.3
Pain-killers/analgesics <sup>(b)</sup>	n.a.	1.7	3.5	5.2	3.1	3.1
Tranquillisers/sleeping pills <sup>(b)</sup>	n.a.	0.9	0.6	3.0	1.1	1.0
Steroids <sup>(b)</sup>	n.a.	0.3	0.2	0.2	0.2	—
Barbiturates <sup>(b)</sup>	1.5	0.4	0.2	0.3	0.2	0.2
Inhalants	0.8	0.6	0.6	0.9	0.4	0.4
Heroin	0.4	0.2	0.4	0.8	0.2	0.2
Methadone <sup>(c)</sup>	n.a.	n.a.	n.a.	0.2	0.1	0.1
Other opiates/opioids <sup>(b)</sup>	n.a.	n.a.	n.a.	n.a.	0.3	0.2
Meth/amphetamine (speed) <sup>(b)</sup>	2.6	2.0	2.1	3.7	3.4	3.2
Cocaine	0.7	0.5	1.0	1.4	1.3	1.0
Hallucinogens	1.6	1.3	1.8	3.0	1.1	0.7
Ecstasy <sup>(d)</sup>	1.1	1.2	0.9	2.4	2.9	3.4
Ketamine	n.a.	n.a.	n.a.	n.a.	n.a.	0.3
GHB	n.a.	n.a.	n.a.	n.a.	n.a.	0.1
Injected drugs	0.5	0.5	0.6	0.8	0.6	0.4
Any illicit drug	15.3	14.0	17.0	22.0	16.9	15.3
None of the above	84.7	86.0	83.0	78.0	83.1	84.7

(a) Used in the last 12 months.

(b) For non-medical purposes.

(c) Non-maintenance.

(d) This category included substances known as 'designer drugs' prior to 2004.

Sources: National Campaign Against Drug Abuse Household Survey 1991, 1993; NDSHS 1995, 1998, 2001, 2004.

## International comparisons

The data presented in the following table relate to the use of marijuana/cannabis, amphetamine, ecstasy, cocaine and opiates, and summarise and update collated data by the United Nations Office on Drugs and Crime (UNODC). Only data relating to English-speaking countries are presented here. The countries use various types of population surveys and other data collection methods. Although these methods are broadly consistent, comparisons should be treated with caution. For more details on the methods and sources, readers are referred to the UNODC publication (UNODC 2006).

The levels and patterns of illicit drug use in the selected English-speaking countries vary considerably (Table 4.3). Marijuana/cannabis use in the last 12 months was most prevalent in Canada (17%), and least prevalent in the Republic of Ireland and Northern Ireland (5%). Ecstasy and amphetamine use was most prevalent in Australia (4%). Cocaine use was most common in the USA (3%).

**Table 4.3: Prevalence of substance use, population aged 15–64 years, selected countries, 2004 (per cent)**

Country	Marijuana/cannabis	Ecstasy	Amphetamine	Cocaine	Opiates <sup>(a)</sup>
Australia	13.3	4.0	3.8	1.2	0.5
New Zealand	13.4 <sup>·3</sup>	2.2 <sup>·3</sup>	3.4 <sup>·3</sup>	0.5 <sup>·3</sup>	0.5 <sup>·3</sup>
Republic of Ireland	5.1 <sup>·1(b)</sup>	1.1 <sup>·1</sup>	0.4 <sup>·1</sup>	1.1 <sup>·2</sup>	0.6 <sup>·3</sup>
USA	12.6	1.0	1.5	2.8	0.6 <sup>·4</sup>
Canada	16.8	1.1	0.8	2.3	0.4 <sup>·4</sup>
United Kingdom	n.a	n.a	n.a	n.a	0.9 <sup>·3</sup>
England and Wales <sup>(c)</sup>	10.8 <sup>(d)</sup>	2.0 <sup>(d)</sup>	1.5 <sup>(d)</sup>	2.4 <sup>·1</sup>	n.a
Scotland <sup>(c)</sup>	7.9 <sup>·1</sup>	1.7 <sup>·1</sup>	1.4 <sup>·1</sup>	1.4 <sup>·1</sup>	n.a
Northern Ireland	5.4 <sup>·1(b)</sup>	1.6 <sup>·1</sup>	0.8 <sup>·1</sup>	0.4 <sup>·1</sup>	n.a

Note: <sup>·1</sup> <sup>·2</sup> <sup>·3</sup> <sup>·4</sup> data from 1, 2, 3 or 4 previous years.

(a) Data on opioid prevalence in Canada relate to those aged 18 years and over.

(b) For the period 2002–03.

(c) All data for Scotland, England and Wales relate to those aged 16–59 years.

(d) For the period 2003–04.

Source: UNODC 2006.

## Methamphetamine use

Methamphetamine is a stimulant that can be snorted, swallowed, injected or smoked and has been developed from its parent drug amphetamine. The chemical structure of amphetamine and methamphetamine is similar; however, methamphetamine has a more pronounced effect on the central nervous system (National Institute on Drug Abuse 2006). Users report positive effects of increased energy and a heightened sense of awareness, and negative effects such as irritability, suspiciousness, aggressiveness and a tendency towards violence (Whiteaker 2004).

In the 1980s, amphetamine sulphate was traditionally the form most widely available in Australia; however, change in legislation and in the availability of chemicals needed to manufacture this drug led to a shift towards methamphetamine production in the 1990s. Methamphetamine seizures now make up the vast majority of amphetamine seizures in Australia (Stafford et al. 2006a).

Methamphetamine comes in a number of different forms. Powder form, traditionally known as ‘speed’, is usually of relatively low purity. Methamphetamine base (base) and crystalline methamphetamine (crystal or ice) are more potent forms of the drug (Stafford et al. 2006a). More information on purity of drug seizures is contained in Chapter 9 of this report.

## Summary of methamphetamine use

Of Australians aged 14 years and older, 3% had used methamphetamine for non-medical purposes in the last 12 months and 9% had used it in their lifetime (Table 4.4).

The prevalence of methamphetamine use increased with age for persons aged between 14 and 29 years. Almost 7% of 14–19-year-olds had ever used methamphetamine compared with over 1 in 5 people (21%) aged 20–29 years. Lifetime use decreased in those aged 30–39 years (16%) and again in those aged 40 and over (4%). Males were more likely to have used methamphetamine in their lifetime (11%) compared with females (7%).

Of the 1.5 million lifetime users of methamphetamine, 65% (1.0 million) had not used it in the last 12 months.

**Table 4.4: Methamphetamine use, persons aged 14 years and older, by age, by sex, Australia, 2004**

Period	Age group				Sex		Persons
	14–19	20–29	30–39	40+	Males	Females	
	(per cent)						
In lifetime	6.6	21.1	16.0	3.6	11.0	7.3	9.1
In the last 12 months	4.4	10.7	4.1	0.4	4.0	2.5	3.2
In the last month	1.8	4.2	1.7	0.2	1.6	1.0	1.3
In the last week	0.8	1.8	0.8	0.1	0.7	0.5	0.6
	(number)						
In lifetime	109,300	582,400	477,800	322,700	890,500	607,600	1,497,000
In the last 12 months	73,600	295,300	120,700	39,400	321,600	210,900	532,100
In the last month	29,900	115,400	50,100	17,700	129,800	84,800	214,400
In the last week	13,500	49,700	25,000	8,300	54,900	42,200	97,000

Source: AIHW 2005a.

## Methamphetamine use by friends and acquaintances

The 2004 NDSHS asked all respondents what proportion of their friends and acquaintances used methamphetamine for non-medical purposes. Results showed that even among people who had never used methamphetamine, many had friends who did, with approximately 1 in 10 reporting that about half or less of their friends used the drug (Table 4.5)

Of Australians aged 14 years and older who had never used methamphetamine, 90% had no friends and acquaintances who used methamphetamine. Among ex-users, 32% had no friends and acquaintances who used methamphetamine and among recent users, 2% had no friends and acquaintances who used this drug.

**Table 4.5: Methamphetamine use by friends and acquaintances, persons aged 14 years and older, by use status, Australia, 2004 (per cent)**

Proportion of friends	Never used	Ex-users	Recent users	All
All or most	0.1	1.5	17.7	0.8
About half or less	10.2	66.5	80.3	15.8
None	89.7	32	2	83.4

Source: AIHW 2005a.

## Forms of methamphetamine

Powder was the most common form of methamphetamine used; a greater proportion of females (80%) than males (71%) used this form (Table 4.6). Females were more likely to use this illicit drug in the form of tablets and liquid while males were more likely to use methamphetamine in the form of powder, crystal and base.

**Table 4.6: Form of methamphetamine used, recent users aged 14 years and older, by sex, Australia, 2004 (per cent)**

Form of drug	Males	Females	Persons
Powder	70.5	80.3	74.3
Crystal	41.3	34.6	38.6
Base/paste/pure	27.1	23.9	25.8
Tablet	11.1	12.2	11.6
Liquid	7.5	11.6	9.1

Note: Respondents could select more than one response.

Source: AIHW 2005a.

## Usual place of methamphetamine use

Both males (64%) and females (70%) were most likely to use methamphetamine in their own home or at a friend's house (Table 4.7). A substantial proportion of people also used the drug at private parties (50%), at public establishments (46%) and at raves/dance parties (46%).

**Table 4.7: Usual place of use of methamphetamine, recent users aged 14 years and older, by sex, Australia, 2004 (per cent)**

Place	Males	Females	Persons
In a home	63.8	69.7	66.1
At private parties	52.3	45.4	49.6
At public establishment	47.1	44.7	46.2
At raves/dance parties	43.9	49.4	46.1
In a car or other vehicle	19.0	17.3	18.3
In public places (e.g. parks)	10.7	12.3	11.3
At work or school/TAFE/university, etc.	9.1	10.0	9.5
Somewhere else	8.6	9.4	8.9

Note: Respondents could select more than one response.

Source: AIHW 2005a.

## Concurrent drug use

In the 2004 NDSHS, recent users of methamphetamine were also asked whether any other drugs were used (on at least one occasion) at the same time as this drug.

Approximately nine in ten people (87%) aged 14 years and over had consumed alcohol with methamphetamine (on at least one occasion) (Table 4.8). Next most commonly, 68% of recent users had used marijuana/cannabis and 49% had used ecstasy at the same time as using methamphetamine.

**Table 4.8: Other drugs used with methamphetamine, recent users aged 14 years and older, by sex, Australia, 2004 (per cent)**

Drug	Males	Females	Persons
Alcohol	86.9	87.5	87.2
Marijuana/cannabis	71.6	61.5	67.6
Heroin	2.6	2.4	2.5
Cocaine/crack	13.9	13.3	13.6
Tranquillisers/sleeping pills	7.3	6.8	7.1
Anti-depressants	3.1	8.8	5.4
Pain-killers/analgesics	5.5	8.7	6.8
Barbiturates	1.2	0.5	0.9
Ecstasy	53.9	42.5	49.4
GHB	4.1	3.4	3.9
Ketamine	10.3	7.6	9.2
Other	4.1	2.6	3.5
None	3.5	4.1	3.8

\* Relative standard error greater than 50%.

Note: Respondents could select more than one response.

Source: AIHW 2005a.

## Methamphetamine use among selected users

Information in the following table is sourced from the Ecstasy and Related Drugs Reporting System (EDRS, formerly the PDI) and the Illicit Drug Reporting System (IDRS) studies. The EDRS and IDRS are coordinated by the National Drug and Alcohol Research Centre (NDARC) to monitor illicit drug markets in Australia. The EDRS collects data from regular ecstasy and related drug (ERD) users. For the purposes of the study, ERDs include drugs that are typically (but not exclusively) used in the context of entertainment venues including nightclubs, dance parties, pubs and music festivals. These include ecstasy (MDMA), meth/amphetamine, cocaine, LSD, ketamine, MDA and GHB. The IDRS collects data on illicit drug use among regular injecting drug users.

Note that the results from the EDRS and IDRS surveys are not representative of illicit drug use in the general population, nor of drug users in general, as this is not the aim of these projects. The data are intended to provide evidence that is indicative of emerging issues that warrant further monitoring (Stafford et al. 2006a; Stafford et al. 2006b). Note also that some of the data presented here from surveys refer to relatively small sub-sample sizes and participants are not randomly selected. Therefore, readers are advised to be cautious when interpreting the results presented here.

Among both injecting drug users and ERD users, powder was the most common form of methamphetamine used in 2005 for all age groups (Table 4.9). The largest proportion of powder use was observed in those aged under 25 years for both the EDRS (75%) and IDRS (72%) studies.

Use of base and crystal was reported by reasonable proportions of both injecting drug users and ERD users. Among injecting drug users, base and crystal were more frequently used in those aged less than 25 years and for ERD users, in those aged 25–34 years.

**Table 4.9: Proportion of people in the IDRS and EDRS studies using methamphetamine in the last 6 months, by methamphetamine form and age group, Australia, 2005**

Methamphetamine form	Age group		
	Less than 25	25–34	35 and over
<b>IDRS (per cent)</b>			
Powder	72	61	55
Base	52	38	36
Crystal	60	43	37
<b>EDRS (per cent)</b>			
Powder	75	73	59
Base	37	43	33
Crystal	37	42	36

Sources: Stafford et al. 2006a, 2006b.

# 5 Pharmaceutical products

## Introduction

This chapter presents information on patterns of pharmaceutical drug prescription and use in Australia.

Australian data on the use of pharmaceutical products are derived from two main sources:

- Medicare Australia records of prescriptions submitted for payment of a subsidy under the Pharmaceutical Benefits and Repatriation Pharmaceutical Benefits Schemes (PBS/RPBS)
- the Pharmacy Guild Survey, an ongoing survey of community pharmacies conducted by the Pharmacy Guild of Australia.

The Pharmacy Guild Survey estimates the number of prescriptions issued from community pharmacies that are not covered by the PBS/RPBS either because the price is below the threshold for which a PBS/RPBS subsidy applies, or the product is not listed on the PBS/RPBS. An estimated 79% of all community prescriptions (that is, non-public hospitals) were dispensed under the PBS/RPBS in 2005.

The information in this chapter sourced from the PBS/RPBS and the Pharmacy Guild Survey only describes pharmaceutical products dispensed in community pharmacies and does not include medications issued from public hospitals.

## Top 10 prescription medicines

In 2005, approximately 234 million prescriptions were dispensed through community pharmacies. This represented an increase of 6% over the prescriptions dispensed in 2003. Results from the AIHW Bettering the Evaluation and Care of Health (BEACH) survey indicate that Australian general practitioners prescribed over 79 million medications (not including repeats) in 2004–05 (Britt et al. 2005).

### By volume

The top 10 medicines by number of prescriptions issued from community pharmacies accounted for 48.8 million prescriptions in 2005, which represented 21% of all community prescriptions issued that year (Table 5.1). The majority (83%) of the volume associated with the top 10 prescription medicines dispensed at community pharmacies were prescriptions covered by the PBS/RPBS.

In 2005, the top two ranked prescription medicines distributed through community pharmacies were the cholesterol-lowering drugs Atorvastatin and Simvastatin. These drugs were the two most frequently dispensed under the PBS/RPBS. This was followed by the antibiotic Amoxicillin which was fairly evenly split between subsidised and non-subsidised dispensing. Two analgesics (Paracetamol and Codeine with Paracetamol) and two drugs to

reduce blood pressure (Atenolol and Irbesartan) also appeared in the top 10 prescription medicines distributed through community pharmacies.

**Table 5.1: Top 10 prescription medicines distributed through community pharmacies, Australia, 2005 ('000)**

Drug (action)	PBS/RPBS	Pharmacy Guild Survey	Total community use
Atorvastatin (lowers blood cholesterol)	8,511	22	8,533
Simvastatin (lowers blood cholesterol)	6,317	12	6,329
Amoxicillin (antibiotic)	2,428	2,553	4,982
Paracetamol (pain-killer)	4,583	146	4,729
Omeprazole (lowers gastric acid)	4,312	11	4,323
Salbutamol (opens airways)	2,992	1,175	4,167
Atenolol (lowers blood pressure)	3,257	895	4,152
Codeine with Paracetamol (pain-killer)	2,639	1,400	4,038
Irbesartan (lowers blood pressure)	3,181	599	3,781
Cefalexin (antibiotic)	2,163	1,567	3,730

Source: Drug Utilisation Subcommittee of the Pharmaceutical Benefits Advisory Committee—Drug Utilisation Database, unpublished data.

## By cost to the Australian Government

The top two drugs ranked by cost to the Australian Government in 2005 were also the two drugs with the highest volume of prescriptions: the cholesterol-lowering drugs Atorvastatin and Simvastatin. In 2005, Atorvastatin and Simvastatin cost the Australian Government \$486 million and \$348 million respectively (Table 5.2). The sum of the 10 drugs ranked in Table 5.2 cost the Australian Government nearly \$2 billion in 2005. The schizophrenia treatment drug Olanzapine was ranked seventh in cost to the government yet had a relatively small number of prescriptions compared with other drugs in the top ten.

**Table 5.2: Top 10 prescription drugs by cost to the Australian Government (PBS and RPBS), Australia, 2005**

Drug (action)	Number of prescriptions	Cost to Australian Government
	('000)	(\$m)
Atorvastatin (lowers blood cholesterol)	8,511	486
Simvastatin (lowers blood cholesterol)	6,317	348
Omeprazole (lowers gastric acid)	4,312	166
Salmeterol and fluticasone (opens airways)	2,823	166
Clopidogrel (prevents blood clotting)	2,058	161
Esomeprazole (lowers gastric acid)	3,354	159
Olanzapine (antipsychotic)	728	151
Alendronic acid (osteoporosis prevention and treatment)	2,224	113
Pravastatin (lowers blood cholesterol)	2,053	110
Pantoprazole (lowers gastric acid)	2,664	105

Source: Drug Utilisation Subcommittee of the Pharmaceutical Benefits Advisory Committee—Drug Utilisation Database, unpublished data.

## By defined daily dose

The most accurate way to express the consumption of prescription drugs is through the defined daily dose per thousand population per day (DDD). The DDD is the amount necessary to treat one adult for one day. The Nordic Council on Medicines and the World Health Organization Drug Utilisation Research Group established and update the DDD. The use of DDD allows comparisons to be made irrespective of the price, preparation or the quantity of the prescription.

Corresponding with their ranking in terms of cost to the Australian Government and frequency of issue, Atorvastatin and Simvastatin also had the two highest DDD rates of all prescription medicines in 2005 (Table 5.3). Many of the top 10 medicines ranked by DDD did not appear in the top 10 medicines ranked by number of prescriptions (Table 5.1) or in the top 10 ranked by cost to government (Table 5.2). These included two drugs normally prescribed for blood pressure reduction (Ramipril and Diltiazem hydrochloride), a diuretic (Frusemide), an anti-depressant (Sertraline) and Aspirin.

**Table 5.3: Top 10 prescription medicines issued through community pharmacies by defined daily dose, Australia, 2005 (DDD<sup>(a)</sup>)**

Drug (action)	PBS/RPBS	Pharmacy Guild Survey	Total community use
Atorvastatin (lowers blood cholesterol)	106.6	0.2	106.8
Simvastatin (lowers blood cholesterol))	57.4	0.1	57.5
Ramipril (lowers blood pressure)	35.0	3.1	38.0
Diltiazem hydrochloride (lowers blood pressure)	28.1	2.9	31.0
Salbutamol (opens airways)	18.4	7.8	26.2
Irbesartan (lowers blood pressure)	19.4	2.5	21.9
Omeprazole (lowers gastric acid)	20.1	0.0	20.1
Frusemide (elevates rate of urine excretion)	18.5	1.1	19.6
Aspirin (pain-killer, prevents blood clotting)	18.0	1.2	19.3
Sertraline (antidepressant)	17.7	0.1	17.8

(a) Defined daily dose per 1,000 population per day.

Source: Drug Utilisation Subcommittee of the Pharmaceutical Benefits Advisory Committee—Drug Utilisation Database, unpublished data.

## Community prescriptions for other major drug groups

Medicines are classified into Anatomical Therapeutic Chemical (ATC) groups generally according to the target organ of individual drugs. In 2005, the most widely prescribed class of drug was for the cardiovascular system (66 million prescriptions), followed by drugs that affect the central nervous system (45 million prescriptions) (Table 5.4). As a proportion of all prescriptions, those for the cardiovascular system increased from 25% in 2001 to 28% in 2005. There was very little proportional change among the other ATC groups in this time period.

