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SLÁN 2007

Survey of Lifestyle, Attitudes and Nutrition in Ireland

Alcohol use in Ireland:
A profile of drinking patterns and alcohol-related harm from SLÁN 2007



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The SLÁN 2007 'Alcohol use in Ireland' Report is available to download from www.slan07.ie

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Reports based on the SLÁN 2007 survey

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on behalf of the SLÁN 2007 Consortium

EXECUTIVE SUMMARY

KEY FINDINGS ON ALCOHOL CONSUMPTION

- In SLÁN 2007, approximately 4 in 5 Irish adults (81%) reported drinking alcohol. This proportion has not changed since 1998. The proportion of non-drinkers (19%) is lower than the European average of 25%.
- A higher proportion of women in Ireland drink when compared with other European countries (77% compared with 68%).
- Approximately three-quarters of drinkers reported drinking alcohol within the previous week. This proportion is similar across all three SLÁN surveys (1998, 2002 and 2007). In all cases, more men reported drinking in the previous week than women.
- Age differences in patterns of drinking emerged over the three SLÁN surveys such that the proportion of older drinkers reporting drinking within the previous week has increased over the period 1998-2007. Within the 45-64 age group, the increase was most notable for females. Within the younger age groups, the proportion of drinkers reporting drinking within the previous week has fallen since 1998.
- The proportion of drinkers having 1-2 standard drinks[1] per drinking occasion has increased since 1998. This has occurred alongside a decrease in the proportion of drinkers drinking higher numbers of drinks on a typical drinking occasion. This pattern is consistent with trends in other European countries.
- Across all age groups except the youngest group of respondents (18-29 years), there has been a reduction since 1998 in the proportion reporting drinking 5 or more standard drinks on a typical drinking occasion.
- One-quarter (24%) of 18-29 year-olds report drinking 9 or more standard drinks on a typical drinking occasion.
- In 2007, 10% of drinkers reported drinking in excess of the recommended weekly limit (i.e. 21 standard drinks for men and 14 for women).
- Over one-quarter of drinkers (28%) reported binge drinking (i.e. drinking 6 or more standard drinks in one sitting) at least once a week in 2007. This represents a decrease since 2002 for respondents in all age groups, except those in the 18-23 year-old group where binge drinking has increased. Comparable data are unavailable for 1998.
- Binge drinking at least once per week was reported more often by younger drinkers, male drinkers and drinkers in social classes 5 and 6.
- Overall, over half of all drinkers reported a harmful pattern of drinking (based on their AUDIT-C scores) – a situation that requires attention. Positive scores were observed for 4 in 10 women and 7 in 10 men who drink. Almost three-quarters of the youngest SLÁN respondents also had positive scores.
- Overall, a total of 10% of drinkers reported that they felt their drinking had harmed their health in the previous 12 months. Among those with a positive AUDIT-C score, only 16% reported feeling that their drinking had harmed their health, indicating a low level of awareness of alcohol-related harm.

[1] A 'standard' drink is defined as a half pint or a glass of beer, lager or cider; a single measure of spirits; a single glass of wine, sherry or port; or a bottle of alcopop (long neck).

- Men reported experiencing more harm to their home life/marriage and work/study due to their drinking than women. In both cases, drinkers who exceeded the recommended weekly limit and binge drinkers experienced more harm than other drinkers.
- Involvement in fights and/or accidents as a result of their drinking was reported by 5% of drinkers. Men and younger drinkers, binge drinkers and those who exceeded the recommended weekly limit reported more frequent involvement in fights and/or accidents than other respondents.
- A total of 6% of respondents had experienced family or marriage problems as a result of someone else's drinking. Women reported experiencing more problems than men.
- A total of 6% of respondents reported being pushed, hit or assaulted in the previous 12 months as a result of someone else's drinking. Reported rates were higher for men and younger respondents.
- In 2007, 12% of drinkers who also drive reported that they had driven a car in the previous year after consuming 2 or more standard drinks.
- The percentage of drivers who reported driving a car in the previous year after consuming 2 or more standard drinks decreased between 2002 and 2007 (from 16% to 12%).
- In 2007, 30% of drinkers were also smokers. Drinkers were twice as likely to be smokers as non-drinkers.
- In 2007, 52% of drinkers who binge at least once a week were obese (according to their body mass index), compared to 46% of non-binge drinkers.

Note: The survey method used in SLÁN 2007 (face-to-face interviews) was different from previous SLÁN surveys (postal questionnaires) and thus caution is advised when considering patterns over time.

1. INTRODUCTION

This report presents the main findings on alcohol consumption among Irish adults from the 2007 Survey of Lifestyle, Attitudes and Nutrition (SLÁN 2007) in Ireland. It expands on the results presented in the *SLÁN 2007: Main Report* (Morgan *et al*, 2008), presenting the findings on alcohol use in detail and providing European comparison data where possible. Different patterns of alcohol use are highlighted. The importance of the SLÁN findings for policy and practice are also considered.

The SLÁN 2007 survey contained a series of questions relating to alcohol use. These included questions about frequency (how often) and quantity (how much) of alcohol consumed, as well as questions about alcohol-related harm. Quantity of alcohol consumed was assessed by asking respondents how many standard drinks were taken, a 'standard' drink being defined as a half pint or a glass of beer, lager or cider; a single measure of spirits; a single glass of wine, sherry or port; or a bottle of alcopop (long neck).

This report forms part of a series of reports which seek to contextualise the SLÁN 2007 findings (*see p. iv for full list of SLÁN 2007 reports*).

2. ALCOHOL AND HEALTH

The harmful use of alcohol is the third largest preventable cause of death in the world, causing about 2.3 million premature deaths per year and an estimated 4% of global disease burden (Rodgers *et al*, 2004; Room *et al*, 2005). In Europe, which is the region with the highest reported per capita consumption of alcohol in the world, harmful alcohol consumption is estimated to cause the deaths of 195,000 people per year. In EU Member States, the burden of disease and injury attributable to alcohol is estimated to be between 8% and 10% and is responsible for 1 in 4 deaths among young men aged 15-29 years, according to the recent Eurobarometer survey on *Attitudes towards Alcohol* (European Commission, 2007).

According to the *Second Report of the Strategic Task Force on Alcohol*, Ireland's alcohol-related problems cost Irish society in excess of €2.65 billion in 2003 (Department of Health and Children, 2004). The burden of alcohol harm in Ireland has significantly increased in the past 15 years (Hope, 2008; Mongan *et al*, 2007). In 2005, an estimated 28% of emergency admissions to Irish hospitals were alcohol-related (Hope *et al,* 2005). Figures reported in 2007 showed that the number of alcohol-related deaths in Ireland has doubled in recent years. This increase occurred alongside a 90% increase in the number of alcohol-related injuries (Mongan *et al,* 2007).

The extent of alcohol-related harm depends not only on the amount of alcohol consumed, but also the manner in which it is consumed. Drinking patterns of particular concern across many countries include binge drinking, drinking to intoxication and regularly exceeding the recommended weekly limit for alcohol consumption. Binge drinking and drinking to intoxication are linked to an increased risk of acute harm, including accidents, injuries, suicide and violence. Ireland has by far the highest rate of binge drinking in Europe (European Commission, 2007).

Drinking above the recommended weekly limit is linked to increased risk of long-term (chronic) harm, such as high blood pressure, cancer and cirrhosis. Given the current rate of diagnosis of end-stage liver disease (as a consequence of heavy and binge drinking), it is expected that Ireland will see a sharp increase in the number of people dying from alcohol-related illnesses in the next 20 years. As with binge drinking, the prevalence of drinking above the recommended weekly limit is high in Ireland.

The associated acute and chronic effects of excessive alcohol consumption are not observed exclusively in drinkers who are alcohol-dependent. In fact, non-dependent drinkers account for most of the morbidity and mortality that is attributed to drinking. Combating patterns of harmful alcohol consumption, therefore, is a major public health priority for Ireland.

3. METHODOLOGY FOR SLÁN 2007

SLÁN 2007 was the third national Survey of Lifestyle, Attitudes and Nutrition (SLÁN). Conducted in 2007, it follows previous surveys in 1998 and 2002. The 2007 survey was conducted through face-to-face interviews in the homes of 10,364 randomly selected adults, aged 18 years and over. There was a 62% response rate to SLÁN 2007.

As part of the survey, respondents were asked a series of questions relating to alcohol use. These included questions about frequency (how often) and quantity (how much) of alcohol consumed. Quantity of alcohol consumed was assessed by asking respondents how many standard drinks were taken, a 'standard' drink being defined as a half pint or a glass of beer, lager or cider; a single measure of spirits; a single glass of wine, sherry or port; or a bottle of alcopop (long neck). In addition, all respondents were asked about harm experienced as a result of other people's drinking (e.g. family or marriage problems, or being assaulted by someone who had been drinking), while drinkers were also asked about harm related to their own drinking (e.g. harm to their health, harm to their home life or marriage, harm to their work or study, and involvement in fights and accidents). For a full list of the alcohol-related questions from the SLÁN 2007 Questionnaire, please see Appendix 1.

Drinkers were categorised as drinking within or above the weekly guideline amount of 21 standard drinks for men and 14 for women. Binge drinking was defined as drinking 6 or more standard drinks on one occasion or at one sitting. Drinking patterns were also assessed using an abbreviated version of the Alcohol Use Disorders Identification Test (AUDIT), called the Alcohol Use Disorders Identification Test – Consumption (AUDIT-C) (Bush *et al*, 1998). The AUDIT-C has been widely used to screen for harmful drinking patterns in healthcare settings (Nordqvist *et al*, 2004; Rodriguez-Martos and Santamarina, 2007) and in population studies (Dawson *et al*, 2005a and 2005b). Higher scores on the AUDIT-C are associated with alcohol-dependence. Details of the AUDIT-C are given in Appendix 2.

Findings are analysed and presented here by gender, age and social class, where differences within these categories are significant. All differences discussed are statistically significant unless otherwise specified. Data were weighted appropriately as detailed in the *SLÁN 2007: Main Report* (Morgan *et al*, 2008). Comparisons are discussed between SLÁN 2007 and the two previous SLÁN surveys (in 1998 and 2002) and with the 2006 HBSC survey of secondary school children (Nic Gabhainn *et al,* 2007) where question equivalence makes such comparisons possible. The methodologies for these surveys are presented in Appendix 3.

4. RATES AND PATTERNS OF ALCOHOL CONSUMPTION IN IRELAND – SLÁN 2007

NON-DRINKERS

Overall, patterns of non-use of alcohol were similar across all three SLÁN surveys (1998: 18%; 2002: 17%; 2007: 19%). In 2007, 19% of respondents were non-drinkers. This is lower than the rate of abstinence of 22% reported in the most recent Northern Ireland survey (NISRA, 2007) and lower than the European average of 25% reported in the latest Eurobarometer survey[2] (European Commission, 2007). Mirroring the European pattern, women who took part in SLÁN 2007 were more likely to report being non-drinkers than men (23% compared with 15%). However, while Irish men reported rates of abstinence that were similar to the European average (15% compared with 16%), Irish women reported lower rates of abstinence (23% compared with 32%).

