

Compendium

# Drinking (General Lifestyle Survey Overview - a report on the 2011 General Lifestyle Survey)

Includes chapters on health, smoking, drinking, households, families and access to vehicles.



Contact:  
Fiona Dawe  
socialsurveys@ons.gsi.gov.uk

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# 1 . Drinking

The General Household Survey (GHS) and the General Lifestyle Survey (GLF) have, between them, been measuring drinking behaviour for over 30 years. This chapter presents information on recent trends over time in drinking behaviour and detailed data for the 2011 survey year.

## How the data are used and their importance

The Department of Health estimates that the [harmful use of alcohol costs the National Health Service around £2.7 bn a year](#) and 7% of all hospital admissions are alcohol related. Drinking can lead to over 40 medical conditions, including cancer, stroke, hypertension, liver disease and heart disease. Reducing the harm caused by alcohol is therefore a priority for the Government and the devolved administrations. Excessive consumption of alcohol is a major preventable cause of premature mortality with [alcohol-related deaths](#) accounting for almost 1.5% of all deaths in England and Wales in 2011. The GHS/GLF is an important source for monitoring trends in alcohol consumption.

The GHS/GLF drinking data are widely used by universities and health organisations. The [School of Health and Related Research \(SchARR\)](#) at the University of Sheffield has used GHS/GLF data to carry out alcohol-related public health research. The [Public Health Observatories \(PHOs\)](#) also use GLF data on drinking to produce model-based estimates of alcohol consumption at local authority level to inform local decision making.

The survey is one of the main sources for GB statistics on health determinants and is therefore often used for international comparison. For example, GHS/GLF drinking data were used in the Organisation for Economic Co-operation and Development's (OECD) [Health at a Glance publication](#). This publication looks at the factors that affect the health of EU populations and the performance of health systems in these countries.

## Measuring alcohol consumption

Obtaining reliable information about drinking behaviour is difficult, and social surveys consistently record lower levels of consumption than would be expected from data on alcohol sales. This is partly because people may consciously or unconsciously underestimate how much alcohol they consume. Drinking at home is particularly likely to be underestimated because the quantities consumed are not measured and are likely to be larger than those dispensed in licensed premises.

There are different methods for obtaining survey information on drinking behaviour. One approach is to ask people to recall all episodes of drinking during a set period<sup>1</sup>. However, this is time-consuming and is not suitable for the GLF, where drinking is only one of a number of subjects covered.

On the 2011 GLF, respondents were asked two sets of questions about their drinking behaviour resulting in the following two measures of alcohol consumption:

- maximum amount drunk on any one day in the previous seven days;
- average weekly alcohol consumption

Questions to establish average weekly alcohol consumption were included on the GHS from 1986 and on the GLF from 2008. These questions ask respondents about their drinking behaviour in the 12 months before interview. The measure was developed in response to earlier medical guidelines suggesting maximum recommended weekly amounts of alcohol of 21 units for men and 14 units for women. Those guidelines have now been replaced by daily alcohol limits, and consequentially, this chapter will only present data on the maximum daily amount drunk last week as mentioned below. Data on the average weekly alcohol consumption, however, are available on the GLF datasets.

## Maximum daily amount drunk last week

Following the publication in 1995 of an inter-departmental review of the effects of drinking<sup>2</sup>, the questions on drinking in the week before interview were included in the GHS/GLF from 1998 onwards. The report advised that it was more appropriate to set benchmarks for daily rather than weekly consumption of alcohol, partly because of concern about the health and social risks associated with single episodes of intoxication. The levels of the limits were set after consideration of evidence of associations between alcohol consumption and increased risk of haemorrhagic stroke, hypertension and some types of cancer. The report concluded that regular consumption of between three and four units of alcohol a day for men and two to three units a day for women does not carry a significant health risk, but that consistently drinking above these levels is not advisable because of the progressive health risk it carries.

These questions ask respondents about their drinking behaviour in the seven days before interview. Specifically, people responding to the GLF are asked on how many days they drank alcohol during the previous week. They are then asked how much of each of six different types of drink (normal strength beer; strong beer; wine; spirits; fortified wines; and alcopops) they drank on their heaviest drinking day during the previous week. These amounts are converted to units of alcohol and summed to give an estimate of the number of units the respondent consumed on their heaviest drinking day.

