

# **Statistics on drug use in Australia 2004**

The Australian Institute of Health and Welfare is Australia's national health and welfare statistics and information agency. The Institute's mission is *better health and wellbeing for Australians through better health and welfare statistics and information.*

Please note that as with all statistical reports there is the potential for minor revisions of data in this report over its life. Please refer to the online version at <[www.aihw.gov.au](http://www.aihw.gov.au)>.

DRUG STATISTICS SERIES

Number 15

# **Statistics on drug use in Australia 2004**

**July 2005**

Australian Institute of Health and Welfare  
Canberra

AIHW Cat. No. PHE 62

© Australian Institute of Health and Welfare 2005

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced without prior written permission from the Australian Institute of Health and Welfare. Requests and enquiries concerning reproduction and rights should be directed to the Head, Business Promotion and Media Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601.

This publication is part of the Australian Institute of Health and Welfare's Drug Statistics Series. A complete list of the Institute's publications is available from the Information Services and Publishing Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601, or via the Institute's web site <[www.aihw.gov.au](http://www.aihw.gov.au)>.

ISSN 1442-7230

ISBN 1 74024 486 9

### **Suggested citation**

Australian Institute of Health and Welfare 2005. Statistics on drug use in Australia 2004. AIHW Cat. No. PHE 62. Canberra: AIHW (Drug Statistics Series No. 15).

### **Australian Institute of Health and Welfare**

Board Chair  
Hon. Peter Collins, QC, AM

Director  
Dr Richard Madden

Any enquiries about or comments on this publication should be directed to:

Priscilla Dowling  
Australian Institute of Health and Welfare  
GPO Box 570  
Canberra ACT 2601  
Phone: (02) 6289 5675

Published by Australian Institute of Health and Welfare

Printed by Elect Printing

# Contents

- List of tables ..... **viii**
- List of figures ..... **xiii**
- Preface..... **xiv**
- Summary ..... **xv**
- Acknowledgments..... **xx**
- Abbreviations..... **xxi**
- Symbols..... **xxii**
- 1 Introduction ..... 1**
  - National Drug Strategy ..... 1
  - About this report..... 1
  - Data sources..... 2
- 2 Tobacco ..... 3**
  - Introduction..... 3
  - Reported consumption trends ..... 3
  - Consumption by age and sex ..... 5
  - Apparent consumption trends..... 6
  - Government revenue..... 7
- 3 Alcohol..... 10**
  - Introduction..... 10
  - Reported consumption trends ..... 10
  - Apparent consumption trends..... 14
  - Government revenue..... 16
- 4 Illicit drug use ..... 18**
  - Introduction..... 18
  - Measures of illicit drug use ..... 18
  - Marijuana/ cannabis use ..... 21
  - Ecstasy and related drugs (ERDs) use ..... 22
- 5 Pharmaceutical products ..... 26**
  - Introduction..... 26

Top 10 prescription medicines .....	26
Community prescriptions for other major drug groups .....	28
Use of someone else’s prescribed medication .....	29
<b>6 International comparisons .....</b>	<b>31</b>
Introduction.....	31
Tobacco.....	31
Alcohol .....	33
Illicit drugs.....	35
<b>7 Drugs and health .....</b>	<b>37</b>
Introduction.....	37
Mental health.....	37
Injecting drug use and communicable disease.....	41
Injecting drug use and risky behaviour.....	45
Overdoses .....	47
Mortality and morbidity .....	50
<b>8 Special population groups .....</b>	<b>53</b>
Introduction.....	53
Young people .....	53
Aboriginal and Torres Strait Islander people .....	60
Pregnant and/or breastfeeding women.....	62
Homeless people.....	63
Injecting drug users.....	65
Other selected population groups.....	66
<b>9 Treatment services.....</b>	<b>69</b>
Introduction.....	69
Alcohol and other drug treatment services.....	69
National pharmacotherapy statistics .....	73
Sydney medically supervised injecting centre .....	75
<b>10 Crime and law enforcement.....</b>	<b>76</b>
Introduction.....	76
Illicit drug offences .....	76
Drug use and criminal offending .....	79
Self-reported crime by injecting drug users.....	85

Illicit drug detections .....	85
<b>11 Polydrug use .....</b>	<b>89</b>
Introduction.....	89
Polydrug use and tobacco .....	89
Polydrug use and alcohol.....	89
Polydrug use and marijuana/cannabis .....	90
Polydrug use and amphetamine-type substances .....	91
Polydrug use and heroin .....	93
<b>12 Drug avoidance and moderation .....</b>	<b>96</b>
Introduction.....	96
Avoidance of cigarette smoke.....	96
Smoking moderation behaviours .....	97
Alcohol reduction behaviours.....	98
Alcohol moderation behaviours .....	99
Participation in drug treatment programs .....	100
<b>Appendix A: Confidence intervals.....</b>	<b>102</b>
<b>References .....</b>	<b>103</b>

# List of tables

Table 2.1:	Tobacco smoking status: proportion of the population aged 14 years and over, by sex, Australia, 1991 to 2004 .....	4
Table 2.2:	Tobacco smoking status: proportion of the population aged 14 years and over, by age group and sex, Australia, 2004 .....	6
Table 2.3:	Volume of tobacco cleared through excise and customs, Australia, 1995-96 to 2003-04.....	8
Table 2.4:	Government revenue from excise, customs clearances, and state business franchise fees related to the sale of tobacco, Australia, 1995-96 to 2003-04.....	9
Table 3.1:	Alcohol drinking status: proportion of the population aged 14 years and over, Australia, 1991 to 2004.....	11
Table 3.2:	Alcohol drinking status: proportion of the population aged 14 years and over, by age group and sex, Australia, 2004 .....	12
Table 3.3:	Risk of harm in the long term: proportion of the population aged 14 years and over, by age group and sex, Australia, 2004.....	13
Table 3.4:	Risk of harm in the short term: proportion of the population aged 14 years and over, by age group and sex, Australia, 2004.....	14
Table 3.5:	Alcohol available for consumption and apparent per person consumption by persons aged 15 years and over, in litres of alcohol, Australia, 1996-97 to 2002-03.....	16
Table 3.6:	Government revenue from duty paid and state business franchise fees related to the sale of alcohol, Australia, 1996-97 to 2003-04 .....	17
Table 4.1:	Summary of illicit drug use: proportion of the population aged 14 years and over, Australia, 2004 .....	19
Table 4.2:	Summary of recent illicit drug use: proportion of the population aged 14 years and over, by drug type, Australia, 1991 to 2004.....	21
Table 4.3:	Frequency of marijuana/cannabis use: proportion of recent users aged 12 years and over, by age group and sex, Australia, 2004 .....	22
Table 4.4:	ERDs use, by age group and selected drug type, persons aged 12-24 years, Australia, 2004.....	23
Table 4.5:	Regular ecstasy users: patterns of ecstasy use, by age group and sex, persons aged 16 years and over, Australia, 2004 .....	25
Table 4.6:	Regular ecstasy users: patterns of ecstasy use, by use location, 2004.....	25
Table 5.1:	Top 10 prescription medicines distributed through community pharmacies, Australia, 2003.....	27



Table 5.2:	Top 10 prescription drugs by cost to the Australian Government (PBS and RPBS), Australia, 2003 .....	27
Table 5.3:	Top 10 prescription medicines issued through community pharmacies by defined daily dose, Australia, 2003 .....	28
Table 5.4:	Number of community prescriptions issued for selected ATC groups, Australia, 2001 to 2003 .....	29
Table 5.5:	Use of someone else's prescribed medication, by sex, persons aged 14 years and over, 2004.....	30
Table 6.1:	Prevalence of daily smoking, population aged 15 years and over, selected countries, 1973 to 2003.....	32
Table 6.2:	Tobacco consumption, grams per capita, population aged 15 years and over, selected countries, 1973 to 2003 .....	33
Table 6.3:	Per capita consumption of alcoholic beverages, selected countries, 2002 .....	34
Table 6.4:	Alcohol consumption, litres of pure alcohol per capita, population aged 15 years and over, selected countries, 1963 to 2003 .....	35
Table 6.5:	Annual prevalence of substance use as a percentage of the population aged 15-64 years, selected countries, selected years from 1996 to 2003 .....	36
Table 7.1:	Psychological distress by selected drug use patterns, persons aged 18 years and over, by sex, Australia, 2004 .....	38
Table 7.2:	Recent and lifetime drug use: diagnosis and/or treatment for selected mental health disorders, persons aged 18 years and over, Australia, 2004.....	40
Table 7.3:	Injecting drug users attending a health professional for a mental health problem other than drug dependence, by type of mental health problem, 2004 .....	41
Table 7.4:	Self-reported prevalence of hepatitis B and prevalence of hepatitis C among injecting drug users, by duration of injecting drug use, 2003 .....	42
Table 7.5:	Number of AIDS diagnoses, by HIV exposure category, Australia, 1993 to 2003.....	44
Table 7.6:	Number of deaths following AIDS, by HIV exposure category, Australia, 1993 to 2003.....	45
Table 7.7:	Injecting drug users 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 2003 .....	46
Table 7.8:	Proportion of injecting drug users who had shared needles or other injecting equipment in last month, by state/territory, Australia, 2002 and 2003 .....	47
Table 7.9:	Proportion of injecting drug users reporting non-fatal heroin overdose, selected risk behaviours and protective factors for overdose, Australia, 2004.....	48

Table 7.10:	Number of accidental deaths due to opioids among persons aged 15–54 years, by sex and state/territory, 2002 and 2003 .....	49
Table 7.11:	Deaths attributable to tobacco use, by cause of death, and hospital episodes attributable to tobacco use, by principal diagnosis, 1998.....	51
Table 7.12:	Deaths and hospital episodes attributable to risky and high-risk alcohol consumption patterns, by sex, Australia, 2001 .....	52
Table 7.13:	Deaths attributable to illicit drug use, by cause of death, and hospital episodes attributable to illicit drug use, by principal diagnosis, Australia, 1998.....	52
Table 8.1:	Tobacco smoking status and risk of long-term alcohol-related harm: proportion of the population aged 12–19 years, by age, Australia, 2004.....	54
Table 8.2:	Consumption of alcohol and alcohol risk in the short term, persons aged 12–19 years, by age group and sex, Australia, 2004.....	55
Table 8.3:	Alcohol consumption among secondary students aged 12–17 years, by age group and sex, Australia, 1999 and 2002 .....	57
Table 8.4:	Summary of lifetime and recent use of illicit drugs, persons aged 12–19 years, Australia, 2004 .....	58
Table 8.5:	Lifetime and recent use of illicit drugs by secondary students aged 12–17 years, Australia, 1999 and 2002.....	59
Table 8.6:	Summary of drug use by Aboriginal and Torres Strait Islander people and other Australians aged 12 years and over, Australia, 2004.....	61
Table 8.7:	Aboriginal and Torres Strait Islander people: use of tobacco, alcohol and other substances, persons aged 15 years and over, 2002.....	62
Table 8.8:	Drug use in the last 12 months, pregnant and/or breastfeeding women and all other women, women aged 14–49 years, Australia, 2004.....	63
Table 8.9:	Change in alcohol consumption among women who were pregnant or who were breastfeeding in the last 12 months, aged 14–49 years, Australia, 2004.....	63
Table 8.10:	Demographic characteristics of injecting drug users, by jurisdiction, Australia, 2003.....	66
Table 8.11:	Summary of drug use in selected population groups, persons aged 12 years and over, Australia, 2004 .....	68
Table 9.1:	Closed treatment episodes by principal drug of concern and sex, Australia, 2002–03.....	70
Table 9.2:	Closed treatment episodes by main treatment type, by state and territory, Australia, 2002–03.....	73
Table 9.3:	Methadone maintenance therapy clients, by state and territory, Australia, as at 30 June 2003.....	74

Table 9.4:	Buprenorphine maintenance therapy clients, by state and territory, Australia, as at 30 June 2003 .....	75
Table 9.5:	Changes in injecting technique since using the medically supervised injecting centre, 2001 and 2002.....	75
Table 10.1:	Illicit drug arrests, by type of drug and consumer status, Australia, 1996-97 to 2003-04.....	77
Table 10.2:	Sentenced prisoners where the most serious offence was drug-related, by type of offence, by state and territory, Australia, 1995 to 2004 .....	78
Table 10.3:	Marijuana/cannabis arrests and offence notices issued per 100,000 population, by state and territory, 1996-97 to 2003-04 .....	79
Table 10.4:	Proportion of adult detainees testing positive to illicit drugs in the last 12 months, by age group, sex and type of illicit drug, Australia, 2003 .....	80
Table 10.5:	Proportion of female prisoners who used illicit drugs in the 6 months before arrest, by age group and type of illicit drug, Australia, 2003 .....	81
Table 10.6:	Proportion of female prisoners who were classified as drug-dependent, by age group, Australia, 2003 .....	82
Table 10.7:	Proportion of female prisoners who were classified as drug-dependent, by age group and type of offence for current incarceration, Australia, 2003 .....	82
Table 10.8:	Proportion of female prisoners who self-reported being under the influence of alcohol or illicit drugs at the time of the offence, by age group, type of offence and type of drug used at the time of offence, Australia, 2003 .....	83
Table 10.9:	Mental health conditions affecting female prisoners who were classified as drug-dependent, Australia, 2003 .....	84
Table 10.10:	Female prisoners who were classified as drug-dependent: receipt of drug treatment services in lifetime, 2003 .....	84
Table 10.11:	Self-reported crime among injecting drug users and proportion arrested in the last year, by type of crime, Australia, 2004.....	85
Table 10.12:	Median purity of heroin seizures analysed in Australia, by state and territory, 1999-00 to 2003-04 .....	86
Table 11.1:	Recent use of other drugs by smokers and non-smokers: proportion of the population aged 14 years and over by sex, Australia, 2004.....	89
Table 11.2:	Recent use of other drugs by drinkers and non-drinkers: proportion of the population aged 14 years and over by sex, Australia, 2004.....	90
Table 11.3:	Recent use of other drugs by users and non-users of marijuana/cannabis: proportion of the population aged 14 years and over by sex, Australia, 2004.....	91
Table 11.4:	Recent use of other drugs by users and non-users of amphetamine-type substances: proportion of the population aged 14 years and over, by sex, Australia, 2004.....	92

Table 11.5:	Recent use of other ERDs: proportion of regular ecstasy users, by age group and sex, persons aged 16 years and over, Australia, 2004 .....	93
Table 11.6:	Recent use of other drugs by users and non-users of heroin: proportion of the population aged 14 years and over, by sex, Australia, 2004.....	94
Table 11.7:	Heroin users: use of other drugs in lifetime, last 6 months and day before interview, 2004 .....	95
Table 12.1:	Non-smokers' avoidance of places where they might be exposed to other people's cigarette smoke: non-smokers aged 14 years and over, by age group and sex, Australia, 2004.....	97
Table 12.2:	Attempted change in smoking behaviour: proportion of recent smokers aged 14 years and over, by sex, Australia, 2004.....	98
Table 12.3:	Alcohol reduction behaviours: proportion of recent drinkers aged 14 years and over, by risk classification and sex, Australia, 2004 .....	99
Table 12.4:	Alcohol moderation behaviours: proportion of recent drinkers aged 14 years and over, by risk classification and sex, Australia, 2004.....	100
Table 12.5:	Participation in alcohol and other drug treatment programs in the last 12 months: proportion of the population aged 14 years and over, by sex, 2004.....	101

# List of figures

Figure 2.1:	Daily smokers: proportion of people aged 14 years and over, 1985 to 2004.....	5
Figure 3.1:	Indices of alcohol consumption: Australia, 1964–65 to 2001–02 (1964–65=100).....	15
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 .....	20
Figure 7.1:	Hepatitis C prevalence among people attending needle and syringe programs, by sex, Australia, 1997 to 2003.....	43
Figure 7.2:	Opioid overdose deaths: rate per million persons aged 15–54 years, Australia, 1988 to 2003 .....	49
Figure 8.1:	Trends in tobacco smoking among secondary students aged 12–17 years, Australia, 1984 to 2002 .....	56
Figure 8.2:	Proportion of SAAP support periods where reason for seeking assistance and/or support to the client was for substance use, by age group and sex, Australia, 2003–04 .....	64
Figure 8.3:	Proportion of SAAP support periods where reason for seeking assistance and/or support to the client was for substance use, by sex, Australia, 1998–99 to 2003–04 .....	65
Figure 9.1:	Closed treatment episodes by selected principal drug of concern and age group, Australia, 2002–03.....	71
Figure 9.2:	Closed treatment episodes by injecting drug use and age group, Australia, 2002–03 .....	72
Figure 10.1:	Customs border detections of heroin, by number and total weight, Australia, 1994–95 to 2003–04 .....	87
Figure 10.2:	Customs border detections of ecstasy (MDMA), by number and total weight, Australia, 1994–95 to 2003–04 .....	87
Figure 10.3:	Clandestine laboratory detections, Australia, 1996–97 to 2003–04.....	88

# Preface

*Statistics on Drug Use in Australia 2004* is the eleventh 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 fourth produced by the Australian Institute of Health and Welfare (AIHW). This edition includes additional material, including more in-depth information on substance use amongst young people, and ecstasy and related drugs use. This publication also intends to act as a summary of major drug-use statistical collections, which leads interested readers to the sources of more detailed information.

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*, and *2004 National Drug Strategy Household Survey: State and Territory Supplement*. Additional findings will be published in *2004 National Drug Strategy Household Survey: Detailed Findings*, scheduled for release in October 2005.

# 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%) were ex-smokers 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, while 16% of females were daily smokers. 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.

During the 2003–04 financial year, the Australian Government collected over \$5.6 billion in revenue from the importation and sale of tobacco products in Australia.

## 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%), and 9% of Australians consumed alcohol on a daily basis. People aged 60 years and over recorded the highest prevalence of daily drinking (17%).

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

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

Around one in three people (35%) aged 14 years and over consumed alcohol in a way that put themselves at increased risk of alcohol-related harm in the short term 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.

## 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 having used it 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 a similar level in 2004 (15%) to the prevalence in 1993 (14%). While the proportion of people who had recently used marijuana/cannabis (11%) was the lowest seen in the 13-year period, the proportion using ecstasy (3%) was the highest prevalence for that substance in the same period.

Ecstasy and related drugs were commonly used by 12-24-year-old Australians in 2004. The most prevalent drugs from this group were ecstasy and meth/amphetamines, with 7% of persons in this age group having used each substance in the last 12 months. In particular, the highest recent use of ecstasy (13%) and meth/amphetamines (11%) were reported by 20-24-year-olds.

## **Pharmaceuticals**

Of the 220 million prescription medicines dispensed in 2003, 81% were subsidised by the Australian Government. The two most common prescription medicines distributed through community pharmacies, by cost to the government, and by defined daily dose per 1,000 population, were both medications prescribed for lipid reduction (lowering of blood cholesterol).

In 2004, around 13% of Australians aged 14 years and over had ever used someone else's prescribed or recommended medication when they were feeling unwell.

## **International comparisons**

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

In 2002, Australia ranked 23rd 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 approximately 92 litres of beer, 21 litres of wine and 1 litre of pure alcohol from spirits.

## **Drugs and health**

According to results from the 2004 NDSHS, smokers were more likely than non-smokers to have experienced high or very high levels of psychological distress and more likely to have been diagnosed with and/or treated for any mental health disorder in the previous 12 months. This was also true for males and females who consumed alcohol at risky and high-risk levels for long-term harm, compared with low-risk drinkers and those who abstained from drinking alcohol.

Compared with those who had not used an illicit drug other than marijuana/cannabis, persons who had used any illicit drug other than marijuana/cannabis, either at least once in their lifetime or in the last 12 months, were approximately twice as likely to have been



diagnosed with and/or treated for a mental health disorder. For example, 17% of persons who had used an illicit drug other than marijuana/cannabis in the last 12 months had been diagnosed and/or treated for a mental health disorder, compared with 9% of non-users.

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 2003, with 57% of males and 61% of females testing positive to the hepatitis C virus antibody in 2003.

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 31.5 deaths per million persons in 2003.

## **Special population groups**

### **Young people aged 12–19 years**

Results from the 2004 NDSHS indicate that the prevalence of smoking increased rapidly with age among young people aged 12–19 years. An estimated one in five people aged 18–19 years were smokers in 2004, with approximately 17% smoking on a daily basis, compared with approximately 2% of 12–15-year-olds.

Based on results from a nationally representative study, smoking prevalence declined amongst secondary students aged 12–17 years between 1999 and 2002. The use of various illicit drugs by this population group either declined or remained stable during this time, and the prevalence of alcohol consumption by secondary students remained stable.

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

In 2004, the proportion of Aboriginal and Torres Strait Islander people who consumed alcohol in the last 12 months (71%) was lower than the proportion for other Australians (82%). However, compared with other Australians, Aboriginal and Torres Strait Islander people were more likely to have smoked and/or used illicit drugs in the last 12 months. For example, 19% of Aboriginal and Torres Strait Islander people had used marijuana/cannabis in the last 12 months compared with 11% of other Australians.

### **Pregnant and/or breastfeeding women**

The 2004 NDSHS found that women who were pregnant and/or breastfeeding in the previous 12 months were less likely to consume alcohol (47%) and any illicit drug (6%), compared with when they weren't (85% and 17% respectively). Pregnant and/or breastfeeding women appeared less likely to reduce their tobacco consumption, with 22% smoking when they weren't pregnant and/or breastfeeding, and 20% continuing to smoke during pregnancy and/or while breastfeeding.

## **Other selected population groups**

Compared with people of higher socioeconomic status (SES), people of lower SES were more likely to be daily smokers, with almost one-quarter (24%) of people in the lowest quintile and around one in ten (11%) people in the highest quintile smoking daily in 2004. However, people of lower SES seemed less likely to consume alcohol at risky and high-risk levels for harm in the short term, and less likely to have recently used marijuana/cannabis and/or amphetamine-type substances compared with people of higher SES.

## **Treatment services**

In the 2002–03 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 (38%), followed by marijuana/cannabis (22%), heroin (18%) and meth/amphetamines (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/amphetamines.

In 2002–03, around one-quarter (26%) of treatment episodes involved clients who identified themselves as current injectors.

Excluding clients in South Australia, there were around 25,900 methadone maintenance therapy clients and around 8,600 buprenorphine maintenance therapy clients in Australia at 30 June 2003.

## **Crime and law enforcement**

Marijuana/cannabis accounted for 72% of illicit drug arrests in 2003–04, compared with 12% 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 Drug Use Careers of Offenders (DUCO) study show that two-thirds of female sentenced prisoners used an illicit drug in the 6 months prior to their arrest, while around 27% were classified in the study as dependent on alcohol and 55% were classified as dependent on drugs. Around two-thirds of female prisoners responding to the 2003 DUCO survey who were classified in the study as alcohol and/or drug dependent reported that they ‘often’ experienced a mental health condition while growing up.

## **Polydrug use**

Polydrug use is defined as ‘the use of more than one drug, simultaneously or at different times’ (MCDS 2004:24). According to the 2004 NDSHS, substance users were more likely than non-users to use other drugs. For example, there was a more than fourfold greater use

of marijuana/cannabis and more than threefold greater use of any illicit drug among tobacco smokers compared with non-smokers. Similar results were observed when users of alcohol, marijuana/cannabis, amphetamine-type substances and heroin were compared with non-users.

In their surveys of user populations, the National Drug and Alcohol Research Centre found that polydrug use is common among ecstasy users and injecting drug users who use heroin.

## **Drug avoidance and moderation**

In 2004, approximately 5% of male smokers and 7% of female smokers had participated in anti-smoking programs in the last 12 months. While 40% of smokers unsuccessfully tried to give up smoking, 23% successfully quit for more than one month. Less than 1% of recent drinkers had participated in an alcohol treatment program in the last 12 months.

# Acknowledgments

Priscilla Dowling authored this report on behalf of Population Health Data and Information Services Unit at the Australian Institute of Health and Welfare.

A number of other staff at the AIHW deserve special mention and their time, assistance and support are greatly appreciated. In particular, Mark Cooper-Stanbury, Amber Summerill, Suraiya Nargis, David Batts and Olivia Lawton made important contributions to the report. Comments and suggestions from Chrysanthe Psychogios, Ros Madden, Fadwa Al-Yaman, Qasim Shah and Rose Lai are also appreciated.

The author also acknowledges the support provided by staff of the AIHW Information Services and Publishing Unit.

Expertise and useful comments provided by referees Fearnley Szuster, from the Public Health Information Development Unit, University of Adelaide, and Jennifer Stafford, from the National Drug and Alcohol Research Centre, are gratefully acknowledged.

A number of people from other agencies provided assistance during the preparation of this report, and their time and assistance are acknowledged and greatly appreciated. Special thanks go to:

- Jenny Reed and Donna Furniss from the Australian Government Department of Health and Ageing
- Maxine Robinson, John Dudley and George Phillips from the Australian Government Department of Health and Ageing
- Holly Johnson, Jenny Mouzos and Carmen Schulte from the Australian Institute of Criminology
- Emma Black and Maria Agalotis from the National Drug and Alcohol Research Centre
- Victoria White from the Centre for Behavioural Research in Cancer, the Cancer Council Victoria
- Swati Shourie from the National Centre in HIV Epidemiology and Clinical Research
- Peter Malone from the Australian Taxation Office
- Maria Meere, Jo Bell and Richard Lund from the Australian Bureau of Statistics
- Tanya Chikritzhs and Richard Pascal from the National Drug Research Institute.

The financial assistance provided by the Australian Government Department of Health and Ageing is gratefully acknowledged.

# Abbreviations

ABS	Australian Bureau of Statistics
ACC	Australian Crime Commission
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
ATS	Amphetamine-type substance(s)
DUCO	Drug Use Careers of Offenders
DUMA	Drug Use Monitoring in Australia
ERDs	Ecstasy and related drugs
GHB	Gamma-hydroxybutyrate
IDRS	Illicit Drug Reporting System
MCDS	Ministerial Council on Drug Strategy
MDA	3,4 methylenedioxyamphetamine
MDMA	3,4 methylenedioxymethylamphetamine (ecstasy)
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NCHECR	National Centre in HIV Epidemiology and Clinical Research
NDARC	National Drug and Alcohol Research Centre
NDRI	National Drug Research Institute
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
SEIFA	Socio-Economic Indexes for Areas
SES	Socioeconomic status
UNODC	United Nations Office on Drugs and Crime

# Symbols

n.a.	Not available
n.y.a	Not yet available
–	Nil, or rounded to zero
..	Not applicable
*	Result unreliable as the relative standard error was greater than 50%
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).

## The 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. The MCDS 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 eleventh 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 fourth edition produced by the Australian Institute of Health and Welfare (AIHW) under a schedule to the Memorandum of Understanding between AIHW and the Australian Government Department of Health and Ageing.

*Statistics on Drug Use in Australia 2004* 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 include data presented on:

- use of ecstasy and related drugs;
- alcohol, tobacco and other drug use by young people aged 12–19 years;
- patterns of substance use and psychological wellbeing;

- closed treatment episodes in alcohol and other drug treatment services;
- clients registered for methadone maintenance treatment and buprenorphine maintenance treatment; and
- females incarcerated in Australian prisons.

## 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 2004 sample included almost 2,000 more respondents than the 2001 sample, was almost three times larger than the 1998 sample, and around eight times larger than the 1995 and 1993 samples. Questions relating to the use of ketamine and GHB (types of anaesthetic drugs used illicitly) were included for the first time as were physical and mental health measures. 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. These are listed below.

- 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
- National Drug Research Institute
- Organisation for Economic Co-operation and Development.

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:

- <http://www.abs.gov.au>
- <http://www.adf.org.au/index.asp>
- <http://www.aic.gov.au>
- <http://www.aihw.gov.au>
- <http://www.health.gov.au>
- <http://www.med.unsw.edu.au/nchecr>
- <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; and
- indirectly, looking at official clearances through excise and customs.

The chapter begins with direct estimates of tobacco consumption using the 2004 National Drug Strategy Household Survey (NDSHS). The latter 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.

For a comparison of tobacco use with other countries, refer to Chapter 6.

## 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 who smoked daily or occasionally remained lower than 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**

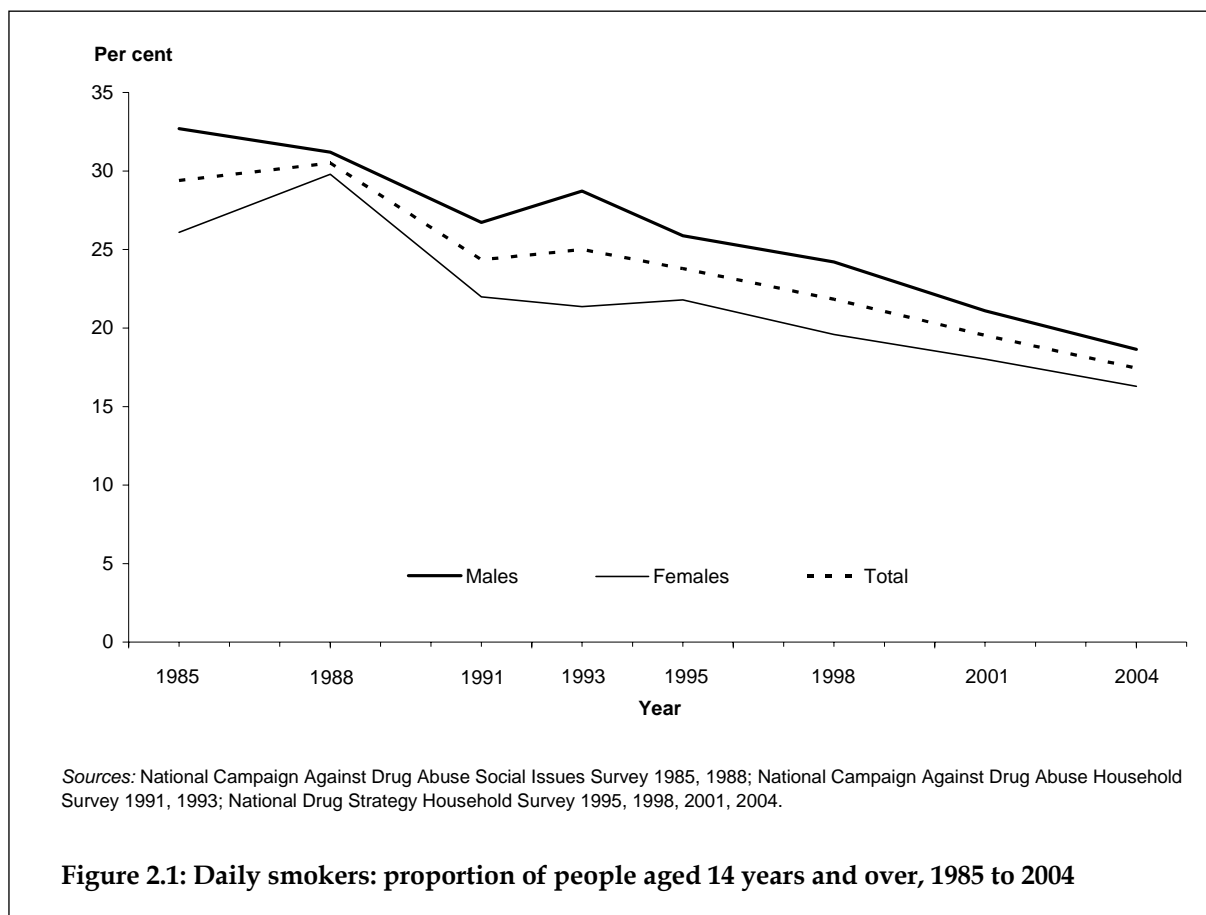
Tobacco smoking status	1991	1993	1995	1998	2001	2004
<b>(per cent)</b>						
<b>Males</b>						
Daily	26.7	28.7	25.9	24.2	21.1	18.6
Weekly	3.0	2.1	1.8	2.0	2.0	2.0
Less than weekly	2.8	1.7	1.9	1.6	2.6	1.9
Ex-smokers <sup>(a)</sup>	25.1	25.6	23.6	28.3	29.6	29.2
Never smoked <sup>(b)</sup>	42.4	41.8	46.8	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; National Drug Strategy Household Survey, 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, while in 2004, this proportion had dropped to 17%. 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**

Tobacco smoking status	14–19	20–29	30–39	40–49	50–59	60+	All ages
(per cent)							
<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: National Drug Strategy Household Survey 2004.

