Drug and Alcohol Services South Australia

Statistical Bulletin

Number 4 - April 2013

The prevalence of risky drinking and illicit drug use across socio-economic status in South Australia.

This Bulletin is the fourth in a series providing the most up-to-date data available on the prevalence of alcohol and other drug use, the harms associated with misuse, and alcohol and other drug treatment services in South Australia.

This issue focuses on how the prevalence of risky drinking and illicit drug use varies with area-based socio-economic status (SES) in South Australia[1]. While ample research has found that tobacco smoking increases as SES decreases[2], no such clear pattern has been found for alcohol or illicit drug use.

Data for this Bulletin are taken from the 2010 National Drug Strategy Household Survey (NDSHS), which is conducted triennially by the Australian Institute of Health and Welfare (AIHW).

The 2009 NH&MRC Australian Guidelines to Reduce Health Risks from Drinking Alcohol (the Guidelines) provide evidence-based guidance for Australians to reducing the risk of harm from drinking alcohol. The calculations of risky drinking in this Bulletin are based on these guidelines.

Socio-economic status is represented by an area-based measure using one of the current Socio-Economic Indexes for Area (SEIFA) developed by the Australian Bureau of Statistics (ABS) released in 2006[3].

Government of South Australia
SA Health

DRUG & and ALCOHOL SERVICES SOUTH AUSTRALIA

Summary

SES and alcohol consumption; 14 years and over

There was no uniform positive or negative relationship between SES and risky drinking levels (either on single occasion or over a lifetime), however:

> There was a significantly greater prevalence of abstainers in areas with lower SES.

> The prevalence of weekly alcohol consumption increased as SES increased.

> The prevalence of drinking at levels that increase the risk of harm over a lifetime increased for males and decreased for females as SES increased.

> The prevalence of risky drinking on a single occasion at least weekly was higher for males and lower for females in areas with higher SES, though the trend was not linear.

> Females living in higher SES areas were generally significantly less likely to drink at risky levels on a single occasion weekly than those in lower SES areas (except for females in areas with the lowest SES).

SES and alcohol consumption; 12-17 year olds

There was no uniform positive or negative relationship between SES and risky drinking levels (either on single occasion or over a lifetime), however:

> The prevalence of alcohol consumption at risky levels over a lifetime was highest in one of the lower SES levels.

> The prevalence of alcohol consumption at risky levels on a single occasion was highest in one of the lower SES levels.

SES and illicit drug use

> South Australians aged 14 years and older, living in areas with higher SES, were significantly less likely to have recently used illicit drugs than those in lower SES areas.

> A significant decrease existed in the prevalence of recent illicit drug use (including cannabis) as SES increased.

How socio-economic status was measured

Area level socio-economic status (SES) was estimated using the Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD), as first used in the 2006 Australian Census. This index uses data from variables related to both advantage and disadvantage, such as income[4], internet connection[5], skilled and unskilled employment[6], and education levels[7] to generate a continuum of socio-economic status scores for a given Census Collection District area.

Respondents to the 2010 NDHS were separated into quintiles according to their IRSAD score. The survey population living in the 20% of areas with the greatest overall level of disadvantage are described as the 'lowest SES' – in Quintile 1. The survey population living in the 20% of areas with the greatest overall level of advantage are described as the 'highest SES' – Quintile 5. The quintiles are therefore a relative, rather than absolute, measure of SES.

Table 1 shows the percentage of Australians and South Australians aged 14 years and older within each of the five IRSAD quintiles. Note that quintiles are allocated on the basis of the Australia-wide data collected in the 2010 NDSHS.

Table 1: Percentage of IRSAD area quintiles for South Australians and Australians aged 14 years and over.

IRSAD Quintile	South Australians	Australians
1 (most disadvantaged)	27.6	18.1
2	19.7	18.7
3	22.3	19.9
4	22.8	22.1
5 (most advantaged)	7.7	21.2

There was a much higher percentage of South Australians aged 14 years or older in areas with the greatest disadvantage (Quintile 1) than Australians, and also a the much smaller percentage of people aged 14 years or older living in areas with the most socio-economic advantage (Quintile 5) in the South Australian population compared to the Australian population. See Table 10 in Appendix A for a list of South Australian Local Government Areas in each IRSAD quintile.

Previous research into the association between SES and alcohol and substance use has produced mixed results – some finding negative, positive or no relationship at all between the two[8]. Two main mechanisms have been proposed to account for the interaction between area-based social disadvantage and substance use.

Firstly, individuals living in areas of low SES experience more stressful living conditions resulting from material disadvantage, such as those characterised by low income (poorer nutrition, lower quality housing, financial stress etc)[8]. Additionally, in areas with low relative SES, there is likely to be less access to social infrastructure, such as policing, employment, transport, and health-care services, to maintain social order and assist residents to deal with these life stressors[8]. Substance use can provide a coping mechanism in place of the social resources that are not present in more disadvantaged areas. Further, a reciprocal mechanism may operate, meaning that areas of greater disadvantage typically have a higher prevalence of crime and a greater concentration of alcohol outlets (with lower pricing). Risky behaviour has been shown to be adventitious (dependent upon the opportunity provided by the environment)[9]. So the increased demand for substances to use as coping mechanisms for stressors, in conjunction with greater availability results in a higher prevalence of substance use in areas with greater relative disadvantage.

Secondly, the increase in substance use with SES[10] has been attributed to the incorporation of substance use into social norms in areas with higher relative SES[8]. This is particularly typical of alcohol consumption (though not necessarily at risky levels) as it is a socially sanctioned substance, and there is a higher incorporation of frequent alcohol consumption at lower levels in areas with lower disadvantage[11]. Additionally, individuals in higher SES areas tend to have more disposable income and therefore can have greater access to substances irrespective of pricing trends[12].

Alcohol consumption

Alcohol drinking status

Table 2 below presents the frequency of alcohol consumption by South Australians aged 14 years and older by SES.

Table 2: Alcohol consumption frequency for South Australians aged 14 and older by SES.

Drinking status	% of IRSAD quintile – Socio-Economic Status					Total
	1 (most disadvantage)	2	3	4	5 (most advantage)	
Daily	6.7*	5.9	4.5	6.4	6.9*	6.0
Weekly	32.7	39.9	42.5	47.4	49.6	40.9
Less than weekly	38.4	31.4	36.0	29.6	33.2	34.1
Ex-drinker (1)	10.7	7.5*	7.2	7.5*	4.0	8.1
Never drunk alcohol (2)	11.5	15.3	9.7	9.1	6.2	10.9

* Differences between quintile percentages are not significant (at the p<0.05 level).

(1) Had not consumed alcohol in the previous 12 months. (2) Had never consumed one full serve of alcohol

Daily alcohol consumption did not vary greatly across SES. There was no significant difference between the percentage of daily alcohol consumers in the lowest and highest IRSAD quintiles. By contrast, the prevalence of South Australians aged 14 years and older who consumed alcohol weekly increased as SES increased. This is consistent with previous research, which has found that people in areas of greater advantage (higher relative SES) were more likely to frequently consume alcohol than those in areas of greater disadvantage (low SES)[12].

NH&MRC Guideline 1: Risk of disease or injury over a lifetime

NH&MRC 2009 Guideline 1 aims to reduce the risk of alcohol-related disease over a lifetime. It states:

> *For healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury.*

Lifetime risk is defined in Guideline 1 as:

> *The accumulated risk from drinking either on many drinking occasions, or on a regular (for example, daily) basis over a lifetime. The lifetime risk of harm from alcohol-related disease or injury increases with the amount consumed.*

Table 3 shows the percentage of South Australians aged 14 and older that did not drink alcohol (abstainers), drank two or fewer standard drinks per day on average ('low-risk'), and drank more than two standard drinks per day on average (risky) in the previous 12 months.

Table 3: Lifetime risk of alcohol-related disease or injury for South Australians aged 14 years or older.