## Recent changes in methodology

The conversion of volumes of alcoholic drinks to units of alcohol is based on assumptions about the size of a given measure (for example, a glass of wine) and the alcohol content of the type of drink, that is, the percentage of alcohol by volume (ABV). In recent years there have been changes to both of these factors and these have been reflected in revisions to the conversion method. The survey does not ask about the specific ABV of every alcoholic drink consumed but assumes an average for each type of drink. The revised method changed the number of units assumed to be in drinks in the 'normal strength beer, lager and cider' and 'strong beer, lager and cider' categories but the main impact was on drinks in the 'wine' category.

The revised method had a large impact on the estimates of units of alcohol consumed from wine because it changed both the assumed ABV of wine (from 9 to 12%) and the size of a glass of wine. Until 2006 a glass of wine was assumed to be 125 ml. Respondents are now asked whether they have consumed small (125 ml), standard (175 ml) or large (250 ml) glasses of wine. It is now assumed that a small glass contains 1.5 units, a standard glass contains 2 units and a large glass contains 3 units. Discussion of the impact of these changes on the estimates of consumption can be found in the report on the [2009 data](#).

## The results

The report presents both trends over time and estimates for 2011 on the frequency of drinking alcohol and the amounts consumed in the week before the interview. Data are also provided on the association between consumption of alcohol and characteristics of individuals such as sex, age, and socio-economic classification.

## Notes for Drinking

1. Goddard E (2001) 'Obtaining information about drinking through surveys of the general population', National Statistics Methodology Series NSM 24
2. Department of Health (1995) Sensible drinking: the report of an inter-departmental group.

## 2 . Trends in alcohol consumption over time

This chapter discusses trends in alcohol consumption since 2005. The estimates given in the commentary and the associated tabular output are based on the revised methodology for converting volumes consumed into units (as described in the earlier section). Data on trends under the old methodology and estimates prior to 2005 can be found in the 2009 [GLF Smoking and drinking among adults report](#).

### Trends in last week's drinking (2005-2011)

This section discusses the trend in the data that are based on the questions about drinking in the seven days before interview. Data for 2011 shows that the downward trend found in previous years has continued.

The proportion of men who reported drinking alcohol in the seven days before interview fell from 72% in 2005 to 66% in 2011. Similarly, the proportion of women who reported drinking alcohol in the seven days before interview fell from 57% to 54 % over the same period. In addition, the proportion of men who reported drinking alcohol on at least five days in the week before interview fell from 22% in 2005 to 16% in 2011. The proportion of women reporting drinking alcohol on at least five days in the week before interview fell from 13% to 9% over the same period.

[Table 2.1 \(192 Kb Excel sheet\)](#)

There is a downward trend in the proportions of men exceeding four units and women exceeding three units on their heaviest drinking day in the week before interview. The proportion of men exceeding four units on their heaviest drinking day was 41% in 2005 and 34% in 2011. The proportion of women exceeding three units was 34% in 2005 and 28% in 2011.

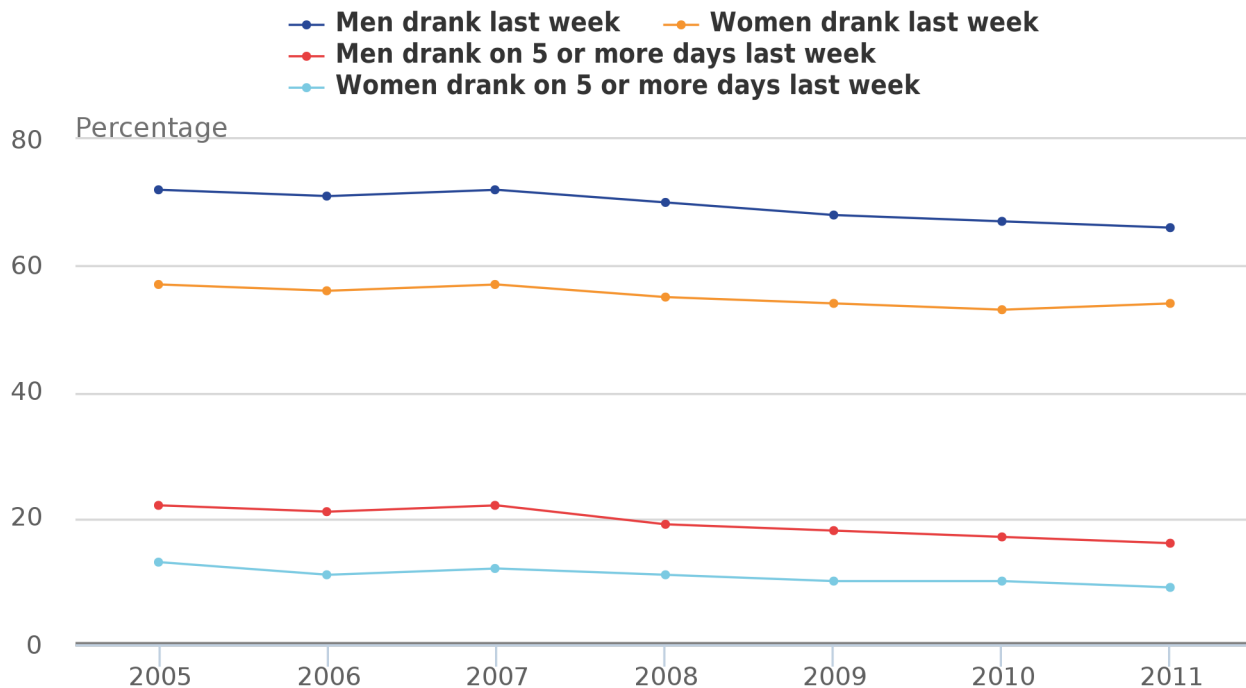
The estimates for heavy drinking follow a similar pattern. Heavy drinking is defined as exceeding twice the Government daily benchmarks on a single day: more than 8 units of alcohol on that day for men and consuming more than 6 units on that day for women. The proportion of men drinking more than 8 units on their heaviest drinking day fell from 23% in 2005 to 18% in 2011. The corresponding estimates for women drinking heavily (more than 6 units) were 15% in 2005 and 12% in 2011.

