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# Drug related health in the ACT



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# Drug related health in the ACT

## 1 Executive summary

Harmful drug use affects a whole range of people in the community from unborn babies to older people. The ACT Government has taken an innovative 'whole of government' approach to harmful drug use and in September 1999, 'From Harm to Hope: ACT Drug Strategy 1999' was released. "Drug related health in the ACT" is the 24<sup>th</sup> publication in the Health Series and aims to enhance current knowledge about drug usage and health in ACT.

### Drug Use

Tobacco smoking causes a high proportion of preventable mortality and morbidity and contributes toward a number of diseases including coronary heart disease, several cancers including lung, mouth and laryngeal cancer, stroke and chronic lung disease. It is estimated that 30 per cent of all cancers occur as a direct result of smoking.

As a general rule, males smoke at higher rates than females. However, in 1996 for students in years 7 to 12, more females than males smoked. A lower proportion of people in the ACT than nationally tends to smoke. The proportion of regular smokers over 14 years declined from 24 per cent in 1995 to 22 per cent in 1998. A higher proportion of the younger age groups are current smokers. For both males and females in the ACT and nationally, between 52 per cent and 56 per cent of people who have ever smoked are now ex-smokers.

In addition to direct smoking, passive smoking is also known to cause health problems and approximately 3,600 (1.5% of the ACT population) ACT people aged 14 years and over who are not current daily smokers are exposed to passive smoking in their homes. Nationally, the proportion is higher at around 3.6 per cent of the Australian population.

Excessive drinking of alcohol can have negative effects on short-term and long-term health. Unlike the trend for smoking, a larger proportion of people in the ACT tend to drink at higher levels than people nationally. While males tend to be heavier drinkers than females, for females in the ACT and nationally, the highest percentage of hazardous or harmful drinkers are in the 18-24 year age group, while for males, 25-34 year olds are the heaviest drinkers. In 1996 more than 43 per cent of all year 7 to 12 students described themselves as non-drinkers, 26 per cent as occasional drinkers and 24 per cent as party drinkers. Approximately 80 per cent of year 7 and 8 students had not had more than 3 drinks in the last 2 weeks.

During the period 1993-97, an average of 13 people died from chronic liver disease and cirrhosis each year. Most of the deaths (64 %) were due to alcoholic liver damage and a majority (72 %) of those who died were males. Between 1993 and 1997, 17 persons died in the ACT from alcohol dependence. Approximately 82 per cent of these were male.

Cannabis consumption can cause a number of immediate and/or long-term disorders. Generally, in 1998 a significantly higher rate of Australian males than females had ever tried cannabis, or had used it in the past 12 months. Compared to Australia, a higher rate of people in the ACT had ever tried cannabis. However, the proportion of people who had used cannabis in the past 12 months was

similar for both the ACT and Australia. Of current users, there were more ACT males using at least once a week (50.7%) than ACT females (29.4%). Approximately 71.7 per cent of people who had used cannabis in the last 12 months in the ACT had used other drugs (including alcohol) at the same time as using cannabis. More than 50 per cent of male students in years 10, 11 and 12 reported having used cannabis at some stage of their life.

Over-the-counter and prescription medications were predominantly used by more females than males in 1995 (57% males, 63% females). However, more males than females used medications without the advice of a health professional (33% of males, 29% of females). In 1998 the non-medical use of pain killers and analgesics was similar for both ACT males and females with 9.3 per cent of ACT males and 10.6 per cent of ACT females having ever used pain killers for non-medical purposes. The highest usage rates tended to be among the 18 to 24 year old age group. The 1996 ACT Secondary School Students' Survey found that painkillers and analgesics were the most commonly reported drug used by ACT students. Almost all students used them at some time.

The usage rate of tranquillisers and sleeping pills for non-medical purposes was again higher for females than males according to the 1998 National Drug Strategy Household Survey. In the ACT, 5.9 per cent of males and 9.2 per cent of females had used tranquillisers for non-medical purposes. However, some caution should be taken when interpreting these figures as no significant difference was found. In 1996, less than 2 per cent of females across all secondary school year levels had used sedatives or tranquillisers (other than for medical reasons) in the last week.

In 1998 significantly more ACT and Australian males had ever tried barbiturates for non-medical purposes when compared to their female counterparts (ACT males 3.2%, ACT females 1.0%).

There were between 4,400 and 6,700 people in the ACT who had ever tried heroin according to the 1998 National Drug Strategy Household Survey. A significantly higher proportion of Australian males had ever tried it when compared to females. The average age that heroin was first used was 21 in the ACT and 22 in Australia. There was no significant difference between these ages.

Hallucinogens such as LSD, and hallucinogenic mushrooms, are the fifth most commonly ever tried type of drug for non-medical purposes. Approximately 9.9 per cent of all Australians and 11.3 per cent of people in the ACT had ever tried hallucinogens (no significant difference between these rates was found). Significantly more ACT males had tried hallucinogens when compared to ACT females. The percentage of secondary school students who reported ever using hallucinogens in 1996 rose with year level, from less than 1 per cent in year 7 to approximately 12 per cent in year 12.

Approximately 8.9 per cent of people in the ACT and 8.8 per cent in Australia had tried amphetamines at least once in their lives (1998 National Drug Strategy Household Survey). A significantly higher proportion of Australian males had ever tried amphetamines (10.9%) when compared to their female counterparts (6.7%). This trend also occurs in the ACT with 11.5 per cent of males and 6.4 per cent of females having ever tried amphetamines (no significant difference was found). In 1996 less than 2.5 per cent of students reported use of amphetamines in the previous 4 weeks, though a relatively high 6 per cent reported use at some time. Males were more likely to report recent use of these substances than females.

Approximately 5.6 per cent of people in the ACT and 4.8 per cent Australia wide have ever tried ecstasy or other designer drugs in 1998. There was no significant difference between these



percentages. Significantly more males than females had ever tried ecstasy or designer drugs (7.9% of males in the ACT and 3.4% of females in the ACT). In 1996, less than 5 per cent of secondary school students had ever used designer drugs such as ecstasy. Males were more likely to report recent use of ecstasy than females.

In 1998 a significantly lower proportion of people in both the ACT and Australia had ever tried cocaine compared to those who had ever tried amphetamines. Significantly more Australian males than females had tried cocaine with the ACT following national trends. Less than 4 per cent of secondary school students reported they had ever tried cocaine in 1996. Male students were more likely than females to report using cocaine.

A significantly higher rate of Australian males than females had ever used inhalants for non-medical purposes (5.0% Australian males, 2.8% Australian females) in 1998. However the 1996 ACT Secondary School Students' Survey showed that approximately 23 per cent of respondents reported past use of inhalants, with greatest use being in the lower year levels. About 14 per cent of year 7 students had sniffed intoxicants in the week prior to interview compared to less than 3 per cent for year 11 and year 12 students.

#### Drug related conditions

It is estimated that Hepatitis C Virus (HCV) affects approximately one per cent of the Australian population and around three quarters of all new infections occur through injecting drug use. Between 60 per cent and 70 per cent of all past and present injecting drug users in Australia are infected. On average there are about 300 new notifications of HCV in the ACT every year, with approximately 60 per cent of these being of males. The majority of notifications are of people aged between 20 and 39 years old.

There is increasing concern about the co-existence of mental illness with addictive disorders. Issues linked to mental illness include the abuse of psychoactive substances such as alcohol, tobacco, marijuana, hallucinogens and other drugs. Available data suggest that individuals with a psychiatric disorder are at increased risk of having a substance abuse disorder. For example, it has been estimated that about half of young people presenting with their first episodes of schizophrenia and bipolar disorder will develop a substance use disorder in their lifetime.

There were 92 hospital separations of ACT residents due to accidental poisoning in 1997-98. More than one third (38%) of these were of people aged 17 and younger. Poisoning deaths were mainly accidental rather than purposefully self-inflicted. The majority of accidental poisonings were by males (73 %) and the major cause (70%) was from opiates and related narcotics. Sixty four per cent of these people were aged between 25 to 54 years and 27 per cent were aged 18 to 24 years.

Self harm and suicide can be linked with excessive drinking and drug taking. Heavy drinking and drug abuse are known to be major factors for completed suicide among youth aged between 15 to 25 years. Between 1993 and 1997, 176 people died from suicide in the ACT. Drugs were used in 10 per cent of these deaths. Most were of males (70%) and 50 per cent were aged between 25 and 54 years old.

## 2 Introduction

Harmful drug use affects a whole range of people in the community from unborn babies to older people. As a risk factor, it causes many preventable diseases, injuries and poisonings in the community. For example, it is estimated that 20 per cent of deaths in Australia are drug related<sup>1</sup>. The harmful use of drugs - both legal and illegal- can lead to such health problems as drug dependency, blood-borne diseases, mental disorders, cancers, foetal damage, circulatory and respiratory diseases, liver problems, overdose, and serious injuries.

National drug policy employs a harm minimisation focus to drug use in the community. According to the ACT Drug Strategy 1999, “harm minimisation aims to improve health, social and economic outcomes for both the community and the individual and encompasses a wide range of approaches, including supply reduction, demand reduction and harm reduction strategies”.

The ACT Government has taken an innovative ‘whole of government’ approach to harmful drug use and in September 1999, released the ACT Drug Strategy: ‘From Harm to Hope’. This Strategy, adopted the following mission statement in respect to harmful drug use in the community:

The ACT Government will, in partnership with stakeholders, adopt a compassionate and caring approach to reducing the impact of drug use in our community through reducing the supply of drugs, the demand for drugs and the harms caused by drugs. The central element of this mission is to do what works best based on an informed knowledge of the problems with respect to each of these goals and on evidence of best practice locally, interstate and overseas<sup>1</sup>.

“Drug related health in the ACT”, the 24<sup>th</sup> publication in the Health Series, aims to enhance current knowledge about drug related health in the ACT. It examines the level of drug use in the ACT as it compares to Australia and investigates drug related health issues both in the ACT and nationally.

### 3 Tobacco smoking

Tobacco smoking causes a high proportion of preventable mortality and morbidity. As a risk factor, smoking contributes towards a number of diseases including coronary heart disease, several cancers including lung, mouth and laryngeal cancer, stroke and chronic lung disease<sup>2</sup>. It is estimated that 30 per cent of all cancers occur as a direct result of smoking<sup>3</sup>. Smoking during pregnancy can cause harm to the foetus and there is increasing evidence that passive smoking can be a causal factor in many illnesses in children and adults.

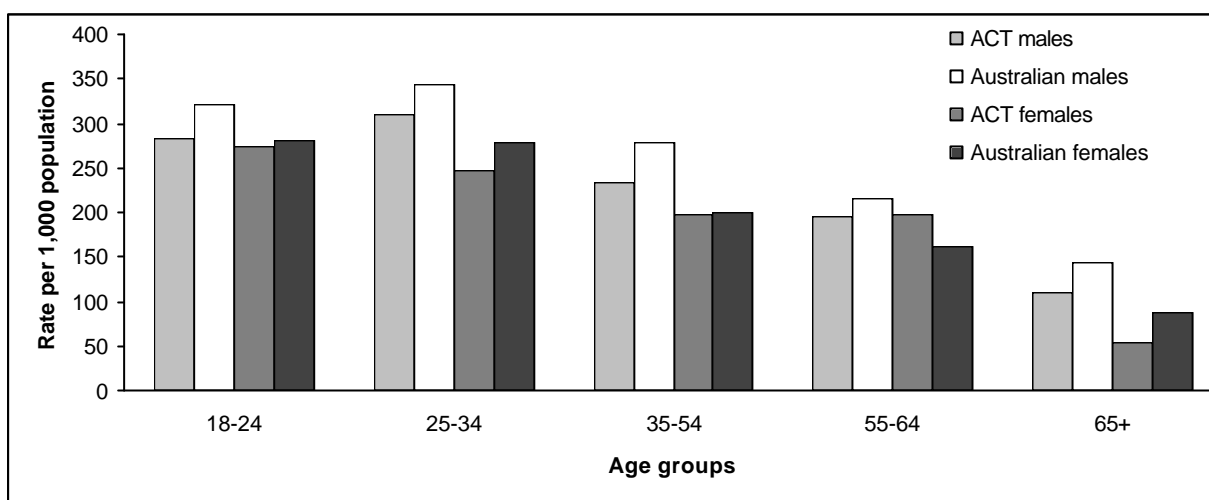
The 1998 National Drug Strategy Household Survey estimated<sup>23</sup>:

- Twenty-one per cent of Australians reported that they are regular tobacco smokers (smoke at least one cigarette a day) and a further 4 per cent are occasional smokers (smoke less than daily).
- Twenty-two per cent of men and 20 per cent of women were regular smokers. Sixteen per cent of young people aged 14 to 19 years were regular smokers; the proportion was roughly the same for males and females.
- Forty-four per cent of Indigenous Australians were regular smokers compared with 20 per cent of non-Indigenous Australians.

#### 3.1 Prevalence of tobacco smoking

According to the National Health Survey, 1995, approximately 23 per cent of people in the ACT over the age of 18 are current smokers. Figure 1 shows that a higher proportion of the younger age groups are current smokers and with the exception of females in the 55-64 years group, people in the ACT smoke less than those nationally. As a general rule, males smoke at higher rates than females. First results from the 1998 National Drug Strategy Household Survey show that the proportion of regular smokers over 14 years declined from 24 per cent in 1995 to 22 per cent in 1998<sup>4</sup>.

**Figure 1: Age and sex specific smoking rates per 1,000 population, ACT and Australia, 1995**



Note: Excludes people less than 18 years old.