**Table 5.4: Number of community prescriptions issued for selected ATC groups, Australia, 2001 to 2005 (millions)**

ATC group	2001	2002	2003	2004	2005
<b>PBS/RPBS</b>					
Alimentary <sup>(a)</sup>	19.4	21.5	22.7	24.4	25.0
Cardiovascular <sup>(b)</sup>	49.3	52.8	55.6	59.7	59.8
Anti-infectives <sup>(c)</sup>	13.2	12.8	12.6	13.0	12.8
Central nervous <sup>(d)</sup>	33.3	34.2	35.2	36.8	36.3
Respiratory <sup>(e)</sup>	11.4	11.2	10.8	10.8	10.5
Other <sup>(f)</sup>	38.0	40.5	41.1	42.3	39.3
<b>Total source</b>	<b>164.5</b>	<b>173.0</b>	<b>178.1</b>	<b>187.0</b>	<b>183.8</b>
<b>Pharmacy Guild Survey</b>					
Alimentary <sup>(a)</sup>	3.2	3.1	2.9	3.0	3.1
Cardiovascular <sup>(b)</sup>	3.4	3.4	3.6	4.2	6.6
Anti-infectives <sup>(c)</sup>	11.0	10.0	9.2	10.7	11.4
Central nervous <sup>(d)</sup>	7.6	7.5	7.2	7.9	8.6
Respiratory <sup>(e)</sup>	3.2	3.5	3.3	3.3	3.2
Other <sup>(f)</sup>	17.5	16.3	15.9	17.2	17.4
<b>Total source</b>	<b>46.0</b>	<b>43.6</b>	<b>42.0</b>	<b>46.3</b>	<b>50.3</b>
<b>Total community</b>					
Alimentary <sup>(a)</sup>	22.6	24.6	25.6	27.5	28.1
Cardiovascular <sup>(b)</sup>	52.7	56.1	59.2	64.0	66.4
Anti-infectives <sup>(c)</sup>	24.2	22.8	21.8	23.7	24.2
Central nervous <sup>(d)</sup>	40.9	41.7	42.4	44.7	44.9
Respiratory <sup>(e)</sup>	14.6	14.6	14.2	14.1	13.7
Other <sup>(f)</sup>	55.5	56.7	56.9	59.5	56.7
<b>Total source</b>	<b>210.5</b>	<b>216.6</b>	<b>220.1</b>	<b>233.4</b>	<b>234.0</b>

(a) Alimentary includes drugs for peptic ulcers/reflux.

(b) Cardiovascular includes drugs that lower blood pressure and that lower lipids.

(c) Anti-infectives includes antibiotics.

(d) Central nervous includes analgesics, tranquilisers and anti-depressants.

(e) Respiratory includes anti-asthmatic drugs.

(f) Other includes all other drugs listed for use in Australia.

Source: Drug Utilisation Subcommittee of the Pharmaceutical Benefits Advisory Committee—Drug Utilisation Database, unpublished data.

# 6 Drugs and health

## Introduction

This chapter presents material associating drug use with health. The following sections present information relating to mortality and morbidity relating to drug use, comorbidity of drug use and mental health problems, injecting drug use and communicable disease, and drug overdose statistics.

## Mortality and morbidity

### Attributable cause

Most ill health, disease and death result from a cluster of causes, so it is difficult to identify the burden of any one single risk factor (such as tobacco smoking or obesity), particularly in an individual person. However, epidemiological techniques enable the estimation of the population burden of a specific risk factor within a particular disease or condition. One such technique applied in the area of drug use is the aetiological (causal) fraction, which is based on analyses of the rates of disease or death related to various levels of drug use (exposure) and produces a 'fraction' indicating the degree to which drug use is considered a contributory cause of the condition in question.

Aetiological fractions can be determined directly or indirectly. For some conditions, the aetiological fraction is 1.00; that is, the cause of death (or disease) is aetiologicaly defined. An example is death due to opiate poisoning, for which the aetiological fraction due to illicit drug use is 1.00. Compare this with stomach cancer: the aetiological fraction for this condition due to cigarette smoking is 0.091 for males and 0.061 for females (Ridolfo & Stevenson 2001).

### Disability-adjusted life years

The disability-adjusted life year (or DALY) is a summary statistic used to measure the burden of disease that combines both the years of healthy life lost due to disability and the years of life lost due to premature mortality. One DALY represents one lost year of 'healthy life' (Begg et al. forthcoming).

## Tobacco

In the most recent Burden of Disease and Injury in Australia study (Begg et al. forthcoming) it is estimated that tobacco was responsible for 8% of the burden of disease in Australia in 2003. Approximately 15,500 deaths were attributable to tobacco use (Table 6.1). The majority of deaths attributable to smoking were from lung cancer (6,309), followed by chronic obstructive pulmonary disease (4,175).

In 2003, tobacco smoking accounted for almost 205,000 DALYs. Lung cancer was again the largest contributor (72,213 years), followed by chronic obstructive pulmonary disease (54,492 years) and ischaemic heart disease (31,435 years).

**Table 6.1: Number of deaths and DALYs attributable to tobacco, by condition, 2003**

Condition	Deaths		DALYs	
	Number	Per cent <sup>(a)</sup>	Number	Per cent <sup>(b)</sup>
Lung cancer	6,309	4.8	72,213	2.7
Chronic obstructive pulmonary disease	4,175	3.2	54,492	2.1
Ischaemic heart disease	1,962	1.5	31,435	1.2
Stroke	577	0.4	11,812	0.4
Oesophagus cancer	572	0.4	6,248	0.2
Other	1,916	1.4	28,588	1.1
<b>Total attributable</b>	<b>15,511</b>	<b>11.7</b>	<b>204,788</b>	<b>7.8</b>

(a) Of total deaths.

(b) Of total DALYs.

Source: Begg et al. forthcoming.

## Alcohol

In 2003, an estimated 2% of the total burden of disease in Australia was attributable to excessive alcohol consumption, with a large proportion of this burden falling on males under the age of 45 years. However, alcohol was also estimated to prevent 1% of the total burden of disease (Begg et al. forthcoming), mainly through its protective effect for heart disease in older populations. The net impact of alcohol across the whole population was almost 1,100 deaths and over 61,000 DALYs (Table 6.2).

The majority of harm associated with alcohol consumption was from alcohol abuse (918 deaths and 34,116 DALYs). As indicated above, the greatest benefit of alcohol consumption came from the prevention of ischaemic heart disease (-1,950 deaths and -20,659 DALYs).

**Table 6.2: Number of deaths and DALYs attributable to alcohol, by condition, 2003**

Condition	Deaths		DALYs	
	Number	Per cent <sup>(a)</sup>	Number	Per cent <sup>(b)</sup>
<b>Harm</b>				
Alcohol abuse	918	0.7	34,116	1.3
Suicide and self-inflicted injuries	553	0.4	12,245	0.5
Road traffic accidents	396	0.3	11,121	0.4
Oesophagus cancer	368	0.3	4,594	0.2
Breast cancer	184	0.1	4,152	0.2
Other	1,012	0.8	19,207	0.7
<i>Total attributable harm</i>	<i>3,430</i>	<i>2.6</i>	<i>85,435</i>	<i>3.2</i>
<b>Benefit</b>				
Ischaemic heart disease	-1,950	-1.5	-20,659	-0.8
Stroke	-380	-0.3	-3,451	-0.1
Other	-16	0.0	-233	0.0
<i>Total attributable benefit</i>	<i>-2,346</i>	<i>-1.8</i>	<i>-24,343</i>	<i>-0.9</i>
<b>Total attributable</b>	<b>1,084</b>	<b>0.8</b>	<b>61,091</b>	<b>2.3</b>

(a) Of total deaths.

(b) Of total DALYs.

Source: Begg et al. forthcoming.

## Illicit drugs

Begg et al. (forthcoming) estimate that illicit drug use was responsible for 2% of the total burden of disease in Australia in 2003. There were 1,705 deaths and almost 51,500 DALYs attributable to illicit drug use (Table 6.3).

Hepatitis C was the major condition for deaths attributable to illicit drug use in 2003 (759 deaths), followed by hepatitis B (329 deaths). Hepatitis C was also responsible for a significant proportion of DALYs attributable to illicit drugs (11,709 DALYs), while the main contributor was heroin/polydrug use (16,758 DALYs).

**Table 6.3: Number of deaths and DALYs attributable to illicit drug use, by condition, 2003**

Condition	Deaths		DALYs	
	Number	Per cent <sup>(a)</sup>	Number	Per cent <sup>(b)</sup>
Heroin/polydrug use	263	0.2	16,758	0.6
Hepatitis C	759	0.6	11,709	0.4
Cannabis abuse	0	0.0	5,206	0.2
Suicide and self-inflicted injuries	204	0.2	4,458	0.2
Hepatitis B	329	0.2	3,637	0.1
Benzodiazepine abuse	1	0.0	2,656	0.1
Other	149	0.1	7,040	0.3
<b>Total attributable</b>	<b>1,705</b>	<b>1.3</b>	<b>51,463</b>	<b>2.0</b>

(a) Of total deaths.

(b) Of total DALYs.

Source: Begg et al. forthcoming.

## Mental health

### Mental health problems among injecting drug users

The data presented in the following table were sourced from unpublished material from the Illicit Drug Reporting System (IDRS), from the National Drug and Alcohol Research Centre.

Since 2000, the IDRS has surveyed a sample of injecting drug users in all Australian state and territory capital cities. As the study is not designed to be representative of all illicit or injecting drug users, and participants are not randomly selected, readers are advised to be cautious when interpreting the results presented here.

A total of 32% of injecting drug users surveyed for the IDRS in 2005 had visited a health professional for a mental health problem other than drug dependence in the six months prior to interview (Table 6.4). Of those respondents, 68% reported that they had visited a health professional regarding depression, 38% reported visiting a health professional regarding anxiety and an additional 10% had attended for panic attacks.

**Table 6.4: Type of mental health problem, injecting drug users<sup>(a)</sup> attending a health professional for a mental health problem other than drug dependence<sup>(b)</sup>, 2005 (per cent)**

<b>Mental health problem</b>	<b>Proportion of those attending for mental health problem<sup>(c)</sup></b>
Depression	68
Anxiety	38
Panic attacks	10
Schizophrenia	9
Manic depression	8
Paranoia	7
Drug-induced psychosis	5
Phobia	3

(a) Injecting drugs users surveyed for the Illicit Drug Reporting System.

(b) Refers to attendance to a health professional in the last six months, including for other mental health problems not specified in this table.

(c) Participants could nominate more than one problem; therefore percentages do not total 100%.

*Note:* Base equals injecting drug users who attended a health professional for a mental health problem other than drug dependence in the six months prior to interview.

*Sources:* Stafford et al. 2006a; National Drug and Alcohol Research Centre, unpublished data.

## **Marijuana/cannabis and psychological distress**

Use of marijuana/cannabis by age group and level of psychological distress are sourced from the 2004 NDSHS. Those who used marijuana/cannabis in the previous month reported higher levels of psychological distress than those who reported no use for all age groups (Table 6.5). The greatest difference in psychological distress was observed in those aged 18–19 years. Only 30% of 18–19 year olds who had used marijuana/cannabis in the last month reported low psychological distress compared with 54% of those who had not used the drug. Almost one-quarter (23%) of users in this age group reported high psychological distress and 1 in 10 reported very high psychological distress.

**Table 6.5: Psychological distress<sup>(a)</sup>, by selected drug use patterns, persons aged 18 years and over, 2004 (per cent)**

Age group/Use of marijuana/cannabis	Level of psychological distress <sup>(b)</sup>			
	Low	Moderate	High	Very high
All persons (aged 18+)	68.4	21.8	7.6	2.3
18–19 years				
Used in the last month	30.1	37.0	23.4	9.5
Not used in the last month	53.8	34.1	8.0	4.1
20–24 years				
Used in the last month	51.8	32.9	10.9	4.4
Not used in the last month	57.2	30.4	9.6	2.8
25–29 years				
Used in the last month	47.0	33.4	13.1	6.5
Not used in the last month	62.8	26.3	8.2	2.6
30–39 years				
Used in the last month	50.1	28.4	15.3	6.3
Not used in the last month	68.2	21.8	7.8	2.2
40+ years				
Used in the last month	56.6	28.7	10.1	4.6
Not used in the last month	73.9	18.2	6.4	1.6

(a) Using the Kessler 10 scale of psychological distress.

(b) Low: K10 score 10–15; Moderate: 16–21; High: 22–29; Very High: 30–50.

Source: NDSHS 2004.

## Injecting drug use and communicable disease

Data presented in this section on injecting drug use, hepatitis B and hepatitis C (HCV), HIV/AIDS and risky behaviour are sourced from the National Centre in HIV Epidemiology and Clinical Research (NCHECR).

### Hepatitis B and hepatitis C

The annual Needle and Syringe Program (NSP) Survey, conducted by NCHECR, targets people attending needle and syringe program sites across Australia during a one-week period. The survey involves a self-administered questionnaire which includes a question on self-reported hepatitis B infection. In addition, clients are asked to provide blood for HIV and HCV antibody testing.

Self-reported prevalence of hepatitis B appeared to be higher for long-term injecting drug users in 2005. Although less than 0.5% of injecting drug users with an injecting history of less than 5 years self-reported hepatitis B, 14% of users with a history of 10 or more years self-reported hepatitis B infection (Table 6.6).

A larger proportion of people attending needle and syringe programs in 2005 tested positive to hepatitis C than self-reported ever having hepatitis B (Table 6.6). The prevalence of hepatitis C generally increased with a longer duration of injecting drug use for both males and females. Females tested positive to hepatitis C more frequently than males, particularly among those injecting for less than 3 years (48% and 23% respectively).

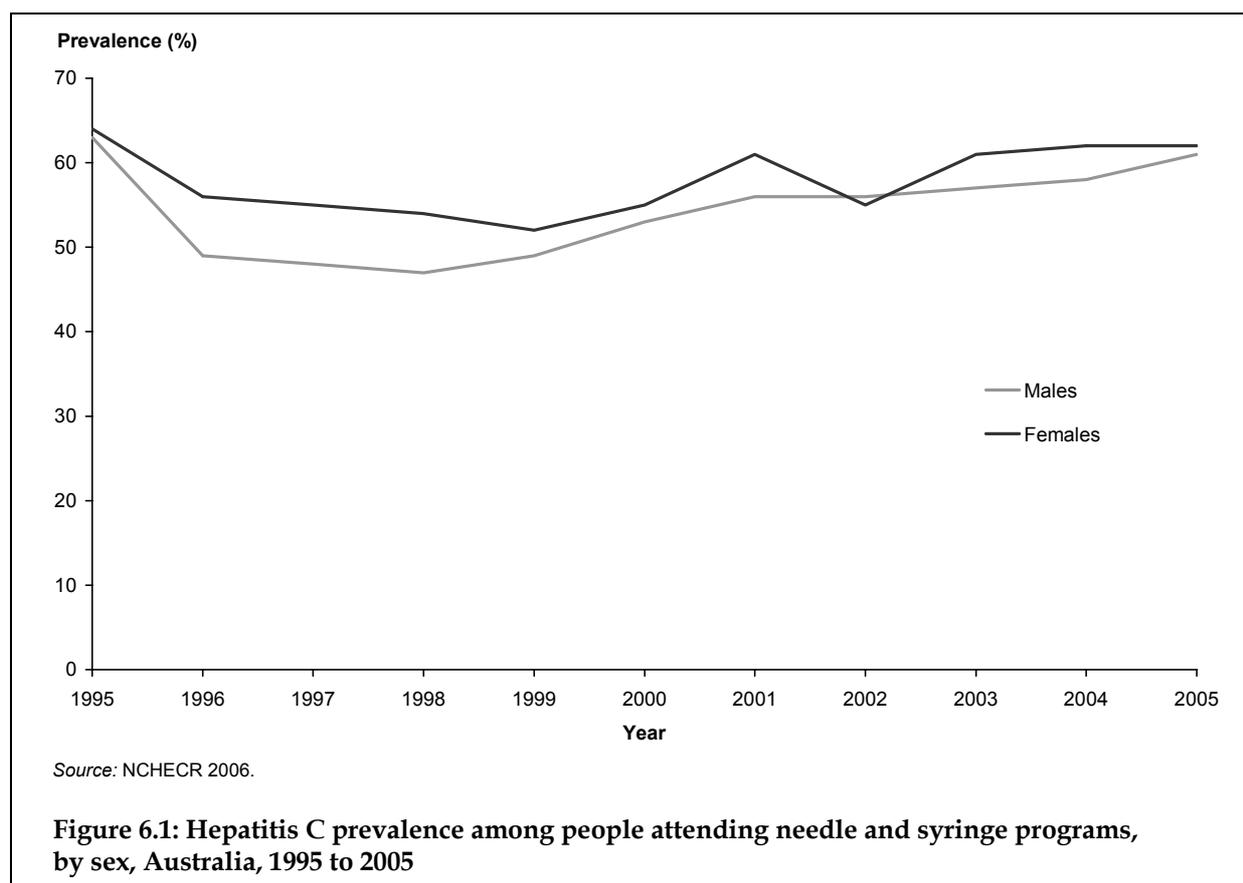
**Table 6.6: Self-reported prevalence of hepatitis B and prevalence of hepatitis C among injecting drug users, by duration of injecting drug use, 2005 (per cent)**

Duration of injecting drug use	Self-report hepatitis B infection			Tested positive to HCV antibody		
	Males	Females	Persons <sup>(a)</sup>	Males	Females	Persons <sup>(a)</sup>
Less than 3 years	—	—	—	23	48	31
3–5 years	—	—	—	32	34	33
6–10 years	2	3	2	47	55	51
10 or more years	15	13	14	72	72	72
<b>Total</b>	<b>18</b>	<b>17</b>	<b>18</b>	<b>61</b>	<b>62</b>	<b>61</b>

(a) Includes persons whose sex was reported as transgender.

Source: NCHECR, unpublished data.

Hepatitis C prevalence among people attending needle and syringe programs remained high over the period 1995 to 2005, at around 60% (Figure 6.1). To get a picture of the prevalence of hepatitis C in the general population, Amin et al. (2004) looked at results from a nationwide study of 2,800 blood samples collected from pathology laboratories throughout Australia between 1996 and 1998. The researchers estimated that the prevalence of hepatitis C in the population was only 2%.



## AIDS diagnoses and deaths

The number of new AIDS diagnoses in Australia among people who had a history of injecting drug use (including male homosexual contact and injecting drug use) varied over time from 31 diagnoses in 1997 down to 17 in 2001 and up to 29 diagnoses in 2004 (Table 6.7). In 2005 there was an increase of AIDS diagnoses among injecting drug users to 41.

Between 1997 and 2004, the *proportion* of people who contracted AIDS and were injecting drug users remained relatively stable, ranging between 8% and 13% of new AIDS diagnoses. In 2005, there was an increase of new AIDS diagnoses among injecting drug users (16%), with 8% among injecting drug users with no male homosexual contact.

**Table 6.7: AIDS diagnoses<sup>(a)</sup>, by HIV exposure category, Australia, 1997 to 2005**

Exposure category	Year of AIDS diagnosis								
	1997	1998	1999	2000	2001	2002	2003 <sup>(a)</sup>	2004 <sup>(a)</sup>	2005 <sup>(a)</sup>
	(number)								
Male homosexual contact	284	210	127	169	137	160	154	132	149
Male homosexual and injecting drug use	13	11	12	15	9	15	18	17	21
Injecting drug use <sup>(b)</sup>	18	23	11	15	8	9	15	12	20
Heterosexual contact	52	57	42	42	40	37	43	38	50
Haemophilia/ coagulation disorder	4	1	1	3	2	2	1	1	0
Receipt of blood/tissue	1	4	1	1	1	1	1	2	1
Other/undetermined	22	21	17	17	11	11	14	12	16
<b>Total<sup>(c)</sup></b>	<b>395</b>	<b>328</b>	<b>212</b>	<b>262</b>	<b>209</b>	<b>237</b>	<b>247</b>	<b>216</b>	<b>257</b>
	(per cent)								
Male homosexual contact	71.9	64.0	59.9	64.5	65.6	67.5	62.3	61.1	58.0
Male homosexual and injecting drug use	3.3	3.4	5.7	5.7	4.3	6.3	7.3	7.9	8.2
Injecting drug use <sup>(b)</sup>	4.6	7.0	5.2	5.7	3.8	3.8	6.1	5.6	7.8
Heterosexual contact	13.2	17.4	19.8	16.0	19.1	15.6	17.4	17.6	19.5
Haemophilia/ coagulation disorder	1.0	0.3	0.5	1.1	1.0	0.8	0.4	0.5	0.0
Receipt of blood/tissue	0.3	1.2	0.5	0.4	0.5	0.4	0.4	0.9	0.4
Other/undetermined	5.6	6.4	8.0	6.5	5.3	4.6	5.7	5.6	6.2

(a) Adjusted for reporting delay; AIDS cases in previous years were assumed to be completely reported.

