

Part III Biological and behavioural determinants

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13 Substance use

This chapter includes sections on the use of tobacco, alcohol and 'other' drugs which includes illicit drugs and prescription drugs used for non-medical purposes. Information on mortality and morbidity from substance use is included in Chapter 12.

Future patterns of drug use and long-term health ill-effects often result from drug exposure and use while young. Peer group pressure, inexperience and curiosity could be determining factors of underage drinking, binge drinking, tobacco smoking and other drug use.

Drug use by young people is common. When compared with the Australian population, young people aged 14–19 years and 20–29 years reported the greatest quantity of standard drinks consumed on a drinking day and the highest proportions currently using any illicit drug. Those aged between 20 and 29 years also demonstrate the highest proportion of current tobacco smokers (AIHW 1999).

Most data presented in this chapter are from the National Drug Strategy Household Surveys (NDS), a series of six surveys collecting information on drug consumption, attitudes, knowledge and behaviour. All data are self-reported, and the use of 'other' drugs is expected to be under-reported (AIHW 1999). Additional data come from the Australian School Students' Alcohol and Drugs Survey on the use of other drugs by 12–17 year olds.

Tobacco use

Tobacco use is a major contributing factor for a number of diseases. Over 25 diseases are known or strongly suspected to be causally associated with tobacco smoking. Tobacco use increases the risk of premature death from coronary heart disease, several cancers including lung, mouth and cervical cancer, as well as chronic lung disease. Passive smoking also increases the risk of lung cancer and a number of other diseases (AIHW 1998a:142; WHO 1998: viii, 2).

Table 13.1: Tobacco use, 1995 and 1998 (per cent)

Tobacco use	1995		1998	
	14–19 years	20–24 years	14–19 years	20–24 years
Males				
Never smoked a full cigarette	53.0	37.5	48.1	32.5
Ex-smoker	27.7	20.7	27.3	27.2
Occasional smoker ^(a)	4.8	6.7	8.4	8.1
Regular smoker ^(b)	14.5	35.1	16.3	32.1
Females				
Never smoked a full cigarette	49.5	25.3	45.0	32.9
Ex-smoker	30.9	30.6	29.1	29.3
Occasional smoker ^(a)	6.4	5.8	10.1	7.6
Regular smoker ^(b)	13.2	38.3	15.8	30.2
Persons				
Never smoked a full cigarette	51.4	30.9	46.5	32.7
Ex-smoker	29.2	26.1	28.2	28.2
Occasional smoker ^(a)	5.5	6.2	9.2	7.9
Regular smoker ^(b)	13.9	36.9	16.1	31.2

(a) Smokes less often than daily/most days.

(b) Smokes daily/most days.

Source: National Drug Strategy Household Survey, 1995, 1998.

- Males and females aged 14–19 years exhibited similar changes in tobacco use between 1995 and 1998. There were decreases in the proportions of males and females who had never smoked. There was a corresponding rise in the proportions of recent (regular and occasional) smokers.
- In contrast, males and females aged 20–24 years showed differing patterns of change in tobacco use. The proportion of females aged 20–24 who had never smoked increased from one in four in 1995 to one in three in 1998, bringing the proportion in line with that of males of the same age. Although the proportion of female recent regular smokers declined from 38% in 1995 to 30% in 1998, the proportion of occasional smokers increased slightly from 6% in 1995 to 8% in 1998. The proportion of ex smokers remained fairly stable.
- Males aged 20–24 years in 1998 were less likely to have never smoked than males of the same age in 1995. Interestingly, this group showed the only increase in the proportion of ex-smokers, from 21% in 1995 to 27% in 1998. Although the proportion of recent occasional smokers rose from 7% in 1995 to 8% in 1998, the proportion of recent regular smokers declined from 35% in 1995 to 32% in 1998.