Source: ABS, *National Health Survey, 1995*, unpublished data

For both males and females in the ACT and Australia as a whole, the National Health Survey shows that between 52 per cent and 56 per cent of people who have ever smoked are now ex-smokers. There are some age and sex differences for when people give up smoking. For example, approximately 71 per cent of ACT males between the ages of 55 and 64 who have ever smoked are ex-smokers whereas only 49 per cent of their female counterparts are ex-smokers. For ACT 25 to 34 year olds, the opposite trend is the case. Approximately 40 per cent of males who have ever smoked are ex-smokers while 50 per cent of females who had ever smoked had given up smoking.

The 1996 ACT Secondary School Students' Survey shows that for years 7 to 12 students, more females than males smoke. Among those smoking, more female students described themselves as occasional or light smokers than male students.

Of all respondents (males and females) the proportion of non-smokers decreased with age. Nearly 70 per cent of year 7 students reported that they had never smoked a cigarette. By year 12 this proportion had decreased to less than 30 per cent.

In relation to recent experience with smoking, more than 80 per cent (both males and females) of year 7 students reported that they had not smoked in the last 12 months. This proportion decreased steadily to 52 per cent for males and 45 per cent for females in year 11.

The 1996 ACT Secondary School Students' Survey also showed that for both males and females, the most popular brand of cigarette was "Peter Jackson", follow by "Winfield" and "Benson & Hedges". Year 11 and year 12 students more often bought their own cigarettes. Tobacconist, supermarket and take-aways were the most usual place to buy cigarettes.

### 3.2 *Passive smoking*

As well as direct inhalation of tobacco smoke, passive smoking is also known to cause health problems. Exposing young children to passive smoking can increase their risk of contracting asthma, pneumonia, bronchitis, tracheitis, laryngitis and otitis media<sup>5</sup>. The National Drug Strategy Household Survey 1998 (Glossary 9.4) estimates that approximately 3,600 (1.5% of the ACT population) ACT

people aged 14 years and over who are not current daily smokers are exposed to passive smoking in their homes. Nationally, this figure is around 521,000 (3.6% of the Australian population). Additionally, approximately 17.5 per cent of Australian children under the age of six live in a home where someone regularly smokes inside the dwelling.

**Table 1: Response to question, "In the last 12 months, have you or any other members of this household regularly smoked tobacco in the home?" by sex, ACT and Australia, 1998**

	ACT	Australia
	<i>Percentage</i>	
Yes inside the home	18.1	24.2
No, only smoke outside the home	23.4	19.1
No-one at home regularly smokes	58.5	56.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

Note: Includes respondents aged 14 years and over, excludes missing data.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

The proportions of households with people who smoke inside the home are high for both the ACT and Australia. Table 1 shows statistically significant lower proportions of people in the ACT than nationally regularly smoke tobacco inside the home (18% for ACT, 24% for Australia). A significant difference is still apparent when taking into consideration the lower proportions of smoking in the ACT. For example, of people who live in households with regular smokers, 44 per cent of those in the ACT have someone who regularly smokes inside the home compared to a higher proportion of 57 per cent for those in Australia generally.

### 3.3 Smoking and pregnancy

Smoking during pregnancy can be linked to health problems for both the foetus and the pregnant woman. These problems include low birthweight, preterm labour, miscarriage and perinatal death<sup>5</sup>. Smoking during pregnancy has also been linked to developmental abnormalities of the child<sup>6</sup>. Low birthweight is the most important predictor in foetal and neonatal morbidity and mortality and can cause cardiovascular disease and type 2 diabetes mellitus (non-insulin dependent) in adult life<sup>5</sup>. The serious health risk of smoking during pregnancy is of particular concern given that the uptake of smoking in young women is increasing (refer section 3.1). Although smoking rates for women in the ACT are lower than for Australia, 27.3 per cent of 18 to 24 year old ACT women and 24.8 per cent of 25 to 34 year old ACT women are current smokers (refer Figure 1, chapter 3.1).

An Australian study done in 1993 showed that up to 29 per cent of all women were smokers at the time of pregnancy<sup>7</sup>. Data from the 1998 National Drug Strategy Household Survey supports this general finding with an estimate of 27 per cent of pregnant women being current daily smokers. Current smoking status is flagged in ACT hospital morbidity data using supplementary classification ICD-9\_CM codes. Using the current smoking supplementary classification code, babies who were born in ACT hospitals in 1997-98 to women who were reported as being current smokers were at least 3.2 times more likely to have poor foetal growth than those born to other women. Furthermore, babies of smoking mothers were 3.1 times more likely to be stillborn than those of

other women, and, using total births and miscarriages as a baseline, pregnant women who were currently smoking were 80 per cent more likely to miscarry than other women. Caution should be taken in interpreting these figures as smoking during pregnancy is under reported in the ACT Hospital Morbidity Data Collection (Glossary 9.3).

Women with low levels of education and income as well as young women, single women and non-cohabiting women are more likely to smoke when pregnant<sup>8</sup>. Although the ACT Hospital Morbidity data is limited in its collection of socio-economic status, this data does show that non-cohabiting pregnant women are more likely to smoke than cohabiting ones. For example, of women who gave birth in ACT hospitals in 1997-98, 87 per cent of non-smokers were married or had a partner while only 65 per cent of current smokers were married or had a partner. This may be a reflection on the lower incomes of single mothers in general.

A study by Najman et al<sup>8</sup> showed that the desire for pregnant women to stop smoking was high (between 64 and 75%). Findings from the National Drug Strategy Household Survey 1998 (Glossary 9.4) also show that among pregnant women who were current daily smokers, only 9.4 per cent had not taken any action to reduce their nicotine intake (refer Table 2). The study also showed that although many women give up smoking when they find out they are pregnant (approximately 24% of current smokers in the study group), a steady increase of these women relapsed during the course of their pregnancy. Furthermore, of those women who did manage to give up smoking during the course of their pregnancy, a substantial number of those took up smoking again once their baby was born<sup>8</sup>.

**Table 2: Pregnant women who are current daily smokers: attempts to give up or cut down on tobacco intake, Australia, 1998**

<b>Actions taken</b>	<b>Percentage</b>
Successfully given up smoking for more than one month	11.8
Tried to give up unsuccessfully	52.2
Changed to cigarette brand with lower tar or nicotine content	50.8
Reduced the amount of tobacco smoked in a day	36.1
None of the above	9.4

Note: Totals do not add up to 100% as some women may have taken more than one action. Includes respondents aged 14 years and over, excludes missing data.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

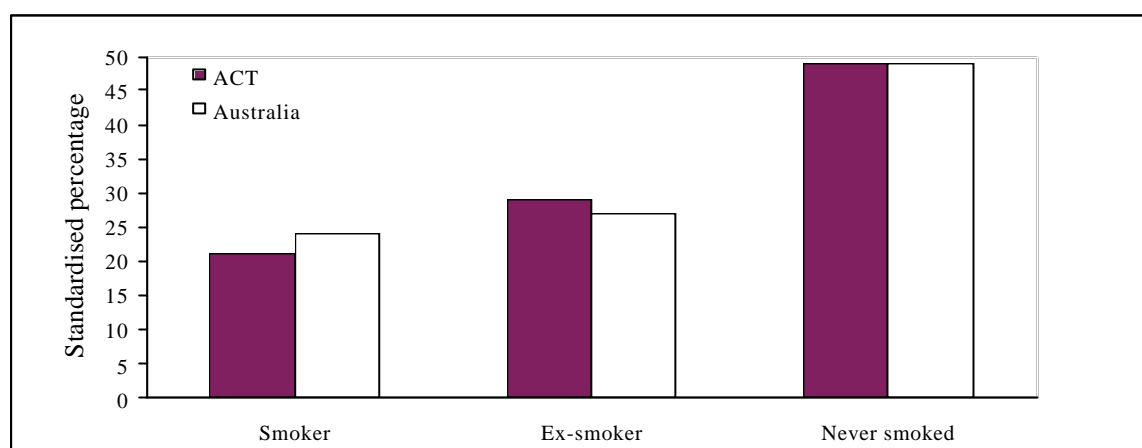
It is thought that Quit smoking programs for pregnant women need to emphasise the health benefits not just for the unborn child but also for the mother herself. Najman et al suggested that “attention needs to be paid to a mother’s total lifestyle” rather than just her smoking because “those who smoke are also more likely to drink alcohol and eat less healthy food”<sup>8</sup>. Lowe et al showed that programs aimed at helping pregnant women to quit smoking needed to be appropriate for the women concerned and that programs from overseas may not work for Australian women<sup>5</sup>.

### **3.4 Morbidity and tobacco smoking**

The leading cause of mortality and morbidity in Australia is tobacco smoking. Smoking is one of the main causes of lung cancer and it is estimated that tobacco smoking can be directly related to 30 per cent of all cancers<sup>9</sup>.

The National Health Survey 1995 reported that in the ACT, 21 per cent of adults were smokers, 29 per cent were ex-smokers and 49 per cent had never smoked. These results compare favourably with those for the rest of Australia (24%, 27% and 49% respectively) (refer Figure 2). In Australia the proportion of adults who smoke has decreased over the period from 1977 to 1995, while the number of ex-smokers has increased. The proportion of those never taking up smoking has remained similar<sup>10</sup>. In addition, there are also various health-related problems associated with smoking such as heart disease and respiratory problems<sup>11</sup>.

**Figure 2: Smoking status, persons aged 15 years and over, ACT & Australia, 1995**



Source: ABS, *National Health Survey, 1995*, unpublished data

In 1997-98, approximately 25.4 per cent of hospital separations of current smokers are in the 70-74 year age group. Furthermore, the 75-79 age group accounted for 22.4 per cent of people who had lung cancer and had a history of tobacco use. The number of separations for lung cancer in the ACT can be seen in Table 3. There were more male separations than female. Most separations occurred in the 70-74 year age groups for males and females.

**Table 3: Principal or secondary diagnosis lung cancer separations, by sex, ACT hospitals, 1997-98**

All separations for lung cancer	Males	Females	Persons
	<i>Number</i>		
Primary malignant	306	185	491
Secondary malignant	187	128	315
Other	3	3	6
<b>Total</b>	<b>496</b>	<b>316</b>	<b>812</b>

Note: Includes non-ACT residents.

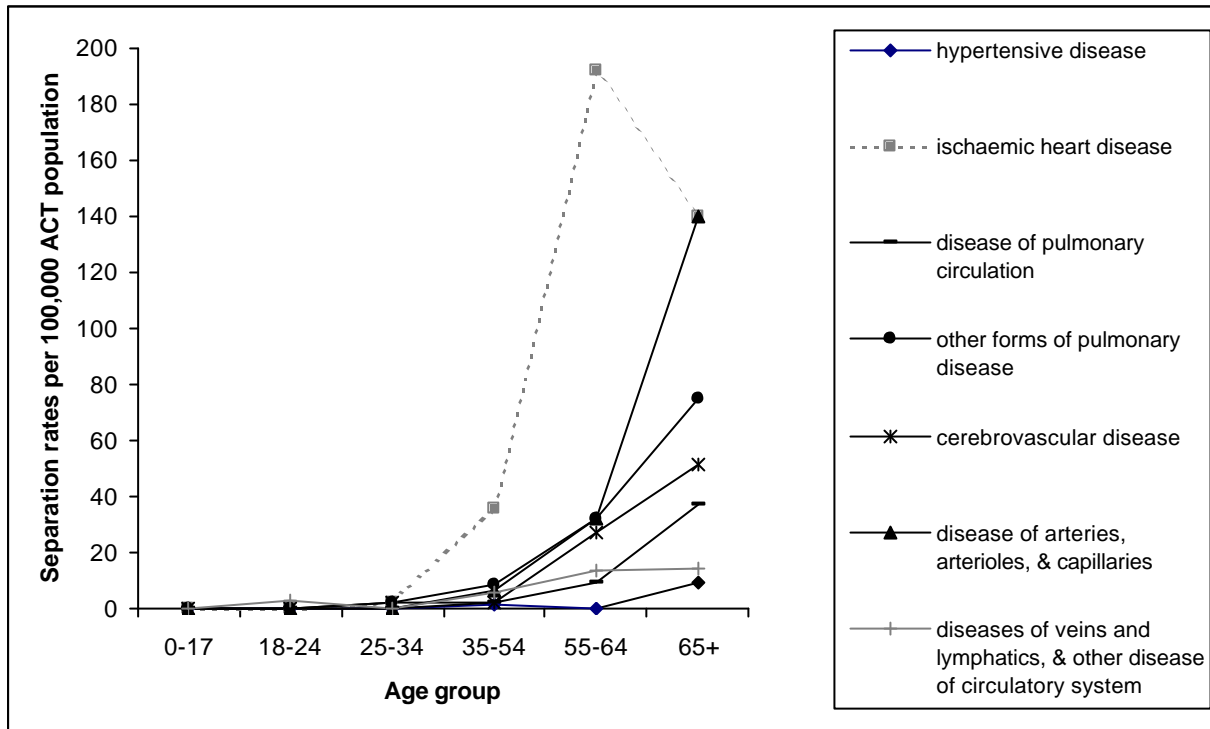
Source: ACT Hospital Morbidity Data Collection, 1997-98

Circulatory system disease separation rates for those with a history of tobacco use are highest in the 65 years plus age group. One exception to this general trend is for ischaemic heart disease where the highest separation rate occurred in the 55 to 64 year age group. This trend for ischaemic heart disease corresponds to a decrease in relative risk for current and ex-smokers over 65 years old. For example, for people aged under 65 years, current smokers are 3 times more likely and ex-smokers are 1.5 times more likely to develop ischaemic heart disease than non-smokers. However, for those aged 65 years and over, current smokers are only 1.7 times and ex-smokers 1.1 times more likely to develop the disease than non-smokers<sup>7</sup>. There were a total of 1,302 male and 582 female hospital separations for ischaemic heart disease in 1997-98. Figure 3 shows a steady increase from the 0-17 age group to the 65 plus age group for each type of circulatory disease. However, the numbers of ischaemic heart disease separations of people with a history of tobacco use gradually decreases from age 65 onwards. Generally the separation rates for history of tobacco use and other diseases of the circulatory system increased as age increased, except for ischaemic heart disease.