(b) Excludes males who also reported a history of homosexual contact.

(c) Includes 21 people whose sex was reported as transgender.

Source: NCHECR, unpublished data.

The number of deaths from AIDS among injecting drug users decreased from 29 in 1997 to 17 in 2005 (Table 6.8). However, the proportion of AIDS deaths among people who had a history of injecting drug use increased by seven percentage points, from around 12% in 1997 to 19% in 2005.

**Table 6.8: Deaths following AIDS<sup>(a)</sup>, by HIV exposure category, Australia, 1997 to 2005**

Exposure category	Year of death following AIDS								
	1997	1998	1999	2000	2001	2002	2003 <sup>(a)</sup>	2004 <sup>(a)</sup>	2005 <sup>(a)</sup>
	(number)								
Male homosexual contact	182	120	97	104	85	72	72	75	57
Male homosexual and injecting drug use	17	9	9	7	11	6	14	10	5
Injecting drug use <sup>(b)</sup>	12	7	7	9	7	7	12	8	12
Heterosexual contact	14	14	15	17	14	12	14	14	12
Haemophilia/coagulation disorder	4	—	4	3	3	1	—	—	1
Receipt of blood/tissue	3	1	1	—	3	1	—	—	1
Other/undetermined	11	14	7	9	5	4	6	1	3
<b>Total<sup>(c)</sup></b>	<b>245</b>	<b>165</b>	<b>141</b>	<b>149</b>	<b>129</b>	<b>103</b>	<b>118</b>	<b>108</b>	<b>91</b>
	(per cent)								
Male homosexual contact	74.3	72.7	68.8	69.8	65.9	69.9	61.0	69.4	62.6
Male homosexual and injecting drug use	6.9	5.5	6.4	4.7	8.5	5.8	11.9	9.3	5.5
Injecting drug use <sup>(b)</sup>	4.9	4.2	5.0	6.0	5.4	6.8	10.2	7.4	13.2
Heterosexual contact	5.7	8.5	10.6	11.4	10.9	11.7	11.9	13.0	13.2
Haemophilia/coagulation disorder	1.6	0.0	2.8	2.0	2.3	1.0	0.0	0.0	1.1
Receipt of blood/tissue	1.2	0.6	0.7	0.0	2.3	1.0	0.0	0.0	1.1
Other/undetermined	4.5	8.5	5.0	6.0	3.9	3.9	5.1	0.9	3.3

(a) Adjusted for reporting delay; AIDS cases in previous years were assumed to be completely reported.

(b) Excludes males who also reported a history of homosexual contact.

(c) Includes 21 people whose sex was reported as transgender.

Source: NCHECR, unpublished data.

## Injecting drug use and risky behaviour

The proportion of injecting drug users who reported using a needle and syringe after someone else in the previous month tended to decline for females, but the pattern for males was less clear (Table 6.9). The proportion of males and females using a needle and syringe after someone else was more stable for longer-term injecting drug users, but fluctuated for those with an injecting history of less than five years.

Over the period 1997 to 2005, there was no apparent correlation between the likelihood of using a needle and syringe after someone else and the length of injecting drug use.

**Table 6.9: Injecting drug users<sup>(a)</sup> who reported using a needle and syringe after someone else in the last month, by year, sex and history of injecting drug use, Australia, 1997 to 2005 (per cent)**

History of injecting drug use	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Males</b>									
Less than 3 years	11	13	20	12	12	15	11	16	10
3–5 years	16	18	17	14	8	16	14	14	15
6–10 years	17	19	25	16	20	21	15	18	13
11 or more years	15	15	19	14	16	15	16	19	11
Not reported	12	20	24	11	8	27	12	3	13
<b>Females</b>									
Less than 3 years	24	25	24	23	19	28	13	21	16
3–5 years	20	32	26	21	20	18	17	13	5
6–10 years	20	18	22	28	14	16	14	13	13
11 or more years	16	14	20	15	11	13	13	15	11
Not reported	14	14	36	23	13	25	25	8	20
<b>Persons<sup>(b)</sup></b>									
Less than 3 years	16	18	21	16	15	19	11	18	12
3–5 years	18	23	21	17	12	17	16	14	11
6–10 years	18	19	24	21	18	19	15	16	13
11 or more years	15	15	20	14	14	14	15	18	11
Not reported	12	19	28	15	9	26	14	6	15

(a) Injecting drug users participating in surveys carried out at needle and syringe programs.

(b) Includes people whose sex was reported as transgender and people whose sex was not reported.

Source: NCHECR, unpublished data.

The data presented in the following table and in the overdoses section (on page 44) was sourced from the Illicit Drug Reporting System (IDRS) and other published information from the National Drug and Alcohol Research Centre (NDARC). Readers are reminded to be cautious when interpreting the results, as outlined earlier in this chapter.

Of the overall national sample, under two-thirds of injecting drug users reported that they had not shared any injecting equipment in the last month (55% in 2004 and 62% in 2005) (Table 6.10). In 2005, the jurisdiction with the lowest proportion of respondents reporting needle sharing was South Australia (7% borrowed, 11% lent). The jurisdiction with the highest proportion of respondents reporting that they shared needles in 2005 was Victoria, with 16% of respondents reporting that they had borrowed a needle and 25% reporting that they had lent someone else a needle in the month prior to interview. This was closely followed by Queensland (16% borrowed, 21% lent).

**Table 6.10: Proportion of injecting drug users who had shared needles or other injecting equipment in last month, by state/territory, Australia, 2004 and 2005 (per cent)**

Behaviour	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
<b>2004</b>									
Needle sharing									
Borrowed	13	11	12	13	10	8	14	8	11
Lent	21	21	16	23	13	12	17	13	17
Other injecting equipment sharing									
Shared no equipment	51	54	64	59	54	54	50	60	55
Spoon/mixing container	45	41	29	30	34	30	44	32	36
Filter	31	13	15	19	29	15	26	12	20
Tourniquet	13	13	12	22	12	21	11	15	15
Water	38	32	12	20	34	22	18	10	24
<b>2005</b>									
Needle sharing									
Borrowed	14	16	16	10	7	15	9	7	11
Lent	16	25	21	15	11	14	19	15	17
Other injecting equipment sharing									
Shared no equipment	56	49	74	71	61	59	62	72	62
Spoon/mixing container	39	46	17	21	23	26	31	22	30
Filter	22	27	7	9	18	4	15	7	15
Tourniquet	10	11	10	12	17	15	8	9	11
Water	27	33	7	14	22	27	14	8	20

Sources: Stafford et al. 2005; Stafford et al. 2006b.

## Overdoses

As mentioned in the previous section on injecting drug use and risky behaviour, data presented in this section are sourced from the IDRS and other published information from the National Drug and Alcohol Research Centre. For more information, readers are referred to these sources.

### Non-fatal heroin overdoses

In 2005, 46% of injecting drug users surveyed for the IDRS had overdosed on heroin at some time in their lifetime (Table 6.11), and 9% of injecting drug users reported non-fatal heroin overdose on at least one occasion in the last 12 months. Nearly half (48%) of the injecting drug users responding to the survey reported that they were currently receiving treatment. Around 24% injected in a public space on the last occasion, ranging from 8% in the Northern Territory to 42% in Victoria.

**Table 6.11: Proportion of injecting drug users<sup>(a)</sup> reporting non-fatal heroin overdose, selected risk behaviours and protective factors for overdose, Australia, 2005 (per cent)**

Measure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Ever overdosed on heroin	60	59	37	51	41	23	54	31	46
Overdosed on heroin in last 12 months	11	17	8	7	6	2	10	1	9
Last injection in public space <sup>(b)</sup>	23	42	28	18	22	17	26	8	24
Last injection at private home	60	56	65	79	78	83	69	90	71
Currently in treatment	67	40	32	50	53	55	57	24	48
Consumed alcohol and heroin on day prior to interview	5	10	2	6	1	—	10	1	5

(a) Injecting drug users surveyed for the IDRS.

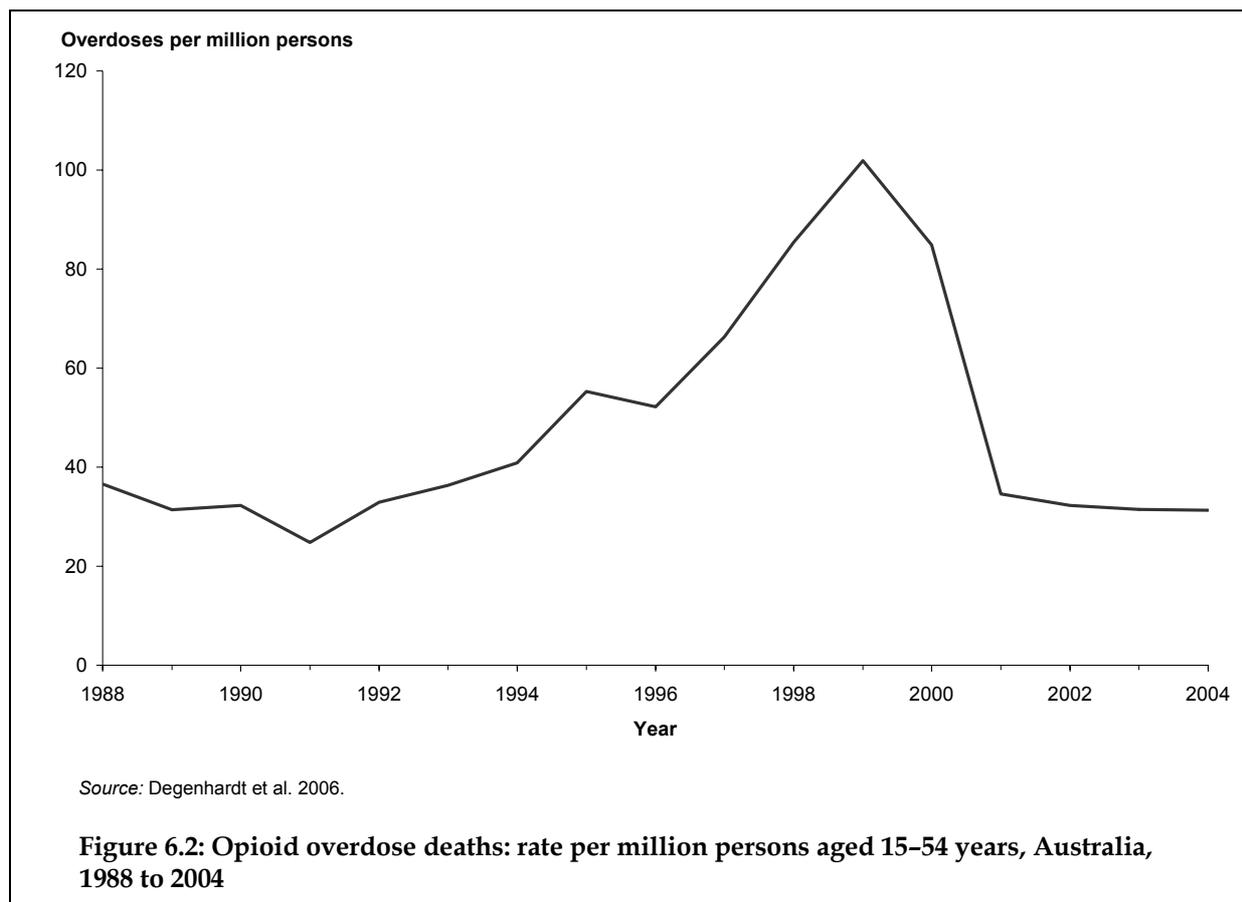
(b) 'Public space' includes street, park, beach, car, public toilet only (excludes private home and 'other' categories which may be a combination of private/public locations).

Sources: Stafford et al. 2006b; NDARC, unpublished data.

## Deaths caused by opioid overdose

The opioid class of substances includes heroin, morphine, codeine and synthetics such as pethidine and methadone.

The death rate from accidental opioid overdose among people aged 15–54 years increased from 36.6 deaths per million persons in 1988 to peak at 101.9 deaths per million persons in 1999, before declining sharply to 34.6 deaths per million persons in 2001 (Figure 6.2). In the following 4 years, the death rate from accidental opioid overdose has declined slightly to 31.3 in 2004.



There were 357 accidental deaths due to opioid use among persons aged 15-54 years in Australia in both 2003 and 2004 (Table 6.12). The majority of accidental deaths due to opioid use in 2004 occurred in New South Wales (144 deaths) and Victoria (126 deaths).

Accidental opioid overdose deaths for males were around three times higher than for females in both years.

**Table 6.12: Number of accidental deaths due to opioids among persons aged 15-54 years, by sex and state/territory, 2003 and 2004**

Sex	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
<b>2003</b>									
Males	101	98	22	14	14	2	10	2	263
Females	42	31	10	2	—	2	7	—	94
<b>Persons</b>	<b>143</b>	<b>129</b>	<b>32</b>	<b>16</b>	<b>14</b>	<b>4</b>	<b>17</b>	<b>2</b>	<b>357</b>
<b>2004</b>									
Males	115	97	23	17	22	3	1	1	279
Females	29	29	11	2	3	3	1	0	78
<b>Persons</b>	<b>144</b>	<b>126</b>	<b>34</b>	<b>19</b>	<b>25</b>	<b>6</b>	<b>2</b>	<b>1</b>	<b>357</b>

Sources: Degenhardt et al. 2004; Degenhardt et al. 2006.

# 7 Special population groups

## Introduction

Certain groups within our population experience a greater risk of developing harmful drug use behaviours or experiencing drug-related harm. As such, these groups may require a greater level of attention than that given to the general community in terms of education, treatment and prevention programs.

This chapter profiles a number of population groups within the general Australian community:

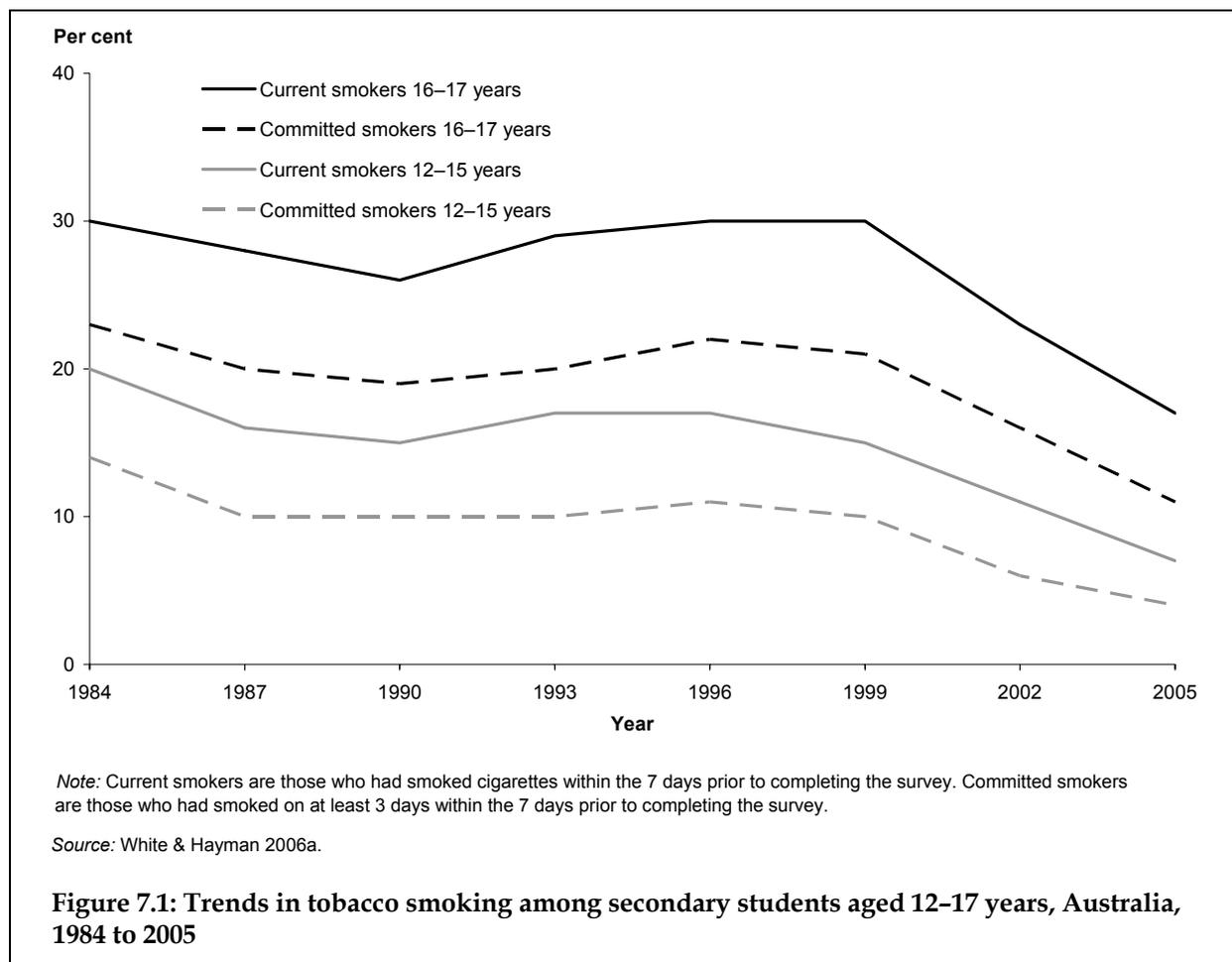
- young people aged 12–17 years
- Aboriginal and Torres Strait Islander peoples
- pregnant women
- homeless people
- injecting drug users
- prisoners
- people in the workplace.

## Young people

### Tobacco and alcohol use

The 2005 Australian Secondary Students' Alcohol and Drug Survey (ASSADS) is the eighth in a series of secondary school-based surveys monitoring the use of tobacco, alcohol and other substances among secondary students throughout Australia (White & Hayman 2006a). The 2005 survey included students from a representative sample of government, Catholic and independent schools. The survey collected data from 21,805 students aged 12–17 years from 376 secondary schools across all of the states and territories.

From 1984 to 1990, smoking prevalence among secondary students aged 12–15 years and 16–17 years declined (Figure 7.1). The decline ceased during the 1990s and smoking prevalence began to increase, especially among 16–17-year-olds. From 1999 to 2005, smoking prevalence declined again among secondary students aged 12–15 years and 16–17 years. In 2005, 7% of secondary students aged 12–15 years were current smokers and almost one in five (17%) secondary students aged 16–17 years were current smokers. The proportions of committed smokers followed the same trends over time as current smokers, albeit with lower prevalence. In 2005, 4% of 12–15-year-olds and 11% of 16–17-year-olds were committed smokers.



Results from the 1999, 2002 and 2005 ASSADS surveys show that almost 90% of secondary students aged 12-17 years had consumed alcohol at least once in their lifetime during these years; around half had consumed alcohol in the last month and around one-third had consumed alcohol in the last week (Table 7.1). In 2005 there was a significant decrease in the proportion of 12-17 year olds who had consumed alcohol in their lifetime (86%), in the last month (43%) and in the last week (29%). This overall decrease, however, largely reflects decreases among those aged 12-15 years: no significant changes were observed over time for those aged 16-17 years (White & Hayman 2006b).

