

# **Statistics on drug use in Australia 2000**

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DRUG STATISTICS SERIES

Number 8

# **Statistics on drug use in Australia 2000**

**Megge Miller**

**Glenn Draper**

**May 2001**

Australian Institute of Health and Welfare  
Canberra

AIHW cat. no. PHE 30

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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 Publications Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601, or via the Institute's web site (<http://www.aihw.gov.au>).

ISSN 1442-7230

ISBN 1 74024 106 1

### **Suggested citation**

Miller M, Draper G 2001. Statistics on drug use in Australia 2000. AIHW cat. no. PHE 30. Canberra: AIHW (Drug Statistics Series no. 8).

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

Board Chair  
Professor Janice Reid

Director  
Dr Richard Madden

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

Mark Cooper-Stanbury  
Australian Institute of Health and Welfare  
GPO Box 570  
Canberra ACT 2601

Phone: (02) 6289 7027

E-mail: [mark.cooper-stanbury@aihw.gov.au](mailto:mark.cooper-stanbury@aihw.gov.au)

Published by Australian Institute of Health and Welfare

Printed by Panther Publishing and Printing

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# Preface

*Statistics on Drug Use in Australia 2000* is the ninth in a series originally titled *Statistics on Drug Abuse in Australia*, which was produced by the Commonwealth Department of Health and Aged Care. This publication is the second produced by the Australian Institute of Health and Welfare and follows a similar format to earlier titles. However, this edition includes a number of additional chapters, which are intended to broaden the scope of the publication. These include chapters focusing on international comparisons, polydrug use and drug avoidance behaviour. This publication is intended as an accessible summary of major drug-use statistical collections, which lead interested readers to the sources of more detailed information.

This report includes data from the 1998 National Drug Strategy Household Survey (NDSHS), findings of which have been published in the following AIHW publications:

- *1998 National Drug Strategy Household Survey: First Results.*
- *1998 National Drug Strategy Household Survey: Queensland Results.*
- *1998 National Drug Strategy Household Survey: Western Australian Results.*
- *1998 National Drug Strategy Household Survey: State and Territory Results.*
- *1998 National Drug Strategy Household Survey: Detailed Findings.*

# Acknowledgments

A number of people have provided invaluable assistance during the preparation of this report, and their time and assistance are greatly appreciated.

Special thanks go to: Peter McManus from the Commonwealth Department of Health and Aged Care; Fran Collins, Fabian Chlap and Anthony Krauss from the Australian Bureau of Statistics; Chris Stevenson from the Australian Institute of Health and Welfare; Michael Lynskey and Libby Topp from the National Drug and Alcohol Research Centre; and Jim Wylie from the Australian Transport Safety Bureau.

# Abbreviations

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
ATC	Anatomical Therapeutic Chemical
BAC	Blood alcohol concentration
BCS	British Crime Survey
CDHAC	Commonwealth Department of Health and Aged Care
CDHSH	Commonwealth Department of Human Services and Health
DDD	Defined daily dose
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
HIC	Health Insurance Commission
HSE	Health Survey for England
IDRS	Illicit Drug Reporting System
IDU	Injecting drug user
MDMA	3,4 methylenedioxymethylamphetamine
NCHECR	National Centre in HIV Epidemiology and Clinical Research
NDS	National Drug Strategy
NDSHS	National Drug Strategy Household Survey
NHMRC	National Health and Medical Research Council
NHS	National Health Survey
NHSDA	National Household Survey on Drug Abuse (USA)
NPHS	National Population Health Survey (Canada)
PBS	Pharmaceutical Benefits Scheme
PYLL	Potential years of life lost
RPBS	Repatriation Pharmaceutical Benefits Scheme
SAMHSA	Substance Abuse and Mental Health Services Administration (USA)
n.a.	Not available
—	Nil, or rounded to zero
..	Not applicable
*	Result unreliable as the relative standard error was greater than 50%
L	Litre(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 National Drug Strategic Framework 1998–99 to 2002–03

The National Drug Strategic Framework 1998–99 to 2002–03 presents a framework for cooperation, and a basis for coordinated action to reduce the harm caused by drugs in Australia. The Framework maintains the policy principles of the previous phases of the National Drug Strategy and follows the recommendations presented in *The National Drug Strategy: Mapping the Future* (Single & Rohl 1997).

The Framework was prepared under the direction of the Ministerial Council on Drugs Strategy, which brought together Commonwealth, State and Territory Ministers for health and law enforcement to collectively determine national policies and programs designed to reduce the harm caused by drugs to individuals, families and communities in Australia.

The principle of harm minimisation has formed the basis of Australia's Drug Strategy since 1985. Essentially, harm minimisation refers to policies and programs designed to reduce drug-related harm, and aims to improve health, social and economic outcomes for both the community and the individual through a wide range of integrated approaches including supply-reduction, demand-reduction and harm-reduction strategies.

## Background

This report is the ninth 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 second edition produced by the Australian Institute of Health and Welfare (AIHW) under a Memorandum of Understanding with the Commonwealth Department of Health and Aged Care (CDHAC), in which the AIHW agreed to produce a two-yearly report on drug-related data which was consistent with the aims and themes of the NDS.

## About this report

*Statistics on Drug Use in Australia 2000* follows the format of past reports in this series. Chapters are provided for each of the drug types covered by the NDS: tobacco, alcohol, pharmaceuticals and illicit drugs. Within each of these chapters, data are provided on consumption and, to a lesser extent, drug-related behaviour. Additional chapters that have been added for this edition include polydrug use and drug avoidance behaviour. Also included in this edition are the results of a number of international drug-related surveys

from countries including the United Kingdom, the United States, Canada and some of the countries of the European Union.

## **Data sources**

A large part of the data within this report was sourced from the 1998 National Drug Strategy Household Survey (NDSHS) managed by the AIHW on behalf of the CDHAC. This was a comprehensive national survey of more than 10,000 Australians aged 14 years and older. Additional data was obtained from the 1995 NDSHS and the 1993 and 1991 National Campaign Against Drug Abuse Surveys.

Other relevant information was obtained from:

- Australian Bureau of Statistics;
- Commonwealth Department of Health and Aged Care;
- Australian Institute of Health and Welfare;
- Australian Transport Safety Bureau;
- Australian Bureau of Criminal Intelligence; and
- National Drug and Alcohol Research Centre.

## **Overview of drug use in Australia**

### **Tobacco**

In 1998, around one in five Australians (22%) aged 14 years and over were current regular smokers, while around 40% were ex-smokers. Furthermore, this figure has remained relatively stable, with little difference in smoking status recorded between 1991 and 1998. The highest smoking rates were recorded amongst those aged 20–29 years of age, with approximately one-third of this age group reporting current smoking status. Overall, men were more likely than women to be current smokers.

Tobacco smoking was responsible for the majority of drug-related deaths in 1998. Approximately 18,800 deaths and 136,700 hospital episodes were attributable to tobacco smoking.

During the 1998–99 financial year, the Commonwealth Government acquired in excess of \$8 billion in revenue from the importation and sale of tobacco products in Australia.

### **Alcohol**

Around 59% of males and 38% of females aged 14 years and over drank alcohol at least weekly in 1998, while a further 25% of males and 39% of females drank less than weekly. Those aged in the 30–39 years age group recorded the highest levels of regular drinking, with 65% of males and 44% of females drinking at least weekly. It was estimated that between 6% and 11% of people had hazardous or harmful drinking patterns. Between 1991 and 1998, the number of persons reporting regular or occasional drinking has remained relatively constant.

In 1998, Australia ranked 20th in the world in terms of per capita consumption of pure alcohol, with approximately 7.6 litres consumed per person. This corresponded to an annual per capita consumption of around 94.5 L of beer, 19.7 L of wine and 1.3 L of pure alcohol from spirits.

The average weekly expenditure on alcohol in 1998–99 was \$20.43 per household. However, the amount spent on alcohol as a proportion of the total expenditure on goods and services has decreased from 3.4% in 1984 to 2.9% in 1998–99.

### **Illicit drugs**

In 1998 slightly over 1,000 deaths were associated with illicit drug use. Of the total number of hospital episodes related to drug use, around 7% were attributable to the use of illicit substances.

Approximately 23% of Australians reported using any illicit drug in the 12 months preceding the survey in 1998. Marijuana was the most common illicit drug used, with around two-fifths (39%) of those aged 14 years and over having used the drug at some time in their lives. Of those who have ever used marijuana, almost half had used in the past 12 months. Amphetamines had been recently used by around 4% of those aged 14 years and over, while 2% had used ecstasy/designer drugs, and around 1% had used heroin, cocaine, or injected an illegal drug, during the previous 12 months.

Rates of marijuana use, as for most illicit drugs, have increased over the past decade, although rates for other drugs are much lower than for marijuana. The five illicit substances most commonly tried in Australia were:

- marijuana;
- pain-killers/analgesics (for non-medical purposes);
- hallucinogens;
- amphetamines; and
- tranquillisers (for non-medical purposes).

### **Pharmaceuticals**

Of the top ten prescription medicines prescribed in 1998, three affected the central nervous system. Together, these three drugs accounted for 32% of the total number of scripts for the top ten most frequently prescribed medicines. Of the drugs that affect the central nervous system, anti-depressants were the most widely consumed, with a total of 37.3 defined daily doses/1,000 population/day.

### **Polydrug use**

According to the 1998 NDSHS, around one in three recent drinkers reported recent tobacco use, while one in five reported recent marijuana use. Of those who had smoked tobacco recently, 90% had also consumed alcohol, while around two-fifths had recently used marijuana. The proportions of recent users of pain-killers/analgesics for non-medical purposes who reported recent use of alcohol, tobacco or marijuana were 87%, 39% and 41% respectively, while 96% of recent marijuana users reported recent alcohol use and 57% had used tobacco.

# 2 Tobacco

## Overview

Tobacco use was the major cause of drug-related deaths in Australia in 1998, where 19,019 deaths were attributable to smoking tobacco (Chapter 7). Smoking was also the leading cause of drug-related hospital episodes, with 142,525 episodes in 1997–98.

Data from customs and excise suggest that the demand for tobacco may have decreased slightly over the past five years (Table 2.1). This was reflected in the decrease in per capita consumption of cigarettes in Australia (Table 2.2).

In 1998–99, Australians spent an average of \$10.74 per week per household on tobacco (Table 2.3). In the same year, the government acquired \$8,173 million in customs, excise and State Franchise fees from the importation and sale of tobacco products (Table 2.4).

Estimates of tobacco use from the 1998 NDSHS suggest that the national prevalence of regular smoking has remained constant over the past few years, at around 22% (Table 2.5). The age group of 20–29 years had the highest prevalence of smoking for both females and males (Table 2.6).

## Consumption

The amount of tobacco cleared through excise remained relatively stable from 1995–96 to 1998–99 (Table 2.1). A recent change in the way tobacco data are coded has meant that figures based on tobacco in kilograms for 1999–00 are unavailable. The amount of tobacco cleared through customs has decreased slightly; however, some data in 1998–99 and 1999–00 were excluded due to confidentiality restrictions.

**Table 2.1: Volume of tobacco cleared through excise and customs, Australia, 1995–96 to 1999–00**

<b>Duty and product</b>	<b>1995–96</b>	<b>1996–97</b>	<b>1997–98</b>	<b>1998–99</b>	<b>1999–00</b>
	('000 kg)				
Excise					
Cigarettes	19,273	19,435	19,103	18,602	6,524 <sup>(c)</sup>
Other tobacco	656	— <sup>(d)</sup>	714	670 <sup>(e)</sup>	226 <sup>(e)</sup>
<i>Total excise</i>	19,929	19,435 <sup>(e)</sup>	19,817	19,272 <sup>(e)</sup>	6,750 <sup>(e)</sup>
Customs					
Cigarettes	288	350	266	272	180
Cigars, etc. <sup>(a)</sup>	70	71	84	102	94
Other manufactured tobacco <sup>(b)</sup>	975	911	910	789	570
Unmanufactured tobacco	15,432	15,050	14,399	11,290	13,153
<i>Total customs</i>	16,765	16,382	15,659	12,453	13,996
<b>Total</b>	<b>36,694</b>	<b>35,817 <sup>(e)</sup></b>	<b>35,476</b>	<b>31,725 <sup>(e)</sup></b>	<b>20,746 <sup>(e)</sup></b>

(a) Includes cigars, cigarillos and cheroots.

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

(c) Coding changes from duty paid on weight to duty paid on number of sticks of cigarettes. This value is weight only, but approximately 16,026 billion cigarettes were imported in addition to that measured in terms of weight.

(d) Not available due to confidentiality restrictions.

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

Sources: Australian Bureau of Statistics, unpublished data; Australian Bureau of Statistics (Cat. No. 5506.0) 2000.

## International comparisons

Based on per capita consumption of cigarettes for people aged 15 years or more, Australia was ranked 17th in the world in 1996 (Table 2.2). Australians smoked 2,017 cigarettes, on average, which compares with 3,474 cigarettes for Greece (ranked 1st) and 1,212 cigarettes in Egypt (ranked 40th). The per capita cigarette consumption in Australia has been decreasing since 1986 and, therefore, Australia dropped from being ranked 8th in 1991 to 17th in 1996.

**Table 2.2: Per capita consumption of cigarettes in the population aged 15 years and over, selected**

Country	Calendar year					
	1986		1991		1996	
	(number)	(rank)	(number)	(rank)	(number)	(rank)
Greece	3,757	1	3,560	2	3,474	1
Japan	3,213	4	3,226	3	3,193	2
Poland	3,553	2	3,690	1	3,180	3
South Korea	2,671	11	3,021	5	2,993	4
Switzerland	2,918	8	2,902	6	2,658	5
Hungary	3,253	3	3,153	4	2,645	6
Cyprus	3,197	5	2,346	12	2,531	7
Bulgaria	2,429	15	2,312	14	2,509	8
Turkey	2,069	26	2,119	20	2,362	9
Ireland	2,367	17	2,403	10	2,333	10
Spain	2,595	13	2,710	7	2,324	11
Taiwan	2,314	19	2,252	16	2,284	12
Israel	2,406	16	2,267	15	2,261	13
USA	3,092	7	2,571	9	2,258	14
Germany	1,977	29	2,186	17	2,087	15
Canada	2,783	9	1,878	28	2,053	16
<b>Australia</b>	<b>2,710</b>	<b>10</b>	<b>2,585</b>	<b>8</b>	<b>2,017</b>	<b>17</b>
Portugal	1,816	36	1,996	23	1,996	18
Austria	2,506	14	2,322	13	1,973	19
China	1,710	40	1,958	26	1,904	20
Tunisia	1,837	34	1,791	30	1,878	21
Romania	2,073	25	1,381	42	1,874	22
France	2,152	22	2,136	18	1,848	23
Belgium/Luxembourg	2,115	23	2,091	21	1,848	24
Denmark	1,865	33	1,637	34	1,840	25
Saudi Arabia	1,882	31	2,122	19	1,812	26
Italy	2,247	20	1,880	27	1,810	27
United Kingdom	2,080	24	2,056	23	1,797	28
Iceland	2,667	12	2,388	11	1,789	29
Netherlands	1,351	50	1,619	35	1,658	30
Czech Republic	2,355	18	2,070	22	1,646	31
Argentina	1,876	32	1,537	38	1,616	32
Singapore	1,988	28	1,678	33	1,468	33
Indonesia	1,093	54	1,186	49	1,464	34
Jordan	1,769	38	1,439	41	1,419	35
Syria	2,037	27	935	58	1,380	36
Malaysia	1,797	37	1,609	36	1,349	37
South Africa	1,411	47	1,706	32	1,335	38
Albania	1,157	53	1,243	45	1,314	39
<b>Egypt</b>	<b>1,587</b>	<b>43</b>	<b>1,221</b>	<b>46</b>	<b>1,212</b>	<b>40</b>

Source: NTC Publications 1998.

countries, 1986 to 1996

## Economics

### Household expenditure

The average weekly household expenditure on tobacco products in 1998–99 was \$10.74 (Table 2.3). This means that \$559 per household in 1998–99 was spent on tobacco products.

Although this value is higher than for previous years, the proportion spent on tobacco in relation to the total expenditure on goods and services has remained constant since 1984.

**Table 2.3: Household expenditure on tobacco products, Australia, 1984 to 1998-99**

<b>Expenditure</b>	<b>1984</b>	<b>1988-89</b>	<b>1993-94</b>	<b>1998-99</b>
Average weekly expenditure (\$)	5.73	6.89	9.19	10.74
Proportion of total goods and services expenditure (%)	1.6	1.4	1.5	1.5

*Source:* Australian Bureau of Statistics (Cat. No. 6530.0) 2000.

## **Government revenue**

There are four areas related to the consumption of tobacco products from which State/Territory and Commonwealth Governments earn revenue: excise on domestic goods, customs on imported products, sales tax and Business Franchise fees. In August 1997, the High Court ruled that the States and Territories could no longer collect State Business Franchise fees. Instead, the Federal Government collects the Business Franchise fees on behalf of the States and Territories. The Franchise fees are given back to the States and Territories from the Federal Government. Information on sales tax is not available at the commodity level.

In the context of the above, the net government revenue associated with tobacco products in 1998-99 was \$8.2 billion, with the majority coming from excise (\$4.7 billion, Table 2.4). The amount of excise paid has been increasing since 1995-96 but has remained relatively stable since 1998-99. State Franchise fees increased from \$2.7 million in 1997-98 to \$3.2 million in 1998-99. The total amount of government revenue from the sale and importation of tobacco has been steadily increasing since 1995-96.

**Table 2.4: Government revenue from duty paid and State Franchise taxes related to the sale of**

<b>Product</b>	<b>1995–96</b>	<b>1996–97</b>	<b>1997–98</b>	<b>1998–99</b>	<b>1999–00</b>
	(\$m)				
Excise					
Cigarettes	1,563	1,629	3,914	4,555	4,645 <sup>(c)</sup>
Other tobacco	54	— <sup>(d)</sup>	139	142 <sup>(e)</sup>	48 <sup>(e)</sup>
<i>Total excise</i>	<i>1,617</i>	<i>1,629 <sup>(e)</sup></i>	<i>4,052</i>	<i>4,696 <sup>(e)</sup></i>	<i>4,693 <sup>(e)</sup></i>
Customs					
Cigarettes	24	29	51	64	41
Cigars, etc. <sup>(a)</sup>	6	6	18	22	22
Other manufactured tobacco <sup>(b)</sup>	79	76	173	169	131
Unmanufactured tobacco	—	—	—	—	—
<i>Total customs</i>	<i>108</i>	<i>111</i>	<i>242</i>	<i>255</i>	<i>194</i>
State Franchise taxes <sup>(f)</sup>	2,621	2,855	2,725	3,222	n.a.
<b>Total</b>	<b>4,346</b>	<b>4,595 <sup>(e)</sup></b>	<b>7,019</b>	<b>8,173 <sup>(e)</sup></b>	<b>4,886 <sup>(e)</sup></b>

(a) Includes cigars, cigarillos and cheroots.

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

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

(d) Not available due to confidentiality restrictions.

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

(f) On 5 August 1997 the High Court determined that State Franchise taxes are an excise and cannot be imposed by the States and Territories. Effective from 7 August 1997, the Commonwealth is collecting the tax on behalf of the States and Territories as an equivalent amount of additional sales tax.

Source: Australian Bureau of Statistics, unpublished data; Australian Bureau of Statistics (Cat. No. 5506.0) 2000.

### **tobacco, Australia, 1995–96 to 1999–00**

## **Patterns of use**

### **National trends**

Data from the past four national household drug surveys show that the proportion of people aged 14 years and over who identified themselves as current regular smokers was 22% (Table 2.5). The proportion of regular smokers has remained constant since 1991. Similarly, the percentage of current occasional smokers remained constant at around 4–5% since the 1991 survey. However, the proportion of people who had never smoked a full cigarette increased, from 23% in 1991 to 34% in 1998.