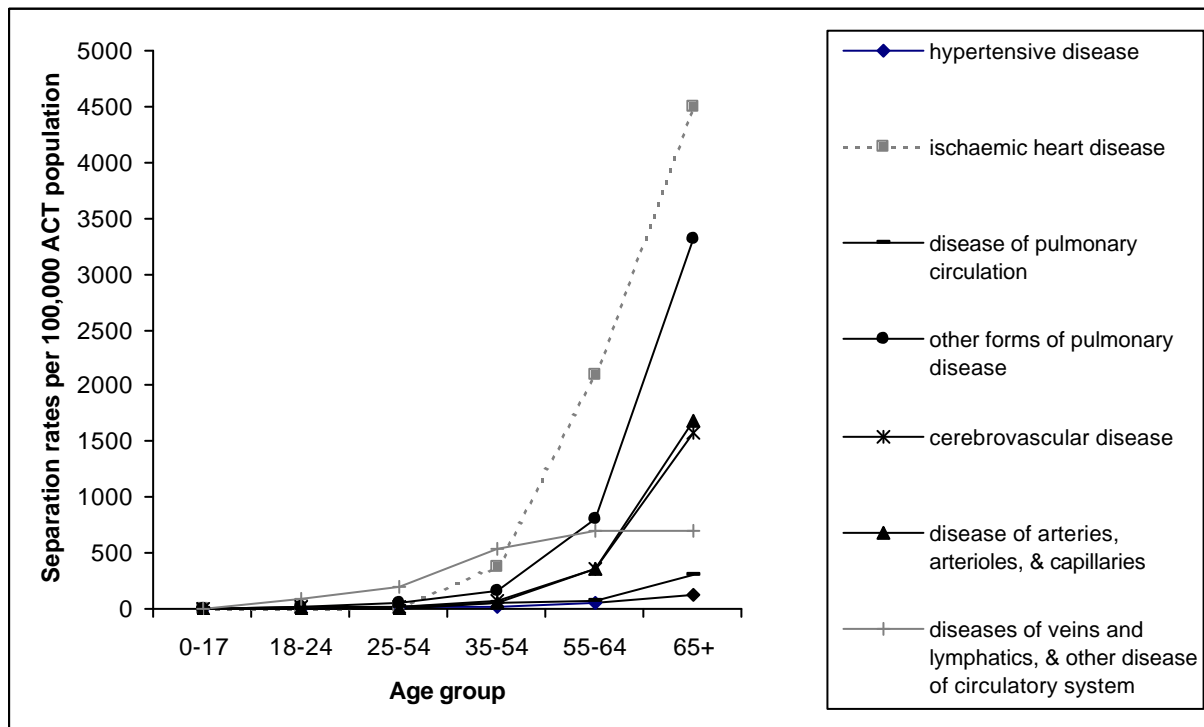


**Figure 3: Separation rates for people who have a history of tobacco use and have circulatory disease, by age group, ACT hospitals, 1997-98**



Note: Includes non-ACT residents.  
 Source: ACT Hospital Morbidity Data Collection, 1997-98

**Figure 4: Separation rates for people who have no recorded history of tobacco use and have circulatory disease, by age group, ACT hospitals, 1997-98**



Note: Scale is different to Figure 3;  
 Includes non-ACT residents.

Source: ACT Hospital Morbidity Data Collection, 1997-98

Table 4 details the percentage of separations of people with respiratory diseases who have a history of tobacco use. Chronic obstructive pulmonary disease and allied conditions outnumber the other types of respiratory diseases and there appears to be the highest number of separations in the 60-69 and 70-79 age groups. Cigarette smoking is a significant risk factor for chronic obstructive pulmonary disease and it is estimated that 82 per cent of male and 76 per cent of female incidence of bronchitis and emphysema incidence can be attributed to smoking<sup>7</sup>. The main types of chronic obstructive pulmonary disease and allied conditions are bronchitis, emphysema, asthma and other diseases. The breakdown of these diseases as a proportion of chronic obstructive pulmonary disease and allied conditions is as follows: bronchitis (8.5%), emphysema (22.5%), asthma (11.3%), and other diseases (57.7%).

**Table 4: Percentage of separations for people with a disease of the respiratory system and a history of tobacco use, by age, ACT hospitals, 1997-98**

Age	Other diseases of upper respiratory tract	Pneumonia & influenza	Chronic obstructive pulmonary disease & allied conditions	Other diseases of respiratory system	Total
<i>Percentage</i>					
0-19	-	-	1.4	-	0.9
20-29	23.5	12.5	1.4	-	6.1
30-39	5.9	6.3	-	-	1.8
40-49	35.3	12.5	4.2	10.0	10.5
50-59	29.4	6.3	8.5	50.0	14.9
60-69	-	25.0	36.6	20.0	28.1
70-79	5.9	25.0	39.4	20.0	30.7
80-89	-	12.5	7.0	-	6.1
90-94	-	-	1.4	-	0.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Note: History of tobacco use refers to people who previously to smoked tobacco, but no longer do  
Includes non-ACT residents.

Source: ACT Hospital Morbidity Data Collection, 1997-98

Similarly, for current smokers, chronic obstructive pulmonary disease and allied conditions have the highest separations for disease of the respiratory system. The highest number of separations was the 60-69 year age group. Table 5 shows that overall in 1997-98 the 40-49 year age group had the highest number of separations for disease of the respiratory system.

**Table 5: Percentage of separations for people with a disease of the respiratory system and are current tobacco users, by age, ACT, 1997-98**

Age	Acute respiratory system	Other diseases of the upper respiratory tract	Pneumonia & influenza	Chronic obstructive pulmonary disease & allied conditions	Pneumonoco-nioses & other related lung diseases	Other diseases of respiratory system	Total
<i>Percentage</i>							
0-19	10.5	22.8	2.9	5.4	-	6.7	10.1
20-29	26.3	23.9	8.7	9.0	-	11.1	14.2
30-39	21.1	15.2	20.3	3.6	-	17.8	13.0
40-49	10.5	19.6	21.7	11.7	50.0	17.8	16.9
50-59	15.8	12.0	11.6	10.8	50.0	13.3	12.1
60-69	5.3	5.4	7.2	23.4	-	8.9	12.1
70-79	10.5	1.1	20.3	18.9	-	15.6	13.3
80-89	-	-	7.2	16.2	-	8.9	8.0

90+	-	-	-	0.9	-	-	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Note: Includes non-ACT residents.

Source: ACT Hospital Morbidity Data Collection, 1997-98

### 3.5 Mortality from smoking and lung cancer

In Australia, approximately 84 per cent of male and 77 per cent of female lung cancers can be attributed to cigarette smoking<sup>7</sup>. Between 1993 to 1997, an average of 56 people died per year in the ACT (Glossary 9.5) due to malignant neoplasm (cancer) of trachea, bronchus and lung. Nearly all the malignant neoplasms were located in the bronchus and lung. Most of these were for males (63 %) and 87 per cent of them were for people aged 55 years and over.

In 1997, multiple causes of death were recorded on the ABS death data. During this year deaths were recorded as having tobacco harm as a contributing factor of death. The principle cause of death in these cases included lung cancer, ischaemic heart disease, peripheral vascular disease, emphysema and asthma. In 1997-98 there were 34 male and 26 female deaths from chronic obstructive pulmonary disease (including emphysema and asthma) and 162 male and 102 female deaths from ischaemic heart disease.

### 3.6 Tobacco policy

“From Harm to Hope: ACT Drug Strategy 1999” aims to limit tobacco use through promoting healthy lifestyles, restricting access to tobacco for minors, building upon existing demand reduction measures especially in children, and minimising community exposure to passive smoking. The 1998 National Drug Strategy Household Survey shows that there is strong support for stricter law enforcement against supplying cigarettes to minors and banning smoking in public places. Of people in the ACT, 64.2 per cent supported or strongly supported banning tobacco advertising at sporting events (refer Table 6).

**Table 6: Percentage supporting or strongly supporting measures to reduce tobacco problems, by state or territory, 1998**

<b>Tobacco problem reduction measure</b>	<b>NSW</b>	<b>VIC</b>	<b>QLD</b>	<b>SA</b>	<b>WA</b>	<b>TAS</b>	<b>NT</b>	<b>ACT</b>	<b>AUST</b>
Stricter enforcement of the law against supplying cigarettes to customers who are under age	88.5	88.6	88.1	89.4	88.8	88.3	77.9	89.6	88.5
Banning smoking in shopping centres	80.8	81.9	77.8	85.4	82.3	83.3	76.6	85.3	81.2
Banning smoking in the workplace	79.5	78.8	75.0	83.1	77.6	80.7	73.7	85.0	78.7
Banning smoking in restaurants	77.8	73.8	73.5	79.0	75.0	79.0	71.0	80.3	75.9
Increasing the tax on tobacco products to contribute to the cost of treating smoking related diseases	66.4	64.5	62.7	65.9	63.7	65.0	59.4	66.4	64.8
Increasing the tax on tobacco products to pay for health education programs	62.6	59.0	60.1	60.3	59.2	59.5	57.6	64.1	60.6

Banning tobacco advertising at sporting events	61.7	59.4	54.6	65.2	63.7	61.5	54.9	64.2	60.3
Increasing the tax on tobacco products to discourage people from smoking	62.4	58.2	57.1	59.9	55.8	58.7	54.1	58.7	59.3
Banning smoking in pubs/clubs	52.7	48.8	43.4	51.2	45.9	50.0	45.0	54.5	49.1

Note: Includes respondents aged 14 years and over, includes missing data.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

Drug education in schools is primarily the responsibility of the ACT Department of Education and Community Services. In 1999, this Department will release “The Drug Education Policy Framework for ACT Government Schools”.

The 1996 Secondary Schools Survey estimated that more than 75 per cent of students had received at least part of a lesson about tobacco smoking in the year prior to the survey (1995).

The percentage of students who self-reported that they had at least part of a lesson about tobacco smoking decreased steadily from 75 per cent in year 7 to 43 per cent in year 12.

## 4 Alcohol

Not all consumption of alcohol is harmful. In fact, light to moderate alcohol consumption can reduce the risk of coronary heart disease. However, excessive drinking can have negative effects on short-term and long-term health. For example, short-term consequences include poor co-ordination and judgement, which increases the risks of car accidents, vomiting, memory loss and unconsciousness. Long-term effects include liver, brain and pancreas damage, heart and blood disorders and gastrointestinal ulcers<sup>12</sup>. Drinking during pregnancy can also harm the foetus.

### 4.1 Alcohol consumption

The 1998 National Drug Strategy Household Survey showed that approximately 10 per cent of people over the age of 14 years in the ACT drank at harmful levels (see glossary for definition of drinking level). This was similar to Australian figures where 12.5 per cent drank at harmful levels. The age group with the highest level of harmful drinking was the 18 to 24 year olds. In the ACT, 31 per cent of 18 to 24 year olds drank at harmful levels compared to 34 per cent nationally. On the occasions that they drank, 14 to 17 year olds also consumed alcohol at harmful levels with 23 per cent in the ACT and 24 per cent Australia wide. Of Indigenous Australians Nationally, 74 per cent consumed alcohol and of these 56 per cent of males and 73 per cent of females usually did so at hazardous or harmful rates<sup>13</sup>.

Results from the 1995 National Health Survey also showed that 18 to 24 year olds drank at high levels. Table 7 shows that for females in both the ACT and Australia, the highest percentage of hazardous or harmful drinkers are in the 18 to 24 year group, while for males, 25 to 34 year olds are

the heaviest drinkers. For both males and females in the ACT and nationally, the 35 to 54 year olds are most likely to drink at low risk levels.