Drinking status	% of IRSAD quintile – Socio-Economic Status					Total
	1 (most disadvantage)	2	3	4	5 (most advantage)	
Abstainers	22.2	22.8	16.9	16.6	10.2	19.0
'Low-risk' (a)	60.8	57.7	61.4	63.5	70.8	61.7
'Risky' drinking (b)	17.0	19.5	21.7	19.9	19.0	19.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

(a) On average had two or fewer standard drinks per day. (b) On average had more than two standard drinks per day.

Overall, for South Australians aged 14 years and older, differences between IRSAD quintiles in the prevalence of abstainers, 'low-risk' drinkers and 'risky' drinkers were all significant (p<0.05). There were also significant differences between males and females in all IRSAD quintiles for each drinking status category (p<0.05).

Abstainers

The percentage of South Australians who abstained from drinking alcohol decreased as SES increased. The substantial decrease in the prevalence of abstainers as SES increased was reflected in a large increase in the prevalence of 'low-risk' drinkers (57.7% in Quintile 2 to 70.8% in Quintile 5). South Australians living in Quintile 2 areas had 2.8 times greater odds of abstaining from alcohol (compared to low-risk drinkers) than those living in Quintile 5 areas. There was a significantly greater prevalence of female abstainers than male in all IRSAD quintiles (p<0.01).

There were significant differences in the prevalence of male abstainers across SES ($p<0.05$). Generally, the percentage of abstainers decreased as SES increased, however Quintile 4 had a higher prevalence of abstainers than Quintile 3 (15.0% compared to 11.2%). Males living in Quintile 1 areas had the highest odds of recently abstaining from alcohol compared to low-risk drinking (3.6 times more likely than those living in Quintile 5 areas; $p<0.01$).

Differences in the prevalence of female abstainers between IRSAD quintiles were generally significant ($p<0.05$), however there was no significant difference between the percentage in Quintiles 1 and 3 (23.3% and 23.0% respectively). Females living in areas in Quintile 2 had 2.6 times greater odds of abstaining from drinking (compared to drinking at low-risk levels) than those in Quintile 5 areas.

Low-risk: Two or fewer standard drinks on average

Generally, the prevalence of low-risk drinking among South Australians significantly increased as SES increased, though there was a significantly greater percentage of low-risk drinking in Quintile 1 than in Quintile 2 (60.8% and 57.7% respectively; $p<0.05$). The prevalence of low-risk drinking among females was significantly higher than for males in each quintile ($p<0.05$).

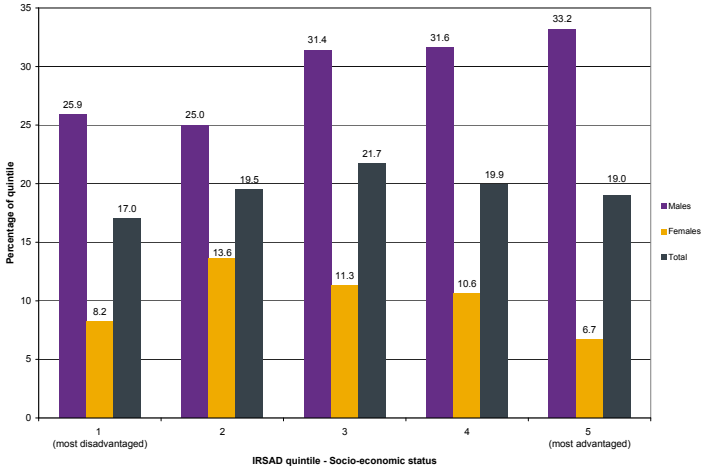
Among males, there was no significant difference in the prevalence of low-risk drinking between Quintile 3 and Quintile 5 areas (64.6% and 64.4% respectively), and there was generally a higher prevalence of low-risk drinking in areas of greater disadvantage (Quintiles 1 and 2). For females, the prevalence of low-risk drinking increased significantly as SES increased ($p<0.05$), though females living in Quintile 1 areas were an exception and had a significantly higher percentage than those in Quintile 3 areas.

Risky drinking: More than two standard drinks on average

Figure 1 shows the profile of South Australians who drank at levels that increased their risk of alcohol-related harm over a lifetime (more than two standard drinks on average).

Although significant, differences in the overall percentage of South Australians who drank at risky levels across IRSAD quintiles were not large (ranging from 17.0% in Quintile 1 to 21.7% in Quintile 3). People living in Quintile 3 areas had the greatest odds of drinking at risky levels (compared to low-risk levels), and had 1.3 times greater odds of doing so than those living in Quintile 1.

Figure 1: At risk of alcohol-related disease over a lifetime: percentage of South Australians aged 14 and older.



Differences in the percentage of males who recently consumed more than two standard drinks on average were significant between most IRSAD quintiles ($p<0.05$) though not between Quintiles 4 and 5. Generally, the prevalence of drinking at levels that increase the risk of harm over a lifetime increased for males as SES increased. Males living in Quintile 4 areas had 1.3 times greater odds of drinking at risky levels (compared to low-risk levels) than males living in Quintile 2 areas ($p<0.05$).

Differences in the prevalence of females drinking at risky levels on average across all IRSAD quintiles were significant ($p<0.05$). Risky drinking generally decreased as SES increased. Females living in Quintile 1 areas were the exception to this trend, with the second lowest percentage of risky drinking (8.2%). Females living in Quintile 2 areas had the highest prevalence of drinking at risky levels on average (compared to low-risk drinking) and had 2.7 times greater odds of doing so than females living in areas in Quintile 5.

Summary

Existing research into the association between risks of long-term alcohol-related harm and SES has not produced consistent results. A recent Victorian study found that men living in areas of medium and high disadvantage were more likely to drink at levels that increase the risk of long-term harm than those in areas of least disadvantage (though the relationship was not linear)[12].

Though there were significant differences in risky drinking between different SES areas for South Australians aged 14 and older, there was no clear association (uniformly positive or negative) between SES and drinking at levels that increase the risk of alcohol-related harm over a lifetime.

For males, while there was an increase in the percentage of low-risk drinking, it was small. The decrease in abstainers amongst males as SES increased was reflected in a generally positive association between SES and risky drinking[13].

South Australian females displayed the opposite trend. The decrease in the proportion of abstainers as SES increased was reflected mostly in the increase in prevalence of low-risk drinking and was therefore more consistent with the 'life stress' model (lower-risky drinking in areas with higher relative SES).

NH&MRC Guideline 2: Risk of alcohol-related injury on a single occasion

NH&MRC 2009 Guideline 2 provides guidance to reduce the risk of alcohol related injury on a single drinking occasion. It states:

> *For healthy men and women, drinking no more than four standard drinks on a single occasion reduces the risk of alcohol-related injury arising from that occasion.*
>
> A single occasion is defined in the Guideline as *a sequence of drinks taken without the blood alcohol concentration reaching zero in between.*

Table 4 shows the percentage of South Australians aged 14 and older that did not drink alcohol (abstainers), drank four or fewer standard drinks on any single occasion (low-risk), drank more than four standard drinks (risky) at least once a year, at least once a month, and at least once a week in the previous 12 months.

Table 4: Risk of alcohol-related injury from a single occasion for South Australians aged 14 years or older.

Drinking status	% of IRSAD quintile – Socio-Economic Status					Total
	1(most disadvantage)	2	3	4	5(most advantage)	
Abstainers	22.2	22.8	16.9	16.6	10.2	19.0
Low-risk (a)	42.9	40.1*	43.5	40.2*	53.1	42.7
At least yearly (b)	9.9	10.9*	10.2	13.3	11.0*	11.0
At least monthly (c)	11.1*	9.1	10.6	13.7	11.2*	11.2
At least weekly (d)	13.8	17.0	18.7	16.3	14.5	16.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Differences between percentages in this risk category are not significant (at the p<0.05 level).

(a) Had four or less standard drinks on any occasion. (b) Had more than 4 standard drinks at least once a year but not as often as monthly.

(c) Had more than 4 standard drinks at least once a month but not as often as weekly. (d) Had more than 4 standard drinks at least once a week.