## Apparent consumption trends

Apparent tobacco consumption in Australia is measured by the amount of tobacco cleared through excise and customs (Table 2.3). However, these estimates do not take into account the volume of cigarettes bought duty free by Australian international travellers, or any tobacco which 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 here separately describe the trend before and after that 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).

The number of cigarettes cleared through excise decreased from 25.6 billion sticks in 1999–00 to 22.6 billion sticks in 2001–02, and increased to around 23.5 billion sticks in 2002–03 and 2003–04 (Table 2.3). 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 (AIHW 2002:13–14; AIHW 2005:15–16).

The volume of tobacco cleared through customs between 1999–00 and 2003–04 displayed fluctuations from year to year, the greatest being in 2002–03, when 29.1 million kilograms of loose tobacco was cleared through customs. This was around double the amount for any other year between 1999–00 and 2003–04. The amount of customs duty collected that year did not reflect this increase (Table 2.4), 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**

There are three areas related to the consumption of tobacco products from which the Australian Government earns revenue: excise on domestic goods, customs duty on imported products, and the goods and services tax. A fourth area of revenue, business franchise fees, used to apply to state and territory governments, but in August 1997 the High Court ruled that the states and territories could no longer collect state business franchise fees. Between August 1997 and June 2000, the Australian Government collected additional tax and refunded this to the states and territories as 'tobacco replacement payments'. Information on the goods and services tax is not available at the commodity level.

In the context of the above, the net government revenue associated with tobacco products increased from \$4.3 billion in 1995–96 to over \$5.6 billion in 2003–04 (Table 2.4). The amount of excise paid increased more than threefold between 1995–96 and 2003–04, from \$1.6 billion to \$5.2 billion. The revenue from tobacco excise was almost all derived from the sale of cigarettes. The amount of customs duty paid on tobacco products increased more than fourfold over this period, from \$108 million in 1995–96 to \$448 million in 2003–04. The increase in excise collected between 2001–02 and 2002–03 can be explained by the Australian Taxation Office's implementation of an active compliance strategy that year in the tobacco growing areas of Victoria and Queensland which reduced the diversion of legally grown tobacco to the illicit market (ATO 2004).

**Table 2.3: Volume of tobacco cleared through excise and customs, Australia, 1995–96 to 2003–04**

Duty and product	1995–96	1996–97	1997–98	1998–99	1999–00 <sup>(a)</sup>		2000–01		2001–02		2002–03		2003–04	
	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)
Excise														
Cigarettes	19,273	19,435	19,103	18,602	—	25,587	—	23,061	—	22,613	—	23,557	—	23,516
Other tobacco	656	753 <sup>(b)</sup>	714	670 <sup>(c)</sup>	640	—	610	—	650	—	800	—	590	—
<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>650</b>	<b>22,613</b>	<b>800</b>	<b>23,557</b>	<b>590</b>	<b>23,516</b>
Customs														
Cigarettes	288	350	266	272	179	481	19	860	18	801	17	946	15	655
Cigars, etc. <sup>(d)</sup>	70	71	84	97	91	6	89	12	89	12	91	15	92	13
Other manufactured tobacco <sup>(e)</sup>	975	911	910	788	570	—	828	—	838	—	1,447	—	1,011	—
Unmanufactured tobacco <sup>(f)</sup>	15,432	15,050	14,399	11,290	13,153	—	14,213	—	10,479	—	27,582	—	9,135	—
<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>

(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.

Note: Excise data for years 1999–00 to 2001–02 have been updated since *Statistics on Drug Use in Australia 2002* was published.

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

**Table 2.4: Government revenue from excise, customs clearances, and state business franchise fees related to the sale of tobacco, Australia, 1995–96 to 2003–04**

Duty	1995–96	1996–97	1997–98	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
	(\$m)								
Excise									
Cigarettes	1,563	1,629	3,914	4,555	4,645 <sup>(a)</sup>	4,534	4,672	5,004	5,081
Other tobacco	54	— <sup>(b)</sup>	139	142 <sup>(c)</sup>	48 <sup>(c)</sup>	165	169	208	159
<i>Total excise</i>	<i>1,617</i>	<i>1,629 <sup>(c)</sup></i>	<i>4,052</i>	<i>4,696 <sup>(c)</sup></i>	<i>4,693 <sup>(c)</sup></i>	<i>4,699</i>	<i>4,841</i>	<i>5,212</i>	<i>5,240</i>
Customs									
Cigarettes	24	29	51	63	133	174	170	206	147
Cigars, etc. <sup>(d)</sup>	6	6	18	22	23	24	26	28	28
Other manufactured tobacco <sup>(e)</sup>	79	76	173	169	131	178	203	217	273
Unmanufactured tobacco	—	—	—	—	—	—	—	—	—
<i>Total customs</i>	<i>108</i>	<i>111</i>	<i>242</i>	<i>255</i>	<i>286</i>	<i>376</i>	<i>399</i>	<i>450</i>	<i>448</i>
State franchise taxes <sup>(f)</sup>	2,621	2,855	— <sup>(f)</sup>	— <sup>(f)</sup>	— <sup>(f)</sup>	48	—	—	n.a.
<b>Total</b>	<b>4,346</b>	<b>4,595 <sup>(c)</sup></b>	<b>4,294 <sup>(f)</sup></b>	<b>4,951 <sup>(c)(f)</sup></b>	<b>4,979 <sup>(c)(f)</sup></b>	<b>5,040</b>	<b>5,085</b>	<b>5,662</b>	<b>5,688 <sup>(g)</sup></b>

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

(b) Not available due to confidentiality restrictions.

(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) Between 7 August 1997 and June 2000 the Australian Government collected additional tax and refunded this to the states as 'tobacco replacement payments'.

(g) Excludes state franchise taxes which were not available at the time of publication.

Note: Excise data for years 2000–01 and 2001–02 have been updated since *Statistics on Drug Use in Australia 2002* was published.

Sources: ABS 2004d; Australian Bureau of Statistics, unpublished data; Australian Taxation Office, unpublished data.

# 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; and
- 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 latter 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.

## 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.

The proportion of people who were daily drinkers and the proportion of people who had never consumed a full serve of alcohol were about equal in 2004 (9%). These proportions have remained stable in this manner since 1998.



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

Alcohol drinking status	1991	1993	1995	1998	2001	2004
	(per cent)					
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; National Drug Strategy Household Survey 1995, 1998, 2001, 2004.

## Consumption by age and sex

In 2004, the proportion of the population aged 14 years and over that were daily drinkers noticeably increased with age, ranging from 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 8.

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

Alcohol drinking status	Age group						All ages
	14–19	20–29	30–39	40–49	50–59	60+	
	(per cent)						
	<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: National Drug Strategy Household Survey 2004.

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

In 2004, around 77% of males and 71% of females aged 14 years and over consumed alcohol at levels at which there is minimal risk of long-term alcohol-related harm (Table 3.3). For males, 'low risk' is defined as the consumption of up to 28 standard drinks per week on average. For females, it is the consumption of up to 14 standard drinks per week on average.

Overall, one in ten Australians consumed alcohol at levels that are considered risky or high risk for alcohol-related harm in the long term. For males, the peak occurred at ages 20–29, where 6% drank at high-risk levels and 9% drank at risky levels. For females, the peak also occurred at ages 20–29, where 3% drank at high-risk levels and 12% drank at risky levels. Females aged 14–19 years were more likely to drink alcohol at risky and high-risk levels for long-term harm compared with males of the same age.

**Table 3.3: Risk of harm in the long term: proportion of the population aged 14 years and over, by age group and sex, Australia, 2004**

Age group	Abstainers <sup>(a)</sup>	Level of risk <sup>(b)</sup>		
		Low risk	Risky	High risk
(per cent)				
<b>Males</b>				
14–19	30.4	62.0	4.9	2.8
20–29	7.8	77.7	8.7	5.7
30–39	8.9	80.8	7.5	2.8
40–49	8.6	82.1	5.7	3.6
50–59	10.5	78.8	6.9	3.8
60+	17.3	74.8	5.2	2.7
<b>All ages</b>	<b>12.9</b>	<b>77.0</b>	<b>6.5</b>	<b>3.6</b>
<b>Females</b>				
14–19	27.6	60.1	8.3	4.0
20–29	13.4	71.6	12.2	2.9
30–39	13.0	77.1	7.7	2.1
40–49	13.8	75.9	8.0	2.3
50–59	19.5	73.1	6.0	1.4
60+	31.6	63.3	4.3	0.9
<b>All ages</b>	<b>19.8</b>	<b>70.6</b>	<b>7.5</b>	<b>2.1</b>
<b>Persons</b>				
14–19	29.0	61.1	6.6	3.4
20–29	10.6	74.7	10.4	4.3
30–39	11.0	78.9	7.6	2.4
40–49	11.2	79.0	6.9	3.0
50–59	15.0	76.0	6.4	2.6
60+	25.0	68.6	4.7	1.7
<b>All ages</b>	<b>16.4</b>	<b>73.7</b>	<b>7.0</b>	<b>2.8</b>

(a) Not consumed alcohol in the last 12 months.

(b) For males, the consumption of up to 28 standard drinks per week is considered 'Low risk', 29 to 42 per week 'Risky', and 43 or more per week 'High risk'. For females, the consumption of up to 14 standard drinks per week is considered 'Low risk', 15 to 28 per week 'Risky' and 29 or more per week 'High risk'.

Source: National Drug Strategy Household Survey 2004.

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

In 2004, around one in three people (35%) aged 14 years and over consumed alcohol in a way that put themselves at increased risk of alcohol-related harm in the short term (Table 3.4). For males, 'risky and/or high risk' is defined as the consumption of 7 or more standard drinks on any one day. For females, it is the consumption of 5 or more standard drinks on any one day. While 31% of women drank at risky and/or high-risk levels of harm in the short term, 40% of males had this drinking pattern.

Similar to the patterns for risky and high-risk drinking in the long term, the peak ages where the highest proportion of males drank at risky and high-risk levels in the short term was 20–29 years, where nearly two in three (65%) drank at these levels at least once in the last 12 months. Risky and high-risk drinking also peaked at ages 20–29 years for women; over half (57%) drinking at these levels in 2004. Approximately one in ten males and females aged 14–19 years consumed alcohol at risky and high-risk levels at least weekly. Overall, a higher proportion of females aged 14–19 years drank at risky and high-risk levels at least once in the last 12 months (42%) compared with males of the same age (37%). The proportion of males

aged 60 years and over who drank at risky and high-risk levels in the short term at least once in the last 12 months (15%) was double that of females (7%).

About half the population consumed alcohol at levels for which there was minimal risk of harm in the short term, while 16% did not drink alcohol at all.

**Table 3.4: Risk of harm in the short term: proportion of the population aged 14 years and over, by age group and sex, Australia, 2004**

Age group	Abstainers <sup>(a)</sup>	Low risk <sup>(b)</sup>	Risky and high risk <sup>(c)</sup>			Total risky and high risk
			At least yearly	At least monthly	At least weekly	
(per cent)						
<b>Males</b>						
14–19	30.4	32.7	10.9	15.1	10.9	36.9
20–29	7.8	27.4	20.8	26.6	17.4	64.7
30–39	8.9	37.5	24.4	18.9	10.3	53.6
40–49	8.6	49.5	19.4	12.8	9.7	41.9
50–59	10.5	58.3	13.4	10.6	7.1	31.2
60+	17.3	68.1	6.5	3.8	4.3	14.6
<b>All ages</b>	<b>12.9</b>	<b>46.8</b>	<b>16.1</b>	<b>14.4</b>	<b>9.8</b>	<b>40.3</b>
<b>Females</b>						
14–19	27.6	30.2	12.9	18.8	10.5	42.3
20–29	13.4	29.4	20.3	26.0	10.9	57.2
30–39	13.0	47.8	19.5	13.8	5.8	39.2
40–49	13.8	53.4	16.8	10.5	5.5	32.8
50–59	19.5	63.4	9.4	4.6	3.2	17.1
60+	31.6	61.3	4.0	1.5	1.6	7.1
<b>All ages</b>	<b>19.8</b>	<b>49.4</b>	<b>13.5</b>	<b>11.5</b>	<b>5.7</b>	<b>30.7</b>
<b>Persons</b>						
14–19	29.0	31.5	11.9	16.9	10.7	39.5
20–29	10.6	28.4	20.5	26.3	14.2	61.0
30–39	11.0	42.7	21.9	16.4	8.0	46.3
40–49	11.2	51.4	18.1	11.6	7.6	37.4
50–59	15.0	60.8	11.4	7.6	5.1	24.2
60+	25.0	64.5	5.2	2.5	2.9	10.5
<b>All ages</b>	<b>16.4</b>	<b>48.2</b>	<b>14.8</b>	<b>12.9</b>	<b>7.7</b>	<b>35.4</b>

(a) Not consumed alcohol in the last 12 months.

(b) For males, the consumption of up to 6 standard drinks on any one day. For females, the consumption of up to 4 standard drinks on any one day.

(c) For males, the consumption of 7 or more standard drinks on any one day. For females, the consumption of 5 or more standard drinks on any one day.

Source: National Drug Strategy Household Survey 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 7.3 litres per capita in 2001–02.

Apparent consumption of alcohol per capita in 2001–02 had reached a similar level to that recorded for 1964–65 (7.0 litres per capita).

Out of the three types of alcohol displayed in Figure 3.1, consumption of wine showed the greatest increase in 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 litres 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 92.4 litres of beer per person in 2001–02. Consumption of spirits peaked more recently, at 1.4 litres per person in 1993–94, and in the following 8 years declined, reaching 1.2 litres per person in 2001–02.

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 3.5 pertain to the Australian population aged 15 years and over.



In the 7 years between 1996–97 and 2002–03, apparent alcohol consumption by Australians aged 15 years and over has remained stable at 10 litres per person per year (Table 3.5). 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 3.5: Alcohol available for consumption and apparent per person consumption by persons aged 15 years and over, in litres of alcohol, Australia, 1996–97 to 2002–03**

Available for consumption	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02	2002–03
('000 litres of alcohol)							
Beer	77,155	76,963	76,545	76,283	77,521	74,678 <sup>(a)</sup>	78,355
Wine	39,726	41,947	42,739	44,367	45,112	45,270	47,440
Spirit	24,713	26,518	26,298	28,354	31,689	28,204	29,365
<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 <sup>(a)</sup></b>	<b>155,160</b>
(litres of pure alcohol per person)							
Beer	5.3	5.2	5.2	5.1	5.1	4.8 <sup>(a)</sup>	5.0
Wine	2.7	2.9	2.9	2.9	3.0	2.9	3.0
Spirit	1.7	1.8	1.8	1.9	2.1	1.8	1.9
<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>

(a) Mid-strength and full-strength excise data have been adjusted by the ABS to account for reporting errors in beer strength classification.

Source: ABS 2004a.

## 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 (from July 2000) and business franchise fees, which effectively ceased in 1997. Information on sales tax and goods and services tax, however, is not available at the commodity level.

The net government revenue associated with alcohol increased from \$2.5 billion in 1996–97 to an estimated \$3.3 billion in 2003–04 (Table 3.6). The amount of revenue raised from excise remained relatively stable over the period 1996–97 to 1999–00. Excise duty for both beer and spirits increased noticeably in 2000–01. The excise duty collected on beer almost doubled that year, due to higher excise rates for beer introduced in 2000–01 to offset the abolition of wholesale sales tax on beer (ATO 2005). While the excise duty collected on beer has remained stable since the large increase experienced in 2000–01, excise duty collected for spirits increased fourfold between 1999–00 and 2003–04. Hence, the share of excise collected from spirits as a component of total alcohol excise collection increased, from 17% in 2001–02 to 29% in 2003–04. 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 reflected in the decrease of customs duty collected from spirits from \$1,074 million in 2000–01 to \$966 million in 2003–04.

The revenue raised from customs duty on imported alcoholic products increased from \$657 million in 1996–97 to \$1,113 million in 2000–01, stabilising around this level in the ensuing 3 years. While revenue resulting from customs duty on imported wine has remained stable during the period from 1996–97 to 2003–04, the revenue from customs duty on imported beer has increased considerably, from \$9 million in 1996–97 to \$72 million in 2003–04.

**Table 3.6: Government revenue from duty paid and state business franchise fees related to the sale of alcohol, Australia, 1996–97 to 2003–04**

Duty	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02	2002–03	2003–04
	(\$m)							
Excise								
Beer	875	876	874	883	1,697	1,657	1,679	1,638
Spirits	164	142	144	155	238	339	560	662
<i>Total excise</i>	<i>1,040</i>	<i>1,018</i>	<i>1,018</i>	<i>1,039</i>	<i>1,934</i>	<i>1,996</i>	<i>2,239</i>	<i>2,300</i>
Customs								
Beer	9	12	14	14	36	45	56	72
Wine	3	4	4	4	3	4	4	5
Spirits	645	717	720	751	1,074	1,062	950	966
<i>Total customs</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>
State franchise taxes <sup>(a)</sup>	774	532	921	973	97	9	10	n.a.
<b>Total</b>	<b>2,471</b>	<b>2,282</b>	<b>2,677</b>	<b>2,781</b>	<b>3,144</b>	<b>3,116</b>	<b>3,259</b>	<b>3,343</b> <sup>(b)</sup>

(a) In August 1997 the High Court determined that state business franchise taxes are an excise and cannot be imposed by the states and territories. Since then, the Australian Government has been collecting the tax on behalf of the states and territories as an equivalent amount of additional sales tax.

(b) Excludes state franchise taxes which were not available at the time of publication.

Note: Excise data for years 1996–97 to 2001–02 have been updated since *Statistics on Drug Use in Australia 2002* was published.

Sources: ABS 2004d; ATO 2005; Australian Bureau of Statistics, unpublished data.

# 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 ecstasy and related drugs (ERDs), which includes data sourced from the 2004 NDSHS and the Party Drugs Initiative (PDI) study.

## 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 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/amphetamines (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/amphetamines, 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/amphetamines 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> (per cent)	Mean age of initiation (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: National Drug Strategy Household Survey 2004.

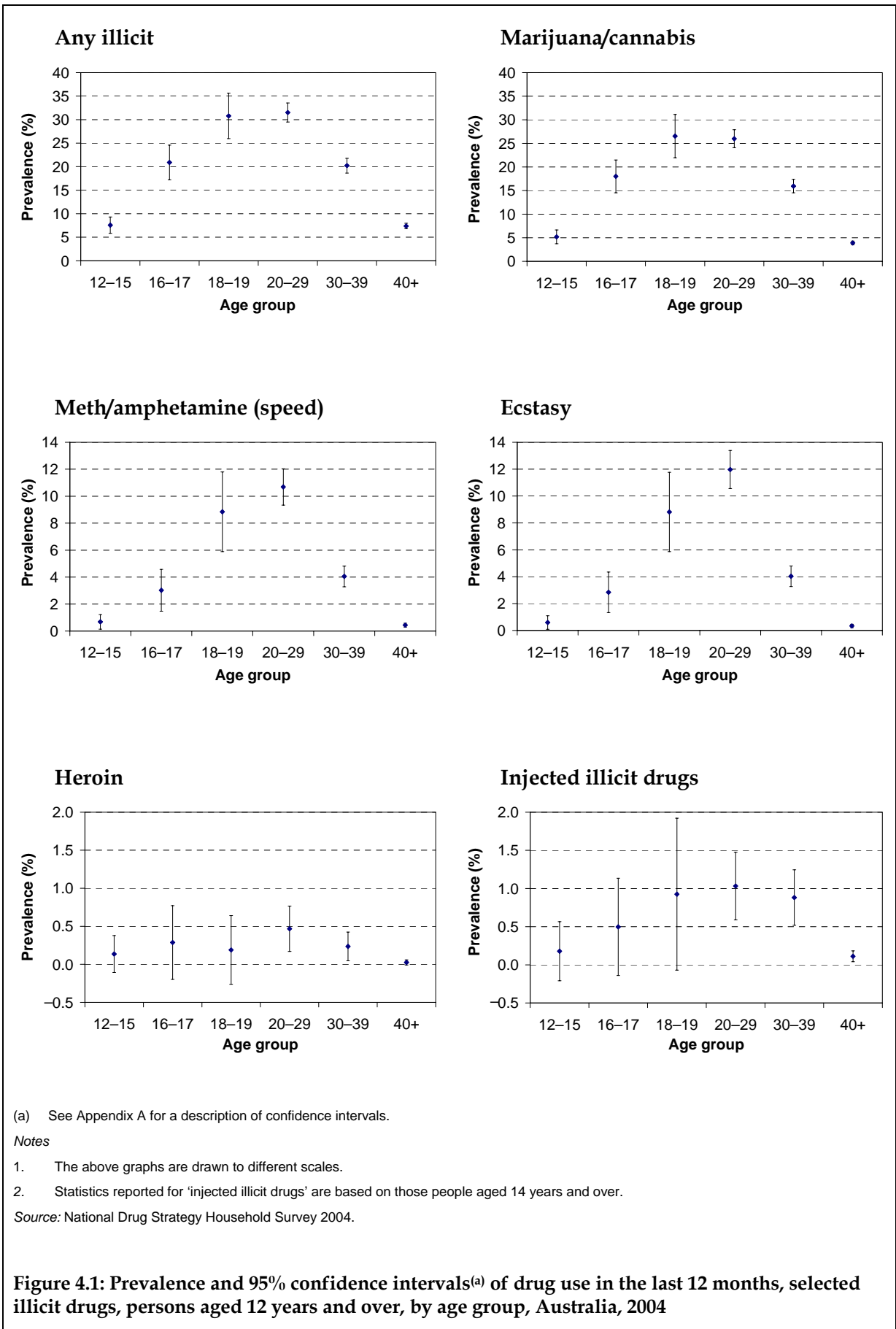
## Recent illicit drug use by age

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 ten used meth/amphetamines in the last 12 months. Similar proportions of persons aged 18–19 years had recently used ecstasy and meth/amphetamines, 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.



**Figure 4.1: Prevalence and 95% confidence intervals<sup>(a)</sup> 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 a similar level in 2004 (15%) to the prevalence in 1993 (14%) (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 has 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**

Substance/behaviour	1991	1993	1995	1998	2001	2004
	(per cent)					
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; National Drug Strategy Household Survey 1995, 1998, 2001, 2004.

## Marijuana/cannabis use

Patterns of marijuana/cannabis use by age group and sex in this section are sourced from the 2004 NDSHS. Among persons who used marijuana/cannabis in the previous 12 months, about half (49%) used marijuana/cannabis less often than once a month (Table 4.3). At the other end of the spectrum, 16% of marijuana/cannabis users used the substance every day. Males generally used marijuana/cannabis more frequently compared with females.

Among males and females, those aged 30–39 years in 2004 were most likely to use marijuana/cannabis every day compared with those in other age groups.

**Table 4.3: Frequency of marijuana/cannabis use: proportion of recent<sup>(a)</sup> users aged 12 years and over, by age group and sex, Australia, 2004**

Age group	Frequency of marijuana/cannabis use			
	Every day	Once a week or more	About once a month	Less often
(per cent)				
<b>Males</b>				
12–19	7.5	21.9	17.0	53.6
20–29	17.6	22.1	11.8	48.5
30–39	22.6	25.9	11.4	40.1
40+	20.4	24.7	9.7	45.2
<b>All ages</b>	<b>18.1</b>	<b>23.6</b>	<b>12.0</b>	<b>46.3</b>
<b>Females</b>				
12–19	9.8	19.4	10.5	60.3
20–29	12.6	18.8	11.1	57.6
30–39	18.5	22.1	14.8	44.7
40+	12.5	28.5	12.3	46.7
<b>All ages</b>	<b>13.3</b>	<b>21.3</b>	<b>12.0</b>	<b>53.4</b>
<b>Persons</b>				
12–19	8.6	20.7	14.0	56.8
20–29	15.7	20.9	11.5	51.9
30–39	21.2	24.6	12.6	41.7
40+	17.8	26.0	10.5	45.7
<b>All ages</b>	<b>16.3</b>	<b>22.7</b>	<b>12.0</b>	<b>48.9</b>

(a) Used in the last 12 months.

Source: National Drug Strategy Household Survey 2004.

## Ecstasy and related drugs (ERDs) use

The term ‘ecstasy and related drugs’ is used in this report to describe a range of illicit substances including ecstasy, meth/amphetamines, cocaine, ketamine and GHB. ‘Party drugs’ is a common term used to describe these drugs that are used in connection with dance party, rave and nightclub settings. Some feel the term ‘party drugs’ is problematic as it may be seen to glamorise, condone or encourage drug use (Whiteaker 2004).

Chemical analysis has demonstrated that there is sometimes more than one illicit substance present in supposed ERDs tablets (Quinn et al. 2004). Since 1997, the Victoria Police Forensic Services Department Chemical Drugs Intelligence Team has maintained a database on drug seizures, and found that many tablets seized were multi-drug containing tablets, and that the quantity and mix of drugs can vary from week to week and year to year. In 2002, for tablets analysed where ecstasy was identified as the primary substance, 70% of tablets contained ecstasy only, 28% also contained meth/amphetamine, 1% also contained ketamine and 1% also contained ephedrine(s). For tablets analysed where meth/amphetamine was identified as the primary drug, 71% contained meth/amphetamine only, 10% also contained ketamine, 2% also contained caffeine, and 15% also contained other substances (Quinn et al. 2004). This variation should be kept in mind when interpreting tables on ERDs use, as users may not be aware whether or not they used single or multi-drug containing tablets. More information on purity of drug seizures is contained in Chapter 10.

## Summary of ERDs use

The prevalence of ERDs use among young Australians, sourced from the 2004 NDSHS, is presented in Table 4.4. Due to small sample sizes related to low prevalence in some age groups, the data are subject to relatively high standard errors (see Appendix A).

The prevalence of ERDs use increased with age for persons aged between 12 and 24 years. While no more than 1% of 12–15-year-olds had ever used each of the substances listed in Table 4.4, approximately one in five 20–24-year-olds had ever used each of meth/amphetamines and ecstasy, 7% had ever used cocaine, and 3% had ever used ketamine. The patterns of use of ecstasy and meth/amphetamines by young people aged between 12 and 24 years were relatively similar in 2004, with 11% having used each substance in their lifetime, and 7% having used each substance in the last 12 months.

**Table 4.4: ERDs use, by age group and selected drug type, persons aged 12–24 years, Australia, 2004**

Drug type/usage	Age group				Total aged 12–24
	12–15	16–17	18–19	20–24	
	(per cent)				
Meth/amphetamine (speed) <sup>(a)</sup>					
Ever used <sup>(b)</sup>	0.9	4.5	13.5	20.0	11.0
Recent use <sup>(c)</sup>	0.7	3.0	8.8	11.4	6.6
Use in last month <sup>(d)</sup>	0.6 *	1.0	3.8	4.5	3.1
Cocaine					
Ever used <sup>(b)</sup>	0.6	1.1	3.8	6.8	3.6
Recent use <sup>(c)</sup>	0.2 *	0.8	1.8	2.8	1.6
Use in last month <sup>(d)</sup>	0.4 *	0.4 *	0.7 *	0.8	0.6
Ecstasy					
Ever used <sup>(b)</sup>	0.9	4.0	12.7	21.0	11.3
Recent use <sup>(c)</sup>	0.6	2.8	8.8	13.0	7.2
Use in last month <sup>(d)</sup>	0.2 *	1.3	3.8	6.1	3.3
Ketamine					
Ever used <sup>(b)</sup>	0.1 *	0.4 *	1.7	3.4	2.0
Recent use <sup>(c)</sup>	—	—	1.0	0.9	0.6
Use in last month <sup>(d)</sup>	—	—	—	0.1 *	0.1 *
GHB					
Ever used <sup>(b)</sup>	0.2 *	0.5 *	1.0	1.4	1.0
Recent use <sup>(c)</sup>	0.1 *	0.2 *	0.6 *	0.4	0.4
Use in last month <sup>(d)</sup>	0.1 *	0.2 *	0.1 *	0.1 *	0.1 *
Any ERDs <sup>(e)</sup>					
Ever used <sup>(b)</sup>	1.6	6.7	16.5	25.6	14.3
Recent use <sup>(c)</sup>	1.1	4.5	12.9	16.2	9.5
Use in last month <sup>(d)</sup>	0.6	2.3	6.0	8.0	4.6

\* Relative Standard Error > 50%.

(a) For non-medical purposes.

(b) Used at least once in lifetime.

(c) Use of the substance at least once in the previous 12 months.

(d) Use of the substance at least once in the previous month. Questions on use in the last month of meth/amphetamines, cocaine, ketamine and GHB were not asked of persons aged 12–13 years.

(e) Includes any of meth/amphetamines, cocaine, ecstasy, ketamine and GHB, except 'Use in the last month' for persons aged 12–13 years, which only includes ecstasy.

Notes: Statistics reported for ketamine and GHB are based on those people aged 14 years and over.

Source: National Drug Strategy Household Survey 2004.

Recent and lifetime use of ketamine and GHB were generally much lower compared with other ERDs.

Reflecting the patterns described above, 20–24-year-olds were more than ten times more likely to have used one or more ERDs either in their lifetime or in the last 12 months compared with 12–15-year-olds. Approximately one in eight 20–24-year-olds had recently used ecstasy in 2004 and approximately one in ten had recently used meth/amphetamines. In 2004 there was evidence of polydrug use among young people who used ERDs, with 10% of 12–24-year-olds having used any ERDs in the last 12 months – in the same time period, 7% had used each of ecstasy and meth/amphetamines, 2% had used cocaine and 1% had used ketamine.

## **Patterns of ERDs use**

Information in this section is sourced from the Party Drugs Initiative (PDI). The PDI is coordinated by the National Drug and Alcohol Research Centre (NDARC) to monitor ERDs markets in Australia.

For the purposes of the study, ERDs include drugs that are routinely used in the context of entertainment venues including nightclubs, dance parties, pubs and music festivals. This group of drugs includes ecstasy (MDMA), meth/amphetamines, cocaine, LSD, ketamine, MDA and GHB.

It is important to note that the results from the PDI surveys are not representative of ERDs use in the general population, as this is not the aim of the project. The data are intended to provide evidence that is indicative of emerging issues that warrant further monitoring (Breen et al. 2004b).

In 2004 more than 850 ecstasy users across Australian capital cities were surveyed for the PDI. Their patterns of ecstasy use by age group and sex are presented in Table 4.5. Overall, the median age of first use of ecstasy was 18 years. The majority of respondents reported that they use other drugs with ecstasy, with 99% of males aged 25–29 years stating this. Older ecstasy users were more likely to have ever injected ecstasy compared with younger ecstasy users. The tendency to use ecstasy weekly or more often generally increased with age, with over half of respondents aged 40 years and over reporting weekly or more use. Patterns of ecstasy use did not vary a lot by sex, though males aged 16–17 years appeared more likely to use ecstasy weekly or more compared with females of the same age.

