

Chapter 4: The use of alcohol in Europe

The EU is the heaviest drinking region of the world, although the 11 litres of pure alcohol drunk per adult each year is still a substantial fall from a recent peak of 15 litres in the mid-1970s. The last 40 years have also seen a harmonization in consumption levels in the EU15, where rises in central and northern Europe between 1960 and 1980, were met by a consistent fall in southern Europe. Average consumption in the EU10 is also closer to the EU15 than ever before, although substantial variation remains within the EU10. Most Europeans drink alcohol, but 55 million adults (15%) abstain; taking this and unrecorded consumption into account, the consumption per drinker reaches 15 litres per year. Abstinence appears to have decreased in northern Europe and stayed constant elsewhere, suggesting that abstinence and consumption levels move relatively independently.

Just under half of this alcohol is consumed in the form of beer (44%), with the rest divided between wine (34%) and spirits (23%). Within the EU15, northern and central parts drink mainly beer, while those in southern Europe drink mainly wine (although Spain may be an exception). This is a relatively new phenomenon, with a harmonization visible over the past 40 years in the EU15. Around 40% of drinking occasions in most of the EU15 are consumed with the afternoon/evening meal, although those in southern Europe are much more likely to drink with lunch than elsewhere. While the level of daily drinking also shows a north–south gradient, non-daily frequent consumption seems to be more common in central Europe, and there is evidence for a recent harmonization within the EU15.

Drinking to drunkenness varies across Europe, with fewer southern Europeans than others reporting getting drunk each month. This pattern is attenuated when 'binge-drinking', a measure of drinking beyond a certain number of drinks in a single occasion, is instead investigated, suggesting that there are systematic differences in either or both of people's willingness to report being intoxicated or the length of a 'single occasion'. The studies of binge-drinking also show occasional exceptions to the north-south pattern, in particular suggesting that Sweden has one of the lowest rates of binge-drinking in the EU15. Summing up across the EU15, adults report getting drunk 5 times per year on average but binge-drink 17 times. This is equivalent to 40m EU15 citizens 'drinking too much' monthly and 100m (1 in 3) binge-drinking at least once per month. Much fewer data are available for the EU10, but that which exists suggests that some of the wine-drinking is replaced by spirits, the frequency of drinking is lower, and the frequency of binge-drinking higher than in the EU15.

While 266 million adults drink alcohol up to 20g (women) or 40g (men) per day, over 58 million adults (15%) consume above this level, with 20 million of these (6%) drinking at over 40g (women) or 60g per day (men). Looking at addiction rather than drinking levels, we can also estimate that 23 million Europeans (5% of men, 1% of women) are dependent on alcohol in any one year.

In every culture ever studied, men are more likely than women to drink at all and to drink more when they do, with the gap greater for riskier behaviour. It is hard to find evidence that this gender gap has decreased for most aspects of drinking, although the gender gap in drunkenness is lowest in young adults. Although many women give up alcohol when pregnant, a significant number (25%-50%) continue to drink, and some continue to drink to harmful levels. Patterns in drinking behaviour can also be seen for socio-economic status (SES), where those with lower SES are less likely to drink alcohol at all. Despite a complex

picture for some aspects of drinking (with some measures showing opposite trends for men and women), getting drunk and becoming dependent on alcohol are both more likely among drinkers of lower SES.

Nearly all 15-16 year old students (>90%) have drunk alcohol at some point in their life, on average beginning to drink at 12½ years of age, and getting drunk for the first time at 14 years. The most common place for them to have drunk alcohol is at their own or someone else's home, although sizeable numbers also drink in outdoor public spaces and bars. The average amount drunk on a single occasion by 15-16 year olds is over 60g of alcohol, and reaches nearly 40g even in the lower-consuming (for 15-16 year olds) south of Europe. Over 1 in 8 (13%) of 15-16 year olds have been drunk more than 20 times in their life, and more than 1 in 6 (18%) have 'binged' (5+ drinks on a single occasion) three or more times in the last month. Although two countries saw more drunkenness on some measures in girls than boys for the first time in 2003, boys continue to drink more and get drunk more often than girls, with little reduction in the absolute gap between them overall.

Most countries show a rise in binge-drinking for boys from 1995/9 to 2003, and nearly all countries show this for girls (similar results are found for non-ESPAD countries using other data). This is due to a rise in binge-drinking and drunkenness across most of the EU 1995-9, followed by a much more ambivalent trend since (1999-2003). A narrowed gap between the EU10 and EU15 is also visible for binge-drinking and drunkenness, due to both the size of the changes and a continued rise in parts of the EU10, particularly for girls, and accompanied by rises in other aspects of consumption (e.g. last occasion consumption). Trends are more ambivalent for many other aspects of drinking, however, such as frequency of drinking and estimated total consumption. While there is, therefore, no evidence that young people's use of alcohol has increased in the last decade, it does appear that there is a trend towards increased risky use, particularly in the EU10.

THE POPULATION LEVEL OF DRINKING

The European Union is the heaviest drinking region of the world, with each adult drinking 11 litres of pure alcohol each year – a level over two-and-a-half times the rest of the world's average (WHO 2004).¹ This high level is in fact a considerable fall from the highest point of over 15 litres in the mid-1970s, a peak which followed a period of rising consumption levels across most of Europe. Since then there has been a general plateau across Europe, with the exception of a substantial fall in the wine-producing countries of southern Europe, and a continuing rise in alcohol consumption in Ireland. This contrasts with persistently rising alcohol consumption in south-east Asia and the western Pacific (see Figure 4.1), although drinking in the Americas (at just under 7 litres), the next highest-consuming world region, follows a similar trend to Europe.

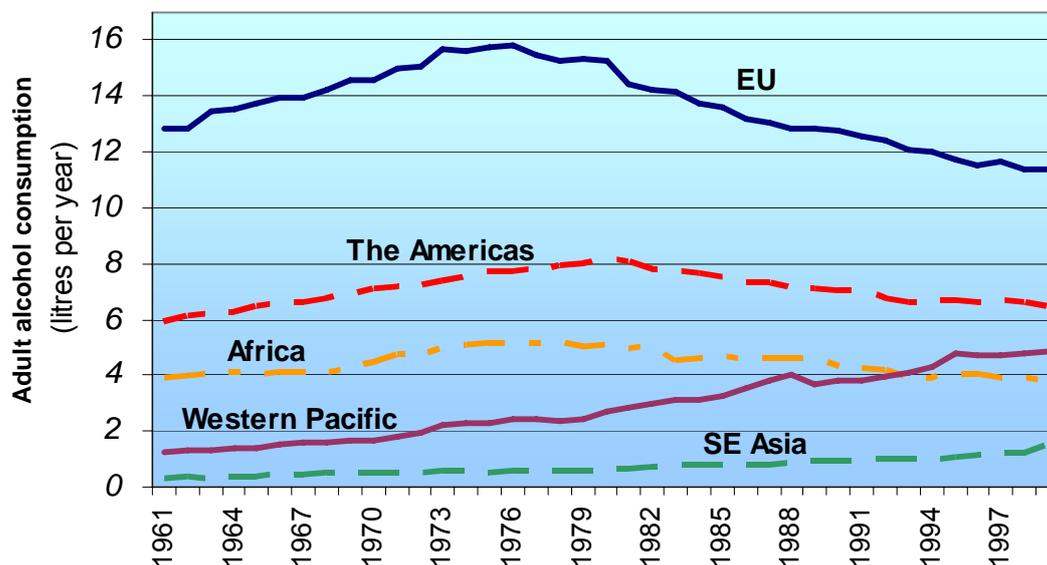


Figure 4.1 Europe and the world's drinking Sources: *Global Status Report on Alcohol (WHO 2004)*; EU figures are taken from *WHO Health for All Database* and *WHO Global Alcohol Database* (as below). Averages are population-weighted.