**Table 7: Percentage of drinking levels by age group, by sex, ACT and Australia, 1995**

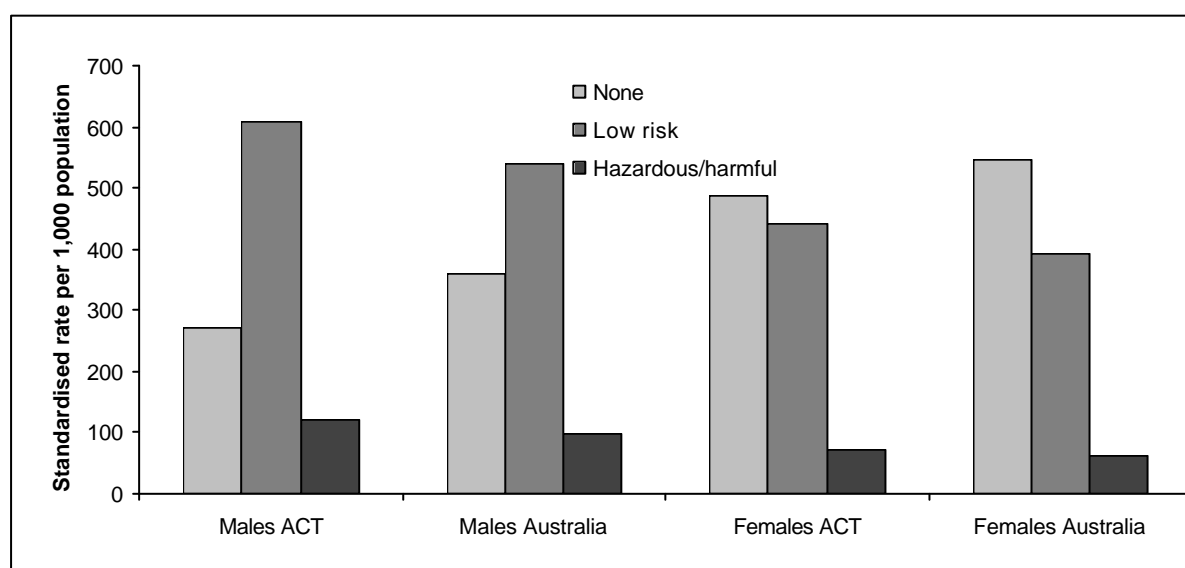
Age group	None		Low risk		Hazardous/harmful	
	ACT	Australia	ACT	Australia	ACT	Australia
<b>Males</b>						
18-24	39.3	39.7	47.1	49.7	13.6	10.6
25-34	23.1	30.7	61.7	56.6	15.2	12.8
35-54	19.5	30.3	69.8	58.4	10.7	11.4
55-64	22.2	38.7	63.5	52.4	14.3	8.9
65+	26.9	40.5	63.2	53.0	9.9	6.5
<b>Total</b>	<b>25.1</b>	<b>34.2</b>	<b>62.3</b>	<b>55.2</b>	<b>12.6</b>	<b>10.6</b>
<b>Females</b>						
18-24	48.3	51.4	41.3	40.5	10.4	8.1
25-34	48.5	51.4	45.3	43.1	6.2	5.6
35-54	39.9	50.7	54.4	43.0	5.7	6.3
55-64	55.2	59.5	37.5	34.7	7.3	5.9
65 +	52.6	65.3	39.1	29.5	8.2	5.2
<b>Total</b>	<b>46.1</b>	<b>54.5</b>	<b>46.8</b>	<b>39.3</b>	<b>7.1</b>	<b>6.1</b>

Note: For definitions of low risk and hazardous/harmful risk refer to Section 9.6 Definitions

Source: ABS, *National Health Survey, 1995*, unpublished data

Taking age and sex into consideration, people in the ACT tend to drink at higher levels than people nationally and, males are heavier drinkers than females. ACT males have the highest rate of low risk drinking (Figure 5). However, they also have the lowest rate of non-drinking and a higher rate of harmful or hazardous drinking.

**Figure 5: Alcohol consumption level rates by sex, ACT and Australia, 1995**



Note: Excludes people less than 18 years old.

For definitions of low risk and hazardous/harmful risk refer to Section 9.6 Definitions

Source: ABS, *National Health Survey, 1995*, unpublished data

The 1996 ACT Secondary Schools Survey showed that more than 43 per cent of all year 7 to 12 students described themselves as non-drinkers, 26 per cent as occasional drinkers and 24 per cent as party drinkers. Of all students who responded as non-drinkers, the majority were in years 8 (27%) and 9 (25%). On the other hand, the percentage of party drinkers seemed to increase with higher grades, ranging from 6 per cent of year 7 respondents to 40 per cent of year 12 respondents. Approximately 80 per cent of year 7 and 8 students had not had more than 3 drinks in the last 2

weeks. This percentage decreased with age. When asked whether they had consumed alcohol in the last 4 weeks, 25 per cent of year 7 respondents and up to 71 per cent of year 12 respondents admitted that they had.

Alcoholic beverage preferences differed significantly between male and female students. Male current drinkers preferred beer while among females, spirits were the most preferred. Of all respondents who had had a drink, more than 35 per cent received their last drink from their parents. However, 22 per cent received their last drink from their friends and 16 per cent got someone else to buy the alcohol for them. The proportion of students who had ever tried to buy alcohol increased with year level from 7 per cent for males and 3 per cent for females in year 7 to 60 per cent of males and 51 per cent of females by year 12.

#### **4.2 Motor vehicle traffic accidents**

The involvement of alcohol in motor vehicle fatalities is well documented<sup>14 15</sup> and there is an increasing probability of an accident with increasing blood alcohol concentration (BAC). There is sufficient evidence that alcohol causes road injuries<sup>16</sup>, particularly fatal injuries<sup>17</sup>. The overall proportion of road injuries attributable to driving with a BAC over 0.05g/100ml has been estimated at 37 per cent for males and 18 per cent for females.

Drinking and driving has been prevalent amongst Australian males, though there have been some improvements. Between 1977 and 1989 there was a decline in the proportion of fatally injured drivers and motorcyclists with a BAC exceeding 0.05/100ml from 49 per cent to below 30 per cent<sup>18</sup>. However, drink driving still remains a significant issue with fatal motor traffic accidents.

Unfortunately, the International Classification of Diseases code used by the ACT hospitals for the cause of death does not have information to identify the alcohol or drug issued which caused the accident.

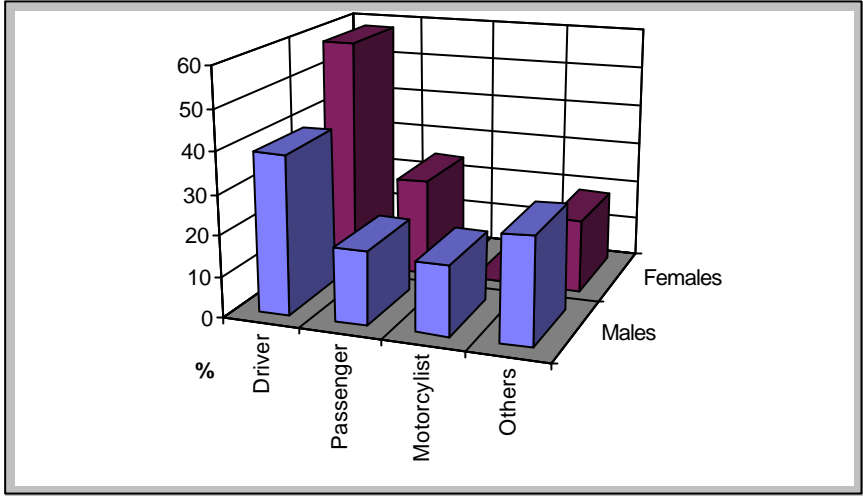
Between 1993 and 1997 an average of 21 people died in the ACT annually due to motor vehicle traffic accidents. 45 per cent of those killed were the driver of the motor vehicles and 42 per cent involved colliding with another motor vehicle.

Males were much more likely than females to die (69 %) in the ACT motor vehicle traffic accidents. Thirty nine per cent of those males who died in the accidents were drivers of the motor vehicle, 18 per cent were passengers of the motor vehicle, 17 per cent were motorcyclists and the rest were other drivers, cyclist etc.

On average nearly 7 females died per year due to motor vehicle traffic accidents (1993 to 1997). Most of them (58 %) were drivers of the motor vehicle, 29 per cent were passengers of the motor vehicle. However, it is interesting to note that there were no female motorcyclists who died in the ACT in this 5 year period (Figure 6).



**Figure 6: Percentage of motor vehicle traffic accident deaths, ACT, 1993 - 1997**



Source: ABS, Causes of Death ACT, 1993-97, unpublished data

Nearly half (42 %) of the people who died in motor vehicle traffic accidents were under 25 years of age. Thirty per cent were between 18 - 24. A further 12 per cent were children under 17 years who were mainly passengers of the motor vehicle.

**4.3 Mortality and alcohol**

During the period 1993 - 1997, an average of 13 people died per year due to chronic liver disease and cirrhosis. Most of the deaths (64 %) were due to alcoholic liver damage. All deaths were for people over 25 years. In fact, 42 per cent of the deaths were for people aged 65 and over and 27 per cent of them were aged between 55 - 64. A majority (72 %) of those who died due to chronic liver disease and cirrhosis were males.

For the five year period, 17 persons died in the ACT with alcohol dependence. Approximately 82 per cent were male.

**Table 8: Underlying cause of death for alcohol dependence, ACT, 1993-97**

Sex	Number of deaths
Male	14
Female	3
<b>Total</b>	<b>17</b>

Source: ABS, Causes of Death ACT, 1993-97, unpublished data

Multiple cause of death were first collected in 1997. In addition to the above, 8 people died in the ACT from causes that were related to alcohol dependence.

**4.4 Alcohol policy**

The ACT Drug Strategy 1999 aims to reduce alcohol related problems through promoting healthy lifestyles, legislating for the responsible serving of alcohol on licensed premises, maintaining programs

targeting the illegal serving of alcohol to minors and maintaining close scrutiny of liquor licence applications. The strategy also aims to provide education in schools, for families and the community, continue treatment options and discourage drink driving through education and random breath testing<sup>1</sup>.

The 1998 National Drug Strategy Household Survey showed that a clear majority of people supported more severe legal penalties for drunken drivers and stricter enforcement of the law against serving customers who are under the influence of alcohol. However, there was less support for raising the legal age of drinking and reducing trading hours for pubs and clubs (refer Table 9).

According to the 1996 ACT Secondary School Students' Survey, more than 50 per cent of students had received at least part of a lesson about alcohol in the year prior to the survey. The percentage of students who reported they had at least part of a lesson about alcohol decreased steadily from 82 per cent in year 7 to 54 per cent in year 12.

**Table 9: Percentage supporting or strongly supporting measures to reduce alcohol problems, by state or territory, 1998**

<b>Alcohol problem reduction measure</b>	<b>NSW</b>	<b>VIC</b>	<b>QLD</b>	<b>SA</b>	<b>WA</b>	<b>TAS</b>	<b>NT</b>	<b>ACT</b>	<b>AUST</b>
More severe legal penalties for drivers who are drunk	89.3	86.4	88.0	86.1	83.3	85.1	81.0	85.6	87.3
Stricter enforcement of the law against serving customers who are drunk	85.4	85.8	85.0	82.4	81.7	86.9	81.6	84.5	84.8
Limiting advertising for alcohol on TV until after 9:30 pm	73.2	70.5	69.2	74.0	68.8	73.4	72.5	72.5	71.4
Serving only low alcohol drinks, such as low alcohol beer at sporting events or venues	72.2	69.4	68.9	66.3	70.5	70.9	64.8	61.9	70.0
Increasing the number of alcohol-free zones or drv areas	71.6	63.6	64.6	74.0	62.0	63.7	69.7	66.1	67.3
Increasing the number of alcohol-free public events	66.1	66.6	63.9	68.0	62.6	63.2	62.4	62.4	65.5
Banning alcohol sponsorship of sporting events	46.9	44.2	38.5	46.5	42.6	42.0	46.6	42.8	44.0
Raising the legal drinking age	40.2	36.3	46.2	43.9	42.6	47.7	33.0	29.4	40.8
Reducing trading hours, for all pubs and clubs	39.3	31.7	33.9	31.3	27.5	35.1	34.4	34.6	34.4
Reducing the number of outlets that sell alcohol	35.3	35.3	33.2	29.4	28.6	31.1	45.5	31.3	33.7
Increasing the price of alcohol	27.3	26.5	26.8	24.5	23.2	22.8	32.1	23.9	26.3
None of the above	1.6	3.1	2.2	2.1	1.9	2.4	3.4	2.3	2.2
Don't know/ not stated	2.2	1.1	1.3	1.0	1.3	.7	.9	1.4	1.5

Note: Includes respondents aged 14 years and over, includes missing data.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

## 5 Cannabis

Cannabis consumption can cause a number of immediate disorders such as anxiety, panic, paranoia, difficulty concentrating, memory loss, and impairment of motor skills. Long-term effects include an increased risk of experiencing psychotic symptoms, an inability to control or abstain from using the drug, and some forms of cognitive impairment such as difficulty in concentration and memory loss. These effects may continue after cannabis use has ceased<sup>19</sup>. Cannabis can cause throat and lung damage and it has been estimated that in terms of lung damage, approximately half a teaspoon of cannabis is equivalent to smoking five tobacco cigarettes<sup>20</sup>. There is also evidence to suggest that long-term use may retard male sperm maturation and quality<sup>21</sup>.

## 5.1 Cannabis use

Findings from the 1998 National Drug Strategy Household Survey showed most people who had used cannabis in the 12 months prior to interview had usually obtained it from a friend or acquaintance (79.2% ACT, 85.6% Aust). More so than males, females in the ACT and nationally tend to obtain their cannabis from a friend, acquaintance, spouse or partner rather than buying or growing it themselves. Table 10 shows that of people who have used cannabis in the past twelve months, a significantly higher proportion of ACT males (18.5 %) grew it themselves compared to males nationally (4.8 %). In the ACT, 3.3 per cent of males usually obtained their cannabis from a street dealer while for males nationally it was higher at 7.4 per cent. However, this difference was not statistically significant.