**Table 4.5: Regular ecstasy users<sup>(a)</sup>: patterns of ecstasy use, by age group and sex, persons aged 16 years and over, Australia, 2004**

Pattern of use	Age group						Total
	16–17	18–19	20–24	25–29	30–39	40+	
	(per cent)						
	<b>Males</b>						
Median age first use	15	17	18	19	24	34	18
Use ecstasy weekly or more	23	40	39	36	41	50	37
Ever injected ecstasy	—	7	7	19	28	23	13
Use other drugs with ecstasy	85	88	91	99	92	86	92
	<b>Females</b>						
Median age first use	15	16	18	19	25	37	18
Use ecstasy weekly or more	10	44	38	30	20	63	35
Ever injected ecstasy	—	6	8	29	23	25	14
Use other drugs with ecstasy	90	91	94	96	97	75	94
	<b>Persons</b>						
Median age first use	15	17	18	19	24	35	18
Use ecstasy weekly or more	17	42	39	34	33	53	37
Ever injected ecstasy	—	7	8	23	26	23	13
Use other drugs with ecstasy	87	89	93	98	94	83	93

(a) Used ecstasy at least six times in the last 6 months.

Source: National Drug and Alcohol Research Centre, unpublished data.

Patterns of ecstasy use by use location showed little difference in 2004, except for the likelihood of 'ever injecting ecstasy', which was 8% among users in public places, compared with 21% among users in private places (Table 4.6). According to the PDI investigators, there is an increasing trend within the user population to use ERDs in private settings, which may place users at even greater risk of harm (Pollard 2004).

**Table 4.6: Regular ecstasy users<sup>(a)</sup>: patterns of ecstasy use, by use location, 2004**

Pattern of use	Use location		Total
	Public <sup>(b)</sup>	Private <sup>(c)</sup>	
	(per cent)		
Median age first use	18	18	18
Use ecstasy weekly or more	36	39	37
Ever injected ecstasy	8	21	13
Use other drugs with ecstasy	93	92	93

(a) Used ecstasy at least six times in the last 6 months.

(b) Includes saunas, nightclubs, pubs, restaurants/cafés, public place (street/park), raves/doofs/dance parties, car/vehicle (passenger), car/vehicle (driver), outdoors (e.g. beach, bushwalking, camping), live music event, work, sports event, football club, university and gay beats.

(c) Includes own home, dealers', acquaintance and friends' home, private party, hotel and wedding.

Source: National Drug and Alcohol Research Centre, unpublished data.

# 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:

- Health Insurance Commission records of prescriptions submitted for payment of a subsidy under the Pharmaceutical Benefits and Repatriation Pharmaceutical Benefits Schemes (PBS/RPBS); and
- 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. An estimated 81% of all community prescriptions (that is, non-public hospitals) were dispensed under the PBS/RPBS in 2003.

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.

The chapter also contains information on people's use of another person's medication when feeling unwell, sourced from the 2004 NDSHS.

## Top 10 prescription medicines

In 2003, approximately 220.1 million prescriptions were dispensed through community pharmacies. This represented an increase of 2% over the previous year and 5% over the period 2001–03. Results from the AIHW Bettering the Evaluation and Care of Health (BEACH) survey indicate that Australian general practitioners (GPs) prescribed over 77 million medications (not including repeats) in 2003–04 (Britt et al. 2004:52).

### By volume

The top 10 medicines by number of prescriptions issued from community pharmacies accounted for 44.7 million prescriptions in 2003, which represented 20% of all community prescriptions issued that year (Table 5.1). The majority (88%) of the volume associated with the top 10 prescription medicines dispensed at community pharmacies were prescriptions covered by the PBS/RPBS.

In 2003, 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 distributed through the PBS/RPBS. 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, 2003**

Drug (action)	PBS/RPBS	Pharmacy Guild Survey	Total community use
		(Prescriptions '000)	
Atorvastatin (blood lipid-reducing)	6,600	12	6,613
Simvastatin (blood lipid-reducing)	5,709	6	5,714
Paracetamol (analgesic)	4,633	91	4,724
Omeprazole (anti-ulcer)	4,546	12	4,558
Amoxicillin (antibiotic)	2,333	2,061	4,394
Salbutamol (bronchodilator)	3,267	1,095	4,362
Atenolol (anti-hypertensive)	3,054	793	3,846
Codeine with paracetamol (strong analgesic)	2,700	1,090	3,790
Celecoxib (anti-inflammatory)	3,373	32	3,405
Irbesartan (anti-hypertensive)	3,212	73	3,285

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

## By cost to the Australian Government

The top two drugs ranked by cost to the Australian Government in 2003 were also the two drugs with the highest volume of prescriptions: the cholesterol-lowering drugs Atorvastatin and Simvastatin. In 2003, Atorvastatin and Simvastatin cost the Australian Government \$364 million and \$342 million respectively (Table 5.2). The sum of the 10 drugs ranked in Table 5.2 cost the Australian Government \$1.7 billion in 2003. The schizophrenia treatment drug Olanzapine was ranked fifth 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, 2003**

Drug (action)	Number of prescriptions	Cost to Australian Government
	('000)	(\$m)
Atorvastatin (blood lipid-reducing)	6,600	364
Simvastatin (blood lipid-reducing)	5,709	342
Omeprazole (anti-ulcer)	4,546	200
Salmeterol and fluticasone (bronchodilator)	2,583	159
Olanzapine (antipsychotic)	707	148
Pravastatin (lipid reduction)	2,047	120
Clopidogrel (anti-coagulant)	1,431	114
Rofecoxib (anti-inflammatory)	3,032	95
Alendronic acid (osteoporosis prevention and treatment)	1,801	93
Esomeprazole (anti-ulcer)	1,833	92

Source: Drug Utilization Subcommittee of the Pharmaceutical Benefits Advisory Committee—Drug Utilization 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 2003 (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 the top 10 ranked by cost to government (Table 5.2). These included three drugs normally prescribed for blood pressure reduction: Diltiazem hydrochloride, Ramipril, and Irbesartan with hydrochlorothiazide.

**Table 5.3: Top 10 prescription medicines issued through community pharmacies by defined daily dose<sup>(a)</sup>, Australia, 2003**

Drug (action)	PBS/RPBS	Pharmacy Guild Survey (DDD) <sup>(a)</sup>	Total community use
Atorvastatin (blood lipid-reducing)	72.1	0.1	72.2
Simvastatin (blood lipid-reducing)	46.9	—	47.0
Diltiazem hydrochloride (anti-angina and anti-hypertensive)	38.2	0.2	38.4
Ramipril (anti-hypertensive)	29.0	0.6	29.6
Salbutamol (bronchodilator)	20.0	7.6	27.6
Omeprazole (anti-ulcer)	21.7	0.1	21.7
Frusemide (diuretic)	19.2	1.2	20.4
Irbesartan with hydrochlorothiazide (anti-hypertensive)	19.2	—	19.3
Irbesartan (anti-hypertensive)	18.8	0.2	19.0
Aspirin (analgesic, anti-coagulant)	16.7	1.1	17.7

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

Source: Drug Utilization Subcommittee of the Pharmaceutical Benefits Advisory Committee—Drug Utilization 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 2003, the most widely prescribed class of drug was for the cardiovascular system (59 million prescriptions), followed by drugs that affect the central nervous system (42 million prescriptions) (Table 5.4). As a proportion of all prescriptions, those for the cardiovascular system increased from 25% in 2001 to 27% in 2003. 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 2003**

ATC group	PBS/RPBS			Pharmacy Guild Survey			Total community		
	2001	2002	2003	2001	2002	2003	2001	2002	2003
		(m)			(m)			(m)	
Alimentary <sup>(a)</sup>	19.4	21.5	22.7	3.2	3.1	2.9	22.6	24.6	25.6
Cardio <sup>(b)</sup>	49.3	52.8	55.6	3.4	3.4	3.6	52.7	56.1	59.2
Anti-infectives <sup>(c)</sup>	13.2	12.8	12.6	11.0	10.0	9.2	24.2	22.8	21.8
Central nervous <sup>(d)</sup>	33.3	34.2	35.2	7.6	7.5	7.2	40.9	41.7	42.4
Respiratory <sup>(e)</sup>	11.4	11.2	10.8	3.2	3.5	3.3	14.6	14.6	14.2
Other <sup>(f)</sup>	38.0	40.5	41.1	17.5	16.3	15.9	55.5	56.7	56.9
<b>Total source</b>	<b>164.5</b>	<b>173.0</b>	<b>178.1</b>	<b>46.0</b>	<b>43.6</b>	<b>42.0</b>	<b>210.5</b>	<b>216.6</b>	<b>220.1</b>

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

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

(c) Anti-infectives includes antibiotics.

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

(e) Respiratory includes anti-asthmatic drugs.

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

Note: Data for 2001 have been updated since *Statistics on Drug Use in Australia 2002* was published.

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

## Use of someone else's prescribed medication

The 2004 NDSHS asked respondents whether or not they had ever used medication prescribed or recommended for another person when they were feeling unwell. Around 2.2 million Australians (about 13% of the population) aged 14 and over had ever done so.

Of those people that had used someone else's prescribed or recommended medication, half had used someone else's painkillers at least once in the previous 12 months (Table 5.5). The second most commonly used medication was antibiotics (18%). There were no large differences between the sexes in the proportions of people using various medications.

The majority of people (86%) who had ever used another person's prescribed/recommended medication had done so in the last 12 months.

**Table 5.5: Use of someone else's prescribed medication<sup>(a)</sup>, by sex, persons aged 14 years and over, 2004**

Type of drug	Males	Females (per cent)	Persons
Painkillers/analgesics	53.1	47.8	50.4
Antibiotics	17.8	17.9	17.8
Anti-depressants	2.2	2.3	2.3
Tranquillisers/sleeping pills	10.6	8.5	9.5
Asthma medication	14.2	15.9	15.1
Herbal and alternative medicines	14.0	15.8	14.9
Others	9.5	10.7	10.1
None in the last 12 months	13.4	14.6	14.0

(a) Used in the last 12 months.

*Notes*

1. Base equals those who had used medication prescribed or recommended for another person.
2. Respondents could select more than one response.

Source: National Drug Strategy Household Survey 2004.

# 6 International comparisons

## Introduction

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 chapter presents data on licit and illicit drug use for selected countries.

## Tobacco

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 6.1).

All countries included in Table 6.1 have seen a decline in the prevalence of daily smoking from 1973 to 2003, 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 lowest of all countries in the OECD in terms of the prevalence of daily smoking.

**Table 6.1: Prevalence of daily smoking, population aged 15 years and over, selected countries, 1973 to 2003**

Country	1973	1983	1993	2003
Netherlands	55.0 <sup>2</sup>	42.0	36.0	34.0 <sup>2</sup>
Hungary	n.a.	34.5 <sup>3</sup>	35.5 <sup>1</sup>	33.0 <sup>3</sup>
Korea	n.a.	n.a.	34.7 <sup>1</sup>	30.4 <sup>2</sup>
Japan	46.7	39.8	36.8	30.3
Belgium	n.a.	37.3	25.0	29.0 <sup>1</sup>
France	n.a.	30.0 <sup>3</sup>	29.0	28.6 <sup>1</sup>
Ireland	45.6	34.5 <sup>2</sup>	28.5	n.a.
Denmark	54.5	48.5	42.0	28.0
Austria	27.7 <sup>1</sup>	30.1 <sup>3</sup>	27.5 <sup>2</sup>	n.a.
United Kingdom	46.0	35.0 <sup>1</sup>	28.0 <sup>1</sup>	27.0 <sup>2</sup>
Luxembourg	n.a.	n.a.	33.0 <sup>1</sup>	26.0 <sup>1</sup>
Norway	41.0	37.0	37.0	26.0
New Zealand	36.0 <sup>3</sup>	33.0	27.0	25.0 <sup>1</sup>
Italy	n.a.	31.7	25.7	24.1 <sup>2</sup>
Czech Republic	n.a.	n.a.	26.1	24.1 <sup>1</sup>
Germany	n.a.	n.a.	23.7 <sup>1</sup>	n.a.
Iceland	n.a.	n.a.	26.6	22.4
Finland	n.a.	24.9	23.9	22.2
United States	37.6 <sup>1</sup>	32.3	20.4	18.4 <sup>1</sup>
Canada	39.0 <sup>1</sup>	31.2	25.5 <sup>1</sup>	18.0 <sup>1</sup>
Sweden	n.a.	29.0	23.3	17.8 <sup>1</sup>
<b>Australia</b>	<b>37.8<sup>1</sup></b>	<b>35.4</b>	<b>26.0<sup>1</sup></b>	<b>17.7<sup>1</sup></b>

*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.

Sources: OECD Health Data 2004; National Drug Strategy Household Survey 2004.

A similar pattern across countries was observed for per capita consumption of tobacco, ranging from 3,600 grams per capita (aged 15 years and over) in Greece down to 1,000 grams in Finland (Table 6.2). Unlike prevalence, not all countries have seen a reduction in consumption, with notable increases in Greece and Germany 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 2002:5). 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 6.2: Tobacco consumption, grams per capita, population aged 15 years and over, selected countries, 1973 to 2003**

Country	1973	1983	1993	2003
Greece	n.a.	n.a.	3,406 <sup>1</sup>	3,624 <sup>3</sup>
Japan	2,696 <sup>2</sup>	2,519 <sup>1</sup>	3,326	n.a.
Netherlands	3,280	3,823	2,589	2,319 <sup>2</sup>
Italy	2,349	n.a.	n.a.	n.a.
Korea	n.a.	n.a.	2,284	n.a.
Belgium	3,787	3,288	2,253	n.a.
Austria	2,671	2,682	2,157	n.a.
Turkey	1,368	1,353	2,169	2,074
Germany	2,395	2,044	1,892	2,041 <sup>3</sup>
France	n.a.	2,303 <sup>1</sup>	2,191	1,852 <sup>1</sup>
Hungary	2,750	2,777	1,971	1,795 <sup>2</sup>
Ireland	n.a.	1,801 <sup>2</sup>	1,735	n.a.
Sweden	1,920	2,040	1,627	n.a.
Iceland	2,832	2,979	2,186	1,618
United States	3,593	2,808	2,132	1,588 <sup>1</sup>
Denmark	2,249	1,960	1,756	1,522 <sup>1</sup>
Canada	3,225	2,781	1,185	1,432 <sup>2</sup>
Norway	2,110	1,945	1,768	1,313
<b>Australia</b>	<b>3,322</b>	<b>2,540</b>	<b>1,703</b>	<b>1,269<sup>2</sup></b>
United Kingdom	2,810	2,521	1,747	1,225 <sup>1</sup>
New Zealand	3,113	2,769	1,527	1,187 <sup>1</sup>
Finland	n.a.	1,457	1,241	1,012 <sup>1</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 Health Data 2004.

## Alcohol

Alcohol consumption is highly prevalent in many countries of the world, and 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 2002, Luxembourg reported the highest per capita consumption of pure alcohol, at 11.9 litres per person – largely driven by their high consumption of wine and beer (Table 6.3). Among the top 45 countries listed, there is least variation in the per capita consumption of beer, ranging from 155.0 litres per capita in the Czech Republic to 20.0 litres in Guyana. This compares with a more than 50-fold variation in wine consumption, ranging from 59.1 litres per capita in Luxembourg to 1.1 litres per capita in Singapore.

Australia ranked 23rd 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 around 92 litres of beer, 21 litres of wine and 1 litre of pure alcohol from spirits.

**Table 6.3: Per capita consumption of alcoholic beverages, selected countries<sup>(a)</sup>, 2002<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	11.9	Czech Republic	155.0	Luxembourg	59.1	Russia	6.2
2	Hungary	11.1	Republic of Ireland	147.1	France	56.0	Latvia	5.7
3	Republic of Ireland	10.8	Germany	121.5	Italy	51.0	Cyprus	4.3
4	Czech Republic	10.8	Austria	109.3	Portugal	43.0	Czech Republic	3.7
5	Germany	10.4	Luxembourg	108.2	Switzerland	41.8	Slovak Republic	3.5
6	France	10.3	United Kingdom	100.6	Argentina	36.1	Hungary	3.4
7	Portugal	9.7	Denmark	96.7	Hungary	36.0	Japan	3.3
8	Spain	9.6	Belgium	96.0	Greece	33.9	Thailand	3.2
9	United Kingdom	9.6	<b>Australia</b>	<b>92.4</b>	Uruguay	32.8	China	3.0
10	Denmark	9.5	Slovak Republic	92.3	Denmark	32.0	Republic of Ireland	2.5
11	Austria	9.2	USA	82.0	Austria	29.8	Romania	2.5
12	Cyprus	9.1	Finland	81.2	Spain	29.6	France	2.4
13	Switzerland	9.0	Venezuela	81.2	Romania	25.3	Spain	2.4
14	Slovak Republic	8.8	Netherlands	79.2	Germany	24.2	Bulgaria	2.1
15	Russia	8.6	New Zealand	77.8	Finland	23.5	Canada	2.1
16	Romania	8.5	Spain	73.4	Bulgaria	21.3	Finland	2.1
17	Netherlands	8.0	Estonia	71.0	<b>Australia</b>	<b>20.6</b>	Germany	2.0
18	Belgium	7.9	Hungary	70.9	Malta	20.5	USA	1.9
19	Greece	7.8	Poland	70.7	United Kingdom	19.6	Greece	1.8
20	Latvia	7.7	Canada	69.9	Netherlands	19.0	Guyana	1.8
21	Finland	7.7	Romania	59.0	New Zealand	18.9	Chile	1.7
22	Italy	7.4	Portugal	58.6	Belgium	17.0	Colombia	1.7
23	<b>Australia</b>	<b>7.3</b>	Sweden	55.9	Cyprus	16.9	Poland	1.7
24	New Zealand	6.9	Switzerland	55.5	Czech Republic	16.5	United Kingdom	1.7
25	Canada	6.9	South Africa	55.0	Sweden	16.0	Netherlands	1.7
26	USA	6.7	Cyprus	55.0	Chile	15.7	Luxembourg	1.6
27	Poland	6.6	Norway	51.6	Slovak Republic	13.9	Switzerland	1.6
28	Japan	6.5	Iceland	50.7	Republic of Ireland	12.6	Brazil	1.5
29	Argentina	6.3	Brazil	49.1	Poland	11.2	Cuba	1.5
30	Estonia	6.2	Mexico	47.6	Norway	11.0	New Zealand	1.4
31	Uruguay	5.9	Colombia	42.8	Iceland	11.0	Austria	1.4
32	Bulgaria	5.4	Paraguay	42.5	Canada	10.5	Estonia	1.4
33	Iceland	5.0	Malta	40.3	South Africa	9.0	Portugal	1.4
34	Sweden	4.9	Greece	39.0	USA	8.8	Belgium	1.2
35	Chile	4.9	Latvia	36.0	Russia	8.0	Iceland	1.2
36	Malta	4.9	France	34.8	Latvia	4.0	<b>Australia</b>	<b>1.2</b>
37	Venezuela	4.8	Argentina	34.0	Tunisia	2.8	Denmark	1.1
38	South Africa	4.7	Japan	32.6	Japan	2.8	Uruguay	1.0
39	Norway	4.4	Russia	31.1	Estonia	2.7	Sweden	1.0
40	Thailand	4.3	Italy	28.2	Brazil	1.9	South Africa	0.9
41	Brazil	4.2	Taiwan	26.3	Cuba	1.8	Malta	0.8
42	Colombia	3.9	Chile	26.0	Morocco	1.4	Norway	0.8
43	China	3.8	Thailand	22.4	Paraguay	1.4	Mexico	0.7
44	Taiwan	3.1	Singapore	22.4	Peru	1.1	Venezuela	0.7
45	Mexico	3.1	Guyana	20.0	Singapore	1.1	Taiwan	0.6

(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 2004.



The pattern of change over time in per capita alcohol consumption varies amongst the OECD countries (Table 6.4). 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 21st century. A few countries, notably Ireland and the United Kingdom, 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 6.4: Alcohol consumption, litres of pure alcohol per capita, population aged 15 years and over, selected countries, 1963 to 2003**

Country	1963	1973	1983	1993	2003
Luxembourg	10.4 <sup>2</sup>	12.7 <sup>2</sup>	12.4 <sup>2</sup>	15.3	14.9 <sup>3</sup>
Ireland	5.2	8.2	8.0	11.2	14.3 <sup>1</sup>
Hungary	8.6	11.9	14.5	13.1	13.4 <sup>2</sup>
Portugal	19.6	16.8	17.8	15.0	13.0 <sup>3</sup>
Czech Republic	n.a.	n.a.	12.2	11.5	11.9 <sup>1</sup>
Spain	14.5	19.0	17.0	12.0	11.7 <sup>3</sup>
Austria	12.0	16.1	12.6	12.3	11.3 <sup>3</sup>
Denmark	5.9	10.9	12.8	11.7	11.2 <sup>1</sup>
United Kingdom	6.1 <sup>2</sup>	8.7	9.1	9.3	11.1 <sup>1</sup>
Switzerland	13.1	15.0	13.6	12.1	10.8 <sup>1</sup>
France	n.a.	17.2	15.1	11.5	10.5 <sup>3</sup>
Germany	10.2 <sup>2</sup>	14.8	14.3	11.2	10.4 <sup>1</sup>
Belgium	9.6	13.3	13.8	11.7	10.2 <sup>3</sup>
<b>Australia</b>	<b>9.8</b>	<b>13.0</b>	<b>12.3</b>	<b>10.0</b>	<b>9.8</b>
Greece	n.a.	10.9 <sup>3</sup>	12.3	11.1	9.4 <sup>3</sup>
Finland	3.1	7.4	7.9	8.4	9.2 <sup>1</sup>
New Zealand	5.8 <sup>2</sup>	11.3	10.6	9.6	9.2 <sup>1</sup>
Slovak republic	8.1	13.7	14.2	12.1	8.8 <sup>1</sup>
Italy	16.6 <sup>3</sup>	15.3 <sup>2</sup>	12.6	10.2	8.7 <sup>3</sup>
Poland	6.3 <sup>2</sup>	8.0 <sup>2</sup>	8.6	8.4	8.5 <sup>3</sup>
United States	8.1	9.9	10.2	8.4	8.3 <sup>3</sup>
Japan	5.9 <sup>2</sup>	7.6 <sup>2</sup>	8.6 <sup>2</sup>	8.8	8.2 <sup>3</sup>
Canada	7.4	10.3	10.9	7.5	7.8 <sup>2</sup>
Sweden	5.1	7.0	6.1	6.2	7.0
Iceland	3.0	4.1	4.4	4.5	6.5 <sup>1</sup>
Norway	3.6	5.1	4.9	4.6	5.9 <sup>1</sup>
Mexico	n.a.	n.a.	4.1	5.2	4.6 <sup>3</sup>
Turkey	0.8	1.6	1.6	1.6	1.5

*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.

Sources: OECD Health Data 2004; ABS 2004a.

## Illicit drugs

The data presented in the following table relate to the use of marijuana/cannabis, amphetamines, 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 2004).

The levels and patterns of illicit drug use in the selected English-speaking countries vary considerably (Table 6.5). Marijuana/cannabis use in the last 12 months was most prevalent in Australia and New Zealand (15% and 13% respectively), and least prevalent in Ireland (9%). Ecstasy use was most prevalent in Australia and Ireland (each 3%), and cocaine use was most common in the USA (3%).

**Table 6.5: Annual prevalence of substance use as a percentage of the population aged 15–64 years, selected countries, selected years from 1996 to 2003<sup>(a)</sup>**

Country	Marijuana/ cannabis	Ecstasy	Amphetamines (per cent)	Cocaine	Opiates
Australia	15.0	3.4	4.0	1.5	0.6
New Zealand	13.4	2.2	3.4	0.5	0.7
Republic of Ireland	9.0	3.4	1.6	2.4	0.6
United Kingdom	10.6	2.0	1.6	2.1	0.7
USA	11.0	1.3	1.4	2.5	0.6

(a) Australia 2001; New Zealand 2001; Ireland 1996 and 2000; United Kingdom 2000 and 2003; United States of America 2000 and 2002.

Note: Population aged 15–64 years except: Ireland 18+ for marijuana/cannabis, ecstasy and cocaine; United Kingdom 16–59 for cocaine, amphetamines, ecstasy and marijuana/cannabis; United States of America 12+.

Source: UNODC 2004.

# 7 Drugs and health

## Introduction

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

## Mental health

### Psychological distress and patterns of drug use

The Kessler Psychological Distress Scale (K10) was developed for screening populations on psychological distress. The scale consists of 10 questions on non-specific psychological distress and relates to the level of anxiety and depressive symptoms a person may have experienced in the preceding 4-week period.

The K10 questions were included in the 2004 NDSHS, enabling investigation of correlations between psychological distress and patterns of substance use.

In 2004, approximately two in three people aged 18 years and over had low levels of reported psychological distress (71% of males and 66% of females) (Table 7.1). Overall, females (11%) were more likely than males (9%) to have high or very high levels of psychological distress.

Among males and females, smokers were approximately twice more likely than non-smokers to report high or very high levels of psychological distress.

Males and females that consumed alcohol at risky and high risk levels for long-term harm were more likely to report high or very high levels of psychological distress than abstainers or persons who drank at low risk levels. Female risky and high-risk drinkers (18%) were more likely than male risky and high-risk drinkers (12%) to experience high or very high levels of psychological distress.

Use of marijuana/cannabis in the last month and use of any illicit drug except marijuana/cannabis in the last month were both correlated with high or very high levels of psychological distress for both males and females. For example, approximately one in five males and one in four females who had used an illicit drug other than marijuana/cannabis in the last month reported high or very high levels of psychological distress. The corresponding percentages for males and females who had not used an illicit drug other than marijuana/cannabis in the last month were 8% and 10%.

**Table 7.1: Psychological distress<sup>(a)</sup> by selected drug use patterns, persons aged 18 years and over, by sex, Australia, 2004**

Substance/behaviour	Level of psychological distress <sup>(b)</sup>		
	Low	Moderate	High and very high
		(per cent)	
		<b>Males</b>	
All persons (18+)	70.9	20.6	8.5
Tobacco			
Smoker <sup>(c)</sup>	62.2	24.2	13.5
Non-smoker <sup>(d)</sup>	73.5	19.5	7.0
Risk of alcohol-related harm in the long term			
Risky/high risk	63.6	24.6	11.8
Low risk	71.9	20.2	7.9
Abstainer	70.4	19.9	9.7
Marijuana/cannabis			
Use in the last month <sup>(e)</sup>	52.5	32.5	15.0
Not used in the last month	72.8	19.4	7.8
Any illicit drug other than marijuana/cannabis <sup>(f)</sup>			
Use in the last month <sup>(e)</sup>	47.9	30.8	21.3
Not used in the last month	72.3	20.1	7.7
		<b>Females</b>	
All persons (18+)	66.0	22.9	11.1
Tobacco			
Smoker <sup>(c)</sup>	54.6	26.1	19.3
Non-smoker <sup>(d)</sup>	68.8	22.1	9.1
Risk of alcohol-related harm in the long term			
Risky/high risk	52.8	29.4	17.7
Low risk	66.9	22.6	10.4
Abstainer	69.4	20.6	10.0
Marijuana/cannabis			
Use in the last month <sup>(e)</sup>	44.4	28.1	27.5
Not used in the last month	67.0	22.6	10.3
Any illicit drug other than marijuana/cannabis <sup>(f)</sup>			
Use in the last month <sup>(e)</sup>	43.4	31.8	24.9
Not used in the last month	67.0	22.5	10.4

(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.

(c) 'Smokers' are people who smoke 'daily', 'weekly' or 'less than weekly'.

(d) 'Non-smokers' are 'ex-smokers' or persons who have 'never smoked'.

(e) Use in the last month refers to use of the substance at least once in the previous month.

(f) Excludes other opiates, injecting drug use and marijuana/cannabis.

Source: National Drug Strategy Household Survey 2004.

## **Mental health disorders**

Questions relating to mental health disorders were included in the 2004 NDSHS for the first time, enabling investigation of correlations between prevalence of mental health disorders and patterns of substance use.

Respondents were asked if they had been diagnosed with or treated for mental health disorders in the last 12 months. The association of diagnosis and/or treatment with selected recent and lifetime drug use patterns is presented in Table 7.2.

In 2004, approximately one in ten people aged 18 years and over reported being diagnosed with and/or treated for any mental health disorder in the previous 12 months (10%). Mood disorders (8%) were the most common form of mental health disorders reported, compared with anxiety disorders (4%), and other disorders (1%).

Smokers were more likely than non-smokers to have been diagnosed and/or treated for a mental health disorder, with 14% of smokers and 9% of non-smokers reporting this. Persons who consumed alcohol at risky and high-risk levels for long-term harm were also more likely to have been diagnosed and/or treated for a mental health disorder compared with low-risk drinkers and those who abstained from drinking alcohol.

Compared with those who had not used an illicit drug other than marijuana/cannabis, persons who had used any illicit drug other than marijuana/cannabis, either at least once in their lifetime or in the last 12 months, were approximately twice as likely to have been diagnosed with and/or treated for a mental health disorder. For example, 17% of persons who had used an illicit other than marijuana/cannabis in the last 12 months had been diagnosed and/or treated for a mental health disorder, compared with 9% of non-users.

**Table 7.2: Recent and lifetime drug use: diagnosis and/or treatment<sup>(a)</sup> for selected mental health disorders, persons aged 18 years and over, Australia, 2004**

Substance/behaviour	Any mental health disorder <sup>(b)</sup>			
	Mood disorders <sup>(c)</sup>	Anxiety disorders <sup>(d)</sup>	Other <sup>(e)</sup>	
	(per cent)			
All persons (18+)	9.7	7.9	3.8	1.1
<b>Recent use</b>				
Tobacco				
Smoker <sup>(f)</sup>	14.3	12.3	5.7	2.3
Non-smoker <sup>(g)</sup>	8.5	6.7	3.2	0.8
Risk of alcohol-related harm in the long term				
Risky/high risk	12.9	10.5	5.6	1.8
Low risk	9.2	7.6	3.4	1.0
Abstainer	10.3	8.1	4.2	1.1
Marijuana/cannabis				
Use in the last 12 months <sup>(h)</sup>	15.5	13.0	5.8	2.3
Not used in the last 12 months	9.0	7.3	3.5	1.0
Any illicit drug other than marijuana/cannabis <sup>(i)</sup>				
Use in the last 12 months <sup>(h)</sup>	17.1	14.3	7.0	2.9
Not used in the last 12 months	9.0	7.3	3.4	0.9
<b>Lifetime use</b>				
Tobacco				
Ever smoked <sup>(j)</sup>	12.0	10.0	4.8	1.5
Never smoked <sup>(k)</sup>	7.5	6.0	2.7	0.7
Marijuana/cannabis				
Ever used	12.5	10.5	5.1	1.6
Never used	8.2	6.6	3.0	0.8
Any illicit drug other than marijuana/cannabis				
Ever used	15.3	12.7	6.4	2.2
Never used	8.4	6.8	3.1	0.9

(a) In the last 12 months.

(b) 'Any mental health disorder' includes disorders shown at (c), (d) and (e).

(c) 'Mood disorders' include depression and bipolar disorders.

