Health Series
Number 15

Results From The 1996 ACT Secondary School Students' Survey

Hai Phung
George Bodilsen
Allison Webb
Norma Briscoe

Epidemiology Unit
Population Health Group
ACT Department of Health and Community Care

June 1998

ACKNOWLEDGMENTS

This publication has drawn on the expertise and knowledge of several individuals and sections within the Department of Health and Community Care, Community Health Services, the Australian Bureau of Statistics, and the Australian Institute of Health.

The authors are particularly grateful to colleagues in the Department of Health and Community Care including Dr Bruce Shadbolt, Dr Doris Zonta, Carol Kee, and the staff of the Epidemiology Unit for their support, advice and patience; the Health Outcomes Policy and Planning Group and the Communications and Marketing Section for publishing assistance.

The contribution of the following people and organisations are gratefully acknowledged:
All students who participated in the survey
The principals, contact teachers and other staff of the participating schools
The Department of Education and Training
The Catholic Education Office
The Association of Independent Schools
The project team:
Jan Mckenzie (Project Co-ordinator), Vicki Brown, Jenny Bird, Julie Little, Petrina Lawson, Anne Callaghan and Shelley Swain
The ACT Cancer Society
The Australian Federal Police
The Anti-Cancer Council of Victoria and Tessa Letcher

ISSN 1325-1090

Published by Publications and Public Communication for the ACT Department of Health and Community Care's Epidemiology and Population Health Section and printed by the Authority of the ACT Government Printer.

200 - 6/98 A4 (98/6103)

Suggested citation:, Phung H, Bodilsen G, Webb A, Briscoe N, (1998*), Results from the 1996 ACT Secondary School Students' Survey,* Epidemiology Unit, ACT Dept of Health and Community Care: Health Series No 15, ACT Government Printer, ACT

The ACT Government Homepage address is: http://www.act.gov.au/

This publication is on the Internet at: http://www.dpa.act.gov.au/health

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Results From The 1996 ACT Secondary School Students' Survey

INTRODUCTION

In 1984 the Australian Cancer Society and its affiliated member organisations conducted the first of a series of three-yearly surveys examining the cigarette smoking and alcohol drinking behaviour of Australian secondary school students. The fifth in the series was conducted in 1996. In addition to alcohol consumption and cigarette smoking, this survey included questions on illicit drug use and sun protection behaviour. The findings presented in this publication are from the Australian Capital Territory (ACT) sample of the 1996 National survey. National findings are being released by the national co-ordination group in Victoria. Consequently, there are few Australian comparisons made in this publication. The only other time the ACT had a sample in the series was in 1987. Despite having two samples over time it is not possible to compare changes between 1987 and 1996 because of major methodological differences between the surveys.

The ACT Government approved funding for the ACT component of the National Survey of Secondary Students from the 1995/1996 Alcohol and Drug Cost Shared Grants Program. The ACT Department of Health and Community Care and the ACT Cancer Society shared the running of the ACT component. The ACT Cancer Society was given the responsibility of administering the grant, while The ACT Department of Health and Community Care (Strategic and Policy Unit and Epidemiology Unit) conducted the survey. The national co-ordination of surveys was carried out by the Anti Cancer Council of Victoria.

Reported here are the preliminary descriptions of the overall smoking and drinking patterns, prevalence of other drugs used and sun protection behaviour among 2487 young people from Year levels 7 to 12 participating in the ACT 1996 School Survey.

SUMMARY OF MAIN FINDINGS

The main findings are based on 2487 randomly chosen respondents from Year 7 to Year 12 attending 18 high schools and 8 colleges in the ACT (for survey detail refer Appendix 1).

Prevalence of cigarette smoking

- More male than female students described themselves as non-smokers. However, among those smoking, more female students described themselves as occasional or light smoker than male students.

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

- In relation to recent experience with smoking, more than 80% (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% for males and 45% for females in Year 11.

Prevalence of drinking

- More than 43% of all respondents described themselves as non-drinkers, 26% as occasional drinkers and 24% 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% of Year 7 respondents to 40% of Year 12 respondents.

- Approximately 80% 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% of Year 7 respondents admitted that they had. The percentage of those using alcohol in the last 4 weeks increased to 71% for Year 12.

Types and sources of cigarettes and alcohol consumed

- For both males and females, the most popular brand of cigarette was “Peter Jackson”, follow by “Winfield” and “Benson & Hedge”.

- The most common source of cigarettes for female smokers was from a friend (42%). 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.

- 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, more than 35% received their last drink from their parents. However, 22% received their last drink from their friends and 16% got some one else to buy the alcohol for them.

- The proportion of students who had ever tried to buy alcohol increased with year level from 7% for males and 3% for females in Year 7 to 60% (males) and 51% (females) by Year 12.

Lessons on smoking, drinking and sun protection

- More than 75% 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 reported they had at least part of a lesson about tobacco smoking decreased steadily from 75% in Year 7 to 43% in Year 12.
- More than 50% of students had received at least part of a lesson about alcohol in the year prior to the survey (1995).
- The percentage of students who reported they had at least part of a lesson about alcohol decreased steadily from 82% in Year 7 to 54% in Year 12.
- The proportion of students who reported having had at least part of a lesson about sun protection at school in 1995 peaked at 70% for Year 7 students, but this proportion decreased to less than 30% for Year 12.

Other Substances Used

Pain Killers/Analgesics: These remain the most commonly reported drug used by ACT students. They were used by almost all students at some time. Approximately 94% of males and 97% 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% were female.

Sedatives/Tranquillisers: Less than 2% of females across all Year levels had used sedatives/tranquillisers (other than for medical reasons) in the last week. The prevalence of males who have used sedatives/tranquillisers within the last week ranged from 1.1% at Year 11 to 7.7% at Year 8. About 80% of males across Year levels had never used sedatives/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.

Marijuana: Marijuana use was more prevalent among higher Year levels than lower Year levels with more than 50% of males in Years 10, 11 and 12 reporting having used marijuana at some stage of their life. Reported levels among females were slightly lower, though about 58% of females in year 12 reported use of this drug at some stage.

Inhalants: Approximately 23% 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). The prevalence of those who never used, ranged from 66% of Year 8 males to 87% of the Year 11 and 12 females.

Steroids: Less than 2% of respondents reported the use of steroids at some time. Males were more likely to report use of these drugs.
Amphetamines: Less than 2.5% of students reported use of amphetamines in the previous 4 weeks, though a relatively high 6% reported use at some time. Males were more likely to report recent use of these substances.

Designer drugs: Less than 5% of students had ever used these drugs. Males were more likely to report recent use of ecstasy. Use in the previous week for males peaked at 3.2% in Year 8. For females, use in this period was negligible for all Year levels.

Hallucinogens:. The percentage of respondents who reported ever using hallucinogens rose with year level, from less than 1% in Year 7 to approximately 12% in Year 12. Hallucinogens use was more prevalent in Year 10 and Year 12 than other Year levels.

Cocaine: Less than 4% of all respondents reported they had tried cocaine at some stage of their life. Male students were more likely than females to report using cocaine in the previous week.

Narcotics: Less than 5% of all respondents reported the use of narcotics at some time. Males were more likely to report the use of narcotics in the previous week.

Self description of school work: Substantial differences were found in the way recent users and non-users of various substances rated the quality of their school work. For most of the substances considered, recent users were more likely to regard their work being of lesser quality than those who did not report recent use.

Use of needles: Males were more likely to report the use of needles to inject drugs. Males were also more likely to report using a needle previously used by someone else.

Attitudes to drug use: Overall those who had never used illicit 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 illicit drug use as very dangerous. These findings may indicate that many respondents were willing to try these drugs believing that they were placing their health at risk.

Sun protection behaviour

- Sunscreen was applied more often by females than males, with 37% and 38% of female students reporting that they ‘always’ or ‘usually’ wore SPF15+ between 11am and 3pm in a sunny summer day respectively. However nearly 20% of females reported that they ‘usually’ wear less/briefer clothes in the sun.

- Only one-in-five females and less than one-in-ten males wore sunglasses if they were out in the sun between 11am and 3pm.

- Hat wearing was more prevalent among males than females with a ‘cap’ being the most preferred type for both sexes. Around 10% of both males and females reported that they ‘never’ wear a hat.

- Females reported more concern about skin cancer than males.

SECTION 1
SMOKING

1.1 INTRODUCTION

It is estimated that each year around 20,000 Australians die from tobacco-related diseases (Holman et al, 1988). This makes smoking the largest risk for premature death in Australia (Hill et al, 1995). On average, active smoking kills 364 Australians per week (QUIT kit, 1997). The majority of smokers begin smoking during their school years, with the main developmental period of uptake of current smokers being between the ages of 12 and 16 years (Winstanley et al, 1995). It has been estimated that a child who starts smoking at 14 years is 15 times more likely to die of lung cancer than someone who has never smoked (QUIT kit, 1997). Consequently, understanding adolescent smoking behaviour is extremely important in the development of strategies to reduce the uptake and life-time health risks.

1.2 CURRENT LITERATURE

Hill and colleagues have observed that the trend towards reduced student smoking throughout the 1980s appears to have ended, although the increase noted appears to be among experimental rather than committed smokers (Hill et al, 1995). Overall, tobacco use has decreased since 1993. This reduction is primarily due to an increase in the number of persons who have never smoked, rather than by people giving up smoking, indicating lower take-up rates (Commonwealth Department of Health and Family Services, 1995).

As most adult smokers take up the habit of smoking during their adolescence, one of the best strategies for reducing the morbidity and mortality associated with tobacco use lies in preventing young people from becoming regular smokers (Hill et al, 1995). However, a significant minority still do not view either tobacco or alcohol as a drug as around 38% of the population still do not view tobacco as the main cause of drug-related deaths in Australia (Commonwealth Department of Health and Family Services, 1995).

Surveys by the Centre for Behavioural Research in Cancer (CBRC) have been undertaken every three years since 1984. These have shown that between 1984 and 1990, the prevalence of smoking among 12 to 15 year olds decreased each period. Among students aged 16 and 17 years old, the prevalence of smoking decreased between 1984 and 1987, but no change was found between 1987 and 1990 surveys (Winstanley et al 1995).

In all survey years, smoking prevalence was higher among girls than boys in all but the youngest age group. Between 1990 and 1993 the proportion of cigarette smokers increased overall. This increase was due to more occasional smokers than an increase in committed smokers (Australian Institute of Health and Welfare, 1996). In general, of the boys who smoked, they smoked more heavily than the girls who smoked, although neither group smoked as heavily as the average adult smoker (Winstanley et al, 1995). In 1990, the peak age for smoking prevalence was 15 years for females and 16 years for males. In 1993, the smoking prevalence peaked at 17 years for both males and females. It has been estimated that in the ACT the peak age for smoking prevalence is at around 15-16 years for both males and females (Australian Institute of Health and Welfare, 1996).

1.3 SMOKING BEHAVIOUR

1.3.1 Self description of smoking behaviour

In the 1996 ACT School Student's Alcohol and Drug Survey students were asked to describe their smoking behaviour, and the responses are shown in Table 1.1 (χ^2=39.58, df=5, P<0.0001). It has been shown that of all male and female respondents, there were more male non-smokers than female. However, among those smoking there were more female occasional or light smokers. For heavy smokers, there were more females but there are more males chain smokers.

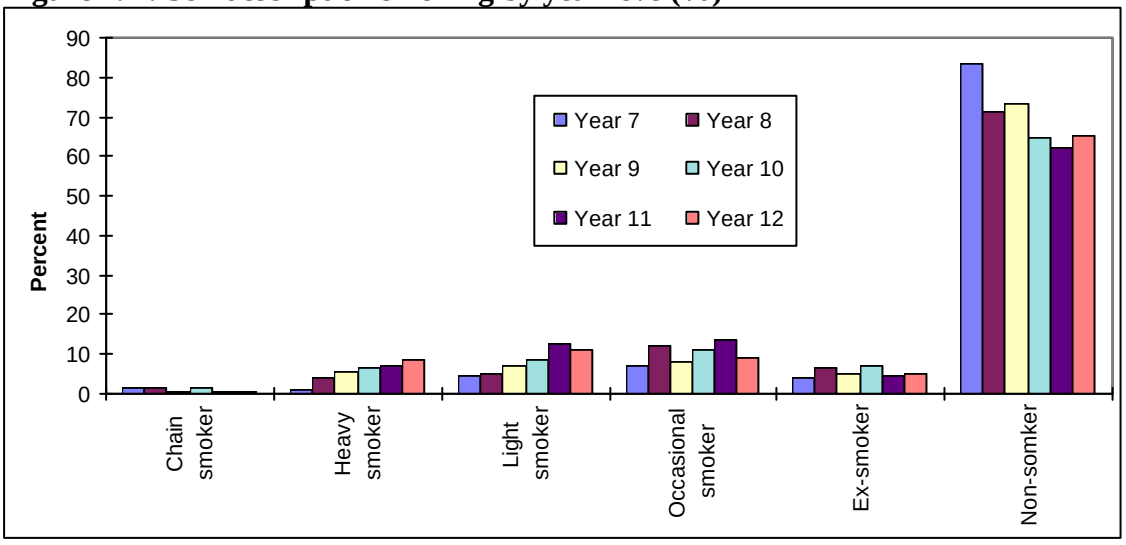
In relation to self description of smoking behaviour and school year level, Figure 1 shows the majority of year 7 described themselves as non smokers (83%). However, the percentage of non-smokers declined steadily to about 65% by Year 10 respondents (χ^2=54.11, df=25, P<0.005).

Table 1.1 : Self description smoking category by sex (%)

	Males	Females
Chain smoker	1.9	0.4
Heavy smoker	4.8	6.7
Light smoker	7.6	9.4
Occasional smoker	6.8	14.7
Ex-smoker	6.1	5.0
Non-smoker	72.8	63.8

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Figure 1.1 : Self description smoking by year level(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

1.3.2 Life time experience of smoking

The higher prevalence of smoking among girls than boys is not unique to the ACT. This may be due to factors such as a greater tendency for girls to be concerned about being slim as well as a response to the imagery of advertising, compared with boys' greater concerns with fitness (Australian Institute of Health and Welfare, 1996). Smoking behaviour of a best friend and wider peer group is positively related to uptake of smoking, with one Australian study showing a particularly strong association for girls (Winstanley et al, 1995).

In response to the question "Have you ever smoked even part of a cigarette ?", 32% of males and 33% of females reported that they had tried smoking by the time they reached Year 7. By the time the students reached Year 10, more females (36%) than males (32%) had smoked more than 10 cigarettes in their lifetime (see Table 1.2). For more than 10 cigarettes in a lifetime, the consumption was greatest at Years 11 and 12 for both males and females. Table 1.2 also shows that nearly 70% of both male and female Year 7 students had never smoked a cigarette. By Year 11 this proportion had decreased to just over 30% .

Table 1.2 : Lifetime smoking experience by sex and year level (%)

Year level	Gender	None	Just a few puffs	Fewer than 10 cigarettes	More than 10 cigarettes
Year 7	Males	68	13	6	13
	Females	67	15	10	8
Year 8	Males	44	23	10	23
	Females	50	20	15	15
Year 9	Males	42	27	12	20
	Females	41	20	13	26
Year 10	Males	36	23	9	32
	Females	32	15	16	36
Year 11	Males	31	19	13	38
	Females	31	17	13	40
Year 12	Males	28	23	16	34
	Females	25	16	11	48

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

1.3.3 Recent experiences with smoking

Questions were asked about whether students had smoked in the last 12 months, last four weeks and last 7 days. Table 1.3 gives the proportions by sex and year levels of students who smoked in each of the index periods (preceding year, month, week). For comparison, proportions who had ever smoked are also presented.

As Table 1.3 shows, among female students, the percentage of students who had smoked in the last 12 months increased steadily from 18% in Year 7 to 54% in Year 11. Among male students similar patterns were also reported with the peak frequency of 49% at Year 11 and a slight reduction of this proportion in Year 9. Interestingly, the proportions of students who had smoked in the last 12 months decreased slightly from year 11 to Year 12 for both sexes

For students who had smoked in the last 4 weeks the peak frequency for males was 32% at Year 11 and for females a peak frequency of 41% was reached at Year 12. A reduction of this proportion from Year 11 to Year 12 was also reported for male students.

The pattern for most recent experiences with smoking suggested that the proportion of students who had smoked in the last week rose steady with age. Among female students the proportion of recent smokers increased steadily from 10% at Year 7 to 36% at Year 12. Among male students, this proportion increased from 5% in Year 7 to 29% in Year 11. A reduction of this proportion from 17% at Year 8 to 15% at Year 9 and from 29% at Year 11 to 18% at Year 12 for male students was also reported.

Table 1.3 : Response of recent experience in smoking by sex and year level (%)

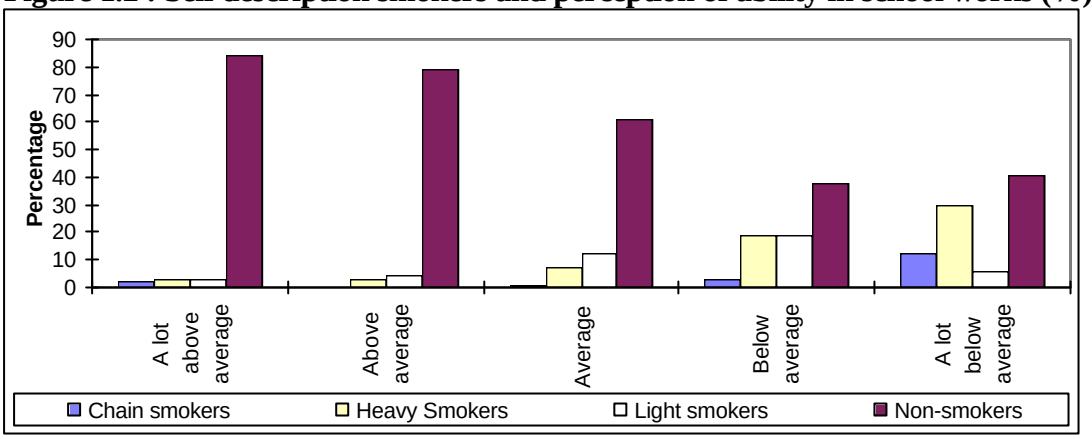
Response	Gender	Year Level					
		7	8	9	10	11	12
Any smoking	Males	32	56	58	64	69	72
experience	Females	33	50	49	68	69	75
*P value**		*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Have smoked in the	Males	20	40	31	40	49	41
last 12 months	Females	18	36	46	51	54	53
*P value**		*ns*	*ns*	*0.004*	*0.04*	*ns*	*ns*
Have smoked in the	Males	11	22	16	26	32	28
last 4 weeks	Females	16	21	28	33	39	41
*P value**		*ns*	*ns*	*0.01*	*ns*	*ns*	*0.04*
Have smoked in the	Males	5	17	15	23	29	18
last week	Females	10	19	25	26	32	36
*P value**		*ns*	*ns*	*0.02*	*ns*	*ns*	*0.006*

** Chi square test for difference between sexes*
Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

1.3.4 Smoking behaviour and perception of ability in school's works

In relation to smoking behaviour and school work, data from the 1996 ACT survey show that there were significant differences across the categories of self description of smoking and the ability with school work (Figure 1.2). For example only 38% of respondents who believed their ability to be 'a lot below average' with school work were non-smokers. On the other hand, of all students who believed their ability to be 'a lot above average' 84% were non-smokers, 1.9% were chain smokers and less than 2% were heavy or light smokers.

Figure 1.2 : Self description smokers and perception of ability in school works (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

1.3.5 Lessons about smoking

There were significant differences in response to the question of whether a student had lessons about smoking. Overall, more than 75% of respondents reported having had at least part of a lesson about smoking at school. In relation to year level, Table 1.4 indicates that less than 50% of Year 12 students (both males and females) reported having at least part of a lesson about smoking. On the other hand, more than 80% of Year 7 and Year 8 students reported that they had at least part of a lesson about smoking during the last year (χ^2=185.16, df=15, P<0.0001).

Table 1.4 : Response of lessons about smoking in the last year (1995), by sex and year level (%)

Response	Gender	Year Level					
		7	8	9	10	11	12
No, not even part of a lesson	Males	19	12	23	25	25	63
	Females	12	17	21	16	25	51
Yes, part of a lesson	Males	25	20	20	22	27	19
	Females	24	19	22	28	28	28
Yes, one lesson	Males	32	18	17	15	15	12
	Females	28	21	20	20	21	14
Yes, more than one lesson	Males	20	50	40	38	33	7
	Females	36	42	37	36	26	8

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

1.4 PURCHASING OF CIGARETTES

1.4.1 Brand name and packet size

There were significant differences between males and females in relation to cigarette brand names (χ^2=38.28, df=19, P<0.05) and packet sizes (χ^2=13.84, df=6, P<0.05). For both males and females, the most popular brand of cigarette was Peter Jackson, followed by Winfield and Benson & Hedges. The most popular packet size was 30s, followed by packets of 25. Among male respondents, 33%, 24%, 11% and 10% reported that Peter Jackson, Winfield, Benson & Hedges and Marlboro were the preferred brand name respectively. In comparison, 52%, 13%, 10% and

6% of female respondents reported that Peter Jackson, Winfield, Benson & Hedges and Longbeach were the preferred brand name respectively. In relation to cigarette packet size and gender difference, 50% of females and 30% of males preferred packet size of 30, while 30% of female and 35% of males preferred packets of 25.

1.4.2 Sources of cigarettes

Ready access to cigarettes is one predictor of uptake of smoking. Children obtain their cigarettes from retail outlets, vending machines, friends, siblings and parents. It is generally observed that the older the child, the more likely they are to purchase their own cigarettes. A recent national survey of the smoking behaviour of school children found that over 20% of 12 year old regular smokers said they purchased their own cigarettes, indicating flagrant breaches of state and territorial legislation (Winstanley et al, 1995).

The 1996 ACT data show that, of the female respondents who reported smoking in the last week, 42% obtained cigarettes from their friends, 19% from someone else, 8% buying them from a petrol station, 5% from a tobacconist or a supermarket and 4% from a take away. There was significant difference across year level among female students in relation to where they obtained their last cigarette (χ^2=96.77, df=75, P<0.05). For example of all female students who reported obtaining the last cigarettes that they smoked from their friends, 34% were from Year 11, 21% from year 10, 5% from Year 12 and 2% from Year 7. There were no significant differences for male students.

1.4.3 Cigarette packet warnings

In response to the question "Have you ever read and thought about the health information printed on a cigarette pack?" (see Table 1.5), of all the respondents, the chain smokers were the least likely to read or think about the health warnings on the cigarette packets, with 41% falling into this category (χ^2=29.22, df=5, P<0.0005). In contrast, more than 80% of others who were or had smoked claimed to have read or thought about the health warnings.

Table 1.5 : Self description smokers and whether they had ever read or thought about cigarette packet health warnings(%)

	Yes	No
Chain smoker	59	41
Heavy smoker	86	14
Light smoker	80	20
Occasional smoker	88	12
Ex-smoker	80	20
Non-smoker	74	26

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

1.5 ATTITUDES TO SMOKING

There seems little doubt that the decision to smoke is largely influenced by a young person's perception of the role of smoking. Studies conducted in the USA found that smoking is related to the 'anticipation of adulthood' and is further influenced by whether parents, siblings or peers smoke (McAllister et al, 1991). Australian research into teenage attitudes to smoking has shown that smoking is strongly influenced by peer pressure and represents a symbol of belonging to a social

group, particularly in early secondary school (Winstanley et al, 1995). For young adolescents, smoking signifies maturity, control, defiance, individuality and a means of coping with stress. In later secondary school, the motivating factors include an expanding social life and the wish to assert personal power and sexuality (Winstanley et al, 1995).

Young people experimenting with cigarettes may see smoking as a way of expressing defiance against adult authority, bonding with a particular social group, affirming personal identity and coping with anxiety, failure and frustration. Tobacco use may also appeal to adolescents because of its reputation as an appetite suppressant and a calmative. Its interaction with body weight may be of particular importance to girls, and a factor in their relatively high prevalence of smoking compared to boys (Winstanley et al, 1995).

Table 1.6 shows show that smokers are more likely than non-smokers to believe themselves to be more popular (χ^2=64.76, df=20, P<0.0001). Similarly, only 25% of the chain smokers strongly disagreed that people who smoke seem more mature, compared with 60% of the non-smokers. However, Table 1.7 shows that 25% of chain smokers strongly agreed that smokers are more mature (χ^2=112.83, df=20, P<0.0001).

Table 1.6 : Self description smokers and perception about "smokers usually are more popular" (%)

	Strongly disagree	Disagree	Agree	Strongly agree	Don't know
Chain smokers	12	19	6	38	25
Heavy smokers	29	41	13	8	7
Light smokers	31	43	17	4	5
Occasional smokers	25	38	27	8	3
Ex-smokers	29	31	27	8	4
Non-smokers	31	31	24	6	8

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Table 1.7 : Self description smokers and perception about "smokers usually are more mature" (%)

	Strongly disagree	Disagree	Agree	Strongly agree	Don't know
Chain smokers	25	19	12	25	19
Heavy smokers	43	37	7	4	7
Light smokers	42	42	10	0.7	4
Occasional smokers	44	42	9	2	2
Ex-smokers	44	30	10	5	10
Non-smokers	60	30	4	1	4

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

For many young people, the ill effects of smoking only appear to become evident in old age. However, this is not the case. Cancers may begin to appear in people aged in their 30s, if they have been smoking for 15-20 years (Winstanley et al, 1995). The influence of smoking on heart disease is much greater at younger ages and even smoking one cigarette causes a wide range of physiological reactions (Winstanley et al, 1995). In general, smokers are less fit than non-smokers, performing less well in both endurance and short term exercise. Smokers are slower, reach exhaustion earlier and achieve lower goals (Winstanley et al, 1995). On average, smokers tend to suffer poorer health than non-smokers and are more likely to miss school or work due to illness (Winstanley et al, 1995). Table 1.8 indicates that 88% of the non-smokers strongly agreed that smoking harms your health

(χ^2=160, df=20, P<0.0001). Comparatively, smokers are less likely to agree that smoking harms your health.