**Table 10: Responses to question, 'Where do you usually obtain cannabis from now?', persons who used cannabis in the past twelve months, ACT and Australia, 1998**

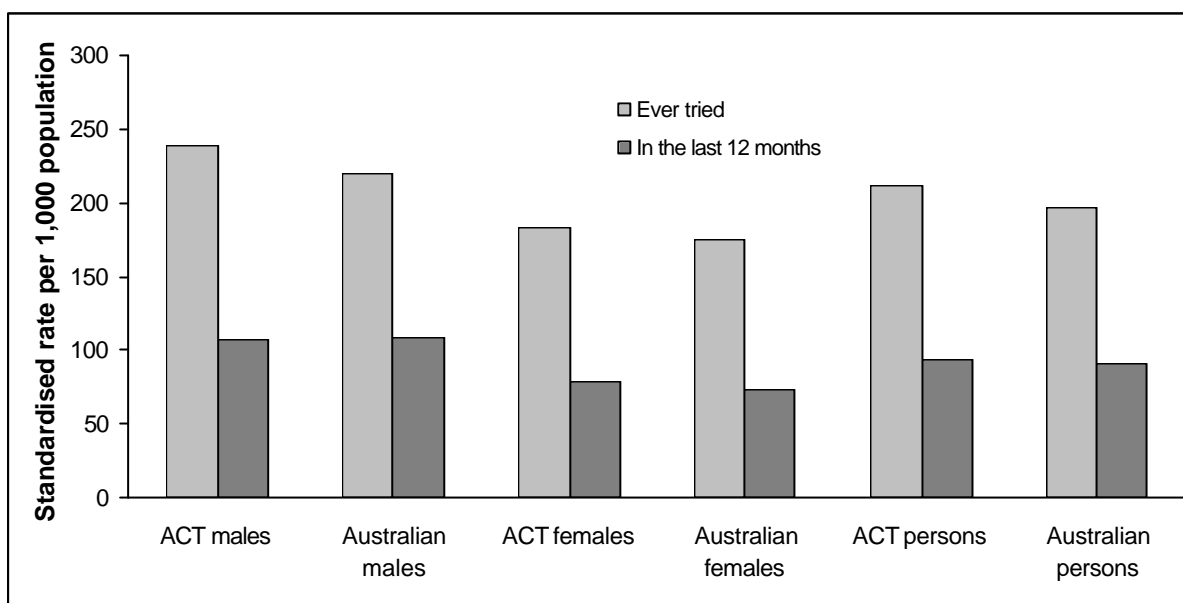
	Male		Female		Persons	
	ACT	Australia	ACT	Australia	ACT	Australia
	<i>Percentage</i>					
Friend or acquaintance	75.3	85.3	84.3	86.0	79.2	85.6
Brother or Sister	1.0	1.3	1.0	1.7	1.0	1.4
Parent	-	-	-	0.4	-	0.2
Spouse or Partner	-	0.2	7.0	5.0	3.1	2.1
Other relative	-	0.5	-	1.1	-	0.7
Street dealer	3.3	7.4	2.3	2.4	2.9	5.4
Steal it	-	0.1	-	-	-	0.1
Other	1.9	0.5	2.3	1.7	2.1	1.0
Grow It	18.5	4.8	3.1	1.7	11.8	3.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Baseline: Persons who used cannabis in the past 12 months.

Note: Includes respondents aged 14 years and over, excludes missing data.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

Generally, a significantly higher rate of Australian males than females have ever tried, or have used cannabis in the past 12 months (refer Figure 7). Compared to Australia, a significantly higher rate of people in the ACT had ever tried cannabis (standardised rate: 211.2 per 1,000 for ACT, 197.5 per 1,000 for Australia). However, there was no significant difference in the rate of people in the ACT and Australia who had used cannabis in the last 12 months (standardised rate: 93.0 per 1,000 population in the ACT compared to 91.2 per 1,000 nationally). There was no significant difference when comparing ACT males with their Australian counterparts, nor was there a difference between ACT and Australian females' usage of cannabis in the last 12 months.



**Figure 7: Use of cannabis by sex, ACT and Australia, 1998**

Note: Standardised to 1991 Australian population.  
Includes respondents aged 14 years and over.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

Of people who had used cannabis in the last 12 months, about 41.4 per cent in the ACT and 45.2 per cent Australia wide used the drug at least once a week. There is no statistically significant difference between these proportions. However, there was a significant difference between ACT males and females with more ACT males using the drug at least once a week (50.7%) than ACT females (29.4%). The average age that cannabis was first used was similar for ACT (18.5 years old) and Australia (18.2 years old).

Approximately 71.7 per cent of people who had used cannabis in the last 12 months in the ACT and 74.6 per cent in Australia had used other drugs at the same time as using cannabis. ('Other drugs' includes alcohol.) Although there was a higher proportion Australia wide, this was not significant. Significantly more Australian males than females had used other drugs at the same time as using cannabis (79.2% of Australian males compared to 68.2% of Australian women). There was no significant difference between the proportion of ACT males and ACT females who had used other drugs at the same time as cannabis (73.1% of ACT males, 69.8% ACT females).

According to the 1996 ACT Secondary School Students' Survey, more than 50 per cent of males in years 10, 11 and 12 reported having used cannabis at some stage of their life. Reported levels among females were slightly lower, although about 58 per cent of females in year 12 reported use of this drug at some stage.

## 5.2 Cannabis policy

Most people in all states and territories (over 90 %) are aware that supplying cannabis to others is an illegal activity. However, when asked whether selling a small amount of cannabis to someone for personal use was legal or illegal, 3.1 per cent in the ACT said it was legal (1.8% for Australia), and a further 6.6 per cent were unsure whether it was legal or illegal (4 % in Australia). There was greater uncertainty about whether possessing small quantities of cannabis for personal use was legal or illegal with 54.3 per cent of people in the ACT believing it to be legal compared to 16.8 per cent nationally (refer Table 11). Of concern also was the proportion of people who thought that driving a vehicle after smoking cannabis was legal (18.4% in the ACT and 10.0% in Australia). A further 17.5 per cent in the ACT (12.7% nationally) were unsure or did not know.

**Table 11: Percentage of responses to question; "as far as you are aware, are the following activities legal or illegal in this State or Territory? Possess small quantities of cannabis for personal use", ACT and Australia, 1998**

Legal status	ACT	Australia
Legal	54.3	16.8
Illegal	32.8	72.3
Unsure/don't know	12.1	9.9
Don't know/not stated	0.8	0.9

Note: Includes respondents aged 14 years and over, includes missing data.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

It appears that the legal status of cannabis for personal use has little effect on people's intended cannabis usage behaviour. For example, 76.6 per cent of people in the ACT would not use marijuana whether it was legal or not and 12.8 per cent would use it about the same as they currently do. This adds to a total of 89.4 per cent who would not change their current behaviour if possession of small amounts of cannabis for personal use was made legal. However, this information does not take age into consideration. National data shows that up to 13.4 per cent of 14 to 19 year olds would try marijuana if it were made legal and a further 3.2 per cent said they would use it more often than they do now. It must be noted that this age group contains young people who may try marijuana in the future whether the drug is made legal or not. For example, 44 per cent of 14 to 19 year olds in Australia have tried marijuana while 59.5 per cent of 20 to 39 year olds have tried it.

**Table 12: Percentage of responses to question; "If cannabis were legal to use, would you...", ACT and Australia, 1998**

Intended behaviour	ACT	Australia
Not use it, even if it were legal and available	76.6	79.4
Try it	4.1	5.2
Use it about as often as I do now	12.8	9.9
Use it more often than I do now	1.6	0.9
Use it less often than I do now	1.1	0.6
Don't know	2.6	2.9
Don't know/ not stated	1.1	1.2

Note: Includes respondents aged 14 years and over, includes missing data.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

A small majority (56.2%) of people in the ACT believe that possession of small amounts of cannabis for personal use should be legal and a further 16.4 per cent believe it should be illegal but not a criminal offence. By contrast, 14.5 per cent in the ACT believe it should be a criminal offence (refer Table 13).

**Table 13: Percentage of responses to the questions: "In your opinion, should the possession of small quantities of cannabis for personal use be legal or illegal?" and "Do you think the possession of small quantities of cannabis for personal use should be a criminal offence, that is, should offenders acquire a criminal record?", ACT and Australia, 1998**

Preferred legal status	ACT	Australia
Should be legal	56.2	42.7
Should be a criminal offence	14.5	25.9
Should be illegal, but not a criminal offence	16.4	18.2
Should be illegal, but not sure about being a criminal offence	5.2	5.9
Not sure if legal and not sure about being a criminal offence	2.3	2.7
Not sure if legal but should not be a criminal offence	5.0	3.9
Not sure if legal but should be a criminal offence	0.3	0.7

Note: Includes respondents aged 14 years and over.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

**Table 14: Percentage of responses to question; "What single category best describes what you think should happen to anyone found in possession of small quantities of cannabis for personal use?", ACT and Australia, 1998**

Preferred consequences for use	ACT	Australia
A caution or warning only	12.8	11.8
Something similar to a parking fine, up to \$200	20.2	20.0
A compulsory drug education program	36.0	34.8
A substantial fine, around \$1,000	13.0	15.9
A community service order	7.2	5.4
Weekend detention	1.1	1.1
A gaol sentence	2.2	4.1
Some other arrangement	3.1	3.7
Don't know/ not stated	4.4	3.2

Note: Includes respondents aged 14 years and over, includes missing data.

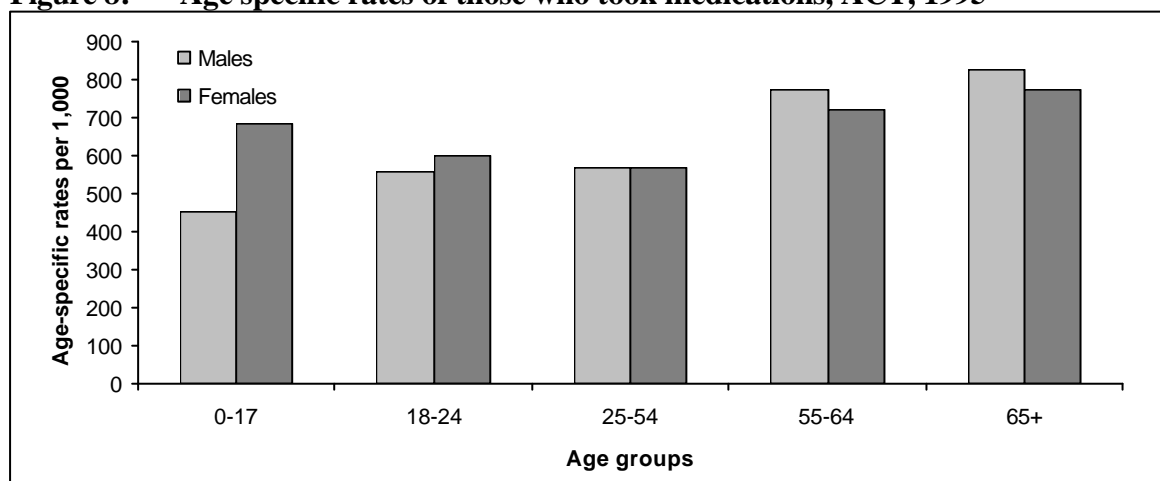
Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

## 6 Medications

Some of the possible harms associated with the use of pharmaceutical drugs include short-term side effects, longer-term dependency and the risk of overdose<sup>23</sup>. While males tend to use alcohol, tobacco, cannabis and other illegal drugs at higher rates than females, over-the-counter and prescription drugs are used at higher rates by females than males. According to a study on injury among Australian women<sup>22</sup>, 10 to 14 year old girls are treated for overdoses of painkillers at 14 times the rate for boys. More so in the past than currently, analgesics and tranquillisers have been seen as culturally acceptable drugs for women to use as a ‘coping mechanism’. The use of medications by many women occurs privately rather than for instance, at a social function – a common setting for alcohol consumption. The result of the context of this use is that these substances may foster the adaptation of women to destructive social circumstances. In other words, the medications can block out the very real stresses and disadvantages in some women’s lives and may prevent the women from dealing with these problems in a more positive way<sup>22</sup>.

The 1995 National Health Survey showed that more females than males use over-the-counter and prescription medications (57% males, 63% females). Although they are fairly evenly matched, in the younger age groups, a higher rate of females use medications and in the older age groups, more males use medications (refer Figure 8).

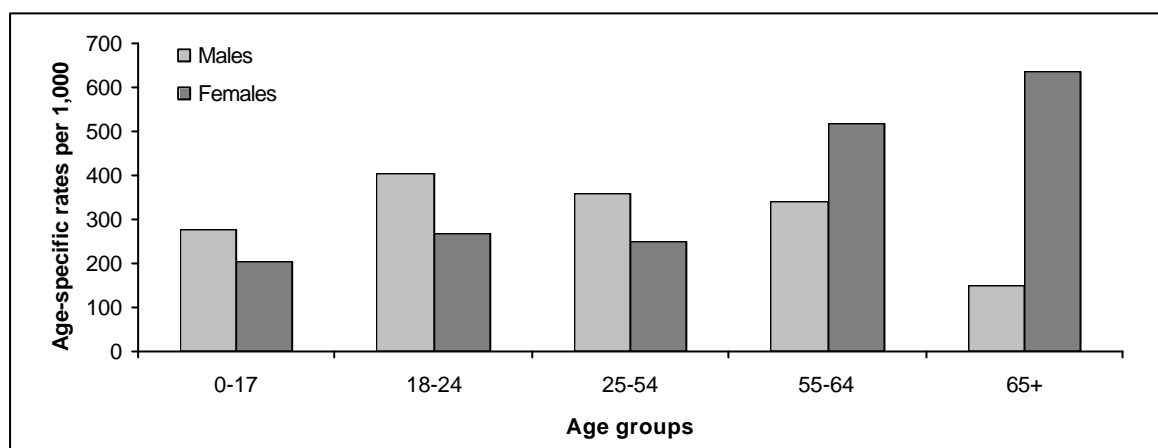
**Figure 8: Age specific rates of those who took medications, ACT, 1995**



Source: ABS, *National Health Survey, 1995*, unpublished data

However, when it comes to using medications without the advice of a health professional, the opposite pattern applies. More males than females used medications without the advice of a health professional (33% of males, 29% of females). In the younger age groups, a higher rate of males used medications without advice than females, and in the older age groups, women used medications without advice more than the males (refer Figure 9).