Low-risk

Differences in the prevalence of low-risk single-occasion drinking among South Australians across IRSAD quintiles were mostly significant (p<0.05) aside from the difference between Quintiles 2 and 4 (40.1% and 40.2%, respectively). Females had a significantly greater percentage of low-risk drinkers than males in all IRSAD quartiles (p<0.01).

For males the prevalence of low-risk single-occasion drinking was significantly different across all IRSAD quintiles (p<0.05). There was generally a decrease in the percentage of low-risk drinking as SES increased; however there was a significantly greater prevalence of low-risk drinking among males in Quintile 5 than those in Quintile 4 (36.8% and 29.8% respectively).

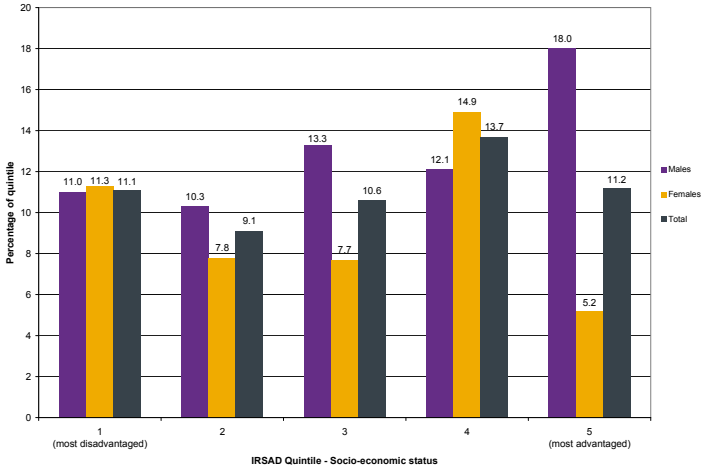
There was a significantly higher prevalence of low-risk drinking among females than among males for all IRSAD quintiles (p<0.01). There was no clear pattern for low-risk drinking amongst females across SES (though all differences between IRSAD quintile percentages were significant; p<0.05). Females living in areas in Quintile 2 had the lowest prevalence of low-risk drinking (41.6%) and those living in areas in Quintile 5 had the highest (67.2%).

Risky drinking: at least monthly, but not as often as weekly

Figure 2 (next page) shows the profile of risky drinking on a single occasion at least monthly (but not as often as weekly) by South Australians aged 14 years and older across SES.

There were significant differences in the prevalence of single-occasion risky drinking at least monthly but not as often as weekly by South Australians aged 14 years and older across SES (p<0.05) except for between Quintiles 1 and 5 (the quintiles with 11.1% and 11.2% respectively). There was no clear trend in monthly risky drinking as IRSAD quintiles increased. Overall, people living in areas in Quintile 4 had 1.6 greater odds than people in Quintile 5 of drinking at risky levels on a single occasion at least monthly (compared to low-risk drinking, p<0.01).

Figure 2: Risky drinking on a single occasion at least monthly but not as often as weekly: percentage of South Australians aged 14 and older.



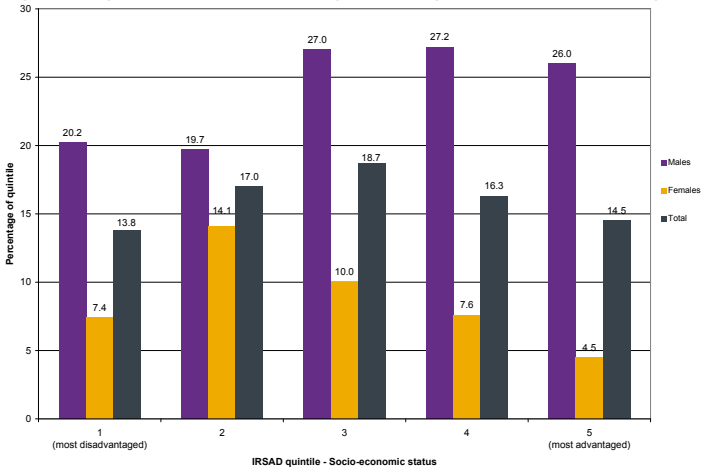
Differences between the prevalence of males who drank at risky levels on a single occasion at least monthly across all IRSAD quintiles were significant ($p<0.05$). The prevalence of risky drinking at least monthly amongst males was highest in Quintile 5 areas. Males living in areas in Quintile 5 had 1.8 times greater odds than males living in Quintile 2 areas of drinking more than four standard drinks on a single occasion at least monthly (compared to low-risk drinking, $p<0.01$).

For females, there was no significant difference in the prevalence of risky drinking at least monthly between Quintile 2 and Quintile 3 areas (7.8% and 7.7% respectively). As Figure 2 shows, there was generally a decrease in prevalence of monthly risky drinking with increasing SES, with Quintile 4 areas an exception (with the highest prevalence; 14.9%). Females living in Quintile 4 areas had 4.0 times the odds of drinking at risky levels on a single occasion than those living in Quintile 5 areas (compared to low-risk drinking, $p<0.01$).

Risky drinking: at least weekly

Figure 3 below presents the profile of South Australians who drank at risky levels at least weekly across SES.

Figure 3: Risky drinking on a single occasion at least weekly: percentage of South Australians aged 14 and older.



The prevalence of consuming more than four standard drinks on a single occasion at least weekly was generally higher in areas with mid-level SES. Differences between IRSAD quintiles were all significant ($p<0.05$). Overall, the odds of drinking at risky levels on a single occasion at least weekly were 1.3 times greater for people living in areas in Quintile 3 than for people living in Quintile 5 areas.

Overall, and for males, weekly was the most common frequency of risky drinking. For males, there was no significant difference between the prevalence of weekly single occasion risky drinking in Quintile 3 and 4 areas (27.0% and 27.2% respectively) but all other differences across IRSAD quintiles were significant ($p<0.05$). Generally the prevalence of risky drinking at least weekly was higher in areas with higher SES, though the trend was not linear. Males living in Quintile 3 areas were most likely to drink at risky levels at least weekly, and had 1.8 times higher odds of doing so than males living in areas in Quintile 2 (compared to low-risk drinking, $p<0.01$). There was no significant difference in the odds of drinking at risky levels at least weekly between males living in areas in Quintiles 3 and 5.

Among females, the prevalence of weekly risky drinking decreased significantly as SES increased between Quintile 2 and 5 areas ($p<0.05$). Females living in areas in Quintile 1, however, had the second lowest prevalence of weekly risky drinking (7.4%, $p<0.05$). For females, the odds of drinking at risky levels on a single occasion at least weekly were greatest for those living in areas in Quintile 2 – who had 5.1 times greater odds of doing so than those living in Quintile 5 areas (compared to low-risk drinking, $p<0.01$). There was no significant difference in the odds of drinking at risky levels at least weekly between females living in areas in Quintiles 1 and 4.

Summary

Drinking at levels that increase the risk of short-term harm has been found to occur more frequently amongst men living in areas with greater disadvantage than men living in areas with greater advantage[14,15,16]. A significant relationship (either positive or negative) has not been found for females[16].

Similar to the trends in drinking at levels that increase the risk of harm over a lifetime (see above), data do not indicate a straightforward pattern in prevalence of drinking at levels that increase the risk of harm on a single occasion as SES increases.

The decrease in abstainers as SES increased was mostly reflected in the higher prevalence of low-risk single-occasion drinking in areas with higher SES. However of those who did drink at risky levels on single occasions, doing so at least weekly was the most common, particularly amongst people living in areas with higher relative SES. This trend was particularly driven by males for whom, contrary to existing research, single-occasion risky-drinking tended to increase as SES increased. This pattern became more pronounced as the frequency of single-occasion risky-drinking increased.

Similar to the earlier analysis of drinking at levels that increase risk over a lifetime, females showed the opposite trend to males. The prevalence of single-occasion risky-drinking by females generally decreased as SES increased (with a few exceptions), and this trend also became more pronounced as the frequency of risky drinking increased.