In 2007, differences in rates of abstinence were also observed across age and social class. Higher rates of abstinence were reported by older respondents compared with younger ones (age 18-29: 11%; 30-44: 14%; 45-64: 21%; 65+: 41%) and by respondents in social classes 5-6 when compared with those in other social classes (SC 1-2: 13%; SC 3-4: 18%; SC 5-6: 24%).

- **In SLÁN 2007, approximately 4 in 5 Irish adults report drinking alcohol. This proportion has not changed since 1998. The proportion of non-drinkers (19%) is lower than the European average (25%).**
- **A higher proportion of women in Ireland drink compared with women in other European countries.**

FREQUENCY OF DRINKING

Men drank alcohol more often than women, with 45% of men reporting that they drank at least 2-3 times a week compared to 29% of women. Table 1 outlines the frequency of drinking alcohol as reported by SLÁN 2007 respondents, by gender, age and social class.

[2] The *Eurobarometer: Attitudes towards Alcohol* survey took place during 2006 across 29 European countries: the 25 EU Member States, the 2 acceding countries at the time (Bulgaria and Romania) and one of the 2 candidate countries (Croatia), together with the Turkish Cypriot community. A total of 28,584 people took part in the overall survey. A multi-stage, random (probability) sample design was applied to select households. In each household, the respondent was drawn at random (following the 'closest birthday rule'). In Ireland, 1,000 people aged 15 years and over were surveyed between October and November 2006, with face-to-face interviews carried out in their own homes.

Table 1: Frequency of drinking alcohol in the past year, by gender, age and social class (2007)

N = 10,313	Never %	Monthly or less %	2-4 times per month %	2-3 times per week %	4 or more times per week %
Total	**19**	**16**	**27**	**30**	**8**
Gender					
Men	15	13	27	34	11
Women	23	19	28	25	5
Age group					
18-29	11	14	37	34	4
30-44	14	17	31	31	7
45-64	21	17	21	30	11
65+	41	16	15	18	10
Social class					
SC 1-2	13	13	28	35	11
SC 3-4	18	17	29	29	7
SC 5-6	24	18	25	27	6
Unclassified	29	19	25	22	5

Among drinkers, three-quarters of SLÁN 2007 respondents (75%) reported drinking alcohol within the previous week. This figure has remained stable across the three SLÁN surveys (*see Table 2*). More men reported drinking in the previous week than women across all three surveys. Age differences in patterns of drinking also emerged: the proportion of older drinkers (aged 45-64 and 65+) who reported drinking within the previous week increased over the three SLÁN surveys – age 45-64: 72% (1998), 75% (2002), 76% (2007); age 65+: 54% (1998), 62% (2002), 73% (2007). Within the 45-64 age group, the increase is most notable for females – 63% (1998), 69% (2002), 73% (2007).

An increase in frequency of drinking for women aged 45-64 has also been observed in the UK, where a recent review of trends in drinking over 20-30 years has highlighted a general increase in consumption for women (Smith and Foxcroft, 2009). The changing nature of women's drinking patterns and the closing of the 'gender gap' in drinking behaviour has been signalled as a cause for concern across a number of countries since women are more vulnerable to the effects of alcohol than men (National Institute on Alcohol Abuse and Alcoholism, 1999).

Another trend that can be seen across the SLÁN surveys is the steady increase in alcohol consumption by the middle and older age groups (45-65+ years). This has also been observed in the UK (Smith and Foxcroft, 2009). There are many factors that may contribute to this increase, including greater affluence and increased affordability of alcohol. Changing alcohol patterns within these age groups have received little attention and should be given serious consideration since, at even low levels of consumption, alcohol can be problematic for some older people.

Within the younger age groups in the SLÁN surveys, the proportion of drinkers reporting drinking within the previous week has fallen since 1998. However, more detailed analysis

reveals two contrasting patterns within the 18-29 year-old age group. For respondents aged 18-23, the percentage reporting drinking during the previous week decreased between 1998 (83%) and 2002 (76%), but increased between 2002 and 2007 (79%); this increase is seen for both men and women. The proportion of 24-29 years-olds who reported drinking in the previous week, however, decreased across the three surveys – 83% (1998), 80% (2002), 75% (2007).

In relation to social class (SC), the proportion of people who reported drinking within the previous week remained stable over time for respondents in SC 1-2 and SC 3-4. However, between 1998 and 2007, the proportion of respondents in SC 5-6 who reported drinking in the previous week decreased (from 77% to 73%).

Table 2: Frequency of drinking alcohol within the past week, by gender, age and social class (1998, 2002 and 2007)*

	SLÁN 1998 (N = 6,629) %	SLÁN 2002 (N = 5,829) %	SLÁN 2007 (N = 10,230) %
Total	**75**	**75**	**75**
Gender			
Men	81	80	80
Women	69	70	70
Age group			
18-29	83	77	77
30-44	76	77	74
45-64	72	75	76
65+	54	62	73
Social class			
SC 1-2	80	78	79
SC 3-4	78	76	76
SC 5-6	77	71	73
Unclassified	67	73	71

* As previously noted, the survey method in SLÁN 2007 (face-to-face interviews) was different from previous SLÁN surveys (postal questionnaires) and so caution is advised when considering patterns over time.

- **Across all three SLÁN surveys, approximately three-quarters of drinkers reported drinking alcohol within the previous week.**
- **More men reported drinking in the previous week than women across all three surveys.**
- **Age differences in patterns of drinking emerged over the three surveys:**
  - **The proportion of older drinkers reporting drinking within the previous week increased over the period 1998-2007. Within the 45-64 age group, the increase is most notable for females.**
  - **Within the younger age groups, the proportion of drinkers reporting drinking within the previous week has fallen since 1998.**
- **The changing nature of drinking patterns is a cause for concern and requires further research.**

NUMBER OF STANDARD DRINKS CONSUMED PER DRINKING OCCASION

Approximately 30% of respondents reported drinking 1-2 standard drinks on a typical drinking occasion and 30% reported drinking 3-4 drinks (*see Table 3*). One-quarter of young people (24%) aged 18-29 reported drinking 9 or more standard drinks on a typical drinking occasion.

A 'standard' drink is defined as a half pint or a glass of beer, lager or cider; a single measure of spirits; a single glass of wine, sherry or port; or a bottle of alcopop (long neck).

Table 3: Number of standard drinks consumed on a typical drinking occasion, by gender, age and social class (2007)

N = 7,736	1-2 standard drinks on a typical drinking occasion %	3-4 standard drinks on a typical drinking occasion %	5-6 standard drinks on a typical drinking occasion %	7-8 standard drinks on a typical drinking occasion %	9+ standard drinks on a typical drinking occasion %
Total	**29**	**30**	**18**	**9**	**14**
Gender					
Men	19	27	19	12	23
Women	39	33	17	6	4
Age group					
18-29	13	23	25	18	24
30-44	27	32	19	8	13
45-64	35	35	13	7	9
65+	60	23	11	3	2
Social class					
SC 1-2	33	32	16	8	12
SC 3-4	27	27	20	11	16
SC 5-6	22	30	20	11	17
Unclassified	32	28	19	9	11

Overall, since 1998 there has been a shift in the number of standard drinks consumed on a typical drinking occasion, with increasing numbers of drinkers having fewer standard drinks per drinking occasion. The proportion having 1-2 standard drinks per drinking occasion has increased since 1998 from 17% to 27% (2002) to 29% (2007). This pattern is evident for both men (12% (1998), 15% (2002), 19% (2007)) and women (24% (1998), 38% (2002), 39% (2007)). This increase occurs alongside a decrease in the proportion of respondents drinking higher numbers of standard drinks per drinking occasion. The pattern is consistent with data from the latest Eurobarometer survey, which found that between 2003 and 2006, the proportion of respondents who drink 3-4 standard drinks in one sitting has decreased slightly in favour of those having 1-2 standard drinks (European Commission, 2007).

Despite the shift observed, younger respondents report consuming a high number of alcoholic drinks per drinking occasion and while some decreases over time have been observed in the 24-29 year-old age group, such reductions have not been observed for 18-23 year-olds.

The SLÁN 2007 findings regarding drinking among young adults are a cause for concern, particularly when considered in the context of adolescent drinking patterns. The 2006 HBSC survey found that the percentage of adolescents reporting having been drunk within the previous 30 days increases with age: overall, 20% of adolescents reported this behaviour, with a high percentage (approximately 33%) among 15-17 year-old boys and girls (Nic Gabhainn *et al,* 2007). The review of UK drinking trends also outlines a notable trend of rising consumption among young adolescent drinkers over the last decade (Smith and Foxcroft, 2009).

Research has concluded that the age of drinking onset and adolescent drinking patterns are related to later binge drinking (Eliasen *et al*, 2009), as well as high consumption of alcohol in adulthood and alcohol-dependence (Hingson *et al*, 2006; Pedersen and Skrondal, 1998; Pitkanen *et al*, 2005). Such results highlight the importance of addressing the issues of underage drinking and harmful drinking patterns in young adults, as demonstrated in SLÁN and HBSC.

- **The proportion of drinkers having 1-2 standard drinks per drinking occasion has increased since 1998. This has occurred alongside a decrease in the number of drinkers consuming higher numbers of drinks per drinking occasion. This pattern is consistent with European data.**
- **Across all age groups except the youngest group of respondents (18-29 years), there has been a reduction since 1998 in the proportion reporting drinking 5 or more standard drinks on a typical drinking occasion.**
- **One-quarter (24%) of 18-29 year-olds reported drinking 9 or more standard drinks on a typical drinking occasion.**
- **HBSC 2006 reported that one-third of boys and girls aged 15-17 years have been drunk in the last 30 days.**
- **Drinking patterns among adolescents and young adults require focused attention in order to prevent harmful drinking patterns becoming established.**

PATTERNS OF ALCOHOL USE

A number of patterns of alcohol use can be identified using the SLÁN data. Besides the pattern relating to the number of standard drinks consumed per drinking occasion discussed above, other patterns that emerge concern drinking over the recommended weekly limit, binge drinking and having a score above a defined threshold on the AUDIT-C measure (indicating a hazardous pattern of drinking).

Drinking over the recommended weekly limit

In 2007, 8% of all respondents (10% of drinkers) reported drinking above the recommended weekly limit, which is 21 standard drinks for men and 14 for women. Younger respondents were more likely to report such a pattern of drinking (age 18-29: 12%; 30-44: 7%; 45-64: 8%; 65+: 3%).

The pattern of alcohol use across the three SLÁN surveys was considered. Of those respondents who had an alcoholic drink within the previous 12 months, the average number of alcoholic drinks consumed in a typical week across the three surveys decreased from 11 to 7 standard drinks.

Table 4 outlines the percentages of men and women drinking above the recommended weekly limit over the three SLÁN surveys. (Note: The 1998 and 2002 surveys asked about typical weeks and drinks, while SLÁN 2007 more precisely asked about each day of the previous 7 days, *see Appendix 1, Question E4*.) As can be seen, men were more likely than women to drink in excess of the recommended weekly limit across all three surveys. Younger drinkers were also more likely to exceed the weekly limit than older respondents. There were no clear patterns across social class groups.