**Table 7.1: Alcohol consumption among secondary students aged 12–17 years, by age group and sex, Australia, 1999, 2002 and 2005 (per cent)**

Age group	Lifetime			Last month			Last week		
	1999	2002	2005	1999	2002	2005	1999	2002	2005
<b>Males</b>									
12–15	88*	88*	83	46*	46*	36	31*	32*	23
16–17	95	94	95	70	70	70	53	51	50
<b>Total 12–17</b>	<b>90*</b>	<b>90*</b>	<b>87</b>	<b>51*</b>	<b>52*</b>	<b>45</b>	<b>36*</b>	<b>37*</b>	<b>30</b>
<b>Females</b>									
12–15	85*	84	81	39*	40*	33	25*	26*	20
16–17	94	94	94	70	66	66	50	45	45
<b>Total 12–17</b>	<b>87</b>	<b>87</b>	<b>85</b>	<b>47*</b>	<b>47*</b>	<b>42</b>	<b>32*</b>	<b>31*</b>	<b>27</b>
<b>Persons</b>									
12–15	87*	86*	82	43*	43*	34	28*	29*	22
16–17	94	94	95	70	68	68	51	48	47
<b>Total 12–17</b>	<b>89*</b>	<b>88*</b>	<b>86</b>	<b>49*</b>	<b>49*</b>	<b>43</b>	<b>35*</b>	<b>34*</b>	<b>29</b>

\* Significantly different from 2005 at  $p < .01$ .

Source: White & Hayman 2006b.

## Lifetime and recent illicit drug use

Results from the 2005 ASSADS indicate that almost one in five secondary students (18%) aged 12–17 years had used marijuana/cannabis at least once in their lifetime (Table 7.2). The next two most prevalent substances that students had ever used were inhalants (17%) and tranquillisers (15%).

In 2005, 7% of secondary students had used marijuana/cannabis in the last month. Inhalants were used by 7% of secondary students aged 12–17 years in the past month, and tranquillisers by 4%. Around 2% of 12–17-year-old secondary students had used amphetamine and 2% had used ecstasy in the last month.

Use of all illicit substances included in the ASSAD surveys either declined or remained stable between 1999 and 2005 for those aged 12–17 years. Steady and significant decreases in the proportion of students ever using the drug were observed for marijuana/cannabis, inhalants, tranquillisers, amphetamine, hallucinogens and opiates. The largest decrease was observed in marijuana/cannabis, with lifetime use dropping from 29% in 1999 to 18% in 2005.

**Table 7.2: Lifetime<sup>(a)</sup> and recent<sup>(b)</sup> use of illicit drugs by secondary students aged 12–17 years, Australia, 1999, 2002 and 2005 (per cent)**

Substance	Age group								
	12–15			16–17			Total 12–17		
	1999	2002	2005	1999	2002	2005	1999	2002	2005
	<b>Ever used</b>								
Marijuana/cannabis	23*	19*	13	46*	39*	31	29*	25*	18
Tranquillisers <sup>(c)</sup>	17*	16	15	22*	18	17	18*	16	15
Steroids	3	3	3	2	2	2	3	3	3
Inhalants	29*	23*	19	17*	14*	11	26*	21*	17
Amphetamine (speed) <sup>(c)</sup>	6*	5	4	11*	10	8	7*	7*	5
Cocaine	3	3	3	4	4	4	4	3	3
Hallucinogens	5*	4*	3	11*	6	5	7*	4*	3
Ecstasy	3	4	3	6	7	6	4	5	4
Opiates	4*	3	3	5*	3	2	4*	3	2
Any illicit substance <sup>(d)</sup>	26*	22*	15	48*	41*	33	32*	27*	20
	<b>Recent use (last month)</b>								
Marijuana/cannabis	11*	9*	6	20*	17*	12	14*	11*	7
Tranquillisers <sup>(c)</sup>	4	4	4	5*	5*	4	4	4	4
Steroids	1	1	1	1	1	1	1	1	1
Inhalants	13*	11*	9	4	4	3	11*	9*	8
Amphetamine (speed) <sup>(c)</sup>	2	2	2	4	3	3	3	3	2
Cocaine	1	1	1	1	1	1	1	1	1
Hallucinogens	2	2	1	3*	2	1	2*	2	1
Ecstasy	1	2	2	3	2	2	2	2	2
Opiates	1	1	1	1	1	1	1	1	1
Any illicit substance <sup>(d)</sup>	13*	10*	7	21*	19*	13	15*	13*	8

\* Significantly different from 2005 at  $p < .01$ .

(a) Used at least once in lifetime.

(b) Used in the last month.

(c) For non-medical purposes.

(d) Any one of the following illicit substances; cannabis, hallucinogens, amphetamine, cocaine, opiates or ecstasy.

Source: White & Hayman 2006c.

Results from the 2005 ASSADS also indicate that polysubstance use is frequent among secondary students aged 12–17 years (Table 7.3). Students who had used cannabis, amphetamine, hallucinogens or ecstasy were asked what other substances they had used concurrently. Between 53% and 68% used alcohol concurrently with these four substances and between 41% and 48% used tobacco. Over one-third of students using amphetamine, hallucinogens or ecstasy also used cannabis concurrently. One-quarter of students using hallucinogens, one-fifth of students using cannabis, 18% of students using amphetamine and 17% using ecstasy did not use any other substance.

**Table 7.3: Polysubstance use in the past 12 months among 12–17 year olds, Australia, 2005 (per cent)**

Substance used on same occasion	Substance used in the past 12 months			
	Cannabis	Amphetamine	Hallucinogens	Ecstasy
Alcohol	68	61	53	66
Tobacco	48	45	41	46
Cannabis	n.a.	37	34	39
Hallucinogens	6	12	n.a.	12
Amphetamine	7	n.a.	18	20
Ecstasy	9	21	18	n.a.
Analgesics	9	14	13	12
No other substance used	20	18	25	17
Other	6	9	10	9

Source: White & Hayman 2006c.

## Aboriginal and Torres Strait Islander people

Aboriginal and Torres Strait Islander peoples suffer a much greater burden of ill health than other Australians, and the Aboriginal and Torres Strait Islander population continues to be disadvantaged across a range of socioeconomic factors that have an impact on health (AIHW 2006a).

Data about Aboriginal and Torres Strait Islander peoples are limited by the extent to which they are included in national surveys, the accuracy with which they are identified, uncertainties about Indigenous Australian population estimates, and concerns about whether the survey methods employed are the most suitable. Aboriginal and Torres Strait Islander identification and the quality of data pertaining to Indigenous Australians have been improving through efforts at all levels (AIHW 2006a).

### Summary of substance use

The ABS conducted the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) in 2004–05. The survey collected information about personal and household characteristics for Aboriginal and Torres Strait Islander peoples aged 15 years and over throughout remote and non-remote areas of Australia during 2004 and 2005. The NATSIHS included questions on smoking status, alcohol consumption and substance use. A total of 10,439 Indigenous Australians aged 15 years and over responded to this survey (ABS 2006c).

According to the survey, 32% of Aboriginal and Torres Strait Islander peoples aged 15 years and over consumed alcohol at a low level of risk for alcohol-related harm in the long term and 16% drank at risky or high-risk levels, based on consumption reported in the week prior to interview (Table 7.4). Around half (52%) of the Aboriginal and Torres Strait Islander population aged 15 years and over reported that they currently smoked tobacco. Marijuana/cannabis was used by 23% of Indigenous Australians in the 12 months prior to the survey, and over one-quarter (28%) used any illicit substance.

**Table 7.4: Use of tobacco, alcohol and other substances, Aboriginal and Torres Strait Islander peoples aged 15 years and over, 2004–05**

Substance/behaviour	Per cent
Alcohol <sup>(a)(b)</sup>	
Low risk	32
Risky	8
High risk	8
Did not consume alcohol in last 12 months	24
Tobacco/cigarettes	
Current smoker <sup>(c)</sup>	52
Non-smoker <sup>(d)</sup>	48
Substance use in last 12 months	
Marijuana/cannabis	23
Pain-killers and sedatives <sup>(e)</sup>	6
Meth/amphetamine (speed)	7
Kava	1 <sup>(f)</sup>
Total used substances in last 12 months <sup>(g)(h)</sup>	28
Has never used substances	48

(a) Long-term risk level based on Australian Alcohol Guidelines, October 2001 (see Chapter 2).

(b) Risk based on consumption in the week prior to interview.

(c) Includes 'daily' smokers and 'other' current smokers.

(d) Includes ex-smokers and persons who have never smoked.

(e) For non-medical purposes. Includes pain-killers, tranquillisers and sleeping pills.

(f) Estimate has a relative standard error of 25%–50% and should be used with caution.

(g) Includes heroin, cocaine, petrol, LSD/synthetic hallucinogens, naturally occurring hallucinogens, ecstasy/designer drugs and other inhalants. Includes methadone in 2004–05.

(h) Sum of components may be more than total as persons may have reported more than one type of substance used in the last 12 months.

*Note:* Information on alcohol and tobacco applies to persons from remote and non-remote areas. Information on other substances available only for persons in non-remote areas.

*Source:* ABS 2006c.

The National Drug Strategy Household Survey (NDSHS) also collects information on alcohol use among Aboriginal and Torres Strait Islander peoples. In 2004, 52% of Indigenous Australians drank alcohol at risky or high-risk levels for short-term risk, compared with 36% of other Australians (Table 7.5). Almost 23% of Indigenous Australians drank alcohol at levels considered risky or high risk in the long term, compared with only 10% of other Australians.

**Table 7.5: Long-term and annual short-term risk of harm from alcohol, population aged 14 years and over, by Indigenous status, 2004 (per cent)**

Characteristic	Abstainer	Short-term risk		Long-term risk	
		Low risk	Risky or high risk	Low risk	Risky or high risk
All persons (aged 14+)	16.4	48.2	35.4	73.7	9.9
Indigenous status					
Indigenous	21.3	26.7	52.0	56.0	22.7
Other Australians	16.1	48.4	35.5	74.1	9.7

Source: NDSHS 2004.

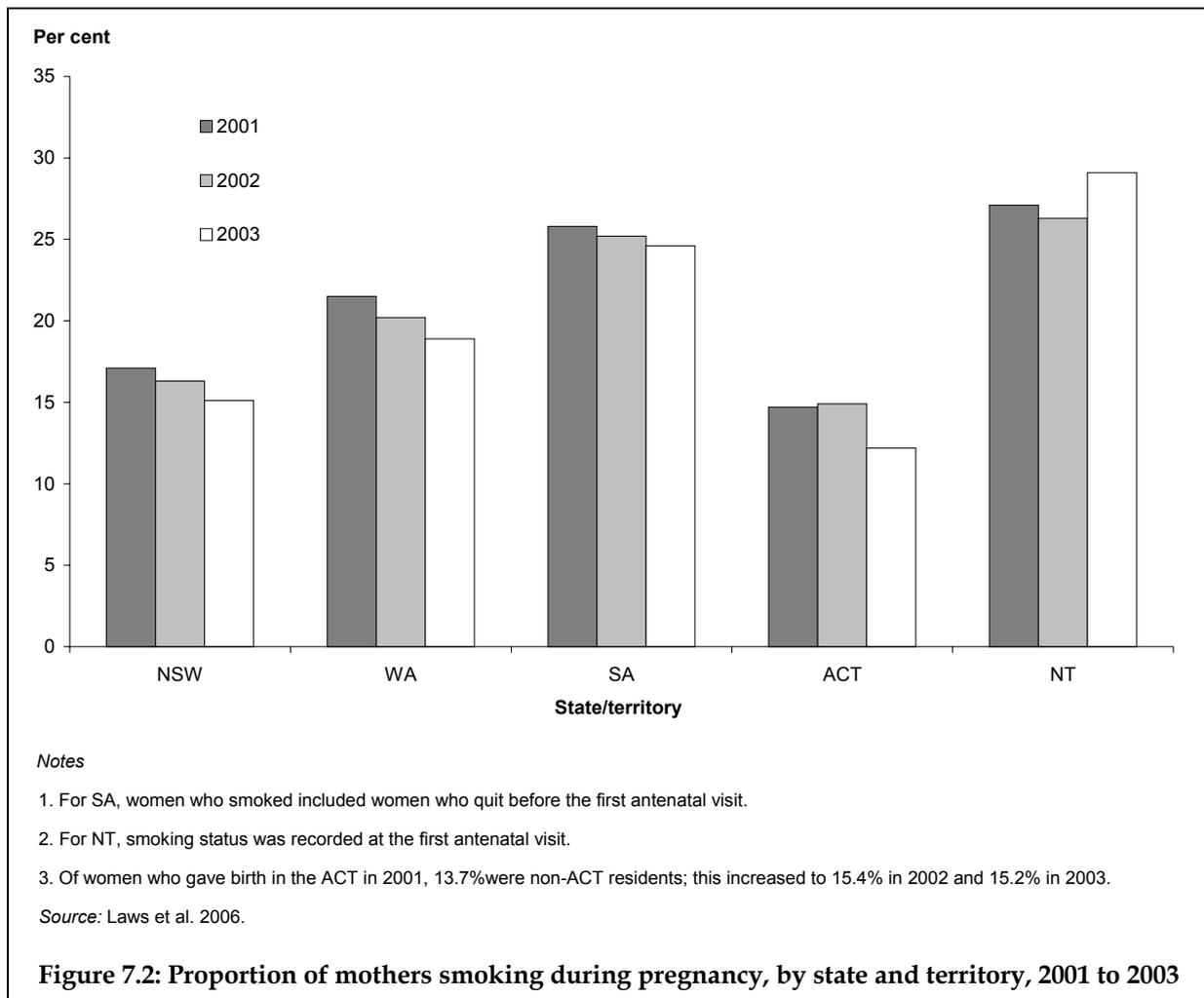
## Pregnant women

### Smoking during pregnancy

The National Perinatal Data Collection collects annual data from each state and territory on mothers and babies for all Australian births in hospitals, centres and in the community. Data on smoking during pregnancy are available in five states and territories: New South Wales, Western Australia, South Australia, the Australian Capital Territory and the Northern Territory (Laws et al. 2006).

In 2003, the proportion of women who reported smoking while pregnant was 17.3% in the five state and territories. These data are similar to data from the 2004 National Drug Strategy Household Survey (NDSHS) where 20% of women who were pregnant and/or breastfeeding reported smoking tobacco.

Across the various states and territories, smoking among pregnant women varied in 2003 from 12.2% in the Australian Capital Territory to 29.1% in the Northern Territory (Figure 7.2). Smoking among pregnant women decreased overall from 19.2% in 2001 to 17.3% in 2003, decreasing in all states over time except for the Northern Territory (Laws et al. 2006).



## Illicit drug use during pregnancy

A recent study conducted by Burns et al. in 2006 used record linkage to link over 400,000 birth records from the NSW Midwives Data Collection to hospital data from the NSW Inpatient Statistics collection over the 5-year period 1998 to 2002. Of these linked delivery records, 1,974 mothers had an opioid diagnosis, 552 a stimulant diagnosis and 2,172 a cannabis diagnosis (Table 7.6). Births in mothers with these drug-related diagnoses were more likely in women who were younger (particularly in the cannabis group), who were not married, who were Australian-born, and who were Indigenous. Mothers with a drug-related diagnosis were also more likely to be without private health insurance (Burns et al. 2006).

**Table 7.6: Maternal demographic characteristics of pregnancies to mothers with and without a drug-related diagnosis code, 1998–2002 (per cent)**

Demographic characteristic	Opioids (n=1,974)	Stimulants (n=552)	Cannabis (n=2,172)	Non-drug-exposed (n=412,731)
Age (years)				
<20	7.3*	10.7*	17.7*	4.5
20–39	90.7	87.9	81.0	92.7
40+	2.0	1.4	1.2	2.8
Marital status				
Married/widowed	25.7*	19.8*	27.9*	78.1
Never married	65.7	71.2	65.2	18.5
Divorced/separated	3.1	4.7	3.3	1.6
Indigenous				
Australian-born	10.9*	12.5*	11.7*	2.1
Publicly insured	86.9*	90.4*	90.7*	71.1
	97.0*	98.2*	98.3*	68.6

\*Significantly different from non-drug-exposed group at  $p < .001$ .

Source: Burns et al. 2006.

Births in mothers with opioid, stimulant or cannabis diagnoses were also associated with several negative neonatal outcomes. Babies born to these mothers were more likely to be born before the gestational age of 37 weeks, to be of low birthweight, and to be admitted to neonatal intensive care units or to special care nurseries than mother without a diagnosis (Table 7.7). Babies born to mothers with a drug diagnosis were also more likely to have a 5-minute Apgar score lower than 7. Apgar scores are clinical indicators of the baby's condition after birth based on heart rate, breathing, colour, muscle tone and reflex irritability (Laws et al. 2006).

Mothers with an opioid, stimulant or cannabis diagnosis were also more likely to smoke, which may be a factor influencing these findings. However, even after controlling for this factor, babies born to mothers with an opioid or cannabis diagnosis were still more likely to give birth to low birthweight babies. In contrast, when controlling for smoking in mothers, no significant association between stimulant use and low birthweight was identified (Burns et al. 2006).

**Table 7.7: Neonatal characteristics of births to mothers with and without a drug-related diagnosis code, 1998–2002 (per cent)**

Characteristic	Opioids (n=1,974)	Stimulants (n=552)	Cannabis (n=2,172)	Non-drug- exposed (n=412,731)
Gestational age <37 weeks	24.2*	22.3*	18.8*	5.8
Apgar 5-minute percentage < 7	3.8*	3.3*	3.1*	1.6
Low birthweight <sup>(a)</sup>	27.9*	26.1*	29.4*	9.6
Median length of stay in hospital (days)	8*	5*	3	4
Admitted to neonatal ICU	12.5*	10.1*	8.0*	2.3
Admitted to special care nursery	58.9*	48.5*	33.5*	14.8

\*Significantly different from non-drug-exposed group at  $p < .001$ .

(a) Birthweight <10th percentile for gestational age.

Source: Burns et al. 2006.

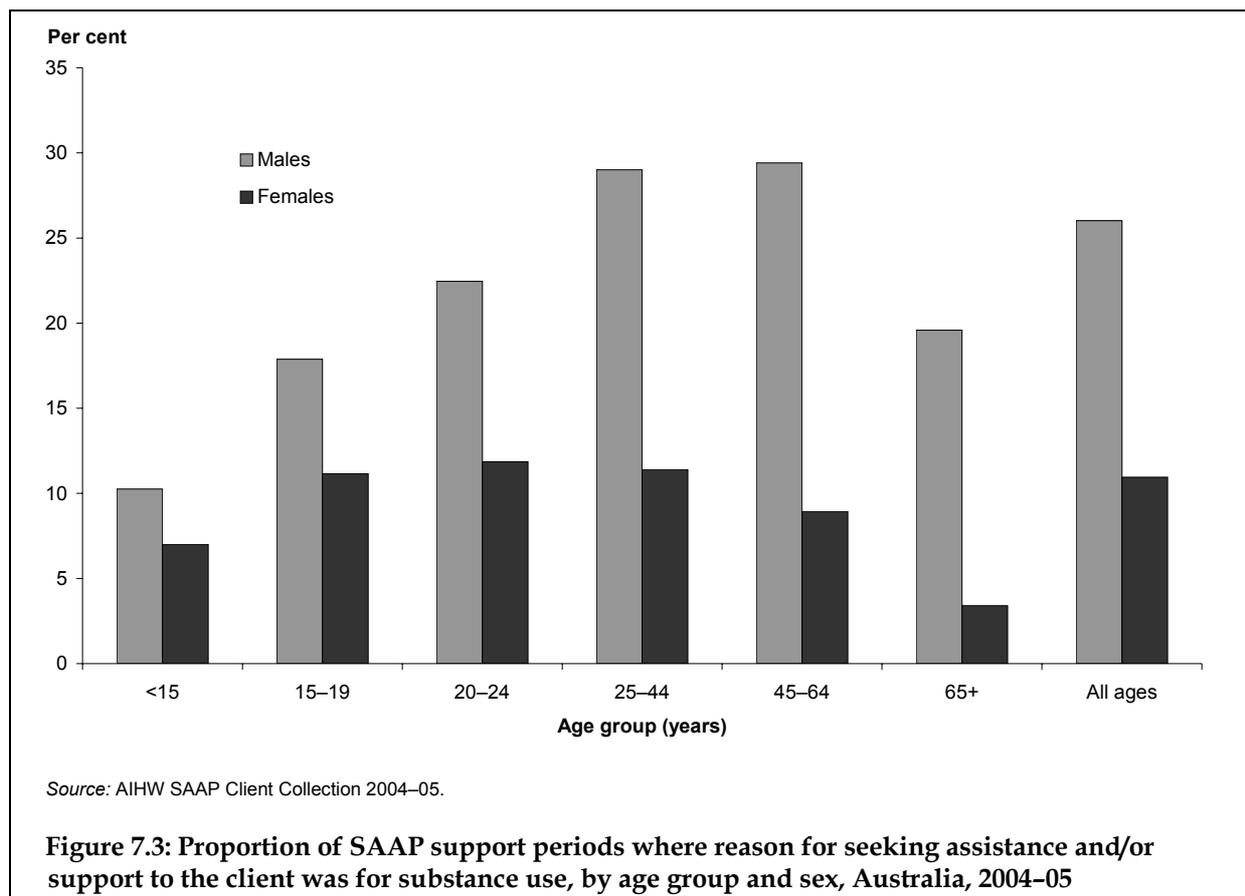
## Homeless people

People who are homeless or are at risk of becoming homeless may seek or receive assistance and support for a variety of reasons. Sometimes these reasons may be related to drug and/or alcohol use. The data presented in this section were sourced from the Supported Accommodation Assistance Program (SAAP) National Data Collection, which is the major Australian Government and state and territory government program designed to assist people who are homeless or at risk of becoming homeless. The unit of assistance is the support period, which is defined as a period of ongoing contact with a client. Each client may have multiple periods of support during any annual period. The number of support periods related to drug and alcohol use were derived from cases where clients sought assistance because of drug, alcohol and/or substance abuse (as a reason or main reason for seeking assistance), where clients expressed a need for or received assistance with drug/alcohol support or intervention, or where the clients were referred for further assistance in managing their drug or alcohol problems.