Alcohol consumption and risk among 12-17 year olds

This section of the Bulletin examines the profile of risky alcohol consumption by 'underage' people (12 to 17 years old).

NH&MRC 2009 Guideline 3 provides guidance on the safest option to prevent alcohol-related harm to children until they reach age 18. The Guideline states:

For children and young people under 18 years of age, not drinking alcohol is the safest option.

Due to the small number of South Australian respondents aged 12 to17 overall, and therefore within each IRSAD quintile, estimates for underage risky drinking across SES were unreliable. Analysis of the relationship between SES and risky drinking for people aged 12 to 17 was instead conducted using the Australia-wide data collected in the 2010 NDSHS.

Table 5 below provides a summary of the frequency of alcohol consumption of 12-17-year-old Australians.

Table 5: Alcohol consumption frequency: Australians aged 12-17.

Drinking status	% of IRSAD quintile – Socio-Economic Status					Total
	1 (most disadvantage)	2	3	4	5 (most advantage)	
Daily	0.0	0.0	0.0	0.0	0.3	0.1*
Weekly	2.3	9.7	5.0	5.9	4.4	5.1
Less than weekly	37.7	38.3	33.4	24.2	33.9	33.2
Ex-drinker (a)	2.6	2.8	3.0	1.6	1.7	2.3
Never drank alcohol	57.4	51.1	58.6	68.3	59.7	59.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Estimate has a Relative Standard Error greater than 50% and is considered too unreliable for general use

(a) Has consumed a full serve of alcohol but not the previous 12 months.

The majority of underage Australians have never consumed a whole standard alcohol drink (59.3%). The most prevalent frequency of alcohol consumption for Australians aged 12 to 17 years was 'less than weekly'. This may be attributable to discrete social occasions where underage people can gather with others and gain access to alcohol.

NH&MRC Guideline 1: Risk of alcohol-related disease over a lifetime

Table 6 below shows the percentage of Australians aged 12 to 17 years that did not drink alcohol (abstainers), drank two or fewer standard drinks per day on average (low-risk), and drank more than two standard drinks per day on average (risky) in the previous 12 months.

Table 6: Risk of alcohol-related disease over a lifetime: Australians aged 12-17.

Drinking status	% of IRSAD quintile – Socio-Economic Status					Total
	1 (most disadvantage)	2	3	4	5 (most advantage)	
Abstainers	60.1	54.0	61.6*	69.6	61.5*	61.6
Low-risk (a)	36.8	38.9	35.6	26.6	35.2	34.3
Risky drinking (b)	3.1	7.2	2.8	3.8	3.4	4.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Differences between percentages in this risk category are not significant (at the p<0.05 level).

(a) Two or less standard drinks on average. (b) More than two standard drinks on average.

Abstainers

As shown in Table 6, the majority of Australians aged 12 to 17 (61.6%) abstain from consuming alcohol. The difference in prevalence of abstainers was significant across IRSAD quintile areas (p<0.05) other than between Quintiles 3 and 5. The prevalence of abstainers was generally higher in areas with higher relative SES, though there was no linear association between abstaining and IRSAD quintiles. Australians aged 12 to 17 were more likely to abstain from drinking than drink at low-risk levels in all IRSAD quintiles. The greatest proportion of abstainers was in Quintile 4 areas, where underage people had 1.9 times higher odds of abstaining from alcohol than those in living in Quintile 2 areas (compared to drinking at low-risk levels; p<0.01).

Differences in the prevalence of males aged 12 to 17 years who abstained from drinking alcohol were significant across all SES areas ($p<0.05$). The highest percentage of male abstainers aged 12 to 17 years occurred in areas in Quintile 4, where males had 1.8 times the odds of abstaining from drinking alcohol (compared to low-risk drinking) than males living in Quintile 2.

The prevalence of abstainers among females aged 12 to 17 years differed significantly between all IRSAD quintiles ($p<0.05$) except for between Quintiles 1 and 3 (59.0% and 59.4% respectively). The percentage of underage females who abstained from drinking alcohol was highest in Quintile 4 (70.0%) but there was no linear relationship between abstaining from alcohol and SES.

Females living in Quintile 4 areas had 1.9 times the odds of abstaining from drinking (compared to low-risk drinking; $p<0.01$) than females in Quintile 2.

Low-risk: two or fewer drinks on average

Overall there were significant differences in the percentage of Australians aged 12 to 17 years who drank at low-risk levels across IRSAD quintiles ($p<0.05$) but no linear increase or decrease as SES increased. The prevalence of low-risk drinking was lowest for underage people living in Quintile 4 areas (26.6%) and highest for those living in Quintile 2 areas (38.9%).

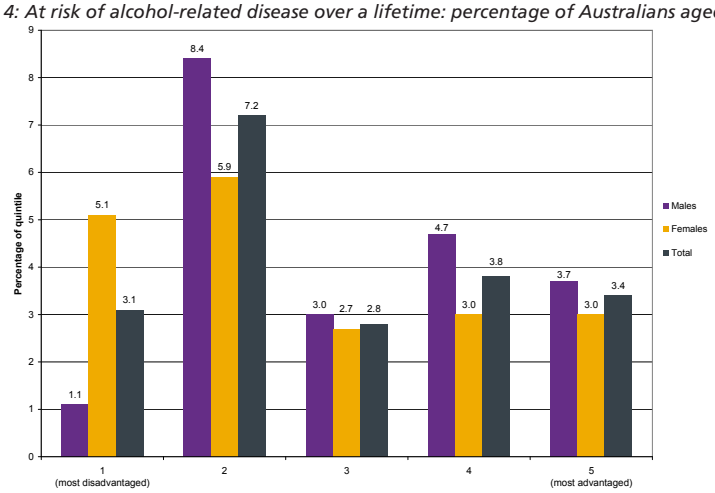
For males aged 12 to 17 years, differences in the prevalence of low-risk drinking were significant across IRSAD quintiles ($p<0.05$) other than between Quintiles 1 and 2 (37.8% and 37.6% respectively). There was no clear trend in the percentage of low-risk drinkers as SES increased.

For females, there were significant differences in the profile of low-risk drinking across all IRSAD quintiles ($p<0.05$), but no clear pattern as SES increased. Females in Quintile 2 areas had the highest prevalence of low-risk drinking (40.2%), and those in Quintile 4 areas had the lowest (27.0%).

Risky drinking: more than two drinks on average

Figure 4 shows the profile of Australians aged 12 to 17 drinking at levels that increase their risk of alcohol-related disease over a lifetime.

Figure 4: At risk of alcohol-related disease over a lifetime: percentage of Australians aged 12-17.



The prevalence of drinking at levels that increase the risk of alcohol-related disease over a lifetime was low for Australians aged 12 to 17 years. Overall there was no clear pattern in the profile of risky drinking across SES, though differences were significant between all quintiles ($p<0.05$). Australians aged 12 to 17 years living in Quintile 2 areas had 2.3 times greater odds of drinking at risky levels (compared to low-risk levels) than those living in Quintile 5 areas ($p<0.01$).

The differences in prevalence of risky drinking by males aged 12 to 17 years were significant between all IRSAD quintiles ($p<0.05$). Again there was no clear pattern in the profile of risky drinking across SES. Males living in Quintile 2 areas had 7.6 times greater odds than males living in Quintile 1 areas and 2.1 times greater odds than males in Quintile 5 areas of drinking at risky levels (compared to low-risk drinking; $p<0.01$). Males living in Quintile 5 had 3.7 times greater odds of drinking at risky levels (compared to low-risk levels; $p<0.01$) than those living in Quintile 1 areas.

Differences in profile of risky drinking by females aged 12 to 17 years across SES were significant ($p<0.05$) except for between quintiles 4 and 5 (both 3.0%). There was no linear trend in the prevalence of underage risky drinking as SES increased, though those living in higher SES areas had lower percentages of risky drinkers (2.7% in Quintile 3 areas, 3.0% in Quintile 4 and 5 areas). Females living in Quintile 2 areas had 2.1 times greater odds than females in Quintile 3 areas of drinking at risky levels (compared to drinking at low-risk levels; $p<0.01$).