**Figure 9: Age specific rates of those who took medication without advice of health professional, ACT 1995**



Source: ABS, *National Health Survey, 1995*, unpublished data

Although a large proportion of people used medications without the advice of a health professional, very few people took these medications regularly.

### 6.1 Pain killers and analgesics

While the National Health Survey was concerned with both medical and non-medical use of medications, the 1998 National Drug Strategy Household Survey asked respondents about their use of medications for non-medical purposes only. According to this survey, the non-medical use of pain killers and analgesics was similar for both ACT males and females with 9.3 per cent of ACT males and 10.6 per cent of ACT females having ever used pain killers for non-medical purposes. The highest usage rates tended to be among the 18 to 24 year old age group. Of those who had ever used pain killers and analgesics for non-medical purposes, approximately 55 per cent in the ACT and 48 per cent Australia wide had used them in the last 12 months. No significant difference was found between these rates.

The 1996 ACT Secondary School Students' Survey found that pain killers/analgesics were the most commonly reported drug used by ACT students. Almost all students used them at some time. Approximately 94 per cent of males and 97 per cent of females across all year levels had used pain killers in the last 12 months. Of respondents who reported using these drugs within the previous week, 60 per cent were female.

### 6.2 Tranquillisers and sleeping pills

In general, the 1998 National Drug Strategy Household Survey found that a higher rate of females than males tended to use tranquillisers and sleeping pills for non-medical purposes than males. For the ACT, the survey showed that 5.9 per cent of males and 9.2 per cent of females had used tranquillisers for non-medical purposes. However, some caution should be taken when interpreting these figures as no significant difference was found.

According to the 1996 ACT Secondary School Students' Survey, less than 2 per cent of females across all year levels had used sedatives or tranquillisers (other than for medical reasons) in the last



week. The prevalence of males ranged from 1.1 per cent in year 11 to 7.7 per cent in year 8. About 80 per cent of males across year levels had never used sedatives or tranquillisers (other than for medical reasons). Similar levels of females had never used sedatives, although the percentage of females who denied using these substances was slightly higher in most year levels than for males.

### **6.3 Barbiturates**

The 1998 National Drug Strategy Household Survey showed that significantly more Australian males had ever tried barbiturates for non-medical purposes when compared to their female counterparts (2.2% for males, 1.0% females). While no significant difference was found for the ACT, the figures follow national trends with more ACT males having ever tried barbiturates for non-medical purposes when compared to ACT females (ACT males 3.2%, ACT females 1.0%). Although non-medical barbiturate use was higher for ACT males than their Australian counterparts, this was not found to be significant.

### **6.4 Steroids**

Life-time use of steroids for non medical purposes was not common. Significantly more Australian males had ever used steroids for non-medical purposes than Australian females (1.2% males, 0.4% females). Due to very low numbers, steroid use figures for the ACT are unreliable.

Less than 2 per cent of secondary school students reported the use of steroids at some time according to the 1996 ACT Secondary School Students' Survey. Males were more likely to report use of these drugs.

## **7 Other drugs**

Although of all the drugs, tobacco smoking and alcohol cause the most morbidity and mortality, there is public concern about use of drugs such as heroin, amphetamines and other illegal drugs especially since the health consequences tend to effect younger people. Many of the long-term effects of illegal drugs are unknown. Limited research suggests that long-term use of ecstasy may lead to nerve or brain cell damage. Other long-term effects include physical dependence to drugs such as heroin and amphetamines and the withdrawal symptoms associated with this dependence. Short-term effects of drugs such as ecstasy and amphetamines include abnormally fast heart beat, depression, anxiety, hallucinations, paranoia, panic, sleep problems and weight loss. Short-term effects of heroin include difficulty in concentrating and the risk of overdose that can lead to long term disability or death<sup>23</sup>.

However, making young people aware of the dangers of illegal drug use cannot stop its use entirely and a harm minimisation approach to drug education for young people is needed. For example, the 1996 ACT Secondary School Students' Survey showed that those who had never used illegal drugs were more likely than those who had used them in the past to categorise their use as very dangerous. Despite this trend, a substantial proportion of past users categorised illegal drug use as very

dangerous. These findings may indicate that many respondents were willing to try these drugs even though they were placing their health at risk.

### 7.1 Use of other drugs

According to the statistics collected from the Needle Exchange Program in the ACT, the distribution of needles increased significantly and continuously over the last 7 years (refer to Table 15). The increase of distributions could be related to a number of factors, such as:

- injecting drug users may be more aware of the risk of sharing needles;
- it may have been easier to acquire needles (more outlets);
- there may have been more wastage due to easier access;
- there may be an increase in the number of injecting drug users.

The Assisting Drug Dependents Incorporated, a non-government organisation that administers the Needle Exchange Program in the ACT, conducted a survey in August 1999 and found that injecting drug users engaged in risk-taking behaviours for reasons both practical and cultural. Seventy-four per cent of respondents gave lack of availability of clean equipment as the main reason for sharing needles. Of major concern was the finding that most respondents knew little or nothing about the risk of contracting a blood borne disease when they commenced injecting.

**Table 15: Needles Exchange Program in the ACT, 1992-93 to 1998-99**

Year	Distributed	Returns	Male	Female	Total visit	Under 25 years	Over 25 years	Outlets
	('000)	('000)	('000)	('000)	('000)	('000)	('000)	No.
92-93	133	53	n.a.	n.a.	9.6	n.a.	n.a.	14
93-94	179	67	n.a.	n.a.	12.0	n.a.	n.a.	13
94-95	314	243	n.a.	n.a.	18.6	n.a.	n.a.	14
95-96	361	319	18.6	5.9	24.5	11.7	12.8	18
96-97	479	414	27.9	9.1	37.1	18.3	18.7	18
97-98	541	355	36.0	13.0	49.0	24.4	24.6	20
98-99	594	271	41.0	14.7	55.8	26.1	29.7	19

Source: Assisting Drug Dependents Incorporated, *Needle Exchange Program Data, 1992-1999*, unpublished data

The National Drug Strategy Household Survey estimated that in 1998 there were about 4,400 people and up to 6,700 people in the ACT had ever tried heroin. A significantly higher proportion of Australian males had ever tried it when compared to their female counterparts (Australian males 3.0%, Australian females 1.4%). Due to low survey numbers, male and female breakdowns for the ACT are unreliable. The National Drug Strategy Household Survey, 1998 shows that of those Australians who had ever tried heroin, 36 per cent had used it in the last 12 months. However, due to the low numbers, this percentage is unreliable and up to 46 per cent of people who have ever tried heroin could have used it in the past 12 months. The average age that heroin was first used was 21 in the ACT and 22 in Australia. There was no significant difference between these ages.

There were 46 separations from ACT hospitals which were principally for heroin poisoning between the years 1993-94 and 1997-98. A further 11 separations were recorded during this time for heroin

poisoning as a secondary reason for hospitalisation. Of all these separations, 65 per cent were of males.

Hallucinogens such as LSD, and hallucinogenic mushrooms, are the fifth most commonly ever tried type of drug for non-medical purposes (refer Table 16). Approximately 9.9 per cent of all Australians and 11.3 per cent of people in the ACT had ever tried hallucinogens (no significant difference between these rates was found). Significantly more ACT males had tried hallucinogens when compared to ACT females.

Of those who had ever used hallucinogens, 25.3 per cent in the ACT and 31.2 per cent Australia wide had used the drug in the last 12 months. (There was no significant difference between these percentages). Again, a higher percentage of males than females had used the drug in the last 12 months. The average age which hallucinogens were first used was similar for both the ACT and Australia with an average age of 19.3 years in the ACT and 19.5 years old for Australia.

**Table 16: Summary of drugs ever tried for non-medical purposes, by sex, ACT and Australia, 1998**

	ACT			Australia		
	Males	Females	Persons	Males	Females	Persons
	<i>Percentage</i>					
Alcohol	97.8	98.1	97.9	96.6	93.7	95.1
Tobacco	79.7	76.8	78.3	81.5	71.1	76.2
Painkillers, analgesics	58.7	52.1	55.3	48.4	47.1	47.8
Cannabis	51.6	40.6	46.1	43.8	34.6	39.1
Hallucinogens	15.1	7.5	11.3	12.8	7.1	9.9
Amphetamines	11.5	6.4	8.9	10.9	6.7	8.8
Tranquillisers, sleeping pills	5.9	9.2	7.5	5.9	6.5	6.2
Ecstasy, designer drugs	7.9	3.4	5.6	6.1	3.6	4.8
Cocaine	6.4	3.6	5.0	5.3	3.3	4.3
Inhalants	5.8	2.5	4.1	5.0	2.8	3.9
Heroin	2.6	1.0	1.8	3.0	1.4	2.2
Injected with illegal drugs	1.6	1.3	1.4	2.9	1.3	2.1
Barbiturates	3.2	1.0	2.1	2.2	1.0	1.6
Steroids	0.9	1.2	1.0	1.2	0.4	0.8

Note: Includes respondents aged 14 years and over, excludes missing data.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

The percentage of secondary school students who reported ever using hallucinogens in 1996 rose with year level, from less than 1 per cent in year 7 to approximately 12 per cent in year 12. Hallucinogens use was more prevalent in year 10 and year 12 than other year levels.

Approximately 8.9 per cent of people in the ACT and 8.8 per cent in Australia have tried amphetamines at least once in their lives according to the 1998 National Drug Strategy Household Survey. A significantly higher proportion of Australian males had ever tried amphetamines (10.9%) when compared to their female counterparts (6.7%). This trend also occurs in the ACT with 11.5 per cent of males and 6.4 per cent of females having ever tried amphetamines (no significant difference was found).

Of people who had ever tried amphetamines, 44.8 per cent of people in Australia had used the drug in the past 12 months. Again, this percentage was higher among males with 48.5 per cent having used the drug in the past 12 months compared to 38.9 per cent of Australian females (who had ever tried amphetamines) having used it in the past 12 months (no significant difference was found). ACT trends tended to follow those of Australia. However, these figures were too unreliable to report.

The 1996 ACT Secondary School Students' Survey found that less than 2.5 per cent of students reported use of amphetamines in the previous 4 weeks, though a relatively high 6 per cent reported use at some time. Males were more likely to report recent use of these substances than females.

In the five years between 1993-94 and 1997-98 there were 22 separations where poisoning with stimulants (such as amphetamines) was the principal reason for hospitalisation. In a further 8 separations, stimulant poisoning was a secondary cause for hospitalisation. Of the total separations for stimulant poisoning, 53 per cent were of females.

Approximately 5.6 per cent of people in the ACT and 4.8 per cent of people Australia wide have ever tried ecstasy or other designer drugs according to the 1998 National Drug Strategy Household Survey. There was no significant difference between these percentages. Significantly more males than females had ever tried ecstasy or designer drugs with 7.9 per cent of males in the ACT (6.1% Australian males) and 3.4 per cent of females in the ACT (3.6% Australian females). Australia wide, 52.5 per cent of people who had ever tried ecstasy had used it in the 12 months prior to interview. In 1996, less than 5 per cent of secondary school students had ever used designer drugs such as ecstasy. Males were more likely to report recent use of ecstasy than females.

The 1998 National Drug Strategy Household Survey found that a significantly lower proportion of people in both the ACT and Australia had ever tried cocaine compared to those who had ever tried amphetamines. However, when compared to those who had ever used heroin, a significantly higher proportion of people in the ACT and Australia had ever tried cocaine. More Australian males than females had tried cocaine with the ACT following national trends (refer Table 16). No significant difference was found between ACT and Australian rates. There were less than five separations in ACT hospitals for cocaine poisoning in the five years between 1993-94 and 1997-98.

National figures suggest that in 1998, approximately one third of people who had ever tried cocaine had used the drug in the past 12 months. ACT figures on 12 month usage were too unreliable to report.

Less than 4 per cent of all secondary school students reported they had ever tried cocaine in 1996. Male students were more likely than females to report using cocaine in the previous week.

A significantly higher rate of Australian males than females had ever used inhalants for non-medical purposes (5.0% Australian males, 2.8% Australian females). The National Drug Strategy Household Survey also showed a higher rate of ACT males having ever used inhalants for non-medical purposes when compared to ACT females. However, a significant difference was not found due to low sample size.

The 1996 ACT Secondary School Students' Survey showed that approximately 23 per cent of respondents reported past use of inhalants, with greatest use being in the lower year levels. The prevalence of inhalant intoxicants was higher among the lower year levels (about 14% of year 7 students having sniffed intoxicants in the previous week) than the higher year levels (less than 3% at year 11 and year 12).