Table 4: Percentage of drinkers who consumed alcohol in the previous 12 months above the recommended weekly limit, by gender, age and social class (1998, 2002 and 2007)

	MEN			WOMEN			TOTAL		
	SLÁN 1998 (N = 6,020) %	SLÁN 2002 (N = 5,875) %	SLÁN 2007* (N = 10,185) %	SLÁN 1998 (N = 6,020) %	SLÁN 2002 (N = 5,875) %	SLÁN 2007* (N = 10,185) %	SLÁN 1998 (N = 6,020) %	SLÁN 2002 (N = 5,875) %	SLÁN 2007* (N = 10,185) %
Total	**20**	**18**	**11**	**11**	**8**	**5**	**15**	**13**	**8**
Age group									
18-29	28	23	15	22	11	9	25	17	12
30-44	19	15	10	8	11	5	13	13	7
45-64	17	18	11	6	6	4	11	12	8
65+	6	9	5	2	2	1	4	5	3
Social class									
SC 1-2	23	10	10	13	18	7	17	14	9
SC 3-4	22	9	12	15	18	5	19	13	8
SC 5-6	20	8	12	6	21	5	13	16	9
Unclassified	15	4	9	7	11	3	11	7	5

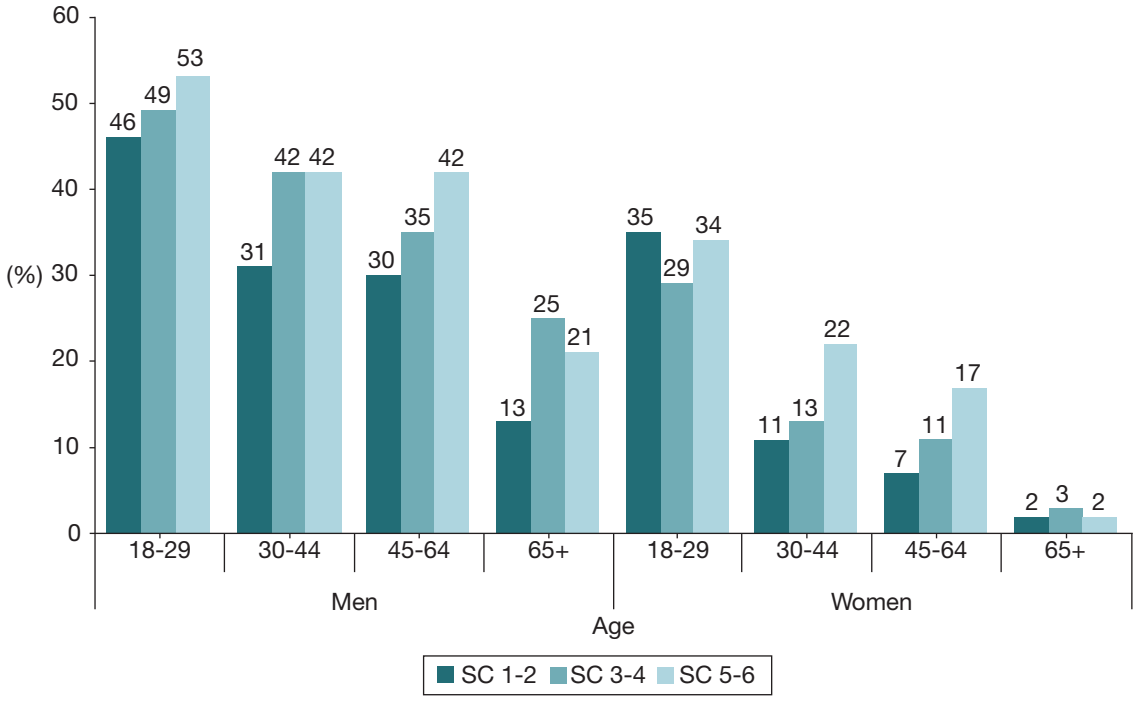
* There were some differences in the questions asked in 2007 in line with changing research practice and more recent opportunities to compare findings with other EU countries.

- **In SLÁN 2007, 10% of drinkers reported drinking in excess of the recommended weekly limit.**

Binge drinking

In SLÁN 2007, over one-quarter of drinkers (28%) reported consuming 6 or more standard drinks on one occasion at least once a week (38% men and 17% women). Higher percentages of younger respondents (age 18-29: 40%; 30-44: 27%; 45-64: 23%; 65+: 12%) and respondents in social classes 5-6 (SC 1-2: 24%; SC 3-4: 29%; SC 5-6: 34%) reported having 6 or more standard drinks on one occasion at least once a week (*see Figure 1*). Such consumption of alcohol is considered 'binge drinking'.

Figure 1: Percentage of drinkers who reported binge drinking on one or more occasions per week, by gender, age and social class (2007)

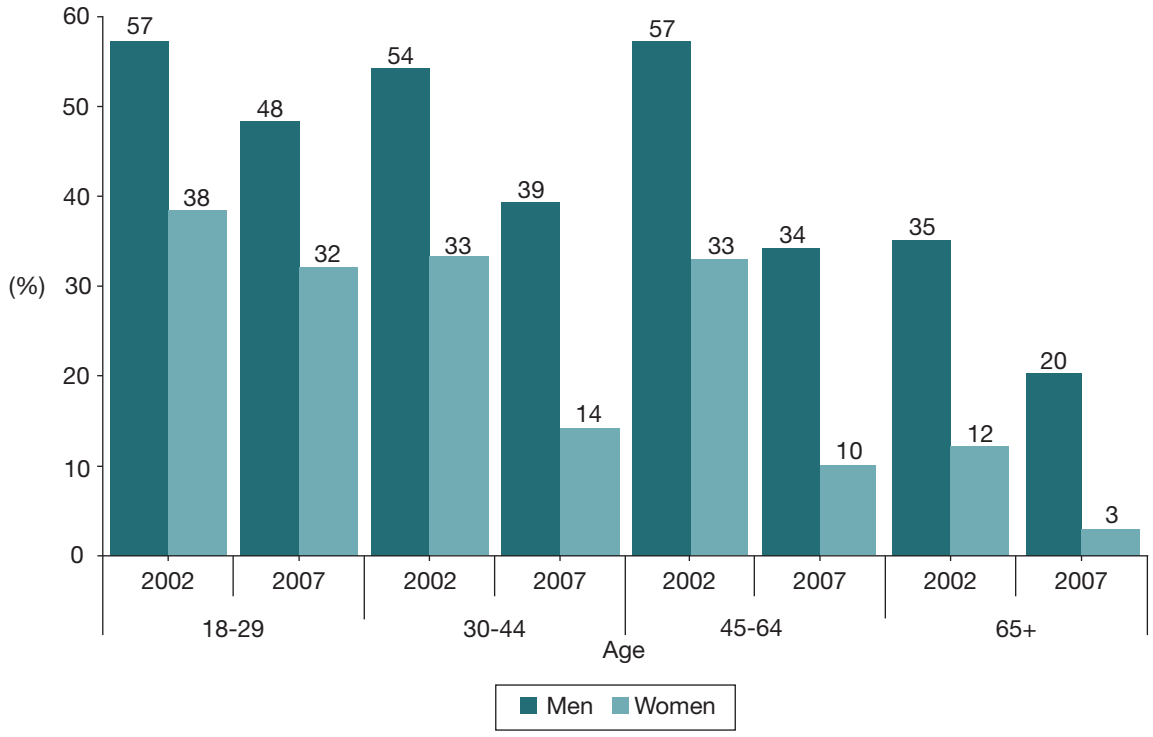


Overall, reported levels of binge drinking have fallen since 2002 – from 45% to 28% in 2007 (*see Figure 2*). The percentage of women reporting that they had 6 or more standard drinks on one occasion at least once per week has halved, from 34% in 2002 to 17% in 2007; there has been a smaller reduction for men, from 54% in 2002 to 38% in 2007. The older age groups show the largest decreases from 2002 to 2007 (age 18-29: 48% to 40%; 30-44: 42% to 27%; 45-64: 47% to 23%; 65+: 27% to 12%). However, while overall levels of binge drinking have fallen for the 18-29 age category, levels of binge drinking among younger respondents aged 18-23 have increased, from 43% in 2002 to 46% in 2007. In the case of 24-29 year-olds, a significant decrease was noted, from 56% in 2002 to 35% in 2007.

When considering the findings relating to binge drinking, it should be noted that the survey method has changed over time, from postal self-report questionnaires used in SLÁN 1998 and 2002 to face-to-face interviews in SLÁN 2007. Thus, a person's willingness to report drinking excessively may differ by survey method.

The high and increasing rate of binge drinking among the youngest drinkers (aged 18-23) as seen in SLÁN 2007 is a cause for concern. A number of advertising campaigns have aimed to highlight the issue of binge drinking among young drinkers. A review of the effectiveness of these campaigns would be useful in order to direct future prevention efforts.

Figure 2: Percentage of drinkers who reported binge drinking on one or more occasions per week, by gender, age and year (2002 and 2007)



- **In SLÁN 2007, 28% of drinkers reported binge drinking (having 6 or more standard drinks on one occasion) at least once a week.**
- **In SLÁN 2007, binge drinking was reported more often by younger drinkers, male drinkers and drinkers in social classes 5-6.**
- **Reported levels of binge drinking at least once a week have decreased since 2002 for respondents in all age groups, except in the 18-23 year-old group where binge drinking has increased.**

Positive AUDIT-C score

Drinking patterns were also assessed using the Alcohol Use Disorders Identification Test – Consumption, known as the AUDIT-C (Bush *et al,* 1998). A score above a defined cut-off point on this measure is referred to as a 'positive' score and indicates a harmful pattern of drinking – one that requires attention. The risk of being alcohol-dependent and experiencing medical problems due to drinking increases as AUDIT-C scores increase. Unlike other measures, the AUDIT-C identifies respondents with harmful drinking patterns who are not alcohol-dependent.

Over half of drinkers (56%) in SLÁN 2007 had positive AUDIT-C scores. A higher proportion of men (70%) had positive scores compared with women (42%). Almost three-quarters of 18-29 year-olds had positive AUDIT-C scores (age 18-29: 74%; 30-44: 57%; 45-64: 48%; 65+: 28%). There were no differences across social classes.

Table 5 outlines the proportion of respondents identified as drinking in excess of the recommended weekly limit, the proportion identified as being binge drinkers and the proportion identified as having a positive AUDIT-C score.

Table 5: Percentage of drinkers drinking over the recommended weekly limit, binge drinking and having positive AUDIT-C scores (2007)

Total N = 8,116 (drinkers)	Drinking over recommended weekly limit %	Binge drinking %	Positive AUDIT-C score* %
Total	**10**	**28**	**56**
Gender			
Men	13	38	70
Women	6	17	42
Age group			
18-29	13	40	74
30-44	9	27	57
45-64	9	23	48
65+	6	12	28
Social class			
SC 1-2	10	24	54
SC 3-4	10	29	59
SC 5-6	12	33	59
Unclassified	7	28	53

* By definition, this percentage includes the percentages in the first two columns.