**Table 2.5: Patterns of tobacco use in Australia, 1991 to 1998**

Frequency of use	1991	1993	1995	1998
	(per cent)			
Current regular smoker				
More than 20 per day	10	8	7	8
11–20 per day	8	9	9	9
Up to 10 per day	5	6	7	6
<i>Total regular smoker</i>	23	24	24	22
Current occasional smoker	5	4	3	4
Ex-smoker				
Less than 100 in life	26	23	18	16
100 or more in life	20	22	20	24
<i>Total ex-smoker</i>	46	45	38	40
Never smoked a full cigarette	23	26	36	34

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

### Summary of recent use

The results from the 1998 NDSHS alone show that 25% of males and 20% of females reported being current regular smokers (smoking daily or most days, Table 2.6). Overall, females were more likely to have never smoked a full cigarette (40%) than were males (28%). The highest proportion of people smoking regularly was in the 20–29 years age bracket for both males (33%) and females (31%). The 60+ years age group had the lowest prevalence of regular smokers for males (16%) and females (9%).

**Table 2.6: Summary of tobacco use in Australia, 1998**

Smoking status	Age group						All ages
	14–19	20–29	30–39	40–49	50–59	60+	
	(per cent)						
	<b>Males</b>						
Regular <sup>(a)</sup>	16.3	32.5	28.4	29.1	23.2	15.5	25.1
Occasional <sup>(b)</sup>	8.4	8.0	3.9	1.6	2.9	1.9	4.3
Ex-smokers	27.3	28.7	40.6	44.1	53.9	60.9	42.8
Never smoked	48.1	30.8	27.1	25.1	19.9	21.7	27.8
	<b>Females</b>						
Regular <sup>(a)</sup>	15.8	30.6	24.6	22.5	14.8	9.4	20.0
Occasional <sup>(b)</sup>	10.1	6.6	3.8	2.6	2.8	0.4	3.9
Ex-smokers	29.1	31.1	40.5	36.7	43.6	36.6	36.5
Never smoked	45.0	31.7	31.2	38.3	38.8	53.7	39.6
	<b>Persons</b>						
Regular <sup>(a)</sup>	16.1	31.6	26.5	25.8	19.1	12.1	22.5
Occasional <sup>(b)</sup>	9.2	7.3	3.8	2.1	2.8	1.0	4.1
Ex-smokers	28.2	29.9	40.5	40.4	48.9	47.3	39.6
Never smoked	46.5	31.2	29.2	31.7	29.1	39.5	33.8

(a) Regular: smokes daily/most days.

(b) Occasional: smokes less often than daily/most days.

Source: National Drug Strategy Household Survey 1998.

# 3 Alcohol

## Overview

In 1998, 3,271 deaths were attributable to the consumption of alcohol (Chapter 7). For those aged 65 years and older, moderate consumption of alcohol appears to have provided a protective effect against selected causes of mortality and morbidity, such as cardiovascular disease (Chapter 7). The number of hospital episodes attributable to alcohol consumption in 1998 was 43,032.

Beer was the most widely consumed alcoholic beverage, followed by wine and spirits (Table 3.1). Australia was ranked 19th in 1998 in terms of per capita consumption of alcohol (Table 3.2).

In 1998–99, the average weekly expenditure on alcohol was \$20.43 per household (Table 3.3). In the same year, the government raised approximately \$2.7 billion in customs and excise from the importation and sale of alcohol (Table 3.4).

From the NDSHS in 1998, 59% of respondents aged 14 years and over were regular drinkers, with 10% reporting drinking every day and 13% drinking 4–6 days per week (Table 3.5). Although 56% of respondents correctly identified low-risk levels of drinking for males and 47% for females (Table 3.7), at least 7% of males and 4% of females reported drinking at hazardous or harmful levels (Table 3.8).

## Consumption

### Apparent consumption

The consumption of alcohol has been relatively stable since 1995–96 (Table 3.1). The consumption of low alcohol beer has slightly increased over the past six years and the consumption of other beers has been decreasing. Wine consumption has increased from 2.1 L of alcohol in 1993–94 to 2.3 L of alcohol in 1998–99. Consumption of spirits has decreased from 1.4 L of alcohol in 1993–94 to 1.2 L of alcohol in 1998–99.

**Table 3.1: Apparent per capita consumption of alcoholic beverages, Australia, 1993–94 to 1998–99**

Alcohol	1993–94	1994–95	1995–96	1996–97	1997–98	1998–99
	(L of alcohol)					
Beer						
Low alcohol beer	0.7	0.7	0.7	0.7	0.8	0.8
Other beer	3.6	3.6	3.5	3.4	3.3	3.3
Total	4.3	4.3	4.2	4.2	4.1	4.0
Wine	2.1	2.1	2.1	2.2	2.2	2.3
Spirits	1.4	1.3	1.3	1.2	1.3	1.2
<b>Total</b>	<b>7.8</b>	<b>7.7</b>	<b>7.5</b>	<b>7.5</b>	<b>7.6</b>	<b>7.5</b>

Source: Australian Bureau of Statistics (Cat. No. 4306.0) 2000.

## International comparisons

In 1998, Australia ranked 19th in the world in terms of per capita consumption of pure alcohol with 7.6 L per person (Table 3.2).

Table 3.2: Per capita consumption of alcoholic beverages, selected countries,<sup>(a)</sup> 1998<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	13.3	Czech Republic	161.8	Luxembourg	70.0	Russia	6.0
2	Portugal	11.2	Republic of Ireland	150.5	France	58.1	Latvia	4.9
3	France	10.8	Germany	127.4	Portugal	53.2	Romania	4.8
4	Republic of Ireland	10.8	Luxembourg	110.9	Italy	52.0	Slovak Republic	4.1
5	Germany	10.6	Austria	108.6	Switzerland	43.2	Thailand	3.5
6	Czech Republic	10.2	Denmark	105.0	Argentina	38.8	Poland	3.4
7	Spain	10.1	United Kingdom	99.4	Greece	35.9	Hungary	3.1
8	Denmark	9.5	Belgium	98.0	Spain	35.6	China	3.0
9	Romania	9.5	<b>Australia</b>	<b>94.5</b>	Austria	30.1	Greece	2.7
10	Hungary	9.4	Slovak Republic	91.8	Denmark	29.1	Cyprus	2.6
11	Austria	9.2	New Zealand	84.7	Hungary	29.0	Spain	2.5
12	Switzerland	9.2	Netherlands	84.2	Republic of Ireland	25.6	Bulgaria	2.5
13	Greece	9.1	USA	82.0	Romania	25.2	France	2.4
14	Belgium	8.9	Finland	80.1	Belgium	25.0	Japan	2.3
15	Slovak Republic	8.3	Venezuela	78.8	Germany	22.8	Finland	2.2
16	Netherlands	8.1	Canada	67.9	Bulgaria	22.1	Germany	2.0
17	Russia	7.9	Spain	66.4	Uruguay	20.9	USA	1.9
18	Italy	7.7	Portugal	64.6	<b>Australia</b>	<b>19.7</b>	Republic of Ireland	1.8
19	<b>Australia</b>	<b>7.6</b>	Switzerland	59.7	Netherlands	18.4	Guyana	1.8
20	New Zealand	7.6	Hungary	59.3	Chile	18.1	Canada	1.8
21	United Kingdom	7.5	South Africa	58.1	Czech Republic	16.9	Cuba	1.7
22	Finland	7.1	Sweden	57.3	Malta	16.5	Colombia	1.7
23	Latvia	7.1	Cyprus	55.0	New Zealand	16.1	Netherlands	1.7
24	Bulgaria	6.8	Colombia	53.1	Finland	15.2	Czech Republic	1.7
25	Argentina	6.8	Norway	52.6	Sweden	14.6	Luxembourg	1.6
26	Cyprus	6.8	Japan	50.0	United Kingdom	14.4	Estonia	1.6
27	USA	6.5	Mexico	49.0	Slovak Republic	13.3	Chile	1.6
28	Japan	6.5	Brazil	46.3	Cyprus	12.2	Portugal	1.5
29	Poland	6.2	Paraguay	42.7	Canada	8.9	Brazil	1.5
30	Canada	6.2	Greece	42.0	South Africa	8.7	New Zealand	1.5
31	Venezuela	5.2	Poland	41.0	Norway	8.5	Switzerland	1.4
32	Malta	5.1	Iceland	40.1	USA	7.4	Austria	1.4
33	Chile	5.1	France	38.6	Iceland	7.2	Iceland	1.3
34	Sweden	4.9	Argentina	36.0	Latvia	6.4	United Kingdom	1.3
35	South Africa	4.8	Romania	35.0	Russia	6.0	<b>Australia</b>	<b>1.3</b>
36	Uruguay	4.8	Bulgaria	33.2	Poland	5.9	Malta	1.2
37	Colombia	4.4	Latvia	32.0	Tunisia	2.7	Venezuela	1.2
38	Norway	4.3	Chile	27.0	Estonia	2.2	Belgium	1.1
39	Thailand	4.3	Italy	26.9	Brazil	1.9	Denmark	1.1
40	Iceland	4.3	Peru	26.4	Japan	1.8	Sweden	1.1
41	Brazil	4.0	Russia	26.0	Paraguay	1.6	Uruguay	1.0
42	China	3.8	Taiwan	25.8	Cuba	1.5	South Africa	0.9
43	Mexico	3.2	Uruguay	25.1	Morocco	1.4	Norway	0.8
44	Taiwan	3.0	Singapore	21.5	Ukraine	1.0	Mexico	0.7
45	Guyana	2.7	China	15.8	Peru	1.0	Italy	0.6
46	Estonia	2.4	Thailand	15.5	Singapore	0.9	Ukraine	0.5
47	Cuba	2.3	Turkey	14.4	Turkey	0.7	Singapore	0.5
48	Paraguay	2.3	Malaysia	10.9	Algeria	0.5	Taiwan	0.5
49	Singapore	1.7	Cuba	9.2	Taiwan	0.5	Turkey	0.4
50	Peru	1.4	Tunisia	8.6	Colombia	0.4	Argentina	0.3

(a) Top 50 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: NTC Publications 1999.

This compared with top-ranked Luxembourg at 13.3 L per person and Peru, ranked 50th, at 1.4 L per person. Australia was the 9th highest ranked country for beer consumption (94.5 L per person) in 1998. By comparison, the top-ranked Czech Republic consumed 161.8 L per person. For the consumption of wine and spirits, Australia ranked 18th and 35th, respectively.

## Economics

### Household expenditure

The results from the Household Expenditure Survey in 1998–99 indicate that the average weekly expenditure on alcohol was \$20.43 per household, which equates to an annual expenditure of \$1,062 (Table 3.3). The average weekly expenditure on alcohol has increased since 1984; however, the proportion of total weekly expenditure spent on alcohol has decreased from 3.4% in 1984 to 2.9% in 1998–99.

**Table 3.3: Household expenditure on alcoholic beverages, Australia, 1984 to 1998–99**

Expenditure	1984	1988–89	1993–94	1998–99
Average weekly expenditure (\$)	12.30	16.90	17.46	20.43
Proportion of total goods and services expenditure (%)	3.4	3.4	2.9	2.9

Source: Australian Bureau of Statistics (Cat. No. 6530.0) 2000.

### Government revenue

There are four areas related to alcohol consumption from which the State/Territory and Commonwealth Governments earn revenue: excise on domestic goods, customs on imported products, sales tax and Business Franchise fees. In August 1997, the High Court ruled that the States and Territories could no longer collect State Business Franchise fees. Instead, the Federal Government collects the Business Franchise fees on behalf of the States and Territories. The Franchise fees are given back to the States and Territories from the Federal Government. Information on sales tax is not available at the commodity level.

In the context of the above, the net government revenue associated with alcohol was approximately \$2.7 billion in 1998–99 (Table 3.4). The amount of revenue raised from excise had been declining from \$1,065 million in 1995–96 to \$1,017 million in 1998–99. However, in 1999–00 a slight increase in excise revenue was observed (\$1,029 million). The revenue raised from customs on imported products has been steadily increasing since 1995–96.

**Table 3.4: Government revenue from duty paid and State Franchise taxes related to the sale of**

Duty	1995–96	1996–97	1997–98	1998–99	1999–00
	(\$m)				
Excise					
Beer	864	870	882	873	878
Spirits <sup>(a)</sup>	201	163	142	144	150
<i>Total excise</i>	1,065	1,033	1,024	1,017	1,029
Customs					
Beer	7	9	12	14	14
Wine	4	3	4	4	4
Spirits	565	645	717	719	751
<i>Total customs</i>	577	657	732	737	770
State Franchise taxes <sup>(b)</sup>	735	774	532	912	n.a.
<b>Total</b>	<b>2,377</b>	<b>2,464</b>	<b>2,288</b>	<b>2,666</b>	<b>..</b>

(a) There was a decrease in excise duty for spirits in 1996–97 due to a policy change which treated imported spirits for mixed drinks as customable rather than excisable.

(b) On 5 August 1997 the High Court determined that State Business Franchise taxes are an excise and cannot be imposed by the States and Territories. Effective from 7 August 1997, the Commonwealth is collecting the tax on behalf of the States and Territories as an equivalent amount of additional sales tax.

Sources: Australian Bureau of Statistics, unpublished data; Australian Bureau of Statistics (Cat. No. 5506.0) 2000.

**alcohol, Australia, 1995–96 to 1999–00**

## Patterns of use

### National trends

Data from the previous four national household drugs surveys show that the proportion of respondents aged 14 years and over who were regular drinkers remained relatively constant at approximately 60%, with the exception of 1995, when the proportion of regular drinkers was 54% (Table 3.5). Similarly, the proportion of occasional drinkers has remained fairly constant at around 20% since 1991.

In the 1998 survey alone, 10% of respondents reported drinking every day, while a further 13% reported drinking 4–6 days per week. Approximately 20% of the population reported drinking less than one day in a month.

**Table 3.5: Patterns of alcohol use in Australia, 1991 to 1998**

Frequency of drinking	1991	1993	1995	1998
	(per cent)			
Regularly drink				
Every day	11	10	11	10
4–6 days a week	11	11	10	13
2–3 days a week	22	22	16	19
One day a week	17	17	17	17
<i>Total regular</i>	<i>61</i>	<i>60</i>	<i>54</i>	<i>59</i>
Occasionally drink				
2–3 days a month	11	13	13	12
One day a month	8	8	10	8
<i>Total occasional</i>	<i>19</i>	<i>21</i>	<i>23</i>	<i>20</i>
Less often	17	16	20	19
No longer drink	3	2	3	3

Note: Base is respondents who had consumed alcohol at least once in the past year.

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

### Summary of recent use

The results from the 1998 NDSHS show that 59% of males were current regular drinkers (drink at least weekly), which is considerably higher than their female counterparts (38%) (Table 3.6). In contrast, there was a higher prevalence of occasional drinking in females (39%) than in males (25%).

The 30–39 years age bracket had the highest level of regular drinking at 65% for males and 44% for females. In the 14–19 years age group, 33% of males and 27% of females were regular drinkers. This age group contained the highest proportion of males (21%) and females (24%) that had never consumed a full glass of alcohol.

**Table 3.6: Alcohol drinking status: proportion of the population aged 14 years and over, by age and sex, Australia, 1998**

Drinking status	Age groups						All ages
	14–19	20–29	30–39	40–49	50–59	60+	
	(per cent)						
	<b>Males</b>						
Regular <sup>(a)</sup>	33.0	63.2	65.0	62.0	62.7	59.1	59.4
Occasional <sup>(b)</sup>	37.5	25.8	24.0	23.6	25.1	20.1	25.2
Ex-drinker	8.2	6.0	7.6	8.7	8.9	12.6	8.6
Never	21.3	4.9	3.4	5.7	3.2	8.2	6.8
	<b>Females</b>						
Regular <sup>(a)</sup>	27.3	40.1	44.3	42.7	35.7	33.0	38.1
Occasional <sup>(b)</sup>	43.9	44.1	40.3	38.4	41.3	27.3	38.5
Ex-drinker	4.6	9.6	9.5	10.7	16.6	15.8	11.4
Never	24.3	6.2	5.9	8.1	6.4	23.9	11.9
	<b>Persons</b>						
Regular <sup>(a)</sup>	30.2	51.8	54.7	52.2	49.6	45.0	48.6
Occasional <sup>(b)</sup>	40.7	34.8	32.1	31.1	33.0	24.0	31.9
Ex-drinker	6.4	7.8	8.5	9.7	12.7	14.3	10.0
Never	22.8	5.6	4.6	6.9	4.8	16.7	9.4

(a) Regular: consumes alcohol on at least one day per week.

(b) Occasional: consumes alcohol less often than one day per week.

Source: National Drug Strategy Household Survey 1998.

## Perceived risk

The National Health and Medical Research Council (NHMRC) is currently in the process of updating the responsible drinking guidelines for Australia, entitled *Is There a Safe Level of Daily Consumption of Alcohol for Men and Women?: Recommendations regarding Responsible Drinking Behaviour*. The guidelines are being constructed with an emphasis on drinking patterns as opposed to setting a gross weekly alcohol intake alone, which was the focus of the existing guidelines (NHMRC, 1992).

In 1998, respondents in the NDSHS were asked to identify the number of standard drinks a person can consume each day before their health is affected (Table 3.7). Approximately 56% correctly identified the low-risk levels of drinking for males and 47% correctly identified those for females.

**Table 3.7: Perceived risk<sup>(a)</sup> of alcohol to male and female health, Australia, 1998**

Number of standard drinks	Male health		Female health	
	Proportion responding <sup>(b)</sup> (per cent)	NHMRC risk level	Proportion responding <sup>(b)</sup> (per cent)	NHMRC risk level
None	2	low risk	2	low risk
1–2 drinks	21	low risk	45	low risk
3–4 drinks	33	low risk	25	hazardous
5–6 drinks	16	hazardous	7	harmful
7–8 drinks	4	harmful	2	harmful
9–12 drinks	6	harmful	2	harmful
13 or more drinks	2	harmful	1	harmful
Don't know/not stated	16		16	
	<b>(drinks)</b>		<b>(drinks)</b>	
Mean	4		3	
Median	3		2	

(a) Based on NHMRC guidelines for responsible drinking.

(b) Response to question 'How many standard drinks do you think an adult male (female) could drink every day before their health would be affected?.'

Sources: National Drug Strategy Household Survey 1998; NHMRC 1992.

Using the NHMRC guidelines (1992) and the data from the 1998 NDSHS, it was possible to estimate the proportion of respondents who drank at hazardous or harmful levels (Table 3.8). The consumption patterns were divided into conservative and non-conservative estimates, the details of which are in the footnote to Table 3.8. Using the conservative results, at least 7% of males and 4% of females were drinking at hazardous or harmful levels in Australia. The non-conservative estimate suggests that up to 14% of males and 8% of females may be drinking at hazardous or harmful levels.

The Northern Territory had the highest proportion of people drinking at hazardous or harmful levels for males (15%) and females (6%). Overall, the 20–29 years age group had the highest proportion of hazardous or harmful drinking (8%), with Western Australia recording the highest level (14%) and the Australian Capital Territory, the lowest (3%).