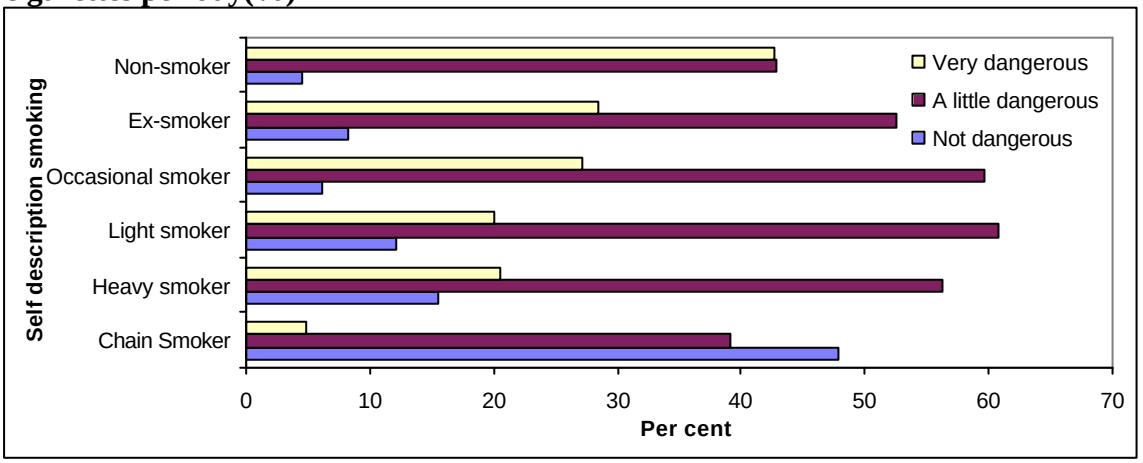
Table 1.8 Self description smokers and whether smoking harms your health (%)

	Strongly disagree	Disagree	Agree	Strongly agree	Don't know
Chain smoker	24	4	27	25	19
Heavy smoker	5	2	21	70	2
Light smoker	2	1	27	69	1
Occasional smoker	3	1	17	77	1
Ex-smoker	4	-	12	81	3
Non-smoker	3	1	7	88	1

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

There is evidence to suggest that while smokers may accept the general proposition that smoking is harmful to health, they may also dismiss their own chances of being affected, thus reducing their intention to quit (Winstanley et al, 1995). For example, Figure 1.3 shows that 48% of chain smokers believed that smoking less than 10 cigarettes per day was not dangerous, compared to fewer non-smokers. Conversely, only 4% of chain smokers believed smoking less than 10 cigarettes was very dangerous compared to 43% of non-smokers. The majority of other smokers believed it was a little dangerous.

Figure 1.3 : Self description smokers and how dangerous it is to smoke less than 10 cigarettes per day(%)



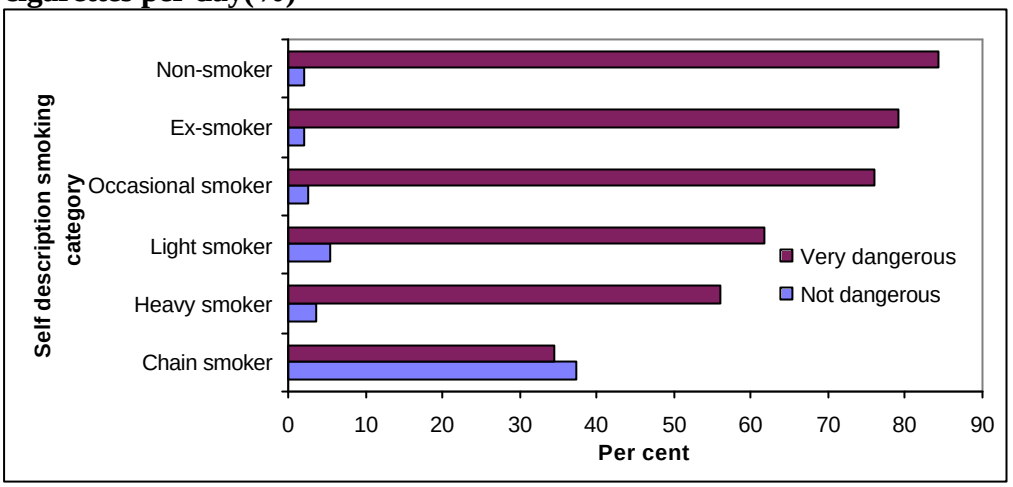
Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

As expected, Figure 1.4 shows the chain smokers were the least likely to believe it was dangerous to smoke more than 20 cigarettes per day. On the other hand, 84% of non-smokers believed it was very dangerous. Also, 62% of light smokers, 76% of occasional smokers and 79% of ex-smokers believed that it was very dangerous to smoke more than 20 cigarettes per day.

Australian research has shown that smokers are less likely than ex-smokers to agree that smokers have a greater risk of developing smoking related disease (Winstanley et al, 1995). Smokers are also more inclined than ex-smokers to support a range of self-exempting or cognitive dissonance reducing beliefs about smoking, such as 'Most people who quit smoking put on weight', "Most people smoke", "Physical activity and sport stretch the lungs and get the tar out of your system",

"It's safe to smoke low tar cigarettes" and "Many people who smoke all their lives live to a ripe old age, so smoking cannot be all that bad for you" (Winstanley et al, 1995).

Figure 1.4 : Self description smokers and how dangerous it is to smoke more than 20 cigarettes per day(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

The aim of restricting tobacco use has raised the issue of passive smoking. Although passive smokers inhale less smoke, the smoke they do inhale contains more toxic chemicals (McAllister et al, 1991). Table 1.9 indicates that chain smokers still disagree or are non-committal that passive smoking can affect somebody else's health (χ^2=52.20, df=20, P<0.0001). On the other hand, non-smokers and ex-smokers strongly agree that passive smoking affects the health of others.

Table 1.9 : Self description smokers and whether passive smoking affects the health of others(%)

	Strongly disagree	Disagree	Agree	Strongly agree	Don't know
Chain smoker	15		33	32	20
Heavy smoker	2	3	44	44	6
Light smoker	2	5	46	42	4
Occasional smoker	4	2	41	49	3
Ex-smoker	4	5	31	57	3
Non-smoker	3	2	34	58	4

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

1.5.1 Intention of smoking

Table 1.10 sets out the responses to the question, "Do you think you will be smoking cigarettes at this time next year?" The most commonly chosen category for each year level and sex group was "certainly not to be smoking". There was a slight decline for this percentage among male students at Years 8 and 11, and a sharp decline for female students to 40% at Year 8. In relation to self description of smoking behaviour and intention of smoking, 54% of chain smokers believed they would certainly be smoking next year. This compared to 71% of non-smokers who believed they would not be smoking next year.

Of the heavy smokers, 23% believed they would certainly be smoking next year, while 35% of light smokers, 54% of occasional smokers and 27% of ex-smokers were not sure. In short, current smokers were more likely to believe they would be smoking next year whereas non-smokers were certain they would not.

Table 1.10 : Intention to smoke at "this time next year" by sex and year level (%)

Year level	Gender	Certainly not to smoke	Very unlikely	Unlikely	Can't decide	Likely	Very likely	Certainly to smoke
Year 7	Males	60	11	12	11	2	1	3
	Females	62	10	7	13	7		
Year 8	Males	51	17	11	10	3	1	7
	Females	40	28	6	19	3	2	1
Year 9	Males	62	13	7	12	2	2	2
	Females	43	20	10	14	7	3	3
Year 10	Males	56	17	5	11	2	3	6
	Females	45	13	8	20	9	3	5
Year 11	Males	54	17	6	12	6	4	1
	Females	44	15	7	18	8	5	3
Year 12	Males	70	10	3	6	7	2	2
	Females	46	14	7	17	10	5	1

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

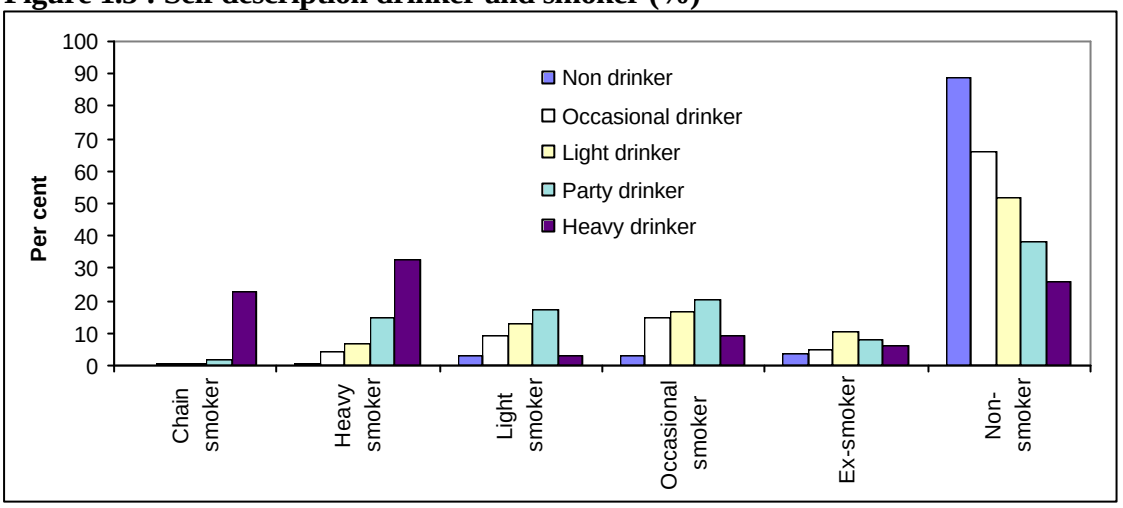
1.6 LINKS WITH OTHER DRUGS

Adolescents experimenting with alcohol or other drugs is a significant predictor of subsequently taking up smoking. Experimentation with alcohol generally occurs earlier than tobacco and adolescents who smoke are also likely to engage in other drug use (Winstanley et al, 1995). The ages for drug experimentation seem to occur between the ages of 12 and 15 years (Girgis et al, 1995). Studies carried out in the mid and late 1970s (most notably those of Kandel et al, 1995) established that there were well-defined sequential stages in adolescent drug use. In particular, they found that the use of particular drugs was more likely to lead to the use of other drugs. This has been termed 'routes of entry' (McAllister et al, 1991).

Kandel and Faust's (1975) study found at least four stages of involvement with drugs, commencing with beer or wine, and then moving to cigarettes or hard liquor, marijuana and finally other illicit drugs (McAllister et al, 1991). Since beer and wine are the 'entry drugs' into the continuum of drug use, very few individuals begin any other form of drug use without first trying a legal drug. More recent studies have confirmed that people who have never used tobacco rarely abuse alcohol or other illegal substances, while tobacco users are significantly more likely to have used marijuana, regardless of gender (McAllister et al, 1991).

Data from the 1996 ACT survey suggest that the non-smokers were more likely to be non-drinkers, while the light and occasional smokers tended to be light or party drinkers. Following this trend, the results shown in Figure 1.5 suggest that the heavy and chain smokers tended to be heavier drinkers (χ^2=517.46, df=20, P<0.0001).

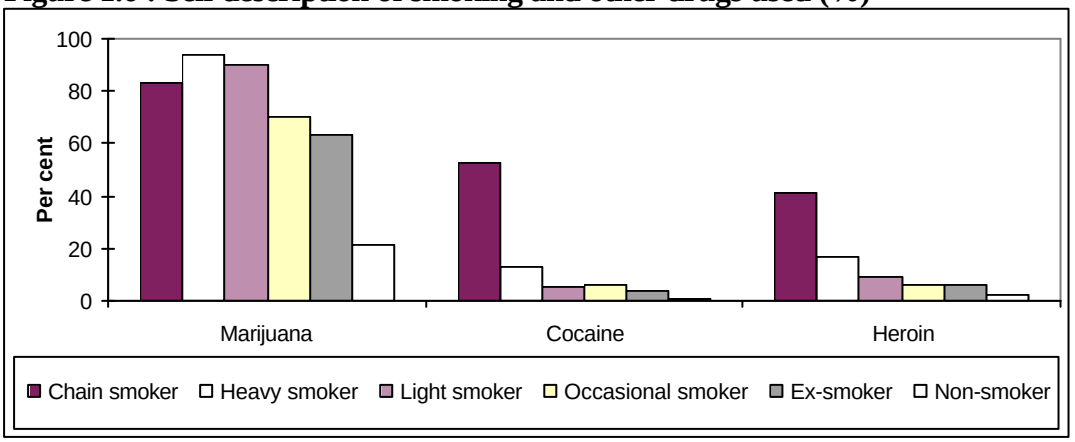
Figure 1.5 : Self description drinker and smoker (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

It appears that the more respondents smoked, the more likely they were to try other drugs. For example, of all respondents, the smokers were more likely to have smoked marijuana than the non-smokers. Figure 1.6 shows the percentage of respondents who had used marijuana, heroin and cocaine in their life time. As can be seen, the heavy smokers, chain smokers and light smokers were the heaviest users, while less than 20% of non-smokers reported they had smoked marijuana in their life times. Similarly, for other drugs such as heroin and cocaine used, less than 2% of all non-smokers reported they had used those drugs in their life time and chain smokers were more likely to try those drugs than any other group.

Figure 1.6 : Self description of smoking and other drugs used (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

SECTION 2
ALCOHOL

2.1 INTRODUCTION

Alcohol is the most widely accepted drug in Australian society (McAllister, 1993). Alcohol also is the most commonly used drug among adolescents (McAllister, 1991). It is evident from much research that the origins of problem alcohol use are found during adolescence (McAllister, 1991). Research into tobacco and alcohol use by adolescents is of particular importance as these substances are responsible for the majority of all drug-related deaths in the Australian population, whilst alcohol is the main cause of drug-related deaths in the younger age groups (Donnelley et al, 1992).

Most people perceive alcohol to be a pleasant social beverage and use it in moderation, rather than as a drug. There are two reasons why alcohol has a favourable reputation in comparison to other drugs. First, most drinkers do not become addicted, while problem drinking tends to be confined to a small minority of regular users. Second, over a long period of time, alcohol has been socially acceptable in most Western countries and its use has been included in many traditions, cultures and lifestyles (McAllister, 1991). Unfortunately, these attitudes to alcohol, which have been reinforced by the media, have been superimposed upon younger generations who have modelled their drinking behaviour mainly on that of their parents (McAllister, 1991). Adolescents are faced with many new situations. They may turn to alcohol and illicit drugs to alleviate the stress associated with change, to fit in with peers, or they may model the behaviour of a family member (Beman, 1995). Makkai & McAllister found that although adolescents are less likely than adults to be regular drinkers, when they do drink, levels of consumption are higher (Makkai & McAllister, 1993). There is a trend for initiation into alcohol use to be largely completed by the late teenage years and from then on alcohol consumption either remains stable or declines (McAllister, 1991).

Adolescent heavy alcohol use may serve as a coping mechanism for dealing with anxiety, frustration, inadequacy and failure (or its anticipation) and may also serve to confirm personal identity so that drinking and driving are a way of being ‘cool’ or ‘macho’ (McAllister, 1991). Adolescents may also see drinking as a ‘transition-marker’, or a way of claiming more mature status. Association with problem drinking and higher rates of involvement in other problem areas such as marijuana use, sexual experience and self-reported delinquency also have been reported (McAllister, 1991). Thus, the decision to begin drinking may indicate a change in overall lifestyle or a major transition for the adolescent (McAllister, 1991).

2.2 CURRENT LITERATURE

Patterns of drug use have changed in recent decades, in that the young now have high levels of tobacco, alcohol and illicit substance use compared with older Australians. Polysubstance use has emerged as a characteristic of teenage drug use. Kandel has proposed a sequential uptake of drug usage in adolescence, with experimentation with alcohol or cigarettes as preceding the use of marijuana, which then generally precedes the use of other illicit drugs (Hibbert et al, 1995). Johnson et al (1990) have suggested three categories of risk factors : demographic, social and behavioural. Lang (1985) has indicated that individual characteristics of adolescents are also involved in the onset of substance abuse (Beman 1995).

In reference to demographic risk factors, age and gender can predict the course of substance abuse. There have been several findings which suggest that males have a higher rate of alcohol and/or illicit drug use than females. Callen (1985) reported that the major risk period for initiation into alcohol and marijuana use peaks between the ages of 16 and 18 years and is mostly completed by the age of 20 years (Beman 1995).

Social risk factors include the influence of family, peers and the environment. Many studies have suggested that the use of alcohol and other drugs in families is a predictor for the adolescent to become involved. As well, adolescents whose peer group is involved with alcohol and other drugs, are also more likely to become involved (Beman 1995). In terms of environmental influences, adolescents receive mixed messages from society which tend to affect their attitude towards drinking and drug use (Beman 1995).

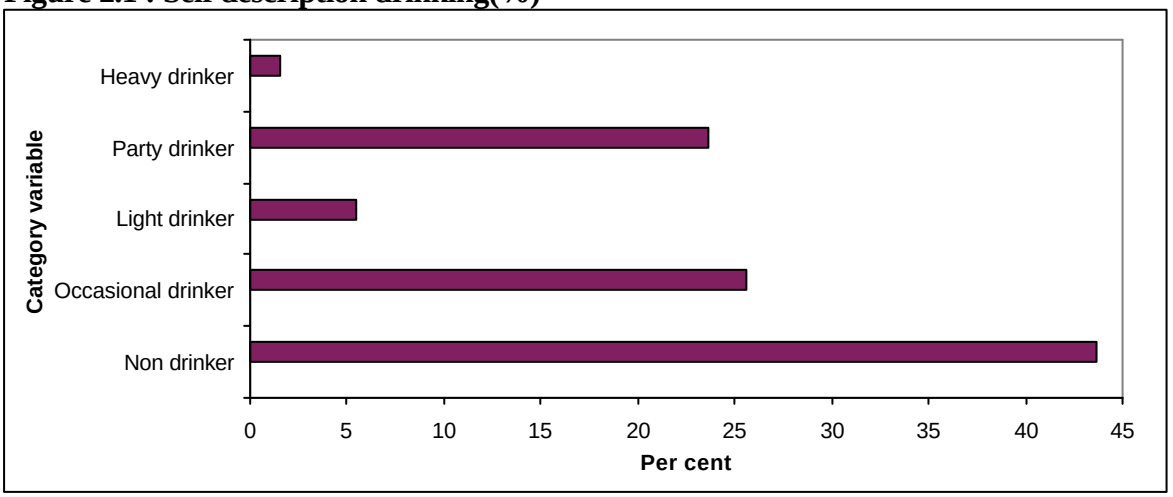
Behavioural factors may also influence adolescent drug use. Research has shown that the use of certain substances, such as alcohol and marijuana, can lead to increased use, as well as the use of harder drugs (Beman 1995). Substance abuse has also been linked with a tendency to engage in other problem behaviours such as rebelliousness and delinquent activities (Beman 1995). In terms of individual characteristics, poor academic achievement has been found to influence alcohol and/or other drug use. Alongside this, psychological variables such as self-esteem, motivation, developmental factors and depression can also be influencing factors (Beman 1995).

2.3 PREVALENCE IN ALCOHOL CONSUMPTION

2.3.1 Self description of drinking

In the 1996 ACT survey, more than 43% of all respondents described themselves as non-drinkers, 26% as occasional drinkers and 24% as party drinkers. (Figure 2.1).

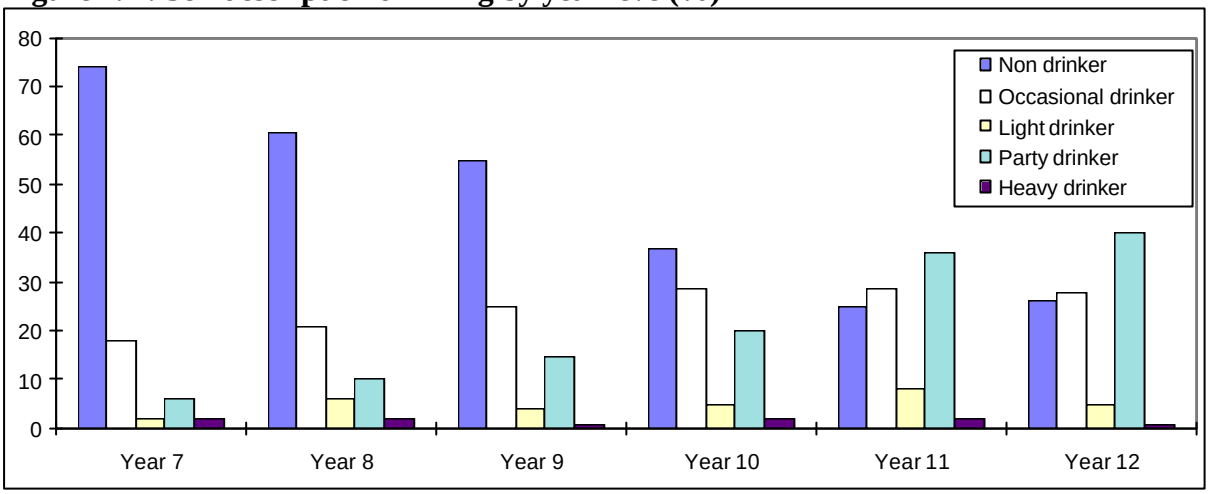
Figure 2.1 : Self description drinking(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

There were significant differences across the year level and self description of drinking (χ^2=234.55, df=55, P<0.0001). For example, of all students who responded as non-drinkers, the largest percentage was in Years 8 (27%) and Year 9 (25%). This proportion decreased to around 7% at Year 12. On the other hand, the percentage of party drinkers increased with older ages, ranging from 6% of Year 7 respondents to 40% of Year 12 respondents (Figure 2.2).

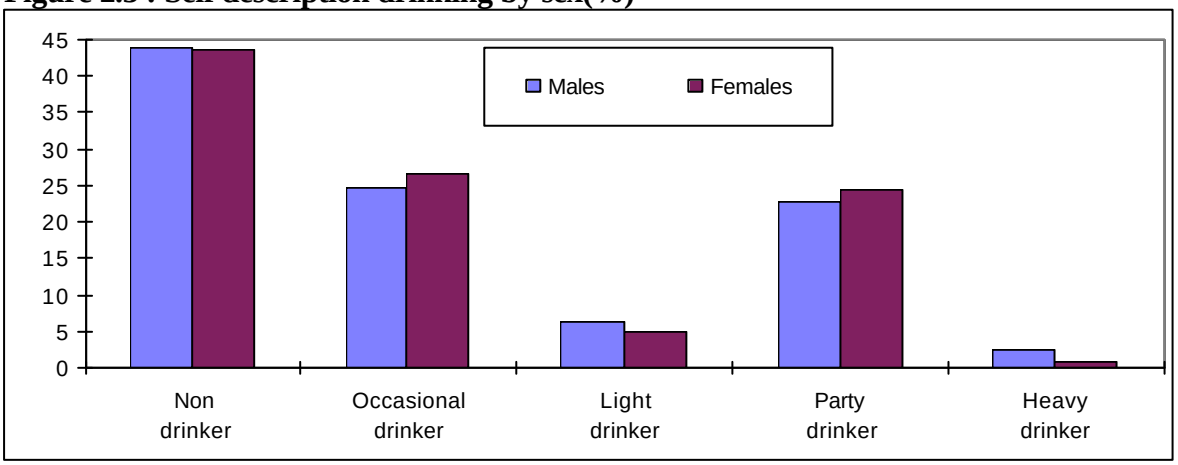
Figure 2.2 : Self description drinking by year level(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

There were also significant differences between males and females in relation to self description of drinking (Figure 2.3). It was found that more males reported as heavy or light drinkers than their female counterparts, while more females reported as party or occasional drinkers than males (χ^2=11.45, df=4, P<0.05).

Figure 2.3 : Self description drinking by sex(%)



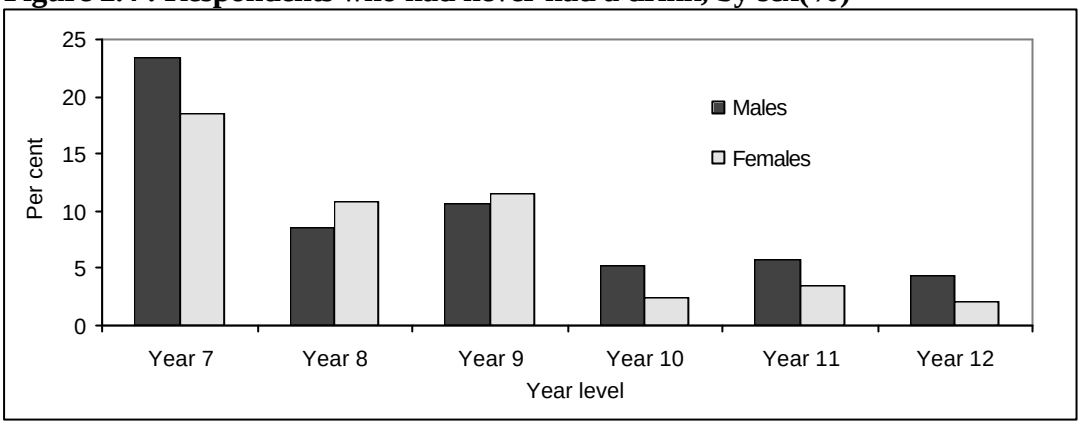
Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

2.3.2 Life time experience of drinking

In relation to lifetime experience of drinking alcohol, there were significant differences between males and females across year level for all respondents (males - χ^2=153.07, df=15, P<0.0001; females -

χ^2=239.08, df=15, P<0.0001). Over all, the proportion of students who had never had an alcoholic drink markedly decreased with age. For example, Figure 2.4 in shows that in Year 7 more than 23% of males and 18% of females reported they had never drunk alcohol. By Year 12 only 4% for males and 2% for females reported never having drunk alcohol.

Figure 2.4 : Respondents who had never had a drink, by sex(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

There were significant differences across all year levels for students who reported they had had an alcoholic drink in their life time. As Table 2.1 shows, the majority of respondents in Year 7 (53%) and Year 8 (47%) who had a drink, only consumed a few sips. However a large proportion of Year 10 (53%) to Year 12 (72%) students had more than 10 drinks. It appears that the majority of younger students are not drinking large quantities, while older students in Year 10 onwards are tending to be the heavier drinkers.