Note: A cut-off score of 5 was used for the AUDIT-C (*see Appendix 2*).

In its *Second Report* (Department of Health and Children, 2004), the Strategic Task Force on Alcohol called for the establishment of a national screening protocol for the early identification of problem alcohol use for all relevant sectors of the healthcare system (Recommendation R7.1). In the UK, where 6% of all hospital admissions have been categorised as alcohol-related and alcohol misuse is calculated to cost the health service £2.7 billion per annum, the NHS has introduced screening and brief interventions for alcohol misuse. In this programme, patients are screened using the AUDIT-C measure, with the full-length AUDIT questionnaire used as a follow-up. Research indicates that routine screening with this brief questionnaire is useful. For example, it has been reported that for every 8 people who receive simple alcohol advice, one will reduce drinking to lower-risk levels (Moyer *et al*, 2002). This compares well to smoking, where one in 20 have been found to act on health-related advice (Silagy and Stead, 2001). Between April 2005 and March 2006, the Irish College of General Practitioners and the Health Service Executive ran the *Alcohol Aware Practice Service Initiative* (Anderson *et al*, 2006).

Building on the success of a pilot study conducted in 2002-2003, this initiative involved 26 GPs in the HSE Eastern Region, supported by 8 counsellors. The study demonstrated that primary care can be effective in the area of alcohol problem management and that patients do benefit: at least one-third of patients screened in the programme made significant progress, while a further one-third made 'positive' progress. Anderson *et al* (2006) recommended that the AUDIT-C measure be used as the initial screening tool for patients and commented that the questions constituting the AUDIT-C can be easily integrated verbally into any consultation.

- **In SLÁN 2007, 4 in 10 women and 7 in 10 men who drink had positive AUDIT-C scores.**
- **Almost three-quarters of the youngest SLÁN respondents (aged 18-23) also had positive AUDIT-C scores.**
- **Overall, the AUDIT-C measure indicates that over half of all drinkers have a harmful pattern of drinking – a situation that requires attention.**

ALCOHOL-RELATED HARM

Two categories of alcohol-related harm reported by SLÁN 2007 respondents were considered. The first was harm related to respondents' own drinking, which included harm to health, harm to home life or marriage, harm to work or study, and involvement in fights and accidents. The second category was harm experienced as a result of other people's drinking and this included family or marriage problems, or being assaulted by someone who had been drinking.

Harm related to respondents' own drinking

A total of 10% of drinkers reported that they felt their drinking had harmed their health in the previous 12 months. Higher levels of harm were reported by younger respondents (age 18-29: 17%; 30-44: 10%; 45-64: 7%; 65+: 2%), particularly younger men (*see Figure 3*). Within the youngest age category (18-29 years), levels of harm reported by 18-23 year-olds (20%) were greater than those reported by 24-29 year-olds (14%) (*see Figure 4*). Compared with those who drank within the guideline amounts, respondents who exceeded the recommended weekly limit were over 4 times more likely to report that their drinking had harmed their health (OR 4.2; CI 95% 3.46-5.13), while binge drinkers were over 3 times more likely to report that their drinking harmed their health (OR 3.5; CI 95% 2.92-4.10).

Overall, only 16% of those with a positive AUDIT-C score reported feeling that their drinking had harmed their health (18% men and 14% women). Younger respondents with positive AUDIT-C scores were more likely to report drinking harming their health than older respondents (age 18-29: 21%; 30-44: 16%; 45-64: 13%; 65+: 4%). There were no social class differences.

Lack of awareness of safe drinking limits and potential harm to health appear to be issues for many drinkers. The 2009 review of drinking trends in the UK also highlights the need to determine people's knowledge and awareness of how their drinking behaviour can harm their health (Smith and Foxcroft, 2009).

Figure 3: Percentage of drinkers who reported that their drinking had harmed their health in the previous 12 months, by gender, age group 18-64 and social class (2007)

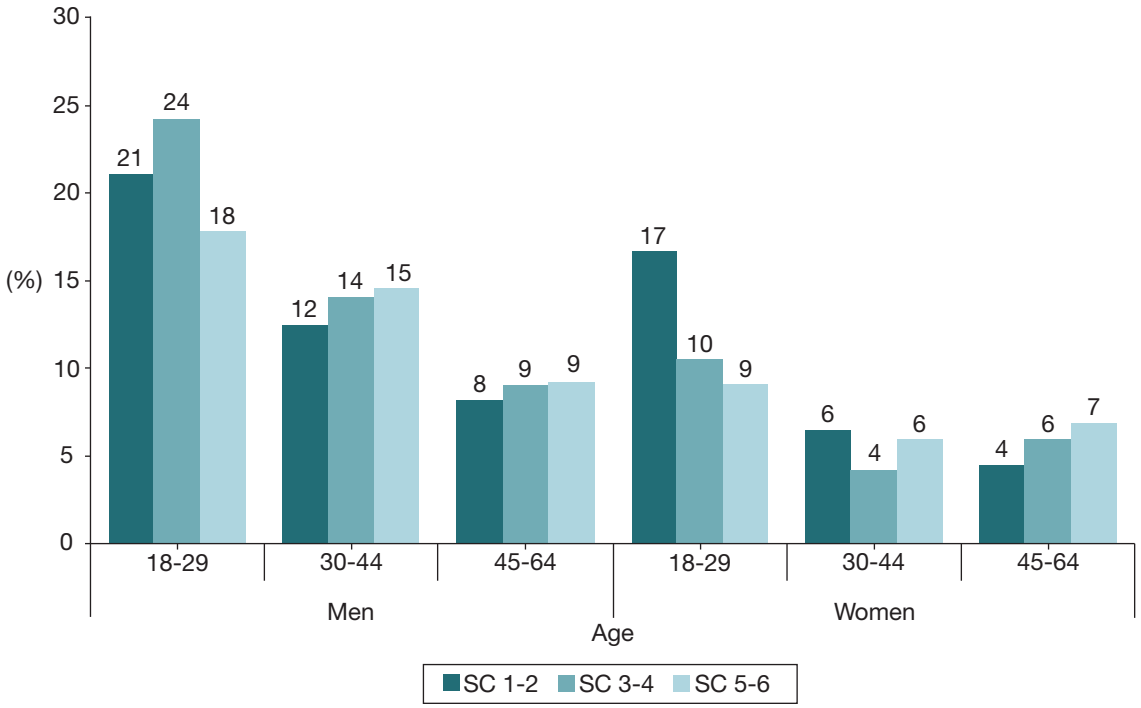
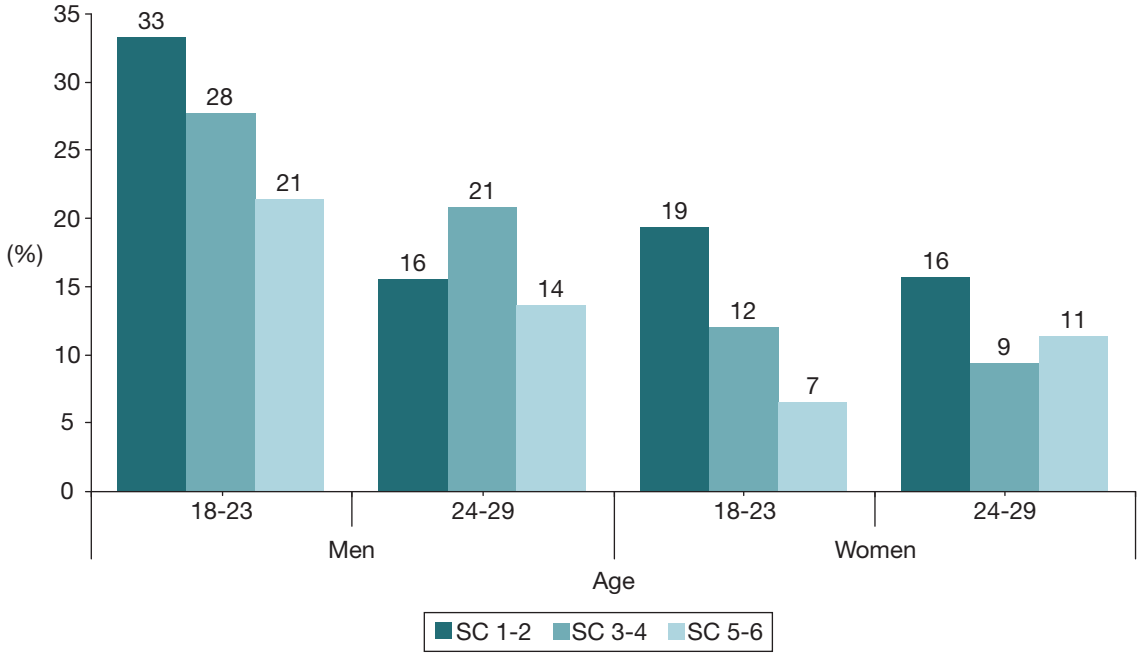
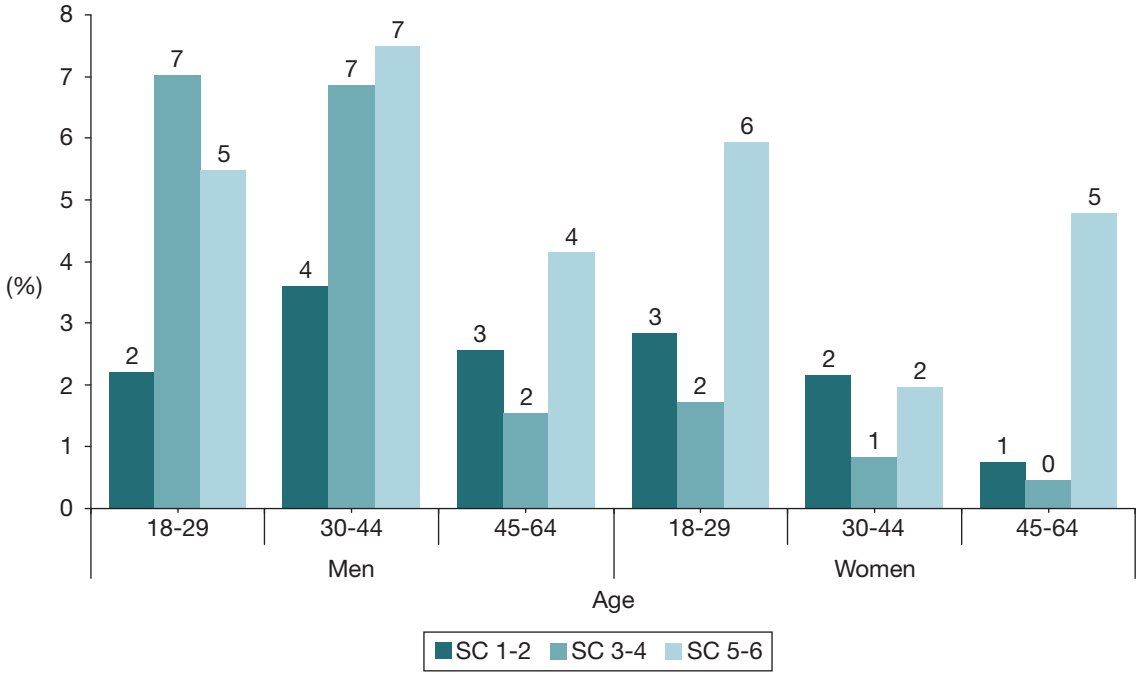


Figure 4: Percentage of younger drinkers who reported that their drinking had harmed their health in the previous 12 months, by gender, age group 18-29 and social class (2007)



Men (4%) reported more harm than women (2%) being done to their home life and/or marriage as a result of their drinking, while younger respondents reported higher levels of harm than older respondents (age 18-29: 4%; 30-44: 4%; 45-64: 2%; 65+: 0%) (*see Figure 5*). Drinkers who drank in excess of the recommended weekly limit and binge drinkers were almost 3 times more likely to report harm to their home life and/or marriage as other drinkers (above recommended weekly limit: OR 2.9; CI 95% 2.04-4.01; binge drinkers: OR 2.9; CI 95% 2.12-3.85).