**Table 3.8: Hazardous or harmful consumption of alcohol (conservative and non-conservative):(a)  
proportion of the population aged 14 years and over, by State and Territory, Australia, 1998**

<b>Method/age group/sex</b>	<b>NSW</b>	<b>Vic</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>ACT</b>	<b>NT</b>	<b>Aust</b>
Hazardous or harmful alcohol use (conservative) <sup>(a)</sup> <span style="float: right;">(per cent)</span>									
14–19	5.6	3.5	5.4	3.2	5.4	2.8 *	6.0	10.6	4.8
20–29	7.8	7.7	8.6	14.4	5.9	8.0	3.3	11.1	8.4
30–39	5.4	3.1	6.0	1.6 *	4.5	4.6	7.1	8.9	4.6
40+	3.9	5.3	6.6	5.8	6.2	4.5	5.9	11.8	5.2
Males	6.5	5.5	8.4	9.4	6.8	5.6	6.4	14.6	7.0
Females	3.7	4.8	5.2	3.3	4.8	4.3	4.8	6.4	4.3
<b>Persons</b>	<b>5.1</b>	<b>5.1</b>	<b>6.8</b>	<b>6.3</b>	<b>5.8</b>	<b>4.9</b>	<b>5.6</b>	<b>10.8</b>	<b>5.6</b>
Hazardous or harmful alcohol use (non-conservative) <sup>(a)</sup>									
14–19	5.9	5.3	6.4	4.9	7.2	3.2 *	6.5	11.2	5.9
20–29	13.1	11.7	13.1	18.8	9.7	10.1	5.9	14.9	12.9
30–39	10.5	8.1	10.1	7.6	9.6	6.3	10.5	14.0	9.4
40+	8.9	12.0	13.2	10.3	13.4	7.4	11.0	17.5	11.0
Males	12.7	13.0	15.5	15.2	13.8	8.8	11.0	20.7	13.6
Females	6.7	8.2	8.2	6.5	9.2	5.7	7.5	9.0	7.5
<b>Persons</b>	<b>9.6</b>	<b>10.5</b>	<b>11.8</b>	<b>10.9</b>	<b>11.5</b>	<b>7.2</b>	<b>9.3</b>	<b>15.2</b>	<b>10.5</b>

(a) This table attempts to relate reported drinking patterns with the NHMRC guidelines. The analysis is based on the product of responses to two questions for the survey, one sought detail on drinking frequency and the other sought detail on the usual consumption (quantity) of standard drinks. Both questions included response ranges like 2–3 days a week or 3–4 drinks per day. The conservative estimate used the lower range of both questions to estimate number of drinks per week. The non-conservative method used the upper range of both questions.

Source: National Drug Strategy Household Survey 1998.



# 4 Illicit drug use

## Overview

Illicit drug use was associated with just over 1,000 deaths in Australia in 1998, of which the majority were young people aged between 15 and 34 years. Hospital episodes attributable to illicit drug use constituted 7% of the total number of episodes related to drug use (Chapter 7).

Results from the NDSHS in 1998 suggest that 46% of the Australian population had used an illicit drug at some time, while 23% had used at least one illicit drug in the preceding 12 months. Marijuana was the most widely used illicit drug, followed by the non-medical use of pain-killers/analgesics and hallucinogens (Table 4.1).

The Northern Territory had the highest proportion of people who had ever used any illicit drug (62%), while Victoria had the lowest prevalence of illicit drug use at 44% (Table 4.2). In terms of recent illicit drug use, the Northern Territory had the highest percentage of people who had used illicit drugs in the 12 months preceding the survey, while New South Wales had the lowest (Table 4.3).

There has been a general increase in the use of marijuana, hallucinogens, ecstasy/designer drugs and amphetamines since 1991 (Figure 4.1 and Table 4.4).

Use of illicit drugs was considered to be unacceptable by most Australians (Table 4.5). Similarly, support for the legalisation of illicit drugs was not widespread (Table 4.6).

## Use of illicit drugs

Nearly half of all Australians aged 14 years and over have used illicit substances at least once in their life, while 23% report having used an illicit drug in the preceding 12 months (Table 4.1). The most widely used illicit substance in Australia in 1998 was marijuana, with lifetime use of 39% and recent use of 18%. The prevalence of lifetime use of pain-killers/analgesics (for non-medical purposes) was 12%, followed by hallucinogens (10%) and amphetamines (9%). Only 2% of the Australian population had ever used heroin, with 1% reporting recent usage. The prevalence of cocaine use was slightly higher, with lifetime use in 4% of the respondents and recent use in 1%.

The mean age of initiation for marijuana was 18.8 years, which was only slightly higher than the age of initiation for inhalants (17.5 years) and hallucinogens (18.4 years). The highest age of initiation was for tranquillisers/sleeping pills for non-medical purposes at 23.3 years, followed by ecstasy/designer drugs at 22.5 years and cocaine at 22.2 years.

**Table 4.1: Summary of illicit drug use in Australia, 1998**

Substance/behaviour	Drugs ever used	Drugs recently used <sup>(a)</sup>	Mean age of initiation
	(per cent)		(years)
Marijuana	39.1	17.9	18.8
Pain-killers/analgesics <sup>(b)</sup>	11.5	5.2	19.6
Tranquillisers/sleeping pills <sup>(b)</sup>	6.2	3.0	23.3
Steroids <sup>(b)</sup>	0.8	0.2	21.4
Barbiturates <sup>(b)</sup>	1.6	0.3	19.8
Inhalants	3.9	0.9	17.5
Heroin	2.2	0.8	21.7
Methadone <sup>(c)</sup>	0.5	0.2	22.1
Amphetamines <sup>(b)</sup>	8.8	3.7	20.0
Cocaine	4.3	1.4	22.2
Hallucinogens	9.9	3.0	18.4
Ecstasy/designer drugs	4.8	2.4	22.5
Injected illegal drugs	2.1	0.8	20.7
Any illicit drug	46.4	22.8	18.8
None of the above	53.6	77.2	..

(a) Used in the last 12 months.

(b) For non-medical purposes.

(c) Non-maintenance.

Source: National Drug Strategy Household Survey 1998.

## Drug use in the States/Territories

According to the 1998 NDSHS, the Northern Territory reported the highest proportion of persons who had ever used for the majority of the drugs surveyed (Table 4.2). Results from the survey suggest that:

- slightly over 39% of Australians aged 14 years and over had used marijuana at some time in their lives, ranging from 35% in Victoria to 59% in the Northern Territory;
- around one in 10 (12%) had used pain-killers/analgesics for non-medical purposes, ranging from 10% in the Australian Capital Territory to almost 15% in South Australia;
- an average of 2.2% of respondents had used heroin, ranging from 1.8% in South Australia, Tasmania and the Australian Capital Territory, to 4.5% in the Northern Territory;
- approximately 9% had used amphetamines, with a range from 7% in Tasmania to 18% in the Northern Territory; and
- 10% of respondents had used LSD/synthetic hallucinogens, ranging from 8% in Tasmania to 22% in the Northern Territory.

**Table 4.2: Summary of lifetime drug use: proportion of the population aged 14 years and over,**

Substance/behaviour	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
	(per cent)								
Marijuana/cannabis	38.9	35.3	40.2	44.8	39.3	37.6	46.1	59.1	39.1
Pain-killers/analgesics <sup>(a)</sup>	10.7	12.2	11.2	11.0	14.7	12.8	10.0	10.1	11.5
Tranquillisers/sleeping pills <sup>(a)</sup>	5.1	7.4	6.5	5.0	6.6	8.0	7.5	10.8	6.2
Steroids <sup>(a)</sup>	0.8	0.9	0.6	0.7 *	0.8 *	0.7 *	1.0	1.0 *	0.8
Barbiturates <sup>(a)</sup>	1.4	1.5	1.6	2.2	1.2	2.6	2.1	4.5	1.6
Inhalants	3.9	3.5	4.2	4.4	4.2	3.3	4.1	5.8	3.9
Heroin	2.0	2.2	2.3	3.2	1.8	1.8	1.8	4.5	2.2
Methadone <sup>(b)</sup>	0.5 *	0.3 *	0.7	0.8 *	0.1 *	0.7 *	0.9	0.6 *	0.5
Amphetamines <sup>(a)</sup>	8.8	8.7	8.0	10.6	8.2	6.5	8.9	17.6	8.8
Cocaine/crack	5.8	3.6	3.5	4.1	2.3	2.4	5.0	5.6	4.3
LSD/synthetic hallucinogens	9.8	8.8	10.4	12.3	9.0	7.9	11.3	21.8	9.9
Ecstasy/designer drugs	5.3	4.8	3.8	6.9	2.8	2.4	5.6	5.9	4.8
Injected illegal drugs	1.4	2.2	3.0	3.1	1.7	1.6	1.4	4.3	2.1
Ever used any illicit drug	45.1	43.5	47.6	52.0	48.5	46.1	51.5	62.0	46.4
None of the above	54.9	56.5	52.4	48.0	51.5	53.9	48.5	38.0	53.6

(a) For non-medical purposes.

(b) Non-maintenance.

Source: National Drug Strategy Household Survey 1998.

#### **by State and Territory, Australia, 1998**

As with lifetime use, the Northern Territory recorded the highest rates of recent use for the majority of the illicit drugs presented (Table 4.3):

- almost one in five Australians (18%) aged 14 years and over used marijuana during the previous 12 months, ranging from 17% in New South Wales, to 36% in the Northern Territory;
- 5% recently used pain-killers/analgesics for non-medical purposes, ranging from 4% in New South Wales to 7% in South Australia;
- 4% recently used amphetamines, ranging from 2% in Tasmania to 7% in the Northern Territory; and
- 3% recently used LSD/synthetic hallucinogens, ranging from 2% in Tasmania to 6% in the Northern Territory.

**Table 4.3: Summary of drug use in the preceding 12 months: proportion of the population aged 14 years and over, by State and Territory, Australia, 1998**

Substance/behaviour	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
	(per cent)								
Marijuana/cannabis	16.7	17.8	17.5	22.3	17.6	15.9	20.3	36.5	17.9
Pain-killers/analgesics <sup>(a)</sup>	4.2	6.1	5.2	4.4	6.8	6.7	5.0	5.5	5.2
Tranquillisers/sleeping pills <sup>(a)</sup>	2.1	4.0	2.7	3.1	3.7	2.9	2.5	4.7	3.0
Steroids <sup>(a)</sup>	0.4 *	0.2 *	0.2 *	0.1 *	0.2 *	—	—	0.1 *	0.2
Barbiturates <sup>(a)</sup>	0.2 *	0.3 *	0.2 *	0.3	0.3 *	0.5 *	0.3 *	0.3 *	0.3
Inhalants	0.9	0.8	0.8	1.3	0.7 *	0.7 *	0.9	1.1 *	0.9
Heroin	0.6	1.0	0.6	1.5	0.5 *	0.5 *	0.4 *	0.5 *	0.8
Methadone <sup>(b)</sup>	—	0.2 *	0.4	0.2 *	—	0.6 *	0.1 *	0.2 *	0.2
Amphetamines <sup>(a)</sup>	3.8	3.4	3.0	6.0	3.5	1.6	3.1	7.2	3.7
Cocaine/crack	2.1	1.3	0.7	1.3	0.6 *	0.1 *	1.2	1.6 *	1.4
LSD/synthetic hallucinogens	2.6	3.6	2.5	3.9	3.1	2.0	2.8	5.8	3.0
Ecstasy/designer drugs	2.1	3.1	1.4	5.1	1.0	0.7 *	2.8	3.1	2.4
Injected illegal drugs	0.3 *	0.9	1.0	1.8	0.4 *	0.6 *	0.2 *	0.9 *	0.8
Ever used any illicit drug	20.5	23.5	22.5	26.9	23.8	22.5	24.7	39.9	22.8
None of the above	79.5	76.5	77.5	73.1	76.2	77.5	75.3	60.1	77.2

(a) For non-medical purposes.

(b) Non-maintenance.

Source: National Drug Strategy Household Survey 1998.

## Trends in illicit drug use

In 1991, around 33% of the population aged 14 years and over had tried marijuana. By 1998, this figure had increased to approximately 39%. Other drugs that recorded increased use include cocaine, ecstasy/designer drugs, LSD/synthetic hallucinogens and heroin (Table 4.4). The only drug to record any sustainable decline was barbiturates, with the number of those who had tried the drug falling substantially after 1991, but then stabilising.

**Table 4.4: Summary of lifetime use of illicit drugs: proportion of the population aged 14 years and over, by drug type and year, Australia, 1991 to 1998**

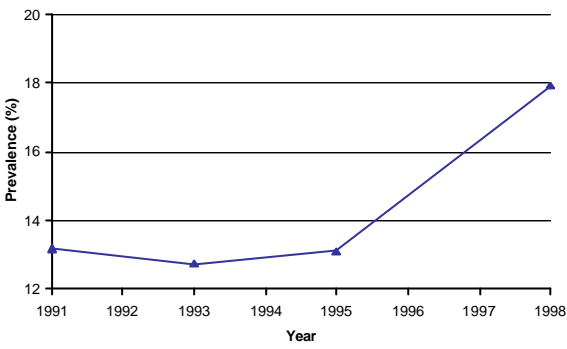
Substance/behaviour	1991	1993	1995	1998
	(per cent)			
Marijuana/cannabis	32.5	34.7	31.0	39.1
Steroids <sup>(a)</sup>	n.a.	0.3	0.6	0.8
Barbiturates <sup>(a)</sup>	5.2	1.4	1.2	1.6
Inhalants	3.4	3.7	2.4	3.9
Heroin	1.7	1.7	1.4	2.2
Amphetamines <sup>(a)</sup>	7.6	5.4	5.7	8.8
Cocaine	3.2	2.5	3.4	4.3
LSD/synthetic hallucinogens	7.8	7.3	7.0	9.9
Ecstasy/designer drugs	2.2	3.1	2.4	4.8
Injecting drugs	1.7	1.9	1.3	2.1

(a) For non-medical purposes.

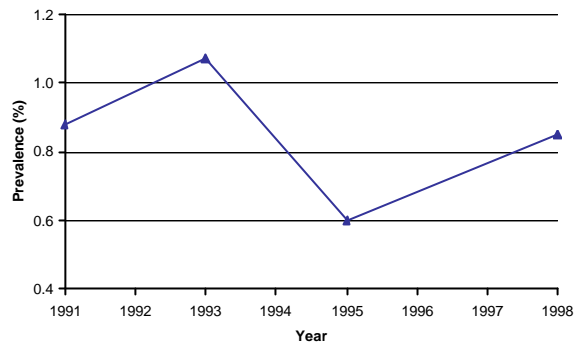
Sources: National Campaign Against Drug Abuse Household Survey 1991, 1993; National Drug Strategy Household Survey 1995, 1998.

The number of people aged 14 years and over who reported recent marijuana use (used in the past 12 months) increased by nearly one-third between 1991 and 1998 (Figure 4.1).

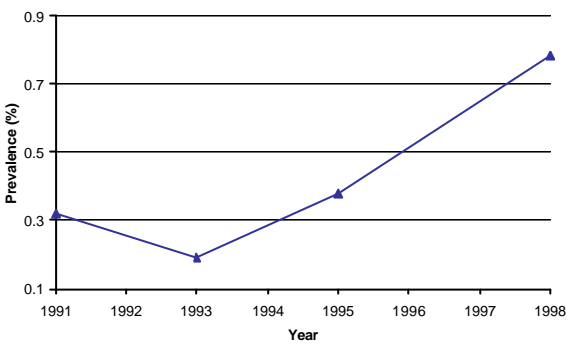
**Marijuana/cannabis**



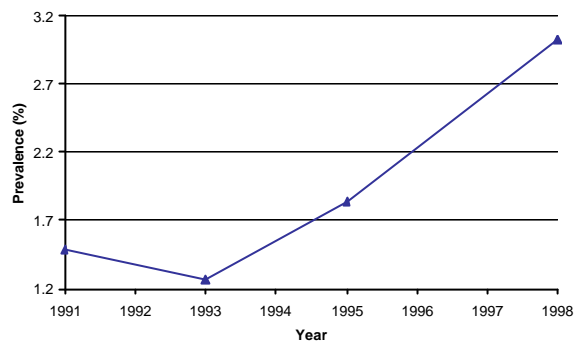
**Inhalants**



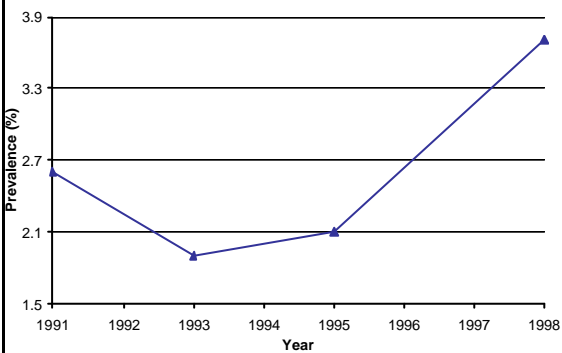
**Heroin**



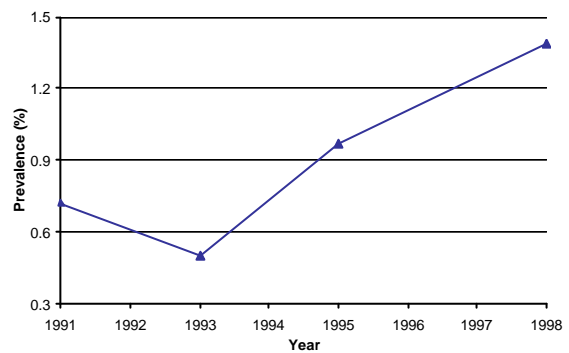
**LSD/synthetic hallucinogens**



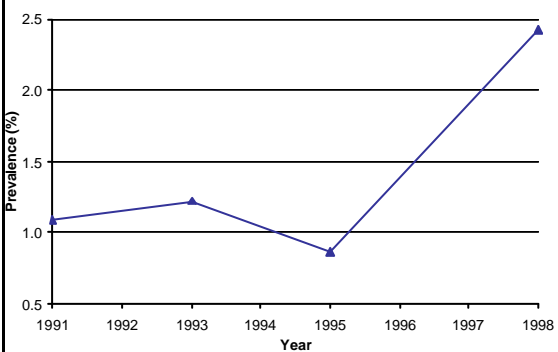
**Amphetamines**



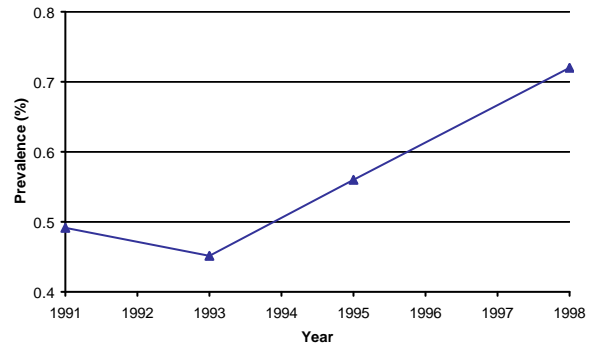
**Cocaine**



**Ecstasy/designer drugs**



**Injecting drugs**



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

**Figure 4.1: Illicit drug use in the preceding 12 months: proportion of the population aged 14 years and over, Australia, 1991 to 1998**

By 1993, recent use of amphetamines had fallen to around 2%. However, this figure had increased to around 4% by 1998. Between 1991 and 1998, recent use of ecstasy/designer drugs increased from 1% to 2%, while heroin use increased from 0.3% to 0.8%. Other drugs that reported increased recent use included cocaine, and LSD/synthetic hallucinogens.

## Attitudes to drug use

The regular use of illicit drugs was not considered to be acceptable amongst the vast majority of respondents in the 1998 NDSHS (Table 4.5). Males were more likely to accept regular illicit drug use than were females.

Marijuana was the most widely accepted illicit drug, with 31% of males and 21% of females supporting regular use. Inhalants tended to be the least acceptable illicit substances, with only 2% of males and a negligible proportion of females finding regular inhalant use acceptable.

The regular use of tobacco and alcohol was considered acceptable by at least two-fifths of Australians. Tobacco/cigarette use was considered to be acceptable by 42% of males and 38% of females, while alcohol use was acceptable to 68% of males and 55% of females.