The most pronounced changes have occurred in the 16 to 24 age group. Among men in this age group, the proportion drinking more than 4 units on their heaviest drinking day fell from 46% in 2005 to 32% in 2011 and the proportion drinking more than 8 units decreased from 32% to 22% over the same period. There have also been marked falls for women in this age group with the proportion drinking more than 3 units on their heaviest drinking day falling from 41% in 2005 to 31% in 2011 and the proportion drinking more than 6 units falling from 27% to 18%.

[Table 2.2 \(192 Kb Excel sheet\)](#)

**Figure 2.1: Drinking in the last week by sex, 2005 to 2011**

Great Britain



Source: General Lifestyle Survey - Office for National Statistics

### 3 . Drinking in the week before interview in 2011

#### Frequency of drinking during the last week

Overall, 59% of adults reported that they had consumed alcohol in the seven days prior to interview. Men were more likely than women to have had an alcoholic drink in the week before interview: 66% of men and 54 % of women had had a drink on at least one day during the previous week. Men also drank on more days of the week than women: 16% of men and 9% of women had drunk on at least five of the preceding seven days. Also men were much more likely than women to have drunk alcohol every day during the previous week (9% compared with 5%).

The proportions of adults drinking during the last week also varied between age groups. Those in the youngest and oldest age groups (16 to 24 and 65 and over) were less likely than those in the other age groups to report drinking alcohol during the previous week. The proportion who had drunk alcohol in the previous week was lowest among women aged 65 and over; 42% of whom had done so, compared with 63% of men in that age group and 60% of women aged 45 to 64.

The age group with the highest proportion of people not drinking at all in the last week was the 16 to 24 group (50%). The proportion of adults who drank every day increased with each age group; just 1% of the 16 to 24 age group had drunk every day during the previous week. This increased to 4% in the 25 to 44 group and then to 9% in the 45 to 64 age group and 13% in the 65 and over age group.

[Table 2.3 \(192 Kb Excel sheet\)](#)

## Maximum daily amount drunk last week

In Table 2.4, three measures of maximum daily consumption are recorded. The first is the proportion of men exceeding four units and women exceeding three units of alcohol on their heaviest drinking day. This measure is based on the government recommendations that men should not regularly drink more than three to four units and women more than two to three units of alcohol a day. In the following sections this measure will be referred to as drinking more than '4/3 units'. The second measure is intended to indicate heavy drinking that would be likely to lead to intoxication (sometimes referred to as binge drinking<sup>13</sup>) and is set at more than eight units on one day for men and more than six units for women and is referred to as drinking more than '8/6 units'. The third measure indicates very heavy drinking and is set at more than 12 units for men and more than 9 units for women and is referred to as drinking more than '12/9 units'. Very heavy drinking is exceeding three times the government recommended benchmarks for men and women.

The proportion of adults who exceeded 4/3 units of alcohol on at least one day during the previous week was higher for men (34%) than it was for women (28%). Similarly, the proportion drinking heavily was also greater for men (18%) than for women (12%) as was the proportion drinking very heavily (9% of men and 6% of women).