(d) 'Anxiety disorders' include anxiety disorder, phobias and stress/disorders (including post-traumatic stress disorder).

(e) 'Other' includes other mental health disorders recorded such as substance use disorders, schizophrenia, eating disorders, other forms of psychoses and attention deficit disorders.

(f) 'Smokers' are people who smoke 'daily', 'weekly' or 'less than weekly'.

(g) 'Non-smokers' are 'ex-smokers' or persons who have 'never smoked'.

(h) Use in the last 12 months refers to use of the substance at least once in the previous 12 months.

(i) Excludes other opiates, injecting drug use and marijuana/cannabis.

(j) Smoked at least 100 cigarettes (manufactured and/or roll your own) or the equivalent amount of tobacco in their life.

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

Source: National Drug Strategy Household Survey 2004.

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 sample size is small and not randomly selected, readers are advised to take caution when interpreting the results presented here.

A total of 32% of injecting drug users surveyed for the IDRS in 2004 had visited a health professional for a mental health problem other than drug dependence in the 6 months prior to interview (Table 7.3). Of those respondents, 69% reported that they had visited a health professional regarding depression, and 34% reported visiting a health professional regarding anxiety.

**Table 7.3: Injecting drug users<sup>(a)</sup> attending a health professional for a mental health problem other than drug dependence, by type of mental health problem, 2004**

Mental health problem	(per cent)
Depression	69
Anxiety	34
Drug-induced psychosis	6
Schizophrenia	12
Panic attacks <sup>(b)</sup>	8
Manic depression	5
<b>Total<sup>(c)</sup></b>	<b>32</b>

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

(b) In the questionnaire this is 'panic' rather than 'panic attacks'.

(c) Refers to any attendance to a health professional in the last 6 months, including for other mental health problems not specified in this table.

Note: Total refers to the percentage of the IDRS sample who reported attending a health professional for a mental health problem.

Source: National Drug and Alcohol Research Centre, unpublished data.

## Injecting drug use and communicable disease

Data presented in this section on injecting drug use, hepatitis B and hepatitis C, HIV/AIDS and risky behaviour are sourced from *HIV/AIDS, Viral Hepatitis and Sexually Transmissible Infections in Australia Annual Surveillance Report 2004* (NCHECR 2004) and NCHECR unpublished material.

### Hepatitis B, hepatitis C and injecting drug use

The annual Needle and Syringe Program (NSP) Survey, conducted by the National Centre in HIV Epidemiology and Clinical Research, targets people attending needle and syringe program sites across Australia during a 1-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 2003. While 1% of injecting drug users with an injecting history of less than 5 years self-reported hepatitis B, 13% of users with a history of 10 or more years self-reported hepatitis B infection (Table 7.4).

**Table 7.4: Self-reported prevalence of hepatitis B and prevalence of hepatitis C among injecting drug users, by duration of injecting drug use, 2003**

Duration of injecting drug use	Self-report hepatitis B infection			Tested positive to HCV antibody		
	Males	Females	Total <sup>(a)</sup>	Males	Females	Total <sup>(a)</sup>
	(per cent)					
Less than 3 years	—	—	—	22	21	21
3–5 years	1	2	1	34	44	38
6–10 years	3	1	3	50	60	54
10 or more years	14	12	13	72	76	73
History not reported	1	—	1	35	42	39
<b>Total</b>	<b>18</b>	<b>17</b>	<b>18</b>	<b>57</b>	<b>61</b>	<b>58</b>

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

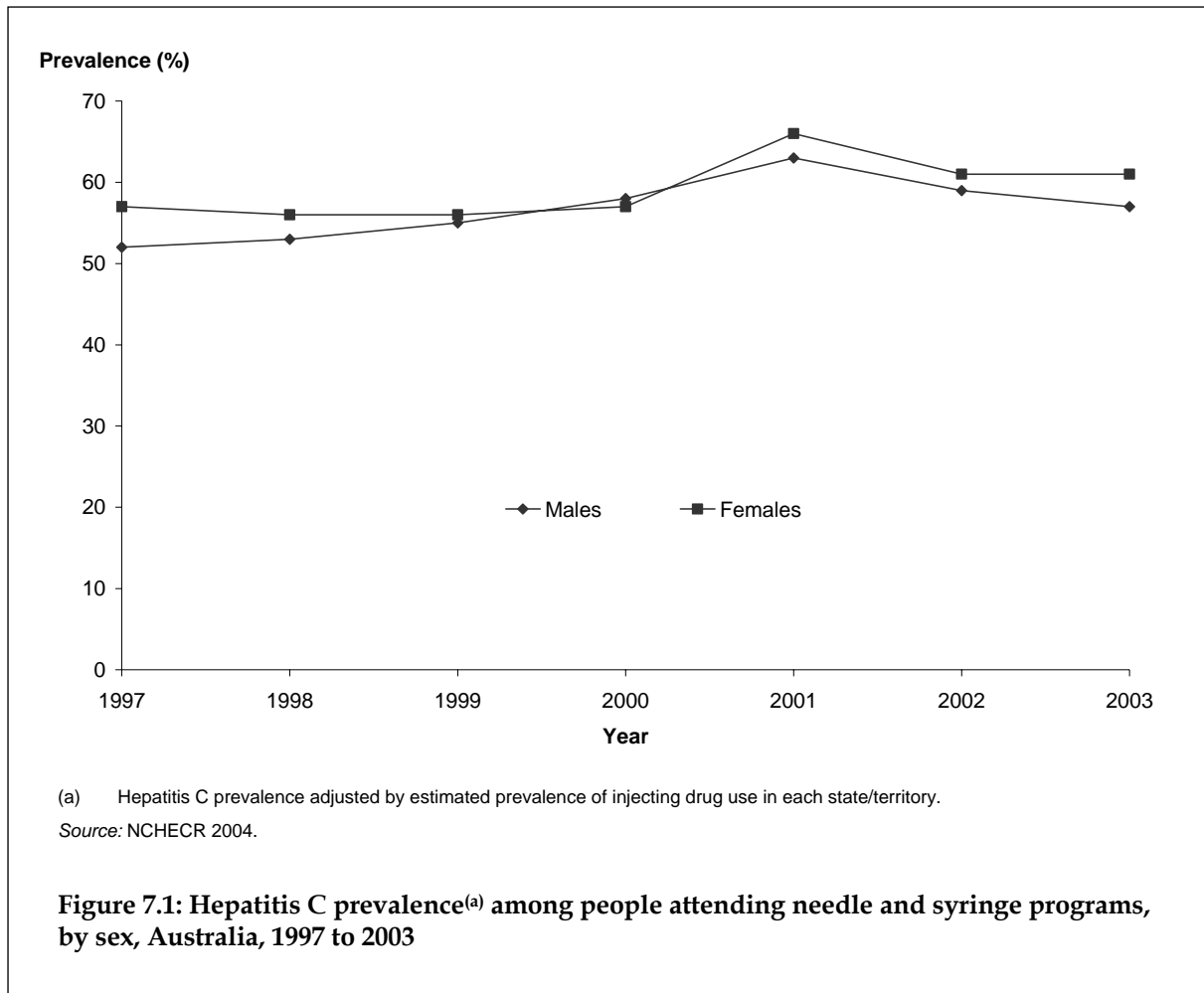
Source: National Centre in HIV Epidemiology and Clinical Research, unpublished data; NCHECR 2004.

A larger proportion of people attending needle and syringe programs in 2003 tested positive to hepatitis C than self-reported ever having hepatitis B (Table 7.4). The prevalence of hepatitis C appeared to increase with a longer duration of injecting drug use. Among long-term injecting drug users, females were more likely than males to test positive to hepatitis C. For example, 60% of female injecting drug users that had injected drugs during the previous 6 to 10 years tested positive to hepatitis C, while 50% of male injecting drug users who had injected for the same duration of time tested positive to hepatitis C.

Hepatitis C prevalence among people attending needle and syringe programs remained high over the period 1997 to 2003, with 57% of males and 61% of females testing positive to the hepatitis C virus antibody in 2003 (Figure 7.1). Since 2002, hepatitis C prevalence among females attending needle and syringe programs has remained stable at 61%, and for males has declined from 59% to 57%.

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%.





## Injecting drug use and HIV/AIDS

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) decreased from 84 in 1993 to 33 in 2003 (Table 7.5). In 2003, 11% of new AIDS diagnoses were among injecting drug users, with 5% among injecting drug users with no male homosexual contact. This change is in line with the trend across all exposure categories, such that from 1993 to 2003, the *proportion* of people who contracted AIDS and were injecting drug users remained relatively stable, ranging between 7% and 11% of new AIDS diagnoses.

**Table 7.5: Number of AIDS diagnoses<sup>(a)</sup>, by HIV exposure category, Australia, 1993 to 2003**

Exposure category	Year of AIDS diagnosis										
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	(number)										
Male homosexual contact	659	769	630	513	276	202	115	164	137	155	193
Male homosexual and injecting drug use	57	46	46	38	13	10	11	13	7	15	19
Injecting drug use <sup>(b)</sup>	27	29	28	22	18	24	11	15	8	7	14
Heterosexual contact	51	53	50	52	51	55	40	42	38	39	46
Haemophilia/coagulation disorder	11	10	15	7	4	1	1	3	1	2	1
Receipt of blood/tissue	8	8	6	6	1	4	1	1	1	1	—
Health care setting	1	1	1	—	—	—	—	—	—	—	—
Other/undetermined	26	26	28	33	20	21	17	16	12	12	16
<b>Total<sup>(c)</sup></b>	<b>845</b>	<b>946</b>	<b>807</b>	<b>671</b>	<b>384</b>	<b>318</b>	<b>197</b>	<b>254</b>	<b>205</b>	<b>232</b>	<b>290</b>
	(per cent)										
Male homosexual contact	78.0	81.3	78.1	76.5	71.9	63.5	58.4	64.6	66.8	66.8	66.6
Male homosexual and injecting drug use	6.7	4.9	5.7	5.7	3.4	3.1	5.6	5.1	3.4	6.5	6.6
Injecting drug use <sup>(b)</sup>	3.2	3.1	3.5	3.3	4.7	7.5	5.6	5.9	3.9	3.0	4.8
Heterosexual contact	6.0	5.6	6.2	7.7	13.3	17.3	20.3	16.5	18.5	16.8	15.9
Haemophilia/coagulation disorder	1.3	1.1	1.9	1.0	1.0	0.3	0.5	1.2	0.5	0.9	0.3
Receipt of blood/tissue	0.9	0.8	0.7	0.9	0.3	1.3	0.5	0.4	0.5	0.4	—
Health care setting	0.1	0.1	0.1	—	—	—	—	—	—	—	—
Other/undetermined	3.1	2.7	3.5	4.9	5.2	6.6	8.6	6.3	5.9	5.2	5.5

(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 persons whose sex was reported as transgender.

Sources: National Centre in HIV Epidemiology and Clinical Research 2002, 2003 and 2004.

The number of deaths from AIDS among injecting drug users decreased from 59 in 1993 to 20 in 2003 (Table 7.6). However, the proportion of AIDS deaths among people who had a history of injecting drug use increased by 10 percentage points, from around 9% in 1993 to 19% in 2003.

**Table 7.6: Number of deaths following AIDS<sup>(a)</sup>, by HIV exposure category, Australia, 1993 to 2003**

Exposure category	Year of death following AIDS										
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	(number)										
Male homosexual contact	577	592	511	399	183	115	89	93	63	62	64
Male homosexual and injecting drug use	37	42	32	28	17	9	7	6	10	5	12
Injecting drug use <sup>(b)</sup>	22	13	25	19	12	5	7	9	6	5	8
Heterosexual contact	32	48	42	36	14	11	13	14	11	11	13
Haemophilia/coagulation disorder	5	15	9	10	4	—	4	3	1	1	—
Receipt of blood/tissue	9	9	8	3	1	1	1	—	3	1	—
Health care setting	—	1	2	—	—	—	—	—	—	—	—
Other/undetermined	11	22	21	20	10	14	6	9	4	3	7
<b>Total<sup>(c)</sup></b>	<b>696</b>	<b>748</b>	<b>651</b>	<b>515</b>	<b>244</b>	<b>155</b>	<b>128</b>	<b>134</b>	<b>98</b>	<b>88</b>	<b>104</b>
	(per cent)										
Male homosexual contact	82.9	79.1	78.5	77.5	75.0	74.2	69.5	69.4	64.3	70.5	61.5
Male homosexual and injecting drug use	5.3	5.6	4.9	5.4	7.0	5.8	5.5	4.5	10.2	5.7	11.5
Injecting drug use <sup>(b)</sup>	3.2	1.7	3.8	3.7	4.9	3.2	5.5	6.7	6.1	5.7	7.7
Heterosexual contact	4.6	6.4	6.5	7.0	5.7	7.1	10.2	10.4	11.2	12.5	12.5
Haemophilia/coagulation disorder	0.7	2.0	1.4	1.9	1.6	—	3.1	2.2	1.0	1.1	—
Receipt of blood/tissue	1.3	1.2	1.2	0.6	0.4	0.6	0.8	—	3.1	—	—
Health care setting	—	0.1	0.3	—	—	—	—	—	—	—	—
Other/undetermined	1.6	2.9	3.2	3.9	4.1	9.0	4.7	6.7	4.1	3.4	6.7

(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 persons whose sex was reported as transgender.

Sources: National Centre in HIV Epidemiology and Clinical Research 2002, 2003 and 2004.

## 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 7.7). Over time, the proportion of males using a needle and syringe after someone else was stable for longer-term injecting drug users, but fluctuated for those with an injecting history of less than 5 years.

Over the period 1997 to 2003 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 7.7: 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 2003**

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

(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.

Note: Data have been updated since *Statistics on Drug Use in Australia 2002* was published.

Sources: National Centre in HIV Epidemiology and Clinical Research 2002 and 2004.

The data presented in the following table and in the overdoses section was sourced from the Illicit Drug Reporting System (IDRS) and other published information from the National Drug and Alcohol Research Centre.

Readers are reminded to take caution when interpreting the results, as outlined earlier in this chapter.

Of the overall national sample, around two-thirds of injecting drug users reported that they had not shared any injecting equipment in the last month (63% in 2002 and 66% in 2003) (Table 7.8). In 2003, the jurisdiction with the lowest proportion of respondents reporting needle sharing was Tasmania (5% borrowed, 3% lent). The jurisdictions with the highest proportion of respondents reporting that they shared needles in 2003 were Queensland and the Australian Capital Territory. In Queensland, 13% of respondents reported borrowing a needle and 21% reported lending someone else a needle in the month prior to interview. The respective proportions in the Australian Capital Territory in 2003 were 11% and 24%.

**Table 7.8: Proportion of injecting drug users who had shared needles or other injecting equipment in last month, by state/territory, Australia, 2002 and 2003**

Behaviour	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
(per cent)									
<b>2002</b>									
Needle sharing									
Borrowed	6	17	18	19	7	10	12	6	12
Lent	17	22	34	19	5	1	16	9	16
Other injecting equipment sharing									
Shared no equipment	62	51	61	28	72	85	72	78	63
Spoon/mixing container	37	43	33	69	21	1	25	15	31
Filter	17	16	18	58	13	1	9	10	17
Tourniquet	8	13	11	22	12	14	4	16	12
Water	23	23	19	66	11	1	11	7	20
<b>2003</b>									
Needle sharing									
Borrowed	6	9	13	13	8	5	11	6	9
Lent	12	24	21	17	14	3	24	10	16
Other injecting equipment sharing									
Shared no equipment	57	57	60	66	73	87	65	74	66
Spoon/mixing container	40	41	31	27	18	1	26	17	26
Filter	31	24	11	7	1	1	20	11	17
Tourniquet	13	7	13	8	11	11	12	15	11
Water	32	24	20	14	14	2	19	10	18

Sources: Breen et al. 2003; Breen et al. 2004a.

## Overdoses

As mentioned in the previous section on injecting drug use and risky behaviour, data presented in this section are sourced from the Illicit Drug Reporting System (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 2004, 55% of injecting drug users surveyed for the IDRS had overdosed on heroin at some time in their lifetime (Table 7.9), while one-quarter of injecting drug users reported non-fatal heroin overdose on at least one occasion in the last 12 months. Nearly half (46%) of the injecting drug users responding to the survey reported that they were currently receiving treatment. Around 23% injected in a public place on the last occasion, ranging from 10% in the Northern Territory to 35% in Victoria and the Australian Capital Territory.

**Table 7.9: Proportion of injecting drug users<sup>(a)</sup> reporting non-fatal heroin overdose, selected risk behaviours and protective factors for overdose, Australia, 2004**

Measure	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	n=157	n=150	n=129	n=100	n=101	n=100	n=100	n=111	n=948
	(per cent)								
Ever overdosed	61	59	57	50	53	61	58	39	55
Overdosed in last 12 months	26	30	20	28	5	17	47	9	25
Last injection in public space <sup>(b)</sup>	24	35	34	13	11	15	35	10	23
Currently in treatment	61	38	36	51	48	65	49	20	46
Consumed alcohol and heroin on day prior to interview	11	10	4	7	6	—	12	1	7

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

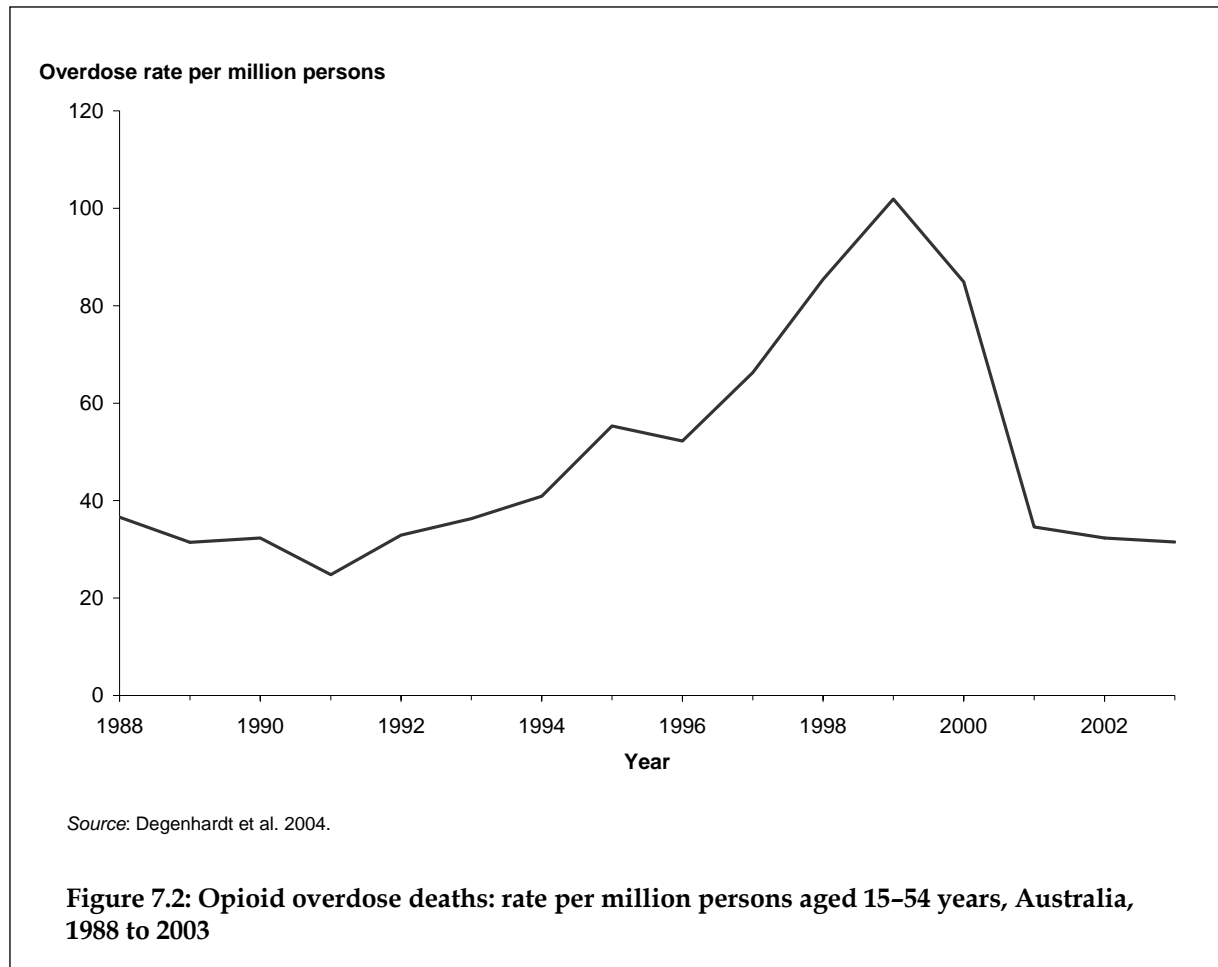
(b) 'Public space' includes street, car, beach, public toilet, corridor, bus shelter, church, bus, stairwell of flats and car park. 'Public space' does not include private home, shooting room, medically supervised injecting centre, squat, at work, and does not include those who had not injected in the last month.

Source: National Drug and Alcohol Research Centre, 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 7.2). In the following 2 years, the death rate from accidental opioid overdose declined slightly further, to 32.3 deaths per million persons in 2002 and 31.5 in 2003.



There were 364 accidental deaths due to opioids among persons aged 15-54 years in Australia in 2002, and 357 in 2003 (Table 7.10). The majority of accidental deaths due to opioids occurred in New South Wales (143 deaths) and Victoria (129 deaths) in 2003.

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

**Table 7.10: Number of accidental deaths due to opioids among persons aged 15-54 years, by sex and state/territory, 2002 and 2003**

Sex	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
(per cent)									
<b>2002</b>									
Males	129	71	31	20	13	7	3	4	279
Females	29	22	9	8	8	2	5	2	85
<b>Persons</b>	<b>158</b>	<b>93</b>	<b>40</b>	<b>28</b>	<b>21</b>	<b>9</b>	<b>8</b>	<b>6</b>	<b>364</b>
<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>

Note: Total males for 2002 includes one male where jurisdiction was not stated.

Source: Degenhardt & Barker 2003; Degenhardt et al. 2004.

# 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).

## Tobacco

In their 2001 AIHW report *The Quantification of Drug-caused Mortality and Morbidity in Australia, 1998*, Ridolfo and Stevenson estimated that approximately 19,000 deaths were attributable to tobacco use in 1998 (Table 7.11). The majority of deaths occurred amongst persons aged 65 years and over, with 14,800 deaths attributable to tobacco in this age group. Cancer was the most common cause of death, comprising 7,500 deaths that were attributable to tobacco in 1998.

In 1998, tobacco smoking accounted for 142,500 hospital episodes in Australia, due to direct smoking or environmental smoking. Similar to the age distribution of deaths attributable to tobacco consumption, the majority of hospital episodes involved persons aged 65 years and over. For persons aged 15 years and over, almost all hospital episodes related to tobacco consumption involved direct smoking. Conversely, among children aged 0–14 years, almost all hospital episodes attributable to tobacco consumption were related to environmental smoking.



**Table 7.11: Deaths attributable to tobacco use, by cause of death, and hospital episodes attributable to tobacco use, by principal diagnosis, 1998**

Cause/principal diagnosis	Age group				Total
	0–14	15–34	35–64	65+	
<b>Number of deaths</b>					
Direct smoking					
Cancer	—	—	1,829	5,713	7,542
Ischaemic heart disease	—	34	1,339	2,661	4,034
Chronic obstructive pulmonary disease	—	—	359	3,480	3,839
Other	76	46	505	2,849	3,476
Environmental smoking	23	—	10	95	128
<b>Total deaths</b>	<b>99</b>	<b>80</b>	<b>4,042</b>	<b>14,798</b>	<b>19,019</b>
<b>Number of hospital episodes</b>					
Direct smoking					
Cancer	—	—	8,926	18,046	26,972
Ischaemic heart disease	—	398	25,762	10,960	37,120
Chronic obstructive pulmonary disease	—	—	5,899	22,370	28,269
Other	142	6,787	18,630	22,638	48,197
Environmental smoking	1,428	2	172	365	1,967
<b>Total hospitalisations</b>	<b>1,570</b>	<b>7,187</b>	<b>59,389</b>	<b>74,379</b>	<b>142,525</b>

Source: Ridolfo & Stevenson 2001.

## Alcohol

Data relating to deaths and hospitalisations due to risky and high risk alcohol consumption are sourced from the National Alcohol Indicators Project (NAIP), conducted by the National Drug Research Institute (NDRI) at Curtin University. The calculations rely on the aetiologic fraction method. These calculations differ from Ridolfo and Stevenson's (2001) method, in that the Ridolfo and Stevenson calculations apply to a national total for 1 year, while the calculations undertaken by NDRI use aetiologic fractions based on state-specific and year-specific drinking prevalence (Chikritzhs et al. 2003:5). In 2001, an estimated 3,000 deaths in Australia were attributable to alcohol consumption at risky and high-risk levels (Table 7.12). There were around three times as many deaths for males (2,300) compared with females (730). The top three causes of mortality relating to risky and high-risk alcohol consumption for males in 2001 were alcoholic liver cirrhosis (500 deaths), non-pedestrian road traffic injuries (320 deaths) and suicide (200 deaths). For females, the top three causes were alcoholic liver cirrhosis (140 deaths), haemorrhagic stroke (90 deaths) and non-pedestrian road traffic injuries (60 deaths).

Findings from the NAIP indicate that almost 65,000 hospital episodes in the financial year 2000–01 were attributable to risky or high-risk alcohol consumption. The number of hospitalisations involving males (42,800) was almost double that for females (22,000). The top three reasons for hospitalisations attributable to risky and high-risk alcohol consumption for both males and females were falls, alcohol dependence and assault.

**Table 7.12: Deaths and hospital episodes attributable to risky and high-risk alcohol consumption patterns, by sex, Australia, 2001**

<b>Sex</b>	<b>Number of deaths</b>
Males	2,272
Females	732
<b>Total deaths</b>	<b>3,004</b>
	<b>Number of hospital episodes</b>
Males	42,831
Females	21,951
<b>Total deaths</b>	<b>64,782</b>

*Note:* Number of deaths are for calendar year 2001. Number of hospital episodes are for financial year 2000–01.

*Sources:* Chikritzhs et al. 2003; National Drug Research Institute, unpublished data.

## Illicit drugs

Ridolfo and Stevenson (2001) estimated that, in 1998, approximately 1,000 deaths in Australia were attributable to the use of illicit drugs (Table 7.13). About half (580) of illicit drug-related deaths were caused by drug dependence, with most of these deaths occurring among persons aged between 15 and 34 years (390 deaths).

There were an estimated 14,500 hospital episodes attributable to illicit drug use in 1998. The largest number of hospital episodes involved a principal diagnosis of drug dependence (6,300). Persons aged 15–34 years experienced the largest number of hospitalisations relating to illicit drugs (10,900) compared with persons in other age groups.

**Table 7.13: Deaths attributable to illicit drug use, by cause of death, and hospital episodes attributable to illicit drug use, by principal diagnosis, Australia, 1998**

<b>Cause/principal diagnosis</b>	<b>Age group</b>				<b>Total</b>
	<b>0–14</b>	<b>15–34</b>	<b>35–64</b>	<b>65+</b>	
	<b>Number of deaths</b>				
Drug dependence	—	389	184	2	575
Poisoning	—	140	78	4	222
Suicide	—	103	32	—	135
Other	9	18	38	26	91
<b>Total deaths</b>	<b>9</b>	<b>650</b>	<b>332</b>	<b>32</b>	<b>1,023</b>
	<b>Number of hospital episodes</b>				
Drug dependence	—	4,879	1,434	23	6,336
Poisoning	—	1,815	579	45	2,439
Other	44	4,182	1,044	426	5,696
<b>Total hospitalisations</b>	<b>44</b>	<b>10,876</b>	<b>3,057</b>	<b>494</b>	<b>14,471</b>

*Source:* Ridolfo & Stevenson 2001.

# 8 Special population groups

## Introduction

It has been recognised that there are certain groups within our population that 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 addresses a number of population groups within the general Australian community, including:

- young people aged 12–19 years;
- Aboriginal and Torres Strait Islander peoples;
- pregnant and/or breastfeeding women;
- homeless people; and
- injecting drug users.

Prisoners and police detainees have also been identified as population groups of special concern and thus requiring special attention. These population groups are examined in Chapter 10.

## Young people

### Alcohol and tobacco use

Estimates of alcohol and tobacco use by younger people sourced from the 2004 NDSHS should be interpreted with caution due to the low prevalence and smaller sample sizes for these age groups (Tables 8.1 and 8.2).

According to the 2004 NDSHS, smoking among young people increased rapidly with age (Table 8.1). An estimated one in five people aged 18–19 years were smokers, with approximately 17% smoking on a daily basis, compared with approximately 2% of 12–15-year-olds.

Alcohol use among young people was also prevalent. Over half of 12–19-year-olds had consumed alcohol during the previous 12 months. The risk of alcohol-related harm increased rapidly with age, with almost one in five 18–19-year-olds consuming alcohol at levels considered risky or high risk for long-term alcohol-related harm, compared with 1% of 12–15-year-olds and 8% of 16–17-year-olds. An estimated 4% of 12–17-year-olds consumed alcohol at levels considered risky or high risk for long-term alcohol-related harm in 2004.

**Table 8.1: Tobacco smoking status and risk of long-term alcohol-related harm: proportion of the population aged 12–19 years, by age, Australia, 2004**

Smoking status/level of risk	Age (years)				
	12–15	16–17	18–19	Total 12–17	Total 12–19
	(per cent)				
	<b>Tobacco smoking status</b>				
Daily	2	11	17	5	8
Occasional <sup>(a)</sup>	1	3	4	2	2
Ex-smoker <sup>(b)</sup>	1	3	6	2	3
Never smoked <sup>(c)</sup>	96	83	74	92	87
	<b>Lifetime alcohol consumption</b>				
Consumed alcohol at least once	35	81	88	50	60
	<b>Risk of alcohol-related harm in the long term<sup>(d)</sup></b>				
Abstainers <sup>(e)</sup>	68	23	13	53	43
Low risk	31	69	68	44	50
Risky and high risk	1	8	19	4	7

(a) An occasional smoker is a person that smokes less than daily.

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

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

(d) For males, the consumption of up to 28 standard drinks per week is considered 'Low risk', 29 to 42 per week 'Risky', and 43 or more per week 'High risk'. For females, the consumption of up to 14 standard drinks per week is considered 'Low risk', 15 to 28 per week 'Risky' and 29 or more per week 'High risk'.

(e) Not consumed alcohol in the last 12 months.

Source: National Drug Strategy Household Survey 2004.

Similar proportions of males and females aged 12–17 years abstained from drinking alcohol (54% and 52% respectively) or consumed alcohol at low-risk levels (29% and 26% respectively) in 2004 (Table 8.2). A greater proportion of males aged 18–19 years appeared to drink at risky and high-risk levels for short term harm on a weekly basis (22%) compared with females (17%), though this was not a statistically significant variation.

In 2004, the proportions of males and females aged 12–19 years who consumed alcohol at least weekly (around one in five) or at least monthly (around two in five) were also similar.

The proportion of people aged 12–15 years that put themselves at risk of short-term harm on at least one drinking occasion in the previous 12 months was 8%. Compared with the younger age group, the corresponding proportions for people aged 16–17-years and 18–19-year-olds were, respectively, around fivefold greater (43%), and around sevenfold greater (62%).