Additional data on the use of tobacco by school students in 1996 are available from the Australian School Students' Alcohol and Drugs Survey. Due to the differences in survey population, age range, definitions and methodology, the data are not comparable with results from the NDS. The school student survey found that 8% of boys and 7% of girls aged 12 years had smoked on at least one of the 7 days prior to the survey (Hill et al. 1999:252). Among 17 year old students this proportion rose to 28% of young males and 34% of young females (Hill et al. 1999:252).

Alcohol

Like tobacco, alcohol is associated with mortality and morbidity. Unlike tobacco, regular moderate use of alcohol is not necessarily harmful. In fact, light to moderate alcohol consumption may reduce the risk of coronary heart disease. However, when alcohol consumption is heavy, it becomes a risk factor for coronary heart disease, cancer (e.g. stomach, colon, breast, pancreas, liver), blood disorders and loss of memory. Long-term heavy alcohol consumption leads to cirrhosis of the liver and may lead to brain damage. Motor vehicle accidents, crime and social problems are also associated with alcohol consumption. Alcohol is the leading cause of road traffic accidents and is associated with mental problems, especially depression (AIHW 1998b: 62; AIHW 1998b:142-145).

Table 13.2: Alcohol use, 14–24 year olds, 1995 and 1998 (per cent)

Alcohol use	1995		1998	
	Males	Females	Males	Females
Never consumed a full glass	8.6	15.6	13.4	15.9
Past drinker	8.1	10.7	6.7	5.9
Occasional, less than weekly	28.2	40.3	31.2	44.1
Regular, at least weekly	55.1	33.3	48.7	34.1

Source: National Drug Strategy Household Survey 1995, 1998.

- In both 1995 and 1998, a higher proportion of males aged 14–24 years had consumed a full glass of alcohol at least once in their lives than females.
- Although the proportions of young males who consumed alcohol on an occasional basis rose between 1995 and 1998, the proportions of regular drinkers dropped. For females, the proportion of occasional drinkers and the proportion of regular drinkers increased slightly between 1995 and 1998.
- In 1998, regular use of alcohol peaked at ages 30–39 years, for both males and females. Occasional use by males was greatest amongst 14–19 year olds (37%) and 20–29 year olds (26%). Occasional use of alcohol by females was greatest amongst 20–29 year olds and 14–19 year olds, about 44% in each age group (AIHW 1999:17).

Substance use

Table 13.3: Quantity of alcohol consumed by frequency of consumption, proportion of recent alcohol drinkers aged 14–24 years, Australia, 1998 (per cent)

Frequency	Quantity (standard drinks)				Total
	1–2	3–4	5–6	7+	
Males					
Every day	0.5	0.5	0.4	0.5	1.9
4–6 days/week	1.3	1.4	1.5	6.7	10.8
2–3 days/week	5.1	4.6	2.6	13.5	25.8
1 day/week	2.9	4.6	4.6	11.1	23.3
Less often	12.6	7.5	6.5	11.6	38.2
Total	22.5	18.6	15.6	43.4	100
Females					
Every day	0.3	0.3	—	0.1	0.6
4–6 days/week	1.6	0.7	0.3	0.3	2.9
2–3 days/week	4.1	3.9	2.2	5.9	16.1
1 day/week	4.7	5.3	6.3	8.4	24.7
Less often	25.8	14.5	8.6	6.8	55.7
Total	36.4	24.7	17.4	21.4	100

Note: Base equals recent alcohol drinkers.

Source: National Drug Strategy Household Survey 1998.

- Of those who reported recent alcohol consumption (87% of 16–24 year olds), young females tended to drink less often than young males. Whereas, 62% of males reported drinking one day or less per week, the corresponding figure for females was 80%.
- In addition to drinking alcohol more frequently than females, young males also tended to drink a larger quantity. On a day when alcoholic drinks are consumed, 60% of males reported usually having five or more drinks compared with 39% of females. Note, however, that the National Health and Medical Research Council guidelines for responsible drinking recommend that men should not exceed four standard drinks and women should not exceed two standard drinks per day on a regular basis. Five or six standard drinks for males and three or four standard drinks for females is considered hazardous, and more than six standard drinks for males and more than four for females is considered harmful (NHMRC 1992).¹
- There are no guidelines in consumption levels or frequency, for measuring binge drinking.