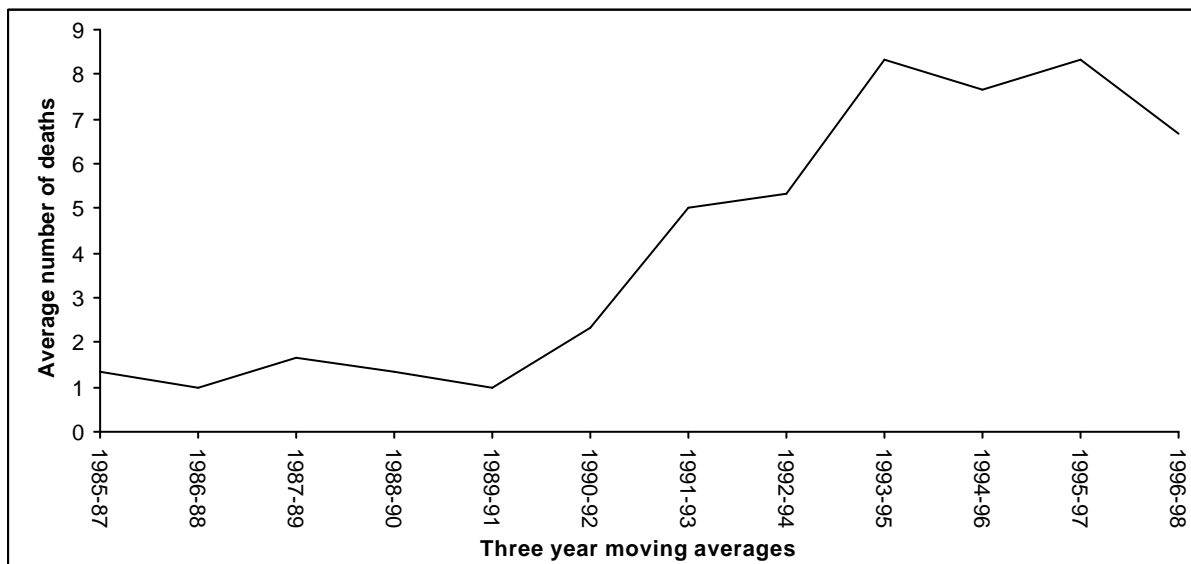
## 7.2 Mortality from other drug use

Between 1993 and 1997 there were 22 deaths caused by drug dependence. Most of these deaths were of males (81%). Opiates (heroin, methadone and opium) and their combination with other drugs predominated as a cause of these deaths.

Due to the high fluctuations in the number of heroin related overdose deaths, three year moving averages have been used in Figure 10. This figure shows an increase in the number of heroin related overdose deaths from 1992 onwards. Very few of these deaths, however, can be attributed to heroin only and in a majority of cases, other drugs such as alcohol and benzodiazepines had also been consumed.

In 1997 when data for multiple cause of death were first collected, besides the underlying cause of death, a further 3 people died in the ACT from causes that were related to other drug dependence.

**Figure 10: Heroin related overdose deaths, three year moving averages, ACT and region, 1985 - 1998**



Note: Some deaths from the ACT region may be included.

Source: ACT Government Analytical Laboratory, 1985-98

## 7.3 Other drug policy

Out of all the states and territories, the ACT has the strongest support for free needle exchanges (58.8%) and safe injecting rooms (35.3%) (refer Table 17). However, 25.0 per cent of people in

the ACT opposed or strongly opposed free needle exchanges and 39.5 per cent opposed or strongly opposed safe injecting rooms.

**Table 17: Percentage supporting or strongly supporting measures to reduce heroin problems, ACT and Australia, 1998**

Heroin problem reduction measure	ACT	Australia
Rapid detoxification therapy	57.9	59.2
Methadone maintenance programs	60.4	56.8
Treatment with drugs other than methadone	52.2	53.4
Free needle/syringe exchanges	58.8	49.2
Regulated injecting rooms	35.3	32.6
None of the above	13.6	17.3
Don't know/ not stated	1.5	1.5

Note: Includes respondents aged 14 years and over, includes missing data.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

In general, people in the ACT showed more support and less opposition to methadone maintenance, needle exchanges and regulated injecting rooms than people nationally. The percentage of people who neither supported nor opposed these measures was approximately the same both nationally and in the ACT (refer Table 18).

**Table 18: Percentage of support type for safe injecting rooms, free needle exchanges and methadone maintenance programs, ACT and Australia, 1998**

Heroin problem reduction measure	Methadone maintenance programs	Free needle / syringe exchanges	Regulated injecting rooms
<b>ACT</b>			
<b>Support or strongly support</b>	60.4	58.8	35.3
<b>Neither support nor oppose</b>	20.7	14.5	23.2
<b>Oppose or strongly oppose</b>	17.1	25.0	39.5
<b>Not stated</b>	1.8	1.7	2.0
<b>Australia</b>			
<b>Support or strongly support</b>	56.8	49.2	32.6
<b>Neither support nor oppose</b>	22.7	15.5	23.0
<b>Oppose or strongly oppose</b>	18.8	33.7	42.8
<b>Not stated</b>	1.7	1.6	1.6

Note: Includes respondents aged 14 years and over, includes missing data.

Source: Commonwealth Dept of Health and Aged Care, *National Drug Strategy Household Survey, 1998*, unpublished data

A small majority of people supported rapid detoxification therapy (57.9% in the ACT and 59.2% nationally). While there was no specific option for a heroin trial, 52.2 per cent of people in the ACT and 53.4 per cent nationally supported treatment with drugs other than methadone as a measure to reduce the heroin problem (refer Table 17).

## 8 Drug related conditions

### 8.1 Hepatitis C Virus

Hepatitis C Virus (HCV) causes long lasting inflammation of the liver and can lead to cirrhosis and cancer of the liver<sup>24</sup>. Before 1990, blood transfusions were one mode of transmission for HCV, but since then, all blood donations have been screened. There is no vaccine to prevent HCV but it can be treated with interferon. The symptoms and effects of HCV vary considerably. Current data suggests that around 80 per cent of people who are infected will have long term illness. This includes some degree of liver damage and symptoms of tiredness, nausea and abdominal pain. Up to 25 per cent of all those infected will have serious liver damage after 20 years, and half of these will progress to liver failure or liver cancer after another 5 to 10 years<sup>25</sup>.

HCV is transmitted by blood to blood contact and the most common modes of transmission are through sharing injecting equipment, unsafe skin piercing and tattooing, and before 1990, blood transfusions. Transmissions from mother to baby, through household contact, and occupational exposure, are less common. Sexual transmission is not proven but if it occurs it is probably from blood to blood transmission<sup>26</sup>.

It is estimated that HCV affects approximately one per cent of the Australian population<sup>27</sup>. Around three quarters of all new HCV infections occur through injecting drug use and 60 to 70 per cent of all past and present injecting drug users in Australia are infected<sup>27</sup>. HCV has on average a 13 year asymptomatic stage<sup>27</sup>. Many people may be unaware that they are infected and may be infecting others unknowingly. The 1998 National Drug Strategy Household Survey estimated that approximately 2.1 per cent of Australians have ever injected themselves with an illegal drug. A significantly higher proportion of males than females have injected themselves (refer Table 16).

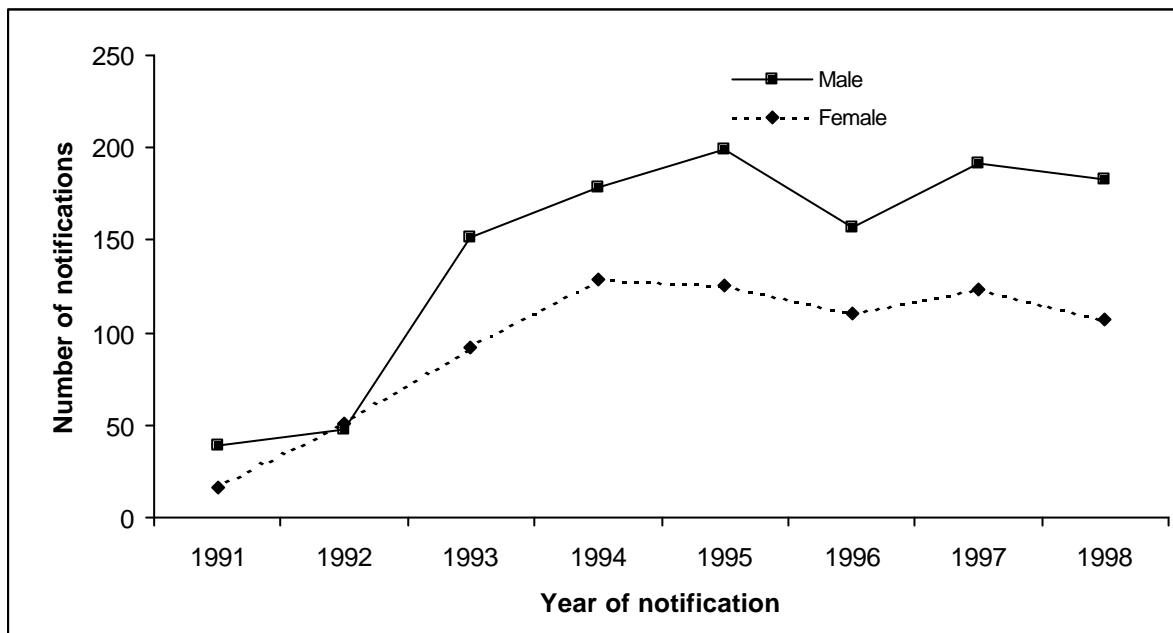
Current studies show that knowledge about the risks of HCV among secondary school students and young injecting drug users is low<sup>24</sup>.

With an average of almost 300 new notifications of HCV in the ACT every year (average between July 1995 and June 1999), HCV is a significant health problem in the ACT. Of all HCV notifications in the ACT, approximately 60 per cent are of men and 40 per cent of women<sup>25</sup>. The majority of notifications are of people aged between 20 and 39 years old.

Figure 11 shows that since 1994, there have been approximately 50 per cent more HCV notifications of males than females in the ACT. There was a steady rise in notifications up to 1994. The number of notifications has remained steady since then.



**Figure 11: Hepatitis C Virus notifications, ACT, 1991-98**



Source: *Notifiable Diseases Data, ACT, 1995-1999*

## 8.2 *Co-occurring addictive and mental disorders*

There is increasing concern about the co-existence of mental illness with addictive disorders. Issues linked to mental illness include the abuse of psychoactive substances such as alcohol, drugs (legal and illegal), tobacco, marijuana and hallucinogens. There is increasing evidence to suggest that substance abuse can precipitate or exacerbate mental illness. They certainly co-occur often<sup>28</sup>. However, there is little published information available on people with mental disorders who use drugs. The majority of the literature available is based on substance dependence or abuse as categories of mental disorder according to the Diagnostic and Statistical Manual of Mental Disorders (DSM) IV.

Available data suggest that individuals with a psychiatric disorder are at increased risk of having a substance abuse disorder. For example, it has been cited that among young, chronically mentally ill patients, reported chemical abuse rates approach or exceed 50 per cent; alcohol abuse rates for individuals with bipolar disorder is about 20 per cent; and alcohol abuse rates for people with antisocial personality disorders is about 70 per cent<sup>29</sup>. Further research by the USA Epidemiological Catchment Area (ECA) study suggests that these figures are under-rated. It found that life time prevalence of alcohol disorder is highest in bipolar (46%) and schizophrenic (34%) disorders, followed by other affective (22%) and anxiety (18%) disorders. The general population had a prevalence of 17 per cent<sup>30</sup>. Cuffel in his article on the ECA, concludes that about half of young people presenting with their first episodes of schizophrenia and bipolar disorder, will develop a substance use disorder in their lifetime<sup>30</sup>.

## 8.2.1 Reasons for Substance Use

It is questionable whether the effects of substance use by the mentally ill are beneficial in alleviating symptoms. Some researchers argue that substance use can reduce or control symptoms of a mental disorder. Contrary to this argument it has been observed that substance use has adverse effects on the severity of a mental disorder, leading to a substantial increase in hospitalisation.

A study conducted in 1994 investigated substance use among the mentally ill and reported the following reasons for substance use: activity with friends, relieve anxiety, relieve boredom, relieve depression, improve sleep, improve self-esteem, feel more likeable, feel better physically, relieve pain, feel normal, increase energy, alleviate side effects, stay awake, decrease hallucinations, and other reasons<sup>31</sup>. The results of this study indicate that subjects attributed the effects of substance use of alcohol and hallucinations as having only modest beneficial effects on symptoms. However, subjects reported the use of marijuana as having beneficial effects on depression, anxiety, insomnia, and physical discomfort, but did not have beneficial effects with paranoia and hallucinations.

The proportion of male and female separations for mental disorders who use drugs can be seen in Table 19 and Table 20 respectively. Compared to all hospital separations for mental disorders, a higher proportion of those recorded as unsanctioned drug use was for neurotic disorders, personality disorders and other psychotic mental disorders. This appears to be the case for all types of drug use for both males and females. However, a higher proportion of separations can explain this pattern for people with neurotic disorders, personality disorders and other psychotic mental disorders in comparison to other types of mental disorders. A comparison between Table 19 and Table 20 also shows that a higher proportion of females than males are hospitalised for neurotic, personality and other psychotic mental disorders while males are hospitalised for organic psychotic conditions and other psychoses at higher rates than females.

**Table 19: Proportion of separations for females with a mental disorder with principal or secondary diagnosis of drug use, ACT hospitals, 1997-98**

	Organic psychotic conditions	Other psychoses	Neurotic, personality & other psychotic mental disorders	Total
	<i>Percentage</i>			
Unsanctioned drugs	0.0	35.9	64.1	100.0
Alcohol	10.3	33.3	56.4	100.0
Current use of tobacco	4.8	28.7	66.6	100.0
History of tobacco use	15.4	11.5	73.1	100.0
Multiple drug use	3.6	37.5	58.9	100.0
Total drug use	5.2	32.0	62.8	100.0
No drug use	23.1	19.9	57.0	100.0
Total mental disorders	18.7	22.9	58.4	100.0

Note: Includes non-ACT residents.