Within the EU there is a considerable variation in levels of recorded consumption, with Luxembourg drinking two-and-a-half times as much per adult as Malta, and even lower levels visible in non-EU European countries such as Iceland, Norway and Turkey. Recorded alcohol consumption is slightly lower in the EU10 (10½ litres) than the EU15 (11½), and is noticeably lower in three of the Nordic countries (Iceland, Norway and Sweden) than the rest of the EU15.

¹ Values are all per adult (defined as at least 15 years old) to compensate for greater numbers of pre-drinkers in some countries. Global comparisons are taken from the *Global Status Report on Alcohol (WHO 2004)*. All trend data is from the WHO's *Global Alcohol Database (1961-99)*, supplemented by all recent (2002) European data from the WHO's *Health For All Database (HFA)*. It should be noted that the two trend sources sometimes diverge, in particular with the HFA showing spirits consumption in Portugal as around 2 litres lower over 1970-99. Portugal's result should therefore be treated with some caution; for related reasons, the same cautions also apply to Cyprus and Malta (see also Gual and Colom 1997:S22-4).

However, these figures miss out any alcohol that comes from smuggling, home production and cross-border shopping as well as failing to adjust for drinks bought by tourists rather than residents (Trolldall 2001; Leifman 2001a). Although unrecorded consumption is by its nature difficult to measure, illicit and cross-border consumption seem to be highest in eastern Europe (particularly the Baltic countries, Bulgaria, Poland, and Slovenia), where it is estimated to reach 5 litres per adult per year.

Considering all forms of consumption then, the average EU adult drinks 13 litres of alcohol per year – with EU10 adults drinking two litres more than those in the EU15 (see Figure 4.2).²

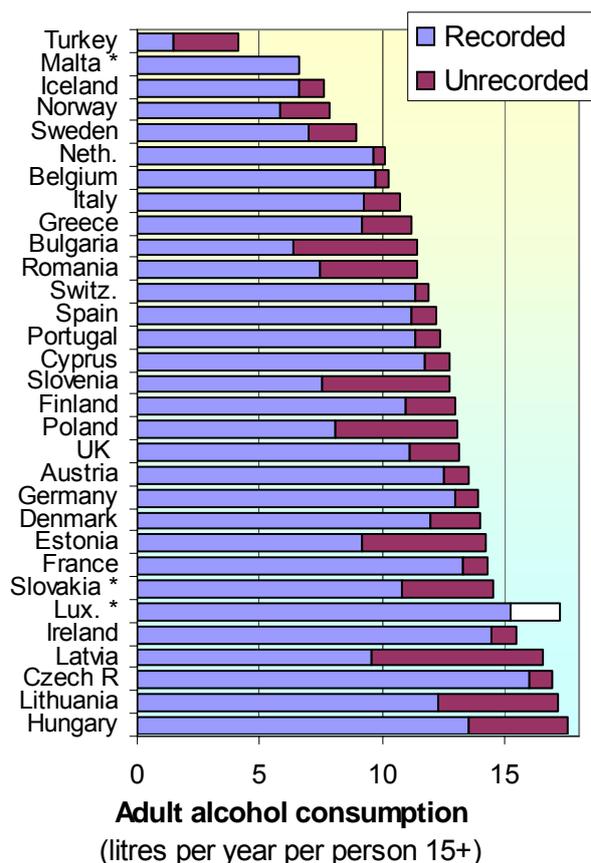


Figure 4.2 Alcohol consumption in Europe, 2002

Sources: WHO Health for All database and WHO GBD study (Rehm et al 2004).

* No estimate available for unrecorded consumption in Malta; APN update of WHO figures used for Slovakia; unrecorded consumption in Lux. is minus 2 litres due to tourist consumption.

Abstinence and consumption per drinker

As well as comparing the average amount drunk per European adult, it is also important to discount the people who abstain from alcohol and consider how much the average drinker consumes. The broad category of 'non-drinkers' includes a number of different drinking histories, including people who have never drunk alcohol in their life and people who were once heavy drinkers but who gave up alcohol for health reasons, as well as other more complex histories. A problem arises in defining people who only drink very occasionally (e.g. champagne on special events), who may say they do not drink in one culture (e.g. Spain) but will consider themselves occasional drinkers in another (e.g. Norway; see Allamani 2001). Conversely, data from the 1970s suggests that a small but still significant number (10%-15%) of those in temperance cultures who define themselves politically as abstainers will nevertheless report drinking at least once in the past year (Lindgren 1973).

² At the time of printing, the Estonian Institute of Economic Research provided data on recorded and unrecorded consumption, adjusted for tourism purchases, which differed from the Estonian data used in Figure 4.2 and for this report.

Box 4.1 – SOURCES ON ALCOHOL CONSUMPTION IN EUROPE

Making alcohol policy in Europe requires comparative data across the countries (and regions) of Europe, which this chapter reviews and summarises. However, it should be noted that there are substantial difficulties in making comparisons across different cultural contexts using studies conducted in different languages:

- **Interpretation:** questions may be interpreted differently depending on the prevailing language and culture. For example, there are numerous words or expressions referring to intoxication, with varied meanings (Cameron 2000). The EuroHIS project (Raitasalo 2004) also found that countries where alcohol is more related to the rhythms of everyday life can use routines to help answer questions (although they may also need help in understanding terms) – for example, respondents in the UK had greater difficulty answering questions than those in France or Germany (Simpura 2002).
- **Underreporting:** all surveys of drinking find that the reported total alcohol consumed is less than sales records show (typically in the range 40%-60%; Bloomfield et al. 2003). A necessary assumption for making international comparisons is that the level of under-reporting is constant, but this is unlikely to be strictly true (see also for ECAS).
- **Methodology (other):** more generally, comparative surveys in all fields must contend with variations in sampling practices, response rates, and the way fieldwork is conducted across varying cultural contexts (Simpura, Karlsson and Leppanen 2001; Leifman 2002b; Hibell et al. 2004).