It was noted earlier that older people tend to drink more frequently than younger people. However, among both men and women, those aged 65 and over were significantly less likely than respondents in other age groups to have exceeded 4/3 units of alcohol on at least one day. For example, 20% of men over 65 exceeded four units on at least one day during the previous week. The estimates for the younger three age groups were 32%, 39% and 38% (16 to 24, 25 to 44 and 45 to 64 respectively). Among women, 12% of those aged 65 and over exceeded three units on at least one day and 31%, 34% and 33% of the younger three age groups (16 to 24, 25 to 44 and 45 to 64 respectively) did so.

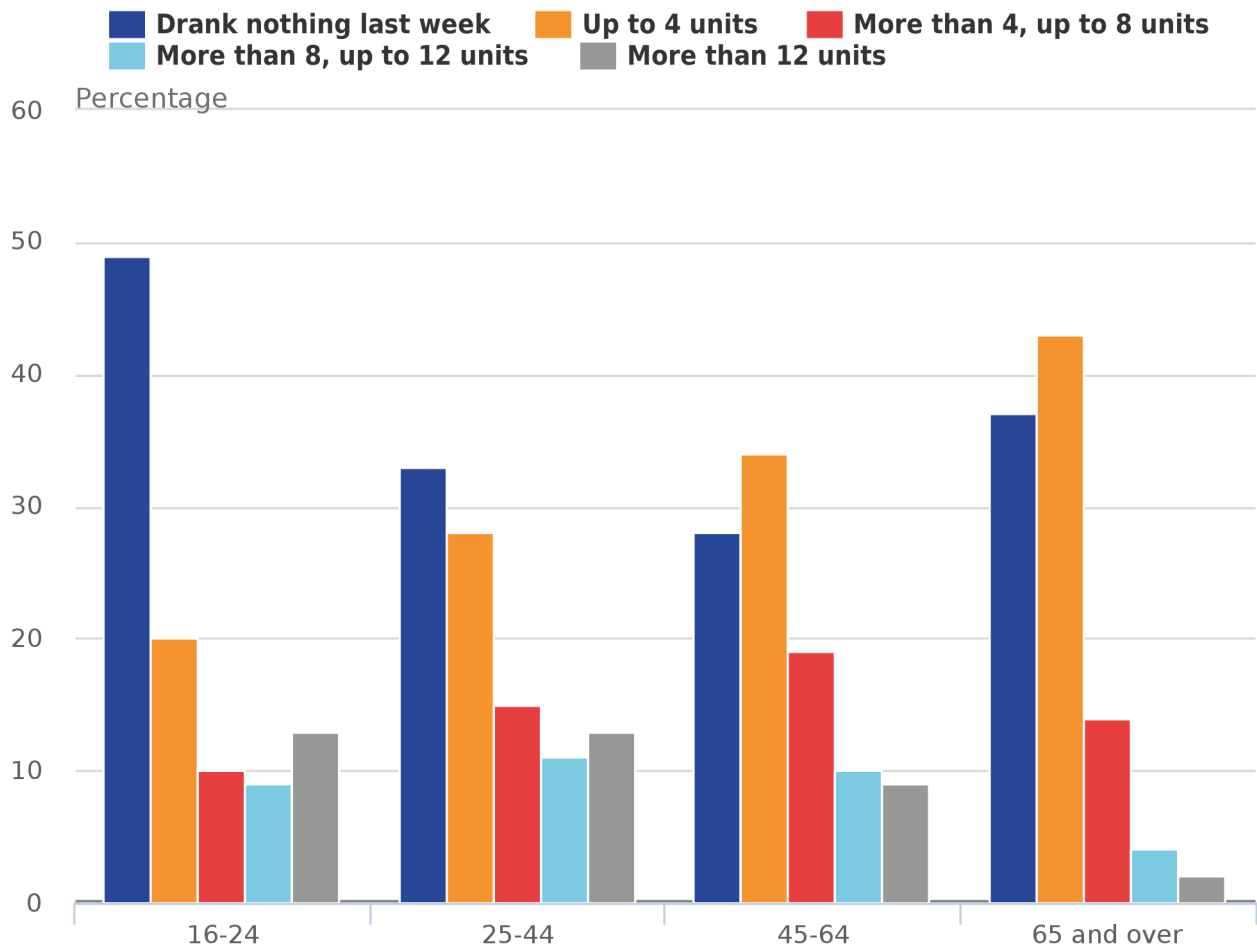
Similar patterns were evident for heavy drinking (exceeding 8/6 units) older people were less likely to drink heavily than younger people: 6% of men aged 65 and over had drunk heavily on at least one day during the previous week, compared with 19% of men aged 45 to 64, 24% of men aged 25 to 44 and 22% of men aged 16 to 24. Among women the estimates for the corresponding age groups were 2%, 12%, 16% and 18%.