Source: ACT Hospital Morbidity Data Collection 1997-98

**Table 20: Proportion of separations for males with a mental disorder with principal or secondary diagnosis of drug use, ACT hospitals, 1997-98**

	Organic psychotic conditions	Other psychoses	Neurotic, personality & other psychotic mental disorders	Total
	<i>Percentage</i>			
Unsanctioned drugs	6.1	43.6	50.3	100.0
Alcohol	15.0	35.0	50.0	100.0
Current use of tobacco	11.0	29.1	59.9	100.0
History of tobacco use	12.0	12.0	76.0	100.0
Multiple drug use	11.2	35.8	53.0	100.0
Total drug use	10.4	33.4	56.2	100.0
No drug use	26.0	22.8	51.2	100.0
Total mental disorders	18.9	27.6	53.5	100.0

Note: Includes non-ACT residents.

Source: ACT Hospital Morbidity Data Collection, 1997-98

The results of the study support previous findings that mentally ill patients are no more likely to abuse alcohol, sedatives, or narcotics than people of the general population. In the ACT, 17.6 percent of people (1,382) with mental disorders were found to have a principle or secondary diagnosis of drug use in 1997-98. A majority of people with mental disorders who use drugs were between the ages of 21 and 40 (50.8%).

### **8.3 Self Inflicted and Accidental Injury and Poisoning**

There were 4,918 separations of ACT residents in ACT hospitals for external causes of injuries and poisonings in 1997-98 (53% were males). Purposeful self-inflicted injury was the main cause of 334 separations and of these, in 82 per cent of cases drugs were the main source of injury, one third were of people aged 24 or under and 62 per cent were female.

Accidental poisoning by drugs such as analgesics, barbiturates, sedatives and other drugs or medicinal substances was the main cause of 82 separations of ACT residents. More than one third (35%) of these 82 separations were of people aged 17 and younger.

In examining the frequency of hospitalisation for external cause of injury and poisoning for the last six years to 1997-98, it is interesting to note that males mainly predominate over females and the number of hospital separations for external cause of injury and poisoning seems to increase over the years (Figure 12). However, the situation changed for senior ACT residents (aged 65 and over). The number of female hospital separations for external cause of injury and poisoning were more than male (Figure 13).

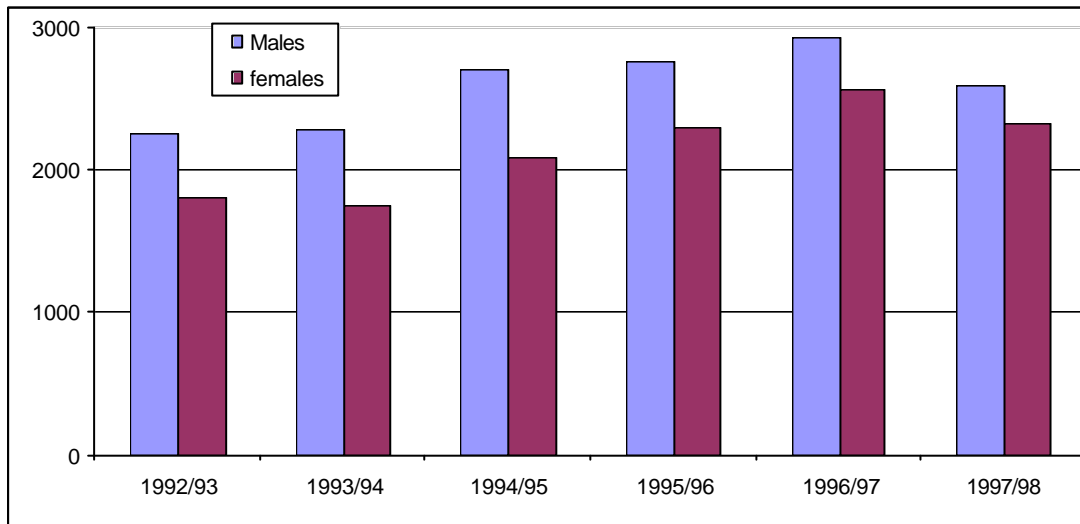
**Table 21: Hospital separations for suicide and self-inflicted injury, ACT residents, 1992-98**

Year	Male	Female	Persons
1992-93	73	125	198
1993-94	91	157	249
1994-95	96	172	268
1995-96	113	174	287
1996-97	119	217	336
1997-98	127	207	334

Note: 1997-98 data excludes John James Memorial Hospital separations.

Source: ACT Hospital Morbidity Data Collection, 1992-98

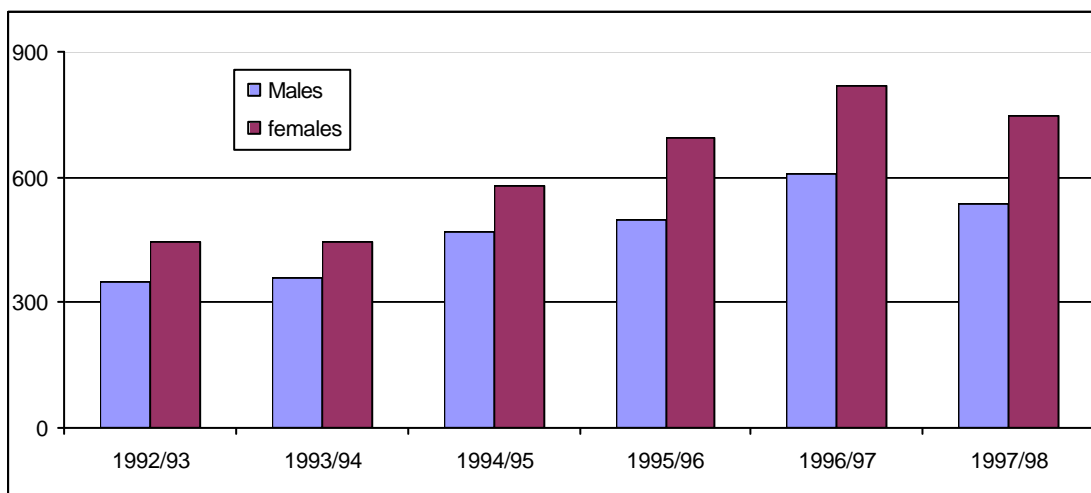
**Figure 12: Hospital separations for external causes of injury and poisoning, ACT residents, 1992-98**



Note: 1997-98 data excludes John James Memorial Hospital separations.

Source: ACT Hospital Morbidity Data Collection, 1992-98

**Figure 13: Hospital separations for external causes of injury and poisoning, 65 years and older, ACT residents, 1992-98**



Note: 1997-98 data excludes John James Memorial Hospital separations.  
Source: ACT Hospital Morbidity Data Collection, 1992-98

### **8.3.1 Mortality due to suicide and poisoning**

The suicide rate in Australia is the fourth highest in the world<sup>32</sup>, especially in the 15-24 year age group. In 1995, 434 young people suicided in Australia, 350 of whom were young males. This is a 50 per cent increase in young male suicide since 1979. According to the Victorian Government Suicide Prevention Task Force (1997) report, there is a correlation between youth suicide and excessive drug use.

There is no simple explanation for the increase in suicides. Researchers in the field have speculated that social changes have contributed. Certainly, the nature and extent of the problems facing young people today, especially in relation to their mental health status, is manifested in their health-compromising behaviours such as suicide, depression, deliberate self harm, substance abuse and eating disorders.

Excessive drinking and drug taking are linked to suicide. Heavy drinking and drug abuse are known to be major factors for completed suicide among youth 15 to 25 years. Among adolescents who reported suicidal thoughts, 22 per cent drank alcohol regularly, 37 per cent reported marijuana use. It is important to note, however, that although long-term marijuana use has been linked with suicidal behaviour, most studies have found this link not to be causal.

In the ACT, 176 people died from suicide and self inflicted injury and 44 people died from accidental poisoning between 1993 and 1997. In 22 cases (12.5 %) drugs such as analgesics, antipyretics, antirheumatics, barbiturates, tranquillisers and other psychotropic agents were used. Most of the deaths were of males (77%) and 55 per cent were aged between 25 to 54 years.

Accidental rather than self-inflicted poisoning was the major reason for death caused by poisoning. The majority of deaths due to accidental poisoning were of males (73 %) and the major cause (70%) was from opiates and related narcotics (ie. codeine, heroin, methadone, morphine, opium and pethidine). Sixty four per cent of these people were aged between 25 and 54 years and 27 per cent were aged 18 to 24 years.

## **9 Glossary**

### ***9.1 National Health Survey 1995***

The Australian Bureau of Statistics (ABS) conducts a five yearly National Health Survey which collects data from approximately 54,000 people living throughout Australia. It is designed to obtain national benchmark information on a range of health-related issues and to enable the monitoring of trends in health, over time. The sample is designed so that the states and territories can be separately analysed. However:

- Until the 1995-96 survey, the sample size of respondents was very small in the ACT. This resulted in fluctuations in results and reduced reliability of findings.
- When responses were broken down into sub-groups (eg people aged under 18), the sample became even smaller resulting in more inaccuracies.
- The Survey utilises a self-reporting format. Results represent respondents' perceptions, not necessarily health professionals' findings. It also depends in part, on the literacy of the respondents and their ability to understand English.

The most recent Survey was conducted in the twelve months from January 1995 to January 1996.

Some 2,156 dwellings (1 in 50) in the ACT were surveyed. This is an increase on the previous Survey (1989-90) and allows for more relevant analysis. It should be noted however, that some sections of the survey were only administered to half of the sample. This includes sections on women's health, alcohol consumption, general health and well-being.

### ***9.2 ACT Secondary School Students' Survey 1996***

The 1996 ACT Secondary School Students' Survey was based on 2,487 randomly chosen respondents from year 7 to year 12 attending 18 high schools (12 Government, 3 Catholic, 3 Independent) and 8 colleges (4 Government, 2 Catholic and 2 Independent) in the ACT.

This survey was conducted by the ACT Department of Health and Community Care in conjunction with the ACT Cancer Society.

### ***9.3 ACT Hospital Morbidity Data Collection***

The majority of hospital services in the ACT are provided by The Canberra Hospital (TCH) and Calvary Public Hospital. In addition, there are 3 private hospitals - Calvary Private, John James Memorial and National Capital. The morbidity data collected from these hospitals provides information on sex, age, usual place of residence, medical conditions/procedures and length of stay in

hospital. The National Capital Hospital was not opened in time to be included in data analysis for this report.

Hospital morbidity data are generally expressed in terms of hospital separations, that is, those who have left the hospital in the given time period. This ensures diagnosis data are as accurate as possible.

#### **9.4 National Drug Strategy Household Survey 1998**

The Australian Institute of Health and Welfare was commissioned by the then Commonwealth Department of Health and Family Services to manage the 1998 survey. People aged 14 years and over from across Australia were interviewed. Those aged 14 and 15 answered the questionnaire with the consent of a parent or guardian. The ACT Department of Health and Community Care has information on 10,340 interviews from across Australia, 1,207 of which are of ACT residents. The survey employed a split sample design, which incorporated random household selection from a national sample of 8,357 private dwellings and a mixture of random and targeted respondent selection. This survey design differs markedly from the survey conducted in 1995 and any comparisons with this earlier survey should be undertaken with caution. This publication *Drug related health in the ACT* has – where specified - excluded missing data from usage rate calculations. This will result in slightly higher drug usage rates.

#### **9.5 Causes of death**

The ABS produced causes of death statistics according to WHO recommendations, where each death was assigned to a single underlying cause. The underlying cause is defined as the 'disease or injury, which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence, which produced the fatal injury'.

However, in 1997 ABS began to code and tabulate all causes and conditions reported on each death certificate using software developed by the National Center for Health Statistics (NCHS) of the United States. The NCHS software has three major components: MICAR (Medical Indexing, Classification and Retrieval System), ACME (Automatic Classification of Medical Entities) and TRANSAX (Translation of Axes). These three components have been developed to read the textual entries and convert them into a file containing multiple causes of death in accordance with the ICD-9 coding rules.

## 9.6 Definitions

**ABS** - Australian Bureau of Statistics

**Alcohol consumption risk level** -

Level of risk	Sex	no. of ml /day	= no. of standard drinks in a day
<b>Low risk</b>	<i>Males</i>	less than 50	Up to and including 4
	<i>Females</i>	less than 25	Up to and including 2
<b>Hazardous</b>	<i>Males</i>	50 to 75	Over 4 and up to 6
	<i>Females</i>	25 to 50	Over 3 and up to 4
<b>Harmful</b>	<i>Males</i>	more than 75	more than 6
	<i>Females</i>	more than 50	more than 4

**AIHW** Australian Institute of Health and Welfare

**DSM IV** - Diagnostic and Statistical Manual of Mental Disorders Version 4

**HCV** - Hepatitis C virus

**ICD9 –CM** refers to the International Classification of Diseases ninth revision as developed by the World Health Organisation.

**Lung Cancer** Malignant neoplasm of trachea, bronchus and lung.

**Morbidity** refers to levels of sickness.

**Mortality** refers to deaths, or death rate, in a district or community.

**Separation** (from hospital) refers to when a patient is discharged from hospital, transferred to another hospital or other health care accommodation, or dies in hospital following formal admission (ABS definition).

**Statistically significant** -infers that it can be concluded on the basis of statistical analysis that it is highly probable.

**WHO** World Health Organisation



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## Health Series Publications

The Health Status Monitoring Epidemiology Unit of the Department of Health and Community Care has developed an on-going series of publications to inform health professionals, policy developers and the community on health status in the Territory. Information contained therein will assist in the development of appropriate policy and service delivery models, the evaluation of programs, and an understanding of how the ACT compares with Australia as a whole with regard health status.

- Number 1: *ACT's Health: A report on the health status of ACT residents*  
Carol Gilbert, Ursula White, October 1995
- Number 2: *The Epidemiology of Injury in the ACT*  
Carol Gilbert, Chris Gordon, February 1996
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Kate Burns, June 1996
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