The sources used also differ in the robustness of the results. Key comparative sources are therefore discussed briefly in turn:

- **WHO-EURO Health for All database:**

Information on recorded consumption is taken from several sources (including the market research organization WARC), with WHO-EURO staff deciding on the most robust data. Nevertheless, unexplained differences remain between this and the WHO central office's Global Alcohol Database for some countries (e.g. Portugal).

- **WHO Global Status Report on Alcohol:**

The Global Status Report (GSR) presents a variety of data for each European country, together with information (where available) on sample sizes and the target population. However, the reported figures are rarely the result of studies that were designed for international comparison, and there are likely to be many methodological differences. Wherever possible, data have been checked against other studies and profiles provided by members of the Alcohol Policy Network (see Chapter 1) by the present authors, but differences of data within countries may remain.

- **WHO Global Burden of Disease study:**

The Comparative Risk Assessment within the WHO's Global Burden of Disease study (GBD) was designed to estimate the burden of ill-health due to different risk factors in the WHO sub-regions. As part of this, estimates of drinking variables were made which have been used here where no other data are available (including unrecorded consumption and drinking levels). However, the estimates are of sometimes questionable validity due to lack of data and (in the case of drinking levels) are only available for the sub-region as a whole, with the results subsequently scaled on a population-basis to the EU.

BOX 4.1 – SOURCES ON ALCOHOL CONSUMPTION IN EUROPE (CONTINUED)

- **ESPAD** $n=2000-5,000$ per country among people aged 15-16 years
- **HBSC** $n=800-3,000$ per age-group per country at ages 11, 13 and 15 years

These two surveys among young people have been repeated and use international centres to standardize the data (ESPAD funded by the Pompidou Group (within the Council of Europe) and the Swedish governmental organization CAN; HBSC from the WHO). It should be borne in mind that these surveys represent only school students rather than the full population of young people. In the ESPAD countries of Bulgaria, Estonia, Portugal and Turkey, for example, there are less than 85% of the age group in schooling, but in all other countries the figure was 85%-100%.

- **Eurobarometer** $n = 1000$ per country among adults aged 15 or above

This is primarily a public opinion survey conducted regularly for the European Commission by market research agencies. It has included modules on alcohol consumption on several occasions (1988, 1990, 1992 and 2003), but there are some concerns relating to the lack of a dedicated focus on alcohol or health.

- **ECAS** $n = 1,000$ per country among adults aged 18-64

Although conducted within the framework of a comparative project with much expertise in the area of alcohol surveys, there are a large number of methodological concerns with the European Comparative Alcohol Study (ECAS) survey. These include large variations in response rates and underreporting (the latter from 30%-90%) as well as sampling variations between countries. Comparisons of ratios among sub-groups are preferable; comparisons between countries (shown where necessary due to lack of data) must therefore be done with considerable reservations.

- **GENACIS** $n = 1,300-10,000$ per country among adults aged 20-64

Note: The recently published GENACIS final report was unpublished at the time that this chapter was principally written. While draft versions of several GENACIS papers were used for this report (and have since been checked against the final version), this has meant that none of the figures in this report use GENACIS data. Comparability: While the majority of questions in GENACIS were designed to be comparable across Europe, response categories were often differently constructed across countries (e.g. offering different time periods in response to the same question). The survey years and modes vary (e.g. 1997-2002, plus Austria in 1993), and three samples are regional rather than national (Netherlands, Italy, Spain). As in ECAS, there are large variations in underreporting (18% in Hungary to 69% in Italy after accounting for unrecorded consumption).

- **EPIC** $n = 100-2,000$ per region; convenience sample of adults aged 35-74

A sub-sample of the European Prospective Investigation into Cancer and Nutrition (EPIC) investigated alcohol consumption through 24-hour dietary recall between 1995-8 (1999-2000 in Norway). However, due to severe methodological concerns (e.g. the use of largely regional samples and convenience sampling methods) and the unusual age-range (35-74), this source has not been used within this chapter; interested readers should instead refer to Klipstein-Grobusch et al (2002) and Sieri et al (2002).

While these data are necessarily used to create a comparative picture within Europe, it should be realised that all of the adult surveys have substantial limitations. Results from a single survey should therefore be treated highly cautiously without other supporting data.

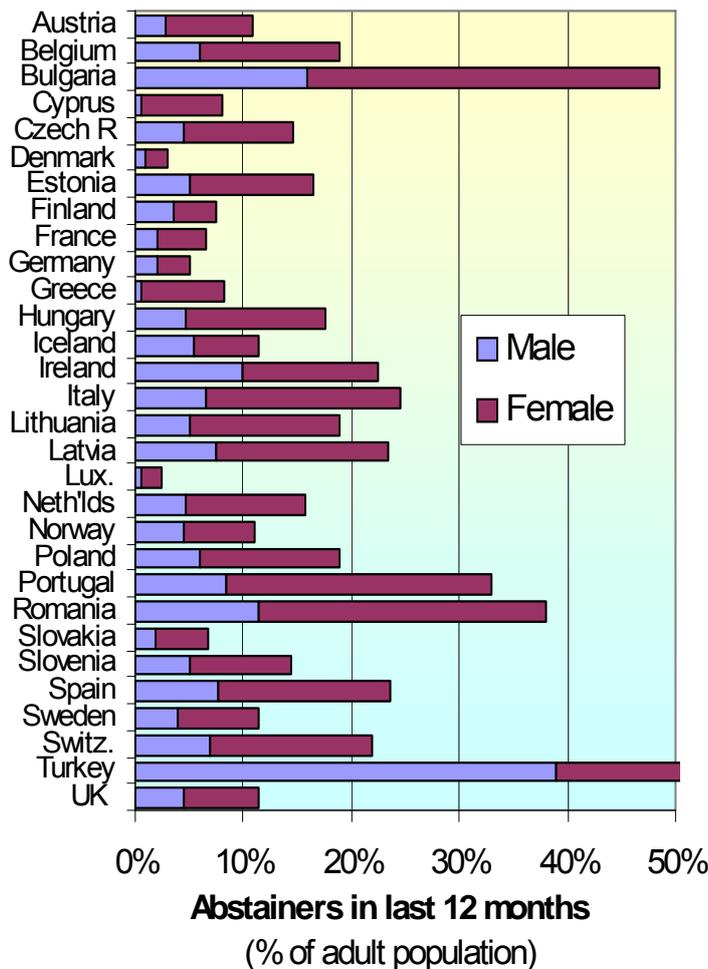


Figure 4.3 Abstention rates in Europe ²

The shading within each bar shows the relative proportions of male and female abstainers. E.g. in Austria 11% are abstainers, of which ³/₄ are women