Figure 5: Percentage of drinkers who reported that their drinking had harmed their home life or marriage in the previous 12 months, by gender, age group 18-64 and social class (2007)



As with harm to home life or marriage, men (6%) reported their drinking as having more of an impact on their work or study life than women (3%). Again, younger respondents reported higher levels of harm (age 18-29: 10%; 30-44: 4%; 45-64: 2%; 65+: 0%) (*see Figure 6*). Within the youngest age category (18-29 years), levels of harm reported by 18-23 year-olds (12%) were greater than those reported by 24-29 year-olds (8%) (*see Figure 7*). Drinkers who drank more than the recommended weekly limit and binge drinkers were over 4 times more likely to report harm to their work or study life as other drinkers (above recommended weekly limit: OR 4.1; CI 95% 3.12-5.41; binge drinkers: OR 4.2; CI 95% 3.26-5.52).

Figure 6: Percentage of drinkers who reported that their drinking had harmed their work or studies in the previous 12 months, by gender, age group 18-64 and social class (2007)

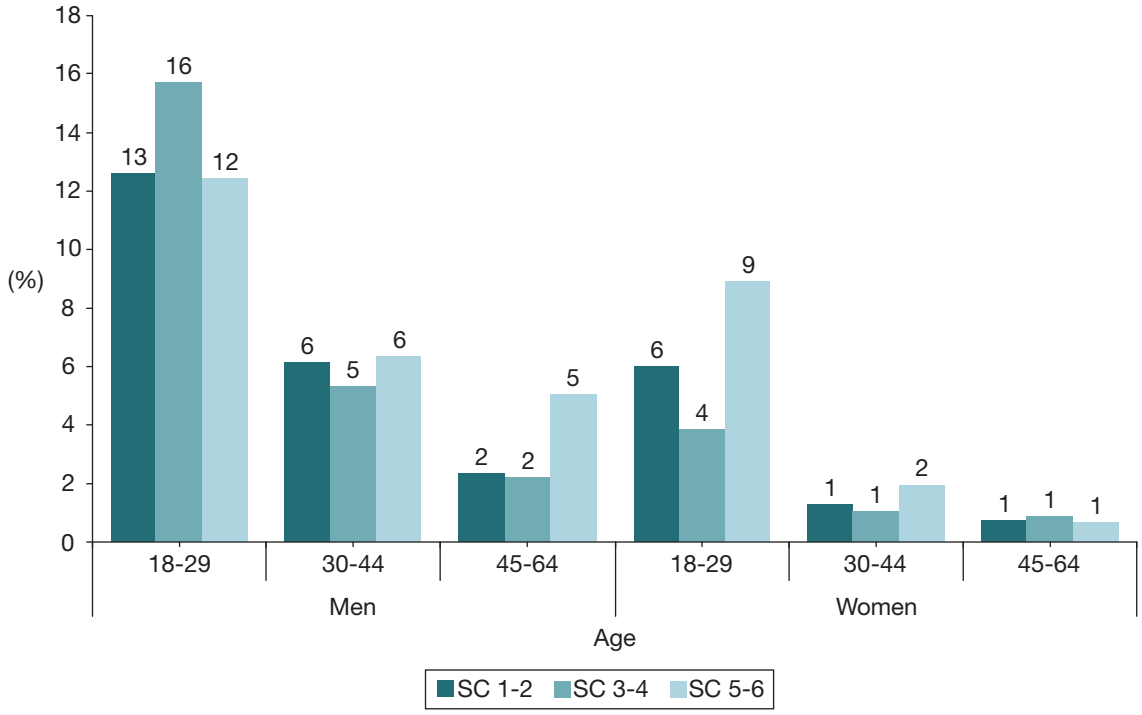
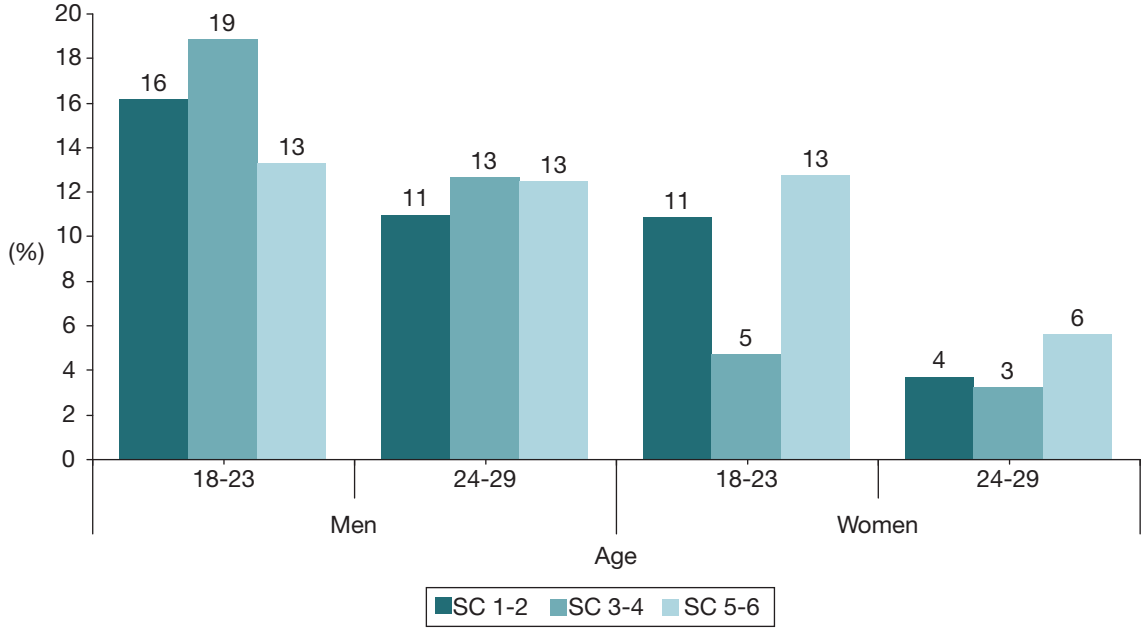
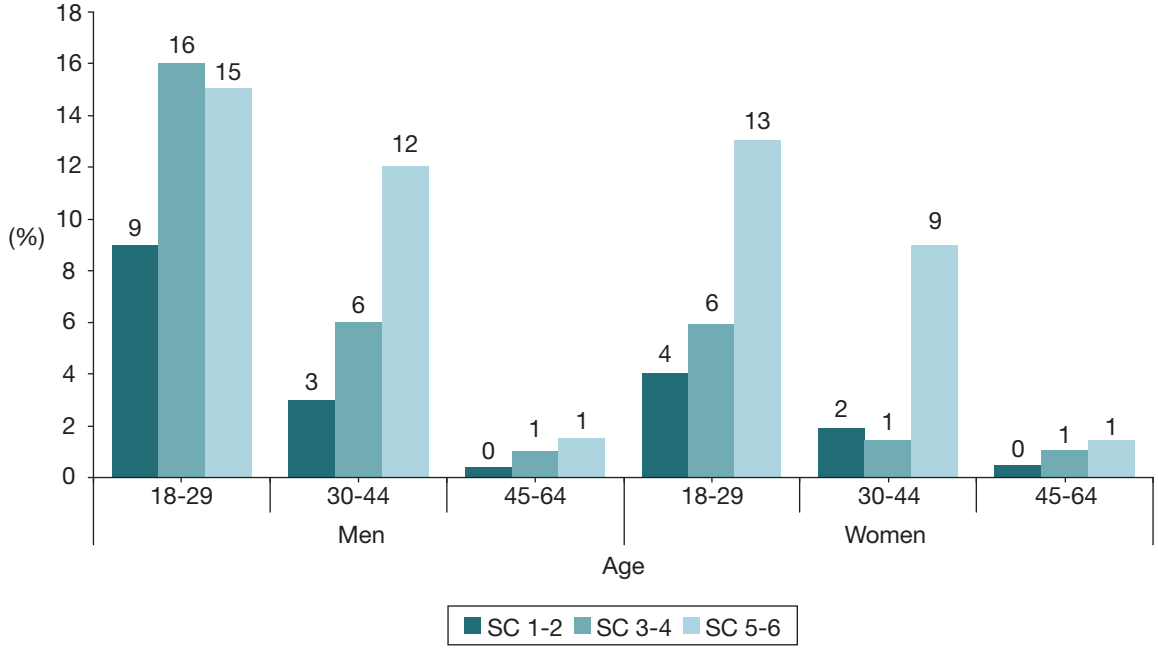


Figure 7: Percentage of younger drinkers who reported that their drinking had harmed their work or studies in the previous 12 months, by gender, age group 18-29 and social class (2007)



Involvement in fights and/or accidents as a result of their own drinking was reported by 5% of drinkers (7% men and 3% women) (*see Figure 8*). Younger drinkers reported more involvement in fights or accidents than older respondents. Binge drinkers were almost 5 times more likely to be involved in a fight or accident because of their drinking compared to non-binge drinkers (OR 4.7; CI 95% 3.63-6.15), while those drinkers who drank above the recommended weekly limit were 3 times more likely to report involvement in fights and/or accidents as other drinkers (OR 3.0; CI 95% 2.22-3.98).