NH&MRC Guideline 2: Risk of alcohol-related injury on a single occasion

Table 7 presents the percentage of Australians aged 12 to 17 that did not drink alcohol (abstainers), drank four or fewer standard drinks on any single occasion (low-risk), drank more than four standard drinks (risky) at least once a year, at least once a month, and at least once a week in the previous 12 months.

Table 7: Risk of alcohol-related injury from a single drinking occasion: percentage of Australians aged 12-17.

Drinking status	% of IRSAD quintile – Socio-Economic Status					Total
	1 (most disadvantage)	2	3	4	5 (most advantage)	
Abstainers	60.1	54.0	61.6*	69.9	61.5*	61.6
Low-risk(a)	20.2*	20.2*	21.1	15.9	19.0	19.2
At least yearly(b)	5.0	6.4	5.3	4.8	6.0	5.5
At least monthly(c)	12.0*	12.2*	8.3	5.8	9.5	9.4
At least weekly(d)	2.7	7.3	3.8	3.5	4.0	4.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Differences between the quintile percentages in this risk category are not significant (at the p<0.05 level).

(a) Had four or less standard drinks on any occasion. (b) Had more than 4 standard drinks at least once a year but not as often as monthly.

(c) Had more than 4 standard drinks at least once a month but not as often as weekly. (d) had more than 4 standard drinks at least once a week.

Low-risk: Four or less alcoholic drinks on a single occasion

Overall the prevalence of Australians aged 12 to 17 years who drank at low-risk levels on any single occasion differed significantly (p<0.05) across SES areas except for between areas in Quintiles 1 and 2 (both 20.2%).

For males, there was no significant difference in the prevalence of low-risk single-occasion drinking between males living in areas in Quintile 1 and those living in Quintile 3 areas (18.6% and 18.8% respectively). Low-risk drinking prevalence was lower in the higher SES areas (though Quintile 4 areas had lower prevalence than Quintile 5 areas – 17.3% and 17.9% respectively).

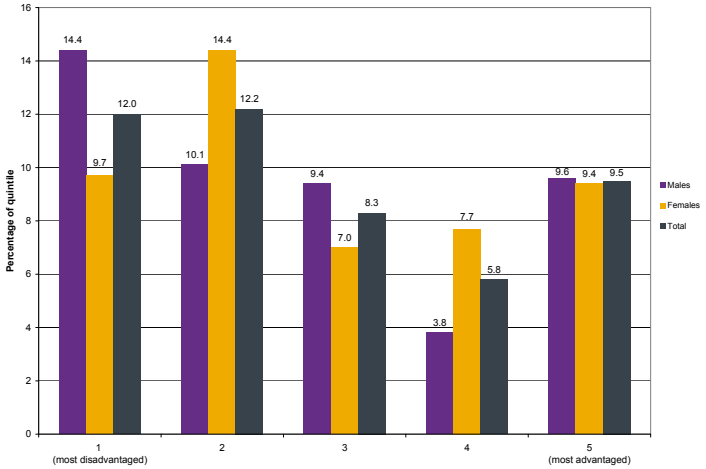
For females aged 12 to 17, the profile of low-risk drinking on any single occasion differed significantly across all IRSAD Quintiles (p<0.05) except for Quintiles 2 and 5 (20.4% and 20.5% respectively).

Overall, there was no clear pattern in the change in low-risk drinking prevalence as relative SES increased.

Risky drinking: At least monthly but not as often as weekly

Figure 5 shows the profile of Australians aged 12 to 17 years who drank at risky levels on a single occasion at least monthly across SES.

Figure 5: Risky drinking on a single occasion at least monthly but not as often as weekly: percentage of Australians aged 12-17.



The most common frequency of risky, single-occasion drinking for Australians aged 12 to 17 years was at least monthly but not weekly. There was no significant difference between the percentage of underage Australians drinking at risky levels at least monthly in areas in Quintiles 1 and 2, however all other differences between IRSAD quintiles were significant (p<0.05). Australians aged 12 to17 years living in areas in both Quintiles 1 and 2 had 1.6 times greater odds than those living in Quintile 4 of drinking at risky levels on a single occasion at least monthly, but not as often as weekly (compared to low-risk

single-occasion drinking; p<0.01). There was no significant difference in odds of risky drinking on a single occasion at least monthly between Quintile 1 and Quintile 2 areas.

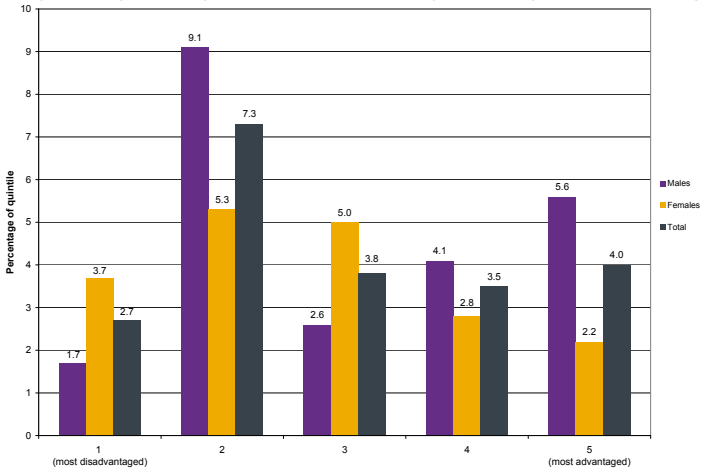
Differences across IRSAD quintiles in the prevalence of drinking at risky levels on a single occasion at least monthly among males aged 12 to 17 years were significant (p<0.05) aside from between Quintile 3 and Quintile 5 areas (9.4% and 9.6% respectively). Males aged 12 to 17 years had 3.5 times greater odds of drinking at risky levels on single occasion at least monthly (compared to low-risk single-occasion drinking) in Quintile 1 areas than Quintile 4 areas (p<0.01).

Among females aged 12 to 17, there was no significant difference between the prevalence of risky drinking on a single occasion at least monthly between Quintile 1 and 5 areas. All other differences across IRSAD quintiles were significant (p<0.05). No clear pattern was evident in monthly risky drinking across SES – the greatest prevalence occurred in Quintile 2 areas and the smallest in Quintile 3 areas (14.4% and 7.0% respectively). Underage females living in Quintile 2 areas had 2.3 times greater odds of drinking at risky levels on single occasions at least monthly than those living in Quintile 3 areas (compared to low-risk single-occasion drinking; p<0.01).

Risky drinking: at least weekly

Figure 6 below presents the profile of Australians aged 12 to 17 years that drank at risky levels on a single occasion at least weekly across SES.

Figure 6: Risky drinking on a single occasion at least weekly: percentage of Australians aged 12-17.



Differences across IRSAD quintiles in the prevalence of drinking at risky levels on a single occasion at least weekly amongst Australians aged 12 to 17 years across, as well as amongst males and females separately, were all significant (p<0.05). Again there was no clear pattern of change in prevalence as SES increased. Quintile 2 areas had the highest overall prevalence (7.3% and Quintile 1 areas had the lowest (2.7%). This pattern was also true for males aged 12 to 17 years (9.1% and 1.7% in Quintiles 2 and 1).

Australians aged 12 to 17 years living in Quintile 2 areas had 2.7 times greater odds of drinking at risky levels on a single occasion at least weekly than those living in areas in Quintile 1 (compared to low-risk single-occasion drinking; p<0.01). Australians aged 12 to 17 years living in areas in Quintile 5 had 1.6 times greater odds of drinking at risky levels at least weekly than those in Quintile 1 areas.

Males aged 12 to 17 years living in Quintile 2 areas had 4.8 times greater odds of drinking at risky levels on a single occasion at least weekly (compared to drinking at low-risk levels) than those living in Quintile 1 areas (p<0.01). Males aged 12 to 17 years living in Quintile 5 areas had 3.3 higher odds of doing so than those living in Quintile 1 areas (p<0.01).