Table 2.1 : Respondents who had ever had an alcoholic drink, by year level(%)

Year level	Yes a few sips	Yes less than 10 drinks	Yes more than 10 drinks
Year 7	53	16	11
Year 8	47	21	23
Year 9	31	9	29
Year 10	20	23	53
Year 11	14	16	66
Year 12	10	15	72

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

2.3.3 Recent experience of alcohol drinking

Prevalence of drinking in the past 12 months or less, is strongly associated with age. As can be seen in Table 2.2, the proportion of students who had experience with alcohol in the past 12 months and past month rose markedly with age. For example, 57% of males and 44% of females in Year 7 reported that they had drunk an alcohol drink in the past 12 months, increasing to 90% for males and 93% for females in Year 12.

Table 2.2 : Response of recent experience in drinking by sex and year level (%)

Response	Gender	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Any drinking	Males	77	91	90	95	94	96
experience	Females	82	90	88	98	97	98
*P value**		*0.01*	*ns*	*ns*	*ns*	*ns*	*ns*
Have drank in the last	Males	57	71	74	80	88	90
12 months	Females	44	64	73	89	90	93
*P value**		*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
Have drank in the last 4	Males	34	36	41	54	63	70
weeks	Females	16	33	40	62	69	71
*P value**		0.02	*ns*	*ns*	*ns*	*ns*	*ns*
Have drank in the last	Males	22	24	30	37	45	49
week	Females	12	19	26	28	38	46
*P value**		*ns*	*ns*	*ns*	*ns*	*ns*	*ns*

** Chi square test for difference between sexes* *Source : ACT School Students' Alcohol and Drugs Survey, 1996*

Respondents were asked how many times they had three or more drinks in the last two weeks. Over two thirds of both male and female respondents had not had more than three drinks in the last two weeks. However, Table 2.3 indicates that of all male respondents, 32% reported that they had five or more drinks in the last two weeks. Of those respondents, 15% had this number of drinks once and 8% had this number twice. Similarly, of all female respondents, 35% reported that they had more than 3 drinks in the last two weeks with nearly 20% and 8% of these respondents reporting that they had this number of drinks once and twice respectively.

There are significant differences across student year levels in relation to recent experience of alcohol drinking. For example, approximately 80% of Year 7 and Year 8 females and males had not had more than 3 drinks in the last two weeks. This percentage decreased with age (see Table 2.4). Furthermore, when asked whether they had used alcohol in the last four weeks, 25% of Year 7 respondents admitted they had used alcohol in that time. Table 2.5 shows that the percentage of respondents using alcohol in the last 4 weeks increased to 71% for Year 12 respondents (χ^2=162.24, df=5, P<0.00001).

Table 2.3 : How many times respondents had had three or more drinks in the last two weeks, by sex (%)

	Males	Females
None	68	66
Once	15	20
Twice	8	8
3-6 times	5	5
7-9 times	1	1
10 or more	3	1

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Table 2.4 : Respondents who had no drinks in the last two weeks, by sex(%)

	Males	Females
Year 7	82	85
Year 8	79	80
Year 9	78	73
Year 10	66	61
Year 11	57	56
Year 12	54	54

Source : ACT School Students' Alcohol and Drugs Survey and 1996

Table 2.5 : Whether respondents had used alcohol in the last 4 weeks(%)

	Males	Females
Year 7	34	16
Year 8	36	33
Year 9	41	40
Year 10	54	61
Year 11	62	67
Year 12	70	71

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

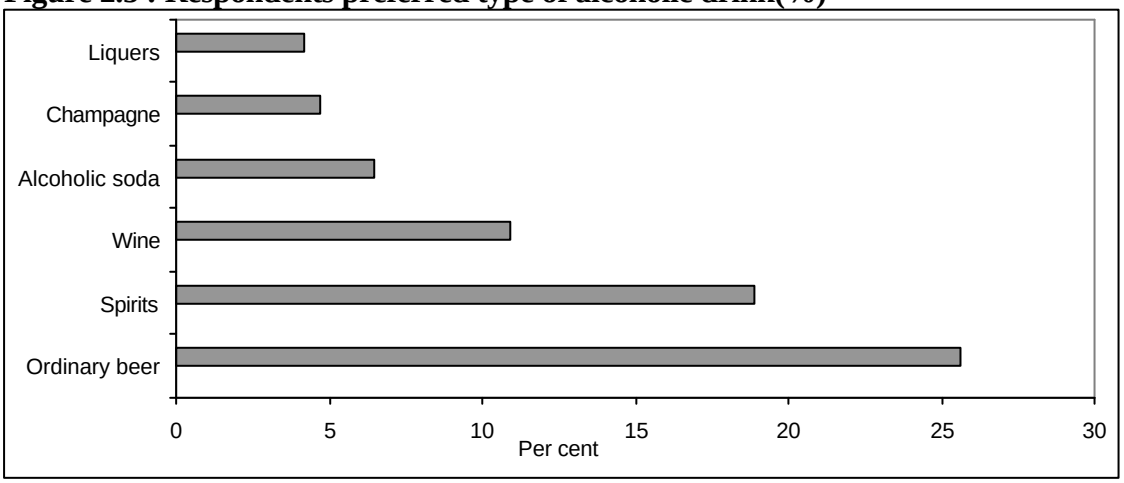
2.4 PURCHASING OF ALCOHOL

2.4.1 Type of alcoholic drink

Current drinkers were asked to indicate their usual alcoholic drink. The most popular type was ordinary beer, followed by spirits, wine, alcoholic soda, champagne and liqueurs (see Figure 2.5). However, there were significant differences between males and females in preferred alcoholic drinks. Figure 2.6 shows that among male students beer was the most popular drink (50%) follow by spirits (25%) and wine (9%). For female students, the most preferred drink was spirits (23%), followed by beer (19%) and wine (17%).

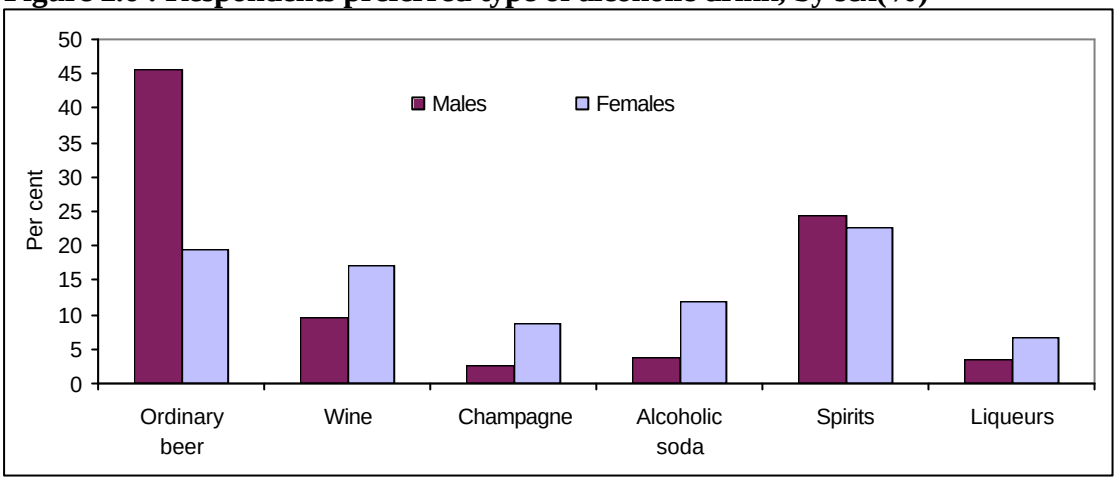
The National Drug Strategy Household Survey 1995 also found that the type of alcohol consumed varied by gender with wine being preferred by females, whilst beer was the preferred drink for males (Commonwealth Department of Health and Family Services, 1995).

Figure 2.5 : Respondents preferred type of alcoholic drink(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

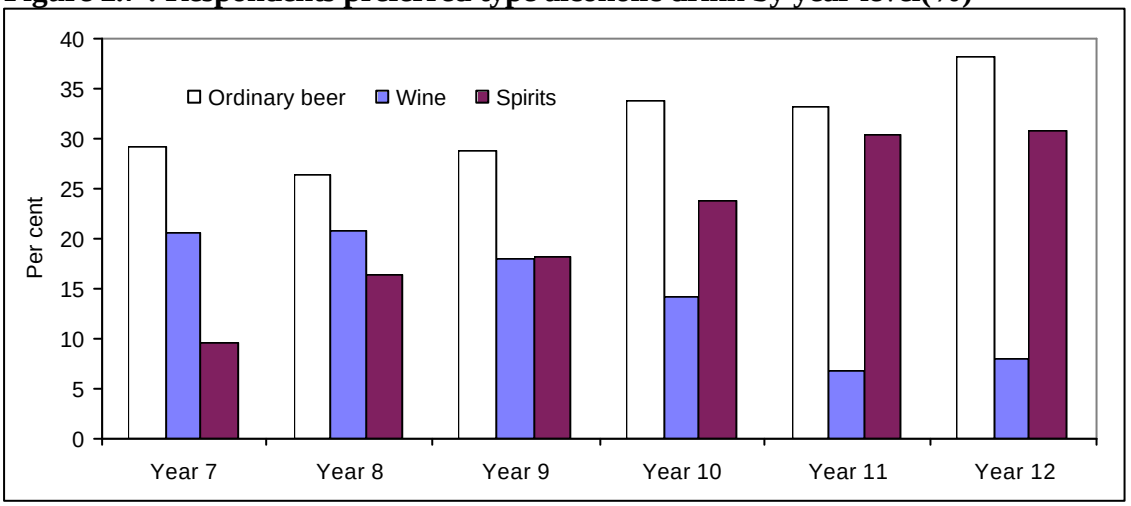
Figure 2.6 : Respondents preferred type of alcoholic drink, by sex(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

One possible explanation for the heavier consumption of spirits among adolescent females is that drinking spirits may be seen as more mature and sophisticated. On the other hand, for adolescent males, becoming a beer drinker is an Australian 'rite of passage' and entitles the young males to membership of the adult males' drinking group (McAllister, 1991). Figure 2.7 suggests that the preference for ordinary beer and spirits increases with year level. However it seems that a preference for wine decreases with age.

Figure 2.7 : Respondents preferred type alcoholic drink by year level(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

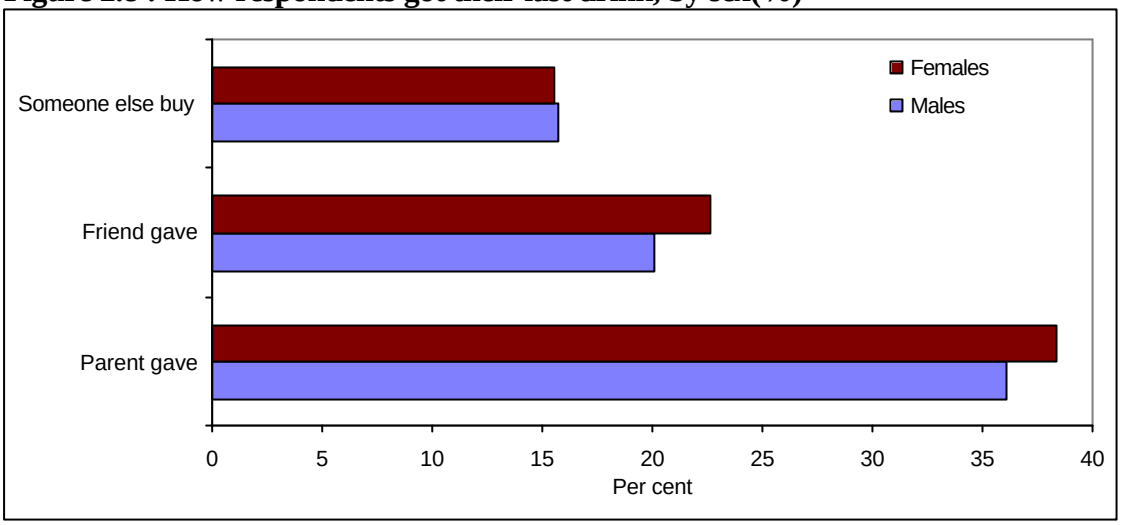
Greater alcohol consumption is also more likely to be associated with individuals who perceive that large numbers of their peers drink. As well, the type of alcoholic beverage consumed has a significant impact on levels of consumption. Judged against the residual category (mainly fortified wines), beer drinkers are likely to consume more, followed by spirit drinkers; those who drink mainly wine are likely to consume significantly less alcohol than all of these groups (McAllister, 1991).

2.4.2 How respondents obtain their alcohol

Students were asked how they obtained their alcohol. For those who did not buy the alcohol, just over one third of both males and females obtained it from their parents. Following this method,

around one fifth of both male and female respondents obtained their alcohol from a friend, whilst 16% of both males and females got someone else to buy the alcohol for them (see Figure 2.8).

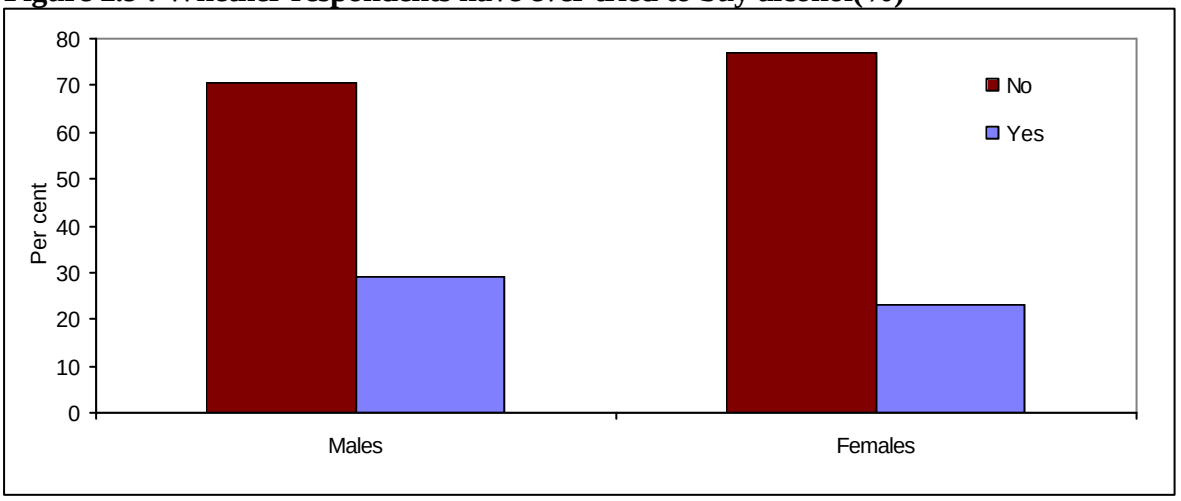
Figure 2.8 : How respondents got their last drink, by sex(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

There was significant difference between male and female students buying alcohol (χ^2=8.23, df=1, P<0.005). Figure 2.9 shows the majority of male and female respondents had never tried to buy alcohol. This is particularly the case for males in Year 7 (93%) and Year 8 (83%) and females in Year 7 (97%) and Year 8 (96%). However, the percentages for both males and females decreased to 40% for males and 49% for females in Year 12 (see Table 2.6).

Figure 2.9 : Whether respondents have ever tried to buy alcohol(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Table 2.6 : Whether respondents had ever tried to buy alcohol by sex and year level (%)

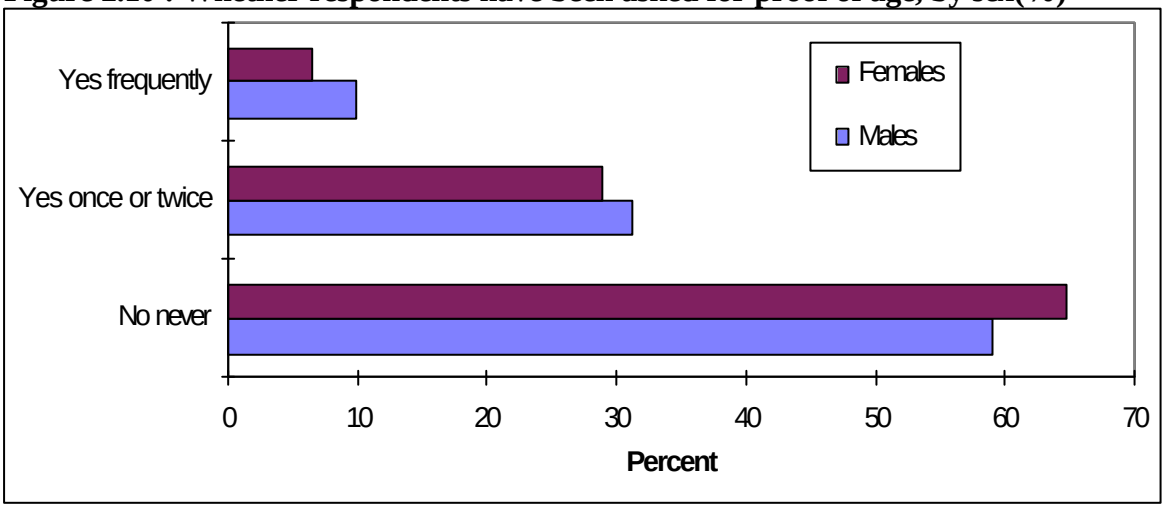
	Males		Females	
	Yes	No	Yes	No
Year 7	7	93	3	97
Year 8	17	83	4	96
Year 9	12	88	11	89
Year 10	32	68	21	79
Year 11	42	58	40	60
Year 12	60	40	51	49

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Figure 2.10 shows that nearly two thirds of both male and female respondents had never been asked for proof of age when purchasing alcohol. On the other hand, just over one fifth of both males and females had been asked once or twice (χ^2=9.11, df=2, P<0.05). There were also significant differences across year levels in relation to proof of age when purchasing alcohol.

Of all male respondents, 90% of Year 7 males had never been asked for proof of age. This percentage decreased markedly to 35% of Year 12 males (χ^2=65.47, df=10, P<0.00001). Of all female respondents, 85% of Year 7 females had never been asked for proof of age. This percentage decreased markedly to 44% of Year 12 female respondents (χ^2=63.88, df=10, P<0.00001).

Figure 2.10 : Whether respondents have been asked for proof of age, by sex(%)

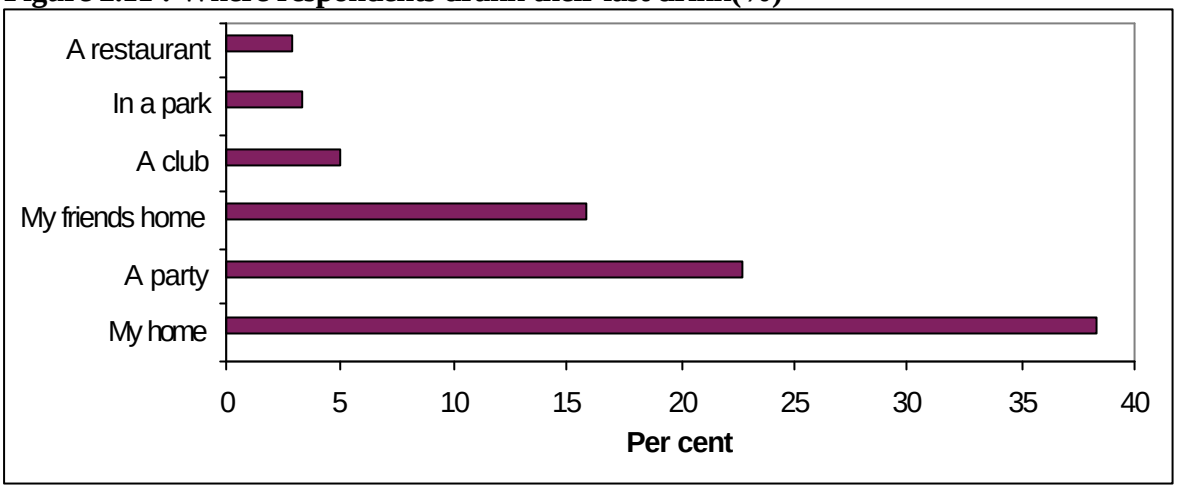


Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

2.4.3 Where the respondents drank their alcohol

According to Figure 2.11, the most popular location for consuming alcohol was the respondents' own home (38%), followed by a party (23%) and a friend's home (16%). Only 5% of respondents said at a club, while 3% of respondents said in a park or at a restaurant.

Figure 2.11 : Where respondents drank their last drink(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Findings from The National Drug Strategy Household Survey 1995 suggest that persons aged 14-19 years were most likely to consume alcohol at parties or at a friend's home (Commonwealth Department of Health and Family Services, 1995). The survey also found that older persons were more likely to prefer a restaurant and cafe (Commonwealth Department of Health and Family Services, 1995).

2.5 LESSONS IN ALCOHOL CONSUMPTION

There were significant differences between year levels for lessons about alcohol at school. For example, more than 50% of students in every year level received at least part of a lesson about drinking in the previous year. However, the percentage of students who reported they had at least part of a lesson about alcohol decreased steadily from 82% in Year 7 to 54% in Year 12.

2.6 ATTITUDES TO DRINKING ALCOHOL

According to Cahalan and Room (1974), there is a tendency for alcohol abuse to decline as adolescents get older. Once the stresses associated with the developmental changes in adolescence and young adulthood have diminished, the individual may have less need for drugs (McAllister, 1991). Dinges and Oetting (1993) believe that peer influence is important in understanding adolescent drug use. Some of their findings indicated that a youth who used specific drugs in the last thirty days almost invariably has friends who also use those same drugs, but is considerably less likely to have friends who use other drugs or no drugs.

2.6.1 Socialising effects of alcohol consumption

There was a significant difference between males and females regarding their attitude towards alcohol consumption. Over a third of respondents agreed that getting occasionally drunk was not a problem. However, more encouragingly, 26% of male and 31% of female respondents disagreed with the

statement (see Table 2.7). A much smaller proportion of students either strongly disagreed or strongly agreed with the statement (χ^2=12.47, df=4, P<0.0001).

Table 2.7 : Respondents perception of whether being occasionally drunk is no problem, by sex (%)

	Males	Females
Strongly disagree	13	12
Disagree	26	31
Agree	37	38
Strongly agree	14	9
Don't know	10	10

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Students were asked their perception as to whether drinking was the best way to get to know people. Table 2.8 shows that 10% of males and 5% of females strongly believed this to be the case and approximately one fifth of females and 29% of males agreed with this statement. On the other hand, over one fifth of females and 15% of males strongly disagreed with the statement, whilst more than 10% were unsure (χ^2=55.94, df=4, P<0.0001).

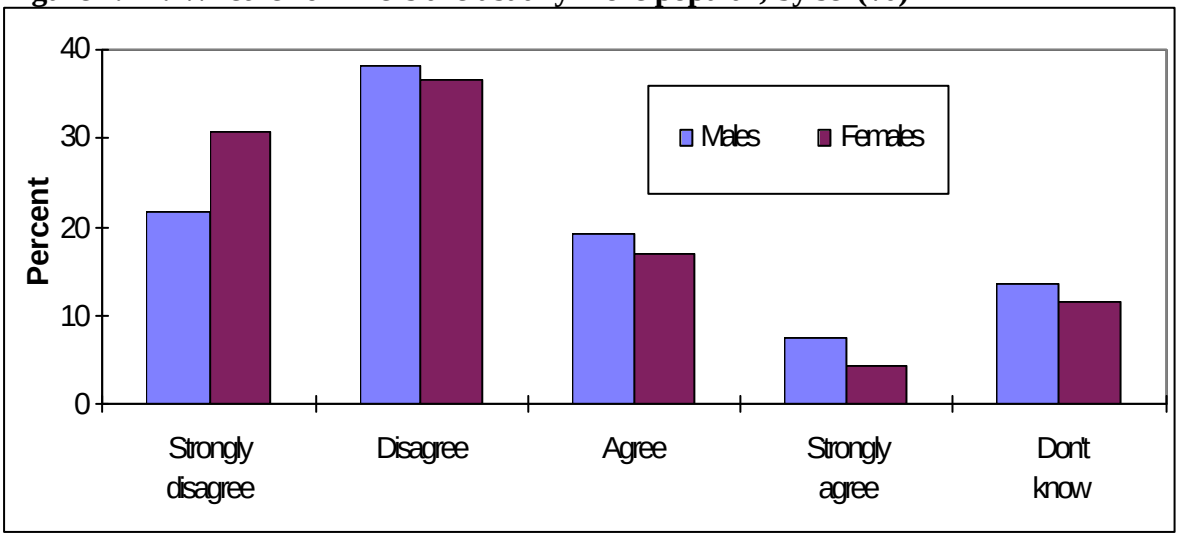
Table 2.8 : Respondents perception of whether drinking is the best way to get to know people by sex(%)

	Males	Females
Strongly disagree	15	23
Disagree	33	41
Agree	29	20
Strongly agree	10	5
Don't know	14	11

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

In response to the question about whether drinkers are more popular, 22% of males and 31% of females strongly disagreed, with over one third of both males and females disagreeing with the statement (χ^2=23.26, df=4, P<0.0001). On the other hand, nearly one fifth of the male and female respondents agreed with the statement. Furthermore, Figure 2.12 shows that 14% of males and 12% of females were unsure about their position.

Figure 2.12 : Whether drinkers are usually more popular, by sex(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Peers have a strong influence on whether or not an adolescent will abuse alcohol and other drugs (Beman, 1995). During adolescence, acceptance by one's peers is of primary importance. Adolescents in a peer group which is involved with substance abuse may also abuse that substance rather than jeopardise their sense of connectedness to the group (Beman, 1995). In relation to peer group influence, over half the female respondents and over one third of the male respondents strongly disagreed with the statement that they are not part of a group if they are not drinking (see Table 2.9). Over one third of both males and female respondents disagreed with this statement, while on the other hand, only 9% of male respondents agreed with the statement. As well, 9% of males respondents were unsure about the statement (χ^2=55.03, df=4, P<0.00001).