It is important to note that it is likely that substance abuse was under-reported among SAAP clients who may not have identified substance abuse as a reason for seeking assistance, or may not have requested assistance with drug, alcohol, and/or substance abuse. Also, the number of support periods for substance use may be underestimated prior to 2004–05 because data on reasons for seeking assistance were not collected from high-volume agencies. These agencies most often support single men, a group that has relatively high proportions seeking assistance due to drug, alcohol and/or other substance abuse.

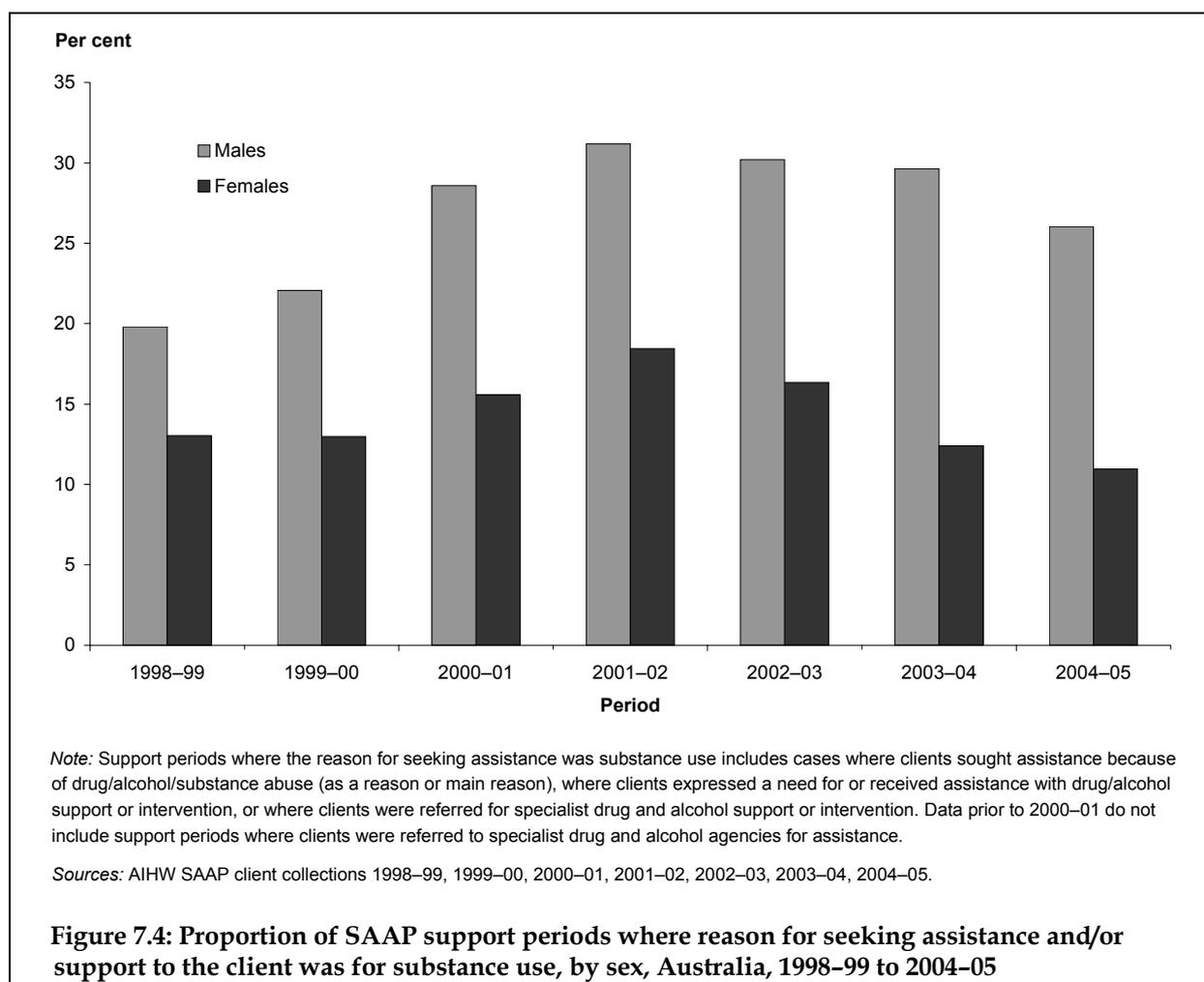
In the 2004–05 SAAP collection, there were 74,289 support periods for males (43%) compared with 98,172 support periods for females (57%). However, of the 30,086 drug and/or alcohol-related support periods, 19,330 were for males (64%) and 10,755 were for females (36%).

Overall, 26% of support periods for males were those for which male clients sought or received assistance for substance abuse, compared with 11% for females. However, the differences between males and females were more pronounced when compared by age group (Figure 7.3). For males, the number of support periods where substance use was a factor for seeking or receiving assistance peaked at 29% of all support periods among males aged 25–64 years. For females, there was less variation across age groups, with the peak being observed among females aged 20–24 years (12%).



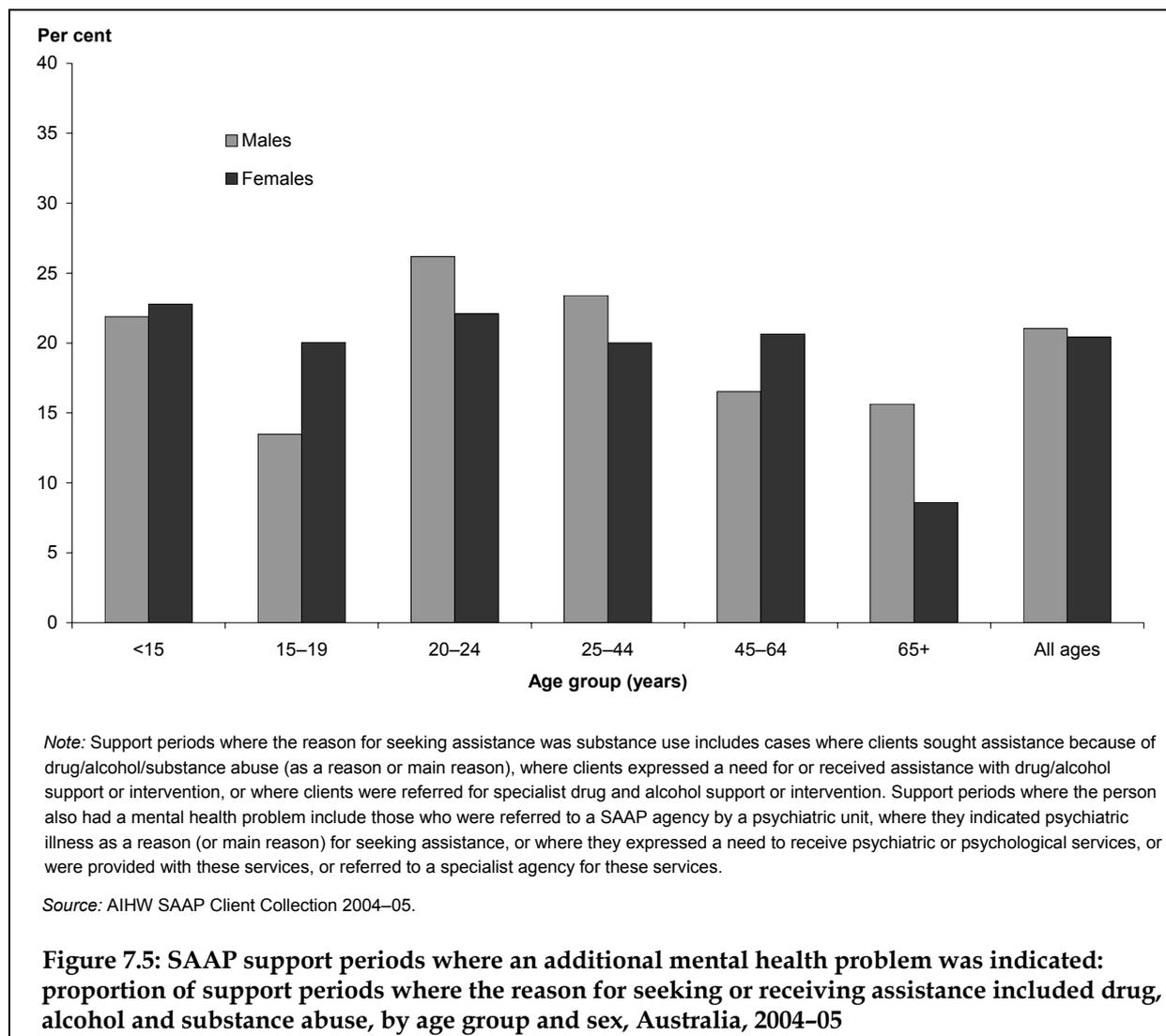
Care should be taken when comparing SAAP data across years due to variations in the application of data item definitions by some large agencies. Also, although the SAAP data are weighted for agency non-participation, results can be influenced from one year to the next if agencies that are larger and quite different from other agencies do not participate in a given year. For more information on comparisons over time, see Chapter 9 of *Homeless people in SAAP: SAAP National Data Collection Annual Report 2004-05* (AIHW 2006b).

The proportion of support periods that included assistance and support for alcohol, drug and substance abuse increased from 16% in 1998-99 to 25% in 2001-02, declining to 17% in 2004-05 (Figure 7.4). Over the same period, males observed an increase from 20% to 26%, while females observed an increase from 13% in 1998-99 to 18% in 2001-02, followed by a decrease to 11% in 2004-05.



Among SAAP support periods where the reason for seeking assistance and/or support to the client was substance use, a significant proportion also had a comorbid mental health problem. In 2004-05, 21% of males and 20% of females seeking assistance for substance use also sought assistance or were referred for an additional mental health problem (Figure 7.5). There was little variation across the ages for females for those aged 15-64 years (around 21%). A small proportion of females aged 65 years and over who sought assistance for substance abuse also indicated a mental health problem (9%). For males, the proportion varied from 13% in 15-19-year-olds to 26% in 20-24-year-olds.

Again, it is important to note that caution should be taken when interpreting these results. As is the case with support periods for substance use, there may be an under-reporting of SAAP clients who have identified a mental health problem as a reason for seeking assistance.



## Injecting drug users

The following data concerning injecting drug users were sourced from the Illicit Drug Reporting System (IDRS), managed by the National Drug and Alcohol Research Centre (NDARC). The IDRS monitors information concerning the price, availability, purity and use of the four main drug types: heroin, cocaine, marijuana/cannabis and amphetamine.

Primary data sources include a survey of injecting drug users, a survey of professionals in the field of illicit drugs who act as key experts, and an analysis of existing indicator data on drug-related issues. For more information, readers are referred to the IDRS report (Stafford et al. 2006b).

As outlined in Chapter 6 of this publication, readers are reminded to exercise caution when interpreting results from the IDRS.

The mean age of injecting drug users surveyed for the IDRS in 2005 ranged from 31 years in Victoria and Tasmania to 38 years in the Northern Territory (Table 7.8). In all jurisdictions, the mean length of school education of injecting drug users was around 10 years.

The proportion of injecting drug users that was male ranged between 60% in Victoria and 71% in the Northern Territory. Across the jurisdictions, between 62% and 85% of injecting drug users were unemployed.

The proportion of injecting drug users that was of Aboriginal or Torres Strait Islander origin varied from 6% in Victoria and Western Australia to 23% in New South Wales.

The proportion of injecting drug users that had a prison history ranged between 34% in Tasmania and 79% in New South Wales.

The proportion of injecting drug users that was currently in drug treatment varied from 24% in the Northern Territory to 67% in New South Wales.

**Table 7.8: Demographic characteristics of injecting drug users, by jurisdiction, Australia, 2005**

	NSW (n=154)	Vic (n=150)	Qld (n=106)	WA (n=100)	SA (n=101)	Tas (n=100)	ACT (n=125)	NT (n=107)
	(mean years)							
Age	34	31	34	35	36	31	35	38
School education	9	10	10	11	10	10	10	10
	(per cent)							
Male	62	60	62	66	64	62	68	71
Unemployed	85	81	64	66	62	64	69	81
Aboriginal or Torres Strait Islander	23	6	16	6	8	11	9	15
Trade/technical qualification	23	47	31	42	44	24	39	36
Prison history	79	53	44	33	46	34	38	56
Currently in drug treatment	67	40	32	50	48	54	57	24

Source: Stafford et al. 2006b.

## Prisoners

Prisoners are a population group who face many health issues including the health-risk behaviour of injecting drug use. In 2004, the first study collecting data on the prevalence of bloodborne viruses among prisoners was conducted in New South Wales, Queensland, Tasmania and Western Australia. Over a two-week period, all prisoners were screened for HIV, hepatitis C and hepatitis B and reported on their health risk behaviours.

Almost 60% of prisoners reported a history of injecting drug use in 2004 (Table 7.9). The risk of carrying a bloodborne disease was greatly increased for those prisoners who injected drugs. Hepatitis C antibody was found in 35% of the prison population surveyed and in 56% of prisoners who injected drugs. This compares with an estimated prevalence of 1.3% in the general population (NCHECR 2005). One in five prisoners tested positive to the hepatitis B core antibody as did over one in four (27%) prisoners who reported injecting drugs. Less than 1% of prisoners tested positively to the HIV antibody; however, this was still higher than prevalence in the general population (0.07%) (NCHECR 2005).

**Table 7.9: Serology results and injecting drug history in prisoners, by state, 2004 (per cent)**

Measure	NSW	Qld	WA	Tas	Total
Hepatitis C antibody prevalence					
Injectors	69	49	33	67	56
All prison entrants	43	30	20	48	35
Hepatitis B core antibody prevalence					
Injectors	31	16	27	42	27
All prison entrants	23	13	18	29	20
HIV antibody prevalence	2	1	0	0	1
Injecting drug use					
History of injecting drug use	59	58	58	63	59
Has injected in last month	41	36	36	32	38

Source: AIHW 2006a.

## Employees

### Alcohol in the workplace

In 2001, the NDSHS collected new and rich information on employees and patterns of alcohol consumption and behaviours within the workplace. Pidd et al. (2006) conducted analyses of these data and found significant differences in the level of short-term and long-term risk levels between industry groups for employed recent drinkers.

Hospitality workers were the most likely to drink at short-term risky levels on a weekly basis (17%) and for long-term risk, were most likely to drink at risky levels (15%) (Table 7.10). Miners were more likely to drink at levels placing them at short-term risk at least yearly (24%) and at least monthly (24%). Employees working in the agriculture industry were the most likely to drink at high-risk levels placing them at long-term risk (7%).

**Table 7.10: Proportion of employed recent drinkers, by risk category and industry classification, Australia, 2001 (per cent)**

Industry	Short-term risk (risky and high risk combined) <sup>(a)</sup>			Long-term risk	
	At least yearly	At least monthly	At least weekly	Risky	High risk
Agriculture	16.4	18.9	13.3	8.4	7.0
Mining	24.1	23.9	9.4	6.0	4.0
Manufacturing	22.4	16.3	11.8	8.1	4.4
Construction	19.3	21.3	10.7	12.0	3.8
Wholesale	22.5	21.0	8.4	7.3	4.6
Retail	13.9	22.9	11.4	11.1	5.2
Hospitality	15.0	22.5	16.5	14.6	5.0
Transport	21.9	20.0	9.6	9.4	3.8
Financial	20.7	20.1	7.9	8.8	2.9
Education	16.7	13.4	4.3	7.1	0.9
Admin. and Defence	21.8	17.2	7.6	7.3	2.3
Services	20.5	15.0	7.0	9.5	2.1
<b>Total</b>	<b>19.3</b>	<b>18.5</b>	<b>9.2</b>	<b>9.4</b>	<b>3.4</b>

(a) Categories (at least yearly, at least monthly, at least weekly) are mutually exclusive.

Source: Pidd et al. 2006.

The patterns of alcohol consumption in employed recent drinkers were also closely linked to the prevalence of negative work-related behaviours and absenteeism in the workforce (Pidd et al. 2006). In 2001, as the frequency of risky or high-risk alcohol consumption increased, so, too, did the proportion of employees missing days of work in the last three months (both due to alcohol use and to illness/injury), the proportion of employees attending work under the influence of alcohol in the last 12 months, and the proportion of employees who usually drank at work (Table 7.11).

Risky patterns of long-term risk alcohol consumption were also associated with negative work-related behaviours and absenteeism. As long-term risk increased, so, too, did the frequency of these negative behaviours, particularly the proportion of employees missing days of work due to alcohol use and the proportion of employees attending work under the influence of alcohol in the last 12 months.

**Table 7.11: Proportion of employed recent drinkers who missed work because of alcohol use or illness/injury, who went to work under the influence of alcohol, and who usually drank at work, by risk category, Australia, 2001 (per cent)**

Risk category	Work days missed because of alcohol use in last 3 months		Went to work under the influence in last 12 months		Usually drinks at work		Work days missed due to illness/injury in last 3 months	
	0 days missed	≥ 1 day missed	No	Yes	No	Yes	0 days missed	≥ 1 day missed
<b>Short-term risk</b>								
Low risk	99.2	0.8	97.2	2.8	92.9	7.1	64.9	35.1
Yearly risky	97.5	2.5	95.5	4.5	89.1	10.9	59.1	40.9
Yearly high risk	96.5	3.5	91.6	8.4	85.9	14.1	51.9	48.1
Monthly risky	94.1	5.9	91.0	9.0	84.9	15.1	53.5	46.5
Monthly high risk	90.0	10.0	83.2	16.8	84.0	16.0	49.2	50.8
Weekly risky	87.4	12.6	85.5	14.5	88.4	11.6	56.0	44.0
Weekly high risk	75.7	24.3	75.3	24.7	84.7	15.3	45.4	54.6
Total	96.1	3.9	93.4	6.6	89.8	10.2	59.5	40.5
<b>Long-term risk</b>								
Low risk	97.4	2.6	95.0	5.0	90.2	9.8	60.1	39.9
Risky	88.5	11.5	83.9	16.1	87.3	12.7	55.3	44.7
High risk	81.6	18.4	78.4	21.6	86.9	13.1	56.7	43.3
Total	96.1	3.9	93.4	6.6	89.8	10.2	59.5	40.5

Source: Pidd et al. 2006.

# 8 Treatment services

## Introduction

Improved access to quality treatment is one of the priority areas of the National Drug Strategy (NDS) 2004–2009. The availability of treatment services for users of both licit and illicit drugs remains integral to the NDS (MCDS 2004).

This chapter includes information on alcohol and other drug treatment services, and national pharmacotherapy statistics.