Very heavy drinking (exceeding 12/9 units) was most prevalent in the 16 to 24 and 25 to 44 age groups. In the 16 to 24 age group, 13% of men and 12% of women drank more than 12/9 units, and 13% of men and 9% of women did so in the 25 to 44 group. In the 45 to 64 and 65 and over groups the estimates were 9% of men and 6% of women and 2% of men and 1% of women respectively. Overall, around half the people who drank heavily on at least one day in the week before interview (consumed more than twice the daily drinking benchmarks) drank very heavily on that day (consumed more than 3 times the benchmarks).

[Table 2.4 \(192 Kb Excel sheet\)](#)

Figure 2.2a: Men: Maximum amount drunk on any one day in the last week by age, 2011

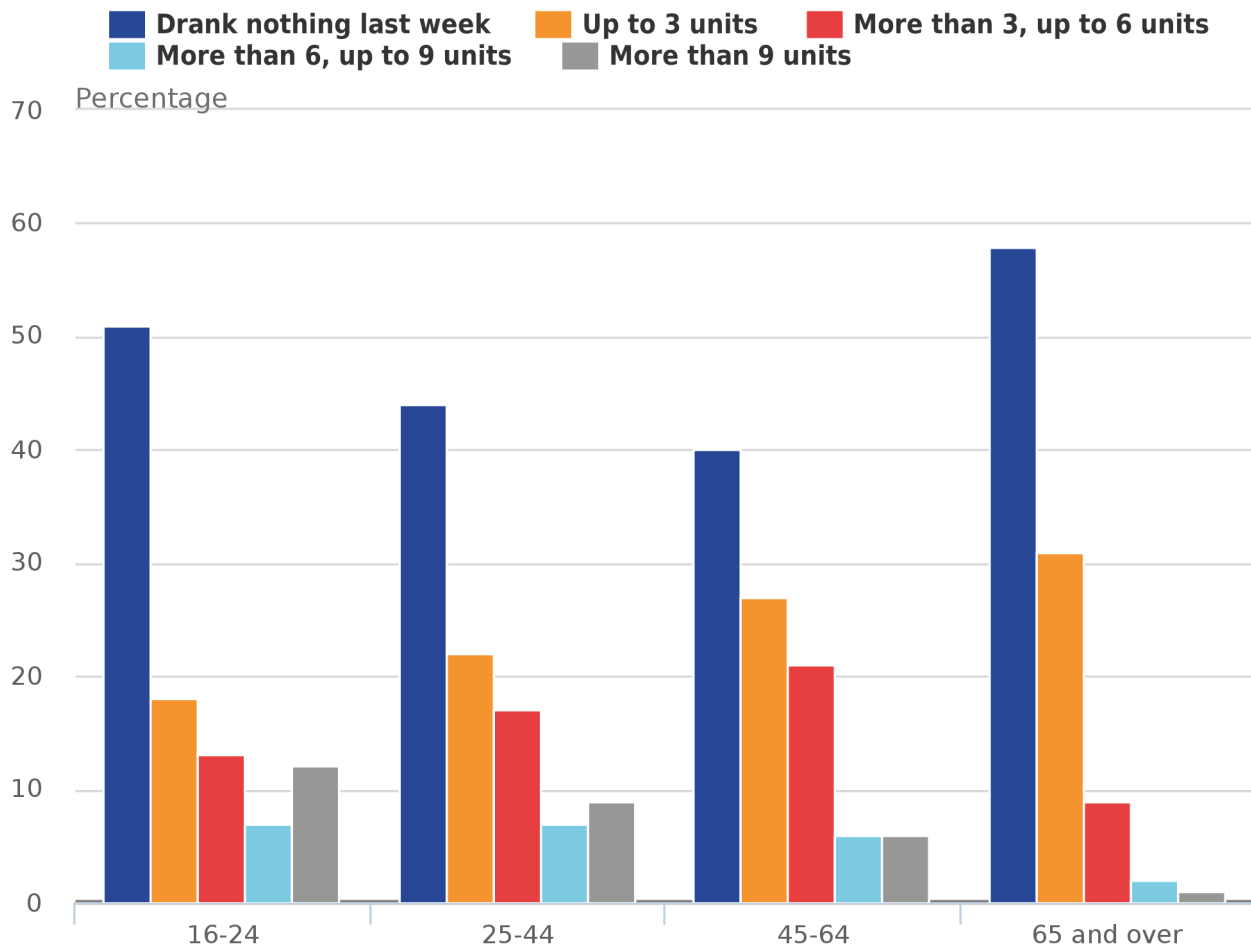
Great Britain



Source: General Lifestyle Survey - Office for National Statistics

**Figure 2.2b: Women: Maximum amount drunk on any one day in the last week by age, 2011**

Great Britain



Source: General Lifestyle Survey - Office for National Statistics

Table 2.5 shows the above analysis with those people who did not consume alcohol in the week before interview excluded. When looking only at those people who drank alcohol in the last week, over half (52%) consumed more than 4/3 units, a quarter (25%) consumed more than 8/6 units and 13% consumed more than 12/9 units on at least one day. The proportion exceeding 4/3 units varied with age group. In the 16 to 24 group, 62% of those who consumed alcohol in the last week consumed more than 4/3 units on their heaviest drinking day. In the 25 to 44 group 59% of adults exceeded 4/3 units, and 54% did so in the 45 to 64 age group. The proportion of drinkers exceeding 4/3 units was lowest, at 30%, in the 65 and over age group.

There were also differences between age groups in heavy drinking. In the 16 to 24 age group 40% of those who consumed alcohol in the last week consumed more than 8/6 units on their heaviest drinking day. The corresponding estimates for the other age groups were 32%, 23% and 8% (25 to 44, 45 to 64 and 65 and over respectively). These differences were largely due to differences in the proportions drinking very heavily in each age group. The corresponding estimates for proportion of adults consuming more than 12/9 units were 25%, 18%, 11% and 3% (16 to 24, 25 to 44, 45 to 64 and 65 and over age groups respectively).