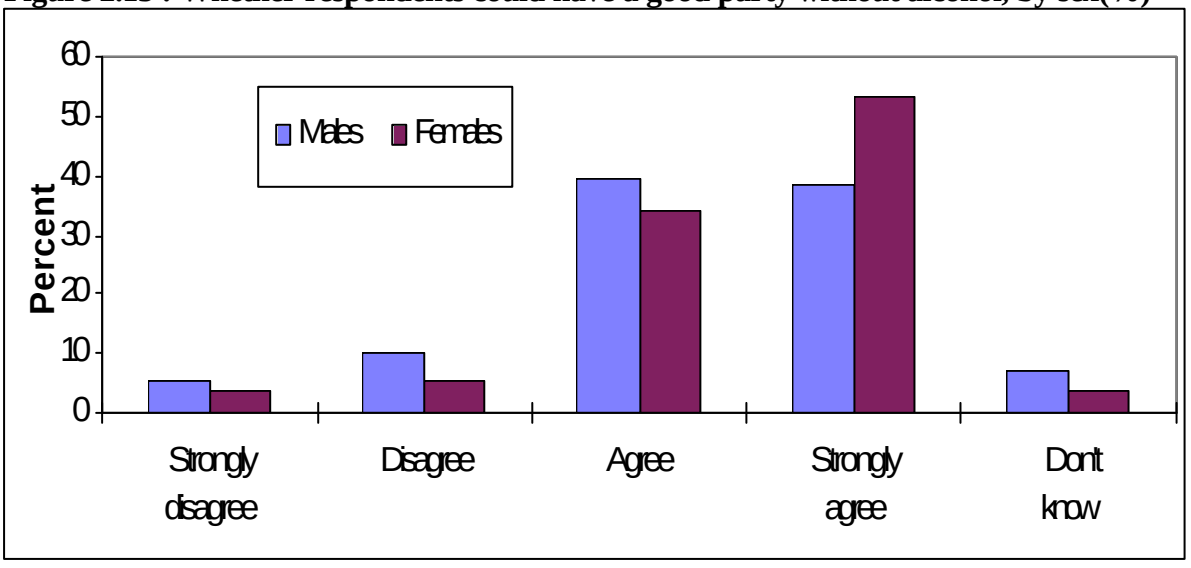
Table 2.9 : Respondents perception of whether they are not part of a group if they are not drinking, by sex (%)

	Males	Females
Strongly disagree	37	53
Disagree	41	36
Agree	9	5
Strongly agree	4	2
Don't know	9	5

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

When asked whether they could have a good party without alcohol, Figure 2.13 indicates that just over half of the female respondents and just over a third of male respondents strongly agreed with this statement. Following this, 40% of male respondents and 34% of female respondents agreed they could have a good party without alcohol (χ^2=54.53, df=4, P<0.0001).
Over one third of respondents disagreed with the statement that drinking is the best way of relaxing. Of the respondents, 13% of males and 16% of females strongly disagreed with this statement (χ^2=46.27, df=4, P<0.0001). Unfortunately, 26% of respondents agreed with this statement. However, this finding corresponds with the finding from Hall et al concerning the perception that alcohol has beneficial health effects, particularly analgesic and relaxation properties (Hall et al, 1992).

Figure 2.13 : Whether respondents could have a good party without alcohol, by sex(%)

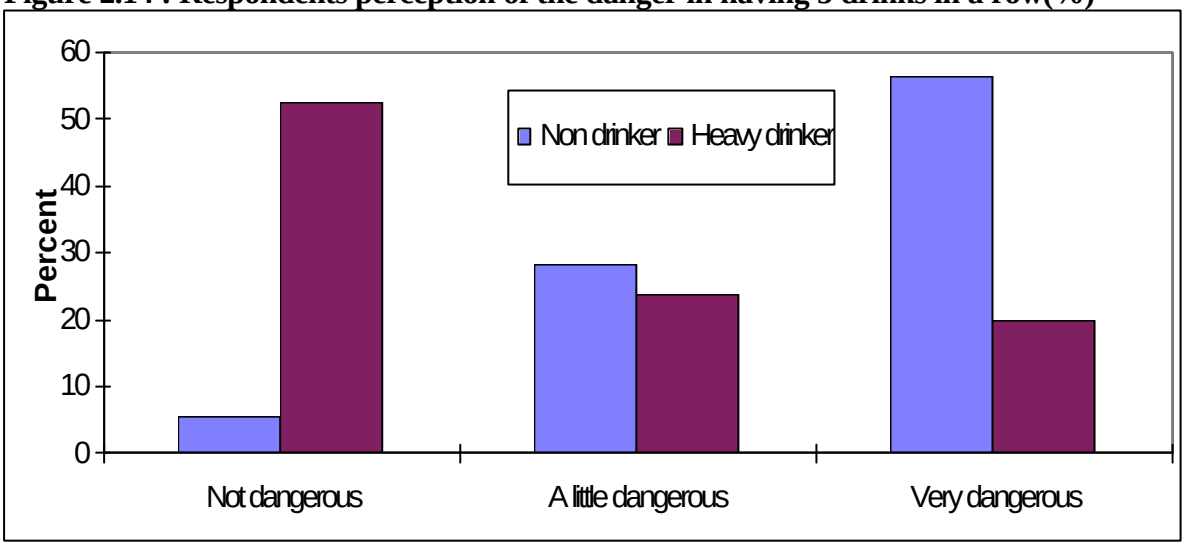


Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

2.6.2 Perceived dangers of alcohol use

Students who have never used alcohol are most likely to feel that even relatively low levels of use are dangerous. Conversely, the heavy alcohol users see only a little danger. Results from the 1996 ACT school survey (see Figure 2.14) showed that more than 50% of the heavy drinkers considered having 5 alcoholic drinks in a row was not dangerous while nearly 60% of the non drinkers considered it as very dangerous.

Figure 2.14 : Respondents perception of the danger in having 5 drinks in a row(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Table 2.10 shows that 41% of the male respondents believed it was a little dangerous to drink five alcoholic drinks in a row. One third of the male respondents believed it to be very dangerous while more female respondents (44%) believed it to be very dangerous. 20% of male respondents believe that drinking five alcoholic drinks in a row was not dangerous.

Table 2.10 : Respondents perception of danger in having 5 alcoholic drinks in a row, by sex (%)

	Males	Females
Not dangerous	20	10
A little dangerous	41	39
Very dangerous	32	44
Don't know	6	7

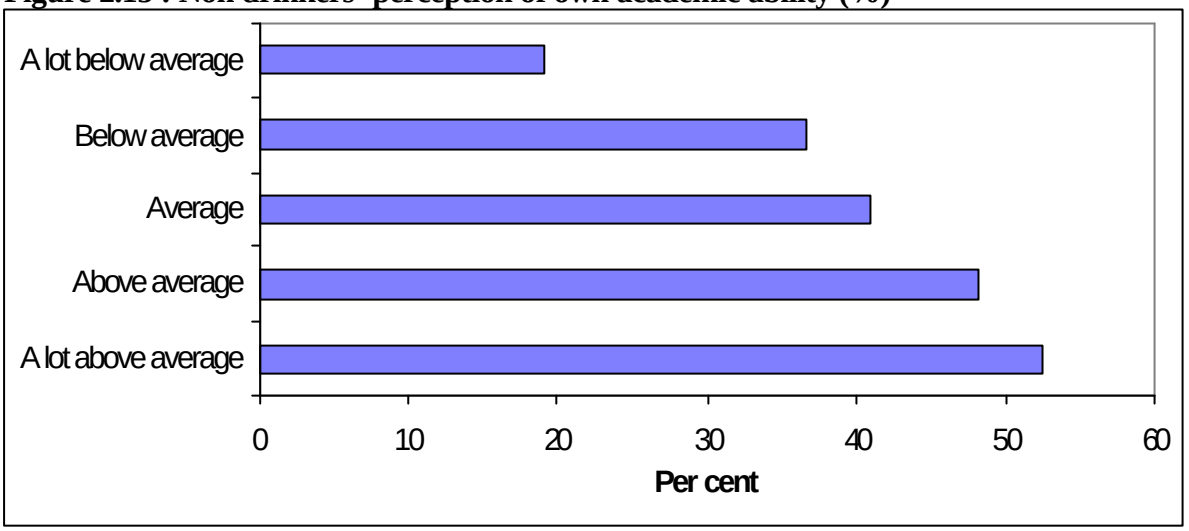
Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

2.6.3 Academic ability and self description drinking

Poor academic achievement has been found to influence alcohol, as well as other drug use (Beman, 1995). Beman suggests that firstly, adolescents who do poorly in school may feel they are failures. They may then turn to substance abuse to alleviate the distress this causes. Conversely, adolescents who are heavily involved with alcohol and other drugs tend to place little value on academic performance, as the urge to drink or use drugs may be of primary importance (Beman, 1995).

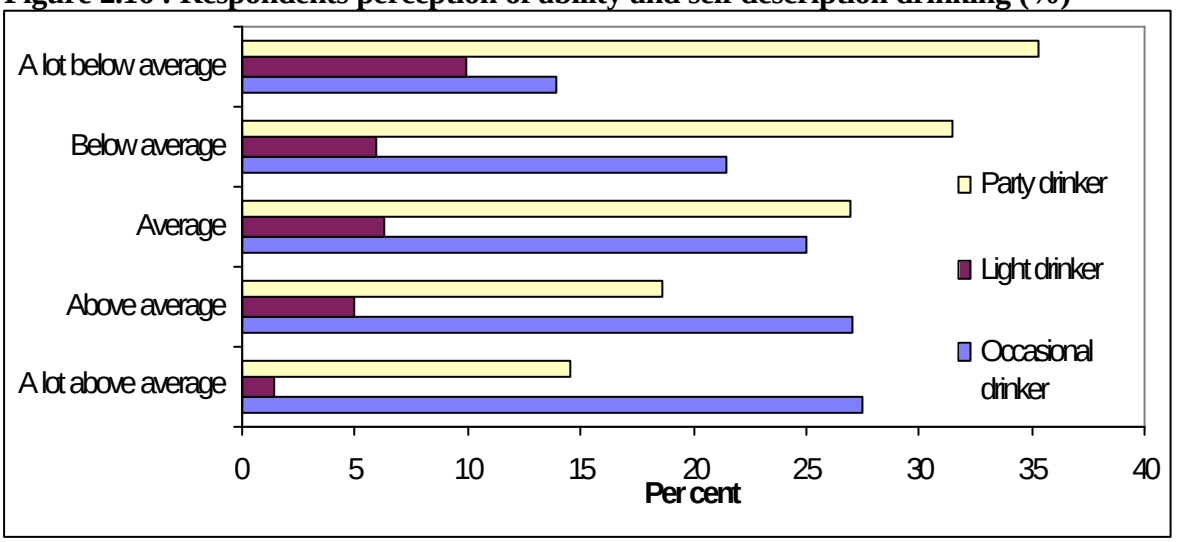
There was significant correlation between self description of drinking alcohol and school ability (χ^2=105.94, df=16, P<0.00001). For example, non-drinkers saw themselves as being a lot above average academically (see Figure 2.15). Respondents who perceived themselves to be average or above in academic ability were more likely to be occasional drinkers. In addition, those respondents who perceive themselves to be average or below in their academic ability, were more likely to be party drinkers and heavy drinkers (Figure 2.16 and Figure 2.17). Jenkins (1996) found that involvement in school, as indicated through higher grades and extra-curricular involvement, indicates a relationship with decreased gateway drug use.

Figure 2.15 : Non drinkers' perception of own academic ability (%)



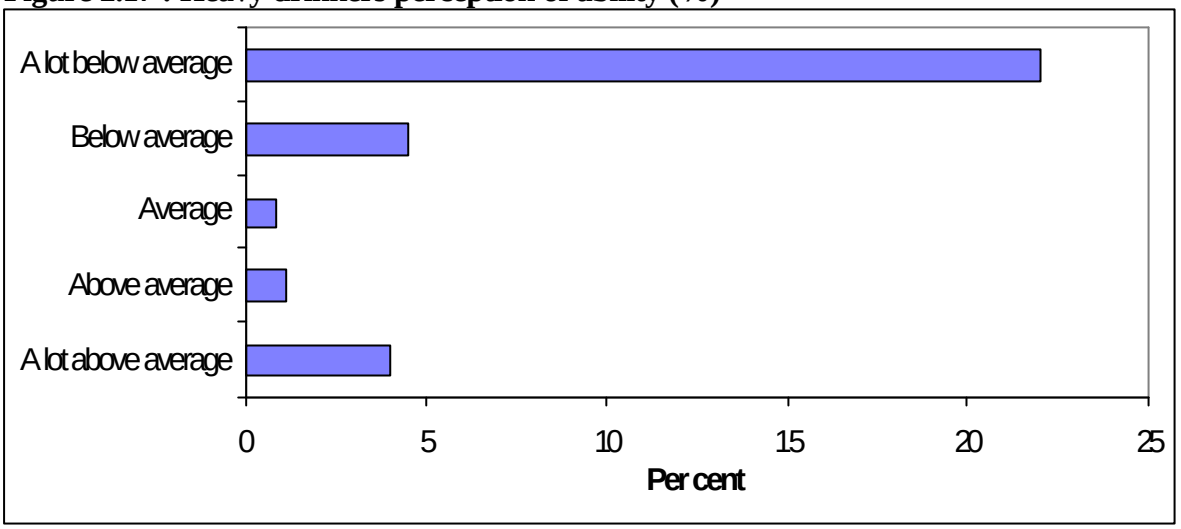
Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Figure 2.16 : Respondents perception of ability and self description drinking (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Figure 2.17 : Heavy drinkers perception of ability (%)

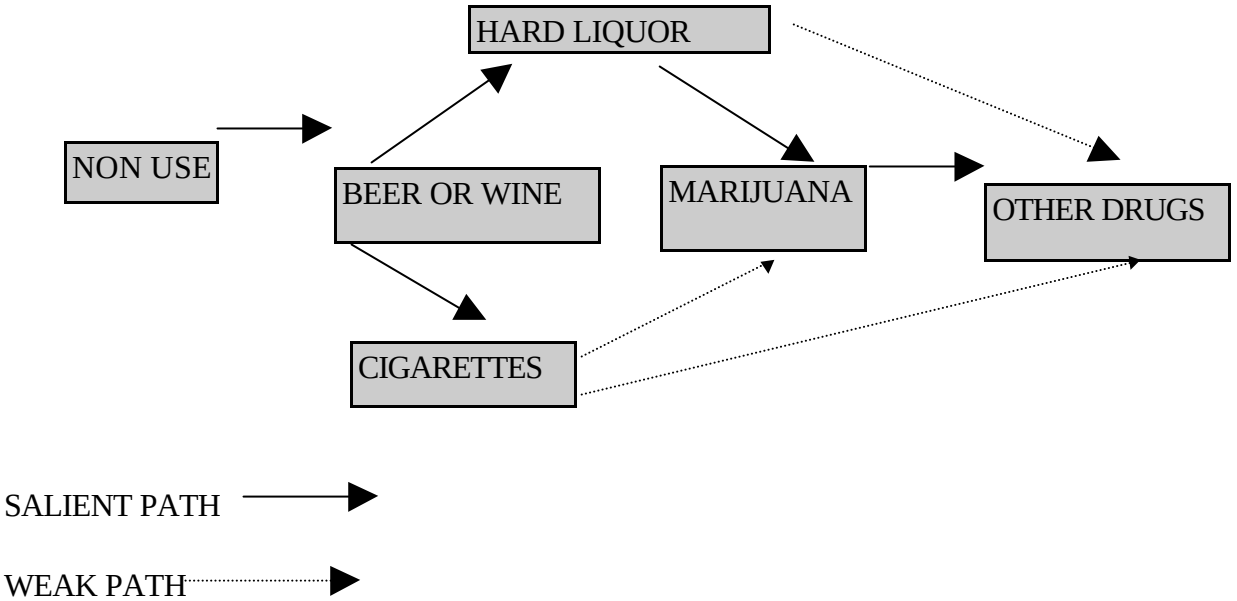


Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

2.7 LINKS WITH OTHER DRUGS

Kandel has identified four developmental stages in adolescent drug use. It generally begins with beer or wine and moves to cigarettes or hard liquor, marijuana and finally other illicit drugs (McAllister, 1991). There is further evidence to suggest that there is a gateway effect in terms of drug use. It has been postulated that some adolescents enter drug use by experimenting with beer or wine. Some then move on to hard liquor and/or cigarettes and marijuana. A minority may then experiment with other illicit substances or hard drugs such as amphetamines, barbiturates or cocaine. Figure 2.18 shows *a* model of a sequence of adolescent drug use. Clearly, there are many theories regarding links with drug use, and this is but one. It is not tabled as the only pathway, merely an example of how progression from one drug to another can occur.

Figure 2.18 : Possible sequence of adolescent drug use

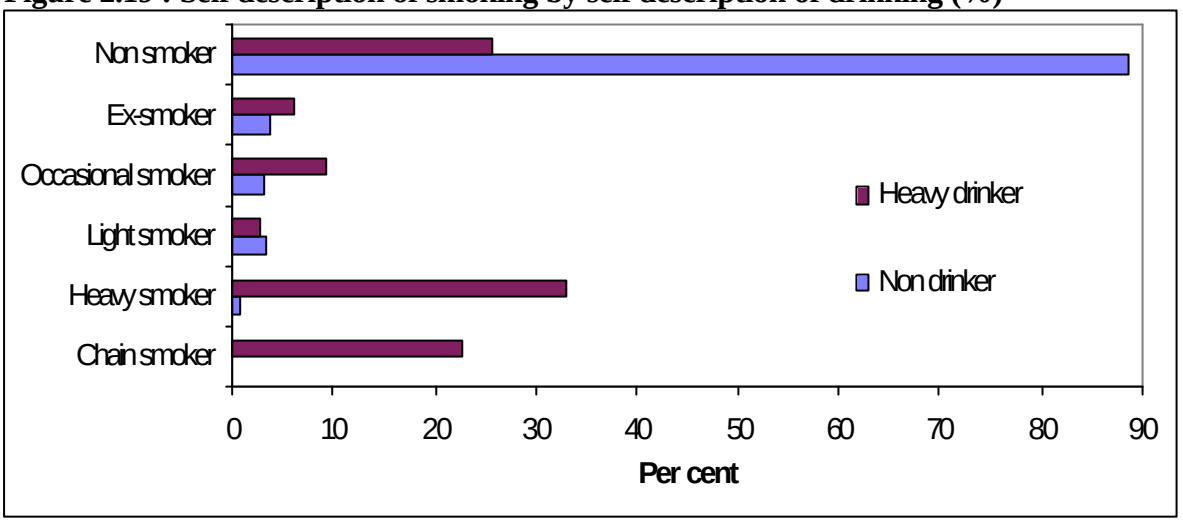


Source : Department of Employment, Education and Training, Youth Bureau, Young Australians and Drugs, 1988

2.7.1 Self description drinking and self description smoking

Patton and colleagues found that, amongst adolescents, frequency of smoking emerged as a key association of heavier drinking (1995). Alongside this, both frequent smoking and frequent drinking carried independent and strong associations with more frequent marijuana use. Figure 2.19 shows that non drinkers were more likely to be non smokers. Heavy drinkers were the heaviest smokers with most being heavy smokers and chain smokers.

Figure 2.19 : Self description of smoking by self description of drinking (%)

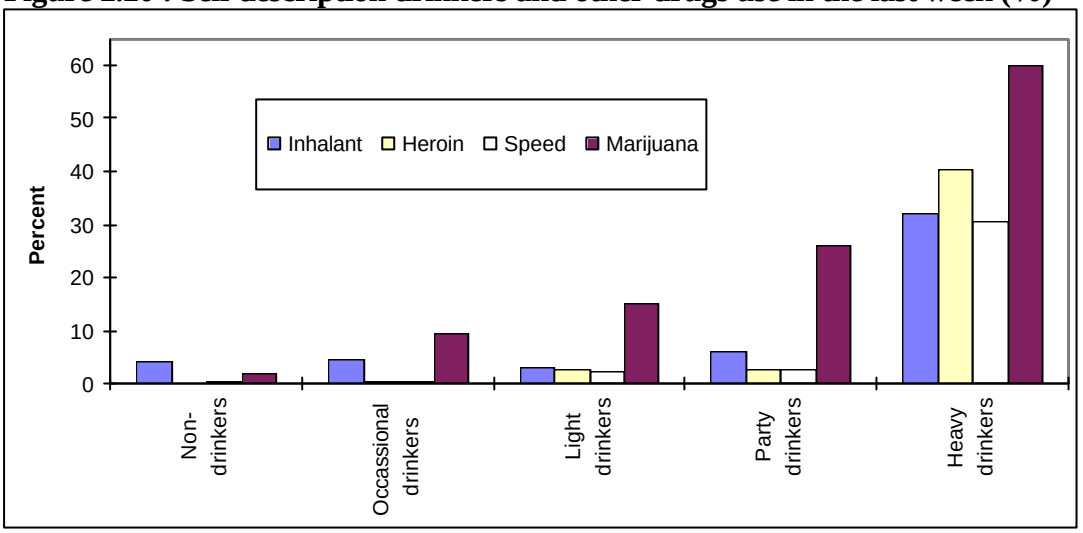


Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

2.7.2 Self description drinking and other substances use

Of all respondents, those that drank alcohol were more likely to use other substances than the non-drinkers. Figure 2.20 shows the percentage of respondents who had used marijuana and other substances in the last week. As can be seen, the heavy drinkers were the heaviest users of marijuana, while the non-drinkers smoked the least amount of marijuana (χ^2=218.27, df=4, P<0.00001). Similar patterns were also reported for other substances used such as inhalant (χ^2=38.68, df=4, P<0.00001), heroin (χ^2=300.43, df=4, P<0.00001), and speed (χ^2=170.91, df=4, P<0.00001).

Figure 2.20 : Self description drinkers and other drugs use in the last week (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

SECTION 3
OTHER SUBSTANCES USED

INTRODUCTION

This section discusses findings from an analysis of the students' self reported use of substances other than tobacco and alcohol. It is important to note that in a survey which seeks information on drug use behaviour, some students may fail to report their illicit use while others may exaggerate it. Therefore, the results detailed this section need to be treated with extreme caution.

In the discussion that follows respondents are grouped according to the time period in which they reported using various substances. These time periods are classified as 'never used', 'used in the past, but not in the last 12 months', 'used in the previous 12 months, but not in the last 4 weeks', 'used in the previous 4 weeks, but not the last 7 days', and 'used in the previous 7 days'. For convenience, these periods are called 'the past', 'the previous 12 months', 'the previous 4 weeks' and 'the previous 7 days'.

3.1 STEROIDS

The use of these drugs to improve performance in a wide range of sporting activities has raised concern, given their severe potential side-effects. In addition, self administration by intramuscular injection brings with it the potential of transmission of HIV or hepatitis if needles are shared. In the 1996 ACT School Survey, students were asked 'How many times, if ever, have you used or taken steroids, 'muscle', or 'roids' without a doctors prescription in an attempt to make you better at sport, to increase muscle size or to improve your general appearance?'

As Table 3.1 shows, reported use of steroids was low. Overall, 4 per cent of males and less than 1 per cent of females reported using steroids at some stage in their lives. Males were significantly more likely to report use of these drugs in the previous year ($\chi 2=5.7$, df=1, $p<0.05$), and the previous 7 days ($\chi 2=24.9$, df=1, $p<0.00001$). After controlling for sex, no association was found between year level and reported use of steroids.

Table 3.1: Frequency of steroid use -percentage of students, by year level, by sex

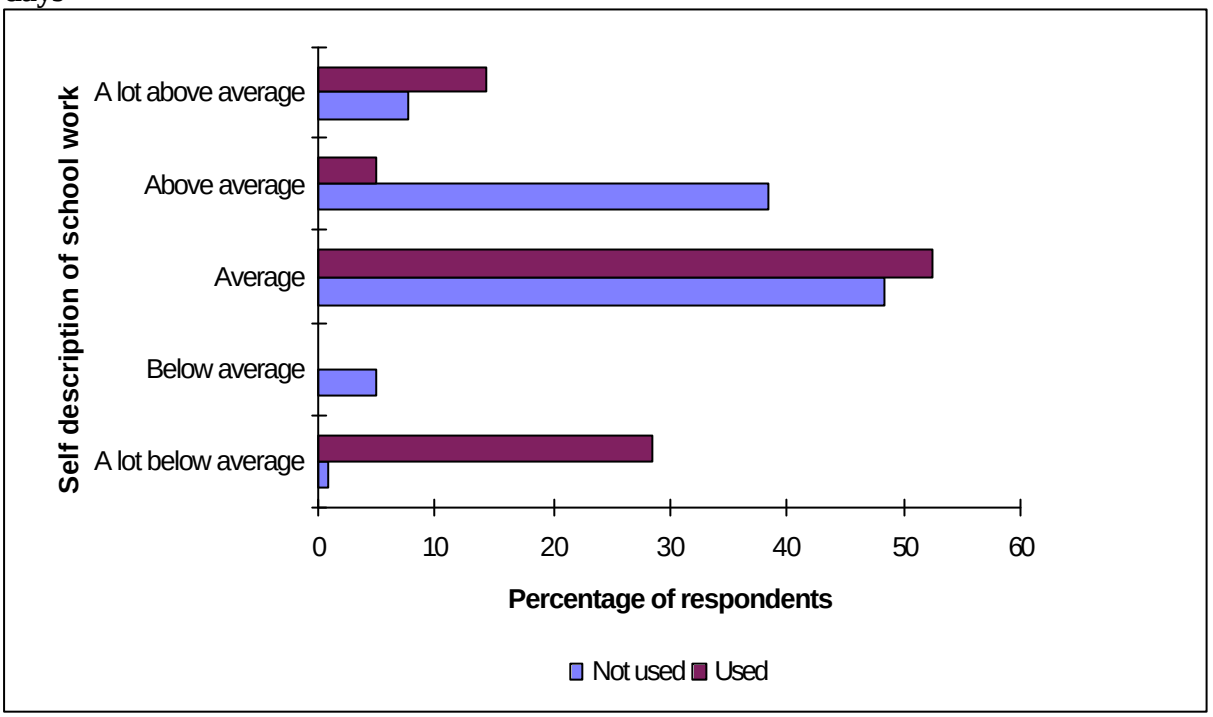
Reported use	Sex	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Never	M	95.2	95.5	94.8	93.7	98.3	97.1
	F	100.0	100.0	99.0	100.0	100.0	100.0
Past, but not the last 12 months	M	0.0	0.0	1.9	1.3	0.6	0.0
	F	0.0	0.0	1.0	0.0	0.0	0.0
Last 12 months, but not the last 4 weeks	M	0.0	0.0	0.6	1.3	1.1	1.0
	F	0.0	0.0	0.0	0.0	0.0	0.0
Last 4 weeks, but not the last 7 days	M	0.0	0.0	0.0	0.0	0.0	0.0
	F	0.0	0.0	0.0	0.0	0.0	0.0
Last 7 days	M	4.8	4.5	2.6	3.8	0.0	2.0
	F	0.0	0.0	0.0	0.0	0.0	0.0

Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

Figure 3.1 shows the results after an examination of the students' assessment of their own school work ($\chi 2=115.4$, df=4, $p<0.00001$). It can be seen that males who had used steroids in the previous week were somewhat more likely to describe their work as 'a lot above average', or 'a lot

below average' than those who had not used in that time period. Too few females reported use of steroids in the previous week to present a similar analysis for them.