**Table 8.2: Consumption of alcohol and alcohol risk in the short term, persons aged 12–19 years, by age group and sex, Australia, 2004**

Alcohol drinking status/ level of risk in the short term	Age group				
	12–15	16–17	18–19	Total 12–17	Total 12–19
	(per cent)				
	<b>Males</b>				
Abstainers <sup>(a)</sup>	68	24	14	54	44
Low risk <sup>(b)</sup>	26	37	25	29	28
Risky and high risk <sup>(c)</sup>					
At least yearly but less than monthly	3	14	15	7	9
At least monthly but less than weekly	2	16	25	7	11
At least weekly	1	9	22	4	8
<i>Total risky and high risk</i>	6	39	61	17	28
Consumed alcohol at least weekly	3	22	52	10	20
Consumed alcohol at least monthly	14	54	77	28	40
	<b>Females</b>				
Abstainers <sup>(a)</sup>	67	21	11	52	41
Low risk <sup>(b)</sup>	23	31	27	26	26
Risky and high risk <sup>(c)</sup>					
At least yearly but less than monthly	4	17	15	9	10
At least monthly but less than weekly	4	20	30	9	14
At least weekly	2	11	17	5	8
<i>Total risky and high risk</i>	10	48	62	22	33
Consumed alcohol at least weekly	3	21	40	9	17
Consumed alcohol at least monthly	15	55	74	29	40
	<b>Persons</b>				
Abstainers <sup>(a)</sup>	68	23	13	53	43
Low risk <sup>(b)</sup>	24	34	26	28	27
Risky and high risk <sup>(c)</sup>					
At least yearly but less than monthly	4	16	15	8	9
At least monthly but less than weekly	3	18	27	8	13
At least weekly	1	10	20	4	8
<i>Total risky and high risk</i>	8	43	62	20	30
Consumed alcohol at least weekly	3	22	46	9	19
Consumed alcohol at least monthly	15	55	75	28	40

(a) Not consumed alcohol in the last 12 months.

(b) For males, the consumption of up to 6 standard drinks on any one day is considered 'Low risk'. For females, the consumption of up to 4 standard drinks on any one day is considered 'Low risk'.

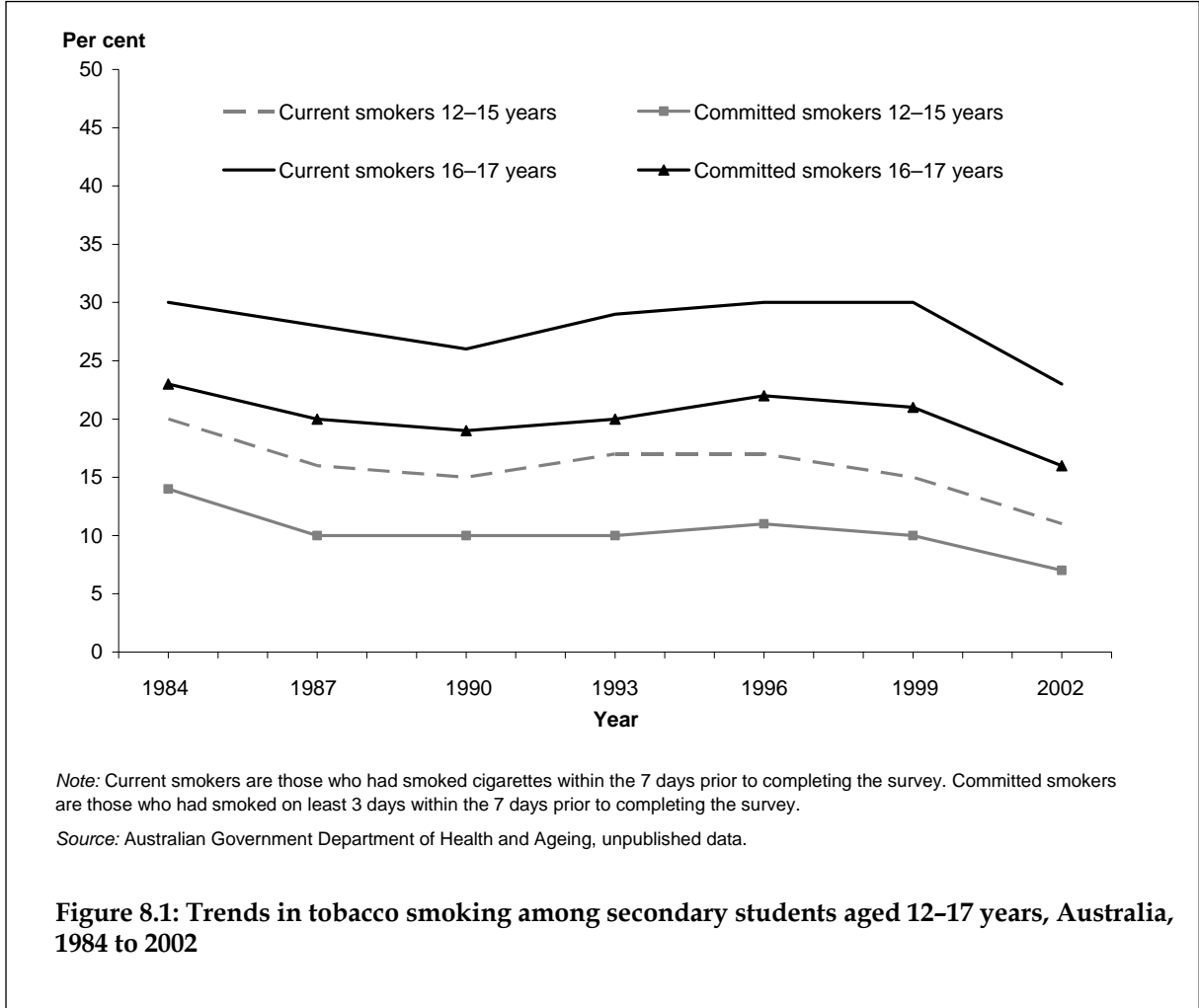
(c) For males, the consumption of 7 to 10 standard drinks on any one day is considered 'Risky', and 11 or more on any one day 'High risk'. For females, the consumption of 5 to 6 standard drinks on any one day is considered 'Risky', and 7 or more on any one day 'High risk'.

Source: National Drug Strategy Household Survey 2004.

The 2002 Australian Secondary Students' Alcohol and Drug Survey (ASSADS) was the seventh in a series of secondary school-based surveys monitoring the use of tobacco, alcohol and other substances among secondary students throughout Australia (White & Hayman 2004c:4). The 2002 survey included students from a representative sample that incorporated government, Catholic and independent schools. The survey collected data from 23,417 students aged 12-17 years from 363 secondary schools across all of the states and territories.

Because smoking data has been collected nationally through ASSADS since 1984, long-term trends in student smoking can be ascertained (ibid).

From 1984 to 1990, smoking prevalence among secondary students aged 12-15 years and 16-17 years declined (Figure 8.1). The decline ceased during the 1990s and smoking prevalence began to increase, especially among 16-17-year-olds. From 1999 to 2002, smoking prevalence declined again among secondary students aged 12-15 years and 16-17 years. In 2002, around one in ten secondary students aged 12-15 years were current smokers (11%) and almost one in four (23%) 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.



Results from the 1999 and 2002 ASSAD Surveys show that around 90% of secondary students aged 12–17 years had consumed alcohol at least once in their lifetime, around half had consumed alcohol in the last month and around one-third had consumed alcohol in the last week (Table 8.3). Among 12–15-year-olds and 16–17-year-olds, males appeared more likely than females to have consumed alcohol in their lifetime, in the last month and in the last week. There was no statistically significant change between 1999 and 2002 for any of the indicators in Table 8.3 (White & Hayman 2004a:22).

**Table 8.3: Alcohol consumption among secondary students aged 12–17 years, by age group and sex, Australia, 1999 and 2002**

Age group	Lifetime		Last month		Last week	
	1999	2002	1999	2002	1999	2002
(per cent)						
<b>Males</b>						
12–15	88	88	46	46	31	32
16–17	95	94	70	70	53	51
<b>Total 12–17</b>	<b>90</b>	<b>90</b>	<b>51</b>	<b>52</b>	<b>36</b>	<b>37</b>
<b>Females</b>						
12–15	85	84	39	40	25	26
16–17	94	94	70	66	50	45
<b>Total 12–17</b>	<b>87</b>	<b>87</b>	<b>47</b>	<b>47</b>	<b>32</b>	<b>31</b>
<b>Persons</b>						
12–15	87	86	43	43	28	29
16–17	94	94	70	68	51	48
<b>Total 12–17</b>	<b>89</b>	<b>88</b>	<b>49</b>	<b>49</b>	<b>35</b>	<b>34</b>

Source: White & Hayman 2004a.

## Lifetime and recent illicit drug use

Readers are reminded to exercise caution when interpreting 2004 NDSHS results for substance use by young people, due to the low prevalence and smaller sample sizes for these age groups (Table 8.4).

According to the 2004 NDSHS, use of illicit drugs at least once generally increased with age between 12 and 19 years of age (Table 8.4).

At each age group, marijuana/cannabis was the most prevalent illicit drug, used at least once by 7% of 12–15-year-olds, 26% of 16–17-year-olds, and 39% of 18–19-year-olds. One per cent of 12–15-year-olds and an estimated 14% of 18–19-year-olds had used meth/amphetamines, and similar proportions in the same age groups (1% and 13% respectively) had used ecstasy at least once in their lifetime. Compared with 12–15-year-olds, 16–17-year-olds were three times more likely to have used any illicit drug in their lifetime, and 18–19-year-olds were four times more likely to have used any illicit drug in their lifetime.

Illicit drug use in the last 12 months by young people aged 12–19 years also increased with age. Overall, 14% of persons aged 12–19 years had used marijuana/cannabis in the last 12 months. There were similar proportions of young people aged 12–19 years using meth/amphetamines and ecstasy in the last 12 months, each at 3%.

Marijuana/cannabis was used at least once in the last 12 months by an estimated 5% of 12–15-year-olds, 18% of 16–17-year-olds and over one-quarter (27%) of 18–19-year-olds.

**Table 8.4: Summary of lifetime<sup>(a)</sup> and recent<sup>(b)</sup> use of illicit drugs, persons aged 12–19 years, Australia, 2004**

Substance	Age group				
	12–15	16–17	18–19	Total 12–17	Total 12–19
	(per cent)				
	<b>Ever used</b>				
Marijuana/cannabis	6.7	25.8	38.7	13.0	19.5
Pain-killers/analgesics <sup>(c)</sup>	3.0	5.2	6.3	3.7	4.4
Tranquillisers/sleeping pills <sup>(c)</sup>	0.4	1.6	3.5	0.8	1.5
Steroids <sup>(c)</sup>	—	0.1 *	0.5 *	0.1 *	0.2
Inhalants	1.9	2.0	2.9	1.9	2.2
Heroin	0.4	0.7 *	0.9 *	0.5	0.6
Meth/amphetamine (speed) <sup>(c)</sup>	0.9	4.5	13.5	2.1	5.0
Cocaine	0.6	1.1	3.8	0.7	1.5
Hallucinogens	0.8	1.4	6.3	1.0	2.3
Ecstasy	0.9	4.0	12.7	2.0	4.7
Ketamine	0.1 *	0.4 *	1.7	0.2 *	0.7
GHB	0.2 *	0.5 *	1.0	0.4	0.6
Any illicit <sup>(d)</sup>	10.2	29.9	42.1	16.7	23.2
Any illicit drug excluding marijuana/cannabis <sup>(e)</sup>	5.7	12.2	21.1	7.9	11.2
	<b>Recent use</b>				
Marijuana/cannabis	5.2	18.0	26.5	9.4	13.8
Pain-killers/analgesics <sup>(c)</sup>	2.0	3.2	3.2	2.4	2.6
Tranquillisers/sleeping pills <sup>(c)</sup>	0.2 *	1.2	1.6	0.6	0.8
Steroids <sup>(c)</sup>	—	—	0.1 *	—	0.1 *
Inhalants	1.1	0.5 *	0.9 *	0.9	0.9
Heroin	0.1 *	0.3 *	0.2 *	0.2 *	0.2
Meth/amphetamine (speed) <sup>(c)</sup>	0.7	3.0	8.8	1.5	3.3
Cocaine	0.2 *	0.8	1.8	0.4	0.8
Hallucinogens	0.4	1.0	2.6	0.6	1.1
Ecstasy	0.6	2.8	8.8	1.3	3.2
Ketamine	—	—	1.0	—	0.3
GHB	0.1 *	0.2 *	0.6 *	0.2 *	0.3
Any illicit <sup>(d)</sup>	7.6	20.9	30.8	12.0	16.8
Any illicit drug excluding marijuana/cannabis <sup>(e)</sup>	3.8	8.4	16.2	5.4	8.1

\* Relative Standard Error > 50%.

(a) Used at least once in lifetime.

(b) Used in the last 12 months.

(c) For non-medical purposes.

(d) Includes all substances listed in this table, plus barbiturates, methadone for non-maintenance purposes, other opiates and injected drugs. Excludes other opiates, ketamine, GHB and injected drugs for people aged 12–13 years.

(e) As for (d), and excludes marijuana/cannabis.

Source: National Drug Strategy Household Survey 2004.

Results from the 2002 ASSADS indicate that one in four secondary students aged 12–17 years had used marijuana/cannabis at least once (Table 8.5). The next two most prevalent substances used were inhalants (21%) and tranquillisers (16%).

In 2002, around one in five (21%) secondary students had used marijuana/cannabis in the last 12 months. Inhalants were used by 15% of secondary students aged 12–17 years in the past year, and tranquillisers by 9%. Five per cent and 3% of 12–17-year-old secondary students had used meth/amphetamines and ecstasy respectively in the preceding 12 months.



Use of all illicit substances included in the ASSADS either declined or remained stable between 1999 and 2002.

**Table 8.5: Lifetime<sup>(a)</sup> and recent<sup>(b)</sup> use of illicit drugs by secondary students aged 12–17 years, Australia, 1999 and 2002**

Substance	Age group					
	12–15		16–17		Total 12–17	
	1999	2002	1999	2002	1999	2002
	(per cent)					
	<b>Ever used</b>					
Marijuana/cannabis	23	19	46	39	29	25
Tranquillisers <sup>(c)</sup>	17	16	22	18	18	16
Steroids	3	3	2	3	3	3
Inhalants	29	23	17	14	26	21
Meth/amphetamines (speed) <sup>(c)</sup>	6	5	11	10	7	7
Cocaine	3	3	4	4	4	3
Hallucinogens	5	4	11	6	7	4
Ecstasy	3	4	6	7	4	5
Opiates	4	3	5	3	4	3
None of the above	46	52	38	45	44	50
	<b>Recent use</b>					
Marijuana/cannabis	20	16	38	33	25	21
Tranquillisers <sup>(c)</sup>	10	9	14	12	11	9
Steroids	2	2	2	2	2	2
Inhalants	22	17	10	8	19	15
Meth/amphetamines (speed) <sup>(c)</sup>	4	4	9	8	6	5
Cocaine	3	2	3	2	3	2
Hallucinogens	4	3	8	4	5	3
Ecstasy	3	3	5	5	3	3
Opiates	4	3	3	2	3	2
None of the above	55	60	48	54	53	58

(a) Used at least once in lifetime.

(b) Used in the last 12 months.

(c) For non-medical purposes.

Source: Australian Government Department of Health and Ageing, unpublished data.

Readers should take caution when comparing results from the 2002 ASSADS to the results for young people from the 2004 NDSHS. There are several differences between the two data collections that may bring about incongruous results. One of the main differences concerns the sample sizes of the two surveys. The 2002 ASSADS included 23,417 students aged 12–17 years. The number of 12–17-year-olds that responded to the 2004 NDSHS was 2,713. The two surveys also had different methodologies and were aimed at populations in different settings. While the population in scope of the ASSADS was secondary students attending school, the NDSHS was aimed at all persons aged 12 years and over in Australian households. The ASSADS involved a self-complete paper questionnaire that students completed in a classroom in the presence of their peers (sometimes with teachers also present), while the NDSHS involved either a self-complete paper questionnaire or a computer-assisted telephone interview (CATI), completed at home. The sampling procedure of the 2004 NDSHS was a multi-stage, stratified area random sample design. The 2002 ASSADS design was a stratified two-stage probability sample, with schools selected at

the first stage of sampling and students selected within schools at the second stage (White & Hayman 2004b). There was also a time difference of 2 years between the surveys. Additionally, there were some definitional differences between the two surveys. For example, the ASSADS concept of alcohol consumption included sips of alcoholic drinks, while the NDSHS definition did not. White and Hayman (2004b) recommend treating the results for inhalants in the 2002 ASSADS with caution, due to the possibility of variation in the way students interpreted the question.

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

Aboriginal and Torres Strait Islander people 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 2004b:195).

Data about Aboriginal and Torres Strait Islander people are limited by the extent to which they are included in national surveys, the accuracy with which they are identified, uncertainties about Aboriginal and Torres Strait Islander population estimates, and concerns about whether the survey methods employed are the most suitable. It is encouraging to know that Aboriginal and Torres Strait Islander identification and the quality of data pertaining to Aboriginal and Torres Strait Islander people have been improving through efforts at all levels (AIHW 2004b:195).

The 2004 NDSHS asked respondents whether they were Aboriginal, Torres Strait Islander or both. The number of people who identified as Aboriginal and/or Torres Strait Islander in the 2004 NDSHS was 463 and therefore the following results should be interpreted with caution.

### **Summary of drug use**

The most prevalent substance used by Aboriginal and Torres Strait Islander people aged 12 years and over in 2004 was alcohol, with 81% consuming a full serve at least once in their lifetime and 71% using it in the last 12 months (Table 8.6). This was lower than consumption among other Australians, 89% of whom consumed alcohol at least once in their lifetime and 82% using in the last 12 months.

In terms of tobacco use, 52% of Aboriginal and Torres Strait Islander people aged 12 years and over had smoked 100 cigarettes (or equivalent amount of tobacco) in their lifetime, and 35% had smoked in the last 12 months. This contrasted with other Australians, 45% of whom had smoked at least 100 cigarettes (or equivalent amount of tobacco) in their lifetime, and 20% of whom had smoked in the last 12 months.

Illicit drug use among Aboriginal and Torres Strait Islander people was higher than for other Australians. For example, 19% of Aboriginal and Torres Strait Islander people had used marijuana/cannabis in the last 12 months compared with 11% of other Australians. Similarly, 10% of Aboriginal and Torres Strait Islander people used an illicit drug other than marijuana/cannabis in the last 12 months compared with 8% of other Australians.

**Table 8.6: Summary of drug use by Aboriginal and Torres Strait Islander people and other Australians aged 12 years and over, Australia, 2004**

<b>Substance/pattern of use</b>	<b>Aboriginal and Torres Strait Islander people</b>	<b>Other Australians (per cent)</b>
Ever used		
Alcohol	81	89
Tobacco/cigarettes	52	45
Marijuana/cannabis	41	33
Any illicit drug	44	37
Any illicit drug other than marijuana/cannabis	23	18
Used in the last 12 months		
Alcohol	71	82
Tobacco/cigarettes	35	20
Marijuana/cannabis	19	11
Any illicit drug	24	15
Any illicit drug other than marijuana/cannabis	10	8

Source: National Drug Strategy Household Survey 2004.

The ABS conducted the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) in 2002. The survey collected information about personal and household characteristics for Aboriginal and Torres Strait Islander persons aged 15 years and over throughout remote and non-remote areas of Australia during 2002 and 2003. The NATSISS included questions on smoking status, alcohol consumption and substance use. A total of 9,400 Aboriginal and Torres Strait Islander persons, or about 1 in 30 of the total Aboriginal and Torres Strait Islander population aged 15 years and over, from across Australia, responded to the 2002 NATSISS (ABS 2004b).

According to the 2002 NATSISS, 46% of Aboriginal and Torres Strait Islander people consumed alcohol at a low level of risk for alcohol-related harm in the long term and 15% drank at risky or high-risk levels (Table 8.7). Around half (51%) of the Aboriginal and Torres Strait Islander population aged 15 years and over reported that they currently smoked tobacco. Marijuana/cannabis was used by 19% of Aboriginal and Torres Strait Islander people in the 12 months prior to the survey. Around one-quarter of Aboriginal and Torres Strait Islander people had used an illicit substance in the 12 months prior to the survey.

Readers should note that Table 8.6 and Table 8.7 are not directly comparable. The tables are sourced from two different surveys that by their purpose and scope are quite different. Firstly, Table 8.6 is for persons aged 12 years and over, while Table 8.7 is for persons aged 15 years and over. The differences between the sample sizes of the NATSISS compared with the number of Aboriginal and Torres Strait Islander respondents to the 2004 NDSHS were highlighted earlier in this section. Note also that there was a time difference of 2 years between the surveys.

The concept of 'current smoker' used by the ABS includes what the ABS define as 'regular smokers' – persons who smoke at least one cigarette, cigar or pipe on average, per day, and 'occasional smokers' – persons who smoke less than one cigarette, cigar or pipe per day, on average (ABS 2004b). The definition of 'tobacco/cigarettes used in the last 12 months' in Table 8.6 sourced from the NDSHS includes 'daily smokers' – people who smoke tobacco daily, and 'occasional smokers' – people who had smoked tobacco at least once in the past 12 months.

**Table 8.7: Aboriginal and Torres Strait Islander people: use of tobacco, alcohol and other substances, persons aged 15 years and over, 2002**

Substance/behaviour	Per cent
Alcohol	
Low risk <sup>(a)</sup>	46
Risky and high risk <sup>(a)</sup>	15
Did not consume alcohol in last 12 months	31
Tobacco/cigarettes	
Current smoker <sup>(b)</sup>	51
Non-smoker <sup>(c)</sup>	49
Substance use in last 12 months	
Marijuana/cannabis	19
Pain-killers and sedatives <sup>(d)</sup>	5
Meth/amphetamines (speed)	5
Kava	1 <sup>(e)</sup>
Total used substances in last 12 months	24
Has never used substances	51

(a) For alcohol-related harm in the long term.

(b) Includes current daily smokers and occasional smokers.

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

(d) For non-medical purposes.

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

#### Notes

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

2. The measure of alcohol consumption risk reported in this table was based on the Australian Alcohol Guidelines, involving a person's reported usual daily consumption of alcohol and the frequency of consumption in the previous 12 months.

Source: ABS 2004b.

## Pregnant and/or breastfeeding women

The 2004 NDSHS asked women whether they had used licit and/or illicit drugs when they were pregnant, breastfeeding, or pregnant and breastfeeding, at some time during the previous 12 months.

The 2004 NDSHS found that women who were pregnant and/or breastfeeding in the previous 12 months were less likely to consume alcohol (47%) and any illicit drug (6%), compared with when they weren't (85% and 17% respectively). Pregnant and/or breastfeeding women appeared less likely to reduce their tobacco consumption, with 22% smoking when they weren't pregnant and/or breastfeeding, and 20% continuing to smoke during pregnancy and/or while breastfeeding (Table 8.8).

The 2004 NDSHS also found that women who were pregnant, breastfeeding, or both pregnant and breastfeeding in the 12 months prior to the survey were generally less likely to smoke tobacco, consume alcohol or use illicit drugs than women aged 14–49 years who were not pregnant and/or breastfeeding.

**Table 8.8: Drug use in the last 12 months, pregnant and/or breastfeeding women and all other women, women aged 14–49 years, Australia, 2004**

Substance	Pregnant and/or breastfeeding in the last 12 months <sup>(a)</sup>		
	Whilst pregnant and/or breastfeeding <sup>(b)</sup>	Generally <sup>(c)</sup>	Not pregnant and/or breastfeeding in the last 12 months <sup>(d)</sup>
		(per cent)	
Tobacco	20	22	25
Alcohol	47	85	85
Marijuana/cannabis	5	11	13
Any illicit drug	6	17	18
Any illicit drug other than marijuana/cannabis	2	10	10

(a) Women reporting that they were pregnant and/or breastfeeding in the last 12 months.

(b) Responses to specific questions about drug use during pregnancy/breastfeeding.

(c) Responses to general questions about drug use during the last 12 months.

(d) Women reporting that they were not pregnant and/or breastfeeding in the last 12 months.

Source: National Drug Strategy Household Survey 2004.

Almost all women who were pregnant in the last 12 months either abstained from consuming alcohol (38%) or reduced their consumption while pregnant (59%) (Table 8.9). A similar pattern applied to women who were breastfeeding, 64% of whom consumed less alcohol and 30% of whom did not drink at all.

**Table 8.9: Change in alcohol consumption among women who were pregnant or who were breastfeeding in the last 12 months, aged 14–49 years, Australia, 2004**

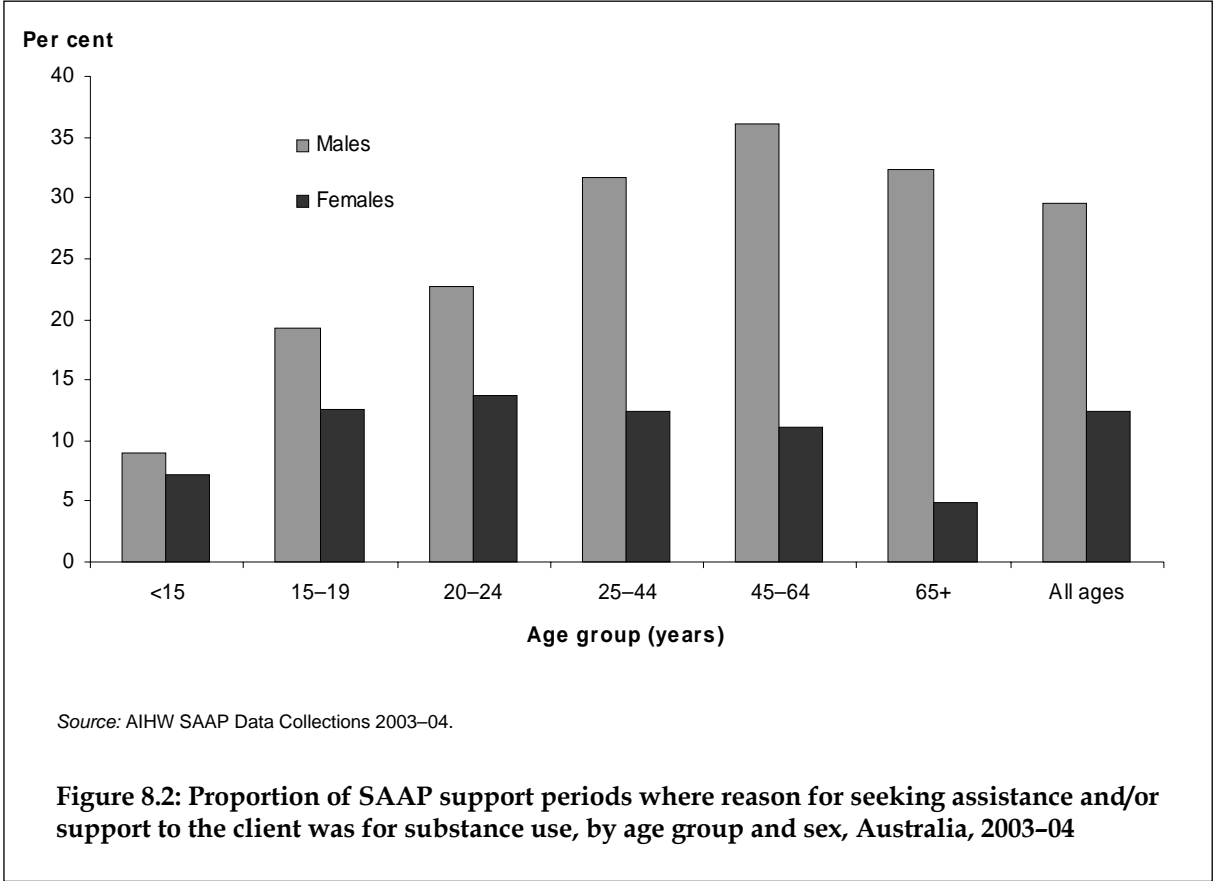
Change in consumption	Pregnant women	Breastfeeding women
	(per cent)	
Drank the same or more	3	6
Drank less	59	64
Did not drink alcohol	38	30

Source: National Drug Strategy Household Survey 2004.

## 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 consolidates a number of Australian Government and state and territory government programs 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 access 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), or where clients expressed a need for or received assistance with drug/alcohol support or intervention.

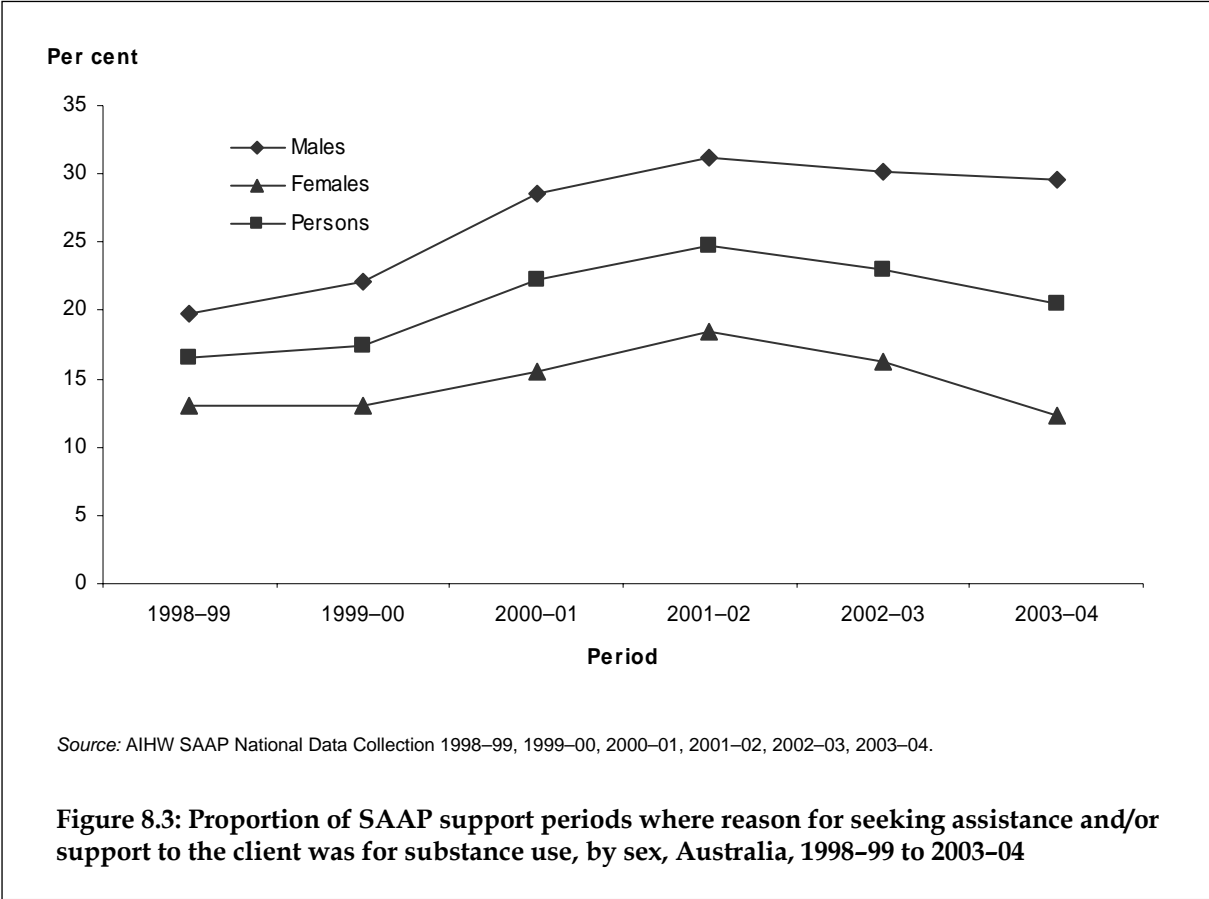
It is important to note that the number of support periods for substance use may be underestimated because data on reasons for seeking assistance are not collected from high-volume agencies. These agencies tend to most often support single men, a group that have relatively high proportions seeking assistance due to drug, alcohol and/or other substance abuse (AIHW 2004c:31). There is also a likelihood 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. In the 2003-04 SAAP collection, there were 87,300 support periods for males (47%) compared with 99,200 support periods for females (53%). However, of the 38,100 drug and/or alcohol-related support periods, 25,800 were for males (68%) and 12,300 were for females (32%). Overall, 30% of support periods for males were those for which male clients sought or received assistance for substance abuse, compared with 12% for females. However, the differences between males and females were more pronounced when compared by age group (Figure 8.2). For males, the number of support periods where substance use was a factor for seeking or receiving assistance peaked at 36% of all support periods among males aged 45-64 years. For females, there was less variation across age groups, with the peak being observed among females aged 20-24 years (14%).