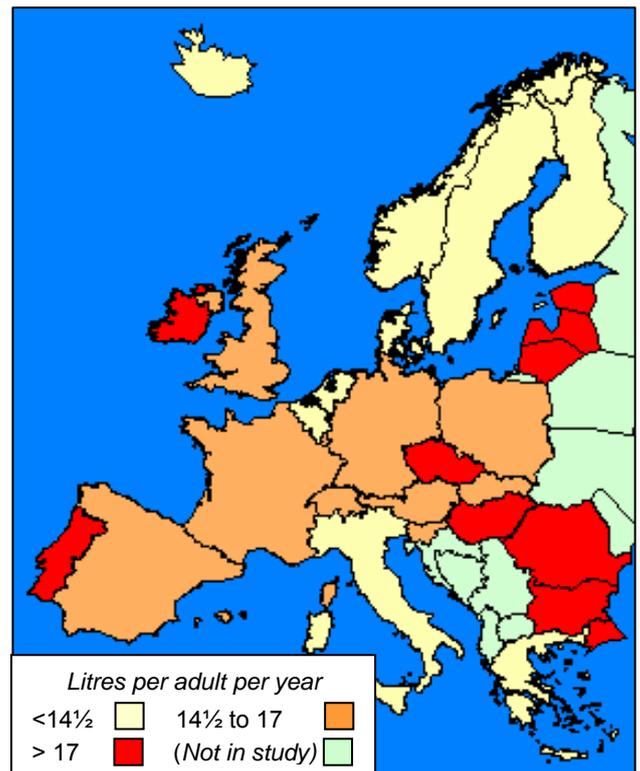


Figure 4.4 Total alcohol consumption per drinker in Europe in 2002

[Sources: primarily from WHO data (Global Status Report on Alcohol 2004, HFA Database and GBD project); see above for detail]

This can make it difficult to compare numbers of abstainers across countries, although a combination of awareness and transparent, comparative studies means that the results have a reasonable degree of robustness in most cases.³ Proceeding with caveats about interpretation in mind, 53 million adults across the EU – or 15% of the adult population – abstain from alcohol. In most European countries, this means that at least 7 in 8 men and 3 in 4 women have drunk at least once in the past year (see Figure 4.3). In general the highest abstention rates are found in parts of eastern and southern Europe, but even within these regions there are countries where nearly everyone drinks, such as Slovakia and Greece.⁴

³ Abstention data is taken from the WHO Global Status Report on Alcohol 2004, updates from the Alcohol Policy Network of the Bridging the Gap project (see Chapter 1), a European report on national health surveys (European Commission 2003a), the ECAS comparative survey (Ramstedt and Hope 2003), estimates from the Global Burden of Disease project (Rehm *et al.* 2003) and also (where data conflicts) supplemented by national-level reports. As a cautionary note, it is important to remember that surveys may not be comparable due to (a) how long without a drink counts as abstinence, (b) the wording of the questions, (c) the cultural definition of abstaining, and (d) the population sampled (e.g. 16-64 years, or 18 years and older).

⁴ There is substantial disagreement among sources as to the degree of abstinence in France. This may be due to difficulties understanding the concept of abstinence in French culture.

Using these results, we find the total alcohol consumption *per drinker* in the EU is 15 litres per year. This is about 20% higher in the EU10 than the EU15, although there is no simple divide (see Figure 4.4). Only two countries (Norway and Iceland) have a consumption-per-drinker of less than 10 litres of alcohol per year, while at the other extreme there are five countries with an average of over 20 litres (Bulgaria, Hungary, Latvia, Lithuania, and Turkey). Nevertheless, the variation between countries for consumption per-drinker is less than for the per-capita level (as is found for global comparisons; see Babor *et al.* 2003).

Levels of drinking

A parallel way of looking at the amount drunk by individuals is to look at the rates of different levels of drinking, although studies are sometimes not comparable given different cut-off points for the levels. In the small number of countries where comparable data does exist (WHO 2004), male rates of drinking above 60g vary from 3%-23% and female rates of drinking above 40g range from 1% to 11%. Although no strong patterns are apparent, it appears that central European countries (in both the east and west of Europe) have higher levels than further north or south.

The above definition was also used within the WHO's Global Burden of Disease (GBD) study,⁵ and was the highest of three drinking levels considered (level III) for drinkers. The two lower levels of drinking were more than zero, but <40g men or <20g women (level I), and a category in-between the other two levels (level II, +40g-60g men, +20g-40g women). Based on these estimates, we can say that 263 million adults drink at Level I, Table 4.1. This leaves roughly 58 million adult Europeans – 15% of the adult population – drinking at level II or above. The higher level III drinkers account for over 22 million of these, representing 6% of the adult population of the EU.

Table 4.1 The numbers of adult Europeans (16+ years) at different drinking levels; estimates for 2001.

| | Definition (g/day) | | Adults |
|------------------|--------------------|---------|------------|
| | Men | Women | EU25 (m) |
| Abstinent | 0 | 0 | 53 |
| Level I | >0-40g | >0-20g | 263 |
| Level II | >40-60g | >20-40g | 36 |
| Level III | >60g | >40g | 22 |

Source: Global Burden of Disease Project (Rehm *et al.* 2004), amended by present authors⁵.

Alcohol dependency

While often associated with heavy consumption (see Chapter 5), definitions of alcohol dependence go beyond measures of the amount consumed to a psychiatric definition encompassing compulsion and a lack of self-control (Epstein 2001). One

⁵ The GBD study and its adaptation for this report are discussed in more detail in chapter 6. Data for abstainers in Europe presented above are more accurate than presented in the GBD study (and produce a lower number); these results have been scaled so that the numbers add up to the total adult European population.

problem that results from this is that representative studies from the same population in similar periods – and even using similar instruments – can show very different prevalence figures (Rehm *et al.*, in press). As with respondents' views on social harms that result from drinking (see Chapter 6), it may be the case that apparent differences in prevalence rates may be due to a changing awareness of alcohol-related problems rather than objective changes in alcohol-related harm (Midanik and Clark 1995; Grant *et al.* 2004:232).

Combined with a lack of comparative studies within Europe, this makes it difficult to look at patterns of alcohol dependence in Europe.⁶ Nevertheless, a review conducted for the World Health Organization has used existing studies to estimate the number of people who are alcohol dependent within one year (Rehm *et al.* 2004; Rehm *et al.*, in press). Adjusting the main estimates that were presented in the GBD study (as above), we find that 5% of adult men and 1% of adult women are alcohol dependent – that is, 23 million people are addicted to alcohol in any one year. However, this contains a considerable variability across countries, largely due to different methodologies (see also Rehm, Room, and Edwards 2001; WHO 2004). Alcohol dependence often leads to a wide variety of severe negative consequences both for the dependent individual and for others around them such as their family; this toll is discussed in Chapter 6.