**Table 4.5: Acceptability of regular use of illicit and licit drugs: proportion of the population aged 14 years and over, by sex, Australia, 1998**

Drug use activity	Males	Females (per cent)	Persons
Tobacco/cigarettes	42.1	38.2	40.2
Alcohol	67.8	54.8	61.2
Marijuana/cannabis	30.5	20.6	25.5
Pain-killers/analgesics <sup>(a)</sup>	10.6	8.6	9.6
Tranquillisers/sleeping pills <sup>(a)</sup>	7.3	3.8	5.5
Steroids <sup>(a)</sup>	3.9	0.9	2.4
Barbiturates <sup>(a)</sup>	2.7	0.7	1.7
Inhalants	1.7	0.3	1.0
Heroin	2.9	0.8	1.8
Methadone <sup>(b)</sup>	2.8	0.8	1.8
Amphetamines (speed/uppers)	4.6	1.6	3.1
Cocaine/crack	3.8	1.1	2.4
Naturally occurring hallucinogens	6.4	2.2	4.3
LSD/synthetic hallucinogens	4.5	1.4	2.9
Ecstasy/designer drugs	5.1	1.5	3.3

(a) For non-medical purposes.

(b) Non-maintenance.

Source: National Drug Strategy Household Survey 1998.

## Support for legalisation of illicit drugs

Support for the legalisation of illicit drugs follows a similar pattern to that of the acceptability of regular illicit drug use (Table 4.6). The legalisation of marijuana was supported by 34% of males and 25% of females. In contrast, support for the legalisation of heroin, amphetamines and cocaine was less popular. Those who supported the legalisation of heroin, amphetamines and cocaine were generally aged 20–29 to 40–49 years.

**Table 4.6: Support for the legalisation of selected drugs: proportion of the population aged**

Substance	Age groups						All ages
	14–19	20–29	30–39	40–49	50–59	60+	
(per cent)							
<b>Males</b>							
Marijuana/cannabis	38.2	49.6	41.4	37.3	21.6	12.9	33.8
Heroin	4.9	10.6	11.0	10.4	4.6	6.4	8.4
Amphetamines/speed	6.1	10.7	7.7	8.1	3.6	3.5	6.8
Cocaine	4.3	10.0	9.0	7.9	4.4	4.4	7.0
<b>Females</b>							
Marijuana/cannabis	35.6	37.7	31.2	24.2	16.3	10.2	25.1
Heroin	4.6	6.1	8.4	6.1	6.5	5.2	6.2
Amphetamines/speed	4.2	5.3	6.6	3.9	3.7	4.3	4.8
Cocaine	4.4	5.3	6.7	4.6	4.2	4.8	5.1
<b>Persons</b>							
Marijuana/cannabis	36.9	43.7	36.3	30.7	19.0	11.4	29.4
Heroin	4.8	8.4	9.7	8.2	5.5	5.7	7.3
Amphetamines/speed	5.2	8.0	7.1	6.0	3.7	4.0	5.8
Cocaine	4.4	7.7	7.8	6.3	4.3	4.6	6.0

Source: National Drug Strategy Household Survey 1998.

**14 years and over, by age group and sex, Australia, 1998**

# 5 Pharmaceutical products

## Background

Previous to 1999, data regarding the use of pharmaceuticals in Australia were provided by the Health Insurance Commission (HIC) and from the Pharmacy Guild Survey, which was a continuous survey of community pharmacies. The HIC records the number of prescriptions submitted for a subsidy payment under the Pharmaceutical Benefits Scheme (PBS) and the Repatriation Pharmaceutical Benefits Scheme (RPBS). The Pharmacy Guild Survey was an on-going survey conducted by the Pharmacy Guild of Australia, which estimated the number of prescriptions issued from community pharmacies that were not covered by PBS/RPBS. Since 1999, the only source of data about pharmaceutical use was available from the PBS/RPBS. In 1998, it was estimated that approximately 75% of all community prescriptions (that is, non-public hospitals) were dispensed under the PBS/RPBS (CDHAC 1999).

Accordingly, it is difficult to gain a detailed understanding of the consumption of pharmaceuticals in Australia. The following section uses combined PBS/RPBS and Pharmacy Guild Survey data for 1998 and only PBS/RPBS data for 1999. Further, this information only represents the number of prescriptions issued from community pharmacies and does not include medications dispensed from public hospitals.

## Top ten prescription medicines

In 1998, three out of the top ten medicines – paracetamol, codeine and temazepam – affect the central nervous system (Table 5.1). Together, these three medicines represented 32% of the total number of scripts for the top ten medications. Antibiotics were also widely prescribed, making up a further 27% of the top ten prescription drugs dispensed in Australia in 1998.

**Table 5.1: Top ten prescription medicines distributed through community pharmacies, Australia, 1998**

Drug	PBS/RPBS	Pharmacy Guild Survey	Total community use
(Prescriptions '000)			
Paracetamol (analgesic)	4,606	124	4,730
Amoxicillin (antibiotic)	2,293	2,301	4,594
Salbutamol (asthma treatment)	3,576	931	4,507
Simvastatin (lipid reduction)	4,202	19	4,221
Codeine 30 mg with paracetamol (strong analgesic)	2,957	1,204	4,161
Ranitidine (peptic ulcer treatment)	3,717	33	3,750
Temazepam (for sleep)	2,700	700	3,400
Atenolol (blood pressure reduction)	2,214	927	3,141
Cephalexin (antibiotic)	1,584	1,361	2,945
Cefaclor (antibiotic)	1,449	1,421	2,870

Source: Commonwealth Department of Health and Aged Care 1999.



Using data from PBS/RPBS alone for 1999, the same trend is noted, whereby the top ten list of medicines contains three types of drugs that affect the nervous system (Table 5.2). These three medicines represent a third of the total number of scripts issued for the top ten drugs. The most widely prescribed class of drug subsidised by the PBS/RPBS was cardiovascular medication (lipid reducing and blood pressure reducing), making up 44% of the total number of prescriptions on the top ten list.

**Table 5.2: Top ten prescription drugs subsidised by the Commonwealth Government (PBS and RPBS), Australia, 1999**

Drug	Community use Prescriptions (m)
Paracetamol (analgesic)	4.7
Simvastatin (lipid reduction)	4.3
Ranitidine (peptic ulcer treatment)	3.9
Salbutamol (asthma treatment)	3.7
Atorvastin (lipid reduction)	3.1
Codeine 30 mg with paracetamol (analgesic)	3.1
Temazepam (for sleep)	2.8
Atenolol (blood pressure reduction)	2.4
Enalapril (blood pressure reduction)	2.4
Amlodipine (blood pressure reduction)	2.3

*Source:* Commonwealth Department of Health and Aged Care, unpublished data.

## Community prescriptions for major drug groups

Medicines are classified into Anatomical Therapeutic Chemical (ATC) groups generally according to the target organ of individual drugs. Approximately 185 million prescriptions were dispensed through community pharmacies in 1998 (Table 5.3). The most widely prescribed class of drug was for the cardiovascular system at 41 million scripts, followed by drugs that affect the central nervous system (36 million). The number of prescriptions dispensed for nervous system drugs has been steadily increasing, from 34,677,000 scripts in 1996 to 36,456,000 scripts in 1998. Prescriptions for cardiovascular drugs have also been increasing since 1996, while the number of anti-infective and respiratory drugs has declined.

**Table 5.3: Number of community prescriptions issued for selected ATC groups, Australia,**

ATC Group	PBS/RPBS			Pharmacy Guild Survey			Total		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
	('000)			('000)			('000)		
Alimentary <sup>(a)</sup>	15,781	16,350	17,031	2,350	2,247	2,344	18,131	18,597	19,375
Cardio <sup>(b)</sup>	33,393	35,562	37,721	2,723	2,947	3,616	36,116	38,509	41,337
Anti-infectives <sup>(c)</sup>	15,458	14,573	14,073	12,010	12,398	12,451	27,468	26,971	26,524
Central nervous <sup>(d)</sup>	26,393	27,183	28,127	8,284	7,999	8,329	34,677	35,182	36,456
Respiratory <sup>(e)</sup>	12,702	12,148	11,697	3,449	3,472	3,525	16,151	15,620	15,222
Other <sup>(f)</sup>	29,470	27,763	27,944	16,235	16,319	17,817	45,705	44,082	45,761
<b>Total source</b>	<b>133,197</b>	<b>133,579</b>	<b>136,593</b>	<b>45,051</b>	<b>45,382</b>	<b>48,082</b>	<b>178,248</b>	<b>178,961</b>	<b>184,675</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.

Source: Commonwealth Department of Health and Aged Care 1999.

1996 to 1998

## Defined daily dose for drugs affecting the nervous system

The most accurate way to express the consumption of prescription drugs is through the defined daily dose (DDD) per 1,000 population per day. The DDD is the amount necessary to treat one adult for one day. This amount is established by the Nordic Council on Medicines and the World Health Organisation Drug Utilisation Research Group. The use of DDD allows comparisons to be made irrespective of the price, preparation, or the quantity of the prescription. Table 5.4 presents the number of prescriptions issued and the DDD for selected drugs affecting the nervous system.

**Table 5.4: Community prescriptions for nervous system drugs, Australia, 1998**

Type of nervous system drug	No. of prescriptions		DDD (DDDs per 1,000 population per day)
	('000)		
Analgesics	14,001		23.60
Opioid	6,874		10.37
Non-opioid	7,127		13.23
Psycholeptics	11,228		31.30
Major tranquillisers <sup>(a)</sup>	2,404		5.71
Anxiolytics, hypnotics and sedatives <sup>(b)</sup>	8,824		25.59
Anti-depressants	8,609		37.29
Other nervous system drugs <sup>(c)</sup>	2,618		14.57
<b>Total nervous system drugs</b>	<b>36,456</b>		<b>106.76</b>

(a) Major tranquillisers mainly includes anti-psychotic drugs.

(b) Anxiolytics, hypnotics and sedatives includes benzodiazapines and barbiturates.

(c) Other nervous system drugs include anti-epileptics and anaesthetics.

Source: Commonwealth Department of Health and Aged Care 1999.

The most widely used drugs affecting the nervous system according to DDD were anti-depressants (37.29 DDD/1,000 population/day) followed by psycholeptics, where anxiolytics, hypnotics and sedatives (includes benzodiazapines and barbiturates) constituted 24% of total DDD for all nervous system drugs.

## 6 International comparisons

It is important to compare drug use statistics across international boundaries, as it allows informed discussion to occur at many different levels of government and within the community. International comparisons can be used to evaluate the effectiveness of different approaches to 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 drugs laws can differ greatly. In addition, each country has unique surveys and data collection methodologies, which makes 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 illicit and licit drug use for selected countries. The methodologies used to obtain the data are also discussed where relevant.

### United States of America

Since 1971, the National Household Survey on Drug Abuse (NHSDA) has been used to collect drug use data in the USA. In 1999, the survey was conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA). The survey size increased fourfold from the 1998 survey to include nearly 70,000 respondents. A computer-based questionnaire was also used, which reduced the number of inaccuracies in the data set. The survey provides estimates for the number of users, drug use patterns and other issues surrounding the use of tobacco, alcohol and illicit drugs in the population aged 12 years and over.

The NHSDA in the USA is the most comparable of all international drug surveys to the Australian survey, due to the similarities in the questionnaires and survey methodologies.

In 1999 approximately 40% of Americans reported having used an illicit drug at some time in their life, with 24% of the population using any illicit drug, excluding marijuana (Table 6.1). The most commonly used illicit drugs were marijuana (35%), prescription drugs for non-medical purposes (15%), cocaine (12%) and hallucinogens (11%). There was a 60% increase in the number of people using prescription drugs for non-medical purposes, from 9% in 1998 to 15% in 1999.

The 1999 survey indicated that 81% of Americans had drunk alcohol and 68% had tried smoking at least once in their lifetime.

**Table 6.1: Lifetime use of illicit and licit drugs: proportion of the population aged 12 years and**

Substance	1997	1998	1999
	(per cent)		
Alcohol	81.9	81.3	81.3
Cigarettes	70.5	69.7	68.2
Smokeless tobacco	17.3	17.2	19.1
Any illicit <sup>(a)</sup>	35.6	35.8	39.7
Marijuana/hashish	32.9	33.0	34.6
Cocaine	10.5	10.6	11.5
Crack	1.9	2.0	2.7
Inhalants	5.7	5.8	7.8
Hallucinogens <sup>(b)</sup>	9.6	9.9	11.3
PCP	3.0	3.5	2.6
LSD	7.8	7.9	8.7
Heroin	0.9	1.1	1.4
Prescription drugs <sup>(c)</sup>	9.1	9.2	15.4
Stimulants	4.5	4.4	7.2
Sedatives	1.9	2.1	3.5
Tranquillisers	3.2	3.5	6.3
Analgesics	4.9	5.3	9.0
Any illicit drug other than marijuana <sup>(a)</sup>	18.9	18.9	24.1

(a) Any illicit drug indicates use at least once of marijuana/hashish, cocaine, crack, hallucinogens, heroin or any prescription drug for non-medical purposes. Any illicit drug other than marijuana indicates use at least once of any drugs listed, regardless of marijuana/hashish use.

(b) Hallucinogens: PCP is phencyclidine ('angel dust') and LSD is lysergic acid ('acid').

(c) For non-medical purposes.

Sources: Substance Abuse and Mental Health Services Administration 2000a, 2000b.

#### **over, United States of America, 1997 to 1999**

In 1999, the number of respondents who had used any illicit drug in the preceding year was 12% (Table 6.2). Of those surveyed, 9% reported using marijuana and 4% reported using prescription drugs for non-medical purposes in the preceding 12 months.

The proportion of people who had drunk alcohol in the previous 12 months was 63%, approximately the same as in 1997 and 1998. Nearly one-third of the US population aged 12 years and over had smoked cigarettes in the preceding 12 months.

**Table 6.2: Use of illicit and licit drugs in the past year: proportion of population aged 12 years and**

<b>Substance</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
	(per cent)		
Alcohol	64.1	64.0	62.6
Cigarettes	32.7	30.6	30.1
Smokeless tobacco	4.7	4.4	4.7
Any illicit <sup>(a)</sup>	11.2	10.6	11.9
Marijuana/hashish	9.0	8.6	8.9
Cocaine	1.9	1.7	1.7
Crack	0.6	0.4	0.5
Inhalants	1.1	0.9	1.1
Hallucinogens <sup>(b)</sup>	1.9	1.6	1.4
PCP	0.2	0.2	0.1
LSD	0.9	0.8	0.9
Heroin	0.3	0.1	0.2
Prescription drugs <sup>(c)</sup>	2.8	2.6	4.2
Stimulants	0.8	0.7	1.0
Sedatives	0.3	0.2	0.3
Tranquilisers	1.0	0.9	1.3
Analgesics	1.9	1.9	3.0
Any illicit drug other than marijuana <sup>(a)</sup>	5.5	4.9	6.3

(a) Any illicit drug indicates use at least once of marijuana/hashish, cocaine, crack, hallucinogens, heroin or any prescription drug for non-medical purposes. Any illicit drug other than marijuana indicates use at least once of any drugs listed, regardless of marijuana/hashish use.

(b) Hallucinogens: PCP is phencyclidine ('angel dust') and LSD is lysergic acid ('acid').

(c) For non-medical purposes.

Sources: Substance Abuse and Mental Health Services Administration 2000a, 2000b.

## **over, United States of America, 1997 to 1999**

### **Canada**

The National Population Health Survey (NPHS) is a household survey that is conducted bi-annually throughout Canada. The 1998-99 NPHS had a sample size of 24,826 respondents aged 12 years and older. The survey provides information about the health of Canadians in areas such as current health status, use of health services, and demographics. Within the survey there are questions about smoking patterns and alcohol consumption.

The most recent data regarding illicit drug use in Canada come from Canada's Alcohol and Other Drugs Survey conducted in 1994. The survey was administered by the research arm of Canada's Drug Strategy, with the specific objectives to measure the prevalence and patterns of drug use, assess drug-related harm, evaluate trends and determine public attitudes about drug use. In 1994, there were 12,155 respondents, who were interviewed by telephone, from the target population of people aged 15 years and over.

### **Tobacco**

The prevalence of smoking in young Canadians aged 15-19 years was 22%, with females (25%) more likely than their male counterparts (19%) to smoke regularly (Table 6.3). The age group of 20-44 years had the highest prevalence of smoking at 28%, which was slightly higher than the overall national average of 23%.

**Table 6.3: Regular smokers:<sup>(a)</sup> proportion of the population aged 12 years and over, by age and**

Sex	Age group					All ages
	12-14	15-19	20-44	45-64	65+	
	(per cent)					
Male	n.a.	19	30	25	13	24
Female	n.a.	25	26	22	10	21
<b>Total</b>	<b>3</b>	<b>22</b>	<b>28</b>	<b>23</b>	<b>11</b>	<b>23</b>

(a) Respondents who reported smoking daily.

Source: Statistics Canada, National Population Health Survey 1998-99.

sex, Canada, 1998-99

## Alcohol

In the 15-17 years age group, 64% of respondents were regular or occasional drinkers (Table 6.4). The highest proportion of regular drinking was observed in the 20-24 years age group. Overall, 55% of respondents in Canada reported being regular drinkers of alcohol, and 21% of respondents were occasional drinkers.

**Table 6.4: Alcohol consumption: proportion of the population aged 12 years and over, by age group, Canada, 1998-99**

Age group	Drinking status			
	Regular <sup>(a)</sup>	Occasional <sup>(b)</sup>	Former	Never
	(per cent)			
12-14	n.a.	16	14	66
15-17	35	29	11	24
18-19	64	19	n.a.	10
20-24	68	17	8	7
25-34	63	21	9	7
35-44	64	20	9	7
45-54	60	20	12	8
55-64	55	19	17	8
65-74	44	23	21	12
75+	30	21	29	20
<b>All ages</b>	<b>55</b>	<b>21</b>	<b>13</b>	<b>12</b>

(a) Consumes one or more drinks per month.

(b) Consumes less than one drink per month.

Source: Statistics Canada, National Population Health Survey 1998-99.

## Illicit drugs

In 1994, 29% of Canadians reported having used an illicit drug at some time and 24% had used at least one illicit drug excluding 'one-time only' use of cannabis (Table 6.5). Cannabis (28%) was the most common illicit drug ever used, followed by LSD/speed/heroin (6%) and LSD alone (5%). A similar trend was seen for the use of illicit drugs in the 12 months preceding the survey, with cannabis (7%) the most widely used, followed by LSD/speed/heroin (1%). Cannabis, for both current use and lifetime use, was used by a greater proportion of males than females.

**Table 6.5: Use of illicit drugs, steroids and solvents in lifetime and past 12 months: proportion of**

Substance	Lifetime			Preceding 12 months		
	Males	Females	Persons	Males	Females	Persons
	(per cent)					
Cannabis <sup>(a)</sup>	33.5	23.1	28.2	10.0	4.9	7.4
Cannabis <sup>(b)</sup>	27.7	18.7	23.1	9.5	4.6	7.0
Crack/cocaine	4.9	2.7	3.8	0.8	0.5	0.7
LSD	7.2	3.3	5.2	1.3	0.6	0.9
Speed (amphetamines)	3.1	1.2	2.1	0.4	<sup>(e)</sup>	0.2
Heroin	0.8	<sup>(e)</sup>	0.5	<sup>(e)</sup>	<sup>(e)</sup>	<sup>(e)</sup>
LSD/speed/heroin	8.1	3.6	5.9	1.5	0.7	1.1
Any illicit drug use <sup>(c)</sup>	33.6	23.5	28.5	10.1	5.1	7.6
Any illicit drug use <sup>(d)</sup>	28.5	19.4	23.9	9.7	4.9	7.3
Steroids	0.4	<sup>(e)</sup>	0.3	<sup>(e)</sup>	<sup>(e)</sup>	<sup>(e)</sup>
Solvents	1.2	0.3	0.8	<sup>(e)</sup>	<sup>(e)</sup>	<sup>(e)</sup>

(a) Includes 'one-time only' use.