Figure 3.1: Self description of school work, males, by use/non-use of steroids in previous 7 days



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

3.2 PAIN RELIEVERS

Many of the drugs in this category are available without prescription. Although these drugs are legally obtainable they may be abused, possibly endangering a person's health. The risk of harm is increased if the medication abused contains more than one drug, or if these drugs are ingested with alcohol (McAllister et al, 1991). Adverse health outcomes include renal impairment and possibly renal failure (McAllister et al, 1991).

In the 1996 ACT School Survey, students were asked whether they had 'ever taken pain relievers; tablets, powders or pills to relieves pain or lower a temperature, such as Aspro, Disprin, Bex powders or Vincent's powders?'. The use of pain relievers was widespread among students (refer Table 3.2). Among Year 12 students, 98 per cent of males and all females had used pain relievers at some stage in their lives. Overall, there was a statistically significant association between recent use of analgesics and respondents' sex. Approximately 32 per cent of students reported use of pain relievers in the previous 4 weeks. Of these students, 44 per cent were male and 56 per cent were female ($\chi 2=30$, df=1, $p< 0.00001$). Approximately 44 per cent of students reported use in the previous 7 days. Again, females were more likely to report use in this period (40% males, 60 per cent females) ($\chi 2=26.4$, df=1, $p<0.0001$). After controlling for sex, there was a significant relationship between year level and use of pain relievers by males in the previous 12 months, with more than expected Year 8 boys reporting use in that time ($\chi 2=12.5$, df=1, $p<0.05$). No

association was found between the respondents' self description of their school work and use of pain relievers in the previous week.

Table 3.2: Prevalence of pain reliever use -percentage of students, by year level, by sex

Reported use	Sex	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Never	M	11.5	0.7	4.0	2.6	2.4	2.0
	F	4.5	1.2	1.1	1.5	0.8	0.0
Past, but not the last 12 months	M	6.6	0.7	2.0	3.9	3.5	4.1
	F	1.5	1.2	3.2	2.2	1.6	2.3
Last 12 months, but not the last 4 weeks	M	29.5	29.6	24.8	25.8	24.7	30.6
	F	16.7	15.5	13.8	8.8	18.2	9.2
Last 4 weeks, but not the last 7 days	M	21.3	28.9	33.6	24.5	33.5	31.6
	F	36.4	37.5	32.8	34.6	28.1	31.0
Last 7 days	M	31.1	40.1	35.6	43.2	35.9	31.6
	F	40.9	44.6	49.2	52.9	51.4	57.5

Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

3.3 SEDATIVES/TRANQUILLISERS

Drugs in this group are available legally with prescription, and are used for a variety of purposes including the treatment of anxiety and insomnia. This group includes a wide variety of substances, many of which are benzodiazapines such as Valium. Although these drugs are relatively safe if used as prescribed, their abuse can be hazardous. Sedatives can impair judgment and have been implicated as a cause of road trauma (MacAllister et al, 1995). Benzodiazapine abuse may lead to dependence, and withdrawal symptoms of varying severity have been reported (Imlah, 1989). These drugs can intensify the effects of other drugs such as alcohol, and mixing them with other substances can lead to death (McAllister, 1995).

Students were asked 'How many times, if ever, have you used or taken sleeping tablets, tranquillisers or sedatives, other than for medical reasons?' The results indicate that a substantial number of students had tried sedatives at some time in their lives (see Table 3.3). There was no association found between use of sedatives in any period and respondents' sex. For both sexes, the proportions of respondents who reported use in the previous 4 weeks, or the last 7 days, were below 3.5 per cent. For males, there was an association between reported use of sedatives in the previous 7 days and year level, with substantially more than expected boys in Year 8 reporting use in that time ($\chi 2=14.9$, df=5, $p<0.05$).

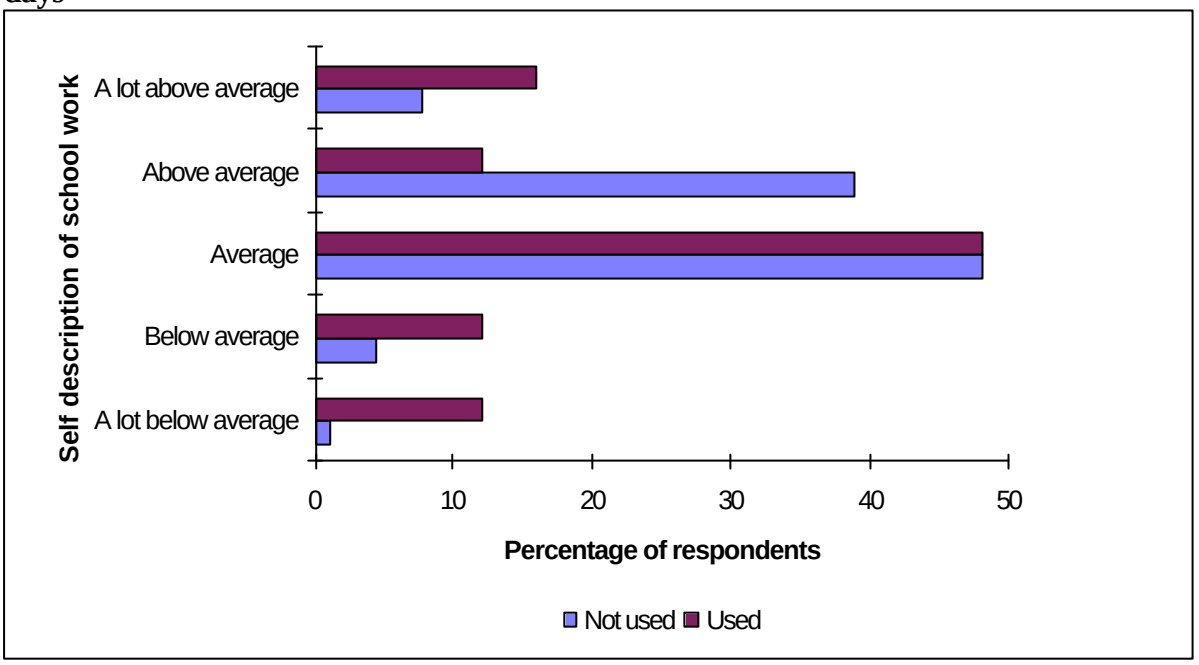
Table 3.3: Prevalence of sedative use -percentage of students, by year level, by sex

Reported use	Sex	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Never	M	79.7	77.4	77.8	80.4	84.2	81.8
	F	85.1	79.2	79.2	74.3	78.7	82.8
Past, but not the last 12 months	M	9.4	8.4	6.5	6.3	5.6	10.1
	F	7.5	7.7	7.3	8.8	7.9	9.2
Last 12 months, but not the last 4 weeks	M	6.3	4.5	11.8	7.6	7.9	5.1
	F	7.5	10.1	8.9	9.6	8.7	4.6
Last 4 weeks, but not the last 7 days	M	0.0	1.9	2.6	1.9	1.1	1.0
	F	0.0	3.0	2.1	5.9	2.0	1.1
Last 7 days	M	4.7	7.7	1.3	3.8	1.1	2.0
	F	0.0	0.0	2.6	1.5	2.8	2.3

Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

Students who reported use of sedatives in the previous week rated their school work differently to those who did not report use in that time period. As Figure 3.2 shows, male users were more likely to rate their school work as 'a lot above average', or 'below' and 'a lot below' average ($\chi 2=31.1$, df=4, $p<0.00001$).

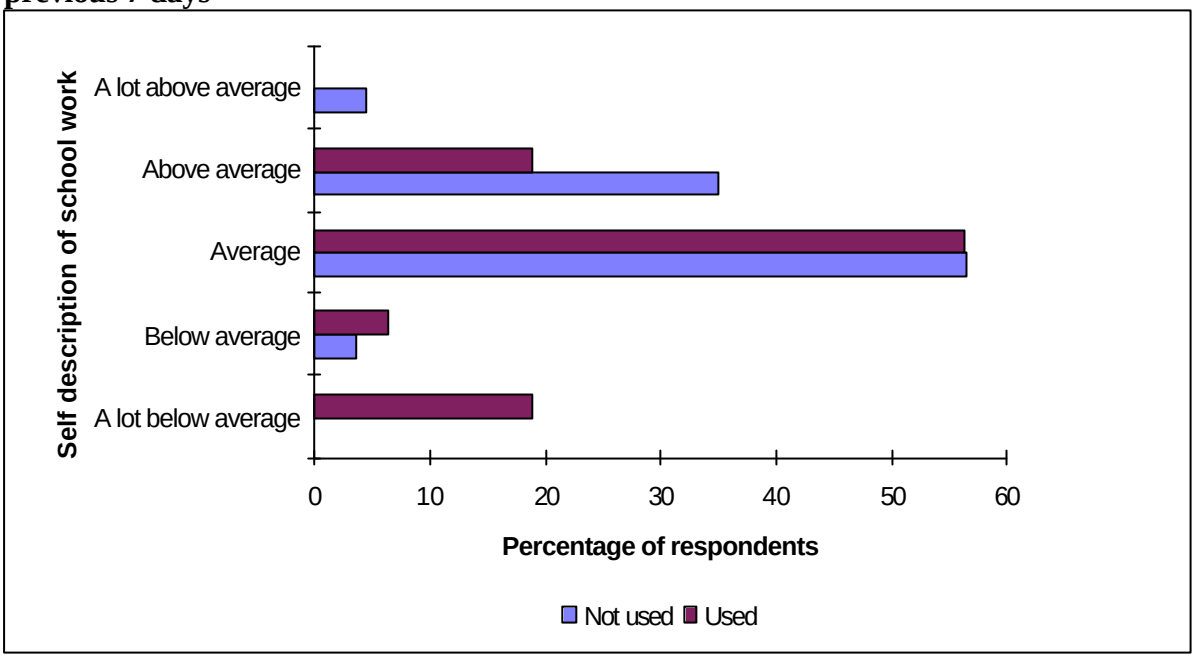
Figure 3.2: Self description of school work, males, by use/non-use of sedatives in last 7 days



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

Figure 3.3 shows that females who reported use of sedatives in the previous week were less likely to rate their work as 'above average' and more likely to rate it as 'below' to 'a lot below' average than females who did not report use in that time ($\chi 2=99.3$, df=4, $p<0.00001$).

Figure 3.3: Self description of school work, females, by use/non-use of sedatives in previous 7 days



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

3.4 INHALANTS

Inhalant use is predominantly practiced by children and adolescents, who sniff a variety of products including glue, aerosols, solvents, and petrol (Makkai et al, 1993). Deep inhalation of these substances quickly produces intoxication. Prolonged inhalation can induce confusion, drowsiness, and in rare cases, coma or even death (McAllister et al, 1991). Repeated abuse of inhalants can lead to habituation and, possibly, psychological problems. Chronic users may suffer brain, kidney or liver damage (WHO, 1990).

Students were asked 'how many times, if ever, have you deliberately sniffed (inhaled) from spray cans or sniffed things like glue, paint, petrol, or thinners to get high or for the way it makes you feel?' As Table 3.4 shows, substantial numbers of students reported use of inhalants at some time. Approximately 8 per cent of respondents reported using these substances in the previous 12 months. Approximately 61 per cent of those who reported use in this period were female ($\chi 2=4.1$, df=1, $p<0.05$). For females, there was a significant association between use in the last 12 months and year level, with more girls than expected in Years 8, 9 and 10 reporting use in that time ($\chi 2=18.1$, df=5, $p<0.005$). Reported use of inhalants by females in the previous 4 weeks, and in the last 7 days was also associated with year level. For the previous 4 weeks, more females than expected reported use in Years 7, 8 and 9 ($\chi 2=23.8$, df=5, $p<0.005$), while use in the previous 7 days was reported by more girls than expected in Years 7 and 8 ($\chi 2=37.5$, df=5, $p<0.00001$). The majority of respondents who reported use of inhalants in the last 7 days were male (60 per cent males, 40 per cent females). For males, use of these substances in this time was also associated with year level, with more boys than expected reporting use in Years 7 and 8 ($\chi 2=27.6$, df=5, $p<0.00005$).

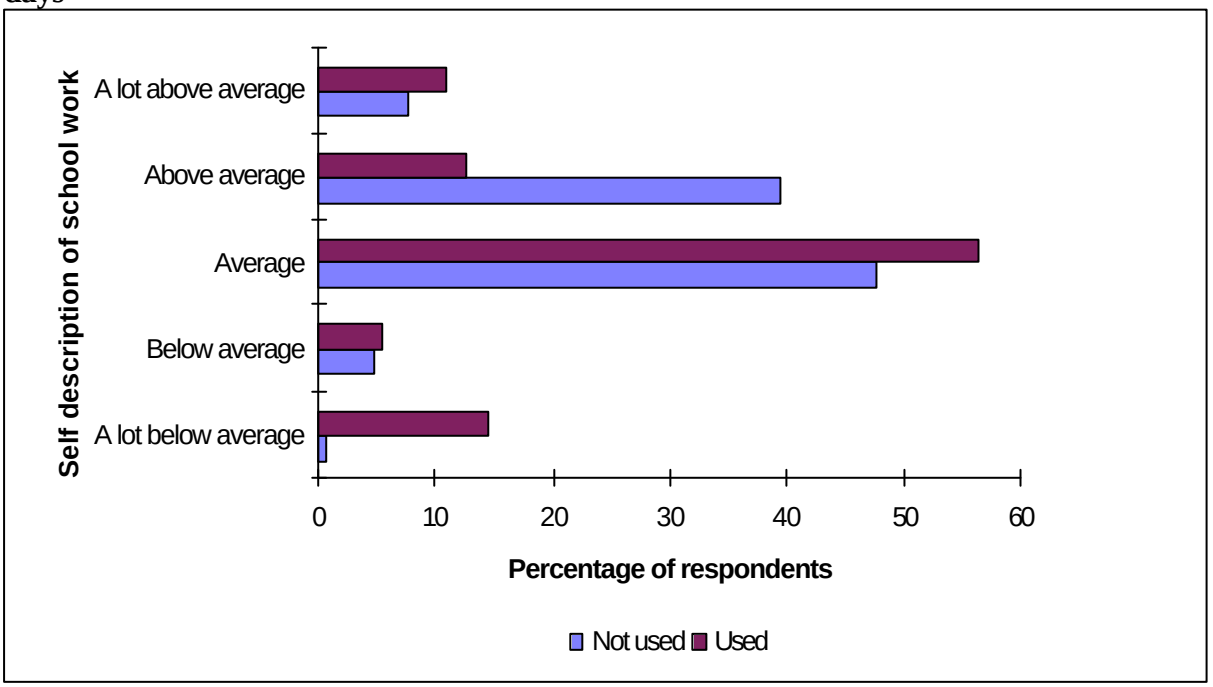
Table 3.4 : Frequency of inhalant use -percentage of students, by year level, by sex

Reported use	Sex	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Never	M	69.8	66.0	77.6	73.1	82.6	84.0
	F	70.1	69.8	71.6	73.5	87.0	87.2
Past, but not the last 12 months	M	9.5	8.3	7.7	8.1	9.0	10.0
	F	3.0	3.6	6.8	11.8	4.7	9.3
Last 12 months, but not the last 4 weeks	M	6.3	9.0	7.7	7.5	5.6	1.0
	F	7.5	14.2	10.5	12.5	5.9	2.3
Last 4 weeks, but not last the 7 days	M	1.6	3.8	3.8	3.8	1.7	1.0
	F	4.5	4.7	7.9	0.7	1.2	0.0
Last 7 days	M	12.7	12.8	3.2	7.5	1.1	4.0
	F	14.9	7.7	3.2	1.5	1.2	1.2

Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

Users of inhalants tended to rate their school work differently to those who did not report the use of these substances. For example, Figure 3.4 shows that males who reported use in the previous 7 days were more likely to describe their school work as 'a lot above average', 'average' or 'a lot below average' than those who did not report use in this time period ($\chi 2=79.6$, df=4, $p<0.00001$).

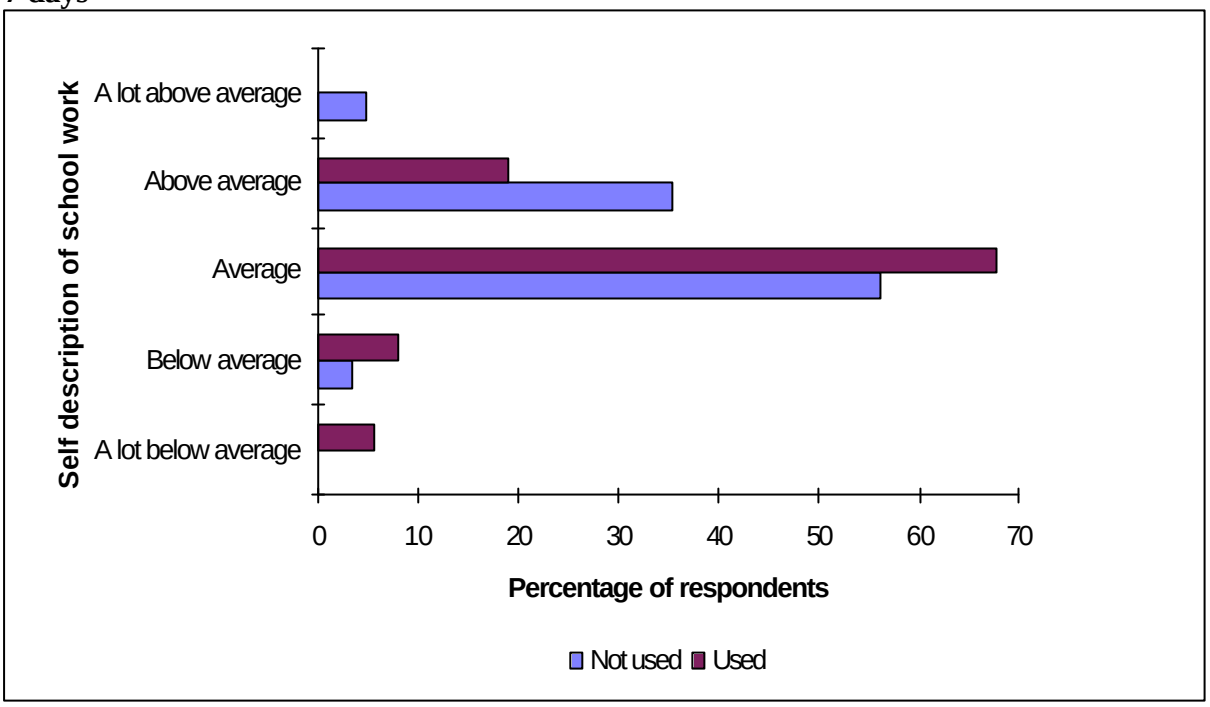
Figure 3.4: Self description of school work, males, by use/non-use of inhalants in previous 7 days



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

As Figure 3.5 shows females reporting use of inhalants in the previous week were more likely to describe their school work as 'average' to 'a lot below average' than those who did not report use in this period ($\chi 2=24$, df=4, $p<0.0001$).

Figure 3.5: Self description of school work, females, by use/non-use of inhalants in previous 7 days



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

3.5 MARIJUANA

Marijuana is Australia's most widely used illicit drug, though that use is lower than the use of tobacco and alcohol (McAllister et al). Heavy and regular use of this drug may create a level of tolerance, some sources suggest dependence is possible. Long term use may have a sedative or hypnotic effect (McAllister et al). There have been suggestions that marijuana is associated with the development of psychotic disorders such as schizophrenia, but evidence is not conclusive (WHO, 1990).

Respondents were asked 'How many times, if ever, have you smoked or used marijuana (grass, hash, cannabis, dope, mull, pot, a joint)?' For both sexes, the percentage of those who reported never using marijuana showed a steady decline through the year levels (see Table 3.5). Males were significantly more likely to report both past use of marijuana ($\chi 2=5.7$, df=1, $p<0.05$) and use in the previous 7 days ($\chi 2=21.9$, df=1, $p<0.00001$). More males than expected in Years 11 and 12 reported use in the past ($\chi 2=12.9$, df=5, $p<0.05$). More boys than expected in Years 10, 11 and 12 reported use in the previous 12 months ($\chi 2=17.5$, df=5, $p<0.005$). Reported use by males in the previous week was also associated with year level, with more than expected reporting use in Year 10 and 11 ($\chi 2=14.6$, df=5, $P<0.05$).

For females, there were significant associations between year level and past use of marijuana, with more users than expected in Years 11 and 12 ($\chi 2=33.0$, df=5, $p<0.00001$). Year level was also associated with use by females in the previous 12 months (high in Years 10 to 12), and in the previous 7 days (high in Years 10 and 12). Peak use in the previous 7 days was reported in Year 10, where 22 per cent of males and 15 per cent of females had used this drug in the previous 4 weeks. Approximately 55 per cent of Year 12 students reported use of marijuana at some time.

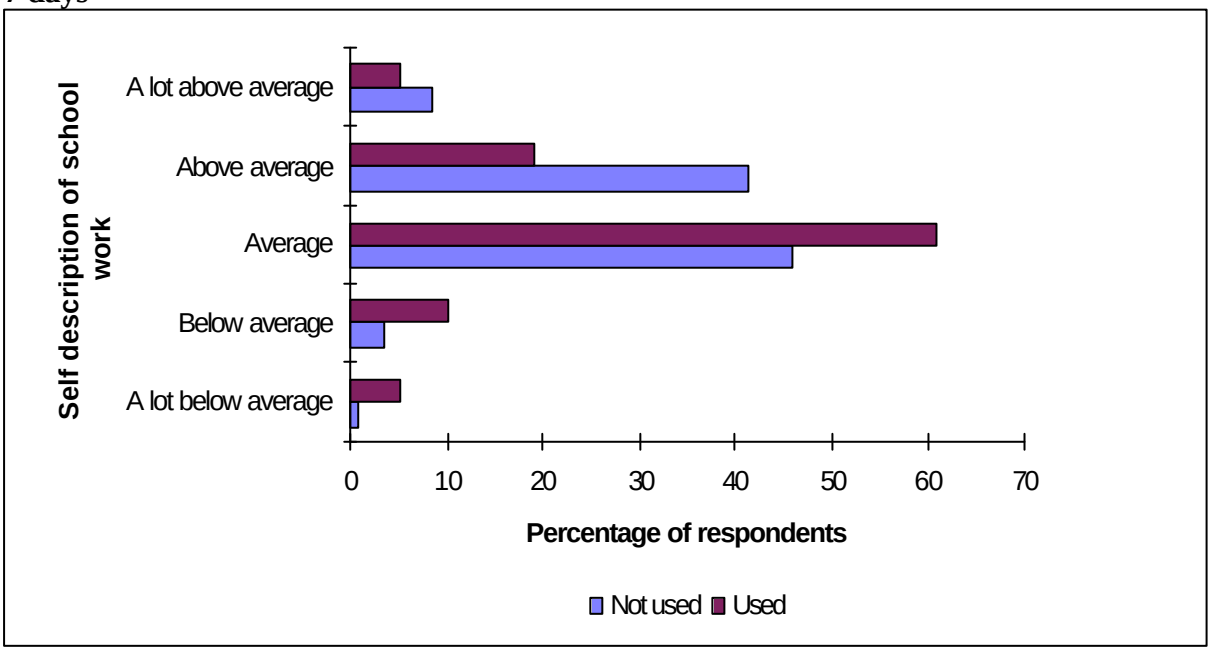
Table 3.5: Prevalence of marijuana use -percentage of students by year level, by sex

Previous use	Sex	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Never	M	77.8	61.0	68.6	49.7	47.7	46.4
	F	92.5	82.0	66.1	57.4	53.0	42.0
Past, but not the last 12 months	M	4.8	4.5	2.6	3.8	8.6	8.2
	F	0.0	1.2	2.6	1.5	4.7	10.2
Last 12 months, not the last 4 weeks	M	11.1	18.2	18.6	22.9	26.4	30.9
	F	7.5	11.4	24.3	25.7	35.2	35.2
Last 4 weeks, not the last 7 days	M	0.0	1.9	0.6	1.3	0.6	1.0
	F	0.0	0.6	0.0	0.0	0.0	1.1
Last 7 days	M	6.3	14.3	9.6	22.3	16.7	13.4
	F	0.0	4.8	6.9	15.4	7.1	11.4

Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

Figure 3.6 shows that males who reported using marijuana in the previous 7 days were more likely to describe their work as 'average' to 'below average' than the males who did not report this use ($\chi 2=40.6$, df=4, P<0.00001).

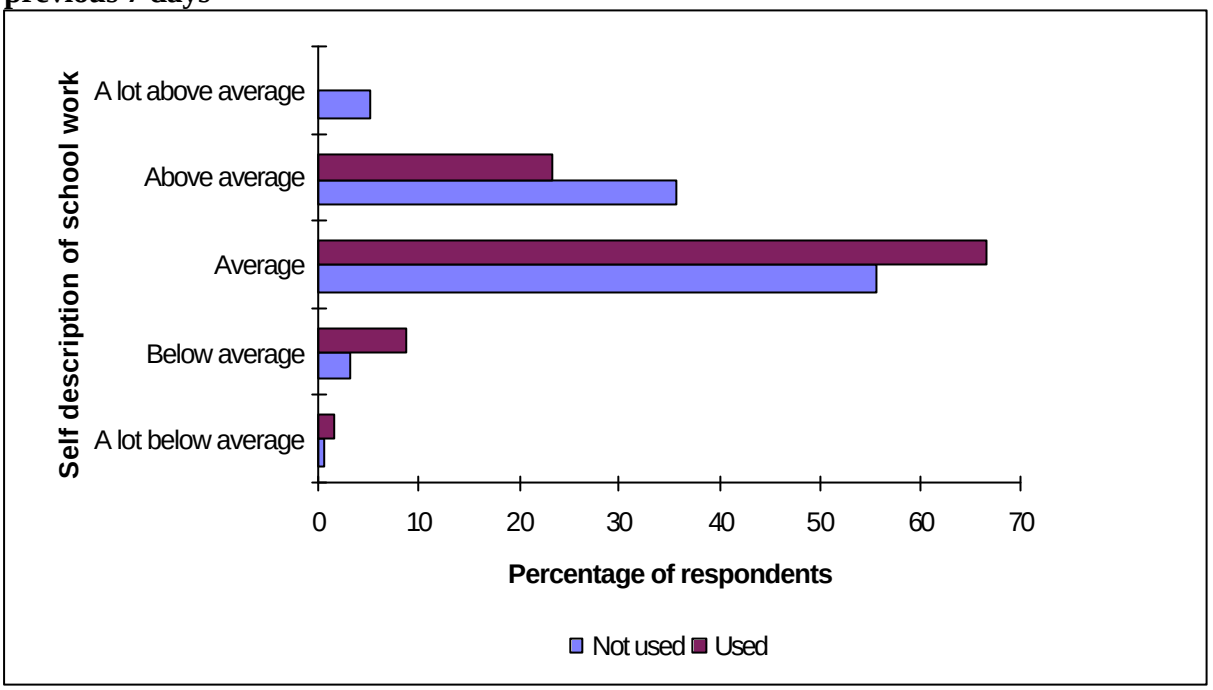
Figure 3.6: Self description of school work, males, by use/non-use of marijuana in previous 7 days



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

Figure 3.7 illustrates that girls who had used marijuana in the previous week also tended to rate their school work in lower categories than girls who had not used marijuana in the same period ($\chi 2=14.2$, df=4, P<0.01).