Long-term trends in population drinking

Since the second world war, there has been a harmonization in the levels of recorded consumption in the countries of western Europe (Simpura and Karlsson 2001; Leifman 2001b). Declining drinking levels in the high-drinking southern European countries came at the same times as increased levels in northern and central Europe during the 1960s and 1970s, leading to considerably less variation at the end of the 20th century than halfway through it. A similar (if smaller) trend may also be true for unrecorded consumption, with a suggestive method based on mortality figures showing that unrecorded consumption since the mid-1970s increased in the Nordic countries and UK while being stable elsewhere in the EU15 (Leifman 2001a). However, this method allows only a tentative estimate of trends in unrecorded consumption, and must, therefore, be regarded cautiously.

If this analysis is extended to the EU25 and accession countries, we similarly find that recorded consumption is much closer together than it was previously – across the 20 countries with data going back to the 1960s, the amount of variation has more than halved. Alcohol consumption in the EU10 is closer to that of the EU15 than ever before, with Figure 4.5 showing that this is due to a faster rise over the years 1960-80 in the EU10 and a slower decline compared to the EU15 since then. Nevertheless, there is little sign of the EU10 countries moving closer to one another, with the amount of variation staying effectively static since the mid-1960s except for fluctuations in Latvia, Lithuania and Slovenia in the late 1980s (see Figure 4.6). There is no available information on trends in unrecorded consumption in the EU10 though, which is unfortunate given the combination of significant political changes and the high current level of unrecorded consumption.

⁶ Although the ESEMeD study investigated “alcohol abuse” and alcohol dependence in 6 European countries (Alonso *et al.* 2004), we felt (following consultation with the study authors and the European Commission) that, due to certain methodological issues, the results of the study should not be presented here.

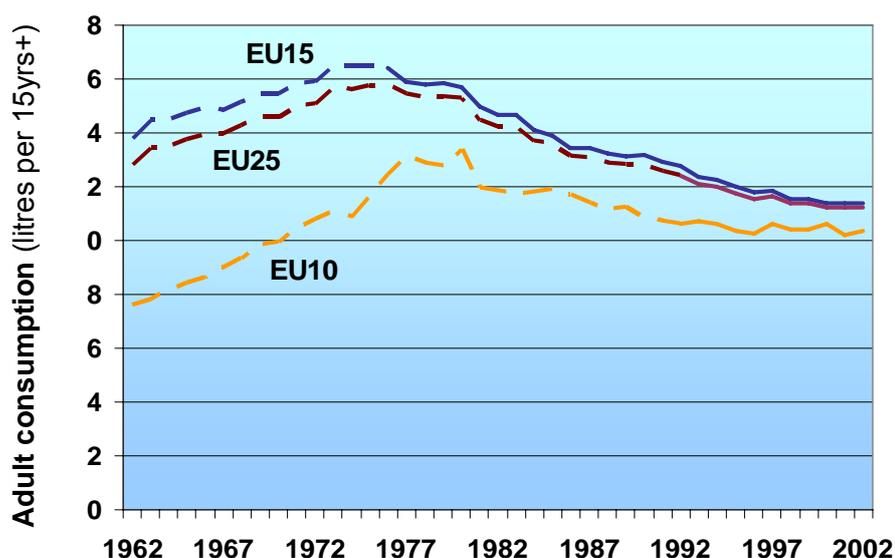


Figure 4.5 Trends in European recorded alcohol consumption

Data were not available for all countries for the full 40-year period – dashed lines have been used to indicate the trend in the smaller number of countries with data.⁷ **Source:** WHO Health for All Database (1961-9 trend from WHO Global Alcohol Database).

While these trends are sometimes the accumulation of many years of gradual movement, it is also possible for large changes to occur in a short time period. For example, consumption rose by nearly 25% in Ireland between 1995 and 2000 and doubled in Finland between 1967 and 1974, while it dropped by five litres per person in Italy between 1974 and 1981.

Abstinence trends are harder to decipher, given a paucity of data in many countries. The little long-term data that are available suggest that abstinence rates went down in northern European countries in the 1960s, but have remained relatively unchanged in Italy, the Netherlands and the UK (Simpura, Karlsson, and Leppänen 2001; Simpura and Karlsson 2001). More recently, a varied mix of data suggests that there were more drinkers in several European countries by the mid-to-late 1990s than in the late 1980s/early 1990s, with only three countries (Poland, Sweden and Switzerland) going in the reverse direction (Rehn, Room, and Edwards 2001).

⁷The different country coverage was: (i) EU10 – Estonia (1992-), Malta (1988-), Lithuania (1984-), Latvia & Slovenia (1980-); and (ii) EU15 – Greece (1976-). Imputed values were calculated using the trend in the countries with data, adapted to the original value of the full group of countries.

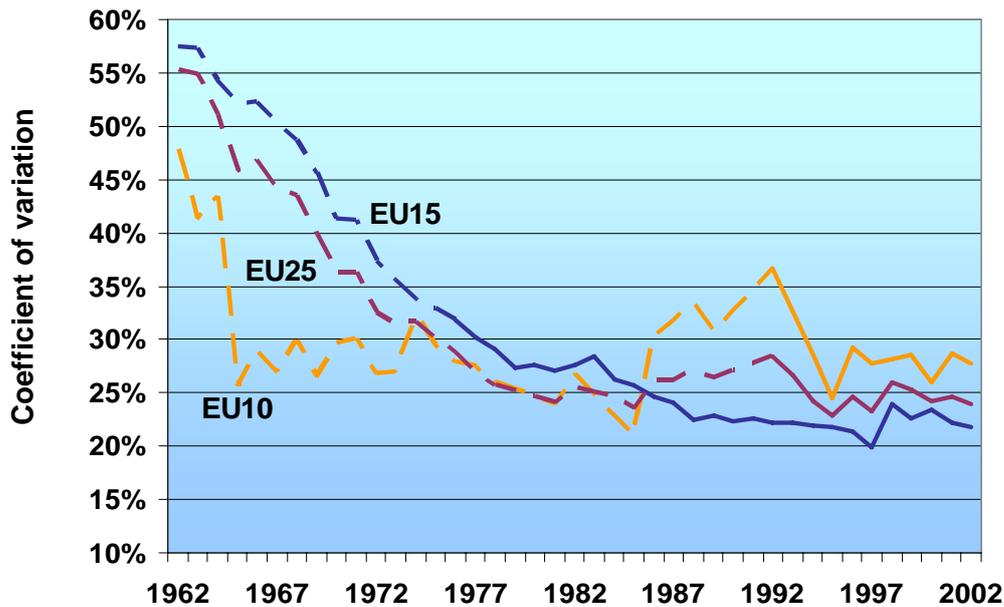


Figure 4.6 Harmonization in European recorded alcohol consumption⁸
 Data were not available for all countries for the full 40-year period – dashed lines have been used to indicate the trend in the smaller number of countries with data⁹ **Source:** WHO Health for All Database (1961-9 trend from WHO Global Alcohol Database).