For those who consumed alcohol in the week before interview, there was no statistically significant difference in the proportions of men and women who consumed more than 4/3 units on their heaviest drinking day (51% of men and 53% of women) but men were more likely than women to consume more than 8/6 units (27% compared with 22%) and more likely to consume more than 12/9 units on that day (14% compared with 12%). Differences between men and women varied with age group. In the 16 to 24 age group, there were no statistically significant differences between men and women in the proportion drinking more than 4/3 units or in the proportions drinking heavily. Within each of the other 3 age groups there was also no statistically significant difference between men and women in the proportions exceeding 4/3 units but men were more likely to drink heavily than women (36% of men and 29% of women drank heavily in the 25 to 44 age group, 26% of men and 21% of women in the 45 to 64 group, and 10% of men and 5% of women in the 65 and over group).

[Table 2.5 \(192 Kb Excel sheet\)](#)

## Drinking last week and socio-economic characteristics

Households where the household reference person was classified as managerial and professional had the highest proportions of both men and women who had an alcoholic drink in the last seven days (75% and 64% respectively). The lowest proportions were observed for men and women in households where the HRP was in a 'routine and manual' occupation (59% and 43%). There was a similar pattern in the proportions drinking on five or more days in the previous week. For example, 16% of adults who were living in a household where the HRP was in a 'managerial and professional' occupation had an alcoholic drink on five or more days in the previous week. In households where the reference person was in an occupation in the 'routine and manual' classification, this proportion was lowest, at 9%.

[Table 2.6 \(192 Kb Excel sheet\)](#)

The classifications mentioned above can be further subdivided as shown in Tables 2.6 and 2.7. Women in households where the HRP was in a 'large employer and higher managerial' occupation were nearly twice as likely as those in households where the HRP was in an occupation in the 'routine' group to have drunk more than three units of alcohol on any one day (39% compared with 20%). They were also twice as likely to have drunk heavily (more than 6 units of alcohol) on at least one day in the previous week (16% compared with 8%). A similar but less pronounced pattern was seen for men. Among men living in households where the HRP was in an occupation in the 'large employer and higher managerial' 43% exceeded four units of alcohol on their heaviest drinking day in the week before interview. Among men living in households where the HRP was in an occupation in the 'routine' group the estimate was 31%. Men who lived in a household where the HRP was in the 'large employer and higher managerial' group were also more likely to have drunk heavily (more than 8 units of alcohol) on at least one day in the previous week than those living in a household where the HRP was in the 'routine' group (24% compared with 16%).