1. Some examples of standard drinks are: a middy of full-strength beer, a 100 ml glass of wine, a 60 ml glass of port, a nip of spirits and a schooner of light beer (AIHW 1999).

Other drugs

The harmful use of illicit drugs is associated with considerable social problems, crime, morbidity and mortality (AIHW 1998a, ABCI 1997). Illicit drug use refers to the use of illegal drugs, volatile substances used illicitly, and pharmaceuticals used for nonmedical purposes.

Table 13.4: Recent^(a) opportunity to use illicit drugs and recent^(a) illicit drug use by young people aged 14–24 years, 1995 and 1998 (per cent)

Drug	Opportunity to use		Recent use	
	1995	1998	1995	1998
Marijuana/cannabis	45.6	51.6	32.8	37.9
Pain killers/analgesics ^(b)	34.8	45.7	3.8	7.3
Tranquillisers/sleeping pills ^(b)	5.0	7.4	1.5	4.1
Steroids ^(c)	1.4	2.9	—	0.4
Barbiturates ^(b)	2.3	1.6	0.1	0.5
Inhalants	6.0	7.3	1.4	2.3
Heroin	4.0	4.8	0.6	1.3
Amphetamines	12.1	15.3	5.6	9.8
Cocaine	6.8	5.3	1.8	1.9
Naturally occurring hallucinogens	6.2	8.5	1.6	—
LSD/synthetic hallucinogens	13.1	16.8	6.3	—
Hallucinogens	—	—	—	9.6
Ecstasy	6.2	12.5	2.0	6.5

(a) Opportunity to use in the last 12 months.

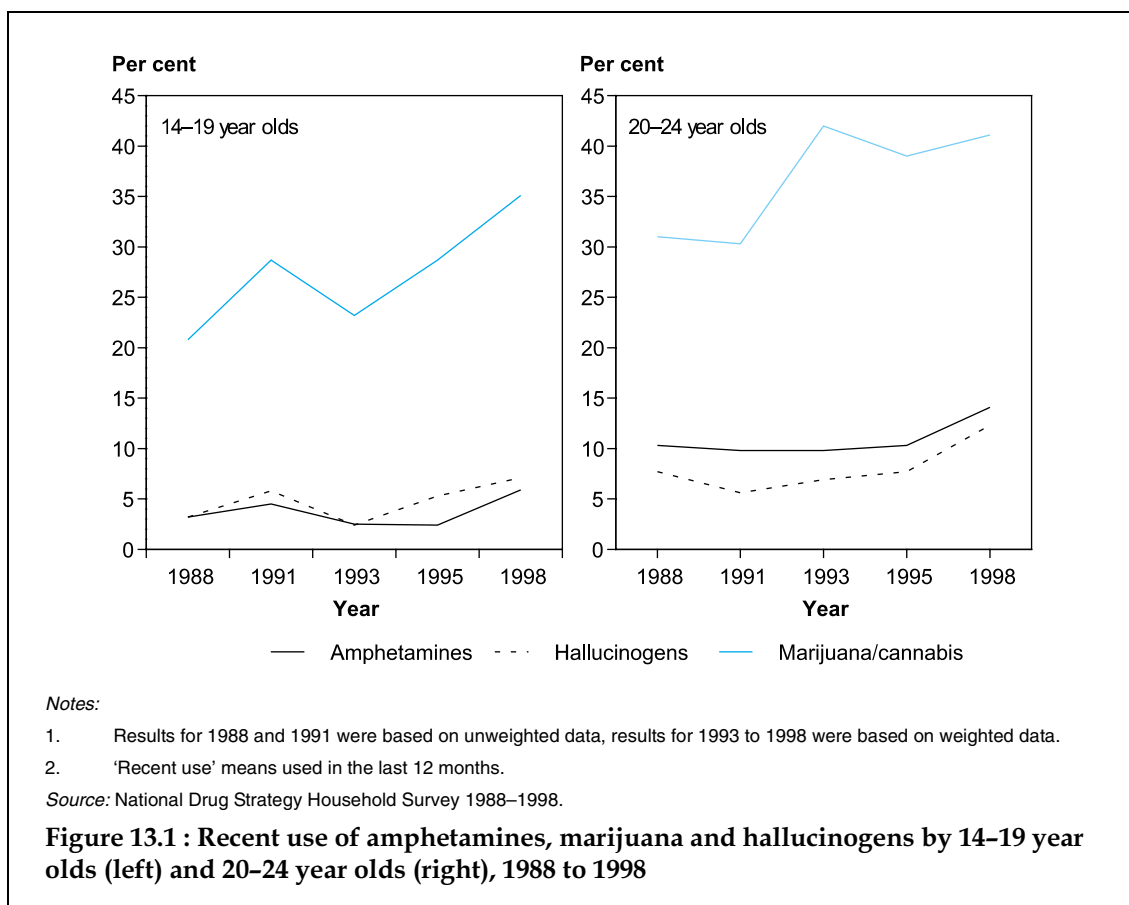
(b) Used in the last 12 months.