Figure 8: Percentage of drinkers who reported being involved in a fight and/or accident in the previous 12 months as a result of their drinking, by gender, age group 18-64 and social class (2007)

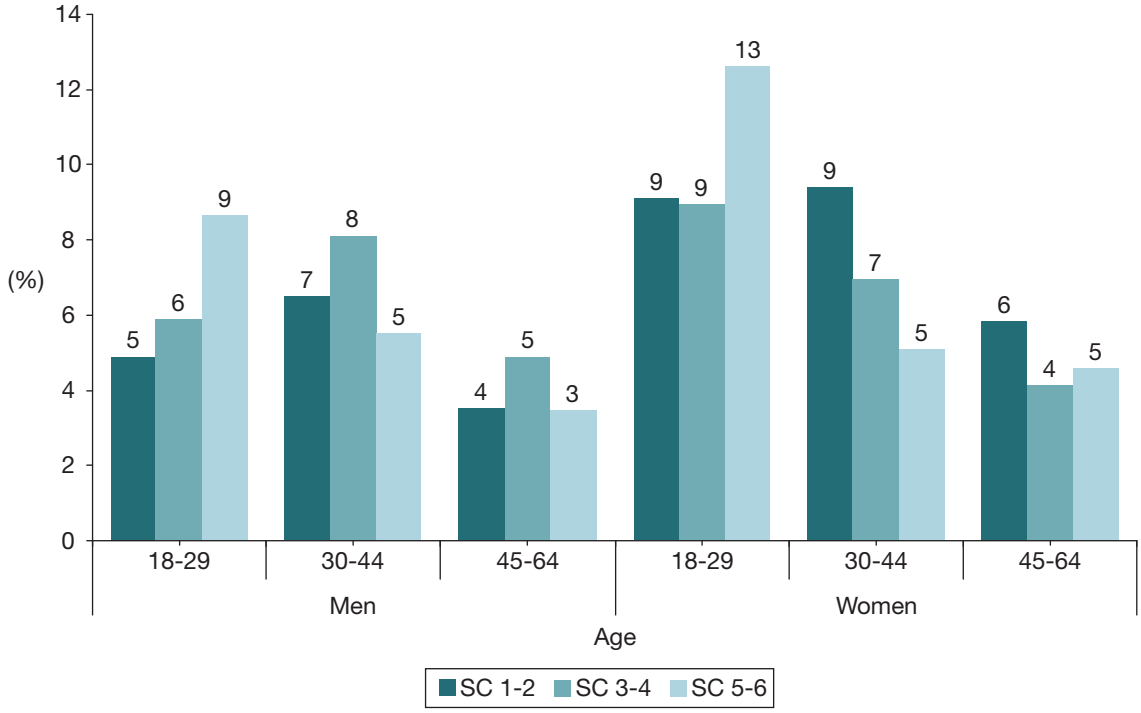


- **In SLÁN 2007, a total of 10% of drinkers reported that they felt their drinking had harmed their health in the previous 12 months. Higher levels of harm were reported by younger respondents, particularly younger men.**
- **Of all drinkers, only 16% of those with a positive AUDIT-C score reported feeling that their drinking had harmed their health.**
- **Men reported more harm done to their home life and/or marriage due to their drinking than women did, with younger drinkers reporting higher levels of harm than older drinkers.**
- **Drinkers who drank more than the recommended weekly amount and binge drinkers reported doing more harm to their health, their home life/marriage and their work/study life than other drinkers.**
- **Involvement in fights and/or accidents as a result of their drinking was reported by 5% of drinkers. Men and younger drinkers reported more involvement in fights or accidents than women and older respondents. Binge drinkers were almost 5 times more likely to be involved in a fight or accident than non-binge drinkers, while those who drank more than the weekly limit were 3 times more likely to get involved than others.**

Harm related to other people's drinking

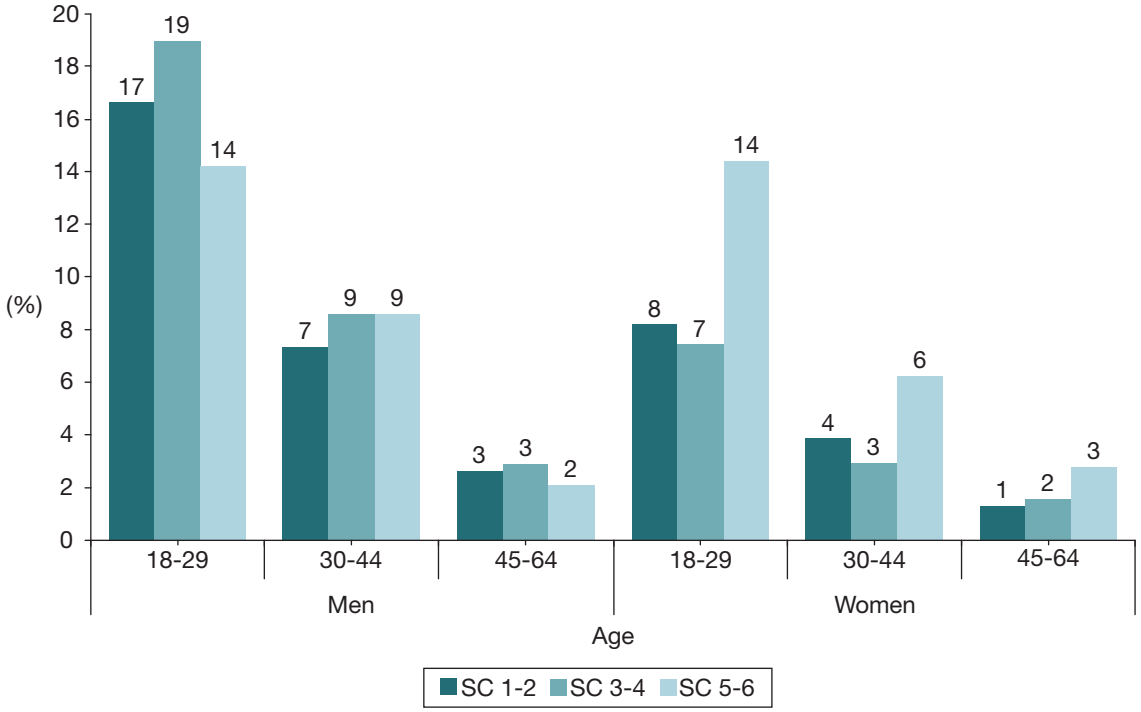
Across all SLÁN 2007 respondents, 6% experienced family or marriage problems as a result of someone else's drinking (*see Figure 9*). Women (7%) reported experiencing more problems than men (5%). Drinkers reported experiencing more harm than non-drinkers (OR 1.3; CI 95% 0.97-1.58).

Figure 9: Percentage of all respondents who reported that they had experienced family or marriage problems in the last 12 months as a result of someone else's drinking, by gender, age group 18-64 and social class (2007)



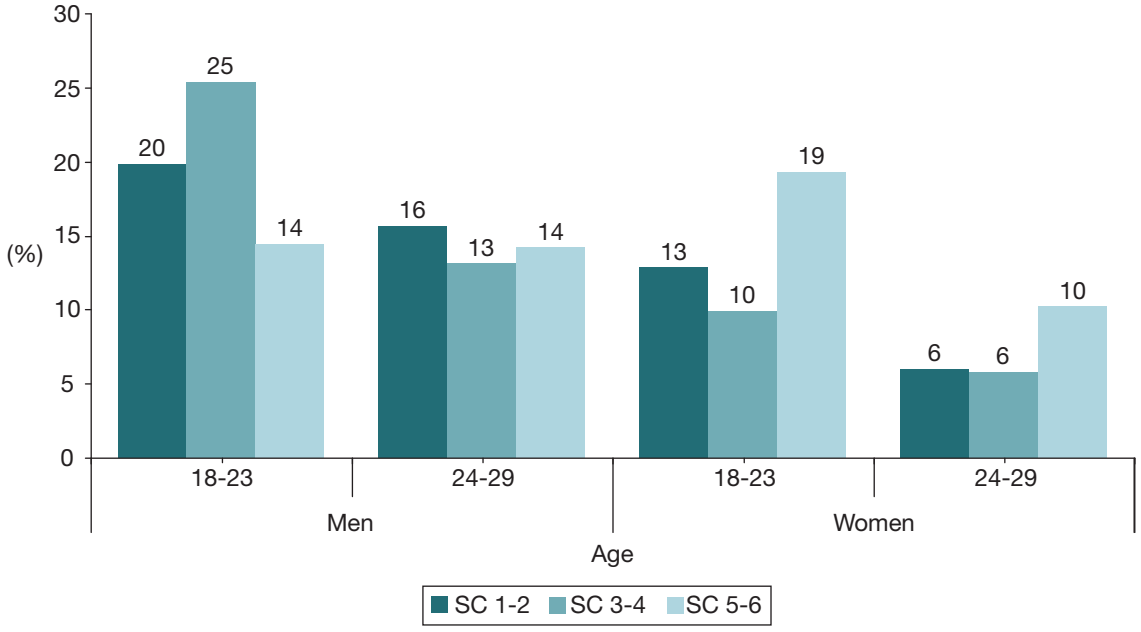
A total of 6% of respondents reported being pushed, hit or assaulted in the previous 12 months as a result of someone else's drinking (*see Figure 10*). Reported rates were higher for men than women (8% men and 4% women) and for younger respondents compared with older respondents (age 18-29: 13%; 30-44: 6%; 45-64: 2%; 65+: 1%). Drinkers who drank more than the recommended weekly limit and binge drinkers were almost 2 times more likely to report being punched or assaulted than all other respondents (above recommended weekly limit: OR 1.9; CI 95% 1.42-2.45; binge drinkers: OR 1.9; CI 95% 1.53-2.30).

Figure 10: Percentage of all respondents who reported that they had been pushed, hit or assaulted in the last 12 months by someone who had been drinking, by gender, age group 18-64 and social class (2007)



The highest reported levels of being pushed, hit or assaulted by someone who had been drinking were observed among the youngest respondents, the 18-23 year-olds (*see Figure 11*).

Figure 11: Percentage of younger respondents who reported that they had been pushed, hit or assaulted in the last 12 months by someone who had been drinking, by gender, age group 18-29 and social class (2007)

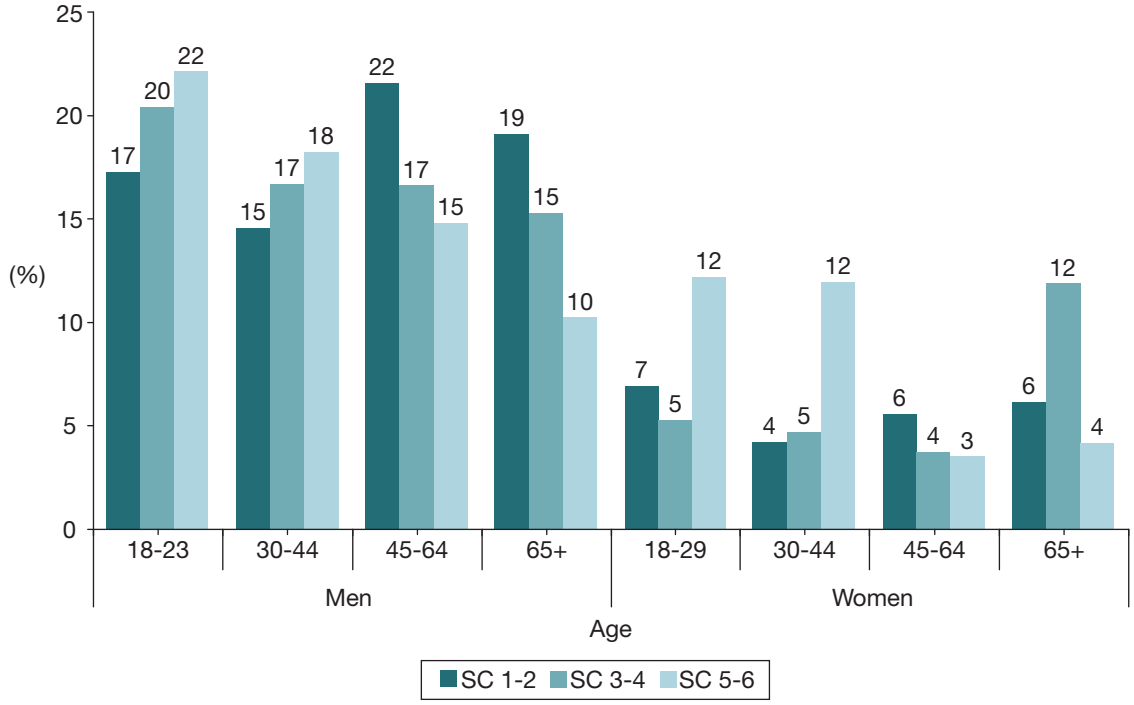


- **In SLÁN 2007, 6% of respondents experienced family or marriage problems as a result of someone else's drinking. Women reported experiencing more problems than men. Drinkers experienced more harm than non-drinkers.**
- **A total of 6% of respondents reported being punched or assaulted in the previous 12 months as a result of someone else's drinking. Reported rates were higher for men than women, and much higher for younger respondents compared with older respondents. Again, drinkers experienced more harm than non-drinkers.**