(b) Excludes 'one-time only' use.

(c) Use of at least one of five illicit drugs, including 'one-time only' use of cannabis.

(d) Use of at least one of five illicit drugs, excluding 'one-time only' use of cannabis.

(e) Not for release due to unacceptably high sampling variability.

Source: MacNeil & Webster 1997.

**the population aged 15 years and over, by sex, Canada, 1994**

## Great Britain

Great Britain does not have any surveys that are specifically designed to gain information about drug use. Instead, there are subsections on drug use within larger surveys. Information about the use of licit drugs in England was obtained from the Health Survey of England (HSE). The HSE is an annual household survey conducted by the Joint Survey Unit of the National Centre of Social Research and the Department of Epidemiology and Public Health at University College London. The survey aims to provide data about the health of people living in England. Within the questionnaire, there were sections on cigarette and alcohol consumption and smoking and drinking patterns. In 1994–96 the sample size was 16,000 adults, in 1997 there were 7,000 children and 9,000 adults, whilst in 1998 the sample size was 16,000 adults and 4,000 children.

The British Crime Survey (BCS) is the main source of information about illicit drug use patterns in England and Wales. Due to the inclusion of a drug section in a crime survey, the focus of the questions was to determine the progress of the government's strategies, as opposed to elucidating any health-related data from illicit drug users. The government's drug strategy focuses on young people under 25 years of age. In the BCS of 1998, approximately 10,000 people aged 16–59 years were sampled, with 2,540 people being in the 16–29 years age bracket.

## Tobacco

Since 1994, the smoking status of people living in England has remained stable (Table 6.6). Within the current smoker groups, the consumption patterns were very similar for males and females, with 7–8% of people smoking less than ten cigarettes per day, 11% smoking 11–20 per day and 8–10% smoking more than 20 cigarettes per day. The proportion of males who had never smoked (40%) was lower than for females (52%). There was a greater proportion of male ex-smokers (31%) than female ex-smokers (21%).

**Table 6.6: Smoking status and tobacco consumption patterns: proportion of the population aged**

<b>Smoking status</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>(per cent)</b>					
<b>Males</b>					
Never regularly smoked	39	40	40	40	40
Used to smoke regularly	32	31	30	31	31
Current smoker					
<10 per day	7	7	7	7	7
10–20 per day	11	10	11	11	11
>20 per day	11	12	11	11	10
<b>Females</b>					
Never regularly smoked	51	52	52	52	52
Used to smoke regularly	22	21	21	21	21
Current smoker					
<10 per day	8	8	8	8	8
10–20 per day	11	12	11	11	11
>20 per day	7	7	8	8	8

Source: Department of Health (Great Britain) 1999.

**16 years and over, by sex and year, England, 1994 to 1998**

## **Alcohol**

Patterns of alcohol consumption have remained relatively stable since 1994, with the exception of females drinking 21–35 units of alcohol per week, which increased from 3% in 1994 to 6% in 1998 (Table 6.7). Females (8%) were more likely to have never drunk alcohol than males (4%). Similarly, there was a greater proportion of females (18%) than males (7%) who drank less than one unit of alcohol per week. Males had a higher prevalence of heavy drinking (>35 units of alcohol per week) at 15% than did females who drank heavily (>21 units of alcohol per week) at 9%.



**Table 6.7: Drinking status and alcohol consumption patterns: proportion of the population aged**

Alcohol consumption level (units <sup>(a)</sup> per week)	1994	1995	1996	1997	1998
	(per cent)				
	<b>Males</b>				
Never drunk alcohol	4	4	4	4	4
Ex-drinker	3	3	3	3	4
Current drinker					
under 1	8	9	8	8	7
1–10	33	34	33	33	32
11–21	22	22	22	23	22
22–35	15	14	15	15	16
36–50	7	8	8	7	8
>50	8	7	7	7	7
	<b>Females</b>				
Never drunk alcohol	8	8	7	8	8
Ex-drinker	4	4	4	5	5
Current drinker					
under 1	20	22	20	18	18
1–7	38	37	37	36	36
8–14	16	16	17	17	16
15–21	9	7	8	8	9
22–35	3	5	5	6	6
>35	2	2	2	2	3

(a) One unit is equivalent to half a pint of normal strength beer, lager or cider, a single measure of spirits or one glass of wine.

Source: Department of Health (Great Britain) 1999.

### 16 years and over, by sex and year, England, 1994 to 1998

## Illicit drugs

Marijuana/cannabis was the most widely used illicit drug in England and Wales in 1998, with 25% of the population reporting lifetime use, 9% reporting use in the preceding year and 5% using in the previous month (Table 6.8). Lifetime use of amphetamines and LSD/magic mushrooms was the same at 10%. Only 3% of the population had used amphetamines in the preceding year and 1% in the preceding month.

**Table 6.8: Summary of illicit drug use: proportion of the population aged 16–59 years, England and Wales, 1998**

Substance	Lifetime use	Preceding year	Preceding month
	(per cent)		
Marijuana/cannabis	25	9	5
Amphetamines	10	3	1
LSD/magic mushrooms	10	2	—
Ecstasy	4	1	—
Benzodiazapines <sup>(a)</sup>	3	1	—
Inhalants <sup>(b)</sup>	2	—	—
Cocaine/crack	4	1	—
Heroin	1	—	—
Amyl nitrite <sup>(c)</sup>	7	1	1
Steroids	1	—	—

(a) Benzodiazapines were listed in the survey as 'temazepam, etc'.

(b) Inhalants were listed in survey as 'glue, etc'.

(c) Amyl nitrite, also listed as 'poppers', is an inhalant.

Source: Ramsay & Partridge 1999.

## European Union

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) was created in 1993, as one of 11 decentralised European Community agencies set up in response to the increasing drug problem in Europe and the demand for accurate information about drug-related issues. The EMCDDA coordinates the information obtained from the European Information Network on Drugs and Drug Addiction, also known as REITOX. REITOX is a network that consists of National Focal Points (NFP) in the 15 European Union member states and an observer Focal Point in Norway, which provide the primary source of data for the EMCDDA.

The data presented in this section come from the EMCDDA Annual Report (2000), which uses data from national surveys to provide an indication of illicit drug use on a European scale. The report does not contain any information about the prevalence of tobacco or alcohol use within the European Community.

Marijuana/cannabis was the most widely used illicit drug in all of the European Union (EU) countries listed in Table 6.9. However, the usage of marijuana/cannabis varies considerably within the EU. The highest proportion of lifetime use of marijuana/cannabis was observed in Denmark in 1994 (31%), followed by Spain in 1997 (22%) and the Netherlands in 1997–98 (18%). The lowest proportion of use was in the former East Germany, at approximately 4% in 1997.

Cocaine use was considerably higher in Spain than anywhere else sampled in Europe, with 3% of respondents in 1997 reporting having used cocaine at some time. Lifetime use of amphetamines was highest in Denmark (4%) and Spain (3%).

**Table 6.9: Lifetime prevalence of drug use in nationwide surveys among the general population in some European Union countries<sup>(a)</sup>**

Country	Method		Age group (years)	Cannabis	Cocaine	Amphetamines	Ecstasy
	Year	Sample size					
Belgium	1994	2,259	18–65	5.8	0.5	0.9	0.5
Denmark	1994	1,390	18–69	31.3	2.0	4.0	n.a.
Germany–former East	1997	1,682	18–59	4.2	0.2	0.5	0.7
Germany–former West	1997	6,338	18–59	13.4	1.5	1.8	1.7
Greece	1998	3,752	15–64	13.1	1.3	0.6	0.3
Spain	1997	12,445	15–64	22.2	3.3 <sup>(b)</sup>	2.5	2.5 <sup>(c)</sup>
France	1995	1,993	18–69	16.0	1.2	0.7 <sup>(d)</sup>	n.a.
Netherlands	1997–98	22,000	15–69	18.1	2.4	2.1	2.2
Finland	1998	2,568	15–69	9.7	0.6	1.0	0.5
Sweden	1998	1,500	15–69	13.0	1.0	2.0	—

(a) See list of sources in Appendix 1.

(b) Cocaine and crack.

(c) Ecstasy and other designer drugs.

(d) Amphetamines and ecstasy.

Source: European Monitoring Centre for Drugs and Drug Addiction 2000.

The drug most commonly used throughout the EU in the year preceding the survey was marijuana/cannabis (Table 6.10). Spain had the highest proportion of the population using marijuana/cannabis in the year prior to the survey (8% in 1997), followed by the Netherlands and the former West Germany (5%). Although Denmark had the highest proportion of lifetime use of marijuana/cannabis, the prevalence of use in the preceding 12 months was one of the lowest in the EU (3%).

Spain generally had the highest proportion of users in the last 12 months for cocaine (2%), amphetamines (1%) and ecstasy (1%).

**Table 6.10: Prevalence of recent<sup>(a)</sup> drug use in nationwide surveys among the general population in some European Union countries<sup>(b)</sup>**

Country	Method		Age group (years)	Cannabis	Cocaine	Amphetamines	Ecstasy
	Year	Sample size					
Belgium	1994	2,259	18–65	1.5	0.2	0.3	0.1
Denmark	1994	1,390	18–69	3.3	n.a.	n.a.	n.a.
Germany–former East	1997	1,682	18–59	2.3	0.1	0.3	0.4
Germany–former West	1997	6,338	18–59	4.5	0.7	0.5	0.9
Greece	1998	3,752	15–64	4.4	0.5	0.1	0.1
Spain	1997	12,445	15–64	7.6	1.6 <sup>(c)</sup>	0.9	0.9 <sup>(d)</sup>
France	1995	1,993	18–69	4.7	0.2	0.3 <sup>(e)</sup>	n.a.
Netherlands	1997–98	22,000	15–69	5.2	0.7	0.4	0.8
Finland	1998	2,568	15–69	2.5	0.2 <sup>(c)</sup>	0.2	0.2
Sweden	1998	1,500	15–69	1.0	n.a.	n.a.	n.a.

(a) Used in the 12 months preceding the survey.

(b) See list of sources in Appendix 1.

(c) Cocaine and crack.

(d) Ecstasy and other designer drugs.

(e) Amphetamines and ecstasy.

Source: European Monitoring Centre for Drugs and Drug Addiction 2000.

# 7 Drugs and health

## 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 the 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).

Detailed estimates of the population attributable burden of drug use in Australia were published by Holman and Armstrong in 1990, and the methodology was updated by English and Holman in 1995. The aetiological fractions developed by English and Holman were applied to the mortality and morbidity data presented in *Statistics on Drug Use in Australia 1998*. However, the AIHW has since revised the aetiological fractions used when determining morbidity and mortality estimates.

It should be noted that the revised fractions include the protective effects provided by some drugs, the inclusion of which accounts for the negative figures that appear in the following tables. Essentially, this means that in some cases the consumption of a particular substance may actually reduce the probability of an individual contracting a particular illness, thus providing a net benefit for the population as a whole.

For example, it is now widely accepted that low-level alcohol consumption can provide protection from a number of illnesses. Recent evidence has emerged to suggest that low to moderate regular drinking has a protective effect against heart disease and heart attack amongst middle-aged and older people. Furthermore, low-level alcohol consumption has also been found to provide a protective benefit for hypertension and cardiovascular disorders. It should be noted that at-risk populations, such as men over 40 years of age and women aged 45 years and over, are the primary recipients of these benefits. Most, if not all, of the protective benefits associated with alcohol consumption are achieved with a low to moderate level of consumption (one to two standard drinks per day or less) (NHMRC 2000).

### Measures of drug-caused mortality and morbidity over time

To enable comparisons of drug-caused mortality and morbidity between years, the aetiological fractions developed by the AIHW were applied to the data for 1996, 1997 and

1998 (Table 7.1). The potential years of life lost (PYLL) is an alternative measurement of mortality, providing a measure of years of life lost by premature death.

The number of deaths attributable to tobacco use has declined from 19,878 deaths in 1996 to 19,019 in 1998, while the number of deaths attributable to illicit drugs has increased from 781 deaths in 1996 to 1,023 in 1998. A similar trend was observed for PYLL. The PYLL for alcohol-related deaths and illicit drug deaths was similar; however, the PYLL for tobacco deaths was approximately 8 times higher. Hospital separations for all drug-related deaths have increased since 1995–96.

**Table 7.1: Deaths, PYLL<sup>(a)</sup> and hospital separations attributable to drug use, Australia, 1996,1997,1998**

<b>Deaths</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
		(number)	
Alcohol	-2,776	-2,429	-2,371
Tobacco	19,878	19,441	19,019
Illicit drugs	781	864	1,023
<b>Total</b>	<b>17,883</b>	<b>17,876</b>	<b>17,671</b>

<b>PYLL</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
		(years)	
Alcohol	17,445	22,194	21,147
Tobacco	196,200	189,900	184,579
Illicit drugs	19,407	21,491	25,375
<b>Total</b>	<b>213,645</b>	<b>212,094</b>	<b>205,726</b>

<b>Hospital separations</b>	<b>1995–96</b>	<b>1996–97</b>	<b>1997–98</b>
		(number)	
Alcohol	41,576	42,481	43,032
Tobacco	126,414	134,647	142,525
Illicit drugs	11,057	11,882	14,471
<b>Total</b>	<b>179,047</b>	<b>189,010</b>	<b>200,028</b>

(a) Potential years of life lost.

Sources: Ridolfo & Stevenson 2001; AIHW unpublished data.

## Deaths attributed to drug use

A considerable number of Australian deaths were attributable to drug use in 1998 (Table 7.2). Approximately 19,000 deaths were tobacco-related, while 1,023 were related to the use of illicit drugs. Of those aged 0–64 years, hazardous and harmful consumption of alcohol was a contributing factor in 3,271 deaths; however, moderate alcohol consumption averted the death of 5,642 people. The protective effect of alcohol was most obvious in the 65+ years age group, as reflected in the negative numbers. For those aged 35 years and above, the majority of deaths were related to the use of tobacco. In comparison, only 5% of deaths among those aged 15–34 years were tobacco-related, with the majority of deaths being related to the use of alcohol (53%) and the use of illicit drugs (42%).

The main causes of tobacco-related deaths were cancer (40%), chronic obstructive pulmonary disease (20%) and ischaemic heart disease (21%). Cancer was the principal cause of alcohol-related deaths (1,157 deaths), followed by alcoholism and alcoholic liver cirrhosis (927 deaths) and road injuries (440 deaths).

**Table 7.2: Deaths attributable to drug use, by drug and cause of death, 1998**

Substance and cause of death	Age group				Total
	0–14	15–34	35–64	65+	
<b>Tobacco</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
<i>Total tobacco</i>	<i>99</i>	<i>80</i>	<i>4,042</i>	<i>14,798</i>	<i>19,019</i>
<b>Alcohol</b>					
Cancer	—	11	422	724	1,157
Alcoholism and alcoholic liver cirrhosis	—	44	583	300	927
Cardiovascular disease	—	–6	–486	–3,574	–4,066
Road injuries	15	273	130	22	440
Other	6	492	581	–1,908	–829
<i>Total alcohol</i>	<i>21</i>	<i>814</i>	<i>1,230</i>	<i>–4,436</i>	<i>–2,371</i>
<b>Illicits</b>					
Drug dependence					
Cannabis	—	—	—	—	0
Opiates	—	382	183	2	567
Cocaine	—	4	—	—	4
Amphetamine	—	2	1	—	3
Hallucinogens	—	1	—	—	1
Poisoning					
Opiates	—	138	77	4	219
Psychostimulants	—	2	1	—	3
Hallucinogens	—	—	—	—	0
Suicide	—	103	32	—	135
Ante-partum haemorrhage	4	—	—	—	4
Low birthweight	2	—	—	—	2
Hepatitis B	—	1	9	6	16
Hepatitis non-A, non-B	—	2	16	16	34
AIDS	—	2	5	—	7
Infective endocarditis	—	1	—	—	1
Drug psychoses	—	—	—	—	0
Maternal drug dependence	—	—	—	—	0
Newborn toxicity	1	—	—	—	1
Road traffic accidents	2	12	8	4	26
<i>Total illicit drugs</i>	<i>9</i>	<i>650</i>	<i>332</i>	<i>32</i>	<i>1,023</i>
<b>Total drugs</b>	<b>129</b>	<b>1,544</b>	<b>5,604</b>	<b>10,394</b>	<b>17,671</b>

Source: Ridolfo & Stevenson 2001.

### Hospital episodes attributed to drug use

In 1997–98 slightly over 200,000 hospital episodes were attributable to drug use (Table 7.3). Of these, smoking was a contributing factor in over 71% of cases, while 22% were due to alcohol-related illness, and 7% due to illicit drug use. Tobacco was the cause of the greatest disease burden in all age groups except the 15–34 years group where 58% of episodes were alcohol-related.

The main tobacco-related illnesses requiring hospitalisation were ischaemic heart disease, accounting for over 26% of cases, cancer (19%) and chronic obstructive pulmonary disease

(20%). Of the alcohol-related illnesses, alcoholism and alcoholic liver cirrhosis was the primary reason for admission (60%).

**Table 7.3: Hospital episodes attributable to drug use, by drug involved and principal diagnosis, Australia, 1997–98**

Substance and principal diagnosis	Age group				Total
	0–14	15–34	35–64	65+	
<b>Tobacco</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
<i>Total tobacco</i>	<i>1,570</i>	<i>7,187</i>	<i>59,389</i>	<i>74,379</i>	<i>142,525</i>
<b>Alcohol</b>					
Cancer	—	113	3,078	2,849	6,040
Alcoholism and alcoholic liver cirrhosis	278	5,864	16,726	2,890	25,758
Cardiovascular disease	—	208	-7,622	-10,541	-17,955
Road injuries	410	3,711	1,442	283	5,846
Other	346	15,311	9,970	-2,284	-23,343
<i>Total alcohol</i>	<i>1,034</i>	<i>25,207</i>	<i>23,594</i>	<i>-6,803</i>	<i>-43,032</i>
<b>Illicits</b>					
Drug dependence					
Cannabis	—	574	71	7	652
Opiates	—	3,855	1,290	15	5,160
Cocaine	—	38	20	1	59
Amphetamine	—	362	47	—	409
Hallucinogens	—	50	6	—	56
Poisoning					
Opiates	—	1,219	375	15	1,609
Psychostimulants	—	327	56	—	383
Hallucinogens	—	146	31	1	178
Other psychotropic drug	—	122	116	29	267
Anabolic steroid	—	1	1	—	2
Ante-partum haemorrhage	—	549	78	—	627
Low birthweight	—	54	5	—	59
Hepatitis B	—	—	—	—	0
Hepatitis non-A, non-B	—	—	—	—	0
AIDS	—	3	1	1	5
Infective endocarditis	—	26	12	—	38
Drug psychoses	—	2,848	774	369	3,991
Maternal drug dependence	—	471	40	—	511
Newborn toxicity	—	—	—	—	0
Road traffic accidents	44	231	134	56	465
<i>Total illicit drugs</i>	<i>44</i>	<i>10,876</i>	<i>3,057</i>	<i>494</i>	<i>14,471</i>
<b>Total drugs</b>	<b>2,648</b>	<b>43,270</b>	<b>86,040</b>	<b>68,070</b>	<b>200,028</b>

Source: Ridolfo & Stevenson 2001.

## Injecting drug use and communicable disease

### Injecting drug use and HIV/AIDS

Slightly more than 8% of new AIDS diagnoses in Australia in 1999 were amongst people who had a history of injecting drug use (Table 7.4). Approximately half of these people also had a history of homosexual contact. The percentage of people contracting AIDS who were injecting drug users has remained relatively constant between 1992 and 1999.

In 1999, 9% of those who died from AIDS had a history of injecting drug use (Table 7.5). This proportion had decreased from 12%, which was observed in 1997. Two-fifths of the people who died from AIDS and had injected drugs were also male homosexuals.