Figure 3.7: Self description of school work, females, by use/non-use of marijuana in previous 7 days



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

3.6 AMPHETAMINES

Amphetamines are relatively rarely prescribed by medical practitioners, although they were once accepted treatments for a number of conditions, as well as being used as appetite suppressants (McAllister et al, 1991). These drugs can have serious side effects, including rapid heartbeats, collapse, stroke, heart failure and death (McAllister et al, 1991). Long term use may cause such problems as aggression, weight loss, depression and sometimes even suicidal behaviour (Imlah, 1989). Physical side effects of these drugs may be related more to the method used to administer them than the direct effect of the drugs (WHO, 1990). Intravenous use of these drugs increases the risk of severe side effects, and can lead to the transmission of HIV and Hepatitis if needles are shared.

Respondents were asked 'How many times, if ever, have you used or taken amphetamines (eg. speed, uppers, MDA, ox blood) other than for medical reasons?' The 1996 survey found that approximately 7.6 per cent of males and 4.7 per cent of females reported use of amphetamines at some time, with approximately 9 per cent of Year 10 males and Year 12 females having used these substances (see Table 3.6). Males were more likely to report use in the previous 4 weeks ($\chi 2=8.7$, df=1, $p<0.005$) and the previous 7 days ($\chi 2=13.7$, df=1, $p<0.0005$). No association was found between year level and reported use after controlling for sex.

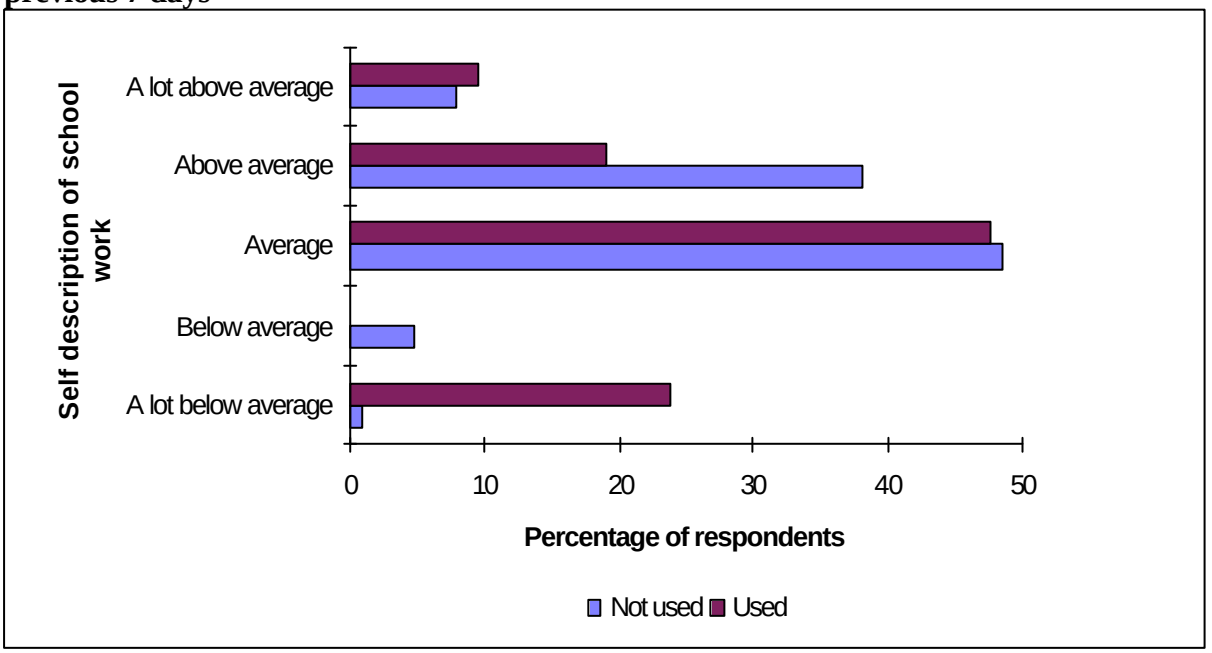
Table 3.6: Prevalence of amphetamine use -percentage of students by year level, by sex

Previous use	Sex	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Never	M	96.8	91.1	93.6	90.6	92.1	93.1
	F	98.5	97.1	95.8	91.9	96.1	90.9
Past, but not last 12 months	M	1.6	1.9	1.9	1.9	0.0	1.0
	F	0.0	0.6	0.5	2.2	0.4	1.1
Last 12 months, not last 4 weeks	M	0.0	0.6	1.3	2.5	4.5	2.0
	F	0.0	1.8	3.6	3.7	2.7	6.8
Last 4 weeks, not last 7 days	M	0.0	1.3	0.6	2.5	2.3	3.0
	F	0.0	0.6	0.0	1.5	0.4	0.0
Last 7 days	M	1.6	5.1	2.6	2.5	1.1	1.0
	F	1.5	0.0	0.0	0.7	0.4	1.1

Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

The relationship between previous use of drugs and the respondents' description of their school work was not as clear as for substances such as inhalants. Figure 3.8 shows that males who reported use of amphetamines in the previous 7 days did tend to class their work in lower categories than those who did not report use amphetamines, especially in the 'a lot below average' grouping (χ^2=75.9, df=4, p<0.00001). The number of females reporting use of amphetamines in this period was too small for analysis.

Figure 3.8: Self description of school work, males, by use/non-use of amphetamines in previous 7 days



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

3.7 DESIGNER DRUGS

Students were asked 'how many times, if ever, have you used of taken "ecstasy" or "xtc" (E, MDMA, Ecci, Ex)?' The proportion of respondents who had used designer drugs was very low (see Table 3.7) and the results must therefore be regarded with caution. Males were more likely to

report using designer drugs in the previous 4 weeks ($\chi 2=4.5$, df=1, $p<0.05$), and the previous week ($\chi 2=16.2$, df=1, $p<0.0001$). There was no association found between reported use by males and year level. Reported past use of designer drugs by females was associated with year level ($\chi 2=13.1$, df=5, $p<0.0001$), however this result must be viewed with caution given the small number of cases involved.

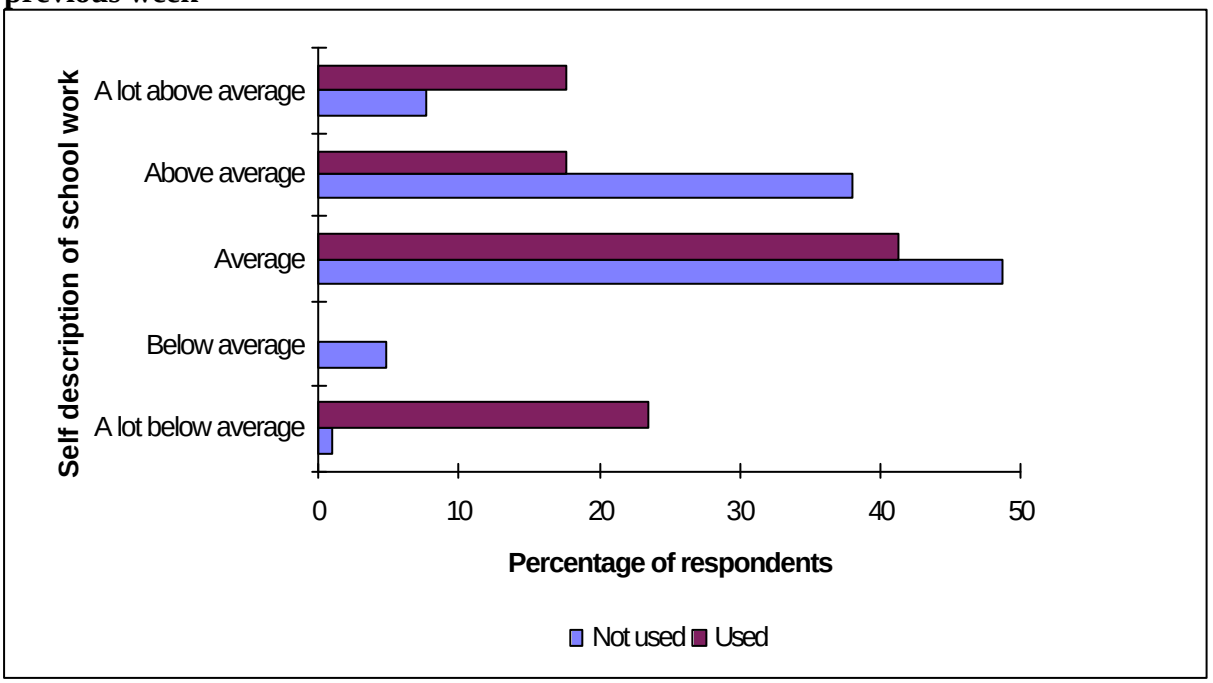
Table 3.7: Prevalence of designer drug use -percentage of students by year level, by sex

Previous use	Sex	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Never	M	95.3	92.9	94.9	94.3	93.3	95.0
	F	98.5	98.8	97.9	92.6	97.3	93.1
Past, but not the last 12 months	M	1.6	1.9	0.6	1.3	0.6	0.0
	F	1.5	0.0	0.0	1.5	0.4	3.4
Last 12 months, not the last 4 weeks	M	0.0	0.0	1.3	1.3	3.4	4.0
	F	0.0	0.6	2.1	4.4	2.3	3.4
Last 4 weeks, not the last 7 days	M	0.0	1.9	0.6	1.3	1.7	0.0
	F	0.0	0.6	0.0	0.7	0.0	0.0
Last 7 days	M	3.1	3.2	2.6	1.9	1.1	1.0
	F	0.0	0.0	0.0	0.7	0.0	0.0

Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

Figure 3.9 shows that males who reported use of designer drugs in the previous week were more likely to rate themselves as 'a lot above average' or 'a lot below average' than those who denied use ($\chi 2=67.9$, df=4, $p<0.00001$). The number of females who reported use in this time was too small to allow analysis of this variable.

Figure 3.9: Self description of school work , males, by use/non-use of designer drugs in previous week



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

3.8 NARCOTICS

The proportion of the Australian population who have been involved with the illicit use of narcotics is low. However these drugs have been a concern for many people due to the risk of fatal overdoses, as well as perceptions of a link between criminal activity and narcotic addiction (National Drug Strategy Household Survey Report, 1995). There is also significant community concern about the transmission of HIV/AIDS and hepatitis through the sharing of dirty needles by narcotic users (National Drug Strategy Survey Report, 1995).

Surveyed students were asked 'How many times, if ever, have you used or taken heroin (smack, horse, skag), or other opiates (narcotics) such as methadone, morphine or pethidine other than for medical reasons?' As Table 3.8 shows, reported use of heroin within any time period was relatively low. Past use was reported by approximately 1 per cent of both males and females. Approximately 2.6 per cent of males compared to 0.4 per cent of females reported use of heroin in the previous 7 days ($\chi 2=13.7$, df=1, $p<0.0005$). Although reported use of narcotics by males in Years 7, 8 and 10 seems quite high for certain periods, there was no association found between year level and use. The number of females reporting use was too low for analysis by year level.

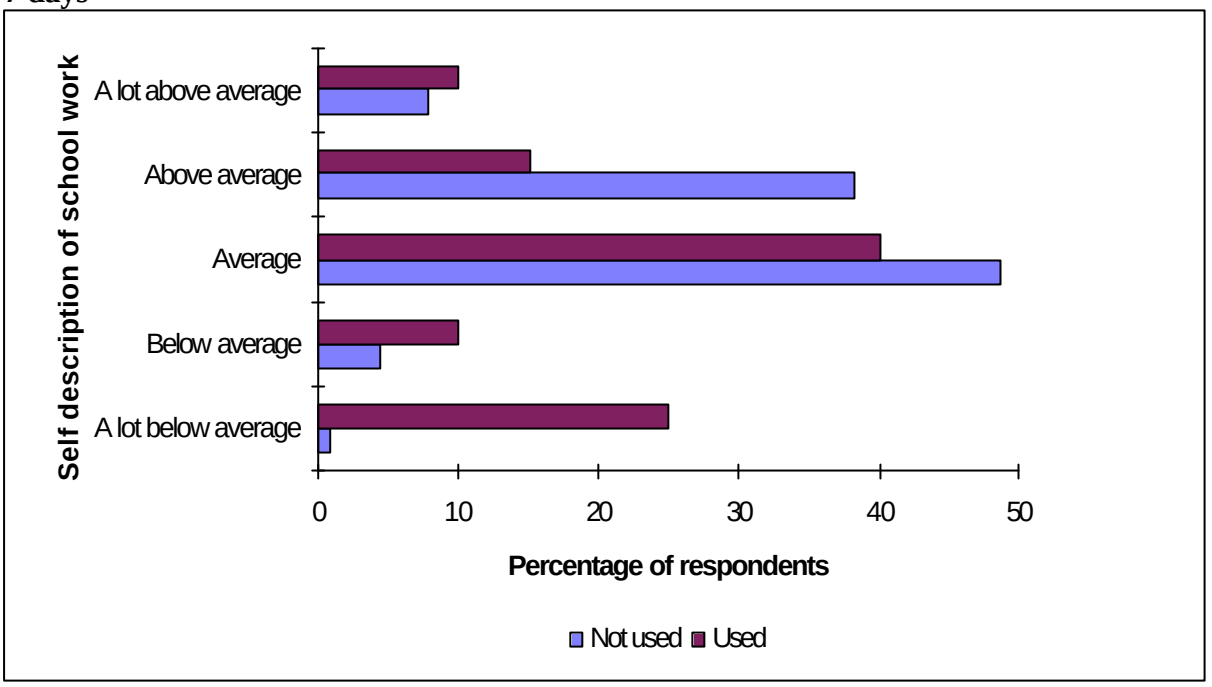
Table 3.8: Prevalence of narcotic use -percentage of respondents, by year level, by sex

Reported use	Sex	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Never	M	92.2	91.7	93.6	92.5	96.6	95.0
	F	97.0	97.6	98.4	94.1	98.1	97.7
Past, but not the last 12 months	M	3.1	0.6	1.9	1.3	1.1	0.0
	F	1.5	0.6	1.0	1.5	0.8	1.1
Last 12 months, but not the last 4 weeks	M	1.6	1.3	1.9	1.9	0.6	3.0
	F	1.5	0.6	0.5	3.7	0.4	0.0
Last 4 weeks, but not the last 7 days	M	0.0	1.3	0.6	1.3	1.1	1.0
	F	0.0	0.0	0.0	0.7	0.4	0.0
Last 7 days	M	3.1	5.1	1.9	3.1	0.6	1.0
	F	0.0	1.2	0.0	0.0	0.4	1.1

Source: *ACT Secondary Schools Drug and Alcohol Survey, 1996*

As Figure 3.10 shows, males who reported use of heroin in the previous 7 days were substantially more likely to regard their work 'below' or 'a lot below' average ($\chi 2=81.2$, df=4, $p<0.00001$). Too few females reported use in the previous 7 days to present a similar analysis for them.

Figure 3.10: Self description of school work, males, by use/non-use of narcotics in previous 7 days



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

3.9 COCAINE

Relatively low proportions of the Australian population use cocaine, but its addictive properties and harmful side effects raise concern. Its psychological side effects include irritability, paranoia and hallucinations (McAllister et al, 1991). Deaths from the use of cocaine have been reported, and its use by pregnant women can cause prenatal bleeding and low birthweight (AIHW, 1996). Administration of cocaine by intravenous injection can spread HIV/AIDS and hepatitis.

Respondents were asked 'how many times, if ever, have you used or taken cocaine or crack?', the results are presented in Table 3.9. Males were more likely to report use of cocaine in the previous 7 days ($\chi 2=20.3$, df=1, $p<0.0005$). No association was found between year level and reported use of cocaine. The count for reported use of cocaine is high, but it should be remembered that respondents were not excluded on the basis of unlikely reports of drug use. This leaves the results vulnerable to exaggerated or false reports of previous use. These results should be treated with caution.

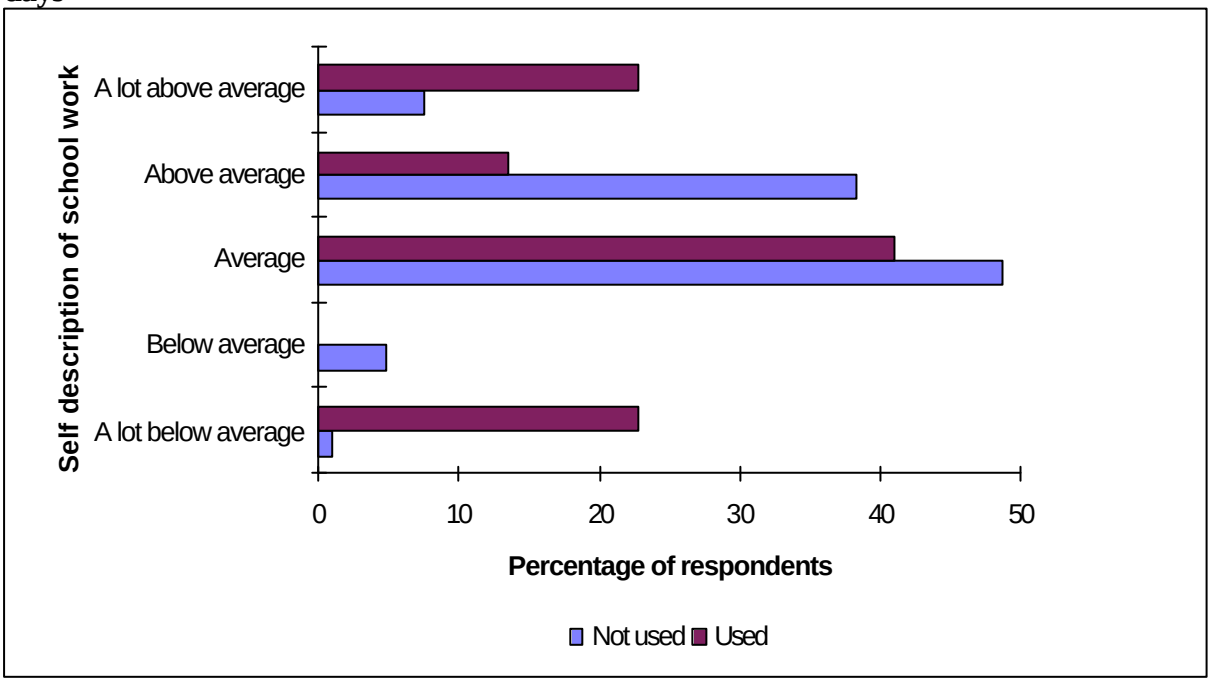
Table 3.9 : Prevalence of Cocaine use -percentage of students by year level, by sex

Reported use	Sex	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Never	M	93.8	91.1	96.2	92.5	96.6	95.0
	F	98.5	99.4	99.0	96.3	98.0	96.6
Past, but not the last 12 months	M	1.6	0.6	0.0	0.0	1.1	2.0
	F	0.0	0.0	1.0	0.7	0.0	2.3
Last 12 months, but not the last 4 weeks	M	1.6	1.9	1.9	2.5	0.0	2.0
	F	1.5	0.0	0.0	1.5	1.2	1.1
Last 4 weeks, but not the last 7 days	M	1.6	0.6	0.0	1.9	0.6	0.0
	F	0.0	0.0	0.0	0.7	0.4	0.0
Last 7 days	M	1.6	5.7	1.9	3.1	1.7	1.0
	F	0.0	0.6	0.0	0.7	0.4	0.0

Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

As Figure 3.11 shows, males who reported use of cocaine in the previous 7 days were more likely to describe their school work as 'a lot above' or 'a lot below' average than those who did not report use in that period ($\chi 2=80.3$, df=4, $p<0.00001$). Too few females reported use in the previous week to present an analysis of the relationship between these two variables.

Figure 3.11: Self description of school work, males, by use/non-use of cocaine in previous 7 days



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

3.10 HALLUCINOGENS

In 1995 the AIHW found that approximately 7 per cent of surveyed people aged 14 years or more had tried a hallucinogen of some type (AIHW, 1996). Although the use of hallucinogens is not common their potential side effects are of concern. Abuse of these drugs can lead to severe depression, distortion of perceptions, paranoia and psychosis (Makkai et al, 1993). Deaths due to accident and suicide have been attributed to these drugs, as well as perceptual distortion and convulsions (WHO, 1990).

Respondents were asked 'how many times if ever, have you used or taken LSD, "acid", "trips" or other hallucinogens?' Results are presented in Table 3.10. For males, reported use in the previous 4 weeks varied significantly with year level ($\chi 2=12$, df=5, $p<0.05$), with 5 per cent of Year 10 boys reporting use in that time. For females, reported use in the previous 12 months varied with year level ($\chi 2=14.2$, df=5, $p<0.05$), with more girls than expected reporting use in Years 10 to 12. Overall, 3.4 per cent of males compared to 0.6 per cent of females reported use of hallucinogens in the previous 7 days ($\chi 2=19.1$, df=1, $p<0.00005$).

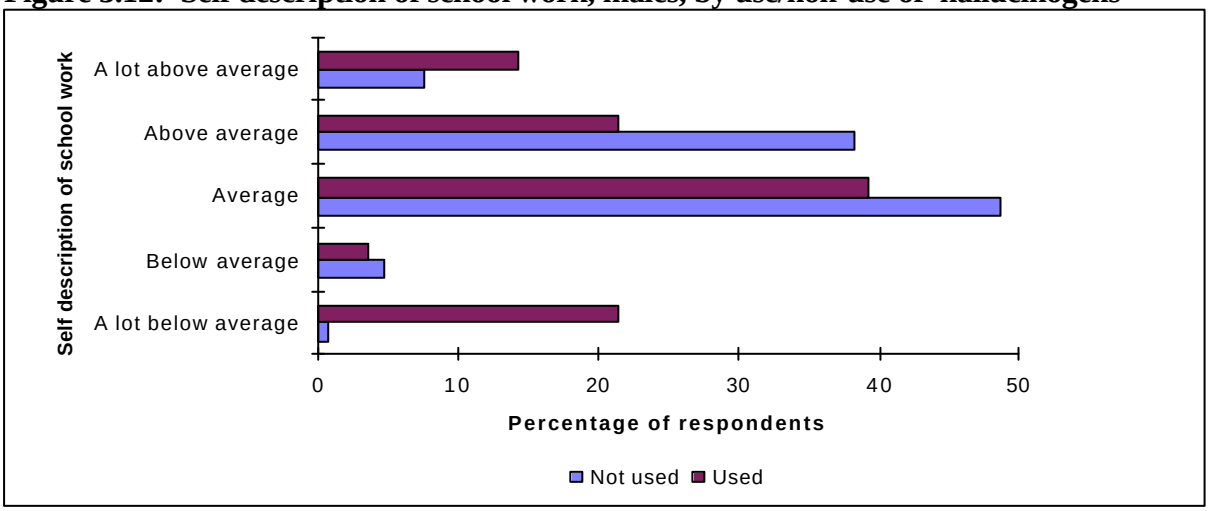
Table 3.10: Prevalence of hallucinogen use -percentage of students by year level, by sex

Reported use	Sex	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Never	M	98.4	90.4	91.7	84.9	90.3	89.1
	F	100.0	97.6	94.8	87.4	91.8	88.5
Past, but not the last 12 months	M	0.0	0.6	1.3	2.5	2.3	2.0
	F	0.0	0.0	0.5	2.2	0.8	2.3
Last 12 months, but not the last 4 weeks	M	0.0	1.9	2.6	3.8	4.5	5.0
	F	0.0	1.2	3.6	8.1	5.1	6.9
Last 4 weeks, but not last 7 days	M	0.0	0.6	1.3	5.0	1.1	3.0
	F	0.0	1.2	1.0	1.5	1.6	1.1
Last 7 days	M	1.6	6.4	3.2	3.8	1.7	1.0
	F	0.0	0.0	0.0	0.7	0.8	1.1

Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

Males who reported use of hallucinogens in the previous 7 days were more likely to categorise their school work as 'a lot above' or 'a lot below' average than those who had not used in that time ($\chi 2=82.3$, df=4, $p<0.00001$) (see Figure 3.12). Too few females reported use in this time for an analysis of the relationship between these two variables.

Figure 3.12: Self description of school work, males, by use/non-use of hallucinogens



Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

While education about drugs would seem to be one way of increasing awareness of potential hazards of their use, no statistical association was found between use of any of the substances discussed in this section and the number of lessons students had received lessons about drugs at school.

3.11 USE OF NEEDLES

As mentioned above, the use of needles to inject drugs is of concern because of the possible transmission of various diseases, as well as the increased possibility that users may suffer extreme side effects from various drugs. As Table 3.11 shows, males were more likely than females to report the use of needles in the previous 12 months and the previous 7 days. Approximately 2.2 per cent of respondents reported using a needle after someone else. Again the majority of these people were males (69 per cent).