Alcohol and driving

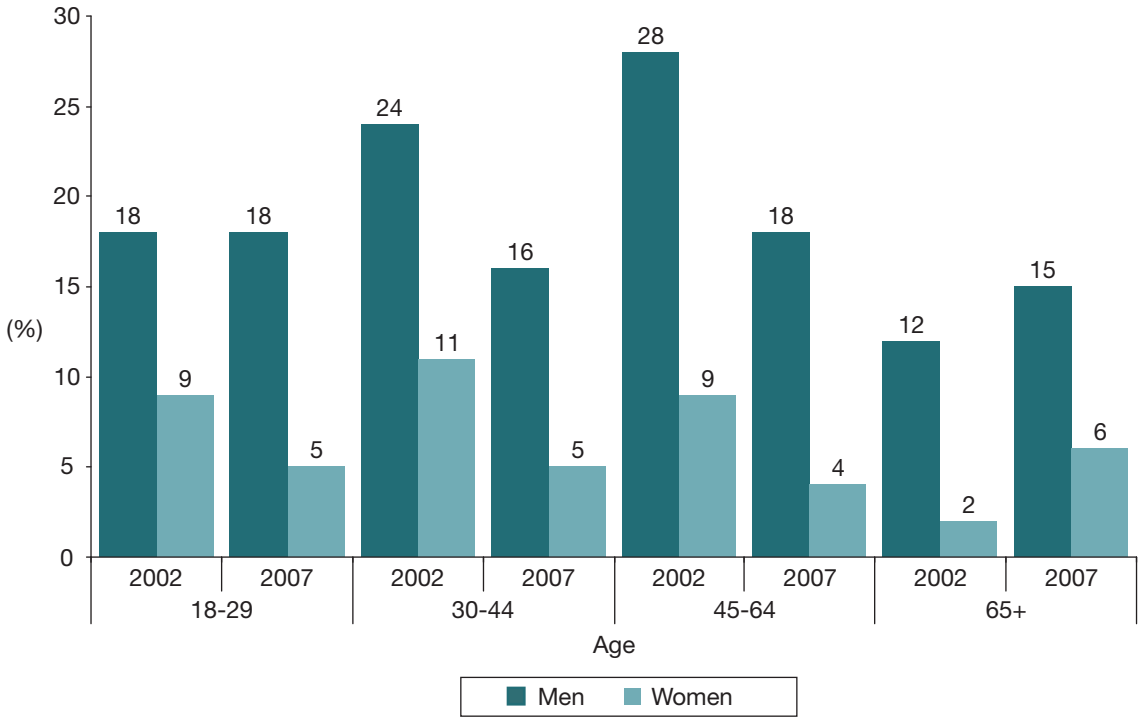
Driving while under the influence of alcohol continues to be one of the main causes of road traffic accidents, contributing annually to at least 10,000 fatalities on EU roads. Irish respondents to the Eurobarometer survey were found to be extremely uninformed about the permitted alcohol level in blood while driving (European Commission, 2007). In SLÁN 2007, 12% of drinkers who also drive reported that they had driven a car in the previous year after consuming 2 or more standard drinks (*see Figure 12*). This was reported more often by men (17%) than women (5%). There were no age differences. Respondents in social classes 5-6 were more likely to report driving after drinking (SC 1-2: 12%; SC 3-4: 12%; SC 5-6: 15%).

Figure 12: Percentage of drivers (who were also drinkers) who reported driving a car in the previous year after consuming 2 or more standard drinks, by gender, age and social class (2007)



The percentage of drivers who reported driving a car in the previous 12 months after consuming 2 or more standard drinks decreased between 2002 and 2007 (from 16% to 12%). The decrease was evident for both men and women, for drivers across all age groups and social classes (*see Figure 13*).

Figure 13: Percentage of drivers (who were also drinkers) who reported driving a car in the previous year after consuming 2 or more standard drinks, by gender, age and year (2002 and 2007)



- **In SLÁN 2007, 12% of drinkers who also drive reported that they had driven a car in the previous year after consuming 2 or more standard drinks.**
- **The percentage of drivers who reported driving a car in the previous year after consuming 2 or more standard drinks decreased between 2002 and 2007 (from 16% to 12%).**

Alcohol and other health-related behaviours

SLÁN 2007 presents an opportunity to look at patterns of alcohol consumption alongside other health-related behaviours. The following discussion considers the relationship between alcohol use and smoking, and the relationship between alcohol use and body mass index (BMI).

In SLÁN 2007, 16% of non-drinkers indicated they were smokers, compared with 30% of drinkers. Drinkers who typically consumed 3 or more standard drinks during a typical drinking occasion (34%) were also over 2 times more likely to be smokers, compared to drinkers who reported typically having 1-2 standard drinks per drinking occasion (17%) (OR 2.4; CI 95% 2.19-2.77).

In relation to body mass index (BMI), 52% of drinkers who binge at least once a week were obese (i.e. BMI ≥30), compared to 46% of other drinkers.

- **In SLÁN 2007, 30% of drinkers were also smokers. Drinkers were twice as likely to be smokers as non-drinkers.**
- **Drinkers who reported consuming a higher number of standard drinks per typical drinking occasion were more than twice as likely to be smokers.**
- **52% of drinkers who binge at least once a week were obese, compared to 46% of non-binge drinkers.**

5. CONCLUSIONS AND POLICY IMPLICATIONS

International research highlights the fact that alcohol consumption levels are high in Ireland and that there is a particularly high rate of binge drinking when compared with other countries. The SLÁN 2007 data also highlight high levels of alcohol consumption and binge drinking, particularly for certain sub-groups. Consistent with trend analysis from other countries, the SLÁN data reveal changing patterns of alcohol consumption over time.

Globally, the reduction of alcohol-related harm is a priority. The World Health Organization (WHO) is currently developing strategies to reduce the harmful use of alcohol (WHO, 2008). The final report will be presented in 2010 at the World Health Assembly and will become a legally binding international treaty. (The WHO strategies and policy element options to reduce alcohol-related harm are outlined in Appendix 4).

A comparative analysis of alcohol control policies conducted in 2007 found that the strength of control polices varied widely among 30 European countries (Brand *et al*, 2007). The study reported a clear inverse relationship between policy strength and alcohol consumption. Scores were generated using the alcohol policy index, developed to gauge the strength of a country's alcohol control policies. The index generates a score based on policies from 5 regulatory domains – physical availability of alcohol; drinking context; alcohol prices; alcohol advertising; and operation of motor vehicles. Higher scores indicate better regulatory performance across the domains.

Overall, the 30 countries surveyed attained a median score of 42.4, ranging from 14.4 (Luxembourg) to 67.3 (Norway). Ireland was ranked 18th (in the middle 10 countries) with a score of 40.8. The UK received a score of 35.5 (ranked 20th). In terms of the domains, Ireland scored relatively well in relation to drinking context (e.g. programmes to increase awareness of and prevent alcohol problems, training of alcohol servers) and alcohol prices (beer, wine and spirits indices). But we scored poorly in two other domains (availability of alcohol and operation of motor vehicles), while scoring the lowest possible score – zero – in relation to alcohol advertising. However, since the publication of these results in 2007, a number of measures have been introduced in Ireland to improve the situation, including mandatory alcohol testing. Also, Ireland's *Code on Alcohol Advertising and Sponsorship* has been strengthened and measures aimed at reducing availability (restrictions on hours of sale in the off-trade) have been brought into force.

The present report on findings from SLÁN 2007 on alcohol use in Ireland clearly indicates that there are other regulatory domains that should be a focus in terms of alcohol-related policy. Many of these domains are also a focus of the *Second Report of the Strategic Task Force on Alcohol* (STFA), which presents a number of recommendations in key areas, 10 of which are given in Appendix 5 on the key area of 'Research and monitoring progress' (Department of Health and Children, 2004). Building research capacity and ongoing monitoring of Ireland's progress over time and in comparison with other countries are both vital in order to drive prevention efforts and ensure effective policy. The WHO states in its Report by the Secretariat on *Strategies to reduce the harmful use of alcohol* that '*adequate mechanisms for assessment, reporting and evaluation are necessary for monitoring progress at different levels and strengthening the evidence base for strategies that reduce alcohol-related harm in different cultural contexts*' (WHO, 2008).

Regularly produced status reports on alcohol consumption and related harm are essential for monitoring harmful use of alcohol and policy responses worldwide. Similarly, the *EU strategy to support Member States in reducing alcohol-related harm* has as one of its priority themes to *'develop, support and maintain a common evidence base'*, highlighting the need for research and information systems (European Commission, 2006). This includes the aim of *'obtaining comparable information on alcohol consumption, on drinking patterns and on the social and health effects of alcohol'*.

The SLÁN surveys have provided an important contribution to the ongoing monitoring of trends in alcohol consumption among the general adult population of Ireland and have facilitated the analysis of changes in drinking rates and patterns. SLÁN 2007 highlights the importance of considering, in particular, the age and gender differences in drinking patterns. Targeted approaches to reducing harm are required for younger adults and women in particular. The majority of drinkers with a positive AUDIT-C score are not aware that their drinking may be harming their health. This is particularly true of middle-aged and older drinkers; their perceptions of 'safe' drinking limits and the health risks of excessive consumption need to be explored and targeted. In the past, alcohol education has focused on binge and problem drinking in younger age groups and so older people may be unaware of the recommended limits and health risks. In contrast, they may be more aware of the reported beneficial effects of drinking on health. The drinking patterns revealed in SLÁN 2007 thus point to a need to tailor messages for different age groups. In conjunction with this, there is a need to monitor campaigns that target specific groups of drinkers in order to evaluate their effectiveness on an ongoing basis.