Overall, the proportion of adults exceeding 4/3 units of alcohol was greater among those living in households where the HRP was in the 'managerial and professional' group (36%) than among those living in households where the HRP was in the 'routine and manual' group (26%); the proportion drinking heavily (exceeding 8/6 units) was also greater in households where the HRP was in the 'managerial and professional' group (18%) than in the 'routine and manual' group (13%).

[Table 2.7 \(192 Kb Excel sheet\)](#)

## Drinking last week and smoking status

Smokers were more likely than non-smokers to have consumed more than 4/3 units of alcohol on at least one day in the week before interview. Among men, 42% of smokers drank more than four units of alcohol on at least one day compared with 33% of non-smokers. For women, 38% of smokers and 26% of non-smokers drank more than 3 units of alcohol on at least one day. Smokers were also more likely than non-smokers to have had a heavy drinking day (exceeding 8/6 units of alcohol) in the week before interview. Among smokers, 25% of men and 21% of women drank heavily on at least one day and the corresponding estimates for non-smokers were lower at 17% of men and 10% of women.

[Table 2.8 \(192 Kb Excel sheet\)](#)

## Drinking last week in urban and rural areas

The Rural/Urban Definition, an Official National Statistic introduced in 2004, defines the rurality of very small census based geographies. Census Output Areas forming settlements with populations of over 10,000 are urban, while the remainder are defined as rural.

Adults living in rural areas were more likely to have consumed more than 4/3 units of alcohol on at least one day in the week before interview than those living in urban areas. The proportion of adults who exceeded 4/3 units was 33% in rural areas and 30% in urban areas. This difference was driven by the 25 to 44 age group. In this age group, 43% of adults in rural areas consumed more than 4/3 units of alcohol compared with 35% in urban areas.

[Table 2.9 \(192 Kb Excel sheet\)](#)

## Drinking last week and household income

The proportion of people who drank alcohol in the week before interview increased as household income increased. In households in the lowest 20% quintile, 45% of adults drank alcohol in the previous week and 9% did so on 5 or more days whereas in the highest income quintile, 77% of adults drank in the previous week and 18% did so on 5 or more days.

[Table 2.10 \(192 Kb Excel sheet\)](#)

The proportions of adults exceeding 4/3 units of alcohol and drinking heavily (exceeding 8/6 units) tended to rise with increasing gross weekly household income. In households in the lowest income quintile 22% of adults exceeded 4/3 units of alcohol and 10% drank heavily (exceeded 8/6 units) on at least one day in the previous week. Adults living in households in the highest income quintile were twice as likely to have exceeded 4/3 units of alcohol and were twice as likely to have drunk heavily as adults in households in the lowest income quintile (44% and 23% compared with 22% and 10%).

[Table 2.11 \(192 Kb Excel sheet\)](#)

## Drinking last week, economic activity and earnings from employment

Variations in alcohol consumption by economic status reflect differences in both the income and age profiles of the groups. Among men aged 16 to 64, those in employment were most likely to have drunk alcohol during the previous week – 73% had done so compared with 46% of the unemployed and 47% of those who were economically inactive. Working men were more likely than unemployed and economically inactive men to have drunk more than 4 units of alcohol on one day – 41%, compared with 25% and 26% respectively. Working men were also more likely than unemployed and economically inactive men to have drunk heavily (more than 8 units) on one day – 24% for working men in comparison to 14% for both unemployed and economically inactive men.

Among women aged 16 to 64, 61% of those who were working, 53% of those who were unemployed, and 46% of those who were economically inactive had drunk alcohol in the previous week. Working women were more likely than the economically inactive to have drunk more than 3 units of alcohol on one day - 36%, compared with 24%. Working women were also more likely than the economically inactive to have drunk heavily (more than 6 units) on one day - 16 %, compared with 10%.

[Tables 2.12 and 2.13 \(192 Kb Excel sheet\)](#)

Among those aged 16 to 64 and working full time, drinking behaviour showed a similar pattern of association with earnings from employment as it did with household income. The prevalence of alcohol consumption was highest among those earning the most. In the highest earnings quintile 82% of adults had consumed alcohol in the week before interview and 21% had consumed it on 5 or more days in that week. In the lowest earnings quintile 60% of adults had consumed alcohol in the week before interview and 13% had done so on 5 or more days.