For females aged 12 to 17 years the highest prevalence of weekly risky drinking occurred in Quintile 2 (5.3%) and the lowest in Quintile 5 (2.2%).

Females aged 12 to 17 years living in Quintile 2 areas had 2.5 times greater odds of drinking at risky levels on a single occasion at least weekly than females aged 12 to 17 living in Quintile 5 areas (compared to low-risk single-occasion drinking; p<0.01).

Summary

There is very little research investigating the association between underage risky drinking and SES. Children living in low SES areas may experience the 'stressors' of areas of disadvantage as acutely or more so than their parents and, having even less access to social support and services, may therefore turn to alcohol as coping mechanisms. On the other hand, they may have less disposable income and therefore less resources and access to substances than children living in more advantaged areas. A US study has found a positive association between high parental SES (based on household income and education

levels) and risky single-occasion drinking in early adulthood[17]. It is suggested that this occurs because of the greater disposable income of children with high parental SES, and increased opportunity to access both alcohol and illicit drugs for those children who attend tertiary education in early adulthood.

Data from the 2010 NDSHS indicate that, as for South Australians aged 14 years and older, there is no clear pattern in the overall prevalence of risky drinking behaviour of Australians aged 12 to 17 years across SES.

The prevalence of drinking at levels that increase the risk of harm over a lifetime was very low – for all IRSAD quintiles. Decreases in the prevalence of abstainers were generally reflected in increases in the prevalence of low-risk drinking, aside from in areas in Quintile 2, where the significantly lower prevalence of abstainers was reflected in the highest prevalence of risky drinking (7.2%).

By contrast, the prevalence of low-risk drinking on a single occasion was much smaller than that for lifetime risk. The most common frequency of drinking at levels that increase the risk of harm on a single occasion (for males, females and overall) was 'at least monthly but not as often as weekly'. This reflects the pattern of alcohol consumption frequency shown in Table 5 and provides further evidence that a proportion of Australians aged 12 to 17 years may drink on discrete social occasions and that, when they do so, they drink at levels that increase their risk of harm on a single occasion. Further, this occurs irrespective of SES.

Australian females aged 12 to 17 years showed similar trends to South Australian females aged 14 years and older. That is, the prevalence of drinking at levels that increase the risk of harm both over a lifetime and on a single drinking occasion tended to decrease as SES increased, particularly for more frequent single-occasion risky drinking.

For males aged 12 to 17 years, there was also generally a lower prevalence of single-occasion risky drinking at least monthly as SES increased, though males in Quintile 5 were the exception. By contrast, males who engaged in more frequent single-occasion risky drinking showed the opposite trend. The prevalence of males aged 12 to 17 years drinking at risky levels at least weekly tended to increase as SES increased, with the exception of males in Quintile 2 who had the highest prevalence of at least weekly risky drinking.

Illicit drug use

Use of illicit drugs

This section of the Bulletin examines the profile of illicit drug use in South Australia across SES[18]. In 2010, 41.2% of South Australians aged 14 and older had used at least one illicit drug at least once in their lifetime. 14.9% had used at least one illicit drug in the year prior to the 2010 NDSHS[19].

Table 8 shows the percentage of South Australians who have never used illicit drugs, have used them in the past but not in the previous 12 months, and have recently used them (in the previous 12 months).

Table 8: Use of any illicit drug: percentage of South Australians aged 14 and older.

Illicit drug use	% of IRSAD quintile – Socio-Economic Status					Total
	1 (most disadvantage)	2	3	4	5 (most advantage)	
Never used	57.9	59.7	58.7	55.8	69.5	58.8
Past use (a)	23.2*	22.9*	27.1	32.8	23.9	26.3
Recent use (b)	19.0	17.3	14.2	11.4	6.6	14.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Differences between quintile percentages in this category were not significant (at the p<0.05 level).

(a) Had used at least one illicit drug in the past, but not in the previous 12 months. (b) Had used at least one illicit drug in the previous 12 months.

Use of illicit drugs in the past but not in the previous 12 months

The prevalence of past illicit drug use by South Australians aged 14 years and older differed significantly across most IRSAD quintiles (p<0.05) other than between Quintiles 1 and 2 (23.2% and 22.9% respectively). The prevalence of past drug use increased as SES increased between Quintiles 1 (and 2) and Quintile 4 (where it peaked at 32.8%) but decreased in Quintile 5 (23.9%).

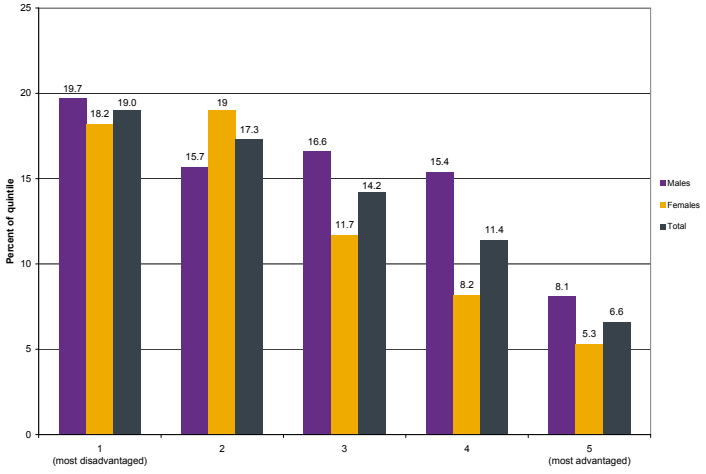
For South Australian males, differences in the prevalence of past illicit drug use were significant across all IRSAD quintiles (p<0.05). Males living in areas in Quintile 4 had the highest prevalence (33.7%) and had 1.9 times greater odds of having used illicit drugs in the past (compared to never having used them; p<0.01) than males living in Quintile 2 areas.

For South Australian females, differences in the prevalence of past illicit drug use were also significant across all IRSAD quintiles (p<0.05). Between Quintiles 1 and 4, the proportion of females who had used illicit drugs increased. Quintile 5 areas, however, had the second lowest prevalence of past illicit drug use by females (21.1%). Females in Quintile 4 areas had the highest prevalence of past illicit drug use (32.1%) and had 2.1 times greater odds than females living in Quintile 1 areas of having used illicit drugs in the past (compared to never having used them; p<0.01).

Recent use of illicit drugs

Figure 7 below shows the prevalence of South Australians aged 14 years and older who reported having 'recently' used any illicit drug (i.e. in the previous 12 months).

Figure 7: Recent illicit drug use (in the previous 12 months): percentage of South Australians aged 14 years and over by socio-economic status.



There were significant differences in the profile of recent use of illicit drugs amongst South Australians aged 14 years and older across all the IRSAD quintiles (p<0.01). The prevalence of recent illicit drug use decreased as SES increased. South Australians in Quintile 1 were 3.4 times more likely to have used illicit drugs in the past 12 months (compared to never having used them) than those in Quintile 5. Differences in recent illicit drug use according to sex were significant overall and for all IRSAD quintiles (p<0.01).

For males, there were significant differences in recent illicit drug use across most IRSAD quintiles (p<0.05), however the proportions in Quintiles 2 and 4, 15.7% and 15.4% respectively, were not significantly different. Th proportion of males recently using illicit drugs decreased as SES increased, however this pattern was not straightforward across all IRSAD quintiles. Males in Quintile 1 areas had 3.1 times greater odds of having used illicit drugs recently (compared to never having used them) than males in Quintile 5 (which had the lowest prevalence of recent illicit drug use – 8.1%; p<0.01). There was no significant difference in the odds of males havening recently used illicit drugs (compared to never having used illicit drugs) between Quintiles 3 and 4.

For females, there were significant differences in the profile of recent illicit drug use across all IRSAD quintiles (p<0.01). The prevalence of recent illicit drug use decreased as SES increased. Females in areas in Quintiles 2 and 1 were most likely to have recently used illicit drugs (compared to never having used them) and had 4.6 and 3.9 times greater odds than females in Quintile 5 (which had the lowest proportion of recent use; 5.3%) respectively (p<0.01).