## Alcohol and other drug treatment services

### National Minimum Data Set

The Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS–NMDS) is a subset of information routinely collected by the Australian Government and state and territory health authorities to monitor publicly funded alcohol and other drug treatment services. It is a nationally agreed set of common data items collected by in-scope agencies (AIHW 2006c).

The main unit of measurement for the 2004–05 AODTS–NMDS collection was completed or closed treatment episodes. A closed treatment episode is defined as a discrete period of contact between a client and a treatment provider in which there is no change in the main treatment type, the treatment delivery setting or the principal drug of concern (AIHW 2006c). In 2004–05, there were 142,144 closed treatment episodes.

The AODTS–NMDS has effectively superseded a previous data collection known as the Clients of Treatment Services Agencies (COTSA) census.

The agencies, clients and treatment activities that were included in the 2004–05 AODTS–NMDS collection were as follows:

- All publicly funded (at state, territory, and/or Australian Government level) government and non-government agencies that provided one or more specialist alcohol and/or other drug treatment services, including residential and non-residential agencies. Specialist alcohol and drug units based in acute care hospitals or psychiatric hospitals were included if they provided treatment to non-admitted patients (i.e. outpatient services).
- All clients who had completed one or more treatment episodes at an alcohol and other drug treatment service that was in scope during the relevant reporting period (1 July 2004 to 30 June 2005).

For a variety of reasons, some agencies and clients are not included in the scope of the collection. These include agencies whose sole activity is to prescribe and/or dose for opioid pharmacotherapy treatment, as well as clients receiving support from most Australian Government funded Indigenous substance use services or Aboriginal primary health care services that also provide treatment for alcohol and other drug problems.

National implementation of the AODTS–NMDS has been staged and there are particular caveats that apply to the 2004–05 collection. For example, in 2004–05, the number of treatment episodes for Queensland may be under-counted due to the exclusion of the majority of non-government agencies. For full details about out-of-scope agencies and features of the 2004–05 collection, see Chapter 1 of *Alcohol and other drug treatment services in Australia 2004–05: report on the National Minimum Data Set* (AIHW 2006c).

## Principal drug of concern

The principal drug of concern refers to the main substance that the client states led him or her to seek treatment from the alcohol and other drug treatment agency. The information in this section relates to 135,202 closed treatment episodes in 2004–05 for clients who were seeking treatment for their own substance use.

In 2004–05, alcohol (37%) was the most common principal drug of concern in treatment episodes, followed by marijuana/cannabis (23%), heroin (17%) and meth/amphetamine (11%) (Table 8.1). Overall, ecstasy and cocaine each accounted for less than 1% of closed treatment episodes (0.4% and 0.3% respectively) (AIHW 2006c).

## Sex differences

Overall, closed treatment episodes involving males were slightly more likely to be for alcohol (39%) and marijuana/cannabis (24%) compared with those for females (35% and 21% respectively). Closed treatment episodes involving females were more likely to be for other drugs (16%) compared with those for males (10%) (Table 8.1).

**Table 8.1: Closed treatment episodes by principal drug of concern and sex, Australia, 2004–05<sup>(a)</sup> (per cent)**

Principal drug of concern	Males	Females	Persons <sup>(b)</sup>
Alcohol	38.5	34.5	37.2
Marijuana/cannabis	24.1	20.7	23.0
Heroin	16.8	18.0	17.2
Meth/amphetamine	10.8	11.3	10.9
Other <sup>(c)</sup>	9.9	15.5	11.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Excludes treatment episodes for clients seeking treatment for the drug use of others.

(b) Includes treatment episodes where client's sex was not stated.

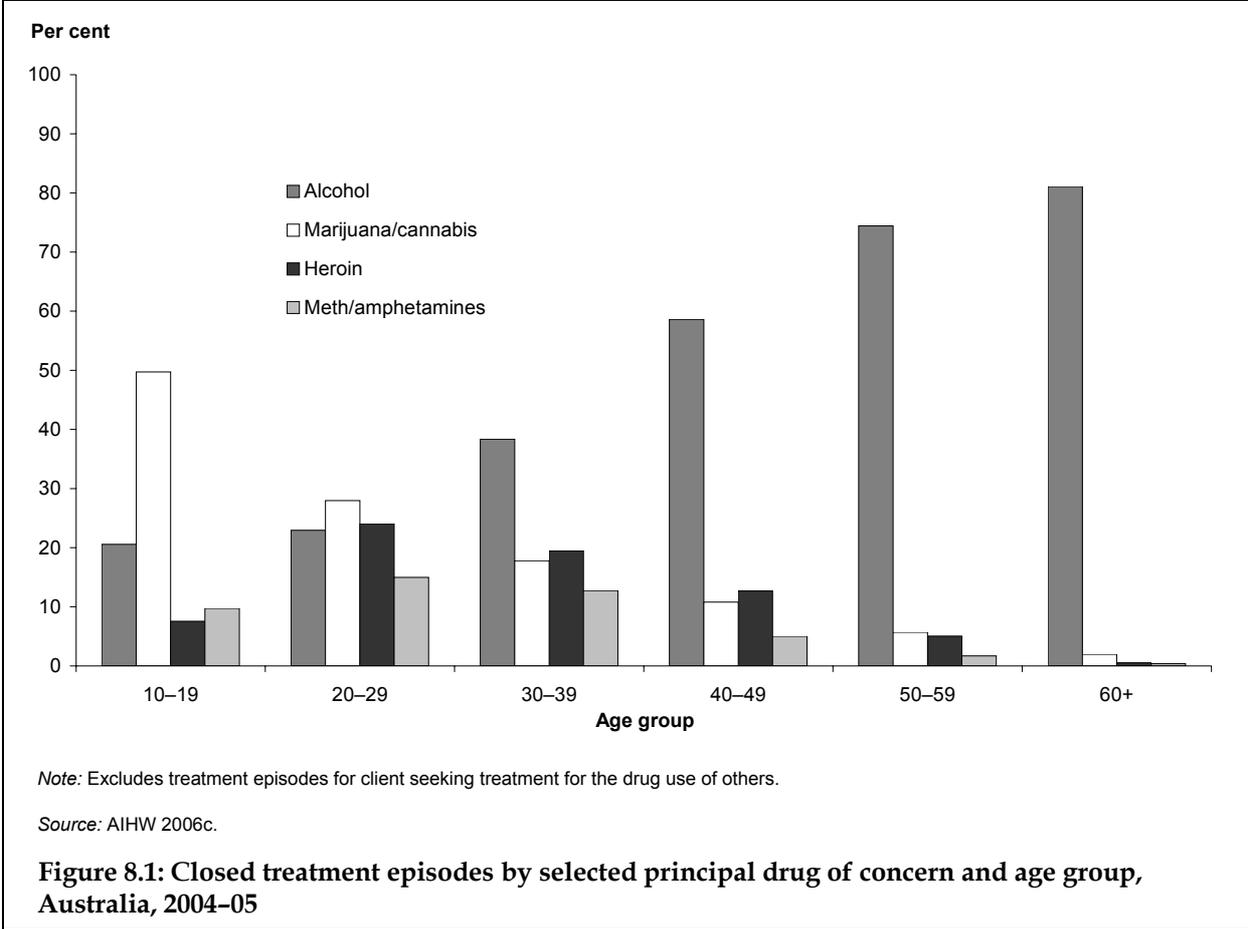
(c) Includes benzodiazepines, cocaine, ecstasy, methadone, nicotine, and balance of principal drugs of concern coded according to Australian Standard Classification of Drugs of Concern.

Source: AIHW 2006c.

## Age differences

The principal drug of concern in treatment episodes was clearly related to the client's age. The proportion of closed treatment episodes where alcohol was the principal drug of concern increased with age, from 21% for clients aged 10–19 years, to 81% for clients aged 60 years and over (Figure 8.1). The proportion of closed treatment episodes for marijuana/cannabis tended to decrease with age. Marijuana/cannabis was the principal drug of concern for half (50%) of all closed treatment episodes for persons aged 10–19 years, almost halving

to 28% for persons aged 20–29 years, and continuing to fall, reaching just 2% of treatment episodes for persons aged 60 years and over. Closed treatment episodes for clients aged 20–29 years were the most diverse in terms of main drug of concern, with roughly similar proportions of treatment episodes relating to alcohol, marijuana/cannabis, heroin and meth/amphetamine.



### Indigenous status

Overall, treatment episodes involving Aboriginal and Torres Strait Islander clients were most likely to involve alcohol (43%), marijuana/cannabis (23%), heroin (12%) and meth/amphetamine (11%); that is, the same four principal drugs of concern as for the population overall. However, alcohol was much more likely to be nominated (43%, compared with 37%), and heroin less so (12%, compared with 17%).

Information from the AODTS–NMDS on treatment episodes for Indigenous clients should be treated with caution, as the majority of Australian Government funded Indigenous substance use services or Aboriginal primary health care services that also provide treatment for alcohol and other drug problems are not included in the AODTS–NMDS collection.

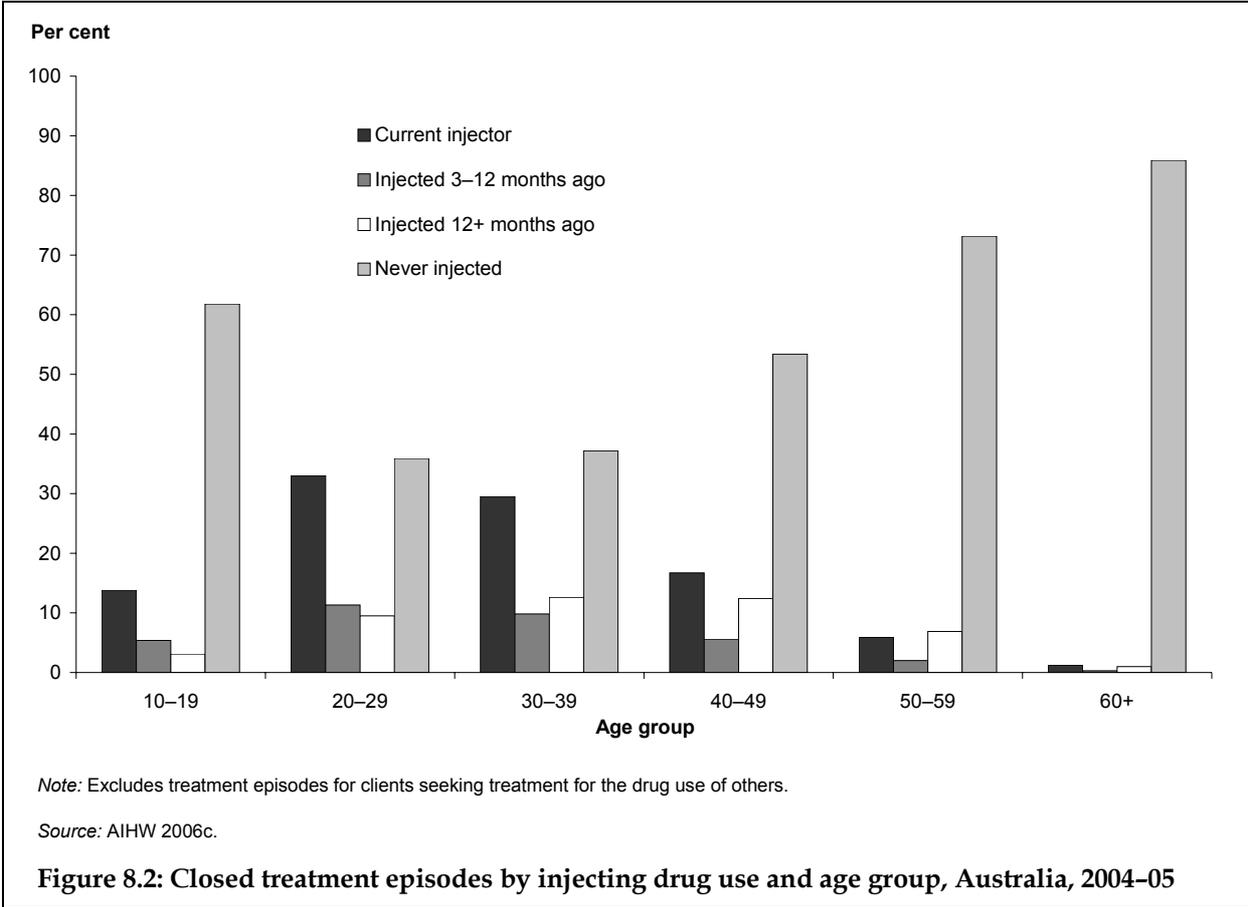
### Injecting drug use

In 2004–05, one-quarter (25%) of closed treatment episodes involved clients who identified themselves as current injectors (that is, injected within the previous 3 months) and a further 18% involved clients who reported that they had injected drugs in the past (3 or more

months ago). Overall, 43% of closed treatment episodes involved clients who identified themselves as current or past injectors.

The proportion of closed treatment episodes involving clients who identified themselves as current or past injectors peaked at 20–29 years (54%), and declined thereafter, reaching 3% of treatment episodes for clients aged 60 years and over (Figure 8.2).

This information should be interpreted with caution as data for ‘injecting drug use’ had a high ‘not stated’ response (12% of all closed treatment episodes) (AIHW 2006c).



### Treatment type

The main treatment type is the principal activity determined at assessment by the treatment agency to treat the client’s principal drug of concern (AIHW 2006c). Treatment type in this section is measured by the number of closed treatment episodes for main treatment type.

Counselling as a main treatment type accounted for the greatest proportion of closed treatment episodes in all jurisdictions, with the exception of Queensland where information and education only was the most common main treatment type (45%) (Table 8.2). This pattern of main treatment in Queensland relates largely to the scope of its collection in 2004–05 (namely the inclusion of police diversion and government-provided services but not non-government services) (AIHW 2006c).

**Table 8.2: Closed treatment episodes by main treatment type, by state and territory, Australia, 2004–05**

Main treatment type	NSW	Vic <sup>(a)</sup>	Qld <sup>(b)(c)</sup>	WA	SA	Tas <sup>(d)</sup>	ACT	NT	Aust	Aust
	(per cent)									(number)
Withdrawal management (detoxification)	22.2	22.5	4.4	9.1	20.8	3.1	26.7	11.8	17.9	25,458
Counselling	34.3	46.9	32.4	54.8	25.2	63.2	27.7	34.5	40.2	57,076
Rehabilitation	10.4	3.7	3.1	12.2	18.8	6.1	5.2	13.1	7.7	10,959
Support and case management only	8.4	12.9	4.5	2.8	1.2	3.0	2.7	1.4	7.9	11,240
Information and education only	2.3	0.7	45.4	6.8	1.3	13.3	11.5	9.0	8.9	12,609
Assessment only	16.0	9.9	8.0	7.4	22.8	8.2	19.4	23.7	12.4	17,663
Other <sup>(e)</sup>	6.4	3.4	2.2	6.8	9.9	3.1	6.9	6.4	5.0	7,139
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>..</b>
<b>Total (number)</b>	<b>43,079</b>	<b>46,369</b>	<b>20,092</b>	<b>16,092</b>	<b>7,952</b>	<b>1,921</b>	<b>4,213</b>	<b>2,426</b>	<b>..</b>	<b>142,144</b>

- (a) The total number of closed treatment episodes for Victoria may be under-counted due to a change in reporting practice introduced in 2004–05.
- (b) In Queensland, clients undergoing police diversion automatically have the principal drug of concern recorded as 'cannabis', the main treatment type as 'information and education only' and the reason for cessation as 'ceased to participate at expiation'. It is possible that the principal drug is not actually cannabis and it is expected that future modifications to data collection processes will enable this possibility to be reflected.
- (c) The total number of closed treatment episodes for Queensland may be under-counted due to the exclusion of the majority of non-government agencies.
- (d) The total number of closed treatment episodes for Tasmania may be under-counted because two agencies supplied only drug diversion data.
- (e) 'Other' includes 4,299 closed treatment episodes where the main treatment was reported as pharmacotherapy. This represents a small proportion of pharmacotherapy treatment in Australia as agencies whose sole activity is to prescribe and/or dose for methadone or other opioid pharmacotherapies are currently excluded from the AODTS–NMDS.

Source: AIHW 2006c.

## Indigenous status

Compared with treatment episodes for other Australians, episodes involving Aboriginal and Torres Strait Islander clients were less likely to have withdrawal management (detoxification) as the main treatment (12% of treatment episodes for Indigenous clients, compared with 18% of episodes for other Australians). Treatment episodes involving Aboriginal and Torres Strait Islander clients were more likely to have information and education only and assessment only as the main treatments, compared with other Australian clients (AIHW 2006a).

As outlined earlier in this chapter, information from the AODTS–NMDS on treatment episodes for Indigenous clients should be treated with caution.

## National pharmacotherapy statistics

Pharmacotherapy statistics are routinely collected by state and territory governments and provided each year to the Australian Government Department of Health and Ageing. Methadone maintenance was endorsed as an effective treatment for opioid dependence in 1985. Buprenorphine has also been used as a maintenance treatment for opioid dependence in Australia since 2000. Opioid pharmacotherapy treatment programs facilitate access to treatment and promote the principle of harm reduction and education of users (AIHW 2006c).

Almost 39,000 clients were receiving pharmacotherapy treatment as at 30 June 2005. The majority of these clients received treatment in New South Wales (42%), followed by Victoria (28%) and Queensland (11%). Of those clients receiving pharmacotherapy treatment, 70% received treatment from a private prescriber and 24% from a public prescriber (Table 8.3).

Of the 35,316 clients receiving pharmacotherapies where the drug used could be identified, 72% (or 25,369) received methadone treatment, while 28% (or 9,947) received buprenorphine treatment. The total number of pharmacotherapies where the drug could be identified excludes data for South Australia (because prescribers are authorised to prescribe both methadone and buprenorphine) and data for the Australian Capital Territory, where the number of clients receiving each pharmacotherapy drug can be determined only where the client has been dosed by a public prescriber.

**Table 8.3: Estimated pharmacotherapy clients by prescriber type and jurisdiction, Australia, as at 30 June 2005<sup>(a)</sup>**

Prescriber	NSW	Vic	Qld <sup>(b)</sup>	WA	SA <sup>(c)</sup>	Tas	ACT <sup>(d)</sup>	NT	Aust <sup>(e)</sup>
	(number)								
Public prescriber	3,010	—	3,393	845	991	141	603	150	9,133
Private prescriber	11,723	10,412	1,013	1,794	1,635	439	149	27	27,192
Public/private prescriber <sup>(f)</sup>	58	—	—	—	—	—	—	—	58
Correctional facilities	1,678	341	34	244	231	8	12	6	2,554
<b>Total (n)</b>	<b>16,469</b>	<b>10,753</b>	<b>4,440</b>	<b>2,883</b>	<b>2,857</b>	<b>588</b>	<b>764</b>	<b>183</b>	<b>38,937</b>
<b>Share of total (%)</b>	<b>42.3</b>	<b>27.6</b>	<b>11.4</b>	<b>7.4</b>	<b>7.3</b>	<b>1.5</b>	<b>2.0</b>	<b>0.5</b>	<b>100.0</b>
	(per cent)								
Public prescriber	18.3	—	76.4	29.3	34.7	24.0	78.9	82.0	23.5
Private prescriber	71.2	96.8	22.8	62.2	57.2	74.7	19.5	14.8	69.8
Public/private prescriber <sup>(f)</sup>	0.4	—	—	—	—	—	—	—	0.1
Correctional facilities	10.2	3.2	0.8	8.5	8.1	1.4	1.6	3.3	6.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Number of clients on the program at 30 June 2005, except for Western Australia, where the number of clients treated through the month of June 2005 is reported. The 2005 figures reported for Western Australia are substantially lower than the ones reported in 2004, which included the number of clients through the year.

(b) In Queensland, the total number of clients 'registered' (Table 1) and 'dosed' (Table 2) varies due to outstanding paperwork in the jurisdiction.

(c) In South Australia, authorities are issued to prescribers to treat with both methadone and buprenorphine. The number of clients receiving each pharmacotherapy drug can not be determined.

(d) In the Australian Capital Territory, the number of clients receiving each pharmacotherapy drug can be determined only for clients being prescribed through public prescribers. Practices have been put in place so that these figures can be collected and reported in future collection periods.