This might seem surprising, in that (all things being equal) the total amount drunk will increase if abstainers start to drink. However, research from regions within the UK shows that there is no correlation between total consumption and abstinence rates (Colhoun *et al.* 1997). Furthermore, the UK as a whole has seen a marked rise in consumption in the last 20 years at the same time as abstinence rates have increased (see Figure 4.7). The reverse effect can also be seen in Italy, where a 5% drop in total consumption between 1997 and 2000 came at the same time as a 3% increase in the number of drinkers (Osservatorio Permanente Giovani ed Alcool 2001). Looking across cultures rather than time, the same effect is visible; for example, the regions of the US with the highest proportions of abstainers were the ones with the highest consumption per-drinker (cited in Lemmens 1995). It, therefore, seems as though abstinence rates and recorded consumption are relatively independent, and should not be expected to move in tandem.

⁸ This is based on the authors' analysis of the Coefficient of Variation (CV), a measure of relative dispersion calculated as the absolute dispersion (Standard Deviation) of the country values divided by their mean (i.e. a 50% CV is where the standard deviation of the EU country values is half the value of the mean). This is identical to the ECAS study (Leifman 2001b), except that the trends in Figure 4.5 use population-weighted values.

⁹ The different country coverage was: (i) EU10 – Estonia (1992-), Malta (1988-), Lithuania (1984-), Latvia & Slovenia (1980-); and (ii) EU15 – Greece (1976-). Imputed values were calculated using the trend in the countries with data, adapted to the original value of the full group of countries.

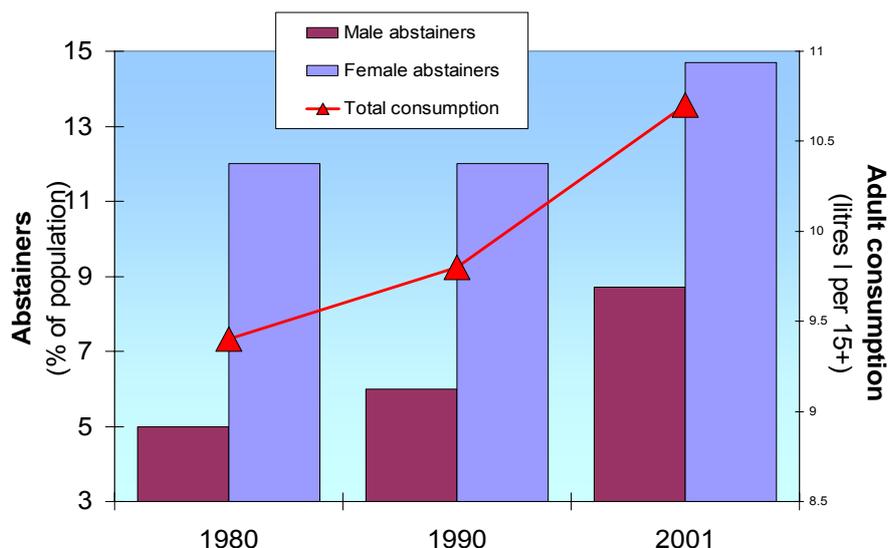


Figure 4.7 Consumption and abstinence trends in the UK

Source: Abstinance estimates from General Household Survey and Health Survey for England (cited by Academy of Medical Sciences 2004)

WAYS OF DRINKING

There are many ways of looking at the drinking patterns across Europe, from the place that alcohol is drunk (e.g., at home, in a bar) to the time (e.g., Saturday nights, Wednesday lunchtimes) and context (e.g., with meals, special events). While 'drinking patterns' as a concept has been used to denote varying aspects of alcohol consumption (Simpura, Karlsson, and Leppänen 2001), this section opts for an all-encompassing approach that looks at any aspect of drinking not covered by the consumption levels above or the sub-group discussions below. In particular, four key aspects are covered here – the type of alcoholic drink preferred, the drinking context (primarily the place and relation to meals), frequency of drinking, and how often drinks are used for drunkenness (sometimes referred to as 'binge-drinking'). This is nevertheless an incomplete list, with areas such as party and celebratory drinking not covered due to constraints of space. While the type of beverage makes little difference to the level of alcohol-related harm, drinking context, frequency and particularly drunkenness are of importance from a public health perspective (this evidence is reviewed in Chapter 5).

Drinks of choice

A huge variety of local specialities and regional preferences influence the preferred form of alcohol across Europe, but for analytic purposes the drinks are broadly categorised here as beer, wine and spirits (see also Chapter 3).¹⁰ At a general level across all 25 EU member states, around 44% of the alcohol comes from beer, with about a third from wine (34%) and just under a quarter from spirits (23%), Figure 4.8.

¹⁰ This typology of beer-wine-spirits is becoming increasingly problematic with the diversification of the alcoholic drinks market and the popularity of 'new' drinks types (such as alcopops) for young people (see below).

In over half the countries, beer is the preferred drink, with the bulk of the rest preferring wine. These choices are also more than just marginal matters in most cases; 6 of every 10 countries drink over half their alcohol in one type of drink, with Italy and Latvia taking more than 70% of their total in one type (wine and spirits respectively).