The use of the AUDIT-C as a measure in SLÁN 2007 has signalled that there is a large proportion of drinkers whose drinking patterns are a cause for concern. An Irish pilot study has demonstrated that brief intervention based on screening in primary care using the AUDIT-C is successful (Anderson *et al,* 2006). The AUDIT-C is also a useful tool to include in population surveys because, due to the cut-off point used during screening, it may be less sensitive to under-reporting of consumption by drinkers who actually consume higher amounts of alcohol.

This issue – of the possible under-reporting of alcohol consumption by survey respondents – has received considerable attention internationally in recent years. The gap between survey data relating to alcohol consumption and data from other sources (e.g. Customs and Excise) has been discussed in a number of recent reports from the UK. Traditionally, comparisons of self-reported alcohol consumption data and Customs and Excise data generally show lower levels of consumption in the self-reported data. This pattern has been consistent across a number of countries, including Ireland. A recent report from Scotland, entitled *How much are people in Scotland really drinking?*, indicates that over the last decade the gap between these two sources of data has been widening (Catto and Gibbs, 2008). This may be the result of changing drinking patterns (e.g. more drinking at home, wider variations in drink size and increases in the typical size and alcohol content of drinks). A number of countries have undertaken re-analysis of existing survey data with a view to applying statistical corrections for under-reporting. A review of existing Irish data would be useful at this point and should incorporate findings from a recent report on what constitutes a 'standard' drink in Ireland (Hope, 2009).

While the issue of under-reporting is often raised as a weakness of survey data, it is important to note that survey data provide essential information on who is drinking, what their drinking patterns are, how these are changing over time and what kinds of alcohol-related harm are being experienced. This information on context cannot be provided by data from other

sources. In recognition of the need to extend our knowledge even further, the STFA's 2004 report called for the establishment of an independent Research and Monitoring Unit in the field of alcohol to extend knowledge and build capacity in alcohol research, including drinking patterns, alcohol-related harm, effectiveness of alcohol policy measures and other relevant areas (Recommendation R9.1). If, in the current economic situation, this recommendation cannot be implemented in full, then at a minimum a liaison person/committee should be appointed to coordinate research activity with a view to extending and building knowledge.

In conclusion, each of the SLÁN surveys has provided valuable information about drinking patterns and alcohol-related harm at particular points in time (1998, 2002 and 2007), with the SLÁN 2007 survey providing the most comprehensive data yet. Taken together and considered alongside other relevant survey data, such as the HBSC surveys (also at 4-yearly intervals), the SLÁN surveys provide important information about the changing nature of alcohol consumption in Ireland. For effective policy to be developed and evaluated, ongoing monitoring is essential, while at the same time extending the survey methodology to incorporate recent findings relating to drinking context.

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APPENDIX 1:
Questions relating to alcohol in SLÁN 2007 Questionnaire (Section E)

Note: The full SLÁN 2007 Questionnaire is available at www.slan07.ie

E1 How often do you have a drink containing alcohol?

Never	Monthly or less	2-4 times a month	2-3 times a week	4 or more times a week
☐	☐	☐	☐	☐

E2a How long ago did you last have an alcoholic drink?

During the last week	☐
During the last month, but not in the last week	☐
Within the last 3 months, but not in the last month	☐
Within the last 12 months, but not in the last 3 months	☐
More than 12 months ago	☐ → *Go to E6*
Never had alcohol beyond sips or tastes	☐ → *Go to E6*

E2b How many drinks containing alcohol do you have on a typical occasion when you are drinking?

_____

A STANDARD DRINK IS:
– A HALF PINT OR A GLASS OF BEER, LAGER OR CIDER
– A SINGLE MEASURE OF SPIRITS (E.G. WHISKEY, VODKA, GIN)
– A SINGLE GLASS OF WINE, SHERRY OR PORT
– A BOTTLE OF ALCOPOPS (LONG NECK)

E3 How often do you have 6 or more (standard) drinks on one occasion?

Every day	5-6 times a week	2-4 times a week	Once a week	1-3 times a month	Less often	Never
☐	☐	☐	☐	☐	☐	☐

E4 During the past 7 days, how many standard drinks of any alcoholic beverage did you have each day?

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
_____	_____	_____	_____	_____	_____	_____
☐	☐	☐	☐	☐	☐	☐

E5 During the last 12 months, have you:	Yes	No
a. Got into a fight when you had been drinking	☐	☐
aa. Been in an accident of any kind when you had been drinking	☐	☐
b. Ever felt that you should cut down on your drinking	☐	☐
c. Regretted something you said or did after drinking	☐	☐
d. Felt that your drinking harmed your friendship or social life	☐	☐
e. Felt that your drinking harmed your home life or marriage	☐	☐
f. Felt that your drinking harmed your work or studies	☐	☐
g. Felt that your drinking harmed your health	☐	☐

E6 During the last 12 months, have you experienced any of the following problems as a result of someone else's drinking?

	Yes	No
a. Had family problems or marriage difficulties due to someone else's drinking	☐	☐
b. Been a passenger with a driver who had too much to drink	☐	☐
c. Been pushed or hit or assaulted by someone who had been drinking	☐	☐
d. Had financial trouble because of someone else's drinking	☐	☐

E7 During the last 12 months, have you ever driven a car after consuming 2 or more (standard) alcoholic drinks?

Yes ☐ No ☐ Do not normally drive ☐

APPENDIX 2:
The Alcohol Use Disorders Identification Test – Consumption (AUDIT-C)

The Alcohol Use Disorders Identification Test – Consumption (AUDIT-C) is an abbreviated version of the WHO AUDIT questionnaire (Bush *et al*, 1998). The original AUDIT questionnaire consists of 10 items (Saunders *et al*, 1993), while the AUDIT-C version uses the first 3 items to examine (1) frequency of drinking; (2) volume consumed; and (3) binge drinking. The SLÁN 2007 Questionnaire measures these items in Questions E1, E2b and E3 respectively (*see Appendix 1*).

The AUDIT-C is scored on a scale of 0-12 (scores of 0 reflect no alcohol use). The risk of being alcohol-dependent and experiencing medical problems due to drinking increases as AUDIT-C scores increase. Unlike other measures, the AUDIT-C will identify many patients who are not alcohol-dependent but who have a pattern of hazardous drinking. Non-dependent, hazardous drinkers account for most of the morbidity and mortality that is attributed to drinking.

The optimal screening thresholds are based on studies that use in-depth interviews to assess the patient's drinking and problems due to drinking. In the USA, scores of 4 for men and 3 for women have been found to be optimal for identifying those with hazardous drinking or active alcohol use disorders (Bradley *et al*, 2003; Bush *et al*, 1998).

In the present report on SLÁN 2007, the cut-off point of 5 has been adopted in line with recent European studies (Rosta, 2008) and the 'How much is too much?' study in the UK (Newcastle University, 2006).

APPENDIX 3:
Outline of methods for SLÁN and HBSC surveys

The methods used in the 1998, 2002 and 2007 SLÁN surveys are summarised in Table A3-1.

Table A3-1: Summary of methods for SLÁN surveys

	SLÁN 1998	SLÁN 2002	SLÁN 2007
Population	Adults aged 18+	Adults aged 18+	Adults aged 18+
Sampling frame	Electoral register	Electoral register	GeoDirectory
Sample	Multistage sample, drawn by electoral division	Multistage sample, drawn by electoral division	Multistage probability sample
Stratification	Percentage distribution across each of 26 counties, locality and gender	Percentage distribution across each of 26 counties, locality and gender	Percentage distribution across townlands. Age groups, social class and urban–rural location
Method	Self-completion questionnaire and self-completion of Food Frequency Questionnaire	Self-completion questionnaire and self-completion of Food Frequency Questionnaire	Face-to-face interview and self-completion of Food Frequency Questionnaire
Obtained sample*	6,539	5,992	10,364
Response rate	62%	53%	62%

* SLÁN 2007 also reports on 2 sub-samples: BMI/waist circumference (age 18-44) (n = 967) and physical examination (age 45+) (n = 1,207).

The Health Behaviour in School-aged Children (HBSC) Survey is a cross-national research study conducted in collaboration with the World Health Organization (WHO) Regional Office for Europe. It aims to provide current information on the health and lifestyles of children and adolescents. The study is school-based and runs on an academic 4-year cycle. Surveys were carried out in Ireland in 1997/98, 2001/02 and 2005/06. The study method is summarised in Table A3-2.

Table A3-2: Summary of method for Irish HBSC surveys

Population	School-going children, aged 10-17 years
Sampling frame	Department of Education and Science school lists
Sample	Cluster sample of pupils in a given classroom
Stratification	Proportionate to the distribution of pupils across geographic regions
Survey instrument	Self-completion questionnaire
Obtained sample	215 schools/10,334 pupils
Response rate	63% of invited schools/83% of pupils

APPENDIX 4:
World Health Organization
Strategies to reduce the harmful use of alcohol

Note: Full text is available at: www.who.int/topics/alcohol_drinking/en/

WHO strategies and policy element options to reduce alcohol-related harm include:

1. Raising awareness and political commitment.
2. Health sector response.
3. Community action to reduce the harmful use of alcohol.
4. Drink-driving policies and countermeasures.
5. Addressing the availability of alcohol.
6. Addressing marketing of alcoholic beverages.
7. Pricing policies.
8. Harm reduction.
9. Reducing the public health impact of illegally and informally produced alcohol.

The WHO *Draft Global Strategy to reduce harmful use of alcohol* is available at:
www.who.int/substance_abuse/activities/globalstrategy/en/index.html

APPENDIX 5:
Recommendations from Strategic Task Force on Alcohol (STFA) 2004 (extract)

Note: Full text of *Strategic Task Force on Alcohol. Second Report* (Department of Health and Children, 2004) is available at: www.dohc.ie/publications

S9. RESEARCH AND MONITOR PROGRESS

Ongoing research is essential to monitor alcohol and related problems across the general population and among high-risk groups. Evaluation of the implementation and outcomes of alcohol policy measures are necessary to provide a strong evidence base upon which to assess which policy measures are most effective and what further developments are appropriate.

R9.1 Establish an independent Research and Monitoring Unit in the field of alcohol to extend knowledge and build capacity in alcohol research: drinking patterns, alcohol-related harm, effectiveness of alcohol policy measures and other relevant areas.

R9.2 Continue to monitor the individual's drinking pattern by regular surveys (HBSC, ESPAD, CLAN, SLÁN).

R9.3 Continue to monitor the effects of alcohol-related problems at the population and individual level.

R9.4 Develop links with other public health agencies to share and exchange relevant alcohol-related information, such as the Health Research Board.

R9.5 Investigate opportunities to develop, with other international and national agencies, collaborative research projects.

R9.6 Develop criteria for all alcohol-funded projects against which effectiveness can be evaluated.

R9.7 Carry out evaluation of selected alcohol initiatives to establish a database of effective measures.

R9.8 Evaluate the effectiveness of alcohol-free alternatives as part of a community mobilisation project to reduce underage drinking.

R9.9 Evaluate alcohol-related attitudes and behaviour surrounding pregnancy.

R9.10 Research the qualitative aspects of young people's alcohol use and in particular high-risk drinking.