**Table 7.4: AIDS diagnoses, by HIV exposure category, Australia, 1992 to 1999**

Exposure category	Year of AIDS diagnosis							
	1992	1993	1994	1995	1996	1997	1998	1999
	(number)							
Male homosexual contact	627	659	768	626	496	265	199	123
Male homosexual and injecting drug use	38	56	46	42	37	12	9	8
Injecting drug use <sup>(a)</sup>	16	27	29	28	24	20	24	9
Heterosexual contact	50	51	53	50	52	50	54	41
Haemophilia/coagulation disorder	13	11	10	15	7	4	1	—
Receipt of blood components/tissue	14	8	8	5	6	1	4	1
Health care setting	1	1	1	1	—	—	—	—
Other/undetermined	22	26	29	31	35	21	21	14
<b>Total</b>	<b>781</b>	<b>839</b>	<b>944</b>	<b>798</b>	<b>657</b>	<b>373</b>	<b>312</b>	<b>196</b>
	(per cent)							
Male homosexual contact	80.3	78.5	81.4	78.4	75.5	71.0	63.8	62.8
Male homosexual and injecting drug use	4.9	6.7	4.9	5.3	5.6	3.2	2.9	4.1
Injecting drug use <sup>(a)</sup>	2.0	3.2	3.1	3.5	3.7	5.4	7.7	4.6
Heterosexual contact	6.4	6.1	5.6	6.3	7.9	13.4	17.3	20.9
Haemophilia/coagulation disorder	1.7	1.3	1.1	1.9	1.1	1.1	0.3	—
Receipt of blood components/tissue	1.8	1.0	0.8	0.6	0.9	0.3	1.3	0.5
Health care setting	0.1	0.1	0.1	0.1	—	—	—	—
Other/undetermined	2.8	3.1	3.1	3.9	5.3	5.6	6.7	7.1

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

Source: National Centre in HIV Epidemiology and Clinical Research 2000.



**Table 7.5: Deaths attributable to AIDS, by HIV exposure category, Australia, 1992 to 1999**

Exposure category	Year of death following AIDS							
	1992	1993	1994	1995	1996	1997	1998	1999
	(number)							
Male homosexual contact	499	571	575	508	391	180	117	83
Male homosexual and injecting drug use	18	37	42	32	28	17	8	4
Injecting drug use <sup>(a)</sup>	17	21	14	24	18	11	5	6
Heterosexual contact	27	42	45	43	36	13	12	9
Haemophilia/coagulation disorder	5	5	15	9	10	4	—	3
Receipt of blood components/tissue	10	9	9	8	3	1	1	1
Health care setting	—	—	1	2	—	—	—	—
Other/undetermined	19	11	24	22	19	8	13	6
<b>Total</b>	<b>595</b>	<b>696</b>	<b>725</b>	<b>648</b>	<b>505</b>	<b>234</b>	<b>156</b>	<b>112</b>
	(per cent)							
Male homosexual contact	83.9	82.0	79.3	78.4	77.4	76.9	75.0	74.1
Male homosexual and injecting drug use	3.0	5.3	5.8	4.9	5.5	7.3	5.1	3.6
Injecting drug use <sup>(a)</sup>	2.9	3.0	1.9	3.7	3.6	4.7	3.2	5.4
Heterosexual contact	4.5	6.0	6.2	6.6	7.1	5.6	7.7	8.0
Haemophilia/coagulation disorder	0.8	0.7	2.1	1.4	2.0	1.7	—	2.7
Receipt of blood components/tissue	1.7	1.3	1.2	1.2	0.6	0.4	0.6	0.9
Health care setting	—	—	0.1	0.3	—	—	—	—
Other/undetermined	3.2	1.6	3.3	3.4	3.8	3.4	8.3	5.4

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

Source: National Centre in HIV Epidemiology and Clinical Research 2000.

## Injecting drug use and hepatitis C

Hepatitis C was the most commonly diagnosed notifiable disease in Australia in 1999 (NCHECR 2000). Using data from the Collaboration of Australian Needle and Syringe Programs, the prevalence of hepatitis C in people who had injected drugs for six years or longer was 65% (Table 7.6). In 1999, the difference in the prevalence rates amongst females and males who had used for six years or more was smaller than in previous years. This was likely to be due to the decrease in hepatitis C prevalence amongst female users from 73% in 1998 to 66% in 1999.

The prevalence of hepatitis C was related to the duration of injecting, with rates of 20% in people who had used for less than three years and 30% for those who had injected drugs for 3–5 years.

**Table 7.6: Injecting drug users seen at needle and syringe programs who tested positive for**

History of injecting drug use	1995	1996	1997	1998	1999
(per cent)					
<b>Males</b>					
Less than 3 years	18	11	12	15	16
3–5 years	33	13	21	25	29
6 or more years	77	69	65	63	64
Not reported	64	56	48	49	49
<b>Females</b>					
Less than 3 years	28	16	16	20	28
3–5 years	37	35	37	34	33
6 or more years	80	73	77	73	66
Not reported	50	73	56	55	59
<b>Persons<sup>(a)</sup></b>					
Less than 3 years	22	13	13	17	20
3–5 years	35	22	26	29	30
6 or more years	78	71	69	66	65
Not reported	61	57	50	52	52

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

Source: National Centre in HIV Epidemiology and Clinical Research 1999.

### hepatitis C virus, by year, sex and injecting drug use, Australia, 1995 to 1999

## Overdoses

### Non-fatal overdoses

More than half (51%) of the injecting drug users (IDUs) surveyed for the Illicit Drug Reporting System (IDRS) had overdosed at some time, while around 28% had overdosed at least once during the previous 12 months (Table 7.7). Around 50% of IDUs injected in a public place on the last occasion, and less than one in ten (10%) were currently involved in some form of treatment program.

**Table 7.7: Proportion of injecting drug users reporting non-fatal overdose, and risk behaviours for overdose, selected cities, Australia, 1999**

	Sydney	Melbourne	Adelaide	Total
(per cent)				
Ever overdosed	49	54	51	51
Overdosed last 12 months	28	36	20	28
Last injection in public place	53	50	36	46
Currently in treatment	26	36	47	36
Consumed alcohol and heroin on day prior to interview	12	7	8	9

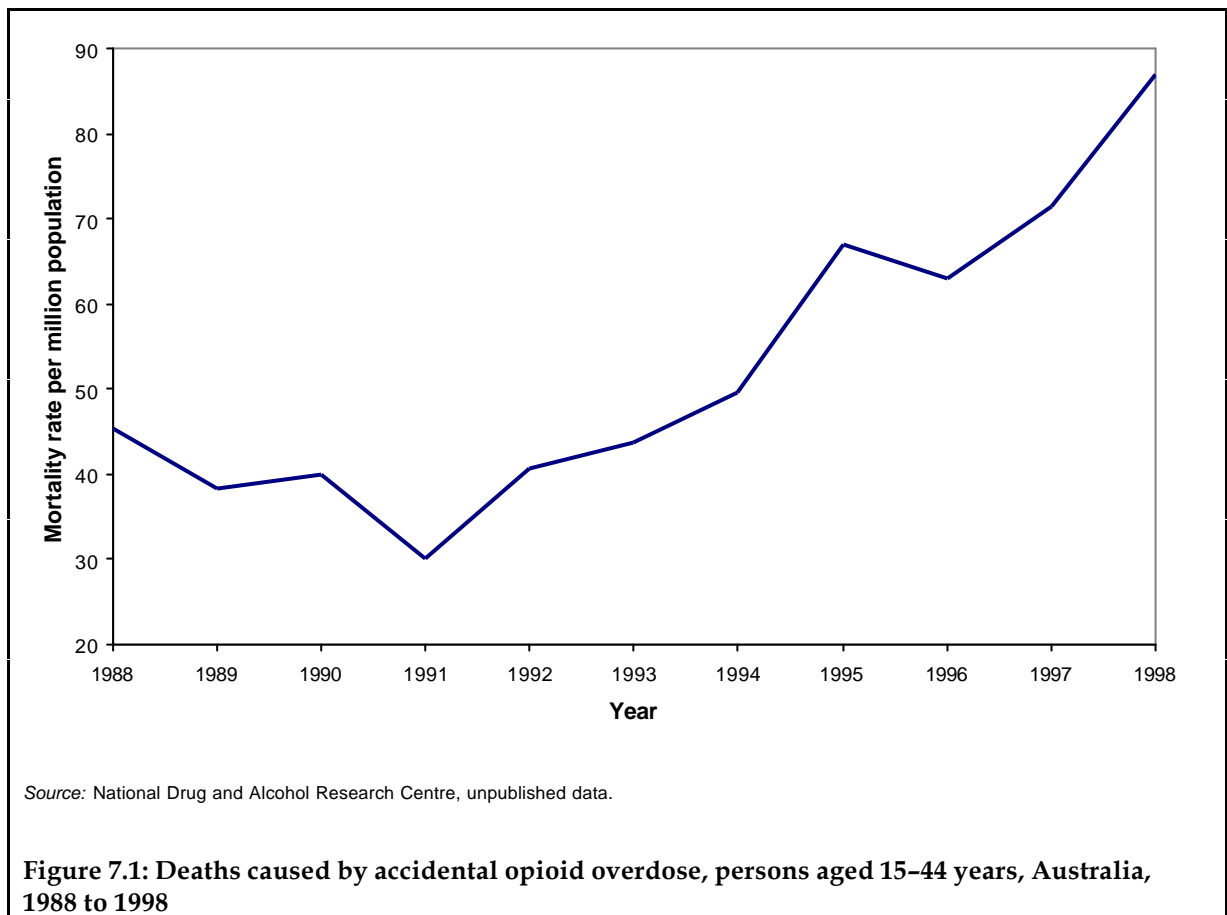
Source: National Drug and Alcohol Research Centre 2000.

### Deaths caused by opioid overdose

Some causes of death can be directly attributed to drug use and have an aetiological fraction of 1.0. One such cause is opioid overdose (the opioid class of substances includes heroin, morphine, codeine, and synthetics such as pethidine and methadone).

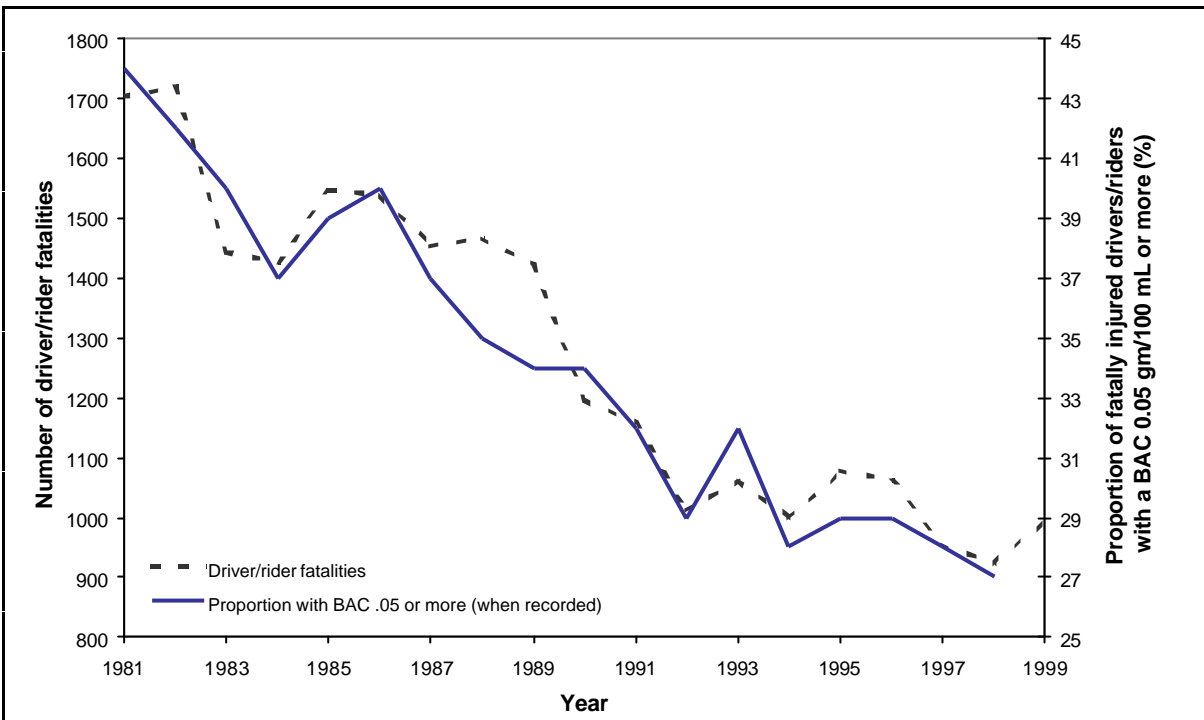
The death rate from accidental opioid overdose among people aged 15–44 years increased considerably over the past two decades. Despite small declines in the early 1990s, the rate

continued to climb throughout the remainder of the decade, increasing nearly threefold between 1991 and 1998. While a small decline was recorded in 1996, the rate continued to increase, with 87 deaths per million population recorded in 1998 (Figure 7.1).



## Fatal road accidents related to alcohol use

Figure 7.2 presents the total number of fatally injured driver and motor-cycle riders, and the percentage with a blood alcohol content (BAC) of 0.05 gm/100 mL or higher. In 1998, there were 923 fatal road accidents involving drivers and riders. Around 90% of these were tested for their BAC, of which 27% recorded concentrations of 0.05 gm/100 mL or more. That is, around one in three fatally injured drivers or riders (around 224 in 1998) had a blood alcohol reading above 0.05 gm/100 mL.



Note: BAC data were not available past 1998.

Sources: Federal Office of Road Safety 1999; Australian Transport Safety Bureau 2000; Australian Transport Safety Bureau, unpublished data.

**Figure 7.2: Fatally injured drivers and motorcycle riders, and proportion of fatally injured drivers/riders whose blood alcohol reading was higher than 0.05 gm/100 mL, Australia, 1981 to 1999**

# 8 Special population groups

## Overview

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 presents information on a number of population groups from within the general Australian community, including:

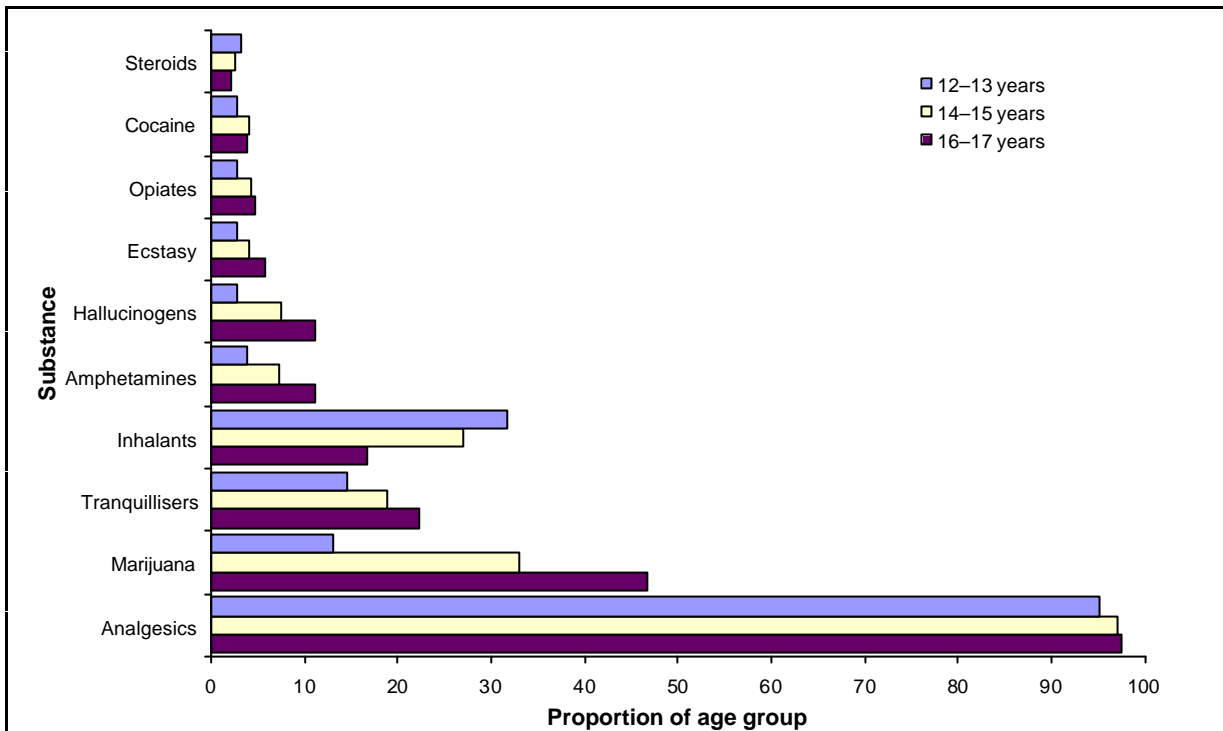
- secondary school students aged 12–17 years;
- Aboriginal and Torres Strait Islander peoples;
- persons from a non-English-speaking background; and
- injecting drug users.

Prisoners have also been identified as a population group of special concern and thus requiring special attention. This population group is examined in Chapter 9.

## Young people

The second national survey on the use of over-the-counter and illicit substances by secondary students was conducted in 1999, and included students from a representative sample that incorporated government, Catholic and independent schools. The survey collected data from 25,480 students aged 12–17 years from 434 secondary schools across each of the States and Territories.

According to the survey, substance use increased with age for all substances except for inhalants and steroids. Across all ages, the most common substances used were analgesics (for medical and non-medical purposes), with at least 95% of those surveyed reporting the use of this substance (Figure 8.1). Marijuana use was also relatively high, particularly among those aged 16–17 years, who were more likely than the general community to use marijuana (47% versus 39%).



Source: White, unpublished.

**Figure 8.1: Lifetime use of illicit substances, secondary school students aged 12-17 years, Australia, 1999**

Overall, a similar number of male and female students had tried the substances surveyed in Table 8.1. However, slightly more males (32%) than females (29%) had used marijuana, while slightly more females than males had used analgesics for any purpose (98% versus 96%). A similar pattern to this also existed for recent use (used over the preceding 12 months). Apart from these two substances, lifetime and recent illicit substance use was similar for both males and females (Table 8.1 and Table 8.2).

**Table 8.1: Summary of lifetime use of illicit drugs, secondary school students aged 12-17 years,**

Substance	Age						
	12	13	14	15	16	17	12-17
(per cent)							
<b>Males</b>							
Marijuana	11	20	30	42	47	53	32
Pain-killers/analgesics <sup>(a)</sup>	94	94	95	97	97	96	96
Tranquillisers <sup>(b)</sup>	16	18	17	21	20	22	19
Steroids <sup>(b)</sup>	4	4	4	3	4	3	4
Inhalants	32	30	28	23	19	17	26
Opiates <sup>(b)</sup>	3	3	5	4	5	7	4
Amphetamines <sup>(b)</sup>	4	6	7	8	12	13	8
Cocaine	3	4	4	4	5	6	4
Hallucinogens	3	4	7	8	12	15	7
Ecstasy/designer drugs	4	3	4	4	7	7	5
<b>Females</b>							
Marijuana	7	17	28	38	44	50	29
Pain-killers/analgesics <sup>(a)</sup>	96	96	98	99	99	99	98
Tranquillisers <sup>(b)</sup>	11	14	17	20	25	22	18
Steroids <sup>(b)</sup>	3	2	2	1	1	1	2
Inhalants	37	32	30	26	17	14	26
Opiates <sup>(b)</sup>	2	4	4	4	4	4	4
Amphetamines <sup>(b)</sup>	2	4	7	8	9	11	7
Cocaine	2	3	4	4	3	2	3
Hallucinogens	2	3	6	8	9	9	6
Ecstasy/designer drugs	1	3	4	4	5	5	3

(a) For medical and non-medical purposes.