Table 3.11: Percentage of respondents reporting use of needles to inject drugs, by sex, with c2 and p values

Reported use of needles	Used	Males	Females	c2	df	p
Past, but not the last 12 months	No	45.3	54.7	1.8	1	>0.05
	Yes	61.1	38.9			
Previous 12 months, but not the last 4 weeks	No	45.5	54.5	6.1	1	<0.05
	Yes	70.8	29.2			
Previous 4 weeks, but not the last 7 days	No	45.9	54.1	3.6	1	>0.05
	Yes	71.4	28.6			
Last 7 days	No	46.2	53.8	17.7	1	<0.0001
	Yes	94.7	5.3			

Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

3.12 ATTITUDES TO DRUG USE

Student attitudes to the use of the drugs discussed in this section were examined through a battery of additional questions which questioned them on the dangers of occasional and regular use of various licit and illicit drugs. Possible responses were 'not dangerous', 'a little dangerous', 'very dangerous' or 'don't know'. In the tables that follow the percentages of students who answered 'a little' or 'very' dangerous are presented according to their use of particular drugs in specified periods of time.

For most of the drugs considered, those who had used drugs in the previous 12 months or the previous week rated the regular use of marijuana as less dangerous than those who had not used those drugs (see Table 3.12). (With regard to those reporting use of drugs in the previous 12 months, the exceptions were males who used designer drugs in the last 12 months, and females reporting use of cocaine and opiates). Of those reporting use in the last 7 days, female inhalant users showed no difference from non-users in their assessment of the danger of the regular use of marijuana.

Table 3.12: Perceived danger of regularly using marijuana, by period of reported use, by sex(%)

		Used in the previous 12 months			Used in the previous 7 days		
Drug used	Sex	A little	Very	P value	A little	Very	P value
Marijuana	M	56.9	21.3	****	49.1	11.3	****
	F	53.9	30.1	****	46.0	12.7	****
Inhalants	M	54.2	22.9	*	33.3	31.3	*
	F	47.4	32.9	**	44.1	35.3	NS
Sedatives	M	35.7	33.9	*	45.5	13.6	*
	F	45.8	37.5	*	50.0	25.0	*
Amphetamines	M	46.2	15.4	*	38.9	16.7	*
	F	33.3	12.5	****	0.0	25.0	-
Halucinogens	M	50.0	12.5	***	36.0	16.0	***
	F	44.1	23.5	****	0.0	20.0	-
Ecstacy	M	61.5	15.4	NS	37.5	12.5	*
	F	27.8	27.8	***	-	-	-
Cocaine	M	30.0	10.0	-	42.9	9.5	**
	F	20.0	60.0	-	-	-	-
Narcotics	M	30.0	20.0	-	33.3	11.1	**
	F	55.6	11.1	-	25.0	0.0	-

* p<0.05, ** p<0.001, *** p<0.0001, **** p<0.00001, NS: not significant, - too few cases to report.
All tests have 3 degrees of freedom.
Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

A strong association existed between the perceived danger of trying various substances and past use of those drugs (see Table 3.13). The majority of those who had never used inhalants and hard drugs (except hallucinogens) viewed trying them (or use of any kind in the case of inhalants and cocaine) as very dangerous. For almost all the drugs considered, females who had used in the previous 12 months tended to rate their occasional use as significantly less dangerous than did those who had not used these substances (see Table 3.13). Among males the pattern was less clear, it is interesting to note that there was no significant difference in perceived risk between males who reported use of amphetamines, designer drugs or narcotics in the previous year and those who did not.

Table 3.13: Perceived danger of occasional use of various substances, by use/non-use in the previous 12 months (%), by sex

		Males			Females		
Substance	Used	A little	Very	P value	A little	Very	P value
Inhalants	No	21.1	68.8	****	24.3	66.8	****
	Yes	56.3	37.5		51.9	37.7	
Amphetamines	No	26.3	61.7	NS	22.8	68.2	****
	Yes	35.7	57.1		54.2	20.8	
Halucinogens	No	38.9	47.1	****	35.8	48.5	****
	Yes	41.7	20.8		64.7	17.6	
Ecstacy	No	20.0	69.3	NS	14.9	76.0	**
	Yes	38.5	53.8		52.6	42.1	
Cocaine	No	8.6	80.3	*	6.8	84.5	-
	Yes	20.0	40.0		20.0	80.0	
Narcotics	No	30.7	56.3	NS	30.4	60.2	*
	Yes	66.7	22.2		70.0	20.0	

* p<0.05, ** p<0.001, *** p<0.0001, **** p<0.00001, NS: not significant, - too few cases to report.
All tests have 3 degrees of freedom.
Note: for inhalants, cocaine respondents asked to assess any use rather than occasional
Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

Among male respondents there was a strong relationship between perceived risk of regularly using certain substances and reported use in the previous 7 days. Males who reported the use of selected substances in the last week tended to rate their regular use as significantly less dangerous than those who hadn't used in the same period (refer Table 3.14). The frequencies for females are also presented, however the numbers of girls reporting use of most of these substances in the last week were too small for testing. It is noteworthy that substantial numbers of those reporting use of these drugs regarded their use as being very dangerous.

Table 3.14: Perceived danger of regularly using various substances, by use/non-use in the previous 7 days (%), by sex

		Males			Females		
Substance	**Used**	**A little**	**Very**	**P value**	**A little**	**Very**	**P value**
Inhalants	No	23.7	65.9	****	27.8	62.8	***
	Yes	31.3	29.2		61.8	26.5	
Amphetamines	No	27.1	61.1	****	24.0	66.5	-
	Yes	23.5	29.4		50.0	0.0	-
Halucinogens	No	9.1	76.5	****	5.7	80.9	-
	Yes	44.0	24.0		40.0	20.0	
Ecstacy	No	7.6	81.2	****	-	-	-
	Yes	20.0	33.3		-	-	-
Cocaine	No	8.8	79.7	****	6.9	84.4	-
	Yes	21.1	47.4		0.0	50.0	-
Narcotics	No	7.1	83.7	****	3.9	88.9	-
	Yes	16.7	27.8		25.0	25.0	-

* p<0.05, ** p<0.001, *** p<0.0001, **** p<0.00001, NS: not significant, - too few cases to report.
All tests have 3 degrees of freedom. Note: for inhalants and cocaine respondents asked to assess danger of any use rather than regular use, for amphetamines asked about danger of occasional use.
Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

The danger of using any one drug use is often increased dramatically by mixing it with other drugs. Those surveyed were asked 'How much danger do you see in mixing a number of drugs such as alcohol, marijuana and pills?' With a few exceptions, respondents who had used the substances presented in Table 3.15 tended to regard the practice of mixing substances as less dangerous than did those who had not used them.

Table 3.15: Perceived danger of mixing drugs -percentage of students by use/non-use of selected substances in the previous 12 months, by sex

		Males			Females		
Substance	**Used**	**A little**	**Very**	**P value**	**A little**	**Very**	**P value**
Steroids(a)	No	10.2	79.9	***	-	-	-
	Yes	16.7	55.6		-	-	-
Inhalants	No	10.0	80.7	NS	5.2	87.3	NS
	Yes	8.3	83.3		7.9	80.3	
Sedatives	No	9.9	80.2	NS	5.2	87.3	*
	Yes	12.3	75.4		10.8	75.7	
Marijuana	No	7.1	82.7	****	4.8	87.3	****
	Yes	28.0	58.9		22.2	65.1	
Amphetamines	No	9.0	81.2	*	5.3	87.2	****
	Yes	30.8	69.2		28.0	48.0	
Halucinogens	No	8.7	81.5	*	4.9	87.2	***
	Yes	25.0	75.0		20.6	67.6	
Ecstacy	No	10.0	80.1	NS	5.9	86.5	NS
	Yes	15.4	84.6		11.1	72.2	
Cocaine(a)	No	10.1	80.3	****	6.0	85.8	-
	Yes	25.0	35.0		50.0	0.0	-
Narcotics(a)	No	10.3	80.0	****	6.1	86.0	-
	Yes	16.7	33.3		25.0	25.0	

* p<0.05, ** p<0.001, *** p<0.0001, **** p<0.00001, NS: not significant, - too few cases to report.
All tests have 3 degrees of freedom.
(a) Respondents who have used in the previous week (due to small numbers who used in the previous 12 months, but not the previous 4 weeks or 7 days).
Source: ACT Secondary Schools Drug and Alcohol Survey, 1996

SECTION 4
SUN PROTECTION

4.1 INTRODUCTION

While the incidence of some forms of preventable cancer is declining, the incidence of skin cancer is increasing at an alarming rate in countries with predominantly white populations, particularly Australia. For example, Australia has the highest rate of skin cancer in the world, with melanoma rates increasing at an average annual rate of four to six per cent. Thus, skin cancer is a serious problem, with approximately 800 Australians dying each year from melanomas, whilst a further 200 Australians die annually from nonmelanocytic skin cancer (Foot et al, 1993). Adolescence has been identified as a period of high risk for skin damage that could lead to skin cancer in later life (Broadstock et al, 1996). Several factors contribute to this susceptibility. First, on average Australian adolescents tend to spend more time in the sun than adults (Cockburn et al, 1989). This results in adolescents receiving three times the ultraviolet radiation dose (Broadstock et al, 1996). Second, the critical period for sustaining damaging levels of sun exposure occurs through the school years. Since children are at school throughout the high risk period of each day for five days a week, schools have the potential to have a major impact on the level of sun exposure that children sustain through these formative years, and thus on the risk of developing skin cancer (Schofield et al, 1991).

However, the adolescent group is accessible. In order for a behavioural change to occur, appropriate messages which pre-empt motivations for change have to be given to and received by the target group. The implementation of interventions throughout the school system provides an increased likelihood that adolescents will, at least, be exposed to the message. Finally, intervention with adolescents is more likely to be effective than is intervention with adults. Attempts to modify behaviour in younger persons, before their habits become entrenched, may be more successful than are interventions which are aimed at older age groups (Cockburn et al, 1989).

4.2 CURRENT LITERATURE

A number of barriers to effective sun protection have been identified in Australian adolescents. Adolescents have been shown to value and desire a suntan, that most of their friends like to get a suntan, that they fit in with their peers more easily with a suntan, and they see a suntan as healthy and attractive (Broadstock et al, 1996).

Lowe and his colleagues found that secondary school students in Queensland commonly dislike wearing long trousers or long-sleeved shirts in the sun, and 40 per cent thought covering up in the sun is a hassle (Lowes et al, 1993). They also found that hat use was more favoured by students in lower grades, but students in older grades held more prevalent beliefs in favour of sunning.

Several marked adolescent gender differences in health beliefs and behaviour have also been identified. Relative to males, females have a higher level of knowledge of skin cancer and sun protection, believe they are more susceptible to skin cancer and have fewer barriers to covering up. They are also more likely to use sun screens regularly, engage in more skin protection behaviours and perceive a lighter tan to be more attractive than a darker one (Broadstock et al, 1996). In comparison, Lowe et al (1993) found that girls were more likely than boys to feel that their friends liked to have a suntan and looked better with a tan, that their friends would react negatively if they used sun protection on the beach, and that hats look “daggy”.

Broadstock et al (1996) found that Victorian secondary school children were virtually all aware of the issue of sun protection, were likely to receive education about sun protection three times in their schooling and become increasingly knowledgeable as they proceed through school. They also found that attitudes to sun protection were generally positive, except to the idea of actually avoiding the sun. As well, attitudes were positive towards suntans. As expected, those most sensitive to burn were most positive in attitudes towards sun protection and most likely to report sun protection behaviours (Broadstock et al, 1996).

Broadstock et al (1996) also found that most of the 15 year olds had the attitudes and reported behaviours that were least conducive to sun protection. There seemed to be a decline of desired sun protection attitude or behaviour from ages 12 to 15 years. Beyond this age, there appears to be a stabilising until age 17 years.

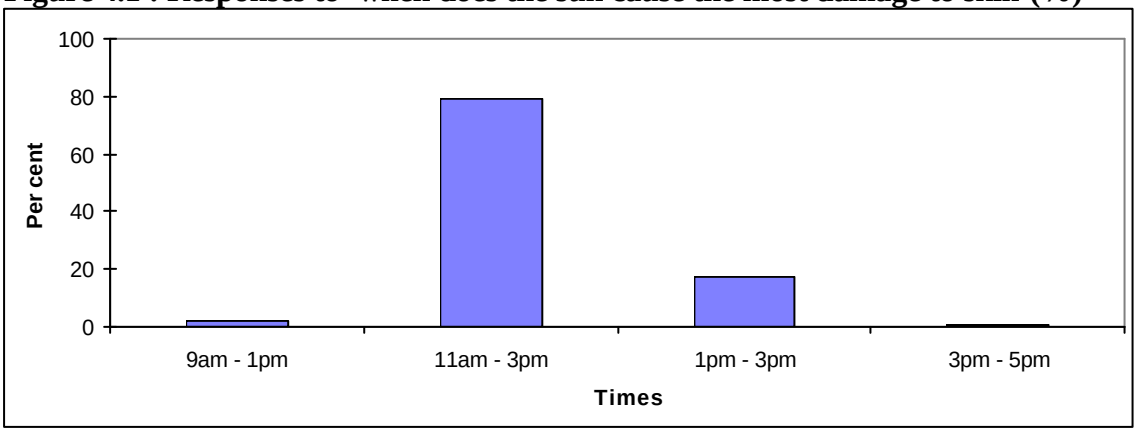
However, it was found that older students expressed increasingly more knowledge about sun protection than younger students. The age of 15 years appears to be particularly prone to beliefs and perhaps behaviours that are inconsistent with their knowledge base (Broadstock et al, 1996). Following from this, the prevalence of smoking appears to increase with age until the age of 15 years, beyond which seems to stay fairly constant (Broadstock et al, 1996).

4.3 KNOWLEDGE OF SUN DAMAGE

On average, children spend seven to eight hours of each school week in outdoor activities and most of this time (80 to 90%) occurs between 11am and 3pm (Schofield et al 1991). Results from the 1996 ACT School Survey shows that 79% of respondents believe that sun causes the most damage to skin between 11am and 3pm and 17% between 1pm and 3pm (Figure 4.1).

There were significant differences between male and female students (see Table 4.1) in how they believed when the sun was most dangerous to the skin (χ^2=28.42, df=3, P<0.00001), with a large proportion of males (22%) believing between 1-3pm is the critical time. (females 13%).

Figure 4.1 : Responses to 'when does the sun cause the most damage to skin'(%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Table 4.1 : Responses to 'when does the sun cause the most damage to skin', by sex (%)

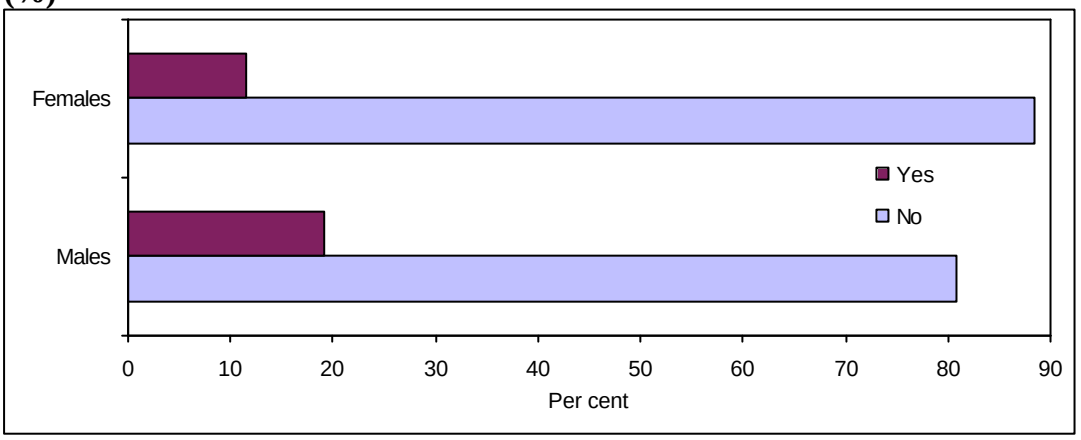
	Males	Females
Between 9am and 1pm	2.3	2.3
Between 11am and 3pm	74.4	84.3
Between 1pm and 3pm	22.2	12.8
Between 3pm and 5pm	1.1	0.7

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

4.3.1 Sunburn

Of all respondents (both males and females), 95 per cent believed that it was possible to get sunburnt on cloudy days. When asked about getting skin cancer if you burn often, 81 per cent of males and 88 per cent of females believed this to be untrue (see Figure 4.2).

Figure 4.2 : Whether respondents agree that skin cancer is caused by constant sunburning (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Students in the survey were also asked how long they believed they could stay out in the sun without burning. More than 50 per cent of all male students believed that they could stay out in the sun '15 times as long as they could without sun screen', 28 per cent responded '15 minutes', 15 per cent said '15 hours' and 5 per cent thought 'all day'. Similarly, of all female students, 50 per cent responded that they could stay out in the sun 15 times as long as they could without sunscreen; 31 per cent for 15 minutes; 14 per cent for 15 hours and 5 per cent for all day. There were also significant differences across student year levels (Table 4.2).

Table 4.2 : Respondents who believe that SPF means can stay out in the sun without burning for a certain period of time by sex and student year levels (%)

Response	Gender	Year Level					
		7	8	9	10	11	12
15 minutes	Males	40	31	30	27	25	22
	Females	44	28	26	30	35	29
15 hours	Males	24	18	16	17	10	7
	Females	11	20	17	15	10	6
15 times as long as without sunscreen	Males	27	46	49	54	59	63
	Females	31	42	53	50	53	63
All day	Males	10	5	5	3	6	8
	Females	14	10	4	4	3	2

Source : ACT School Students' Alcohol and Drugs Survey and 1996

When asked about their belief on using a maximum protection sunscreen, 34 per cent of male respondents and 46 per cent of female respondents liked wearing it. However, 20 per cent of males seemed to dislike wearing it, with 6 per cent disliking it a lot. This compared with only 9 per cent of females who disliked wearing it. Alongside this, 29 per cent of males were unsure about using a maximum protection sunscreen (χ^2=161.75, df=4, P<0.00001).

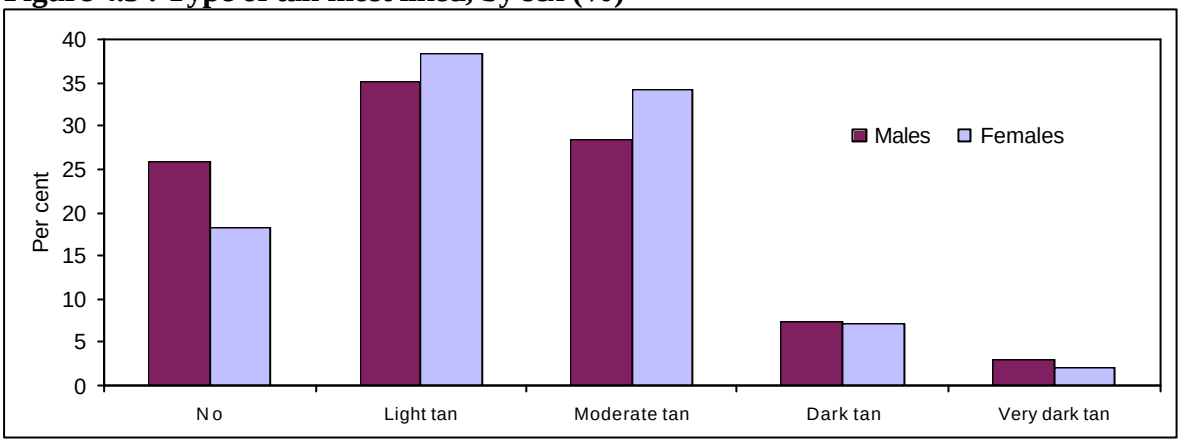
4.3.2 Suntan

In the past, a suntan has been a highly valued social symbol, particularly by young people. This perception has been fostered to some extent by the fashion and advertising industry which has played a big part in establishing the suntan as something worth working towards and worth paying for. Unfortunately, the cost, in terms of the development of cancer later in life, has little deterrent value for most teenagers (Marks & Hill, 1988).

According to Lowe et al (1993) later year students are more in favour of tanning, and appear to be more influenced by their friends than authoritative figures such as teachers and parents. However, Marks (1994) research suggests that over the past few years the desire for a suntan has decreased, with fewer teenagers seeking a tan and more accepting light tan. Complementing this trend, there has been a substantial reduction in the depth of tans seen on models used in Australian fashion magazines during the 10 year period to 1991 (Marks, 1994).

Lowe et al (1993) point out that boys are more likely to see suntans and freckles as providing some protection from the sun than girls. The 1996 ACT School Survey results show significant differences between males and females in relation to the desire for a suntan. Figure 4.3 indicates that darker and very dark tans were slightly more desired by males (χ^2=18.84, df=4, P<0.001), while more females desired either a light tan or a moderate tan.

Figure 4.3 : Type of tan most liked, by sex (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

In relation to products to speed up tans, of those who had used such a product, 80 per cent were females (χ^2=83.7, df=1, P<0.00001). However, of all respondents (both males and females) more than 85 per cent reported they had never used a product to speed up a tan. There were no significant differences between use of products to speed up tan and student school year level.

4.4 METHODS OF PROTECTION FROM THE SUN

The findings of Fritschi and Green (1995) suggest that, by the age of 15 years, more than half of Australians have detectable skin damage. Adolescents more likely to have sun-damaged skin were those with freckles, red and blond hair and light-coloured eyes (Fritschi & Green, 1995).

It is known that decreasing exposure to ultraviolet light by the use of shade, clothing and sunscreen has a protective effect against the development of skin cancer, thereby making it a preventable condition (Cockburn et al, 1989). It is estimated that about 80% of skin cancers are preventable through limiting ultraviolet exposure (Schofield et al, 1991).

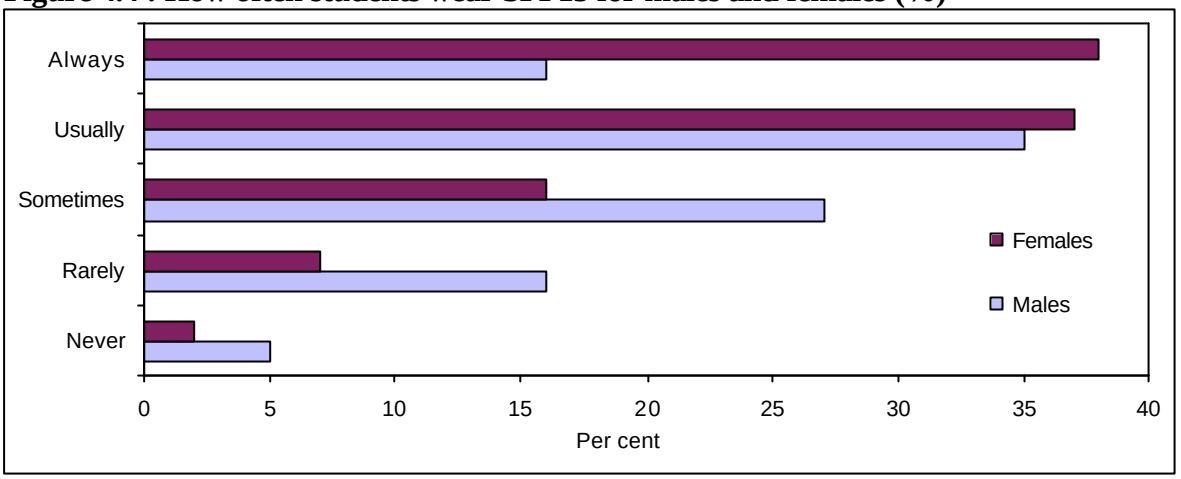
Ultraviolet radiation to the head and neck can be reduced by up to 70% by simply putting on a hat with a 10cm brim. As well, avoiding the sun around the middle of the day will reduce it by up to 60%. Similarly, the correct application of a sun-protection factor (SPF) 15+ sunscreen, will reduce ultraviolet radiation by at least 94% (Marks, 1995).

4.4.1 Sun Protection Factor (SPF)

Although avoidance of ultraviolet radiation is the most favourable method of solar protection, it has been demonstrated that regular use of sunscreen with a sun protection factor (SPF)15+ during the first 18 years of life can reduce an individual's lifetime expectancy of skin cancer by 78% (Girgis et al, 1993). In relation to perception of SPF and sun damage, students were asked how often they wore maximum sun protection screen (SPF 15, or SPF 15+) between 11am and 3pm on a sunny summer day. Figure 4.4 shows that the majority of females wore SPF15+ either usually (37%) or

always (38%). These compare to 35 per cent and 16 per cent for males, respectively. It appears that males are more likely to wear SPF15+ sometimes (27%) or rarely (16%).

Figure 4.4 : How often students wear SPF15 for males and females (%)

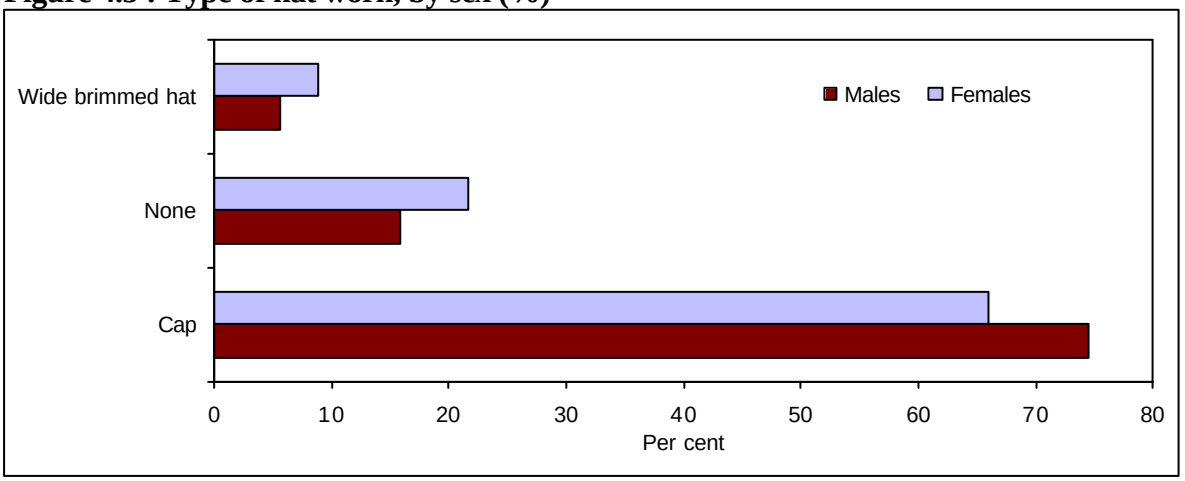


Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996
(c^2=145.26, df=4, P<0.00001)

4.4.2 Hats

Results from the 1996 ACT School Survey showed that the most popular type of hat worn by respondents was a cap, followed by no hat and then a wide brimmed hat. Of the type of hat worn (see Figure 4.5), 75% of males and 66% of females preferred to wear caps, while 6% of males and 9% of females preferred to wear a wide brimmed hat. However, 16% of males and 22% of females preferred not to wear any hat at all. This could be due to the fact that adolescent females are more concerned with their appearance than are adolescent males. It may be that fashion determines attitudes to hats in females and that males, who are generally less concerned about fashion, are more likely to evaluate them in terms of their utility for sun protection (Broadstock et al, 1996).