(c) For non-medical purposes.

Source: National Drug Strategy Household Survey 1995, 1998.

- The proportions of young people reporting using illicit drugs in the last 12 months increased between 1995 and 1998, for all the drugs listed in Table 13.4.
- A higher proportion of young persons aged 14–24 years had used marijuana (38% in 1998) than any other illicit drug. Amphetamine use and hallucinogen use were both reported by about 10% of young people. In 1995, as in 1998, the highest proportions of young people reported using marijuana followed by amphetamines and hallucinogens.
- The reported opportunity to use illicit drugs increased between 1995 and 1998 for all illicit drugs other than cocaine and barbiturates.
- Although there was an increase between 1995 and 1998 in the proportions of young people reporting recent heroin use, the proportions remained low in comparison with other drugs (0.6% in 1995 and 1.3% in 1998).
- While 38% of young people aged 14–19 years reported recent use of any illicit drug, those aged 20–29 years recorded the greatest proportion of recent users (40%). There was a steady decline in the proportion of recent users from ages 30–39 (24%) to ages 60+ (6%) (AIHW 1999:19).

Substance use



- Over the decade, marijuana/cannabis remained the most commonly used illicit drug. The proportions of young people who had used marijuana/cannabis in the last 12 months increased from 21% in 1988 to 35% in 1998 for those aged 14–19 years and 31% in 1988 to 41% in 1998 for 20–24 year olds.
- Amphetamines were the second most commonly used drug for 20–24 year olds. Amphetamine use for this age group remained steady between 1988 and 1995 with about 10% reporting recent use. However, in 1998 the proportion rose to 14%. Amphetamine use fluctuated throughout the decade for 14–19 year olds. The proportion reporting recent use in 1988 (about 3%) was approximately half that of 1998 (almost 6%).
- The proportions of young people aged 14–19 years who reported using hallucinogens in the last 12 months were similar to the proportions reporting amphetamine use. The proportion of this age group reporting recent hallucinogen use rose from 3% in 1995 to 7% in 1998. The proportions of 20–24 year olds reporting recent hallucinogen use rose by 4 percentage points from almost 8% in 1995 to 12% in 1998.
- Throughout the decade the proportion of young people aged 20–24 years who reported recent use of marijuana/cannabis, amphetamines and hallucinogens was higher than the proportion aged 14–19 years.

Figure 13.1 shows the proportion of young people aged 14–19 years reporting recent use of marijuana/cannabis, amphetamines and hallucinogens from the NDS. Self-reported data are also available from the Australian School Students' Alcohol and Drugs Survey

on the use of illicit drugs by school students aged 12–17 years (Lynskey et al. 1999). The prevalence of use of illicit drugs was found to be similar in both sources. Marijuana/cannabis was the most common recently used substance with 35% of the NDS respondents aged 14–19 years, and, similarly, 35% of male students and 29% of female students aged 12–17 years reporting recent use in the survey of school students. Both surveys found that hallucinogens were the second most common recently used drug among this age group, with 7% of 14–19 year olds reporting recent use and 7% of male and 6% of female school students. The third most common recently used substance was amphetamines with 6% of 14–19 year olds reporting recent use and 5% of male and 4% of female school students.