Summary

Previous studies have found higher prevalence of illicit drug use in areas with higher neighbourhood poverty, neighbourhood disadvantage, lower median education and income, and greater inequality in education and income distribution[20, 21].

Overall, and particularly amongst females, the 2010 NDSHS data show a decrease in prevalence of recent illicit drug use as SES increases, consistent with previous research regarding adult illicit drug use.

Use of illicit drugs other than cannabis

The most common illicit drug used in the 12 months prior to the 2010 NDSHS survey was cannabis. 11.3% of South Australians aged 14 years and older had recently used cannabis (either exclusively or in addition to other illicit drugs). As the majority of recent illicit drug users have recently used cannabis, the profile of cannabis users across area-based SES is similar to the profile of overall illicit drug use across SES[22].

This section of the Bulletin therefore examines the profile of South Australian users of illicit drugs other than solely cannabis. South Australians who had only used cannabis were removed for analysis. A total of 8.0% of South Australians aged 14 years and older had recently used at least one illicit drug other than just cannabis. This includes South Australians who have used multiple illicit drugs, and those who may have also used cannabis in addition to another illicit drug.

Table 9 shows the percentage of South Australians who have never used illicit drugs other than cannabis, have used them in the past, but not in the previous 12 months, and have recently used them (in the previous 12 months).

Table 9: Use of any illicit drug other than solely cannabis: percentage of South Australians aged 14 and older.

Illicit drug use (other than solely cannabis)	% of IRSAD quintile – Socio-Economic Status					Total
	1 (most disadvantage)	2	3	4	5 (most advantage)	
Never used	79.7*	78.6	82.8	79.9*	86.1	80.7
Past use(a)	10.3	11.5	11.1	13.5	9.0	11.3
Recent use(b)	10.0*	10.0*	6.1	6.6	4.9	8.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Differences between quintile percentages in this category were not significant (at the p<0.05 level).

(a) Had used at least one illicit drug other than cannabis in the past, but not in the previous 12 months.

(b) Had used at least one illicit drug other than cannabis in the previous 12 months.

Use of illicit drugs other than solely cannabis in the past but not in the previous 12 months

Overall, differences in past use of illicit drugs other than solely cannabis by South Australians were significant across IRSAD quintiles (p<0.05). There was no clear pattern of past illicit drug use other than solely cannabis as SES increased. Quintile 5 had the lowest percentage of use of illicit drugs other than solely cannabis (9.0%). People living in areas in Quintile 4 had 1.6 times greater odds than those living in Quintile 5 areas of having used illicit drugs other than solely cannabis in the past (compared to never having used them, p<0.01).

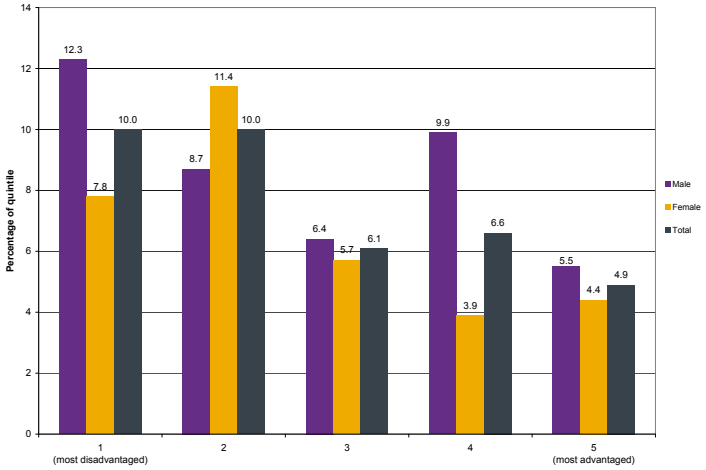
For males, there were significant differences in the use of illicit drugs other than solely cannabis across most IRSAD quintiles ($p<0.05$) aside from between Quintiles 2 and 5 areas (both 11.6%). However, there was no clear pattern in past use of illicit drugs other than cannabis as SES increased. The highest prevalence occurred in Quintile 1 areas, in which males had 1.4 times higher odds of having used illicit drugs other than solely cannabis in the past than males living in areas in Quintile 3 (compared to never having used them, $p<0.01$).

For females, there were significant differences in the prevalence of illicit drug use other than solely cannabis between all IRSAD quintiles ($p<0.05$) aside from between Quintiles 1 and 5 (7.0% and 6.7% respectively). Again, past use of illicit drugs other than solely cannabis showed no clear pattern across SES, and was highest in Quintile 4 areas (13.7%). Females living in Quintile 4 areas had 2.9 times greater odds of using an illicit drug other than solely cannabis in the past than females living in Quintile 5 and Quintile 1 areas (compared to never having used them, $p<0.01$). There was no significant difference in the odds of past use of illicit drugs other than cannabis between Quintiles 1 and 5.

Recent use of illicit drugs other than cannabis

Figure 8 below shows the prevalence of recent illicit drug use other than solely cannabis across IRSAD quintiles by South Australians aged 14 years and older.

Figure 8: Recent illicit drug use other than solely cannabis: percentage of South Australians aged 14 years and older by socio-economic status.



The IRSAD quintile areas with the largest percentages, Quintiles 1 and 2, did not differ significantly (both 10.0%, however all other IRSAD quintile percentages differed from each other and the lowest two IRSAD quintiles ($p<0.01$). South Australians living in Quintile 1 and 2 areas had between 2.1 and 2.8 times greater odds than those in Quintile 5 areas to use illicit drugs other than solely cannabis (compared to never having used them; $p<0.01$). There was a general decrease in the prevalence of illicit drug use other than solely cannabis as SES increased, however respondents in Quintile 4 had a significantly higher percentage than Quintile 3 (6.1% and 6.6% respectively, $p<0.01$). Differences in prevalence of illicit drug use other than solely cannabis according to sex were significant for all of the IRSAD quintiles ($p<0.01$).

The profile of recent illicit drug use other than solely cannabis for males differed significantly according to SES ($p<0.01$). For males, there was a general decrease in recent illicit drug use other than solely cannabis as SES increased. The greatest prevalence occurred in Quintile 1 areas (12.3%) and the lowest in Quintile 5 areas (5.5%). Males living in Quintile 1 areas had 2.5 times higher odds of having recently used illicit drugs other than solely cannabis (compared to never having used them) than males living in Quintile 5 areas ($p<0.01$). Males living in Quintile 4 areas were the exception to this downward pattern, however, having the second highest prevalence of males' recent illicit drug use other than solely cannabis (9.9%).

Differences in the prevalence of recent illicit drug use other than solely cannabis by South Australian females according to SES were all significant ($p<0.01$). Females' illicit drug use other than solely cannabis was generally lower in areas with higher SES, with the lowest in Quintile 4 areas (3.9%). Females living in Quintile 2 areas had the highest prevalence (11.4%) and had 3.1 times greater odds than those living in Quintile 5 areas of having recently used illicit drugs other than solely cannabis (compared to never having used them; $p<0.01$).

Summary

Existing research mainly focuses on the profile of cannabis use across SES, as the prevalence of use of other illicit drug use tends to be fairly low, particularly in Australia. Neighbourhood poverty has been found to be associated with increased heroin and cocaine use[6].

While for both males and females and overall there is a general trend of lower prevalence of illicit drug use in areas with higher SES, the decrease in use of illicit drugs other than solely cannabis as SES increases is not as dramatic as that which occurred for total illicit drug use prevalence (see Figure 7 by comparison).