(b) For non-medical purposes.

Source: White, unpublished.

**Australia, 1999**

**Table 8.2: Summary of illicit drug use in the past 12 months, secondary school students aged**

Substance	Age						
	12	13	14	15	16	17	12-17
(per cent)							
<b>Males</b>							
Marijuana	9	16	26	36	40	43	27
Pain-killers/analgesics <sup>(a)</sup>	90	90	92	94	93	91	92
Tranquillisers <sup>(b)</sup>	9	10	10	12	11	12	10
Steroids <sup>(b)</sup>	3	3	3	2	3	2	3
Inhalants	24	23	22	16	13	9	19
Opiates <sup>(b)</sup>	2	2	3	3	3	5	3
Amphetamines <sup>(b)</sup>	3	4	6	6	9	10	6
Cocaine	2	3	3	3	3	4	3
Hallucinogens	2	2	5	6	9	11	5
Ecstasy/designer drugs	2	3	3	4	5	6	4
<b>Females</b>							
Marijuana	6	13	23	30	35	37	23
Pain-killers/analgesics <sup>(a)</sup>	93	94	96	97	98	97	96
Tranquillisers <sup>(b)</sup>	6	9	10	12	18	14	11
Steroids <sup>(b)</sup>	2	1	1	1	1	1	1
Inhalants	27	26	24	18	11	7	20
Opiates <sup>(b)</sup>	1	3	3	3	2	2	2
Amphetamines <sup>(b)</sup>	1	3	6	6	7	9	5
Cocaine	1	3	3	3	2	2	2
Hallucinogens	1	3	5	6	7	6	4
Ecstasy/designer drugs	1	2	3	3	4	4	3

(a) For medical and non-medical purposes.

(b) For non-medical purposes.

Source: White, unpublished.

### 12-17 years, Australia, 1999

## Aboriginal and Torres Strait Islander peoples

The number of Aboriginal and Torres Strait Islander people surveyed in the 1998 NDSHS was 231 and therefore, the results should be interpreted with caution. Using these results, the most commonly used substance by the Indigenous population was alcohol, with 81% of respondents reported to have drunk alcohol in the past 12 months (Table 8.3). This was comparable with the proportion of non-Indigenous Australians who reported drinking in the last 12 months (84%, Table 8.4). Over half of the Aboriginal and Torres Strait Islander respondents reported having used marijuana at some time, while 26% reported having used an illicit drug other than marijuana.

**Table 8.3: Summary of drug use by Indigenous Australians aged 14 years and over, Australia, 1998**

Substance	Never used	Ever used	Used in past 12 months
			(per cent)
Alcohol	6	94	81
Tobacco/cigarettes	24	77	50
Marijuana	45	55	22
Any illicit drug	42	59	23
<u>Any illicit drug other than marijuana</u>	74	26	10

Source: National Drug Strategy Household Survey 1998.



The use of tobacco in the past 12 months by Aboriginal and Torres Strait Islander peoples (50%) was twice as high as for non-Indigenous people (25%). Consumption of all other drugs over the past 12 months was similar in both population groups.

**Table 8.4: Summary of drug use by non-Indigenous people aged 14 years and over, Australia, 1998**

<b>Substance</b>	<b>Never used</b>	<b>Ever used</b>	<b>Used in past 12 months</b>
		<b>(per cent)</b>	
Alcohol	4	96	84
Tobacco/cigarettes	23	77	25
Marijuana	59	41	19
Any illicit drug	54	46	23
Any illicit drug other than marijuana	75	25	11

Source: National Drug Strategy Household Survey 1998.

The Australian Bureau of Statistics (ABS) recently published a report on the findings from the Aboriginal and Torres Strait Islander cohort from within the 1995 National Health Survey (NHS). The NHS had a sample size of approximately 2,000 Aboriginal and Torres Strait Islander people and contained detailed questions about the consumption of tobacco and alcohol. Table 8.5 presents the smoking status within the Indigenous population compared with the non-Indigenous population. The results from the NHS show that 51% of Aboriginal and Torres Strait Islander people were current smokers, compared with 23% of non-Indigenous people. Aboriginal and Torres Strait Islander males (56%) were more likely than their female counterparts (46%) to be current smokers.

**Table 8.5: Smoking status of Indigenous and non-Indigenous Australians aged 18 years and over, by sex, Australia, 1995**

<b>Smoking status</b>	<b>Indigenous Australians</b>	<b>Non-Indigenous Australians</b>
	<b>(per cent)</b>	
	<b>Males</b>	
Current	56	27
Former	18	33
Never	25	41
	<b>Females</b>	
Current	46	20
Former	21	23
Never	32	57
	<b>Persons</b>	
Current	51	23
Former	20	28
Never	29	49

Source: Australian Bureau of Statistics (Cat. No. 4806.0) 1999.

The ABS determined the proportion of Indigenous and non-Indigenous people who drank at high-risk levels on the basis of absolute alcohol consumption estimated by volume. The proportion of Aboriginal and Torres Strait Islander people who reported consuming alcohol at a high-risk level in the week prior to the interview was 8% in comparison with 3% in the non-Indigenous population (Table 8.6). It appears that this difference was largely attributable to the drinking pattern of males. Amongst Aboriginal and Torres Strait

Islander males, 13% reported high-risk drinking as opposed to 5% in non-Indigenous males. Aboriginal and Torres Strait Islander people aged 18 years and over were less likely (49%) than non-Indigenous respondents (56%) to report consuming alcohol.

**Table 8.6: Alcohol risk level in Indigenous people and non-Indigenous people aged 18 years and over, by sex, Australia, 1995**

Alcohol risk level <sup>(a)</sup>	Indigenous Australians	Non-Indigenous Australians
	(per cent)	
<b>Males</b>		
Low	36	55
Medium	11	5
High	13	5
<i>Total</i>	59	66
Did not consume	41	34
<b>Females</b>		
Low	33	39
Medium	4 *	5
High	4 *	1
<i>Total</i>	40	46
Did not consume	60	55
<b>Persons</b>		
Low	34	47
Medium	7	5
High	8	3
<i>Total</i>	49	56
Did not consume	51	45

(a) Relative risk determined from NHMRC (1992) guidelines. For males, low <50 mL/day; medium 50–75 mL/day; high >75 mL/day.

For females, low <25 mL/day; medium 25–50 mL/day; high >50 mL/day.

Note: Risk assessment based on use in the past week.

Source: Australian Bureau of Statistics (Cat. No. 4806.0) 1999.

## Persons of a non-English-speaking background

Based on the 1998 NDSHS, persons of a non-English-speaking background were less likely to consume alcohol, smoke tobacco, or use any illicit substance than were non-Indigenous Australians. Only 16% of people with a non-English-speaking background had ever used any illicit substance compared with 46% of non-Indigenous Australians. Approximately 7% of people from a non-English-speaking background had tried marijuana at some time, compared with 41% of non-Indigenous Australians and 55% of Aboriginal and Torres Strait Islander people (Table 8.7).

**Table 8.7: Summary of drug use in people from a non-English-speaking background, Australia, 1998**

Substance	Never used	Ever used	Used in past 12 months
		(per cent)	
Alcohol	38	62	50
Tobacco/cigarettes	62	38	12
Marijuana	93	7	3
Any illicit drug	84	16	8
Any illicit drug other than marijuana	87	13	7

Source: National Drug Strategy Household Survey 1998.

## Injecting drug users

The following data concerning injecting drug users (IDUs) were sourced from the Illicit Drug Reporting System (IDRS) managed by the National Drug and Alcohol Research Centre. Previously, the IDRS had only been conducted in New South Wales, Victoria and South Australia; however, it was extended to all jurisdictions in 1999. The IDRS monitors information concerning the price, availability, purity and use of the four main drug types: heroin, cocaine, 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.

### Demographics

The mean age of IDUs surveyed for the IDRS was slightly over 29 years, with around seven in 10 (69%) indicating that they were currently unemployed and 43% reporting some form of prison history (Table 8.8). However, there was a considerable difference between the IDU population surveyed in Adelaide and those surveyed in Sydney. For example, Adelaide IDUs were more than twice as likely to have a tertiary education or to be currently employed. In addition, they were 48% less likely to have a prison history compared than were Sydney IDUs.

**Table 8.8: Demographic characteristics of injecting drug users, selected cities, Australia, 1999**

	Sydney n = 156	Melbourne n = 154	Adelaide n = 100	Total n = 410
	(mean years)			
Age (mean years)	29.1	28.3	30.4	29.1
Education (mean years)	9.4	10.7	10.9	10.2
	(per cent)			
Male	67	62	51	69
Unemployed	86	70	42	69
Tertiary education	29	43	63	43
Prison history	56	40	27	43
Currently in treatment	26	36	47	35

Source: National Drug and Alcohol Research Centre 2000.

### Sharing of injecting equipment

The proportion of IDUs who have lent or borrowed needles has remained reasonably steady over the past few years, with around one in five reporting this activity. However, in 1999 both Adelaide and Melbourne reported a considerable decline in the number of IDUs borrowing needles, with rates falling by more than half in both cities (Table 8.9). In 1999, almost half (49%) of the IDUs reported that they had shared injecting equipment, including spoons, filters or tourniquets, while 12% had borrowed needles.

**Table 8.9: Proportion of injecting drug users who had shared needles or other injecting**

<b>Year and activity</b>	<b>Sydney</b>	<b>Melbourne</b>	<b>Adelaide</b>	<b>Total</b>
	(Per cent)			
1997				
Lent needle	21	26	18	22
Borrowed needle	15	22	19	19
1998				
Lent needle	23	34	24	27
Borrowed needle	23	23	21	22
1999				
Lent needle	24	22	9	18
Borrowed needle	17	9	9	12
Borrowed any equipment <sup>(a)</sup>	57	43	46	49

(a) Includes spoons, filters, and tourniquets.

Source: National Drug and Alcohol Research Centre 2000.

**equipment, selected cities, Australia, 1997 to 1999**

# 9 Crime and law enforcement

## Overview

Marijuana-related offences are the most common, even though the number of arrests has decreased over the past five years. Arrests for possession or supply of heroin have increased over the same time period (Table 9.1).

Heroin purity was found to vary over time and throughout the country (Table 9.4). There were 25 customs border detections of heroin in 1998–99, which had a total weight of 508 kg (Table 9.5). In 1999, 131 clandestine drugs laboratories were detected, most of which (63%) were in Queensland (Figure 9.1).

## Illicit drug arrests

Marijuana/cannabis is consistently the most common drug for which people are arrested in Australia, accounting for 70% of all illicit drug arrests in 1998–99 (Table 9.1). However, the number of persons arrested for either the possession or supply of marijuana has fallen sharply from almost 79,000 in 1995–96 to approximately 58,000 in 1998–99. While there may have been a fall in the number of marijuana-related arrests, arrests for the possession or supply of heroin, amphetamines and cocaine have increased steadily.

The vast majority of illicit drug arrests (79%) are related to their consumption, rather than their provision or sale (Table 9.2). However, the percentage of those arrested for consumption rather than provision differs depending on the drug involved.

**Table 9.1: Number and proportion of illicit drug arrests, by type of drug, Australia, 1995–96**

Substance	Period			
	1995–96	1996–97	1997–98	1998–99
	(number)			
Cannabis	78,948	69,136	64,659	58,131
Heroin	7,105	7,140	10,366	14,341
Amphetamines & MDMA <sup>(a)</sup>	4,214	3,907	4,766	6,584
Hallucinogens	398	609	524	571
Cocaine	330	460	460	618
Steroids	70	71	71	86
Other	7,729	3,723	3,276	3,201
<b>Total</b>	<b>98,794</b>	<b>85,046</b>	<b>84,122</b>	<b>83,532</b>
	(per cent)			
Cannabis	80	81	77	70
Heroin	7	8	12	17
Amphetamines & MDMA <sup>(a)</sup>	4	5	6	8
Hallucinogens	—	1	1	1
Cocaine	—	1	1	1
Steroids	—	—	—	—
Other	8	4	4	4
<b>Total</b>	<b>99</b>	<b>100</b>	<b>100</b>	<b>100</b>

(a) MDMA is 3,4 methylenedioxyamphetamines.

Note: 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.

Sources: Australian Bureau of Criminal Intelligence 1997, 2000.

to 1998–99

**Table 9.2: Number and proportion of total arrests involving illicit drugs, by consumer/provider status and drug type, Australia, 1995–96 to 1998–99**

Substance	Consumer/Provider	Period			
		1995–96	1996–97	1997–98	1998–99
		(number)			
Cannabis	Consumer	58,359	49,305	46,938	46,925
	Provider	20,589	19,831	17,721	11,206
Heroin	Consumer	5,135	4,986	7,242	10,607
	Provider	1,970	2,154	3,124	3,734
Amphetamines	Consumer	3,118	2,702	3,349	4,976
	Provider	1,096	1,205	1,417	1,608
Hallucinogens	Consumer	276	407	378	462
	Provider	122	202	146	109
Cocaine	Consumer	198	198	282	358
	Provider	132	262	178	260
Steroids	Consumer	61	64	61	83
	Provider	9	7	10	3
Other	Consumer	6,653	3,071	2,524	2,419
	Provider	1,076	652	752	782
<b>Total</b>	<b>Consumer</b>	<b>73,800</b>	<b>60,733</b>	<b>60,774</b>	<b>65,830</b>
	<b>Provider</b>	<b>24,994</b>	<b>24,313</b>	<b>23,348</b>	<b>17,702</b>

Note: Providers are defined as those arrested for dealing/trafficking type of offences, while consumers are defined as those arrested for use/possession type of offences. Caution should be exercised when making comparisons between years due to variations in consumer/provider counting methodologies used.

Sources: Australian Bureau of Criminal Intelligence 1997, 2000.

## Prisoners

Caution must be exercised when interpreting prison census statistics as they reflect only the most serious offence for which an individual was imprisoned. The true level of imprisonment for illicit drug-related offences would be much higher if figures reflected all offences for which a person was imprisoned (Stevenson & Forsythe 1998).

The most common drug-related offence for which people were imprisoned was dealing/trafficking drugs (Table 9.3). Of the 1,663 people in prison in 1999 for drug-related offences, 78% were imprisoned for dealing/trafficking offences, with a further 11% imprisoned for possession/use of illicit drugs.

The proportion of the total prison population imprisoned for drug-related offences has been steadily declining, from 11% in 1995 to 9% in 1999. People imprisoned for possession/use of drugs has remained stable over the past five years at 1%, while the proportions of those in prison for dealing/trafficking drugs and manufacturing/growing drugs are steadily decreasing.

**Table 9.3: Prisoners where the most serious offence was drug-related, by State and Territory, Australia, 1995 to 1999**

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust <sup>(a)</sup>	Aust <sup>(b)</sup>
<b>Possession/use of drugs</b>										
	(number)									(per cent)
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
<b>Deal/traffic drugs</b>										
	(number)									(per cent)
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
<b>Manufacture/grow drugs</b>										
	(number)									(per cent)
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
<b>Total</b>										
	(number)									(per cent)
1995	1,100	204	159	137	77	3	12	14	1,694	11
1996	981	202	223	125	91	6	8	10	1,638	10
1997	934	198	248	130	90	6	16	18	1,624	10
1998	759	293	272	132	88	6	19	13	1,568	9
1999	767	292	310	182	90	5	18	15	1,663	9

(a) The majority of ACT prisoners are held in NSW jails upon sentencing and are not separately counted in the Australian total.

(b) As a proportion of total prisoners.

Sources: Australian Bureau of Statistics 1997a, 1997b, 1997c, 1998, 1999.

## Heroin purity

Apart from the risk of overdose, the majority of complications associated with the use of heroin are related to the injection of contaminated material, or the use of non-sterile injecting equipment. Except for scientific and research purposes, heroin is not legally available in Australia. Consequently, the heroin obtained by users may fluctuate in purity and may be contaminated by a variety of materials of varying quality and safety (CDHSH1994). Between 1996 and 1999, the purity of the heroin available in the States and Territories fluctuated considerably. According to the Australian Bureau of Criminal Intelligence (ABCI, Table 9.4), South Australia had the highest mean heroin purity level (80%) recorded between July and September 1996. The lowest level of purity recorded was 33% in the Australian Capital Territory between April and June 1997. The purity of the heroin seized within each State and Territory also varied considerably, with Victoria experiencing purity levels of between 9% and 95% during the period April–June 1998, while Western Australia experienced levels between <1% and 82% during the same period.

**Table 9.4: Heroin purity levels, by State and Territory, Australia, selected periods, 1996 to 1999**

	NSW	VIC	Qld	WA	SA	ACT	NT
	(per cent)						
July–Sep 1996							
Mean purity	63	39	54	44	80	61	63
Purity range	25–87	31–44	48–80	17–76	70–91	56–66	n.a.
April–June 1997							
Mean purity	53	41	43	46	49	33	n.a.
Purity range	3–80	16–61	5–71	11–71	8–75	20–58	n.a.
April–June 1998							
Mean purity	74	64	57	60	78	59	n.a.
Purity range	65–79	9–95	19–85	<1–82	75–81	43–74	n.a.
April–June 1999							
Mean purity	69	57	56	60	47	72	n.a.
Purity range	58–74	16–86	9–77	28–76	23–68	61–87	n.a.

### Notes

1. Includes seizures greater than 2 grams only.
2. Figures includes both border detections and domestic seizures.
3. Purity figures for Tasmania were not available.

Sources: Australian Bureau of Criminal Intelligence 1997, 1999, 2000.

## Heroin detections

The majority of the heroin detected (in kilograms) by Australian Customs was detected in New South Wales, accounting for almost 96% of all heroin seizures recorded in 1998–99 (Table 9.5). The amount of heroin detected in 1997–98 was slightly lower than that recorded in 1996–97. However, the 1998–99 figure showed a substantial increase, with 3.5 times as much heroin detected (508 kg). Interestingly, while the quantity of heroin detected has increased substantially, the number of individual detections has decreased.



**Table 9.5: Customs border detections of heroin, by weight and number, by State and Territory,**

State	1996–97		1997–98		1998–99	
	Weight (kg)	Number	Weight (kg)	Number	Weight (kg)	Number
NSW	142.01	40	88.94	18	487.9	13
Vic	25.61	7	35.56	6	3.83	3
Qld	0.77	6	—	—	16.09	5
WA	0.004	4	0.02	4	0.45	3
SA	0.19	3	13.56	1	0.05	1
NT	0.37	2	—	—	—	—
<b>Total</b>	<b>168.95</b>	<b>62</b>	<b>138.19</b>	<b>29</b>	<b>508.32</b>	<b>25</b>

*Note:* No detections were made in Tasmania or the Australian Capital Territory.

*Sources:* Australian Bureau of Criminal Intelligence 1997, 1999, 2000.

### Australia, 1996–97 to 1998–99

## Cannabis offences

The number of cannabis offences per 100,000 population recorded throughout Australia fell by more than 1,000 between 1995–96 and 1998–99 (Table 9.6). South Australia and Western Australia recorded the largest decreases between 1995–96 and 1998–99. Queensland and the Northern Territory were the only States/Territories to record any noticeable increase, changing from 280 to 384 and 205 to 362 offences per 100,000 persons, respectively.