(e) This total excludes data for South Australia (because authorities in this state are issued to prescribers to treat with both methadone and buprenorphine) and data for the Australian Capital Territory, where the number of clients receiving each pharmacotherapy drug can be determined only where the client has been dosed by a public prescriber.

(f) 'Public/private prescribers' refers to prescribers in dual clinics, which are private clinics receiving some public funding, where clients can not be disaggregated into either public or private.

Source: AIHW analysis of 2005 national pharmacotherapy statistics.

# 9 Crime and law enforcement

## Introduction

This chapter looks at the relationships between drugs, crime and law enforcement. The first section concerns illicit drug offences and arrests in Australia. The following section looks at the relationship between drug use and criminal offending among incarcerated offenders, juvenile detainees and injecting drug users. The chapter concludes with information presented on illicit drug detections, such as median purity of heroin seizures, border detections of heroin and ecstasy (MDMA), and clandestine laboratories.

## Illicit drug offences

### Illicit drug arrests

Information on consumer and provider arrests is provided by the Australian Crime Commission (ACC). There are some jurisdictional differences concerning the measurement and coding of arrests. For an explanation of the counting methodology and quality of arrests data, see *Illicit Drug Data Report 2004–05* (ACC 2006).

Marijuana/cannabis is the most common illicit drug for which people are arrested in Australia, accounting for almost three-quarters (71%) of arrests relating to illicit drugs in 2004–05 (Table 9.1). The proportion of arrests for amphetamine-type stimulants increased from 5% to 11% over the period of 1996–97 to 2000–01 and further increased to 13% in 2004–05. In absolute terms, the number of consumer and provider arrests for amphetamine-type stimulants increased from 3,907 in 1996–97 to 8,846 in 2000–01, increasing further to 10,068 in 2004–05.

The overall number of consumer and provider arrests for illicit drugs fell from 85,046 in 1996–97 to 77,333 in 2004–05. Marijuana/cannabis arrests fell from 69,136 in 1996–97 to 54,936 in 2004–05.

The majority of illicit drug arrests are related to the consumption rather than the provision or sale of substances (Table 9.1). For example, in 2004–05, over three-quarters of arrests for marijuana/cannabis (84%) and steroids (83%) were related to the consumption of those substances.

Overall, total consumption-related illicit drug arrests in Australia declined from 73,800 in 1996–97 to 62,209 in 2004–05. Arrests relating to provision of illicit substances also decreased from 1996–97 to 2002–03, from 24,994 to 14,613 (ACC 2006).

**Table 9.1: Illicit drug arrests, by type of drug and consumer status, Australia, 1996–97 to 2004–05**

Substance	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02	2002–03	2003–04	2004–05
	(number)								
Marijuana/cannabis	69,136	64,861	58,145	55,268	54,044	55,585	55,689	56,747	54,936
Heroin and other	7,140	10,366	14,341	11,223	7,391	3,259	3,824	3,691	3,304
Amphetamine-type	3,907	4,766	6,584	8,083	8,846	7,953	8,313	9,593	10,068
Cocaine	609	524	571	433	651	612	250	328	425
Hallucinogens	460	460	618	290	199	131	124	124	119
Steroids	71	71	87	74	90	112	113	99	124
Other and unknown	3,723	3,276	3,201	6,812	6,400	6,307	6,660	8,444	8,357
<b>Total</b>	<b>85,046</b>	<b>84,324</b>	<b>83,547</b>	<b>82,183</b>	<b>77,621</b>	<b>73,959</b>	<b>74,973</b>	<b>79,026</b>	<b>77,333</b>
	(per cent)								
Marijuana/cannabis	81	77	70	67	70	75	74	72	71
Heroin	8	12	17	14	10	4	5	5	4
Amphetamine-type	5	6	8	10	11	11	11	12	13
Cocaine	1	1	1	1	1	1	—	—	1
Hallucinogens	1	1	1	—	—	—	—	—	—
Steroids	—	—	—	—	—	—	—	—	—
Other	4	4	4	8	8	9	9	11	11
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
	Consumer arrests <sup>(a)</sup>								
	(per cent)								
Marijuana/cannabis	71	73	81	85	85	83	83	84	84
Heroin	70	70	74	74	70	62	66	65	62
Amphetamine-type	69	70	76	77	76	73	72	71	72
Hallucinogens	43	61	58	76	70	82	70	66	75
Cocaine	67	72	81	58	62	62	58	47	60
Steroids	90	86	97	92	90	85	89	87	73
Other	82	77	76	80	80	76	73	78	74
<b>Total</b>	<b>71</b>	<b>72</b>	<b>79</b>	<b>82</b>	<b>82</b>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>

(a) As a proportion of total illicit drug arrests for each substance.

*Notes*

1. These figures cannot be taken directly as a measure of the number of illegal drug users or of the extent of illegal drug use for a variety of reasons. For instance, the number of arrests may depend upon the level of effectiveness of law enforcement activities and not an increase/decrease in the actual number of users. Refer to ACC (2006) for further information on counting methodology and data quality issues.
2. Amphetamine-type stimulants include meth/amphetamine and ecstasy.
3. Data for 1999–2000 exclude 493 arrests in the Australian Capital Territory for which drug type was not available.
4. Consumers are defined as those arrested for use/possession type of offences, while providers are defined as those arrested for dealing/trafficking type of offences. Caution should be exercised when making comparisons between years due to variations in consumer/provider counting methodologies used

Sources: AIHW 2005b; ACC 2006.

## Prison census statistics

The information presented in this section was sourced from the Australian Bureau of Statistics (ABS) census of prisoners and relates to imprisonment where the most serious offence was drug related.

Given that the prison census data highlight the most serious offence for which the person is sentenced, the most common drug-related offence for which people were imprisoned was

dealing/trafficking drugs (Table 9.2). Of the 2,021 persons in prison for drug-related offences at 30 June 2005, 1,607 (80%) were imprisoned for dealing/trafficking drugs, 257 (13%) for manufacturing/growing drugs and 157 (8%) for possessing/using drugs.

The proportion of people imprisoned with a drug-related most serious offence ranged between 9% and 11% over the period 1995 to 2005. In 2005, one in ten sentenced prisoners was imprisoned for drug-related offences.

**Table 9.2: Sentenced prisoners where the most serious offence was drug related, by type of offence, by state and territory, Australia, 1995 to 2005**

Year	NSW <sup>(a)</sup>	Vic	Qld	WA	SA	Tas	ACT <sup>(a)</sup>	NT	Aust <sup>(a)</sup>	Aust <sup>(b)</sup>
<b>Possession/ use of drugs</b>										
	<b>(number)</b>									<b>(per cent)</b>
1995	60	15	41	15	12	—	6	6	149	1.0
1996	56	13	77	—	11	—	2	3	160	1.0
1997	67	12	74	1	8	—	10	8	170	1.0
1998	46	27	86	1	3	1	9	7	173	1.0
1999	35	19	115	6	7	2	6	3	187	1.0
2000	41	19	75	5	2	1	13	3	146	0.8
2001	33	24	60	2	1	2	3	5	127	0.7
2002	41	28	80	4	—	1	3	1	155	0.9
2003	39	18	84	2	1	4	4	1	150	0.8
2004	41	16	109	n.p.	n.p.	n.p.	5	n.p.	174	0.9
2005 <sup>(c)</sup>	49	9	95	4	0	0	0	0	157	0.8
<b>Deal/traffic</b>										
	<b>(number)</b>									<b>(per cent)</b>
1995	901	187	93	115	51	3	5	1	1,351	8.8
1996	804	185	112	116	49	6	6	5	1,277	8.0
1997	753	176	139	116	58	6	5	8	1,256	7.6
1998	603	254	152	121	54	5	8	4	1,194	7.0
1999	618	262	170	166	65	2	12	12	1,297	7.1
2000	670	259	193	210	58	5	12	13	1,409	7.9
2001	759	274	180	213	63	3	8	16	1,508	8.3
2002	750	275	176	211	90	2	4	19	1,523	8.4
2003	756	297	205	216	59	3	3	15	1,551	8.3
2004	761	289	226	202	52	8	6	17	1,558	8.1
2005 <sup>(c)</sup>	820	286	215	225	47	4	0	10	1,607	7.9
<b>Manufacture/ grow drugs</b>										
	<b>(number)</b>									<b>(per cent)</b>
1995	139	2	25	7	14	—	1	7	194	1.3
1996	121	4	34	9	31	—	—	2	201	1.3
1997	114	10	35	13	24	—	1	2	198	1.2
1998	110	12	34	10	31	—	2	2	201	1.2
1999	114	11	25	10	18	1	—	—	179	1.0
2000	115	17	68	11	10	—	—	1	222	1.2
2001	96	28	64	8	20	—	—	1	217	1.2
2002	79	15	26	15	21	—	—	6	162	0.9
2003	61	10	29	11	26	—	—	3	140	0.7
2004	75	45	35	n.p.	n.p.	n.p.	3	n.p.	193	1.0
2005 <sup>(c)</sup>	127	48	35	15	22	3	3	4	257	1.3

(continued)

**Table 9.2 (continued): Sentenced prisoners where the most serious offence was drug related, by type of offence, by state and territory, Australia, 1995 to 2005**

Year	NSW <sup>(a)</sup>	Vic	Qld	WA	SA	Tas	ACT <sup>(a)</sup>	NT	Aust <sup>(a)</sup>	Aust <sup>(b)</sup>
<b>Total</b>					<b>(number)</b>					<b>(per cent)</b>
1995	1,100	204	159	137	77	3	12	14	1,694	11.1
1996	981	202	223	125	91	6	8	10	1,638	10.3
1997	934	198	248	130	90	6	16	18	1,624	9.8
1998	759	293	272	132	88	6	19	13	1,568	9.2
1999	767	292	310	182	90	5	18	15	1,663	9.1
2000	826	295	336	226	70	6	25	17	1,777	9.9
2001	888	326	304	223	84	5	11	22	1,852	10.2
2002	870	318	282	230	111	3	7	26	1,840	10.2
2003	856	325	318	229	86	7	7	19	1,841	9.8
2004	877	350	370	211	76	12	14	20	1,925	10.0
2005 <sup>(c)</sup>	996	343	345	244	69	7	3	14	2,021	10.0

n.p. not available for publication but included in totals where applicable, unless otherwise indicated.

- (a) The majority of full-time prisoners sentenced in the Australian Capital Territory are held in New South Wales prisons. These prisoners have been counted in both the Australian Capital Territory and New South Wales data. They have been counted only once in the Australian totals.
- (b) As a proportion of total sentenced prisoners.
- (c) Table cells containing small values have been randomly adjusted to avoid releasing confidential information.

Sources: ABS, unpublished data.

## Drug use and criminal offending

### Drug use among police detainees

This section presents information from the 2005 Drug Use Monitoring in Australia (DUMA) project, managed by the Australian Institute of Criminology (AIC). The DUMA project measures drug use among people who have been recently apprehended by police, through interviews and analysis of urine samples taken within 48 hours of arrest.

In 2005, over half of male and female detainees tested positive to marijuana/cannabis (55% of male detainees and 54% of female detainees) (Table 9.3). Higher proportions of females tested positive to amphetamine, methamphetamine, opiates, heroin and cocaine than males. Around three-quarters of male and female detainees aged between 18 and 39 years tested positive to any illicit drug, while over half of female detainees (51%) and less than half of male detainees (44%) aged 40 years and over tested positive to any illicit drug.

**Table 9.3: Proportion of adult detainees testing positive to illicit drugs<sup>(a)</sup>, by age group, sex and type of illicit drug, Australia, 2005 (per cent)**

Drug type	Age group			Total
	18–24	25–39	40+	
<b>Males</b>				
Marijuana/cannabis	64.1	55.6	34.4	54.5
Opiates <sup>(b)</sup>	11.4	21.6	13.1	16.6
Heroin	8.8	16.3	8.6	12.4
Amphetamine <sup>(c)</sup>	24.5	35.4	20.9	29.1
Methamphetamine <sup>(d)</sup>	19.0	32.3	18.1	25.2
Cocaine	0.4	1.7	0.7	1.0
Any illicit drug <sup>(e)</sup>	71.0	69.6	43.7	65.2
<b>Total (number)</b>	<b>832</b>	<b>1,206</b>	<b>465</b>	<b>2,503</b>
<b>Females</b>				
Marijuana/cannabis	62.8	53.1	40.0	53.9
Opiates <sup>(b)</sup>	24.8	26.6	21.3	25.2
Heroin	16.1	18.3	13.3	16.8
Amphetamine <sup>(c)</sup>	48.2	46.5	30.7	44.4
Methamphetamine <sup>(d)</sup>	40.9	41.1	28.0	38.9
Cocaine	0.7	1.7	—	1.1
Any illicit drug <sup>(e)</sup>	78.8	72.2	50.7	70.6
<b>Total (number)</b>	<b>137</b>	<b>241</b>	<b>75</b>	<b>453</b>

(a) Data are based on quarterly monitoring conducted in seven sites around Australia (Adelaide, Brisbane, Elizabeth, Parramatta, Bankstown, Southport and East Perth).

(b) Includes heroin; however, detainee may not have taken heroin.

(c) Amphetamine may or may not be legally prescribed. Police detainees who tested positive to amphetamine may have also tested positive to methamphetamine. Analysis undertaken by the AIC indicates that, in 2005, 90% of amphetamine use was either methamphetamine or MDMA, and therefore illegal.

(d) The presence of methamphetamine confirms illegal use.

(e) Any illicit drug includes marijuana/cannabis, cocaine, heroin and methamphetamine.

Source: AIC, DUMA 2005 [computer file].

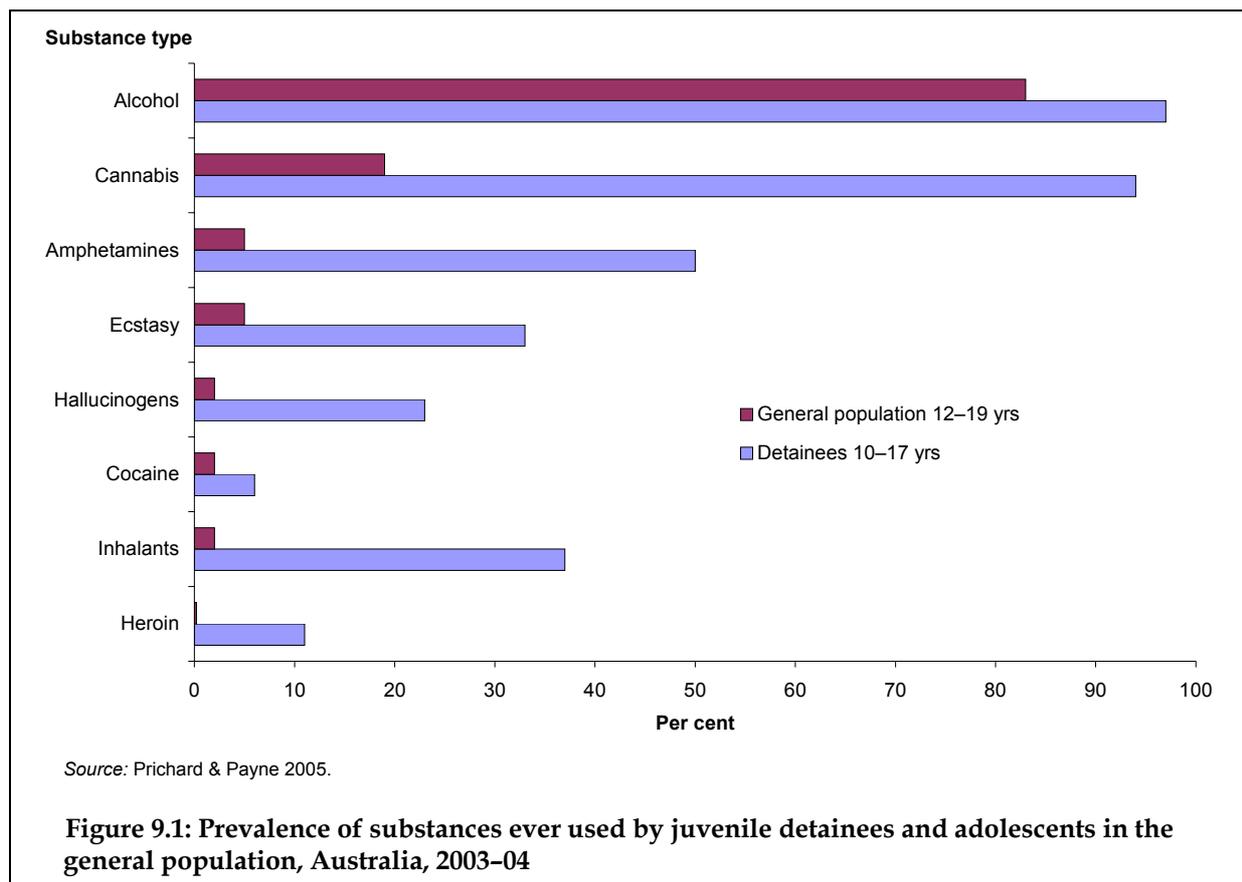
## Drug use and offending among juvenile detainees

This section reports on the 2003–04 Drug Use Careers of Offenders (DUCO) study, managed by the AIC, focusing on juveniles incarcerated in Australian prisons.

### Prevalence of substance use

In 2003–04, DUCO surveyed 371 youths aged 10 to 17 on their use of alcohol, illicit drugs and their criminal behaviour. Figure 9.1 compares substances used in juvenile detainees aged 10–17 years and adolescents in the general population aged 12–19 years.

In 2003–04 the rate of substance use was higher in juvenile detainees than in adolescents in the general population for all substances (Figure 9.1). Juvenile detainees were 10 times more likely to use amphetamine (50%) and hallucinogens (23%) and 16 times more likely to use inhalants (37%) than adolescents in the general population. Eleven per cent of juvenile detainees had used heroin in their lifetime compared with only 0.2% in the general population.



### Frequency of substance use

In 2003–04, 95% of juvenile detainees reported having ever used a substance and 67% reported using more than one type of substance (Table 9.4). Alcohol was used at least once by 97% and marijuana by 94% of juvenile detainees. Among current regular users, 71% had used any substance and 29% had used more than one substance.

Cannabis was used most frequently among regular users (63%), followed by alcohol (46%) and amphetamine (20%). The escalation rate (i.e. the percentage of people ever using a substance who become regular users) was also high for marijuana, alcohol and amphetamine (67%, 47% and 40% respectively).

Of those juvenile detainees who were current regular users, 74% reported using cannabis several times a day. Fifty-three per cent of current regular users consumed alcohol one to several times a week.

**Table 9.4: Prevalence of substance use among juvenile detainees, Australia, 2005 (per cent)**

Frequency of use	Alcohol	Cannabis	Amphet- amines <sup>(a)</sup>	Inhalants	Ecstasy	Other <sup>(b)</sup>	Any	More than one
Frequency of use for all juvenile detainees								
Ever used	97	94	50	37	33	43	95	67
Used in six months prior to	87	84	40	16	24	33	88	56
Current regular user <sup>(c)</sup>	46	63	20	7	8	17	71	29
Escalation <sup>(d)</sup>	47	67	40	19	24	30	75	43
Frequency of use for current regular users								
Less than monthly	1	1	—	—	—	n.a.	n.a.	n.a.
One to several times a month	8	3	5	12	33	n.a.	n.a.	n.a.
One to several times a week	53	10	37	27	60	n.a.	n.a.	n.a.
Once a day	15	13	23	8	7	n.a.	n.a.	n.a.
Several times a day	22	74	35	54	—	n.a.	n.a.	n.a.

(a) Excludes legal use of these drugs.

(b) Includes heroin, cocaine/crack, street methadone, and morphine as well as illicit use of dexamphetamine and benzodiazepines.

(c) Those who used the substance during the 6 months prior to arrest, and who said they had been regular users.

(d) Escalation is the percentage of those who ever used the substance who became current regular users.

Source: AIC, DUCO Juvenile Survey, 2005 [computer file].

## Substance use and crime

The 2003–04 DUCO survey of juvenile detainees shows a clear link between substance use and crime. Seventy per cent of juvenile offenders reported being under the influence of either alcohol (22%), drugs (24%) or both alcohol and drugs (24%) at the time of offence (Table 9.5). Over one-fifth of juvenile offenders (21%) were also sick or hurting due to lack of drugs at the time of offence.