The slightly higher proportions of 14 to 19 year olds compared with 12–17 year olds reporting recent substance use may be explained by the tendency of recent use to increase with age (as shown in Figure 13.1).

Perceptions

Drug problem

This section presents information on young peoples perceptions of which drugs can be associated with a drug problem. Data from 1995 and 1998 are used to explore changes in perceptions.

Table 13.5: Proportion of the population aged 14–24 years who associate specific drugs with a drug ‘problem’, 1995 and 1998 (per cent)

Drug first nominated ^(a)	Males		Females		Persons	
	1995	1998	1995	1998	1995	1998
Tobacco	3.6	4.4	5.4	2.9	4.5	3.7
Alcohol	16.0	15.7	12.9	9.1	14.5	12.5
Marijuana/cannabis	37.9	26.8	33.8	31.0	35.9	28.9
Pain killers/analgesics ^(b)	0.6	0.3	1.4	0.5	1.0	0.4
Tranquillisers/sleeping pills ^(b)	0.4	0.2	0.7	0.6	0.6	0.4
Steroids ^(c)	n.a.	0.5	n.a.	0.1	n.a.	0.3
Barbiturates ^(b)	—	—	0.3	0.3	0.1	0.1
Inhalants	0.6	0.1	0.7	0.1	0.7	0.1
Heroin	20.8	34.2	21.1	34.4	20.9	34.3
Amphetamines	3.3	9.3	8.3	10.0	5.7	9.6
Cocaine	7.5	4.7	8.9	4.8	8.2	4.7
Naturally occurring hallucinogens	—	0.1	—	0.7	—	0.4
LSD/synthetic hallucinogens	1.6	0.7	2.5	3.2	2.0	1.9
Ecstasy/designer drugs	—	2.0	0.1	1.9	0.1	1.9
Drugs other than listed	6.6	0.1	2.5	0.2	4.6	0.2
None/can't think of any	1.1	0.6	1.2	0.1	1.2	0.3

(a) Respondents were asked to nominate drugs they first associated with a drug problem. In 1995 the question was open-ended; in 1998 the drugs were presented as a fixed list.

(b) For non-medical use.

(c) For non-medical use, not asked in 1995.

Source: National Drug Strategy Household Survey 1995, 1998.

- Between 1995 and 1998 there was a shift in young peoples perceptions of which drugs were associated with a drug ‘problem’ from the so-called soft drugs to the so-called hard drugs (AIHW 1999). For young people, there were increases in the association of heroin and amphetamines with a drug ‘problem’. In contrast, the proportions of young persons nominating marijuana/cannabis, alcohol and tobacco decreased.
- In 1998, heroin replaced marijuana/cannabis as the drug most commonly associated with a drug ‘problem’. The proportion of young males and females nominating heroin increased from 21% in 1995 to 34% in 1998.
- Despite the decrease in the proportions of young people associating marijuana/cannabis with a drug ‘problem’, in 1998 it was the second most nominated drug. The reduction in the proportion of young people associating marijuana/cannabis with a drug ‘problem’ was substantially different for males and females. Males recorded a decline of 11 percentage points compared with only 3 percentage points for females.
- Although the proportion of young people associating alcohol with a drug ‘problem’ decreased from 1995 to 1998, alcohol was the third most nominated drug. Although

the proportion of young males nominating alcohol remained at around 16% over the period, the proportion of young females nominating alcohol decreased from 13% in 1995 to 9% in 1998.

- The trend in associating tobacco with a drug 'problem' differed for males and females in 1995 and 1998. Over the period the proportion of young males nominating tobacco increased slightly (from 3.6% in 1995 to 4.4% in 1998), whereas the proportion of females decreased from 5.4% in 1995 to 2.9% in 1998.