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 is weighted for agency non-participation, results can be influenced from one year to the next if agencies that are larger and quite different compared with 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 2003-04* (AIHW 2004c).

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 20% in 2003-04 (Figure 8.3). Over the same period, males observed an increase from 20% to 30%, while females observed an increase from 13% in 1998-99 to 18% in 2001-02, followed by a decrease to 12% in 2003-04.



## 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. The IDRS monitors information concerning the price, availability, purity and use of the four main drug types: heroin, cocaine, marijuana/cannabis and amphetamines. Primary data sources include a survey of injecting drug users, a survey of professionals in the field of illicit drugs who act as key informants, and an analysis of existing indicator data on drug-related issues. For more information, readers are referred to the IDRS report (Breen et al. 2004a).

As outlined in Chapter 7 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 ranged from 29 years in Tasmania to 37 years in Northern Territory (Table 8.10). In all jurisdictions, the mean length of school education of injecting drug users was around 10 years.

The proportion of injecting drug users that were male ranged between 53% in South Australia and 70% in Tasmania. Across the jurisdictions, between 66% and 87% of injecting drug users were unemployed.

The proportion of injecting drug users that were of Aboriginal or Torres Strait Islander origin varied from 5% in Victoria to 33% in New South Wales.

The proportion of injecting drug users that had a prison history ranged from 25% in Tasmania to 68% in New South Wales.

The proportion of injecting drug users that were currently in drug treatment varied from 24% in the Northern Territory to 65% in Tasmania.

**Table 8.10: Demographic characteristics of injecting drug users, by jurisdiction, Australia, 2003**

Demographic characteristic	NSW n=154	Vic n=152	Qld n=135	WA n=100	SA n=120	Tas n=100	ACT n=100	NT n=109
	(mean years)							
Age	33	30	33	34	35	29	34	37
School education	10	10	10	10	10	10	11	10
	(per cent)							
Male	68	60	62	69	53	70	64	69
Unemployed	87	83	70	66	68	69	83	75
Aboriginal or Torres Strait Islander	33	5	14	8	11	14	14	13
Trade/technical qualification	47	45	35	51	32	21	37	39
Prison history	68	41	47	30	33	25	38	48
Currently in drug treatment	47	37	39	41	33	65	42	24

Source: Breen et al. 2004a.

Information on injecting drug use and risky behaviour is contained in Chapter 7.

## Other selected population groups

This section contains summary information on the substance use patterns of a number of selected population groups other than those already described, namely:

- people living in capital cities versus other areas;
- persons from a non-English-speaking background;
- socioeconomically disadvantaged people; and
- older people.

### People living in capital cities versus other areas

Using the 2004 NDSHS, drug use among people living in capital cities was compared with drug use among people living elsewhere in Australia.

Overall, people living in areas other than capital cities were more likely to be daily smokers than people living in capital cities (Table 8.11). People living in areas other than capital cities



were also more likely to drink alcohol at risky and high-risk levels in the short and long term. However, people living in capital cities were more likely to use amphetamine-type substances, that is, one or more of meth/amphetamines, ecstasy or cocaine.

## **Persons of a non-English-speaking background**

Caution should be used when viewing results from the 2004 NDSHS about substance use for persons from a non-English-speaking background, due to the low prevalence and smaller sample size for this population group.

Based on results from the 2004 NDSHS, persons of a non-English-speaking background, that is, persons whose main language spoken at home was a language other than English, were less likely to be daily smokers and less likely to consume alcohol at risky and high-risk levels (Table 8.11).

In 2004, an estimated 3% of persons from a non-English-speaking background drank alcohol at risky and high-risk levels for long-term alcohol-related harm, and 7% drank at these levels for short-term harm. The corresponding percentages were threefold higher for persons from an English-speaking background: 10% and 21% respectively. A similar pattern was evident when comparing the use of marijuana/cannabis and amphetamine-type substances in the last 12 months. For example, 12% of persons from an English-speaking background had used marijuana/cannabis in the last 12 months, compared with 3% of persons from a non-English-speaking background.

## **Socioeconomically disadvantaged people**

Socioeconomic status (SES) was assigned in the 2004 NDSHS using the Index of Relative Advantage/Disadvantage contained in Socio-Economic Indexes for Areas 2001 (SEIFA), which was developed by the Australian Bureau of Statistics. For this analysis, the index was grouped into quintiles, where the lower quintiles indicate greater disadvantage.

Compared with people of higher SES, people of lower SES were more likely to be daily smokers, with almost one-quarter (24%) of people in the lowest quintile and around one in ten (11%) people in the highest quintile smoking daily in 2004 (Table 8.11). Risky and high-risk patterns of alcohol consumption in the long term did not seem to vary greatly by SES, though persons of higher SES appeared more likely to consume alcohol at risky and high-risk levels in the short term compared with those of lower SES. Persons of higher SES also seemed more likely to have recently used marijuana/cannabis or amphetamine-type substances.

## **Older people**

Readers are recommended to use caution when viewing results from the 2004 NDSHS about substance use for persons in older age groups, due to the low prevalence for this population group, and due to the small sample size for respondents aged 80 years and over.

Results from the 2004 NDSHS indicate that licit and illicit drug use tends to decline with age (Table 8.11). In 2004, 29% of people aged 12–39 years consumed alcohol at a risky or high-risk level of harm in the short term (monthly), compared with 7% of 60–69-year-olds and an estimated 1% of persons aged 80 years and over. The age group with the highest percentage

of daily smokers in 2004 was 40–49-year-olds (21%), while the age group with the lowest percentage was persons aged 80 years and over (an estimated 3%).

Levels of use of marijuana/cannabis and amphetamine-type substances in the last 12 months were estimated to be negligible amongst persons aged 50 years and over.

**Table 8.11: Summary of drug use in selected population groups, persons aged 12 years and over, Australia, 2004**

Characteristic	Daily smoker	Risk of long-term alcohol-related harm <sup>(a)</sup>	Risk of short-term alcohol-related harm, monthly <sup>(a)</sup>	Marijuana/cannabis <sup>(b)</sup>	ATS <sup>(b)(c)</sup>
	(per cent)				
Geography					
Capital city	16	9	19	11	5
Other	19	11	22	11	3
Main language spoken at home					
English	17	10	21	12	5
Other	12	3	7	3	2
Socioeconomic status (quintile)					
1st	24	9	18	10	3
2nd	20	10	20	10	4
3rd	18	10	20	11	4
4th	14	9	20	10	4
5th	11	10	22	13	7
Age group					
12–39	19	11	29	19	9
40–49	21	10	19	9	2
50–59	16	9	13	3	—
60–69	11	8	7	—	—
70–79	7	5	4	—	—
80+	3	2	1	—	—

(a) Risky or high risk.

(b) Used in the last 12 months.

(c) Amphetamine-type substances. Includes one or more of meth/amphetamines, ecstasy or cocaine.

Source: National Drug Strategy Household Survey 2004.

# 9 Treatment services

## Introduction

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

This chapter includes information on alcohol and other drug treatment services; national pharmacotherapy statistics; substance use services for Aboriginal and Torres Strait Islander peoples; and the Sydney medically supervised injecting centre.

## 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 and state and territory governments to monitor alcohol and other drug treatment services in receipt of funding from their jurisdiction. It is a nationally agreed set of common data items collected by all in-scope agencies (AIHW 2004a). The main unit of measurement for the 2002–03 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(s) in which there is no change in the main treatment type, the treatment delivery setting or the principal drug of concern, and there has not been a non-planned absence of contact for greater than three months (AIHW 2004a:4). There were 130,930 closed treatment episodes enumerated in the AODTS–NMDS in 2002–03.

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 2002–03 AODTS–NMDS collection were as follows (AIHW 2004a:2):

- All publicly funded (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 (e.g. 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 2002 to 30 June 2003).

For a variety of reasons, some agencies and clients are not currently included in the scope of the collection. These include agencies whose sole activity is to prescribe and/or dose for opioid pharmacotherapy treatment, and 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 2002–03 collection. For example, in 2002–03 data were provided from Queensland Government AODTS agencies and/or police diversion clients but not from other non-government agencies. For full details about out-of-scope agencies in the 2002–03 AODTS–NMDS, see Sections 1.2 and 1.3 of *Alcohol and Other Drug Treatment Services in Australia 2002–03: Report on the National Minimum Data Set* (AIHW 2004a).

## 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 (AIHW 2004a). The information in this section relates to 123,032 closed treatment episodes in 2002–03 for clients who were seeking treatment for their own substance use.

In 2002–03, alcohol (38%) was the most common principal drug of concern in treatment episodes, followed by marijuana/cannabis (22%), heroin (18%) and meth/amphetamines (11%) (Table 9.1). Overall, ecstasy and cocaine each accounted for less than 1% of closed treatment episodes (0.3% each) (AIHW 2004a).

## Sex differences

Overall, closed treatment episodes involving males were slightly more likely to be for alcohol-related problems (39%) and marijuana/cannabis (24%) compared with females (35% and 19% respectively). Closed treatment episodes involving females were more likely to be for other drugs (15%) compared with males (8%) (Table 9.1).

**Table 9.1: Closed treatment episodes by principal drug of concern and sex, Australia, 2002–03<sup>(a)</sup>**

Principal drug of concern	Males	Females	Persons <sup>(b)</sup>
		(per cent)	
Alcohol	39.3	35.3	38.0
Marijuana/cannabis	23.5	18.9	22.0
Heroin	17.9	19.4	18.4
Meth/amphetamines	10.5	11.3	10.7
Other <sup>(c)</sup>	8.3	14.5	10.4
<b>Total<sup>(d)</sup></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.

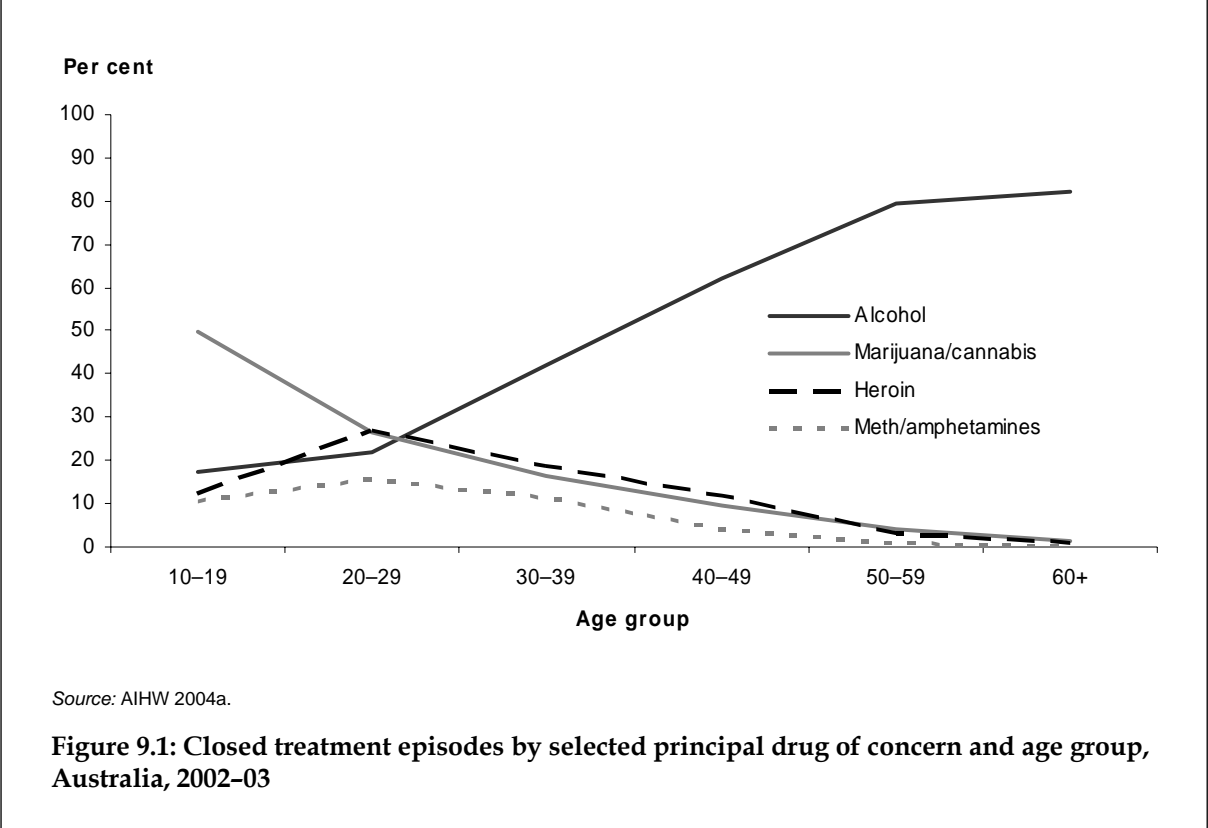
(d) Totals include treatment episodes where client's principal drug of concern was not stated.

Source: AIHW 2004a.

## 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 17% for ages 10–19 years, to 82% for clients aged 60 years and over (Figure 9.1). The proportion of closed treatment episodes for marijuana/cannabis tended to decrease with age. Marijuana/cannabis was the principal drug of concern for half

of all closed treatment episodes for persons aged 10–19 years, approximately halving to 26% for persons aged 20–29 years, and continuing to fall, reaching just 1% of episodes for persons aged 60 years and over. Closed 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/amphetamines.



**Indigenous status**

Overall, treatment episodes involving Aboriginal and Torres Strait Islander clients were most likely to involve alcohol (46%), marijuana/cannabis (23%), heroin (12%) and meth/amphetamines (11%), that is, the same four principal drugs of concern as the population overall. However, alcohol was much more likely to be nominated, and heroin less so (AIHW 2004a:23). Information from the AODTS–NMDS on treatment episodes by Indigenous status should be treated with caution for a number of reasons, including:

- the overall proportion of episodes relating to clients identified as being of Aboriginal and/or Torres Strait Islander origin in 2002–03 was only slightly higher than the proportion of episodes where Indigenous status was ‘not stated’; and
- the majority of dedicated substance use services for Aboriginal and/or Torres Strait Islander people are not included in the AODTS–NMDS collection.

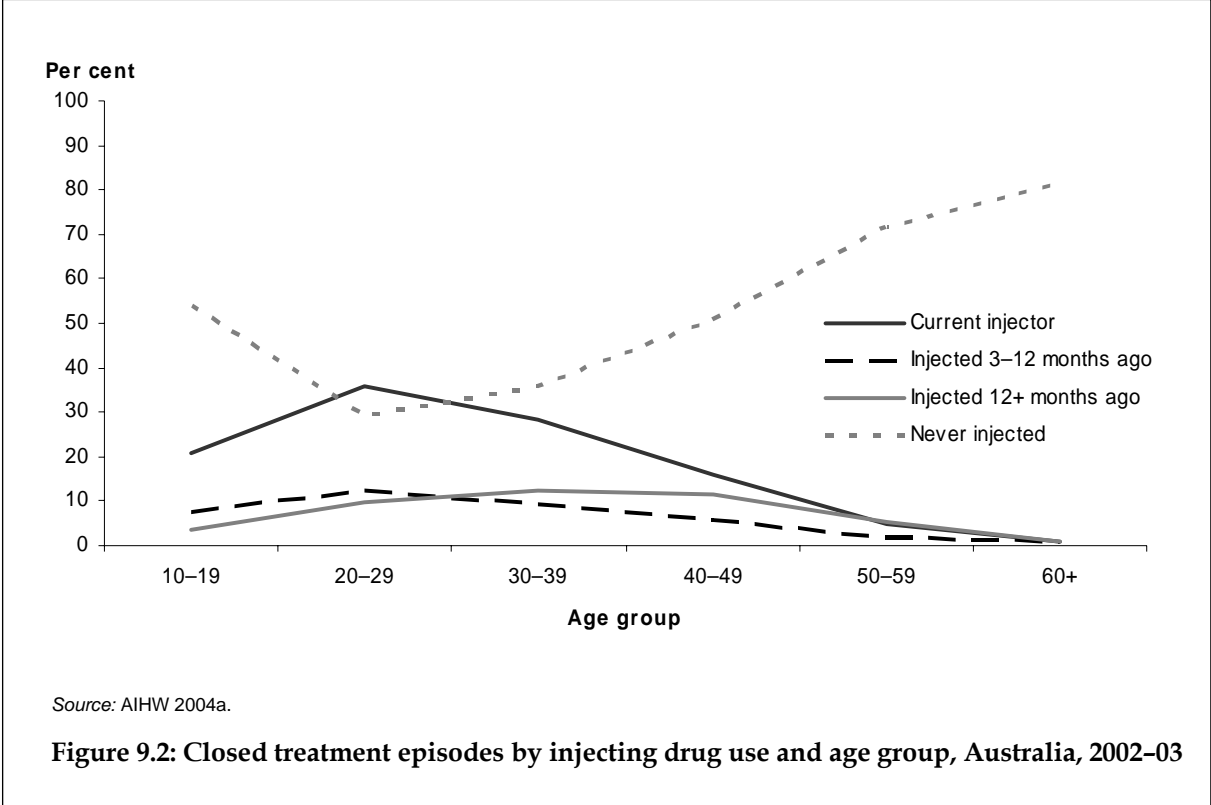
**Injecting drug use**

In 2002–03, around one-quarter (26%) of closed treatment episodes involved clients who identified themselves as current injectors (i.e. injected within the previous 3 months) and a

further 19% involved clients who reported that they had injected drugs in the past (3 or more months ago). Overall, 45% 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 ages 20–29 (58%), and declined thereafter, reaching 3% of treatment episodes for clients aged 60 years and over (Figure 9.2).

This information should be interpreted with caution as data for ‘injecting drug use’ had a high ‘not stated’ response (14% of all closed treatment episodes) (AIHW 2004a).



### Treatment type

‘Main treatment type’ is the main activity determined at assessment by the treatment agency to treat the client’s principal alcohol and/or other drug problem (AIHW 2004a). Treatment type in this section is measured by the number of closed treatment episodes for main treatment type.

Counselling treatment accounted for the greatest proportion of closed treatment episodes in most jurisdictions (Table 9.2). Withdrawal management was the most common treatment type for closed treatment episodes in the Australian Capital Territory (51%), and in Queensland the most common treatment type was ‘information and education only’ (45%). This pattern of main treatment in Queensland relates largely to the scope of their collection in 2002-03 (namely the inclusion of police diversion and government-provided services but not non-government-funded services – see AIHW 2004a pp. 6-7 for further details).

**Table 9.2: Closed treatment episodes by main treatment type, by state and territory, Australia, 2002–03**

Main treatment type	NSW	Vic	Qld <sup>(a)</sup>	WA	SA	Tas	ACT	NT	Australia	Australia
										(number)
	(per cent)									
Withdrawal management (detoxification)	22.6	21.0	5.4	9.7	21.6	15.7	50.7	8.9	18.9	24,767
Counselling	37.9	48.6	29.2	58.0	23.3	55.7	15.8	24.7	41.5	54,395
Rehabilitation	9.0	3.7	7.4	6.1	22.6	5.3	7.4	17.4	7.5	9,865
Support and case management only	6.0	11.2	4.2	0.7	2.5	3.2	15.8	3.7	6.9	9,097
Information and education only	2.8	0.3	45.1	13.8	1.9	0.8	0.1	21.4	8.0	10,478
Assessment only	17.3	10.6	5.6	9.5	21.8	7.5	4.4	19.9	12.7	16,632
Other <sup>(b)</sup>	4.4	4.6	3.1	2.1	6.3	11.8	5.8	4.1	4.4	5,696
<b>Total (per cent)</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>41,166</b>	<b>45,306</b>	<b>14,195</b>	<b>14,222</b>	<b>7,440</b>	<b>2,568</b>	<b>3,001</b>	<b>3,032</b>	<b>..</b>	<b>130,930</b>

(a) In Queensland a client undergoing Police Diversion automatically has 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 anticipated that future modifications to data collection processes will enable this possibility to be reflected.

(b) 'Other' includes 2,064 closed treatment episodes where the main treatment was recorded 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 maintenance pharmacotherapies are currently excluded from the AODTS–NMDS.

Source: AIHW 2004a.

## Indigenous status

Compared with treatment episodes for other Australians, episodes involving Aboriginal and/or Torres Strait Islander clients were less likely to have withdrawal management (detoxification) as the main treatment (13% of Indigenous clients compared with 20% of episodes for other Australians) or counselling as the main treatment (38% of Indigenous clients compared with 42% of other Australian clients). Treatment episodes involving Aboriginal and/or 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 2004a:37–38).

As outlined earlier in this chapter, information from the AODTS–NMDS on treatment episodes by Indigenous status should be treated with caution. For more information refer to Section 3.4 of *Alcohol and Other Drug Treatment Services in Australia 2002–03: Report on the National Minimum Data Set* (AIHW 2004a).

## 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. These opioid pharmacotherapy treatment programs facilitate access to treatment and promote the principle of harm reduction and education of users (AIHW 2004a:66). Information is not available separately for clients registered for methadone and

buprenorphine treatment in South Australia. There were approximately 2,800 clients registered for pharmacotherapy treatment in total in South Australia as at 30 June 2003.

## Methadone maintenance therapy clients

The number of methadone maintenance clients registered with various prescribers by state and territory are shown in Table 9.3. At 30 June 2003, the majority of clients were registered with public prescribers in Queensland, the Australian Capital Territory and the Northern Territory. The majority of clients in all other jurisdictions, apart from South Australia, were registered with private prescribers.

**Table 9.3: Methadone maintenance therapy clients, by state and territory, Australia, as at 30 June 2003<sup>(a)</sup>**

Prescriber	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	(number)								
Public prescriber	2,331	—	2,774	1,028	n.a.	139	443	44	6,759
Private prescriber	9,852	4,638	440	1,327	n.a.	305	123	6	16,691
Public/private prescriber	245	—	—	—	n.a.	—	—	—	245
Correctional facilities	1,671	157	41	184	n.a.	10	16	—	2,079
Other <sup>(b)</sup>	85	—	—	—	n.a.	—	—	—	85
<b>Total</b>	<b>14,184</b>	<b>4,795</b>	<b>3,255</b>	<b>2,539</b>	<b>n.a.</b>	<b>454</b>	<b>582</b>	<b>50</b>	<b>25,859</b>

(a) The number of clients on the program at 30 June each year, except for Western Australia, where the number of clients treated throughout the year is reported.

(b) 'Other' includes 85 clients with missing program types in New South Wales, 22 clients registered with doctors and 275 clients registered with hospitals in Queensland.

### Notes

1. Data for methadone and buprenorphine are not kept separately in South Australia. At 30 June 2003 there were 2,846 clients registered for pharmacotherapy treatment in South Australia.
2. 'Public prescriber' or 'private prescriber' includes hospitals.

Source: National pharmacotherapy statistics annual data as at 30 June 2003, Australian Government Department of Health and Ageing.

## Buprenorphine maintenance therapy clients

Following a similar pattern to clients registered for methadone treatment, all clients registered for buprenorphine treatment in the Australian Capital Territory and the majority registered in Queensland and the Northern Territory were registered with public providers. The majority of clients registered for buprenorphine treatment in New South Wales, Victoria, Western Australia and Tasmania were registered with private prescribers (Table 9.4).



**Table 9.4: Buprenorphine maintenance therapy clients, by state and territory, Australia, as at 30 June 2003<sup>(a)</sup>**

Prescriber	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	(number)								
Public prescriber	390	—	574	369	n.a.	12	104	34	1,483
Private prescriber	1,288	3,818	390	1,127	n.a.	32	—	14	6,669
Public/private prescriber	80	—	—	—	n.a.	—	—	—	80
Correctional facilities	223	72	70	44	n.a.	—	—	—	409
<b>Total</b>	<b>1,981</b>	<b>3,890</b>	<b>1,034</b>	<b>1,540</b>	<b>n.a.</b>	<b>44</b>	<b>104</b>	<b>48</b>	<b>8,641</b>

(a) The number of clients on the program at 30 June each year, except for Western Australia, where the number of clients treated throughout the year is reported.

*Notes*

1. Data for methadone and buprenorphine are not kept separately in South Australia. At 30 June 2003 there were 2,846 clients registered for pharmacotherapy treatment in South Australia.
2. 'Public prescriber' or 'private prescriber' includes hospitals.

Source: National Pharmacotherapy Statistics Annual Data as at 30 June 2003, Australian Government Department of Health and Ageing.

## Sydney medically supervised injecting centre

The Sydney medically supervised injecting centre (MSIC) opened for client services in May 2001. Located in Kings Cross, the centre offers on-site medical consultations and assessments, health education, and testing for bloodborne viruses and sexually transmissible diseases as well as needle and syringe programs. The centre also provides referrals for drug and alcohol detoxification and rehabilitation services (Sydney MSIC 2004, as cited in AIHW 2004b:331).

An evaluation of the MSIC was published in 2003 (MSIC Evaluation Committee 2003). The evaluation employed several methods, including the use of data from the annual Australian Needle and Syringe Program (NSP) Survey. The NSP Survey was expanded in 2000, 2001 and 2002 to include additional questions relevant to the MSIC evaluation. In both 2001 and 2002, 41% of injecting drug users participating in the survey reported one or more changes in their injecting technique since using the MSIC (Table 9.5). The most common change in injecting technique reported was 'improved control when injecting' (38% in 2001 and 35% in 2002).

**Table 9.5: Changes in injecting technique since using the medically supervised injecting centre, 2001 and 2002**

Type of change since using the MSIC	2001	2002
	(per cent)	
Don't inject outdoors anymore	14	13
Improved control when injecting	38	35
Inject pills less often	2	6
Learning to take care of veins	2	2
Less blood around when injecting	17	13
Less vein damage	25	16
More hygienic	6	2
Safer	5	2
<b>Any change in injecting technique</b>	<b>41</b>	<b>41</b>

Note: More than one option could be selected.

Source: MSIC Evaluation Committee 2003.

# 10 Crime and law enforcement

## Introduction

This chapter looks at the relationships among drugs, crime and law enforcement. The first section of the chapter concerns illicit drug offences and arrests in Australia. The following section looks at the relationship between drug use and criminal offending among police detainees, incarcerated offenders 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 2003–04* (ACC 2005).

Marijuana/cannabis is the most common illicit drug for which people are arrested in Australia, accounting for 72% of arrests relating to illicit drugs in 2003–04 (Table 10.1). The proportion of arrests for amphetamine-type stimulants increased from 5% to 12% during 1996–97 to 2003–04. In absolute terms, the number of consumer and provider arrests for amphetamine-type stimulants increased from 3,900 in 1996–97 to 9,600 in 2003–04. Note that ‘amphetamine-type stimulants’ include meth/amphetamines and ecstasy, but exclude cocaine. This is a different term to ‘amphetamine-type substances’, used elsewhere in this report.

The overall number of consumer and provider arrests for illicit drugs fell from 85,000 in 1996–97 to 74,000 in 2001–02, but have since increased, reaching 79,000 in 2003–04.

Marijuana/cannabis arrests followed this trend, decreasing from 69,100 in 1996–97 to 54,000 in 2000–01, increasing afterwards to 56,700 in 2003–04.

The majority of illicit drug arrests are related to their consumption rather than their provision or sale (Table 10.1). For example, in 2003–04, 93% of arrests for amphetamine-type stimulants and 87% for steroids were related to their consumption.

Total consumption-related illicit drug arrests in Australia increased between 1996–97 and 1999–00, from 60,700 to 66,000. After this time, consumption-related arrests followed the overall trend for all arrests combined, falling to 58,900 in 2001–02, and reaching 62,800 in 2003–04. Arrests relating to provision of illicit substances decreased between 1996–97 and 2003–04, from 24,300 arrests to 15,500 arrests (ACC 2005:86).

**Table 10.1: Illicit drug arrests, by type of drug and consumer status, Australia, 1996–97 to 2003–04**

Substance	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02	2002–03	2003–04
	(number)							
Marijuana/cannabis	69,136	64,861	58,145	55,268	54,044	55,585	55,689	56,747
Heroin and other opioids	7,140	10,366	14,341	11,223	7,391	3,259	3,824	3,691
Amphetamine-type stimulants	3,907	4,766	6,584	8,083	8,846	7,953	8,313	9,593
Cocaine	609	524	571	433	651	612	250	328
Hallucinogens	460	460	618	290	199	131	124	124
Steroids	71	71	87	74	90	112	113	99
Other and unknown	3,723	3,276	3,201	6,812	6,400	6,307	6,660	8,444
<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>
	(per cent)							
Marijuana/cannabis	81	77	70	67	70	75	74	72
Heroin	8	12	17	14	10	4	5	5
Amphetamine-type stimulants	5	6	8	10	11	11	11	12
Cocaine	1	1	1	1	1	1	—	—
Hallucinogens	1	1	1	—	—	—	—	—
Steroids	—	—	—	—	—	—	—	—
Other	4	4	4	8	8	9	9	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>
	Consumer arrests <sup>(a)</sup>							
	(per cent)							
Marijuana/cannabis	71	73	81	85	85	83	83	84
Heroin	70	70	74	74	70	62	66	65
Amphetamine-type stimulants	69	70	76	77	76	73	72	93
Hallucinogens	43	61	58	76	70	82	70	66
Cocaine	67	72	81	58	62	62	58	47
Steroids	90	86	97	92	90	85	89	87
Other	82	77	76	80	80	76	73	78
<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>

(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 (2004) for further information on counting methodology and data quality issues.
2. Amphetamine-type stimulants include meth/amphetamines and ecstasy.
3. 1999–00 data 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.
5. Arrest data for years 1997–98, 1999–00 and 2000–01 have been updated since *Statistics on Drug Use in Australia 2002* was published.

Sources: ABCI 2001, 2002; ACC 2003, 2004, 2005.

## Prison census statistics

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

**Table 10.2: Sentenced prisoners where the most serious offence was drug-related, by type of offence, by state and territory, Australia, 1995 to 2004**

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
<b>Deal/traffic drugs</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
<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
<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

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, and are shown as a subset of the New South Wales figures. These prisoners are not separately counted in the Australian totals.

(b) As a proportion of total sentenced prisoners.

Sources: ABS 1997a, 1997b, 1997c, 1998, 1999, 2000, 2002, 2003, 2004c; ABS unpublished data.