**Table 9.5: Intoxication at the time of current offence, Australia, 2003–04**

Intoxication	Number	Per cent
Drugs	85	24
Alcohol	77	22
Both drugs and alcohol	84	24
<i>Total intoxication</i>	<b>246</b>	<b>70</b>
Non-intoxicated	108	31
<b>Total</b>	<b>354</b>	<b>100</b>

Source: Prichard & Payne 2005.

Cannabis was the most frequently reported drug used by juveniles who were drug intoxicated at the time of offence (75%), followed by amphetamine (39%) (Table 9.6). Over one-third (35%) of juveniles who were drug intoxicated at the time of offence had used two or more drugs.

**Table 9.6: Type of drug used by drug-intoxicated juvenile offenders at time of current offence, Australia, 2003–04**

Type of drug at time of current offence	Number	Per cent
Cannabis	127	75
Amphetamine	66	39
Inhalants	15	9
Ecstasy	18	11
Hallucinogens	5	3
Dexamphetamine (including on prescription)	12	7
Other	24	14
Intoxicated by two or more drugs	64	35
<b>Total<sup>(a)</sup></b>	<b>170</b>	<b>..</b>

(a) Multiple responses were permitted. Percentages are based on the number of juveniles under the influence of drugs at the time of offence.

Source: Prichard & Payne 2005.

Regular violent juvenile offenders and regular property offenders were more likely to engage in regular drug use (86% and 84% respectively) than non-regular offenders (49%) (Table 9.7). Cannabis was the most frequently used drug among both types of offenders, followed by alcohol.

**Table 9.7: Regular substance use in six months prior to arrest, by type of regular offender, Australia, 2003–04**

Substance	Regular violent offenders	Regular property offenders	Non-regular offenders
	(per cent)		
Alcohol	57	45	18
Cannabis	65	68	31
Amphetamine	29	17	5
Inhalants	8	7	3
Ecstasy	14	5	8
Other drugs	22	15	10
Any current regular drug use	86	84	49
	(number)		
Mean no. of substances used	2.0	1.6	0.7

Source: Prichard & Payne 2005.

Violent juvenile offenders were more likely to have used alcohol at the time of offence (51%) than other substances, whereas property offenders were more likely to have used both alcohol (36%) and marijuana/cannabis (36%) (Table 9.8).

**Table 9.8: Proportion of juveniles in detention by type of offence<sup>(a)</sup> and type of drug used at the time of offence, Australia, 2004 (per cent)**

Substance	Property offences	Violent offences	Other offences	All offences
Alcohol	51.0	36.0	15.0	43.8
Marijuana/cannabis	35.4	36.0	15.0	34.5
Amphetamine/cocaine	25.5	8.1	20.0	18.8
Hallucinogens/ecstasy	2.4	—	—	1.4
Heroin	4.7	2.2	—	3.5

(a) Juveniles are allocated according to their most serious charge.

Note: Columns do not sum to 100 because detainees may report intoxication on multiple drug types.

Source: AIC, unpublished data.

## Self-reported crime by injecting drug users

As part of the Illicit Drug Reporting System (IDRS), injecting drug users are asked about the types of crime they had committed in the month preceding their interview (Stafford et al. 2006b). In 2005, less than half (46%) of injecting drug users surveyed reported that they had been involved in some type of criminal activity in the month before interview, and 40% reported that they had been arrested at least once in the past year (Table 9.9). The most common criminal activity reported was drug dealing (30%), followed by property crime (21%). The most common reasons for arrest were property crime (16%), violent crime (8%) and use/possession (8%). Only 3% of injectors interviewed had been arrested for drug dealing in the 12 months before interview.

**Table 9.9: Self-reported crime among injecting drug users<sup>(a)</sup> and proportion arrested in the last year, by type of crime, Australia, 2005 (per cent)**

Type of crime	Self-reported crime in the last month	Arrested in the last year
Use/possession	n.a.	7.5
Dealing	30	2.5
Property crime	21	16.0
Fraud	7	1.9
Violent crime	9	7.6
Any crime	46	39.6

(a) Injecting drugs users surveyed for the IDRS.

Sources: Stafford et al. 2006b; National Drug and Alcohol Research Centre, unpublished data.

# Illicit drug detections

## Heroin purity

Heroin is illegal throughout Australia and heavy penalties apply to both possession and supply of the drug. Additives in street heroin, such as caffeine and sugar, can be poisonous to users and cause health problems including collapsed veins and abscesses and even damage to the brain and internal organs (ADF 2003b).

Information on the purity of heroin analysed from police seizures is provided by the Australian Federal Police (AFP) and state/territory police agencies. AFP seizures of heroin are generally of higher median purity than state/territory police seizures. AFP seizures are more likely to result from targeted, higher-level operations than those of jurisdictional police agencies (Stafford et al. 2006b).

Stafford et al. (2006b) warn that 'not all illicit drugs seized by Australia's law enforcement agencies are subjected to forensic analysis. In some instances, the seized drug will be analysed only in a contested court matter. The purity figures reported therefore relate to an unrepresentative sample of the illicit drugs available in Australia, and this should be considered when drawing conclusions from the purity data presented'.

In 1999–00, the median purity of heroin seized across Australia was generally at least 50% (Table 9.10). From 2000–01 onwards, purity of seizures has fluctuated, though the purity of AFP seizures was generally higher than that of jurisdictional seizures, reflecting the comments of Stafford et al. (2006b) above. In 2001–02, for example, the median purity of heroin seized by the AFP in Victoria was 75%, compared with 15% for seizures by Victorian state police in the same year. In 2004–05, heroin seized by state police in the five most populous states ranged between 21% and 28%. In the same year, the median purity of AFP heroin seizures in New South Wales, Victoria, Queensland Western Australia, and South Australia was more than twice as high and ranged from 61% in Queensland to 75% in Western Australia and South Australia.

**Table 9.10: Median purity of heroin seizures analysed in Australia, by state and territory, 1999–00 to 2004–05 (per cent)**

Year/police	NSW	Vic	Qld	WA <sup>(a)</sup>	SA	Tas	ACT	NT
1999–00								
State	59.3	53.1	50.2	55.5	48.3	—	..	—
AFP	69.2	58.8	—	71.8	69.0	74.6 <sup>(a)</sup>	52.5	—
2000–01								
State	49.0	43.0	42.3	48.5	43.2	—	..	31.0
AFP	71.0	36.8	51.3 <sup>(a)</sup>	68.3 <sup>(a)</sup>	—	—	38.8	75.3 <sup>(a)</sup>
2001–02								
State	n.a.	15.0	18.5	19.5	22.4	—	21.1	—
AFP	64.6	75.1	57.5	36.3	54.3	—	—	—
2002–03								
State	26.0	22.6	22.5	24.0	18.9	70.4 <sup>(a)</sup>	23.9	n.a.
AFP	71.1	68.8	69.9	—	—	—	19.6	—
2003–04								
State	30.5	25.7	28.0	25.0	25.0	—	32.2	n.a.
AFP	67.1	71.5	73.4	29.7 <sup>(a)</sup>	—	—	32.0	—
2004–05								
State	27.5	24.8	23.4	20.5	23.7	—	23.6	—
AFP	69.9	72.4	60.8	74.7	74.9	—	—	—

(a) Median purity based on one seizure.

*Notes*

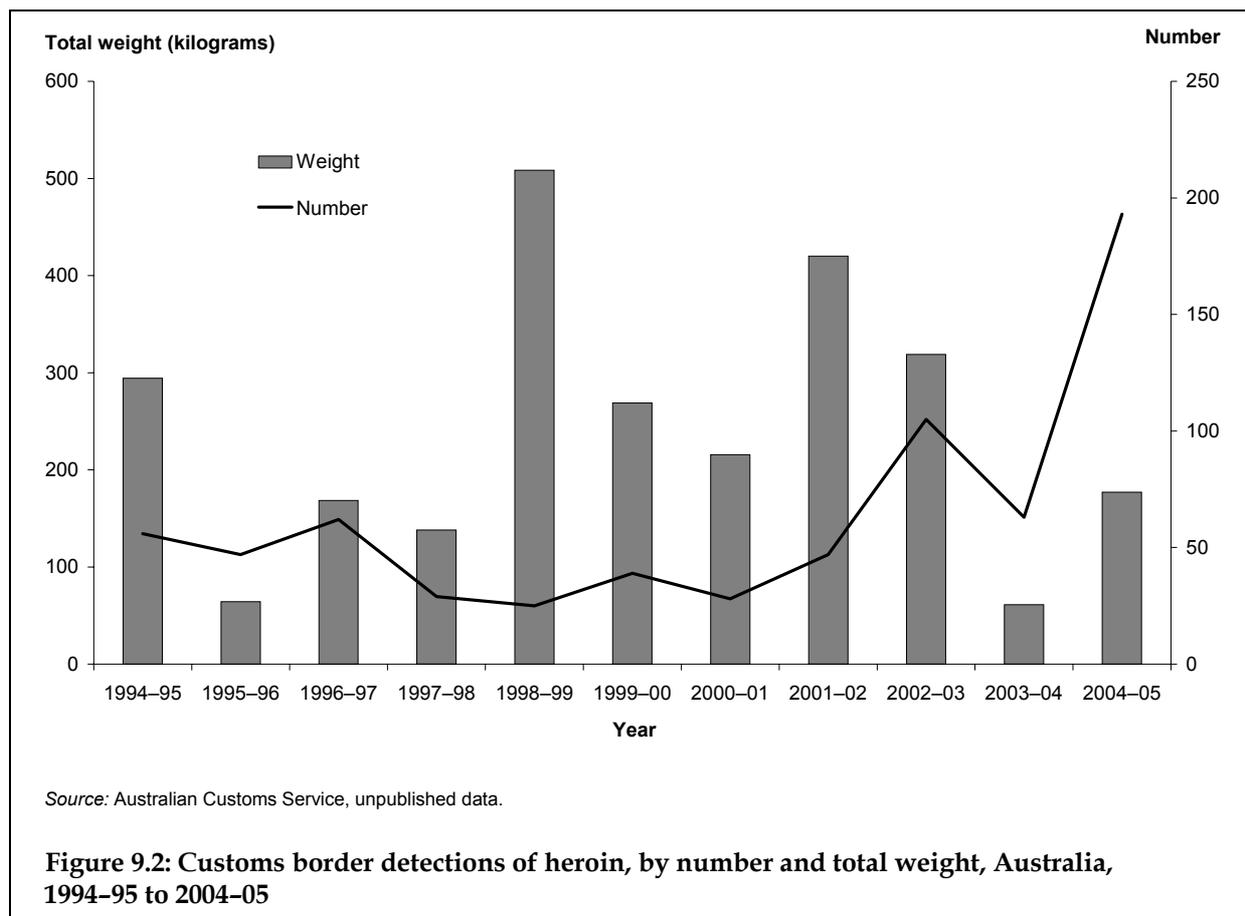
1. State=State/territory police; AFP= Australian Federal Police.

2. Due to industrial action, no state police seizures were analysed in South Australia in January to June 2001.

Source: Stafford et al. 2006b.

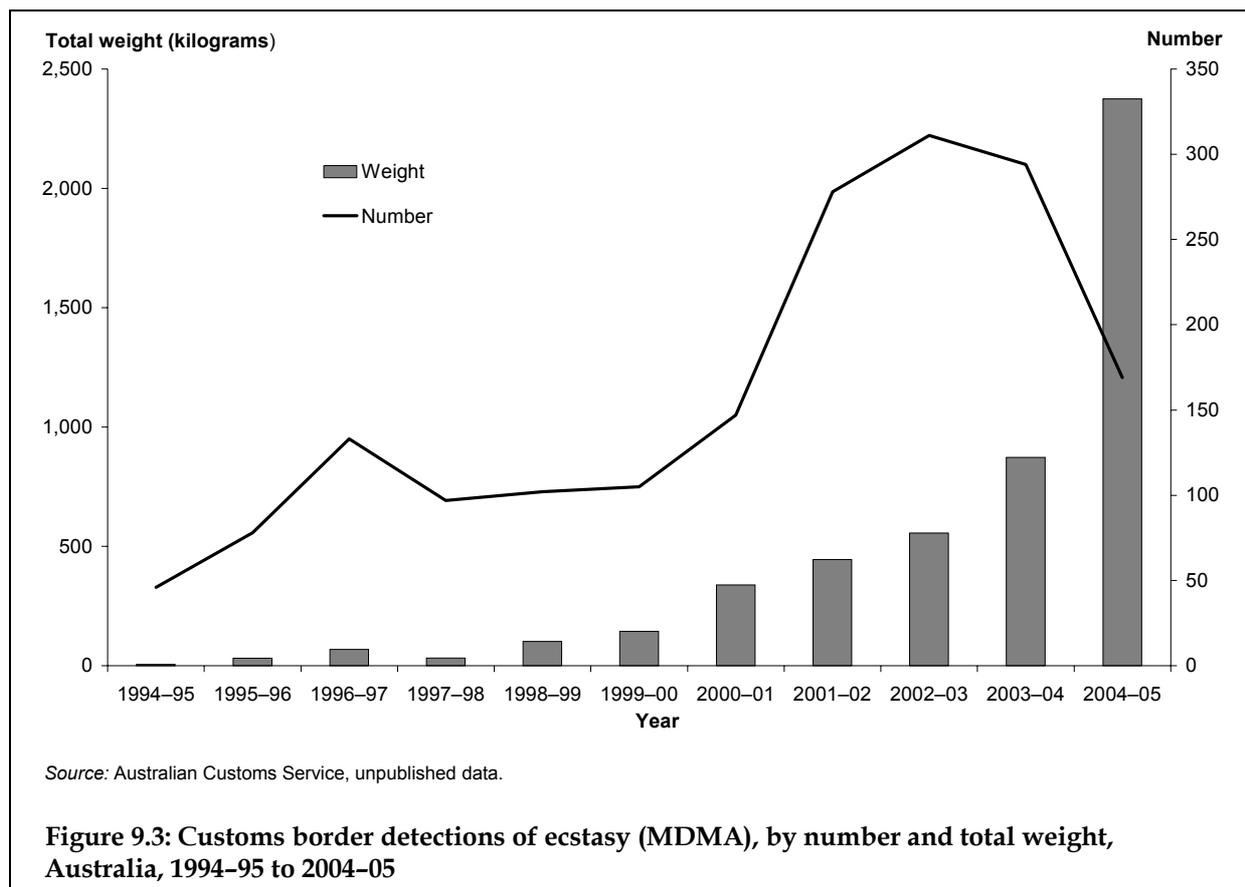
## Customs border detections of heroin and ecstasy (MDMA)

There is not always a positive correlation between the number of heroin detections and the total weight of detections. Over the period 1994–95 to 2004–05, the number of heroin border detections per year by the Australian Customs Service ranged between 25 and 193 detections (Figure 9.2). The total weight of heroin border detections fluctuated between a low of 62 kilograms in 2003–04 and a high of 508 kilograms in 1998–99. In 2004–05, the total weight of heroin detected was relatively low (177 kilograms), yet the number of detections was relatively high (193 detections).



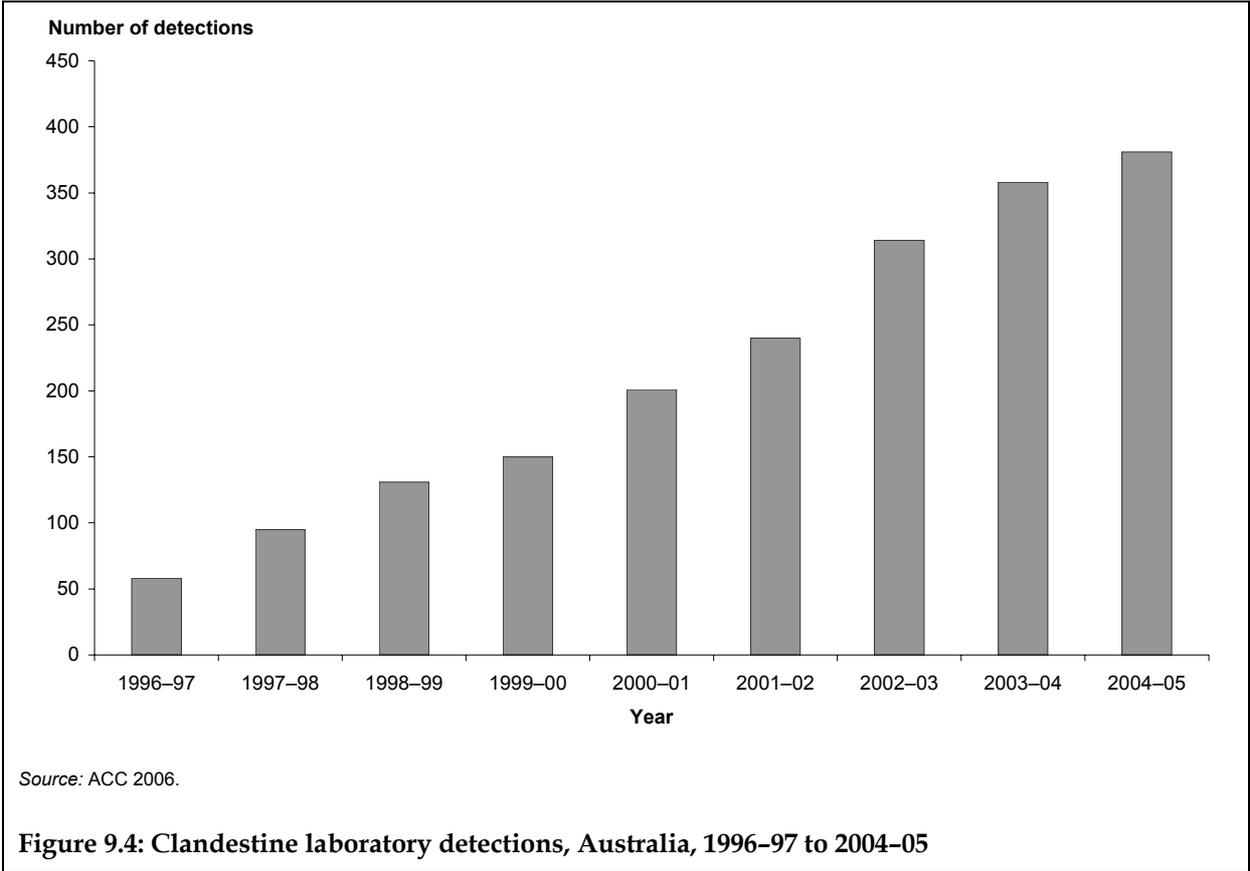
Unlike detections of heroin described above, there appears to be a positive correlation between the number of customs border detections of ecstasy (MDMA) and the total weight of these detections, except for the last two periods (Figure 9.3). Over the 11-year period from 1994-95 to 2004-05, the number of border detections increased from 46 in 1994-95 to 294 in 2003-04. The total weight of detections has increased considerably during this time, from 6 kilograms in 1994-95 to 873 kilograms in 2003-04.

In 2004-05, however, the number of customs border detections decreased to 169 and the total weight increased significantly to 2,375 kilograms.



## Detection of drug laboratories

The number of clandestine drug laboratories detected in Australia increased sixfold between the years 1996-97 and 2004-05, from 58 to 381. This may be explained in part by the apparent increase in domestic demand for amphetamine-type substances, but also by the behaviour of illicit drug manufacturers. The ACC suggests that manufacturers may opt to decentralise production methods to minimise detection risk (ACC 2006), thereby contributing to an increase in the number of laboratories. According to the ACC, all jurisdictions except for New South Wales and South Australia experienced an increase in clandestine laboratory detections since 2003-04. About half of all detections in Australia are made in Queensland, though the laboratories in this state are usually smaller (known as 'box labs'). These box labs are hard to detect as they can easily be packed away into a box or suitcase and can be transported. The ACC has also listed the potential hazards posed by these laboratories and the overall manufacturing processes of illicit drugs as they use highly toxic, flammable and explosive materials. The risks are not just limited to the manufacturers of these drugs but extend to the investigating officers and the children in proximity. For more information about clandestine laboratories in various jurisdictions, see the 'Amphetamines' chapter of *Illicit Drug Data Report 2004-05* (ACC 2006).



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