Figure 4.5 : Type of hat worn, by sex (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

In response to the question "When you are out in the sun between 11am and 3pm how often do you wear a hat?"; more males (25%) and than females (11%) reported they 'always' wear a hat; while 23 per cent of females 'rarely' wear a hat compared to 13 per cent of males. For both sexes, around 10 per cent reported that they 'never' wear a hat (χ^2=82.55, df=4, P<0.00001). These findings are consistent with the finding (see Table 4.3) that more females than males dislike wearing a hat (χ^2=132.36, df=4, P<0.00001).

Table 4.3 : Whether respondents like or dislike wearing a hat outside, by sex (%)

	Males	Females
Dislike a lot	5.7	8.9
Dislike	10.3	22.6
Not sure	19.9	27.1
Like	41.4	34.5
Like a lot	22.7	6.9

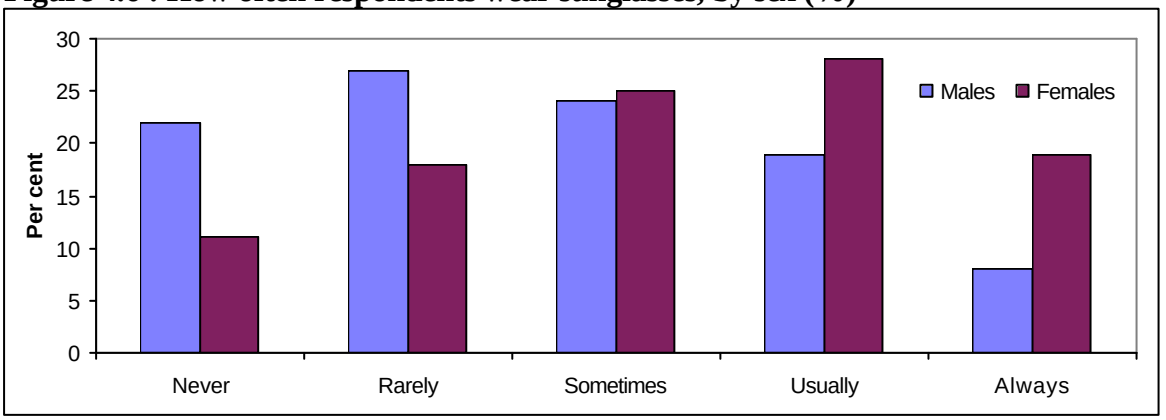
Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

4.4.3 Sunglasses

There were significant differences between males and females when it comes to wearing sunglasses. Figure 4.6 shows the responses to the question "Thinking about sunny days in summer, when you are in the sun for an hour or more between 11am and 3pm, how often do you wear sunglasses?" Only one in five females and less than one in ten males always wear sunglasses. Quite alarmingly, 11 per cent of the females respondents and 22 per cent of the males respondents never wear sunglasses (χ^2=102.00, df=4, P<0.00001).

It appears from Table 4.4 that quite a proportion of both males and females either dislike or strongly dislike wearing sunglasses, and an even higher proportion of both sexes are unsure as to whether they dislike wearing sunglasses. On the other hand, nearly a half of the male and two thirds of the female respondents liked or liked a lot, wearing sunglasses (χ^2=71.56, df=4, P<0.0001).

Figure 4.6 : How often respondents wear sunglasses, by sex (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Table 4.4 : Respondents who like and dislike wearing sunglasses, by sex (%)

	Males	Females
Dislike a lot	10.6	6.0
Dislike	14.5	9.9
Not sure	26.0	17.5
Like	34.2	38.3
Like a lot	14.7	28.4

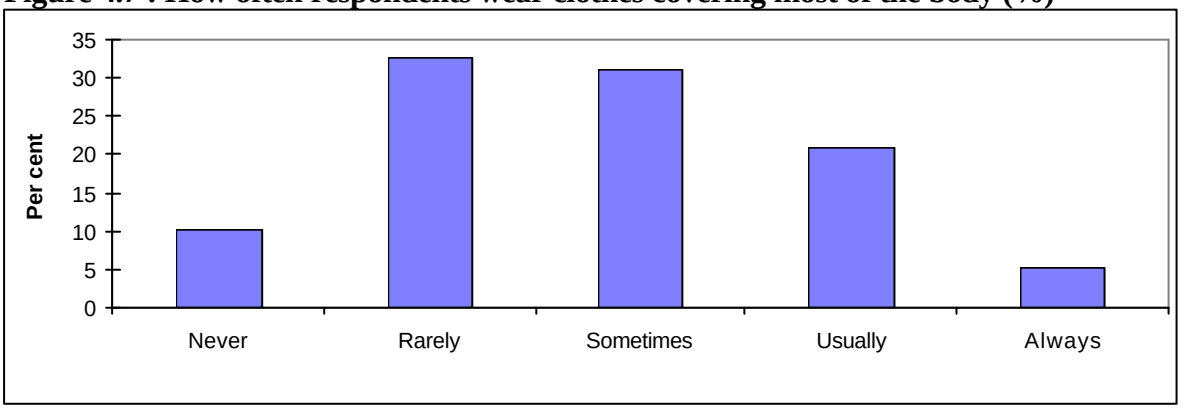
Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

4.4.4 Clothes

The ACT Survey data show that, of all respondents, the majority either rarely or only sometimes wore clothing to cover most of their body. The data also show that, encouragingly, nearly a third of the male and female respondents rarely wear less/briefer clothing. (see Figure 4.7). This compares with 10 per cent of male and 17 per cent of female respondents who usually wore less clothing in the sun (χ^2=51.12.56, df=4, P<0.00001).

Table 4.5 details whether respondents liked or disliked covering up with clothes. More than half of the female respondents disliked or strongly disliked covering up with clothes, compared to nearly one in five who liked covering up. A further finding was that nearly a third of male and a quarter of female respondents were unsure (χ^2=21.78, df=4, P<0.0005).

Figure 4.7 : How often respondents wear clothes covering most of the body (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Table 4.5 : Whether respondents like or dislike covering up with clothes, by sex (%)

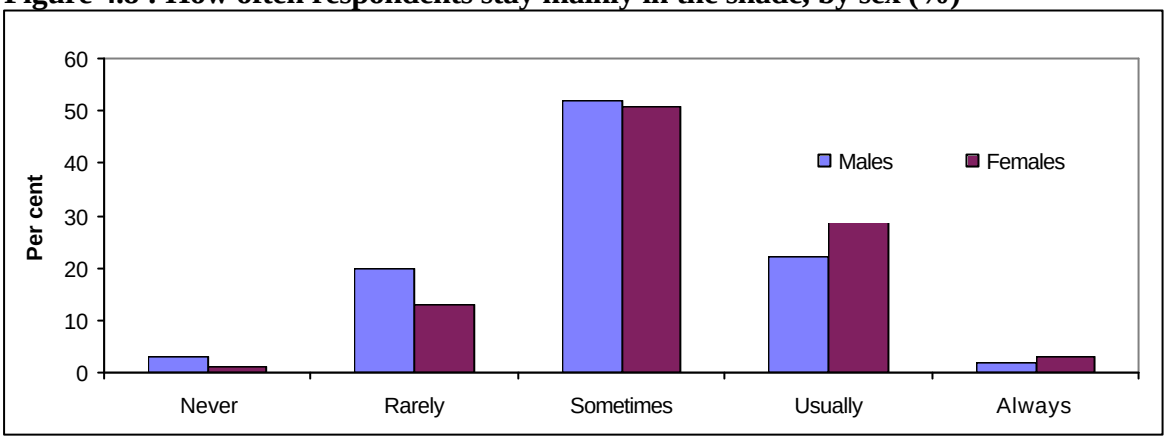
	Males	Females
Dislike a lot	12.9	13.3
Dislike	33.2	42.6
Not sure	29.8	26.3
Like	18.9	15.1
Like a lot	5.1	2.7

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

4.4.5 Shade

Approximately half of the respondents reported they sometimes spent time in the shade. Figure 4.8 shows that 20% of the males and 13% of the females rarely spend time in the shade. As well, only 3% of males and 1% of females never spent time in the shade (χ^2=36.47, df=4, P<0.0001). Table 4.6 shows that, over one half of both sexes liked staying in the shade a lot. Corresponding to those who rarely spend time in the shade, 16% of both the male and female respondents dislike staying in the shade (χ^2=17.39, df=4, P<0.05).

Figure 4.8 : How often respondents stay mainly in the shade, by sex (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

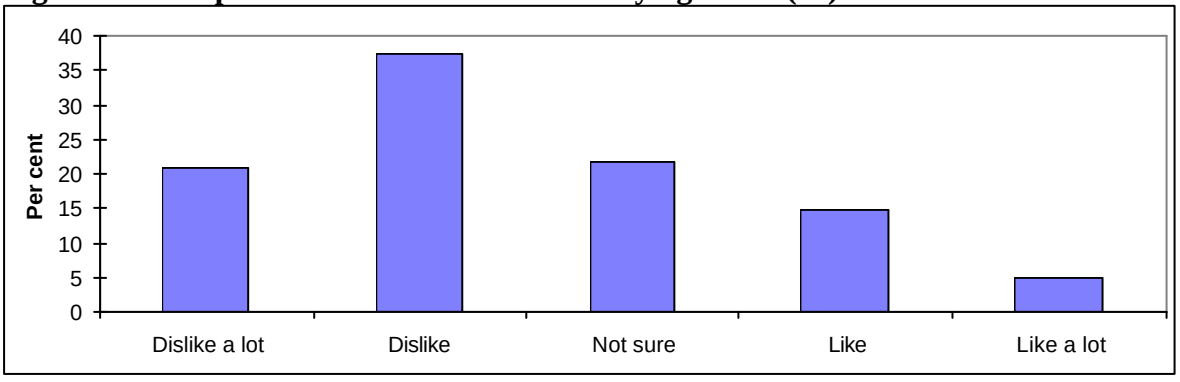
Table 4.6 : Respondents who like or dislike staying in the shade, by sex (%)

	Males	Females
Dislike a lot	5.0	2.3
Dislike	16.3	15.8
Not sure	26.0	21.3
Like	39.6	44.9
Like a lot	13.2	15.7

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Related to the fact that adolescents spend a lot of time outdoors, Figure 4.9 highlights that just over a third of respondents disliked staying inside, with 21% disliking it a lot. This compares with only 15% of respondents who liked and 5% who like staying indoors a lot (χ^2=15.29, df=4, P<0.005).

Figure 4.9 : Respondents who like or dislike staying inside (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

4.5 LESSONS IN SUN PROTECTION

The 1996 ACT Survey data shows that 45% of respondents did not have a lesson about sun protection in 1995. The next biggest proportion (27%) were for those who had part of a lesson, while only 11% had more than one lesson on sun protection (see Figure 4.10). There were also significant differences across student year levels in relation to lessons in sun protection. For example, of all male students, more than 70% of Year 7 students reported that they had at least part of a lesson related to sun protection, this proportion decreased to less than 30% at Year 12 (χ^2=109.23, df=4, P<0.0001). A similar pattern was also reported from female students (Table 4.7).

Figure 4.10 : Respondents who had a lesson in sun protection in 1995 (%)

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Table 4.7 : No. of lessons received about sun protection, by sex, by student's school year level (%)

No. of lessons	Gender	Year Level					
		7	8	9	10	11	12
None	Males	23	34	44	45	49	73
	Females	37	38	35	48	51	71
Yes, part of a lesson	Males	24	30	27	25	27	21
	Females	23	32	31	26	30	18
Yes, one lesson	Males	29	21	13	18	14	4
	Females	18	14	20	18	13	4
Yes more than one lesson	Males	24	14	16	12	10	2
	Females	21	16	12	8	6	5

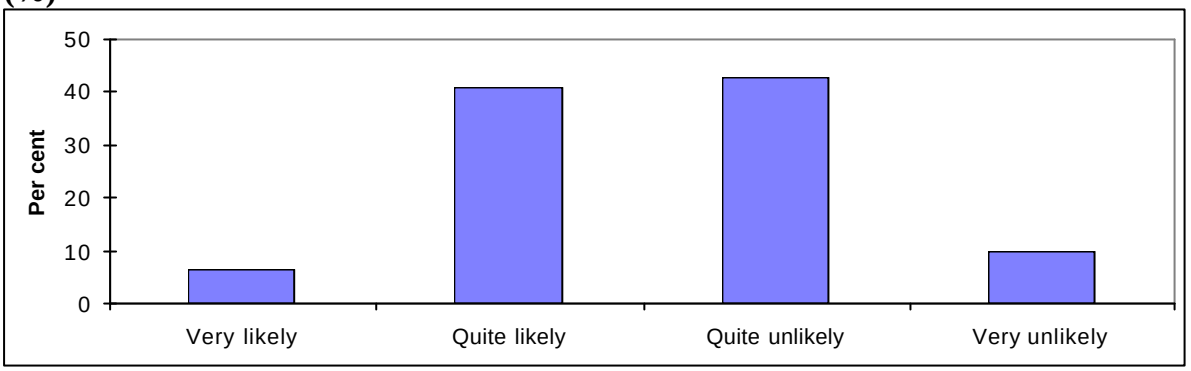
Source : ACT School Students' Alcohol and Drugs Survey and 1996

4.6 FUTURE BELIEFS

In terms of the likelihood of getting skin cancer in the future, 41% of respondents believe that it was quite likely, while 43% believed it is quite unlikely (see Figure 4.11). However, teenagers accept quite well that too much exposure to the sun throughout life ages the skin, and that skin cancer is

dangerous. Nevertheless, although over one third of teenagers accept the chance that they might develop skin cancer, they are more prone to deny this risk than are older persons (Marks & Hill, 1988).

Figure 4.11 : Respondents' perception of the likelihood of getting skin cancer in the future (%)

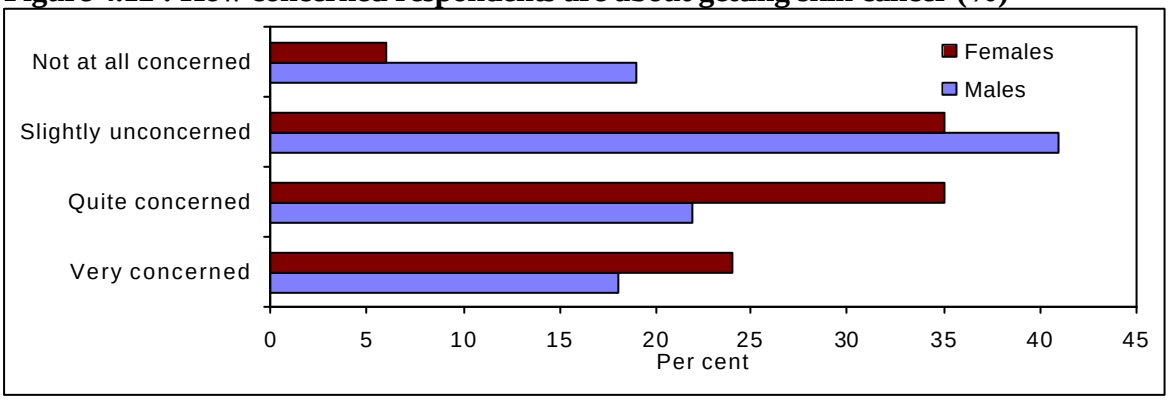


Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

When asked how concerned respondents were about getting skin cancer, 18 per cent of males and 24 per cent of females reported that they were very concerned, while 22 per cent of males and 35 per cent of females were quite concerned. As seen in Figure 4.12, this compares with 41 per cent of males and 35 per cent of females being only slightly concerned about getting skin cancer (χ^2=90.82, df=3, P<0.00001).

In addition, there were significant differences between male and female respondents in answering the question "How much can you do to avoid getting skin cancer?" Table 4.8 indicates that nearly half of the respondents believe that a fair amount could be done to avoid skin cancer, while nearly 40% believed that a great deal could be done (χ^2=14.09, df=3, P<0.005).

Figure 4.12 : How concerned respondents are about getting skin cancer (%)



Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

Table 4.8 : Respondents' perception of how much you can do to avoid skin cancer (%)

	Males	Females
A great deal	37	41
A fair amount	49	51
A small amount	11	7
Nothing	3	1

Source : ACT Secondary School Students' Alcohol and Drugs Survey 1996

APPENDIX 1

Methodology

The methods of sampling and data collection followed were the same as those reported from a previous national survey (Hill et al, 1987). A random sample of schools was drawn from the total population of all government and non-government schools and colleges in the ACT, covering Years 7 to 12. The ACT had 100% rate of schools' participation, comprising 18 High Schools (12 Government, 3 Catholic, 3 Independent) and 8 Colleges (4 Government, 2 Catholic and 2 Independent).

Data Analysis

The survey population data was weighted in order to provide a more accurate representation of the ACT population. The Australian Bureau of Statistics 1995 population data was used for the comparison data set. Table 1 gives details of the survey age/sex distribution compared with the ACT population estimates.

Table 1: Per Cent of Survey Sex / Age Distribution with ACT Population Distribution

MALES (%)				FEMALES (%)		
AGE	Unweighted	Weighted	ACT Pop	Unweighted	Weighted	ACT Pop
13	16.15	13.62	13.62	12.03	13.64	13.64
14	16.07	13.70	13.74	14.94	13.87	13.84
15	15.39	13.79	13.79	12.56	13.95	13.91
16	18.69	14.12	14.12	24.59	14.18	14.16
17	16.24	14.55	14.58	20.99	14.41	14.40

The 11, 12, 18 and 19 year olds were not included in the weighted sample because the numbers of respondents were too small, hence not representative of the ACT school population. The small number of responses was due to the fact that many of these age groups are either still in primary school (11 and 12 year olds) or have already completed school (18 and 19 year olds).

Table 2 shows the unweighted and weighted proportions of males and females compared to the ACT population sample.

Table 2 % of Unweighted and Weighted Survey Distribution Compared with ACT Population Distribution

Sex	Unweighted Survey Count	%	Sex	Weighted Survey Count	%	Sex	ACT Population Count	%
M	1182	47.50	M	1031	48.20	M	16026	50.70
F	1305	52.50	F	1108	51.80	F	15562	49.30
Total	2487	100	Total	2139	100	Total	31588	100

As responses to most question were sex and student school Year level dependent, most of the results are reported separately for males and females in each Year level. Chi-square tests were performed to analyse the differences between sex and across Year level.

REFERENCES

Australian Institute of Health and Welfare (1996) Tobacco Use and Its Health Impact In Australia. Australian Government Publishing Service : Australia.

Beman, D.S. (1995) Risk Factors Leading to Adolescent Substance Abuse. *Adolescence*, Spring 1995, Vol 30, No 117.

Broadstock, M., Borland, R. & Hill, D. (1996) Knowledge, Attitudes and Reported Behaviours Relevant to Sun Protection and Sunning in Adolescents. *Psychology and Health*, 1996, Vol 11, pp 527-539.

Cockburn, J., Hennrikus, D., Scott, R. & Sanson-Fisher, R. (1989) Adolescent use of sun-protection measures. *The Medical Journal of Australia*, August 7 1989, Vol 151, pp 136-140.

Commonwealth Department of Health and Family Services National Drug Strategy Household Survey, Survey Report 1995.

Department of Employment, Education and Training, Youth Bureau (1988) Young Australians and Drugs Part 1 - Report Peat Marwick Hungerfords Management Consultants : Canberra.

Dinges, M.M. & Oetting, E.R. (1993) Similarity in drug use patterns between adolescents and their friends. *Adolescence*, Summer 1993, Vol 28, No 110.

Donnelly, N., Quine, S., Oldenburg, B., Macaskill, P. & Lyle, D. (1992) Prevalence and perceptions of licit and illicit drugs among New South Wales secondary school students, 1989. *Australian Journal of Public Health*, 1992, Vol 16, No 1.

Foot, G., Girgis, A., Boyle, C.A. & Sanson-Fisher, R.W. (1993) Solar protection behaviours : a study of beachgoers. *Australian Journal of Public Health*, 1993, Vol 17, No 3, pp 209-214.

Fritschi, L. & Green, A. (1995) Sun damage in teenagers' skin. *Australian Journal of Public Health*, 1995, Vol 19, No 4, pp 383-386.

Girgis, A., Doran, C.M., Sanson-Fisher, R.W. & Walsh, R.A. (1995)Smoking by adolescents : large revenue but little for prevention. *Australian Journal of Public Health*, 1995, Vol 19, No 1, pp29-33.

Girgis, A., Sanson-Fisher, R.W., Tripodi, D.A. & Golding, T. (1993) Evaluation of Interventions to Improve Solar Protection in Primary Schools. *Health Education Quarterly*, Summer 1993, Vol 20(2), pp 275-287.

Hall, W., Flaherty, B. & Homel, P. (1992) The Public Perception Of The Risks And Benefits Of Alcohol Consumption. *Australian Journal of Public Health*, 1992, Vol 16, No 1.

Hill, D, Willcox, Gardner, G, Houston, J. (1987) Tobacco and alcohol use among Australian secondary schoolchildren. *Medical Journal of Australia*, 146: 125-130.

Hill, D., White, V. & Segan, C. (1995) Prevalence of cigarette smoking among Australian secondary school students in 1993. *Australian Journal of Public Health*, 1995, Vol 19, No 5, pp 445-449.

Holman C, D., Amstrong, BK., Arias IN., Martin CA et al. (1988) The quantification of drug caused morbidity and mortality in Australia. Canberra Australian Government Publishing Services

Jenkins, J.E. (1996) The influence of peer affiliation and students activities on adolescent drug involvement. *Adolescence*, Summer 1996, Vol 31, No 122,.

Jones, R.G. (1991) ACT Student Survey 1991 : Drug Use by Year 7 to Year 11 Students. ACT Alcohol and Drug Service Ministry for Health, Education and the Arts.

Lowe, J.B., Balanda, K.P., Gillespie, A.M., Del Mar, C.B. & Gentle, A.F. Sun-related Attitudes and Beliefs Among Queensland School Children : The Role of Gender and Age. *Australian Journal of Public Health*, 1993, Vol 17, No 3, pp 202-209.

Makkai, T. & McAllister, I. (1993) Patterns of Drug Use in Australian Society An Analysis of National Trend Data 1985-91. Australian Government Publishing Service : Canberra

Marks, R & Hill, D. (1988) Behavioural Change in Adolescence : a major challenge for skin-cancer control in Australia. *The Medical Journal of Australia*, November 21 1988, Vol 149, pp 514-515.

Marks, R. (1994) Skin cancer control in Australia : have we made any difference ?. *Australian Journal of Public Health*, 1994, Vol 18, No 2, pp127-128.

Marks, R. (1995) Skin Cancer and the Ozone Hole When is not enough likely to be too much ? *The Medical Journal of Australia*, December 1995, Vol 163, pp 578-579.

McAllister, I., Moore, R. & Makkai, T. (1991) Drugs in Australian Society Patterns, Attitudes and Policies. Longman Cheshire : Australia.

National Drug Strategy Survey Report (1995), Australian Government Publishing Services, Canberra, 1995

Patton, G.C., Hibbert, M., Rosier, M.J., Carlin, J.B., Caust, J. & Bowes, G. (1995) Patterns Of Common Drug Use In Teenagers. *Australian Journal of Public Health*, 1995, Vol 19, No 4.

QUIT Kit 1997

Schofield, M.J., Tripodi, A., Girgis, A. & Sanson-Fisher, R.W. (1991) Solar protection issues for schools : policy, practice and recommendations. *Australian Journal of Public Health*, 1991, Vol 15, No 2, pp 135-141.

WHO (1990) "Preventing And Controlling Drug Abuse" M. Gossop and M, Grant (eds). Geneva, WHO

Winstanley, M., Woodward, S. & Walker, N. (1995) Tobacco In Australia, Facts and Issues 1995. Victorian Smoking and Health Program (Quit Victoria) : Australia.

Health Series Publications

The Epidemiology Unit of the Department of Health and Community Care has developed an on-going health 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

Number 3: *Cancer in the Australian Capital Territory 1983-1992*
Norma Briscoe, April 1996

Number 4: *The Epidemiology of Asthma in the ACT*
Carol Gilbert, April 1996

Number 5: *The Epidemiology of Diabetes Mellitus in the ACT*
Carol Gilbert, Chris Gordon, July 1996

Number 6: *Developing a Strategic Plan for Cancer Services in the ACT*
Kate Burns, June 1996

Number 7: *The First Year of The Care Continuum and Health Outcomes Project*
Bruce Shadbolt, June 1996

Number 8: *The Epidemiology of Cardiovascular Disease in the ACT*
Carol Gilbert, Ursula White, January 1997

Number 9: *Health Related Quality of Life in the ACT: 1994-95*
Darren Gannon, Chris Gordon, Brian Egloff, Bruce Shadbolt, February 1997

Number 10: *Disability and Ageing in the ACT: An Epidemiological Review*
Carol Gilbert, April 1997

Number 11: *Mental Health in the ACT*
Ursula White, Carol Gilbert, May 1997

Number 12: *Aboriginal and Torres Strait Islander Health in the ACT*
Norma Briscoe, Josie McConnell, Michelle Petersen, July 1997

Number 13: *Health Indicators in the ACT: Measures of health status and health services in the ACT*
Carol Kee (Gilbert), George Johansen, Ursula White, Josie McConnell
January 1998

Number 14 *Health status of the ACT by statistical sub-divisions*
Carol Kee, George Bodilson (Johansen), April 1998

Number 15: *Results from the 1996 ACT Secondary School Students' Survey*
Hai Phung, George Bodilsen, Allison Webb, Norma Briscoe
May 1998