[Table 2.14 \(192 Kb Excel sheet\)](#)

High earners were also more likely to exceed 4/3 units of alcohol than low earners. For example, 52% of adults in the highest earning quintile exceeded 4/3 units compared with 36% of those in the lowest quintile. The relationship between earnings and heavy drinking is similar. In the highest earning quintile 29% of adults drank heavily (exceeding 8/6 units) on at least one day in the week before interview whereas in the lowest quintile this was much lower at 20%.

[Table 2.15 \(192 Kb Excel sheet\)](#)

## Variation in drinking last week between countries and regions

In 2011 a higher proportion of men (67%) and women (54%) in England consumed alcohol in the week before interview than in Scotland (56% and 48% respectively). Men in England and men in Wales (17% and 18% respectively) were more likely than men in Scotland (9%) to have had an alcoholic drink on at least five days in that week. There were, however, no significant differences between the countries in the proportions of adults consuming over 4/3 units on their heaviest drinking day or in the proportions drinking heavily. It should be noted, however, that the countries of Great Britain also conduct their own health surveys that include questions on drinking and that results between surveys can differ .

When comparing the regions of England, adults in London had the lowest prevalence of drinking in the week before interview (53%) and adults in the South West had the highest (66%). The highest proportions of adults exceeding 4/3 units of alcohol on their heaviest drinking day were found in the North West, North East and in Yorkshire and the Humber regions (36%, 35% and 35 % respectively of adults). The lowest proportions exceeding 4/3 units of alcohol respectively were in the West Midlands, the East Midlands and the East of England (25%, 27% and 28% of adults). Yorkshire and the Humber and the North West regions showed the highest levels of heavy drinking (20% and 18% of adults exceeded 8/6 units on their heaviest drinking day) while the West Midlands, East Midlands and the East of England regions showed the lowest at 10%, 12% and 12%.

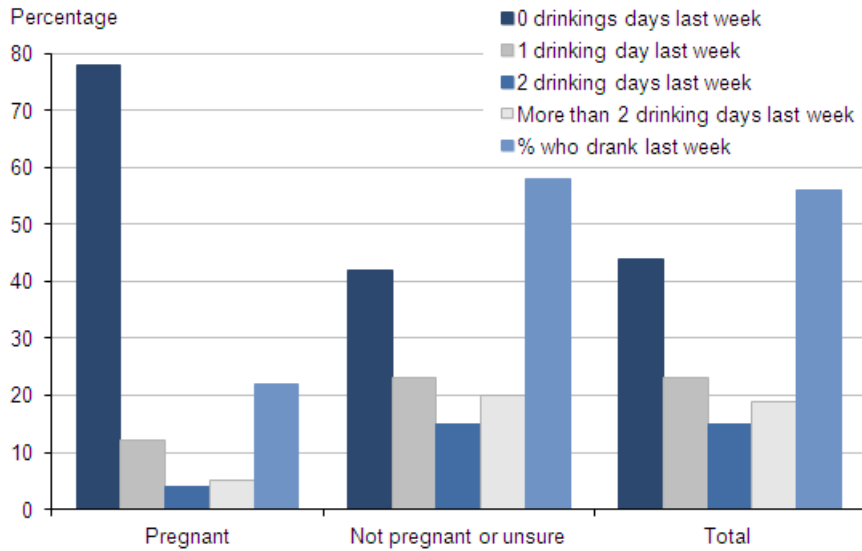
[Tables 2.16 and 2.17 \(192 Kb Excel sheet\)](#)

## 4 . Drinking during pregnancy

Current advice from the National Institute for Health and Clinical Excellence is that women should avoid drinking alcohol in the first 3 months of pregnancy if possible because it may be associated with an increased risk of miscarriage. If women choose to drink alcohol during pregnancy they are advised to drink no more than 1 to 2 units once or twice a week. It can be seen from Tables 2.25 and 2.26 that the vast majority of women heed this advice: 5% of pregnant women drank alcohol on more than 2 days in the week before interview (compared with 20% of women aged 16 to 49 who were not pregnant or unsure) and 9% of pregnant women consumed more than 2 units on their heaviest drinking day in that week (compared with 42% of women aged 16 to 49 who were not pregnant or unsure).

[Tables 2.18 and 2.19 \(192 Kb Excel sheet\)](#)

**Figure 2.3: Percentage whether drank in the last week and number of drinking days by pregnancy, 2011**



Source: General Lifestyle Survey - Office for National Statistics

## 5. Background notes

1. Details of the policy governing the release of new data are available by visiting [www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html](http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html) or from the Media Relations Office email: [media.relations@ons.gsi.gov.uk](mailto:media.relations@ons.gsi.gov.uk)