Support for policies/treatments

This section presents information on young people's support for measures to reduce the harm associated with tobacco, alcohol and heroin.

Table 13.6: Support^(a) for tobacco-related policies, 14–24 year olds, 1998 (per cent)

Tobacco related policies	Males	Females	Persons
Stricter enforcement of law against selling to minors	74.6	82.5	78.5
Banning tobacco advertising at sporting events	41.8	50.4	46.0
Banning smoking in the workplace	65.0	74.1	69.5
Banning smoking in shopping centres	74.8	78.6	76.7
Banning smoking in restaurants	66.4	68.1	67.2
Banning smoking in pubs/clubs	32.4	35.2	33.8
Increase tax on tobacco products to pay for health messages	55.1	56.9	56.0
Increase tax on tobacco products to contribute to treatment costs	59.4	62.8	61.0
Increase tax on tobacco products to discourage smoking	55.6	57.8	56.7

(a) Support and strongly support.

Source: National Drug Strategy Household Survey 1998.

- Young females recorded a higher level of support for each of the tobacco policies than their male counterparts.
- 'Stricter enforcement of law against selling to minors' attracted the highest level of support from young people. Approximately three in four males (75%) and four in five females (83%) supported this policy.
- 'Banning smoking in pubs/clubs' attracted the least support from young people. Only 32% of young males and 35% of young females supported this policy.

Substance use

Table 13.7: Support^(a) for alcohol-related policies, 14–24 year olds, 1998 (per cent)

Policy	Males	Females	Persons
Increasing the price of alcohol	15.7	22.7	19.1
Reducing the number of outlets	16.3	22.8	19.5
Reducing trading hours	15.5	19.0	17.2
Raising the legal drinking age	17.8	23.9	20.8
Increasing the number of alcohol-free events	39.8	53.4	46.5
Increasing the number of alcohol-free dry zones	45.3	58.0	51.6
Stricter enforcement of law against serving minors	65.7	81.7	73.6
Serving only low-alcohol beverages at sporting events	44.6	60.5	52.4
Limiting TV advertising until after 9.30 p.m.	47.1	59.6	53.2
Banning alcohol sponsorship of sporting events	21.0	33.4	27.1
More severe penalties for drunk drivers	84.5	89.7	87.0

(a) Support and strongly support.

Source: National Drug Strategy Household Survey 1998.

- As was the case with tobacco-related policies, the level of support for alcohol-related policies was higher among females than males.
- An increase in the price of alcohol was the policy which attracted the least support from young people. Only 16% of males and 23% of females supported an increase in the price of alcohol.
- ‘More severe penalties for drunk drivers’ attracted the highest level of support from both young males (85%) and young females (90%).

Table 13.8: Support^(a) for heroin-related policies and treatments, 14–24 year olds, 1998 (per cent)

Policy/treatment	Males	Females	Persons
Free needle/syringe exchanges	46.1	53.4	49.7
Methadone maintenance programs	54.9	60.3	57.6
Treatment with drugs other than methadone	54.0	53.8	53.9
Regulated injecting rooms	33.1	31.8	32.5
Rapid detoxification therapy	61.7	56.9	59.3

(a) Support and strongly support.

Note: These measures were not explained in detail to survey respondents.

Source: National Drug Strategy Household Survey 1998.

- Unlike Tables 13.6 and 13.7 which show higher female support for all tobacco and alcohol policies than males, Table 13.8 shows that whereas female support is higher for some heroin-related policies and treatments, male support is higher for others. Young females were more likely than males to support ‘free needle/syringe exchanges’ and ‘methadone maintenance programs’. Young males were more likely than females to support ‘regulated injecting rooms’ and ‘rapid detoxification therapy’.
- The measure receiving the highest level of support from young people was ‘Rapid detoxification therapy’. There was a slightly higher proportion of young males supporting this policy (62%) than females (57%).
- The measure attracting the lowest level of support from young people at 33% was ‘Regulated injecting rooms’.
- Young people’s level of support for heroin-related policies was almost the same as that of the Australian population aged 14 years and over.

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