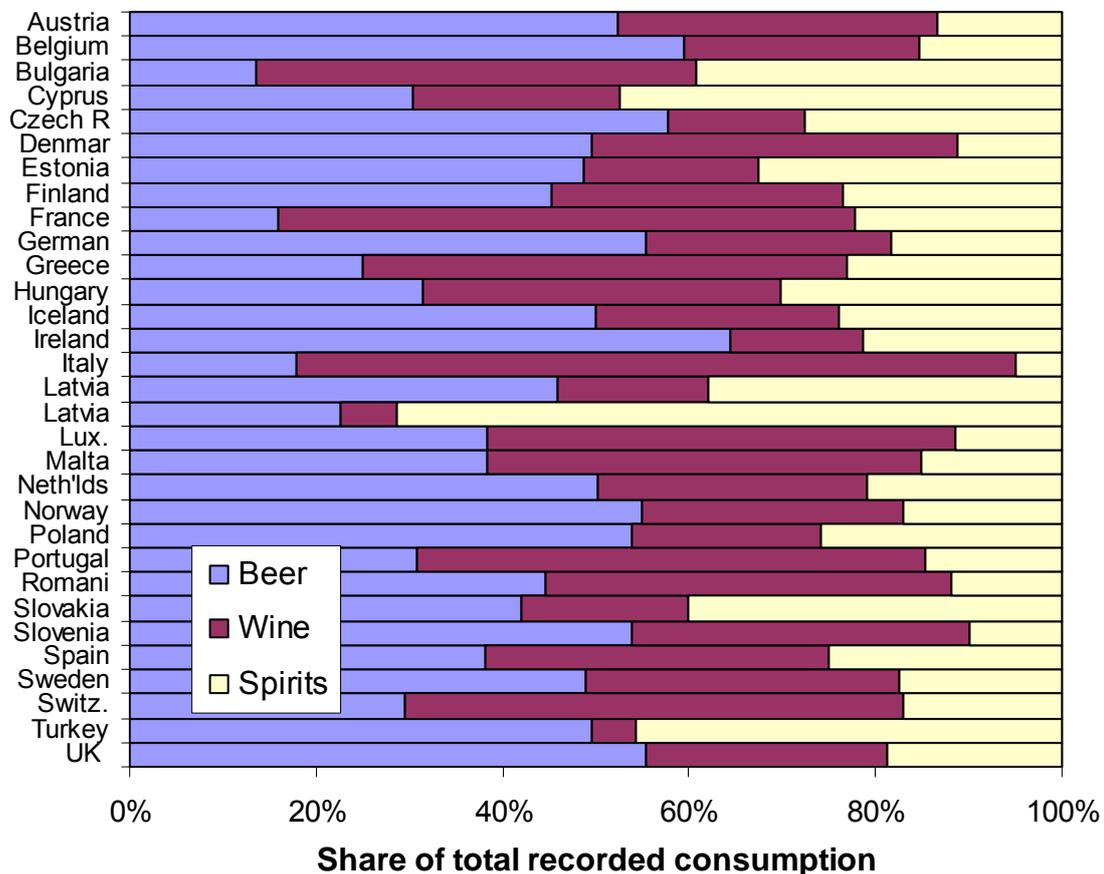


Figure 4.8 Preferences for alcoholic drinks in Europe, 2002. **Source:** WHO Health for All Database

The EU15 plus Norway splits into two groups when it comes to beverage choices, with beer the preferred drink in central and northern Europe and wine preferred in southern Europe. In none of these countries did spirits account for even one-third of consumption, with even the former spirits-dominated northern European countries now overwhelmingly preferring beer. Nevertheless, this picture belies several interesting results, in particular for Spain which some recent data suggest now drinks more beer than wine. It is also interesting to observe that Greece and Spain drink more of their alcohol in spirits than Sweden and Norway.

The two-fold split in the EU15 is a relatively recent phenomenon, with the Nordic countries drinking gradually less spirits since the 1960s, when it formed most of their alcohol intake. More generally, countries in northern and central Europe have opened up to wine, mirroring the trend in the wine-producing countries to open up to other beverage types, particularly beer. These trends combine into a harmonization

of beverage preferences within the EU15, with the relative dispersion reduced to about a half of its previous level.¹¹

Compared to the EU15, EU10 countries have wine rather than spirits as their second-most preferred type of drink, but beer is similarly the most popular. Only one country drinks more spirits than anything else (Latvia, although sources disagree over Poland), with five of the six other EU10 countries with reliable data mainly drinking beer and only one (Hungary) mainly wine. Discerning a single trend over the past 40 years is nearly impossible, however, as countries have moved in completely different directions. The new Member States also show no sign of moving collectively towards the beverage preferences of the EU15, and even moved away in the 1960s and 1970s as spirits grew in popularity.

The drinking context

There is a conventional stereotype of drinking contexts in southern Europe (see also below), which suggests that drinking there revolves around mealtimes much more there than elsewhere in Europe. When the data are closely examined, it seems that this stereotype has some validity – but only up to a point. This is most clearly demonstrated by Eurobarometer data, which asked people how much of their drinking was with meals. As Figure 4.9 shows, there is certainly a trend that those in southern Europe did more of their drinking with meals than elsewhere, with Italy, Portugal and France having the greatest number of people who reported only drinking when eating. However, there are also some notable exceptions to this north-south pattern, with Sweden in particular having more people ‘only drinking when eating’ than Spain. Denmark also shows more people ‘mainly or only drinking when eating’ than either Spain or Greece. There is, therefore, evidence that while a strong trend underlies the stereotype, in its simplest form it does not capture the reality of European drinking.

Other comparative data confirm that these results are not just a statistical anomaly, despite this being a contradiction of more anecdotal information (Allamani *et al.* 2000). For example, earlier Eurobarometer results showed that beer in Denmark was more commonly drunk with meals than in any other situation (Hupkens, Knibbe, and Drop 1993). Aside from Eurobarometer surveys, the results from GENACIS also show that the relative frequency of drinking with meals compared to drinking in a bar is far greater in Sweden than elsewhere (including Spain) for both men and women (Ahlström *et al.* 2005).¹² This should be connected to the results on overall drinking frequencies (below), as those in Spain were much more likely to drink with any given meal – the results for relative preferences, therefore, partly reflecting the much greater overall frequency of drinking in Spain.

¹¹ Relative dispersion is calculated as the Coefficient of Variation (CV), described in footnote 8 above.

¹² It is also possible to compare the frequencies of drinking in different contexts to the total frequency of consumption from a separate GENACIS paper (Mäkelä *et al.* 2005). However, this produces some results that are clearly implausible (i.e. greater than 100% of drinking occasions occurring with meals), and is not undertaken by the study authors, hence the results are not presented here. This may be due to either response errors or the existence of multiple contexts on a single ‘occasion’.

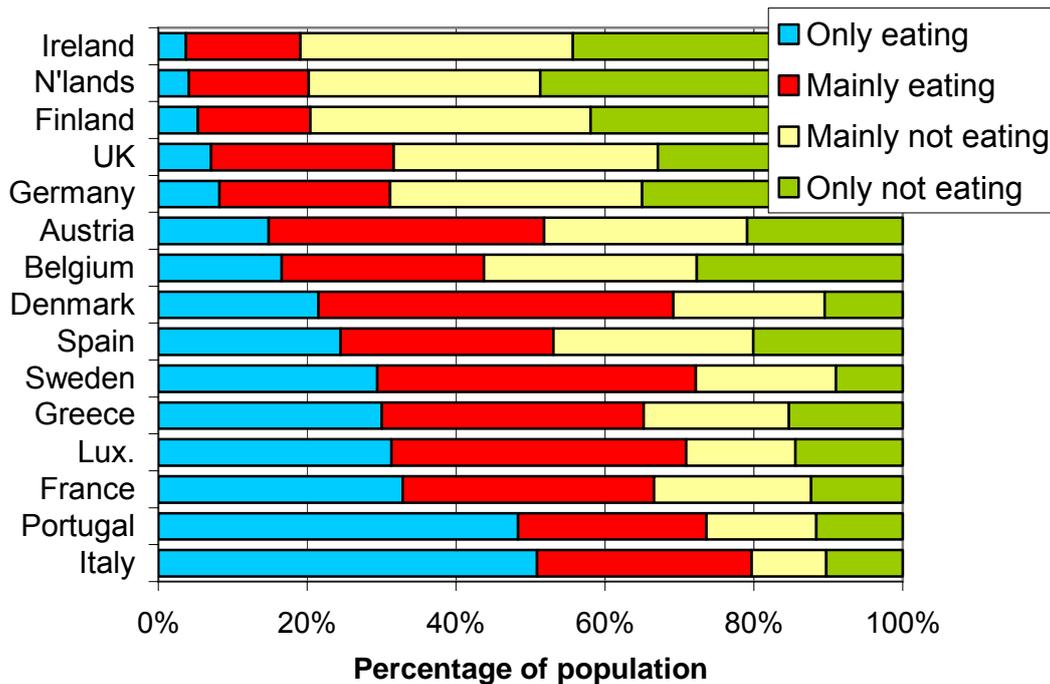


Figure 4.9 Drinking with meals in the EU15. **Source:** Eurobarometer data (Eurobarometer 2003)