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 10.2). Of the 1,925 persons in prison for drug-related offences at 30 June 2004, 1,558 (81%) were imprisoned for dealing/trafficking drugs, 193 (10%) for manufacturing/growing drugs and 174 (9%) 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 2004. In 2004, one in ten sentenced prisoners was imprisoned for drug-related offences.

## Marijuana/cannabis offences

The number of marijuana/cannabis offences recorded throughout Australia decreased from 375 per 100,000 population in 1996–97 to 284 in 2003–04 (Table 10.3). Rates more than halved in Western Australia and South Australia during this period, and declined in most other jurisdictions except Queensland and Tasmania.

**Table 10.3: Marijuana/cannabis arrests and offence notices issued per 100,000 population, by state and territory, 1996–97 to 2003–04**

State/territory	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02	2002–03	2003–04
New South Wales	227	245	247	219	210	183	186	165
Victoria	199	196	199	157	137	139	144	154
Queensland	441	381	385	387	367	465	529	574
Western Australia	714	636	332	365	390	374	311	311
South Australia	1,089	906	801	785	726	647	517	477
Tasmania	227	253	156	169	223	326	386	341
Australian Capital Territory	157	121	76	51	105	88	87	107
Northern Territory	368	444	370	271	457	415	204	309
<b>Australia</b>	<b>375</b>	<b>349</b>	<b>309</b>	<b>290</b>	<b>280</b>	<b>284</b>	<b>282</b>	<b>284</b>

Note: Data have been updated since *Statistics on Drug Use in Australia 2002* was published.

Sources: ACC 2003, 2004, 2005.

## Drug use and criminal offending

### Drug use among police detainees

This section presents information from the 2003 Drug Use Monitoring in Australia (DUMA) project, managed by the Australian Institute of Criminology. 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 2003, over half of male and female detainees tested positive to marijuana/cannabis (57% of male detainees and 53% of female detainees) (Table 10.4). Higher proportions of females tested positive to amphetamines, methamphetamines, opiates and heroin than males. Less than 1% of detainees tested positive to cocaine. Around three-quarters of male and female detainees aged between 18 and 39 years tested positive to any illicit drug, while half of female detainees and less than half of male detainees (42%) aged 40 years and over tested positive to any illicit drug.

**Table 10.4: Proportion of adult detainees testing positive to illicit drugs<sup>(a)</sup> in the last 12 months, by age group, sex and type of illicit drug, Australia, 2003**

Drug type	Age group			Total
	18–24	25–39	40+	
	(per cent)			
	<b>Males</b>			
Marijuana/cannabis	65.9	59.9	33.0	56.9
Opiates <sup>(b)</sup>	14.1	21.8	14.9	17.9
Heroin	10.9	17.3	9.7	13.7
Amphetamines <sup>(c)</sup>	26.0	38.1	20.5	30.8
Methamphetamines <sup>(d)</sup>	22.2	35.4	19.4	28.0
Cocaine	0.2	0.8	—	0.5
Any illicit drug <sup>(e)</sup>	74.6	74.2	42.2	68.5
<b>Total (N)</b>	<b>847</b>	<b>1,199</b>	<b>464</b>	<b>2,510</b>
	<b>Females</b>			
Marijuana/cannabis	53.2	56.8	35.5	52.9
Opiates <sup>(b)</sup>	27.7	29.2	30.7	28.9
Heroin	26.2	21.6	17.7	22.5
Amphetamines <sup>(c)</sup>	40.4	51.5	33.9	45.8
Methamphetamines <sup>(d)</sup>	38.3	45.8	29.0	41.3
Cocaine	—	0.4	1.6	0.4
Any illicit drug <sup>(e)</sup>	76.6	76.9	50.0	73.2
<b>Total (N)</b>	<b>141</b>	<b>264</b>	<b>62</b>	<b>467</b>

(a) These 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) Amphetamines may or may not be legally prescribed. Police detainees who tested positive to amphetamines may have also tested positive to methamphetamine. Analysis undertaken by the Australian Institute of Criminology indicates that in 2003, 92% 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 methamphetamines.

Source: Australian Institute of Criminology, Drug Use Monitoring in Australia Program (DUMA) 2003, computer file.

## Drug use and offending among prisoners

This section reports on the 2003 Drug Use Careers of Offenders (DUCO) study, managed by the Australian Institute of Criminology, covering females incarcerated in Australian prisons. In 2003, two-thirds of female prisoners reported using an illicit drug in the 6 months prior to their arrest (Table 10.5), with 49% using marijuana/cannabis, 42% using amphetamines and 29% using heroin.

Use of illicit drugs in the 6 months prior to arrest appeared to decrease with age. Female prisoners aged 18–24 years were the most likely to report the use of illicit drugs in the 6 months prior to arrest (83%), while female prisoners aged 40 years and over were the least likely (37%).

**Table 10.5: Proportion of female prisoners<sup>(a)</sup> who used illicit drugs in the 6 months before arrest<sup>(b)</sup>, by age group and type of illicit drug, Australia, 2003**

Drug type	Age group			Total
	18–24	25–39	40+	
	(per cent)			
Marijuana/cannabis	68.7	50.4	27.4	48.7
Heroin	41.4	31.8	12.4	29.1
Amphetamines	56.6	46.1	21.2	42.3
Cocaine	14.1	17.4	6.2	14.0
Hallucinogens/ecstasy	12.1	8.1	1.8	7.4
Any illicit drug <sup>(c)</sup>	82.8	72.5	37.2	66.2

(a) Sample of adult female sentenced inmates in correctional facilities in Victoria, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory.

(b) Self-reported use.

(c) Any illicit drug includes marijuana/cannabis, heroin, amphetamines, cocaine, hallucinogens, ecstasy, street methadone, benzodiazepines, and morphine.

Source: Australian Institute of Criminology, unpublished data.

In the 2003 DUCO survey, female prisoners were asked about drug dependency relating to alcohol and other drugs. It is important to note that the definition and measurement of dependency used in the 2003 female study was different to that used in the 2001 study of male prisoners, the results of which were included in *Statistics on Drug Use in Australia 2002*. Similar to the 2001 DUCO study of male offenders, drug dependency was not clinically assessed in the 2003 study. In 2003, a six-item scale was used to measure dependency. Women were classified as dependent on drugs if they answered positively to at least three out of six questions relating to substance use in the 6 months prior to being arrested. The set of questions were asked separately for drug and alcohol use. For further information on the measurement of dependency used in the 2003 DUCO study, see Chapter 4 of *Drugs and Crime: a Study of Incarcerated Female Offenders* (Johnson 2004).

In 2003, 27% of female prisoners in the DUCO study were classified as dependent on alcohol, 55% were classified as dependent on drugs, and a total of 68% were classified as dependent on alcohol and/or drugs (Table 10.6).

The proportion of female prisoners classified as dependent on drugs appeared to decrease with age, involving 73% of women aged 18–24 years compared with 29% of women aged 40 years and over. In contrast to the pattern for drugs, the proportion of female prisoners classified as dependent on alcohol did not decline so much with age, ranging from 29% of female prisoners aged 18–24 years to 23% of female prisoners aged 40 years and over.

**Table 10.6: Proportion of female prisoners<sup>(a)</sup> who were classified as drug-dependent<sup>(b)</sup>, by age group, Australia, 2003**

Drug type	Age group			Total
	18–24	25–39	40+	
	(per cent)			
Alcohol <sup>(c)</sup>	29.3	28.3	23.0	27.2
Drugs <sup>(d)(e)</sup>	72.7	58.9	29.2	54.7
Alcohol and/or other drugs <sup>(d)(f)</sup>	84.9	71.3	45.1	67.8

- (a) Sample of adult female sentenced inmates in correctional facilities in Victoria, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory.
- (b) Respondents that answered positively to at least three out of six questions concerning drug dependency in the 6 months prior to their arrest. The set of questions were asked separately for drug and alcohol use.
- (c) Respondents defined as alcohol dependent. These respondents may or may not also have been dependent on other drugs.
- (d) Respondents defined as drug dependent. These respondents may or may not have also been dependent on alcohol.
- (e) Any illicit drug includes marijuana/cannabis, heroin, amphetamines, cocaine, hallucinogens, ecstasy, street methadone, benzodiazepines, and morphine.
- (f) Total respondents who were defined as alcohol and/or drug-dependent.

Source: Australian Institute of Criminology, unpublished data.

Female offenders who were incarcerated for property offences were slightly more likely than other female prisoners to be classified as dependent on drugs in 2003 (Table 10.7). While 56% of female offenders incarcerated for property offences were classified as dependent on drugs, this is a similar proportion to the 55% of all female prisoners who were classified as dependent on drugs.

Females offenders aged 18–24 years who were incarcerated for property offences were the most likely to be classified in the study as drug-dependent (86%).

**Table 10.7: Proportion of female prisoners<sup>(a)</sup> who were classified as drug-dependent<sup>(b)</sup>, by age group and type of offence for current incarceration, Australia, 2003**

Type of offence	Age group			Total
	18–24	25–39	40+	
	(per cent)			
Violent offences	59.1	61.2	23.5	52.8
Property offences	85.7	57.0	25.7	56.4
Other offences	78.9	58.7	36.4	54.8
All offences	72.7	58.9	29.2	54.7

- (a) Sample of adult female sentenced inmates in correctional facilities in Victoria, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory.
- (b) Respondents that answered positively to at least three out of six questions concerning drug dependency in the 6 months prior to their arrest. This table only includes respondents that were defined as drug dependent. These respondents may or may not have also been dependent on alcohol.

Note: 'Other offences' include abduction, blackmail and extortion, offensive behaviour, disorderly conduct, prostitution offences, harassment and nuisance offences, other threatening behaviour, drug offences, driving-related offences, and offences against the administration of justice (such as breach of bail, parole, breach of a justice order and escape custody).

Source: Australian Institute of Criminology, unpublished data.

Women incarcerated for violent offences were more likely to say they were under the influence of alcohol at the time of the offence (43%), while women incarcerated for property offences were more likely to say they were under the influence of heroin (28%) (Table 10.8). Those incarcerated for offences other than violent or property offences were more likely to be under the influence of amphetamines or cocaine at the time of the offence.



Female offenders aged 18–24 years were the most likely to report that they were under the influence of one or more drugs at the time of their offence compared with female offenders in other age groups.

**Table 10.8: Proportion of female prisoners<sup>(a)</sup> who self-reported being under the influence<sup>(b)</sup> of alcohol or illicit drugs at the time of the offence, by age group, type of offence and type of drug used at the time of offence, Australia, 2003**

Type of offence	Age group			Total
	18–24	25–39	40+	
	(per cent)			
	<b>Alcohol</b>			
Violent offences	40.9	41.2	50.0	42.9
Property offences	20.0	12.7	2.9	12.1
Other offences	26.3	25.0	20.5	23.9
All offences	31.3	26.7	23.9	27.0
	<b>Marijuana/cannabis</b>			
Violent offences	18.2	15.3	11.8	15.3
Property offences	31.4	16.5	8.6	18.1
Other offences	26.3	18.5	15.9	18.7
All offences	25.3	16.7	12.4	17.4
	<b>Amphetamines/cocaine</b>			
Violent offences	22.7	22.4	2.9	18.4
Property offences	37.1	26.6	11.4	25.5
Other offences	31.6	34.8	25.0	31.6
All offences	30.3	27.9	14.2	25.1
	<b>Heroin</b>			
Violent offences	18.2	15.3	2.9	13.5
Property offences	31.4	32.9	11.1	27.5
Other offences	26.3	18.5	15.9	18.7
All offences	25.3	21.7	10.6	19.8

(a) Sample of adult female sentenced inmates in correctional facilities in Victoria, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory.

(b) Self-reported use of one or more drugs.

*Notes*

1. 'Other offences' include abduction, blackmail and extortion, offensive behaviour, disorderly conduct, prostitution offences, harassment and nuisance offences, other threatening behaviour, drug offences, driving-related offences, and offences against the administration of justice (such as breach of bail, parole, breach of a justice order and escape custody).
2. Information on the proportion of female prisoners who self-reported being under the influence of hallucinogens/ecstasy at the time of offence involves small cell sizes. These data have been suppressed to preserve confidentiality.

Source: Australian Institute of Criminology, unpublished data.

## Mental health, drug use and offending among prisoners

Around two-thirds (67%) of female prisoners responding to the 2003 DUCO survey who were classified in the study as alcohol and/or drug dependent reported that they 'often' experienced a mental health condition while growing up (Table 10.9). The two most common mental health conditions experienced were 'often feeling very sad' and 'often having arguments or fights' (each 40%).

**Table 10.9: Mental health conditions affecting female prisoners<sup>(a)</sup> who were classified as drug-dependent<sup>(b)</sup>, Australia, 2003**

Condition <sup>(c)</sup>	Alcohol dependent <sup>(d)</sup>	Drug <sup>(e)(f)</sup> dependent (per cent)	Alcohol and/or drug <sup>(e)(f)</sup> dependent
Anxious or stressed	36.2	38.8	37.3
Think bad thoughts	37.3	33.6	31.7
Didn't care what happened	24.8	27.8	25.7
Fearful or distrustful	40.2	36.5	37.3
Had nightmares	30.7	26.7	25.7
Had arguments or fights	39.7	40.8	39.8
Very sad	41.3	42.0	40.4
Any mental health condition	71.9	67.7	67.1

(a) Sample of adult female sentenced inmates in correctional facilities in Victoria, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory.

(b) Respondents that answered positively to at least three out of six questions concerning drug dependency in the 6 months prior to their arrest. The set of questions were asked separately for drug and alcohol use.

(c) Where respondents self-reported 'often' having these mental health conditions while growing up.

(d) Respondents defined as alcohol dependent. These respondents may or may not also have been dependent on other drugs.

(e) Respondents defined as drug dependent. These respondents may or may not have also been dependent on alcohol.

(f) Includes marijuana/cannabis, heroin, amphetamines, cocaine, hallucinogens, ecstasy, street methadone, benzodiazepines, and morphine.

Source: Australian Institute of Criminology, unpublished data.

## Lifetime receipt of treatment services among prisoners

Outpatient counselling (46%) was the most common treatment service received by female prisoners in the 2003 DUCO survey who were classified in the study as drug-dependent (Table 10.10). Many female prisoners had also received detoxification treatment (42%), methadone maintenance treatment (39%) and rehabilitation (38%) at some point in their lives.

**Table 10.10: Female prisoners<sup>(a)</sup> who were classified as drug-dependent<sup>(b)</sup>: receipt of drug treatment services in lifetime, 2003**

Type of treatment received	Per cent
Naltrexone	16.0
Buprenorphine	21.5
General practitioner	28.5
Support group	31.9
Methadone maintenance	38.7
Rehabilitation program	37.6
Detoxification	41.8
Outpatient counselling	45.5

(a) Sample of adult female sentenced inmates in correctional facilities in Victoria, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory.

(b) Respondents that answered positively to at least three out of six questions concerning drug dependency in the 6 months prior to their arrest. This table only includes respondents that were defined as drug dependent. These respondents may or may not have also been dependent on alcohol.

Source: Australian Institute of Criminology, 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 (Breen et al. 2004a:147). In 2004, almost half (48%) of injecting drug users surveyed reported that they had been involved in some type of criminal activity in the month before interview, and 42% reported that they had been arrested at least once in the past year (Table 10.11). The most common criminal activity reported was drug dealing (31%), followed by property crime (24%). The most common reasons for arrest were property crime (44%) and violent crime (20%). Only 5% of injectors interviewed had been arrested for drug dealing in the 12 months before interview.

**Table 10.11: Self-reported crime among injecting drug users<sup>(a)</sup> and proportion arrested in the last year, by type of crime, Australia, 2004**

Type of crime	Self-reported crime in the last month	Arrested in the last year (per cent)
Dealing	31	5
Property crime	24	44
Fraud	7	7
Violent crime	6	20
Any crime	48	42

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

Note: 'Use/possession' of drugs not asked.

Source: 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, abscesses and tetanus 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 (Breen et al. 2004a:50).

Breen et al. (2004a:48) 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 10.12). 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 Breen et al. (2004a) 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 2003–04, heroin seized by state police in the five most populous states ranged between 25% and 31%. In the same year, the median purity of AFP heroin seizures in New South Wales, Victoria and Queensland was more than twice as high (67%, 72% and 73% respectively).

**Table 10.12: Median purity of heroin seizures analysed in Australia, by state and territory, 1999–00 to 2003–04**

Year/police	NSW	Vic	Qld	WA <sup>(a)</sup>	SA	Tas	ACT	NT
	(per cent)							
1999–00								
State	59.3	53.1	50.2	55.5	48.3	—	..	—
AFP <sup>(b)</sup>	69.2	58.8	—	71.8	69.0	74.6	52.5	—
2000–01								
State	49.0	43.0	42.3	48.5	43.2	—	..	31.0
AFP <sup>(c)</sup>	71.0	36.8	51.3	68.3	—	—	38.8	75.3
2001–02								
State	n.y.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	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	—	—	32.0	—

(a) Figures do not represent the purity levels of all seizures in Western Australia. The Western Australian Forensic Science Lab does not analyse all seizures less than two grams. This table underestimates the numbers of samples that are tested.

(b) Median purity for Tasmania based on one seizure.

(c) Median purity for Queensland, Western Australia and the Northern Territory based on one seizure.

*Notes*

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

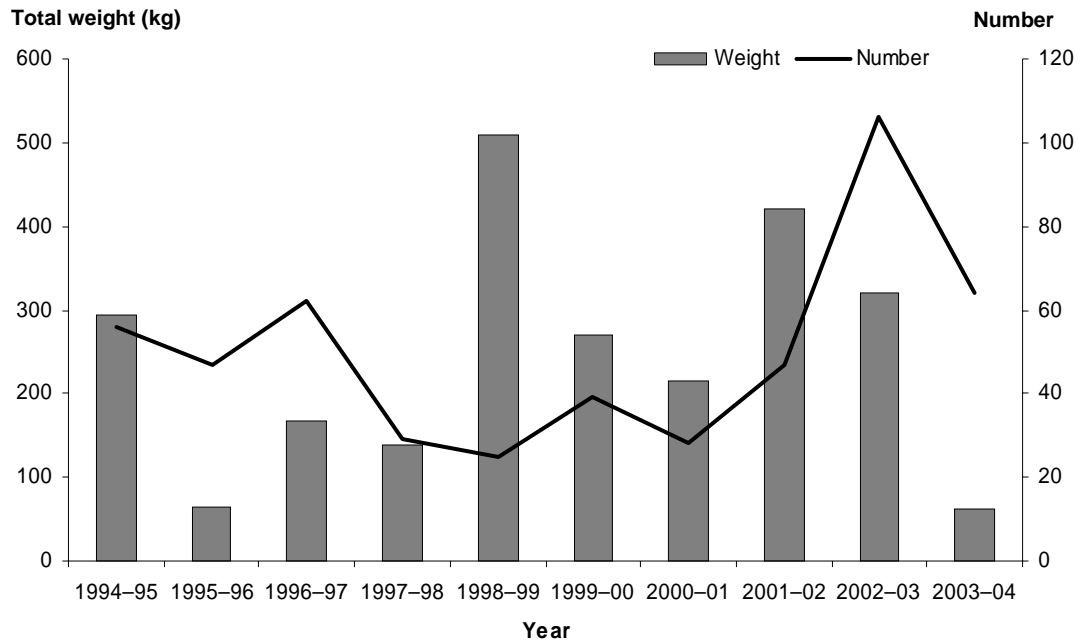
2. Due to industrial action no state police seizures were analysed in South Australia in January to June 2001.

Sources: Breen et al. 2004a; ACC 2005.

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

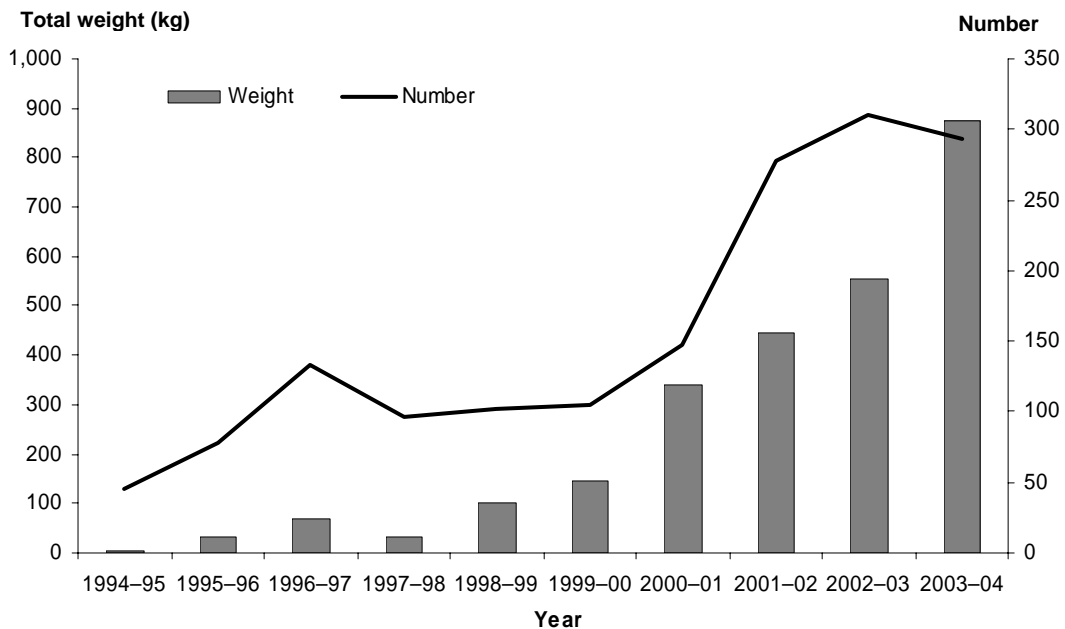
There is not always a positive correlation between the number of heroin detections and the total weight of detections. Over the period 1994–95 to 2003–04, the number of heroin border detections per year by the Australian Customs Service ranged between 25 and 106 detections (Figure 10.1). The total weight of heroin border detections fluctuated between a low of 62 kilograms in 2003–04 and a high of 508 kilograms in 1998–99. In 2003–04, the total weight of heroin detected was relatively low (62 kilograms), yet the number of detections was relatively high (64 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 (Figure 10.2). Over the 10-year period from 1994–95 to 2003–04, 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.



Sources: Australian Customs Service, unpublished data; ACS 2004.

**Figure 10.1: Customs border detections of heroin, by number and total weight, Australia, 1994-95 to 2003-04**

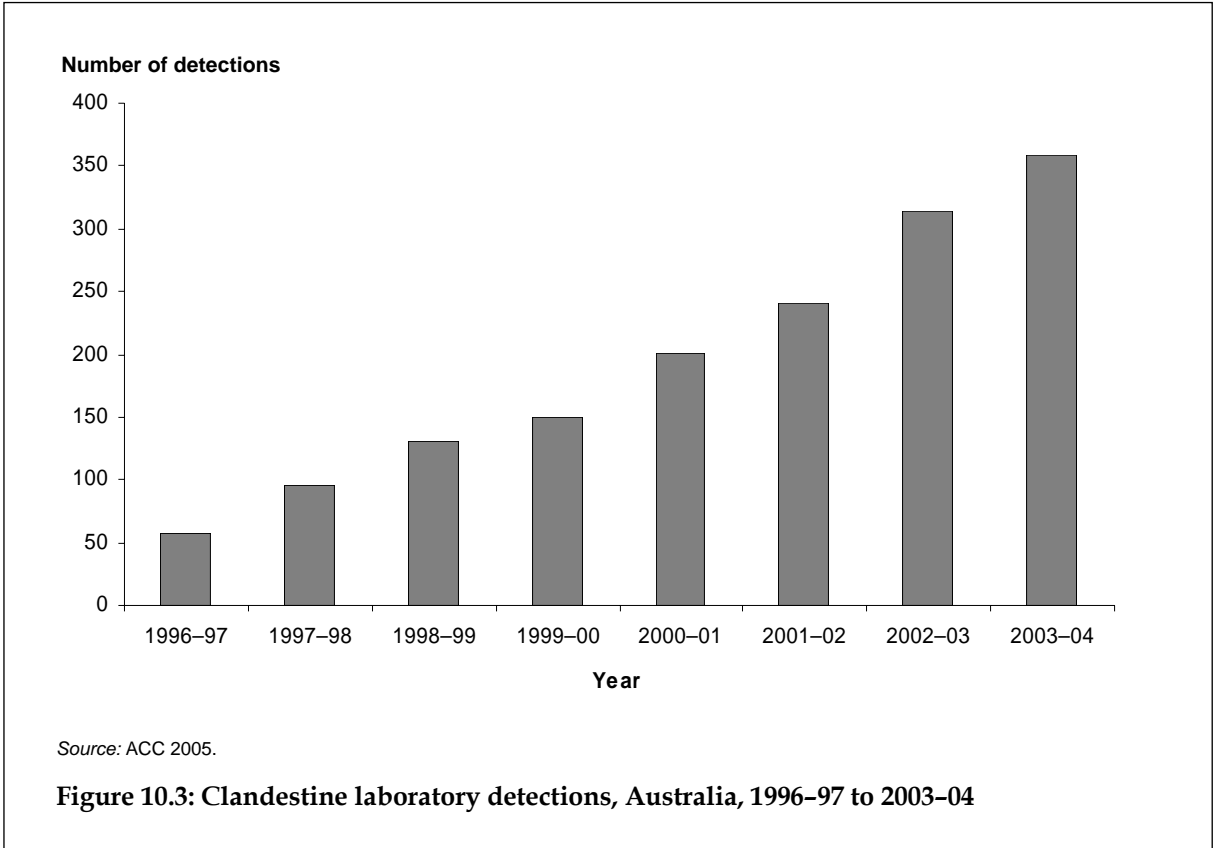


Sources: Australian Customs Service, unpublished data; ACS 2004.

**Figure 10.2: Customs border detections of ecstasy (MDMA), by number and total weight, Australia, 1994-95 to 2003-04**

# Detection of drug laboratories

The number of clandestine drug laboratories detected in Australia increased sixfold between the years 1996-97 and 2003-04. 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 2005:17), thereby contributing to an increase in the number of laboratories. According to the ACC, all jurisdictions except for Western Australia, Tasmania and the Australian Capital Territory experienced an increase in clandestine laboratory detections between 2002-03 and 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'). For more information about clandestine laboratories in various jurisdictions, see the 'Amphetamines' chapter of *Illicit Drug Data Report 2003-04* (ACC 2005).



# 11 Polydrug use

## Introduction

Polydrug use is defined as ‘the use of more than one drug, simultaneously or at different times. The term ‘polydrug user’ is often used to distinguish a person with a varied pattern of drug use from someone who uses one kind of drug exclusively’ (MCDS 2004:24). This chapter focuses on the consumption of multiple drugs, whether or not the drugs were taken simultaneously. The chapter is divided into sections on polydrug use with tobacco, alcohol, marijuana/cannabis, amphetamine-type substances, and heroin.

## Polydrug use and tobacco

Across the drugs reported in the 2004 NDSHS, the prevalence of use of other drugs in the past 12 months was higher for tobacco smokers than non-smokers (Table 11.1). There was a more than fourfold greater use of marijuana/cannabis and more than threefold greater use of any illicit drug among smokers compared with non-smokers. There was only a moderate difference observed in the use of alcohol among the two groups, with around nine in ten smokers and eight in ten non-smokers consuming alcohol in the last 12 months.

**Table 11.1: Recent<sup>(a)</sup> use of other drugs by smokers and non-smokers: proportion of the population aged 14 years and over by sex, Australia, 2004**

Other substances recently used	Males		Females		Persons	
	Smokers <sup>(b)</sup>	Non-smokers	Smokers <sup>(b)</sup>	Non-smokers	Smokers <sup>(b)</sup>	Non-smokers
			(per cent)			
Alcohol	94.2	85.1	89.9	77.9	92.2	81.4
Marijuana/cannabis	33.6	8.8	24.7	4.4	29.5	6.5
Any illicit drug	39.1	12.1	30.1	8.4	34.9	10.2
Any illicit drug excluding marijuana/cannabis	20.7	6.0	16.2	5.2	18.6	5.6

(a) Used in the past 12 months.

(b) Used tobacco in the past 12 months.

Source: National Drug Strategy Household Survey 2004.

## Polydrug use and alcohol

Results from the 2004 NDSHS indicate that the differences in recent use of other drugs by drinkers and non-drinkers broadly follow the pattern for tobacco (Table 11.2). While less than 2% of non-drinkers used marijuana/cannabis in the last 12 months, 13% of drinkers had used the drug in the last 12 months. Smoking prevalence among drinkers (23%) was more than twice that among non-drinkers (10%).

**Table 11.2: Recent<sup>(a)</sup> use of other drugs by drinkers and non-drinkers: proportion of the population aged 14 years and over by sex, Australia, 2004**

Other substances recently used	Males		Females		Persons	
	Drinkers <sup>(b)</sup>	Non-drinkers	Drinkers <sup>(b)</sup>	Non-drinkers	Drinkers <sup>(b)</sup>	Non-drinkers
	(per cent)					
Tobacco	24.4	10.3	21.1	9.6	22.8	9.8
Marijuana/cannabis	16.2	2.0	10.0	1.0	13.2	1.4
Any illicit drug	20.1	5.2	14.4	4.7	17.3	4.9
Any illicit drug excluding marijuana/cannabis	10.1	3.6	8.1	3.9	9.1	3.8

(a) Used in the past 12 months.

(b) Consumed alcohol in the past 12 months.

Source: National Drug Strategy Household Survey 2004.

## Polydrug use and marijuana/cannabis

Users of marijuana/cannabis appeared to have much higher prevalence of other recent drug use compared with non-users of marijuana/cannabis (Table 11.3). Apart from alcohol, where marijuana/cannabis users were only moderately more likely to have drunk recently, users of marijuana/cannabis were at least twice as likely to have recently used other substances compared with non-users. For example, 16% of non-cannabis users smoked in the last 12 months, compared with 54% of marijuana/cannabis users. The gradients were generally larger for females than males.

The relatively high use of meth/amphetamines and ecstasy among marijuana/cannabis users (compared with non-users) suggests a user group for which all three substances are available and used.

Estimates of polydrug use sourced from the 2004 NDSHS should be interpreted with caution where prevalence is low. This is particularly relevant for estimates for non-users of marijuana/cannabis (Table 11.3).



**Table 11.3: Recent<sup>(a)</sup> use of other drugs by users and non-users of marijuana/cannabis: proportion of the population aged 14 years and over by sex, Australia, 2004**

Other substances recently used	Males		Females		Persons	
	Users <sup>(b)</sup>	Non-users	Users <sup>(b)</sup>	Non-users	Users <sup>(b)</sup>	Non-users
	(per cent)					
Tobacco	52.6	17.4	56.3	15.5	54.0	16.4
Alcohol	98.2	85.4	97.5	78.7	98.0	81.9
Pain-killers/analgesics <sup>(c)</sup>	6.1	2.3	8.0	2.8	6.8	2.6
Tranquillisers/sleeping pills <sup>(c)</sup>	4.8	0.4	4.9	0.6	4.9	0.5
Steroids <sup>(c)</sup>	0.3 *	—	0.1 *	—	0.2 *	—
Barbiturates <sup>(c)</sup>	1.3	—	1.3	—	1.3	—
Inhalants	3.2	0.1	2.2	0.1	2.8	0.1
Heroin	0.9	0.1	1.3	—	1.0	—
Methadone <sup>(d)</sup>	0.4 *	—	0.8	—	0.5	—
Other opiates <sup>(c)</sup>	0.9	0.1	1.1	0.1	1.0	0.1
Meth/amphetamines (speed) <sup>(c)</sup>	24.1	0.6	23.1	0.7	23.7	0.6
Cocaine	7.7	0.2	6.7	0.3	7.3	0.2
Hallucinogens	7.0	0.1	3.9	—	5.8	0.1
Ecstasy	25.2	0.9	21.7	0.7	23.9	0.8
Ketamine	2.0	0.2	1.1	—	1.7	0.1
GHB	0.8	—	0.9	—	0.8	—
Injected drugs	3.5	0.1	3.1	0.1	3.4	0.1

\* Relative Standard Error > 50%.