Appendix A

Table 10: IRSAD quintiles of South Australian Local Government Areas

IRSAD quintile	Local Government Area
1 (most disadvantaged)	Anganu Pitjantjatjara (AC)
	Peterborough (DC)
	Playford (C)
	Port Pirie City and Districts (M)
	Murray Bridge (RC)
	Coober Pedy (DC)
	Whyalla (C)
	Copper Coast (DC)
	Mid Murray (DC)
	Port Augusta (C)
	Yorke Peninsula (DC)
	Barunga West (DC)
	Flinders Ranges (DC)
	Renmark Paringa (DC)
	The Coorong (DC)
2	Ceduna (DC)
	Wattle Range (DC)
	Goyder (DC)
	Berri and Barmera (DC)
	Wakefield (DC)
	Loxton Waikerie (DC)
	Mount Gambier (C)
	Mount Remarkable (DC)
	Tumby Bay (DC)
	Northern Areas (DC)
	Franklin Harbour (DC)
	Port Adelaide Enfield (C)
	Kingston (DC)
	Salisbury (C)
	Streaky Bay (DC)
	Le Hunte (DC)
	Karoonda East Murray (DC)
	Mallala (DC)
	Port Lincoln (C)
	Orroroo/Carrieton (DC)
3	Elliston (DC)
	Yankalilla (DC)
	Southern Mallee (DC)
	Kangaroo Island (DC)
	Victor Harbor (C)
	Kimba (DC)
	Gawler (T)
	Tatiara (DC)
	Alexandrina (DC)
	Clare and Gilbert Valleys (DC)
	Lower Eyre Peninsula (DC)
	Cleve (DC)
	Naracoorte and Lucindale (DC)
	Robe (DC)
4	Grant (DC)
	Charles Sturt (C)
	Onkaparinga (C)
	Barossa (DC)
	Light (Reg C)
	Marion (C)
	West Torrens (C)
	Mount Barker (DC)
	Campbelltown (C)
5 (most advantaged)	Tea Tree Gully (C)
	Holdfast Bay (C)
	Prospect (C)
	Norwood Payenham St Peters (C)
	Adelaide Hills (DC)
	Mitcham (C)
	Roxby Downs (M)
	Unley (C)
	Adelaide (C)
	Walkerville (C)
	Burnside (C)

(AC) = Aboriginal Council

(C) = City Council

(DC) = District Council

(M) = Municipal Council

(Reg C) = Regional Council

(T) = Town Council

Note that this table provides a general indication of Local Government Areas allocated into each IRSAD quintile. The quintiles used in the 2010 NDSHS were based on Census Collection Districts (which are much smaller areas) and therefore there may be multiple Collection Districts with different IRSAD quintiles within a Local Government Area.

Source: SEIFA Local Government Areas Data Cube, 2006
http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/2033.0.55.0012006?OpenDocument

Endnotes

1. Statistical tests include: Pearson's Chi square with Bonferroni correction and logistic regression (including multinomial regression where there were more than 2 categories in the dependent variable) to generate odds ratios. Statistical significance was accepted at $p<0.05$. All figures presented in this report are rounded to 1 decimal place. The sample was weighted by geographical stratification, household size, age and sex; population estimates are based on data from the 2006 Census.
2. Gilman S.E, Abrams D.B & Buka S.L, Socioeconomic status over the life course and stages of cigarette use: initiation, regular use, and cessation, Journal of Epidemiological Community Health, 2003, 57, 802-808.
3. http://www.abs.gov.au/websitedbs/D3310114.nsf/home/Seifa_entry_page .
4. Percentage of people in the CD with an annual income between $13,000and $20,799 (disadvantage) and percentage of people in the CD with an annual income greater than $52,000 (advantage).
5. Percentage of people in the CD with no internet connection (disadvantage) and percentage of people in the CD with a broadband internet connection (advantage).
6. Percentage of employed people in the CD classified as 'labourers' (disadvantage) and percentage of employed people in the CD classified as 'professionals' (advantage).
7. Percentage of people in the CD with no post school qualifications (disadvantage) and percentage of people in the CD with advanced diploma or diploma qualifications (advantage).
8. See Karriker-Jaffe K.J, Areas of disadvantage: a systematic review of effects of area-level socioeconomic status on substance use outcomes, Drug and Alcohol Review, 2011, 30, 84-95 for summary.
9. Cohen D.A, Mason K, Bedimo A, Scribner R, Basolo V, Farley T.A, Neighbourhood physical conditions and health, American Journal of Public Health, 2003, 93, 3, 467-471.
10. Williams & Latkin (2010); Boardman J.D, Finkch B.K, Ellison C.G, Williams D.R & Jackson J.S, Neighborhood disadvantage, stress, and drug use among adults, Journal of Health and Social Behavior, 2001, 42, 151-165.
11. Giskes K, Turrell G, Bentley R & Kavanagh A, Individual and household-level socioeconomic position is associated with harmful alcohol consumption behaviours among adults, Australian and New Zealand Journal of Public Health, 2011, 35, 3, 270-277.
12. Generally consumption decreases as pricing increases – Farrell S, Manning WG, Finch M, Alcohol dependence and the price of alcoholic beverages, Journal of Health Economics, 2003, 22, 117-147.
13. Note: studies use different definitions of levels of alcohol consumption that increase risk of long term harm: Giskes et al. (2011) defined high risk as 43 or more standard drinks per week for men (29 or more per week for women), and medium risk as 29-42 standard drinks per week for men and 15-28 per week for women.
14. Bloomfield K, Grittner U, Kramer S, Gmel G, Social inequities in alcohol consumption and alcohol-related problems in the study countries of the EU concerted action 'Gender, culture and alcohol problems: a multinational study, 2006, Alcohol and Alcoholism, 41, 4, i23-i36.
15. Room R, Stigma, social inequality and alcohol and drug use, Drug and Alcohol Review, 2005, 24, 2, 143-155.
16. Van Oers J.A.M, Bongers I.M.B, Van de Goor L.A.M & Garretsen H.F.L, Alcohol consumption, alcohol-related problems, problem drinking, and socioeconomic status, Alcohol and Alcoholism, 1999, 34,1, 78-88.
17. Humensky J. L, Are adolescents with high socioeconomic status more likely to engage in alcohol and illict drug use in early adulthood? Substance Abuse Treatment,Prevention and Policy, 2010, 5, 19.
18. Illicit drugs include: pain killers, tranquillisers (sleeping pills), steroids, methamphetamines/amphetamines, cannabis, heroin, methadone or buprenorphine, cocaine, hallucinogens, ecstasy, ketamine, GHB, inhalants, other opiates, and injectable drugs.
19. Note that more than one illicit drug may have been used.
20. Williams CT & Latkin CA, Neighborhood Socioeconomic status, personal network attributes and use of heroin and cocaine, American Journal of Preventative Medicine, 2007, 32, S203-S210.
21. Galea S, Ahern J, Tracy M, Vlahov D, Neighborhood income and income distribution and the use of cigarettes, alcohol and marijuana, American Journal of Preventative Medicine, 2007, 32, S195-202; Galea S, Ahern J, Tracy M, Rudenstine S & Vlahov D, Education inequality and use of cigarettes, alcohol and marijuana, Drug and Alcohol Dependence, 2007, S4-215.
22. Initiation of cannabis use was positively associated with lower socio economic status: Miller D.S & Miller T.Q, A test of socioeconomic status as a predictor of initial cannabis use, Journal of Addictive Behavior, 1997, 22, 479-489; Use of cannabis was predicted by low socio-economic status: von Sydow K, Lieb R & Pfister H, What predicts incident use of cannabis and progression to abuse and dependence? A 4-year prospective examination of risk factors in a community sample of adolescents and young adults, Drug and Alcohol Dependence, 2002, 1,49-64.

For more information

This Bulletin was prepared by Jan-Louise Durand and Richard Cooke,
Population Health Monitoring Unit, Drug and Alcohol Services South Australia.

For more information, please contact:
Population Health Monitoring Unit
Telephone: 08 8274 3385
Email: richard.cooke@health.sa.gov.au

Drug and Alcohol Services South Australia acknowledges the contribution of the Australian Institute of Health and Welfare.

Drug and Alcohol Services SA, 161 Greenhill Road, Parkside SA 5063
Telephone: 08 8274 3333
www.dassa.sa.gov.au

Alcohol and Drug Information Service (ADIS)
Telephone: 1300 13 1340 (24-hour confidential counselling and information service)

Government of South Australia
SA Health