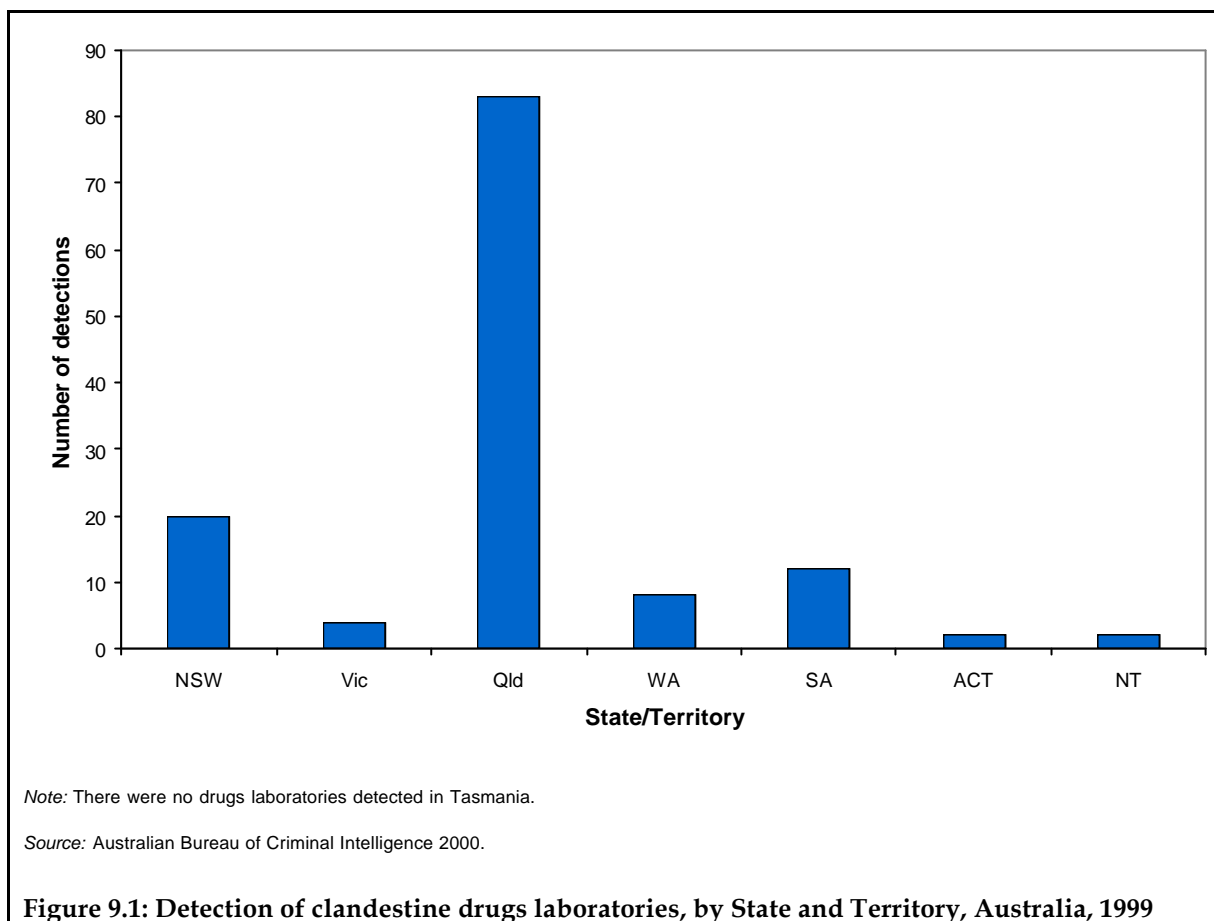
**Table 9.6: Cannabis offences per 100,000 population, by State and Territory, Australia, 1995–96 to 1998–99**

State/Territory	1995–96	1996–97	1997–98	1998–99
NSW	235	227	245	247
Vic	417	199	195	198
Qld	280	440	380	384
WA	780	713	634	329
SA	1,252	1,089	907	803
Tas	531	228	254	156
ACT	143	157	121	77
NT	205	370	336	362
<b>Total</b>	<b>3,843</b>	<b>3,422</b>	<b>3,072</b>	<b>2,556</b>

*Source:* Australian Bureau of Criminal Intelligence 2000.

## Detection of drugs laboratories

In 1999, a total of 131 clandestine drugs laboratories were detected in Australia, with the majority of these (63%) being detected in Queensland. By comparison, the second highest number of detections occurred in New South Wales, where 15% of detections were recorded (Figure 9.1).



## Self-reported crime by injecting drug users

Using data from IDRS, more than half (55%) of the IDUs surveyed reported that they had been involved in some form of criminal activity during the previous month, while around 44% had been arrested at least once over the past year (Table 9.7). The most common criminal activity reported was property crime (38%), followed by dealing (26%) and fraud (11%).

**Table 9.7: Self-reported crime among injecting drug users, and proportion arrested in the last year, by type of crime, Australia, 1999**

Type of crime	Self-reported crime in the last month (per cent)	Arrested in the last year (per cent)
Use	—	12
Dealing	26	5
Property crime	38	18
Fraud	11	2
Violent crime	8	6
<b>Any crime</b>	<b>55</b>	<b>44</b>

Source: National Drug and Alcohol Research Centre 2000.

# 10 Polydrug usage

## Overview

To provide an insight into the consumption patterns of drugs in Australia, the 1998 NDSHS asked some questions about multiple drug use. Ninety per cent of recent smokers reported drinking alcohol (Table 10.1). Of recent drinkers of alcohol, 30% reported smoking tobacco and 21% reported using marijuana/cannabis (Table 10.2).

Respondents who reported using pain-killers/analgesics for non-medical purposes showed the highest level of usage of other drugs (Table 10.3). Approximately 20% of recent marijuana/cannabis users reported using amphetamines (Table 10.4).

## Tobacco

Polydrug usage among recent tobacco smokers appears to be quite high, with 90% having recently used alcohol and around 39% reporting recent marijuana/cannabis use (Table 10.1). Males reported a higher proportion of polydrug usage than females, recording higher usage rates for alcohol and marijuana/cannabis. The only drugs that were used by a higher proportion of females were tranquillisers/sleeping pills.

**Table 10.1: Polydrug usage: proportion of recent tobacco smokers aged 14 years and over, Australia, 1998**

Other substances recently used	Males	Females (per cent)	Persons
Alcohol	92.3	87.3	90.0
Marijuana/cannabis	41.5	35.3	38.7
Pain-killers/analgesics <sup>(a)</sup>	7.4	7.8	7.6
Tranquillisers/sleeping pills <sup>(a)</sup>	4.7	5.0	4.8
Steroids <sup>(a)</sup>	0.9	0.3 *	0.6
Barbiturates <sup>(a)</sup>	1.0	0.5 *	0.8
Inhalants	1.7	1.7	1.7
Heroin	2.9	1.1	2.1
Methadone <sup>(b)</sup>	0.8	0.1 *	0.5
Amphetamines <sup>(a)</sup>	11.7	6.9	9.5
Cocaine/crack	3.9	2.7	3.4
LSD/synthetic hallucinogens	9.7	5.3	7.7
Ecstasy/designer drugs	5.8	3.8	4.9

(a) For non-medical purposes.

(b) Non-maintenance.

Note: Base equals recent smokers.

Source: National Drug Strategy Household Survey 1998.

## Alcohol

Recent male drinkers had a greater degree of polydrug usage than their female counterparts (Table 10.2), being more likely to have recently smoked tobacco and to have used marijuana/cannabis. However, females were slightly more likely to have recently used tranquillisers/sleeping pills.

**Table 10.2: Polydrug usage: proportion of recent drinkers aged 14 years and over, by sex,**

<b>Other substances currently used</b>	<b>Males</b>	<b>Females</b>	<b>Persons</b>
		<b>(per cent)</b>	
Tobacco	32.4	27.9	30.2
Marijuana/cannabis	24.3	18.3	21.4
Pain-killers/analgesics <sup>(a)</sup>	5.4	5.6	5.5
Tranquillisers/sleeping pills <sup>(a)</sup>	2.9	3.5	3.2
Steroids <sup>(a)</sup>	0.3 *	0.1 *	0.2 *
Barbiturates <sup>(a)</sup>	0.4 *	0.1 *	0.3
Inhalants	1.1	1.0	1.0
Heroin	1.2	0.6	0.9
Methadone <sup>(b)</sup>	0.3 *	0.1 *	0.2 *
Amphetamines <sup>(a)</sup>	5.8	3.2	4.6
Cocaine/crack	2.2	1.1	1.7
LSD/synthetic hallucinogens	4.8	2.6	3.7
<b>Ecstasy/designer drugs</b>	<b>3.8</b>	<b>2.0</b>	<b>2.9</b>

(a) For non-medical purposes.

(b) Non-maintenance.

Note: Base equals all recent drinkers.

Source: National Drug Strategy Household Survey 1998.

### **Australia, 1998**

## **Use of pain-killers/analgesics for non-medical purposes**

Polydrug use was quite common amongst recent users of pain-killers/analgesics for non-medical purposes (Table 10.3). Almost nine in 10 (87%) had recently consumed alcohol, while 41% had used marijuana/cannabis. Furthermore, almost one in five (18%) had reported amphetamine use, one in 10 had recently used ecstasy/designer drugs and one in seven (14%) had used LSD/synthetic hallucinogens.

**Table 10.3: Polydrug use: proportion of recent users of pain-killers/analgesics for non-medical purposes aged 14 years and over, by sex, Australia, 1998**

<b>Other substances recently used</b>	<b>Males</b>	<b>Females</b>	<b>Persons</b>
		<b>(per cent)</b>	
Alcohol	90.0	84.4	87.2
Tobacco	41.5	36.5	39.0
Marijuana/cannabis	43.9	39.0	41.4
Tranquillisers/sleeping pills <sup>(a)</sup>	41.3	44.3	42.8
Steroids <sup>(a)</sup>	2.4 *	0.5 *	1.5 *
Barbiturates <sup>(a)</sup>	5.3	2.5	3.9
Inhalants	5.5	5.6	5.6
Heroin	10.3	3.5	6.9
Methadone <sup>(b)</sup>	3.9 *	0.7 *	2.3
Amphetamines <sup>(a)</sup>	22.8	14.0	18.4
Cocaine/crack	11.9	3.9	7.8
LSD/ synthetic hallucinogens	16.2	10.9	13.6
<b>Ecstasy/designer drugs</b>	<b>12.7</b>	<b>7.6</b>	<b>10.1</b>

(a) For non-medical purposes.

(b) Non-maintenance.

Note: Base equals recent users of pain-killers/analgesics for non-medical purposes.

Source: National Drug Strategy Household Survey 1998.

## Marijuana/cannabis

Ninety-six per cent of those who had recently used marijuana/cannabis also reported recent alcohol consumption, while a total of 57% indicated that they had recently smoked tobacco (Table 10.4). Around one in five (20%) recent marijuana/cannabis users also reported that they had recently used amphetamines, while about one in six (16%) had used LSD/synthetic hallucinogens.

**Table 10.4: Polydrug use: proportion of recent marijuana/cannabis users aged 14 years and over, by sex, Australia, 1998**

Other substances recently used	Males	Females (per cent)	Persons
Alcohol	96.2	95.6	95.9
Tobacco	56.3	57.5	56.8
Pain-killers/analgesics <sup>(a)</sup>	10.7	13.6	11.9
Tranquillisers/sleeping pills <sup>(a)</sup>	7.1	8.7	7.8
Steroids <sup>(a)</sup>	0.9 *	0.4 *	0.7 *
Barbiturates <sup>(a)</sup>	1.6	0.9 *	1.3
Inhalants	3.6	4.5	4.0
Heroin	5.1	3.3	4.4
Methadone <sup>(b)</sup>	1.3	0.2 *	0.9 *
Amphetamines <sup>(a)</sup>	22.5	15.3	19.5
Cocaine/crack	8.2	5.4	7.1
LSD/synthetic hallucinogens	18.6	12.3	16.0
Ecstasy/designer drugs	14.0	8.8	11.8

(a) For non-medical purposes.

(b) Non-maintenance.

Note: Base equals all recent marijuana/cannabis users.

Source: National Drug Strategy Household Survey 1998.

# 11 Avoidance behaviours

## Avoidance of cigarette smoke

Around eight in 10 (81%) non-smokers always or sometimes avoid places where they may be exposed to other people's cigarette smoke. This was common for both males and females with approximately 80% and 83%, respectively, seeking to avoid other people's cigarette smoke at some time (Table 11.1).

**Table 11.1: Non-smokers' avoidance of places where they may be exposed to other people's cigarette smoke: proportion of the population aged 14 years and over, by age and sex, Australia, 1998**

Avoidance	Age group						All ages
	14-19	20-29	30-39	40-49	50-59	60+	
(per cent)							
<b>Males</b>							
Yes, always	22.2	21.8	30.9	39.4	50.2	51.5	36.9
Yes, sometimes	52.9	57.8	56.3	40.0	35.5	24.3	43.7
No, never	24.8	20.4	12.8	20.6	14.3	24.2	19.4
<b>Females</b>							
Yes, always	19.6	27.6	40.3	42.4	53.1	48.8	40.5
Yes, sometimes	62.6	57.7	48.5	42.6	24.5	29.5	42.2
No, never	17.8	14.7	11.2	15.1	22.4	21.6	17.2
<b>Persons</b>							
Yes, always	20.9	24.8	35.8	41.0	51.7	49.9	38.8
Yes, sometimes	57.7	57.7	52.2	41.4	29.8	27.3	42.9
No, never	21.3	17.5	12.0	17.7	18.5	22.7	18.2

*Note:* Base equals respondents who have never smoked and former smokers who had not smoked in the preceding 12 months.

*Source:* National Drug Strategy Household Survey 1998.

The 1998 NDSHS asked current smokers whether they had attempted to give up smoking in the preceding 12 months. Of those currently smoking, more than one in three (33%) reported that they had unsuccessfully attempted to quit smoking, while a similar proportion (32%) had changed to a cigarette brand with a lower tar or nicotine content (Table 11.2). Almost one in five (19%) current smokers had successfully given up for more than one month during the previous year, while 43% had reduced their daily cigarette consumption.

**Table 11.2: Actual attempts at giving up smoking in the past 12 months: proportion of recent**

<b>Attempt</b>	<b>Males</b>	<b>Females</b>	<b>Persons</b>
	<b>(per cent)</b>		
Successfully given up smoking (for more than a month)	19.6	18.2	19.0
Unsuccessfully tried to give up smoking	33.9	31.1	32.6
Changed to cigarette brand with lower tar or nicotine content	28.4	35.6	31.7
Reduced daily cigarette consumption	43.8	42.1	43.0

*Note:* Base equals smokers who had smoked at least one cigarette in the preceding week.

*Source:* National Drug Strategy Household Survey 1998.

**smokers aged 14 years and over, by sex, Australia, 1998**

## Alcohol moderation behaviour

The 1998 NDSHS asked respondents whether or not they intended to reduce their intake of alcoholic drinks in any session by means of moderating behaviour such as counting the number of drinks, alternating between alcoholic and non-alcoholic drinks, eating while consuming alcohol, and so on.

Of those who reported drinking at least three drinks in one session in the past three months, the survey data showed that (Table 11.3):

- more than nine out of 10 reported limiting the number of drinks in an evening (92%) or refusing an alcoholic drink when they did not want it (95%); and
- nearly two-thirds (65%) reported alternating between alcoholic and non-alcoholic drinks.

Of all the drinkers, the survey showed that the most frequently cited activity to moderate consumption of alcohol was to reduce the amount of alcohol usually consumed (29%).

**Table 11.3: Alcohol moderation behaviour: proportion of recent drinkers aged 14 years and over, by sex, Australia, 1998**

<b>Behaviour</b>	<b>Males</b>	<b>Females</b>	<b>Persons</b>
	<b>(per cent)</b>		
<b>Recent heavy drinkers<sup>(a)</sup></b>			
Count number of drinks	76.4	81.2	78.4
Alternate between alcoholic and non-alcoholic drinks	59.9	70.9	64.6
Eat while consuming alcohol	88.0	90.8	89.3
Quench thirst with non-alcoholic drink before having alcohol	72.3	76.7	74.3
Sometimes only drink low-alcohol drinks	73.2	72.5	72.9
Limit number of drinks in an evening	90.9	92.4	91.6
Refuse an alcoholic drink when don't want it	93.5	96.3	94.8
<b>All recent drinkers<sup>(b)</sup></b>			
Reduce amount of alcohol usually consumed	30.2	28.3	29.3
Reduce the number of times consumed alcohol	28.4	26.6	27.5
Switch to low-alcohol drinks more often	14.1	7.5	10.9
None of the above	52.4	58.7	55.4

(a) Base equals all persons who had consumed at least three standard drinks in a session in the preceding three months.

(b) Base equals all persons who had consumed at least one standard drink in the preceding 12 months.

*Source:* National Drug Strategy Household Survey 1998.

## Participation in drug treatment programs

The 1998 NDSHS estimated that slightly more than one in 20 (6%) Australians aged 14 years and over participated in Quit or similar smoking treatment programs (Table 11.4). Among recent smokers, the proportion of persons participating in Quit or similar programs was estimated at 15%. The survey also showed that:

- among recent drinkers, only 1% reported attending programs designed to reduce the consumption of alcohol; and
- the participation of recent users of illicit drugs in programs such as methadone maintenance and GP-supervised prescription programs was 1% or less.

**Table 11.4: Participation in alcohol and other drug treatment programs: proportion of the population aged 14 years and over, by sex, Australia, 1998**

Program	All respondents	Recent smokers	Recent drinkers	Recent illicit drug users
		(per cent)		
<b>Males</b>				
Smoking (e.g. Quit)	5.8	14.4	6.6	8.7
Alcohol (e.g. Alcoholics Anonymous)	1.7	3.7	1.5	3.3
Detoxification centre	0.7	1.6	0.8	1.9
Methadone maintenance	0.6	1.3	0.7	1.7
Prescription drugs (e.g. GP-supervised)	1.2	0.9	1.4	0.9
Other program	0.8	1.4	0.8	1.4
<b>Females</b>				
Smoking (e.g. Quit)	6.3	15.5	7.4	8.5
Alcohol (e.g. Alcoholics Anonymous)	0.5	1.0	0.5	1.2
Detoxification centre	0.2	0.8	0.2 *	0.9
Methadone maintenance	0.1	0.3	—	0.2 *
Prescription drugs (e.g. GP-supervised)	0.7	1.3	0.6	1.0
Other program	0.3	0.9	0.3	0.6 *
<b>Persons</b>				
Smoking (e.g. Quit)	6.1	14.9	7.0	8.6
Alcohol (e.g. Alcoholics Anonymous)	1.1	2.5	1.0	2.4
Detoxification centre	0.5	1.3	0.5	1.5
Methadone maintenance	0.3	0.9	0.4	1.0
Prescription drugs (e.g. GP-supervised)	1.0	1.1	1.0	0.9
Other program	0.5	1.2	0.6	1.0

Source: National Drug Strategy Household Survey 1998.



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# Appendix 1: Sources of data in the European Union

All sources were presented as they were presented to the REITOX National Focal Points. The sources listed below were provided in EMCDDA, 2000:

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**Denmark:** Laursen L 1996. Nordic alcohol and drug use survey. Centre for Drug and Alcohol Research.

**Germany:** Kraus L & Bauernfeind R 1998. Representative survey on the consumption of psychoactive substances in the German adult population 1997. Bonn: Bundesministerium für Gesundheit.

**Greece:** Kokkevi A, Loukadakis M, Plagianakou S, Politikou K & Stefanis C (in press). Outburst of illicit drug use in Greece: trends from a general population survey on illicit drug use. Athens: University Mental Health Research Institute.

**Spain:** Household survey on drugs 1997. National Plan on Drugs (unpublished report).

**France:** Baudier F & Arenes J 1997. Barometre sante adultes 1995. CFES.

**Netherlands:** Abraham M, Cohen P & De Winter M 1999. Licit and illicit drug use in the Netherlands. Amsterdam: CEDRO.

**Finland:** Partanen J & Metso L 1999. The second drug wave in Finland. Yhteiskuntapolitiikka-lenti, 2.

**Sweden:** Drogutvecklingen i Sverige 1999. Rapport 99. Stockholm: National Institute of Public Health and Swedish Council for Information on Alcohol and Other Drugs.