(a) Used in the last 12 months.

(b) Used marijuana/cannabis in the last 12 months.

(c) For non-medical purposes.

(d) Non-maintenance.

Source: National Drug Strategy Household Survey 2004.

## Polydrug use and amphetamine-type substances

In this section, recent users of any one or more of meth/amphetamines, ecstasy or cocaine have been grouped into users of amphetamine-type substances (ATS). Across all reported drugs, recent users of ATS had substantially higher prevalence than non-users (Table 11.4). This included three times the rate of smoking, and almost ten times the use of marijuana/cannabis, reflecting the patterns of use presented in Table 11.3.

Recent use of many substances, such as opiates, steroids, barbiturates and GHB, were effectively exclusive to recent ATS users.

The most common ATS used was ecstasy (70%), followed by meth/amphetamines (67%). Compared with male ATS users, female ATS users were slightly more likely to use meth/amphetamines and less likely to use ecstasy.

Readers are reminded to exercise caution when interpreting these results, particularly where sample size and/or prevalence are low.

**Table 11.4: Recent<sup>(a)</sup> use of other drugs by users and non-users of amphetamine-type substances: proportion of the population aged 14 years and over, by sex, Australia, 2004**

Other substances recently used	Males		Females		Persons	
	Users <sup>(b)</sup>	Non-users	Users <sup>(b)</sup>	Non-users	Users <sup>(b)</sup>	Non-users
	(per cent)					
Tobacco	57.7	20.2	56.7	17.4	57.3	18.8
Alcohol	98.6	86.5	96.9	79.8	97.9	83.0
Marijuana/cannabis	82.2	10.1	71.0	5.8	77.8	7.9
Pain-killers/analgesics <sup>(c)</sup>	10.7	2.3	12.7	2.8	11.5	2.6
Tranquillisers/sleeping pills <sup>(c)</sup>	9.6	0.5	10.1	0.6	9.8	0.5
Steroids <sup>(c)</sup>	0.2 *	0.1	0.2 *	—	0.2 *	—
Barbiturates <sup>(c)</sup>	2.4	0.1	2.3	—	2.3	—
Inhalants	6.6	0.2	3.3	0.1	5.3	0.2
Heroin	2.0	0.1	2.8	—	2.3	—
Methadone <sup>(d)</sup>	0.6	—	1.7	—	1.0	—
Other opiates <sup>(c)</sup>	1.9	0.1	1.9	0.1	1.9	0.1
Meth/amphetamines (speed) <sup>(c)</sup>	66.2	..	69.2	..	67.3	..
Cocaine	21.4	..	21.7	..	21.5	..
Hallucinogens	14.2	0.2	8.7	—	12.1	0.1
Ecstasy	73.1	..	65.8	..	70.2	..
Ketamine	6.4	—	2.9	—	5.0	—
GHB	2.0	—	2.6	—	2.2	—
Injected drugs	8.3	0.1	8.4	—	8.3	0.1

\* Relative Standard Error > 50%.

(a) Used in the last 12 months.

(b) One or more of meth/amphetamines, ecstasy or cocaine.

(c) For non-medical purposes.

(d) Non-maintenance.

Source: National Drug Strategy Household Survey 2004.

Estimates of recent use of other drugs by a population of ecstasy users are available from the National Drug and Alcohol Research Centre's Party Drugs Initiative (PDI). In this collection, recent use is defined as use in the last 6 months, and ecstasy users are defined as persons who used ecstasy at least six times in the last 6 months. Results from the 2004 PDI concur with the findings from the 2004 NDSHS, in that the majority of ecstasy users also used meth/amphetamines (Table 11.5). The most popular form of meth/amphetamines used was powder (68%), followed by meth/amphetamines in crystalline form (45%). The youngest female ecstasy users in the survey had not used cocaine or GHB recently, although the youngest male users had. More than twice as many ecstasy users had recently used ketamine (23%) compared with GHB (10%).

The principal investigators of the PDI observed that polydrug use is the norm amongst the users they surveyed (Breen et al. 2004b:38).

**Table 11.5: Recent<sup>(a)</sup> use of other ERDs: proportion of regular ecstasy users<sup>(b)</sup>, by age group and sex, persons aged 16 years and over, Australia, 2004**

Substance	Age group						Total
	16–17	18–19	20–24	25–29	30–39	40+	
	(per cent)						
	<b>Males</b>						
Methamphetamine—crystal	31	46	44	42	50	55	45
Methamphetamine—powder	77	74	65	68	63	77	67
Methamphetamine—base	39	32	41	45	55	23	41
Cocaine	15	18	25	33	30	18	26
Ketamine	23	23	24	22	31	27	24
GHB	8	14	14	10	8	9	12
	<b>Females</b>						
Methamphetamine—crystal	80	41	42	49	49	25	45
Methamphetamine—powder	70	73	73	64	60	25	68
Methamphetamine—base	40	37	26	45	49	25	35
Cocaine	—	32	26	42	34	13	31
Ketamine	20	25	19	17	31	—	21
GHB	—	13	8	9	—	—	8
	<b>Persons</b>						
Methamphetamine—crystal	52	44	43	45	50	47	45
Methamphetamine—powder	74	74	68	66	62	63	68
Methamphetamine—base	39	34	35	45	53	23	39
Cocaine	9	24	26	36	31	17	27
Ketamine	22	24	22	20	31	20	23
GHB	4	13	12	9	5	7	10

(a) Used in the last 6 months.

(b) Used ecstasy at least six times in the last 6 months.

Source: National Drug and Alcohol Research Centre, unpublished data.

## Polydrug use and heroin

Though the sample of recent heroin users was small, the 2004 NDSHS can provide some information on polydrug use by recent users of heroin. Readers are reminded to exercise caution when interpreting this information due to the small sample size.

People who had used heroin recently displayed high prevalence of using other drugs. Some of the most common drugs used by heroin users were marijuana/cannabis (76%), painkillers/analgesics for non-medical purposes (56%), and meth/amphetamines (64%) (Table 11.6).

**Table 11.6: Recent<sup>(a)</sup> use of other drugs by users and non-users of heroin: proportion of the population aged 14 years and over, by sex, Australia, 2004**

Other substances recently used	Users <sup>(b)</sup>	Non-users (per cent)
Tobacco	73.3	20.5
Alcohol	92.9 *	83.7
Marijuana/cannabis	75.6	11.2
Pain-killers/analgesics <sup>(c)</sup>	56.2	3.0
Tranquillisers/sleeping pills <sup>(c)</sup>	48.3	0.9
Steroids <sup>(c)</sup>	2.9 *	—
Barbiturates <sup>(c)</sup>	21.3	0.1
Inhalants	16.8	0.4
Methadone <sup>(d)</sup>	21.6	—
Other opiates <sup>(c)</sup>	28.4	0.2
Meth/amphetamines (speed) <sup>(c)</sup>	64.0	3.1
Cocaine	38.6	1.0
Hallucinogens	29.9	0.7
Ecstasy	49.5	3.3
Ketamine	9.2 *	0.3
GHB	17.4	0.1
Injected drugs	80.8	0.3

\* Relative Standard Error > 50%.

(a) Used in the last 12 months

(b) Used heroin in the last 12 months.

(c) For non-medical purposes.

(d) Non-maintenance.

Source: National Drug Strategy Household Survey 2004.

Injecting drug users surveyed for the IDRS were asked about their use of other drugs the day before their interview, in the previous 6 months and in their lifetime. Taking the subset of heroin users, in 2004, over 90% had used one or more of alcohol, marijuana/cannabis and meth/amphetamines in their lifetime (Table 11.7). Close to half of the heroin users had used marijuana/cannabis on the previous day, and 95% had used at least one drug on the previous day.

**Table 11.7: Heroin users<sup>(a)</sup>: use of other drugs in lifetime, last 6 months and day before interview, 2004**

Substance	Ever used	Last 6 months (per cent)	Yesterday
Alcohol	97	66	22
Marijuana/cannabis	97	80	49
Benzodiazapines	88	69	28
Methadone <sup>(b)</sup>	52	25	29
Other opiates	44	23	2
Meth/amphetamines <sup>(c)</sup>	92	70	15
Cocaine	73	19	2
Morphine	77	47	12
Buprenorphine <sup>(b)</sup>	27	18	12
No drugs	. .	. .	5

(a) Injecting drug users who reported using heroin via any route of administration (smoking, snorting, injecting, swallowing) in the last 6 months.

(b) For non-medical purposes. 'Ever used' and 'Last 6 months' refer only to methadone/buprenorphine that was NOT prescribed to the participant. 'Yesterday' refers to prescribed and/or illicit use of methadone/buprenorphine (i.e. no distinction is made between licit and illicit use in this question).

(c) 'Ever used' and 'Last 6 months' includes speed, base, ice and liquid amphetamine. 'Yesterday' includes speed, base and ice.

Source: National Drug and Alcohol Research Centre, unpublished data.

# 12 Drug avoidance and moderation

## Introduction

This chapter discusses some of the ways people lessen the impact of tobacco, alcohol and illicit drugs on themselves. The data in this chapter were sourced from the 2004 NDSHS, which included a number of questions about drug avoidance and moderation.

## Avoidance of cigarette smoke

People who do not smoke generally avoid exposure to tobacco smoke. Nevertheless, not all non-smokers respond in the same way. The 2004 NDSHS asked people whether or not they avoided places where they might be exposed to tobacco smoke.

Among the population of non-smokers, higher proportions of females than males always avoided places where they may be exposed to other people's cigarette smoke, though proportions for males and females were nearly identical for 14–19-year-olds (Table 12.1). The proportion of people who always avoid places where they might be exposed to cigarette smoke tended to increase with age, though the proportion of people who only sometimes avoid these places decreased with age.

**Table 12.1: Non-smokers<sup>(a)</sup> avoidance of places where they might be exposed to other people's cigarette smoke: non-smokers aged 14 years and over, by age group and sex, Australia, 2004**

Age group	Avoidance		
	Yes, always	Yes, sometimes	No, never
	(per cent)		
	<b>Males</b>		
14–19	22.5	58.5	19.0
20–29	20.7	62.6	16.7
30–39	31.5	55.1	13.4
40–49	40.1	48.9	11.0
50–59	41.5	46.9	11.7
60+	46.5	40.7	12.8
<b>Aged 14+</b>	<b>35.3</b>	<b>51.0</b>	<b>13.7</b>
	<b>Females</b>		
14–19	22.0	62.1	15.9
20–29	26.7	60.7	12.7
30–39	41.1	50.2	8.7
40–49	47.8	45.6	6.6
50–59	52.2	40.2	7.6
60+	52.4	37.7	9.9
<b>Aged 14+</b>	<b>42.8</b>	<b>47.4</b>	<b>9.8</b>
	<b>Persons</b>		
14–19	22.2	60.2	17.5
20–29	23.7	61.6	14.7
30–39	36.5	52.6	11.0
40–49	44.1	47.2	8.7
50–59	47.0	43.4	9.6
60+	49.7	39.1	11.2
<b>Aged 14+</b>	<b>39.2</b>	<b>49.1</b>	<b>11.7</b>

(a) 'Non-smokers' are 'ex-smokers' or persons who have 'never smoked'.

Source: National Drug Strategy Household Survey 2004.

## Smoking moderation behaviours

In 2004, the NDSHS asked persons who had smoked in the last 12 months whether they had attempted to change their smoking behaviour in that period (Table 12.2). There were no large differences between the sexes in terms of behavioural changes, although a greater proportion of males had successfully given up smoking (for more than a month) compared with females. Overall, the most successful strategy, that is, having the highest proportion of successes from attempts, was to reduce the amount of tobacco smoked in a day.

Approximately half of smokers had achieved this. The most popular but least successful strategy was to try to give up all together, with 23% of smokers successfully quitting for more than a month, and 39% of recent smokers unsuccessfully attempting to quit.

**Table 12.2: Attempted change in smoking behaviour: proportion of recent<sup>(a)</sup> smokers aged 14 years and over, by sex, Australia, 2004**

Moderation behaviours	Males	Females	Persons
	(per cent)		
Successfully gave up smoking (for more than a month)	24.5	20.3	22.5
Unsuccessfully tried to give up smoking	38.9	39.5	39.2
Changed to a cigarette brand with a lower tar or nicotine content	25.0	28.1	26.5
Unsuccessfully tried to change to a brand with a lower tar or nicotine content	4.7	4.7	4.7
Reduced the amount of tobacco smoked in a day	47.4	50.6	48.9
Unsuccessfully tried to reduce the amount of tobacco smoked in a day	21.4	21.8	21.6

(a) Smoked tobacco in the last 12 months.

Note: Respondents could select more than one behaviour.

Source: National Drug Strategy Household Survey 2004.

## Alcohol reduction behaviours

The 2004 NDSHS asked recent drinkers whether or not they had reduced their consumption of alcohol in the last 12 months. Short- and long-term risky or high-risk drinkers were more likely to have demonstrated reduction behaviour than low-risk drinkers (Table 12.3). For example, one in three persons drinking at levels considered risky and high risk for short-term harm reduced the frequency of drinking occasions in the last 12 months, compared with 22% of low-risk drinkers. In contrast with female drinkers in this risk category, male drinkers were more likely to have increased their consumption of low-alcoholic drinks, and less likely to have stopped drinking alcohol.



**Table 12.3: Alcohol reduction behaviours: proportion of recent<sup>(a)</sup> drinkers aged 14 years and over, by risk classification and sex, Australia, 2004**

Behaviour	Males	Females	Persons
	(per cent)		
Low-risk in the short term—yearly			
Reduced the amount of alcohol consumed at any one time	24.7	20.3	22.4
Reduced the number of drinking occasions	22.6	21.8	22.2
Consumed more low-alcohol drinks than before	10.7	4.6	7.5
Stopped drinking alcohol	4.5	8.1	6.3
None of the above	54.5	59.8	57.3
Risky or high-risk in the short term—yearly			
Reduced the amount of alcohol consumed at any one time	30.0	33.9	31.7
Reduced the number of drinking occasions	31.8	35.3	33.3
Consumed more low-alcohol drinks than before	11.0	5.4	8.5
Stopped drinking alcohol	2.5	4.8	3.5
None of the above	50.4	47.9	49.2
Low-risk in the long term			
Reduced the amount of alcohol consumed at any one time	27.2	23.7	25.5
Reduced the number of drinking occasions	27.1	25.7	26.4
Consumed more low-alcohol drinks than before	10.8	4.6	7.8
Stopped drinking alcohol	3.7	7.2	5.4
None of the above	52.1	56.8	54.4
Risky or high-risk in the long term			
Reduced the amount of alcohol consumed at any one time	25.2	36.6	31.0
Reduced the number of drinking occasions	22.5	34.3	28.5
Consumed more low-alcohol drinks than before	10.7	6.9	8.8
Stopped drinking alcohol	3.1	4.2	3.6
None of the above	57.4	45.7	51.5

(a) Consumed in the last 12 months.

Note: Respondents could select more than one behaviour.

Source: National Drug Strategy Household Survey 2004.

## Alcohol moderation behaviours

The 2004 NDSHS asked recent drinkers how often, when drinking, did they attempt to moderate the effect of alcohol. For every behaviour except 'drinking only low-alcohol drinks', a larger proportion of females undertook moderating behaviours always or most of the time compared with males (Table 12.4). In both short- and long-term risk groups, low-risk drinkers were more likely to have moderated their alcohol consumption. In every risk group, the most common behavioural change was limiting the quantity of alcohol consumed in an evening.

**Table 12.4: Alcohol moderation behaviours: proportion of recent<sup>(a)</sup> drinkers aged 14 years and over, by risk classification and sex, Australia, 2004**

Behaviour	Males	Females	Persons
	(per cent)		
Low risk in the short-term—yearly			
Count drinks had	60.7	71.3	66.1
Deliberately alternate between alcoholic and non-alcoholic drinks	20.7	42.4	31.8
Eat while drinking alcohol	59.0	74.3	66.8
Quench thirst with a non-alcohol drink	27.9	48.5	38.5
Only drink low-alcohol drinks	28.9	24.7	26.8
Limit number of drinks in an evening	87.5	92.4	90.0
Refuse an offered alcoholic drink that you really don't want	66.0	80.5	73.5
Risky or high-risk in the short term—yearly			
Count drinks had	39.5	49.1	43.7
Deliberately alternate between alcohol and non-alcohol drinks	6.8	18.7	12.1
Eat while drinking alcohol	42.8	54.0	47.8
Quench thirst with a non-alcohol drink	21.5	33.9	27.0
Only drink low-alcohol drinks	8.4	5.7	7.2
Limit number of drinks in an evening	68.0	76.6	71.8
Refuse an offered alcoholic drink that you really don't want	42.3	58.7	49.6
Low-risk in the long term			
Count drinks had	54.0	66.1	59.8
Deliberately alternate between alcohol and non-alcohol drinks	15.5	36.3	25.5
Eat while drinking alcohol	53.5	68.7	60.8
Quench thirst with a non-alcohol drink	26.0	44.8	35.0
Only drink low-alcohol drinks	20.8	18.8	19.9
Limit number of drinks in an evening	81.1	88.7	84.7
Refuse an offered alcoholic drink that you really don't want	58.2	75.5	66.6
Risky or high-risk in the long term			
Count drinks had	28.4	38.9	33.7
Deliberately alternate between alcohol and non-alcohol drinks	4.7	9.8	7.3
Eat while drinking alcohol	36.7	50.4	43.7
Quench thirst with a non-alcohol drink	16.7	28.3	22.6
Only drink low-alcohol drinks	9.0	5.0	7.0
Limit number of drinks in an evening	59.4	68.7	64.0
Refuse an offered alcoholic drink that you really don't want	31.4	48.3	40.0

(a) Consumed in the last 12 months.

Note: Respondents could select more than one behaviour.

Source: National Drug Strategy Household Survey 2004.

## Participation in drug treatment programs

Respondents to the 2004 NDSHS were asked whether or not they had participated in alcohol and other drug treatment programs. The following results should be interpreted with caution due to a general low prevalence.

Anti-smoking programs (e.g. Quit) were the most common drug treatment among the general population and groups of substance users (Table 12.5). The second-most popular treatment types accessed by the general population were prescription drugs and counselling.

Prescription drugs were also the second-most popular treatment accessed by recent drinkers, while counselling was the second-most common treatment accessed among recent smokers and persons who had used illicit drugs recently. Less than 1% of recent drinkers had participated in an alcohol treatment program.

Approximately 5% of male smokers and 7% of female smokers had participated in anti-smoking programs in the last 12 months.

**Table 12.5: Participation in alcohol and other drug treatment programs in the last 12 months: proportion of the population aged 14 years and over, by sex, 2004**

Program	All persons	Recent <sup>(a)</sup>	Recent <sup>(b)</sup>	Recent <sup>(c)</sup> illicit
		smokers	drinkers	drug users
(per cent)				
<b>Males</b>				
Smoking (e.g. Quit)	1.7	4.9	1.8	3.5
Alcohol (e.g. Alcoholics Anonymous)	0.4	0.8	0.3	0.6
Detoxification centre	0.1	0.3	0.1	0.2
Methadone maintenance	0.1	0.4	0.1	0.6
Prescription drugs (e.g. GP-supervised)	0.6	1.5	0.6	1.5
Counselling	0.5	1.8	0.6	2.0
Therapeutic community	—	0.1	—	0.2
Naltrexone	0.1	0.2	0.1	0.3
Other program	0.2	0.9	0.3	0.8
<b>Females</b>				
Smoking (e.g. Quit)	1.7	6.5	1.8	3.1
Alcohol (e.g. Alcoholics Anonymous)	0.2	0.6	0.2	0.7
Detoxification centre	0.1	0.3	0.1	0.3
Methadone maintenance	0.1	0.4	0.1	0.6
Prescription drugs (e.g. GP-supervised)	0.6	1.3	0.6	1.2
Counselling	0.6	2.3	0.7	2.9
Therapeutic community	0.1	0.2	0.1	0.3
Naltrexone	—	—	—	—
Other program	0.1	0.4	0.1	0.4
<b>Persons</b>				
Smoking (e.g. Quit)	1.7	5.7	1.8	3.4
Alcohol (e.g. Alcoholics Anonymous)	0.3	0.7	0.3	0.6
Detoxification centre	0.1	0.3	0.1	0.3
Methadone maintenance	0.1	0.4	0.1	0.6
Prescription drugs (e.g. GP-supervised)	0.6	1.4	0.6	1.4
Counselling	0.6	2.0	0.6	2.4
Therapeutic community	0.1	0.2	0.1	0.2
Naltrexone	—	0.1	—	0.2
Other program	0.2	0.7	0.2	0.7

(a) Smoked tobacco in the last 12 months.

(b) Consumed alcohol in the last 12 months.

(c) Used at least one illicit drug in the last 12 months.

Source: National Drug Strategy Household Survey, 2004.

# Appendix A: Confidence intervals

As survey estimates presented in this publication are based on a sample, they are subject to sampling error. Sampling error is the difference between the published estimates, derived from a sample of persons, and the value that would have been produced if the entire population had been surveyed.

One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because a sample of the population was taken.

Figure 4.1 presents the prevalence estimates and 95% confidence intervals for selected drugs from the 2004 NDSHS. In these cases, we can be 95% confident that the prevalence estimates will differ by less than 1.96 multiplied by the standard error from the prevalence that would have been obtained if the entire population had been included.

A relatively simple approximation of the confidence interval that readers might use when interpreting Figure 4.1 is:

$$\text{95\% confidence interval} = p \pm 1.96 \times \sqrt{\frac{p(1-p) \times \text{DE}}{n}}$$

where:

p is the sample prevalence estimate expressed as a proportion

DE is the design effect

n is the sample size.

The design effect is the net result of a number of factors affecting the sample population. The design effect is the ratio of the variance of an estimate derived from the survey to the variance of an estimate of the same thing based on a true simple random sample of the same size. Departure from simple random sampling may sometimes be due to the nature of the population being measured, as well as to the practical limitations of field sampling operations.

# References

- Amin J, Gidding HF, Gilbert GL et al. 2004. Hepatitis C prevalence – a nationwide serosurvey. *Communicable Diseases Intelligence* 28(4):517-521.
- Australian Bureau of Criminal Intelligence (ABCI) 2001. Australian illicit drug report 1999–00. Canberra: ABCI.
- Australian Bureau of Criminal Intelligence (ABCI) 2002. Australian illicit drug report 2000–01. Canberra: ABCI.
- Australian Bureau of Statistics (ABS) 1997a. Prisoners in Australia, 1995. ABS Cat. No. 4517.0. Canberra: ABS.
- Australian Bureau of Statistics (ABS) 1997b. Prisoners in Australia, 1996. ABS Cat. No. 4517.0. Canberra: ABS.
- Australian Bureau of Statistics (ABS) 1997c. Prisoners in Australia, 1997. ABS Cat. No. 4517.0. Canberra: ABS.
- Australian Bureau of Statistics (ABS) 1998. Prisoners in Australia, 1998. ABS Cat. No. 4517.0. Canberra: ABS.
- Australian Bureau of Statistics (ABS) 1999. Prisoners in Australia, 1999. ABS Cat. No. 4517.0. Canberra: ABS.
- Australian Bureau of Statistics (ABS) 2000. Prisoners in Australia, 2000. ABS Cat. No. 4517.0. Canberra: ABS.
- Australian Bureau of Statistics (ABS) 2002. Prisoners in Australia, 2001. ABS Cat. No. 4517.0. Canberra: ABS.
- Australian Bureau of Statistics (ABS) 2003. Prisoners in Australia, 2002. ABS Cat. No. 4517.0. Canberra: ABS.
- Australian Bureau of Statistics (ABS) 2004a. Apparent consumption of alcohol, Australia. ABS Cat. No. 4307.0.55.001. Canberra: ABS.
- Australian Bureau of Statistics (ABS) 2004b. National Aboriginal and Torres Strait Islander Social Survey 2002. ABS Cat. No. 4714.0. Canberra: ABS.
- Australian Bureau of Statistics (ABS) 2004c. Prisoners in Australia, 2003. ABS Cat. No. 4517.0. Canberra: ABS.
- Australian Bureau of Statistics (ABS) 2004d. Taxation revenue Australia. ABS Cat. No. 5506.0. Canberra: ABS.
- Australian Crime Commission (ACC) 2003. Australian illicit drug report 2001–02. Canberra: ACC.
- Australian Crime Commission (ACC) 2004. Illicit drug data report 2002–03. Canberra: ACC.
- Australian Crime Commission (ACC) 2005. Illicit drug data report 2003–04. Canberra: ACC.
- Australian Customs Service (ACS) 2004. Australian Customs Service annual report 2003–04. Canberra: ACS.
- Australian Drug Foundation (ADF) 2003a. Drug facts: alcohol. Drug info clearinghouse 2003, Melbourne. Viewed 21 January 2005, <<http://www.druginfo.com.au/article.asp?ID=Alcohol>>

Australian Drug Foundation (ADF) 2003b. Heroin – effects: immediate, short-term and long-term, Melbourne. Viewed 9 March 2005, <<http://www.druginfo.com.au/article.asp?ID=heroin>>

Australian Institute of Health and Welfare (AIHW) 2002. 2001 National Drug Strategy Household Survey: first results. Drug Statistics Series No. 9. AIHW Cat. No. PHE 35. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 2004a. Alcohol and other drug treatment services in Australia 2002–03: report on the national minimum data set. Drug Treatment Series No. 3. AIHW Cat. No. HSE 33. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 2004b. Australia's health 2004. AIHW Cat. No. AUS 44. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 2004c. Homeless people in SAAP: SAAP National Data Collection annual report 2003–04 Australia. SAAP NDCA Report Series No. 9. AIHW Cat. No. HOU 126. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW) 2005. 2004 National Drug Strategy Household Survey: first results. Drug Statistics Series No. 13. AIHW Cat. No. PHE 57. Canberra: AIHW.

Australian Taxation Office (ATO) 2004. Taxation statistics 2001–02: a summary of taxation, superannuation and industry benchmark statistics 2001–02 and 2002–03. Canberra: ATO.

Australian Taxation Office (ATO) 2005. Taxation statistics 2002–03: a summary of taxation, superannuation and industry benchmark statistics 2002–03 and 2003–04. Canberra: ATO.

Breen C, Degenhardt L, Roxburgh A et al. 2003. Australian drug trends 2002: findings from the Illicit Drug Reporting System. National Drug and Alcohol Research Centre Monograph No. 50. Sydney: NDARC.

Breen C, Degenhardt L, Roxburgh A et al. 2004a. Australian drug trends 2003: findings from the Illicit Drug Reporting System. National Drug and Alcohol Research Centre Monograph No. 51. Sydney: NDARC.

Breen C, Degenhardt L, White B et al. 2004b. Australian party drug trends 2003: findings from the Party Drugs Initiative (PDI). Sydney: NDARC.

Britt H, Miller GC, Knox S et al. 2004. General practice activity in Australia 2003–04. General Practice Series No. 16. AIHW Cat. No. GEP 16. Canberra: AIHW.

Chikritzhs T, Catalano P, Stockwell T et al. 2003. Australian alcohol indicators, 1990–2001: patterns of alcohol use and related harms for Australian states and territories. Perth: National Drug Research Institute, Curtin University of Technology.

Collins D & Lapsley H 2002. Counting the cost: estimates of the social costs of drug abuse in Australia in 1998–9. National Drug Strategy Monograph Series No. 49. Canberra: Department of Health and Ageing.

Commission for Distilled Spirits 2004. World drink trends 2004 edition. Henley-on-Thames: World Advertising Research Center Ltd.

Degenhardt L & Barker B 2003. 2002 Australian Bureau of Statistics data on accidental opioid induced deaths. Sydney: NDARC.

Degenhardt L, Roxburgh A & Black E 2004. 2003 Australian Bureau of Statistics data on accidental opioid induced deaths. Sydney: NDARC.

Geis G, Cartwright S & Houston J 2003. Public wealth, public health, and private stealth: Australia's black market in cigarettes. Australian Journal of Social Issues 38(3):363–378.

- Johnson H 2004. Drugs and crime: a study of incarcerated female offenders. Research and Public Policy Series No. 63. Canberra: Australian Institute of Criminology.
- Medically Supervised Injecting Centre (MSIC) Evaluation Committee 2003. Final report on the evaluation of the Sydney medically supervised injecting centre. Sydney: MSIC Evaluation Committee.
- Ministerial Council on Drug Strategy (MCDS) 2004. The National Drug Strategy: Australia's integrated framework 2004–2009. Canberra: MCDS.
- National Centre in HIV Epidemiology and Clinical Research (NCHECR) 2002. HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia: annual surveillance report 2002. Sydney: NCHECR.
- National Centre in HIV Epidemiology and Clinical Research (NCHECR) 2003. HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia: annual surveillance report 2003. Sydney: NCHECR.
- National Centre in HIV Epidemiology and Clinical Research (NCHECR) 2004. HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia: annual surveillance report 2004. Sydney: NCHECR.
- Pollard R 2004. Party drugs moving from clubs to the home. The Sydney Morning Herald, November 13 2004. Viewed 13 November 2004, <<http://www.smh.com.au/news/National/Party-drugs-moving-from-clubs-to-the-home/2004/11/12/1100227582066.html>>
- Quinn C, Breen C & White B 2004. Party drug trends bulletin. June 2004. Sydney: NDARC.
- Ridolfo B & Stevenson C 2001. The quantification of drug-caused mortality and morbidity in Australia, 1998. Drug Statistics Series No. 7. AIHW Cat. No. PHE 29. Canberra: AIHW.
- United Nations Office on Drugs and Crime (UNODC) 2004. World drug report 2004. Volume 2: statistics. Vienna: UNODC.
- United States Department of Agriculture (USDA) 2002. Tobacco: world markets and trade. Foreign Agricultural Service Circular Series FT-02-02. USA: USDA.
- van Liemt G 2002. The world tobacco industry: trends and prospects. Sectoral activities programme working paper. Geneva: International Labour Office.
- White V & Hayman J 2004a. Australian secondary students' use of alcohol in 2002. National Drug Strategy Monograph Series No. 55. Canberra: Australian Government Department of Health and Ageing.
- White V & Hayman J 2004b. Australian secondary students' use of over-the-counter and illicit substances in 2002. National Drug Strategy Monograph Series No. 56. Canberra: Australian Government Department of Health and Ageing.
- White V & Hayman J 2004c. Smoking behaviours of Australian secondary students in 2002. National Drug Strategy Monograph Series No. 54. Canberra: Australian Government Department of Health and Ageing.
- Whiteaker B 2004. The new youth drug culture: friends, parties and drug cocktails: a survey of university students about 'party drug' use. Melbourne: University of Melbourne and Victorian Alcohol and Drug Association (VAADA).