A deeper understanding can be gained from the more detailed ECAS results, showing the distribution of drinking occasions through different contexts (Leifman 2002). The most striking finding is that the percentage of drinking occasions that occur with the afternoon or evening meal is virtually constant across countries at around 40%. Only two exceptions exist to this, one in either direction: Finland is lower (around 20% of drinking occasions being with this meal), while women in Sweden are higher (at 60% of all drinking occasions). The other three contexts investigated all show considerable variations, however, in particular drinking with lunch (30%-50% in southern Europe, 15% or less elsewhere) and drinking at home outside meals (over 40% in Finland compared to 5% or less in Italy and for French women). Although covered in the discussion on young people below, it is also worth noting here that the 'stereotype' of southern European drinking with meals is least applicable to the youngest age group. For example, young people in the UK drink more often with meals – even in absolute terms – than in France, and are on a par with the level in Italy.

Public drinking is also of interest from both a cultural and public health perspective, although cultural definitions of public drinking places are even more complex than definitions of eating occasions (see Chapter 4 and also Single *et al.* 1997; Rehm *et al.* 2004). Looking at drinking in 'bars, pubs and discos', the GENACIS results show that the greatest frequency occurs in Spain (89 times per year for men, 38 for women), the UK (57 and 25) and Hungary (43 for men but much lower for women), with the Nordic countries all under 20 times per year for men and 10 for women (Ahlström *et al.* 2005). Similarly, the ECAS survey showed that drinking in restaurants and bars was most frequent in the UK (and to a lesser extent France and Italy), with the lowest frequency occurring in Sweden (Leifman 2002).

Explaining this is unfortunately less simple due to contradictory results from the two surveys. While it could be primarily due to the much lower frequency of drinking in the Nordic countries, other GENACIS results suggest that the share of drinking occasions that occur in pubs is also lower in the Nordic countries (Ahlström *et al.*

2005).¹³ In contrast, drinking in restaurants and pubs was found to be under 20% of all drinking occasions in France and Italy (as well as German men and Swedish women) in ECAS, with the other gender-country combinations all having levels of 20%-27% (Leifman 2002). More consistent is the finding that young people (and particularly young women) are the most likely age group to drink in public places in all countries, showing a reverse tendency to drinking with meals above (see also the discussion of young people below).

Drinking frequency

While the per-capita consumption data are of considerable use from a public health perspective (see also Chapter 6), they say nothing about whether the alcohol is drunk in relatively small quantities across a large number of drinking occasions, or whether a month's alcohol is all drunk in one session (this also relates to measures of binge-drinking, see below). It is, therefore, useful to look at how often people drink in different countries – although for a simple concept, there are a surprising number of complications in agreeing on a way of measuring this. First many alcohol surveys ask about the frequency of drinking different beverage types individually, but this leaves the question of how to combine the frequencies for different beverage types into a single frequency for alcoholic drinks.¹⁴ Secondly, there is an implicit assumption in most surveys that there can be only one drinking occasion in any given day.¹⁵ Nevertheless, by putting together the picture from a variety of measures we can obtain a rough picture as to how drinking frequency varies across Europe.

In general, drinking occurs more often in the south of the EU15 than in the north – for example, the ECAS survey showed that daily drinking was most common in Italy (40% for men, 20% for women) and then France (about half the Italian level). Daily drinking was much less common elsewhere, and the lowest values came from Finland and Sweden (Hemström, Leifman, and Ramstedt 2001).¹⁶ Similarly, Eurobarometer data showed that the average number of drinking days was highest in Portugal, Italy and Spain (19 or more days per month), while the lowest frequencies of less than 10 days were found in Finland and Sweden (Eurobarometer 2003).¹⁷

Despite this general trend, it is (once again) untrue to represent the pattern in Europe as a simple north-south gradient. For example, the Eurobarometer data show that the frequency of drinking in Greece is lower than nearly all of the EU15, including Denmark and the east of Germany (Eurobarometer 2003). The GENACIS data (mainly using a more accurate method)¹⁸ show a more complex picture, with the

¹³ As described in the previous footnote (number 12), this suffers from certain methodological problems and is therefore indicative only.

¹⁴ Ideally a question asking about the overall frequency of drinking is asked separately (e.g. Mäkelä *et al.* 2005), but if not then a rough method must be applied of either (a) the frequency of drinking the most commonly consumed beverage type; or (b) the sum of the frequencies of all the beverage types (such as with the Eurobarometer data). While both are used below, it should be remembered that the former will underestimate the frequency in countries where only one type of drink is drunk on a given occasion, while the latter will overestimate the frequency in countries where most drinking occasions involve multiple beverage types.

¹⁵ However, this may not always be true (drinking with lunch and also in bar in the evening, for example), particularly on non-working days, and the difference between speaking about drinking occasions and drinking days should be borne in mind (Leifman 2002).

¹⁶ Drinking frequency based on the most frequently-consumed beverage.

¹⁷ Drinking frequency calculated from the sum of the frequencies of beer, wine, spirits and other drinks.

¹⁸ In most of the GENACIS surveys (with the exceptions of France and Norway) the frequency data are based on a specific question asking about the consumption of all beverages.

annual number of drinking occasions in men in Austria (175) above the levels in Spain, and high frequencies also found in Germany and Switzerland (Mäkelä *et al.* 2005). This is even more striking for women, where the frequency of drinking in Spain is around the European average, while the Netherlands and UK are among the most frequent-drinking countries. As before though, the lowest frequencies were found in some of the Nordic countries and also in Hungary (see below).

One interesting aspect of this is that there is a different pattern for daily drinking than there is for frequent-but-less-than-daily drinking. As Figure 4.10 shows, there is a clear north-south gradient for daily drinking with no exceptions (Hemström, Leifman, and Ramstedt 2001). However, drinking 4-5 times a week is far more common in the UK than elsewhere, with the result that the UK has a greater proportion drinking 4-5 times a week *or more* than Germany and is on a par with France. When drinking *at least* 2-3 times a week is further examined, the UK now has greater numbers than France or Germany (which are similar) and is not far off the level of Italy. Given a similarly striking result for Ireland (Ramstedt and Hope 2003), it is clear that a strong north-south gradient for one measure can belie a more subtle picture when more detail is included.

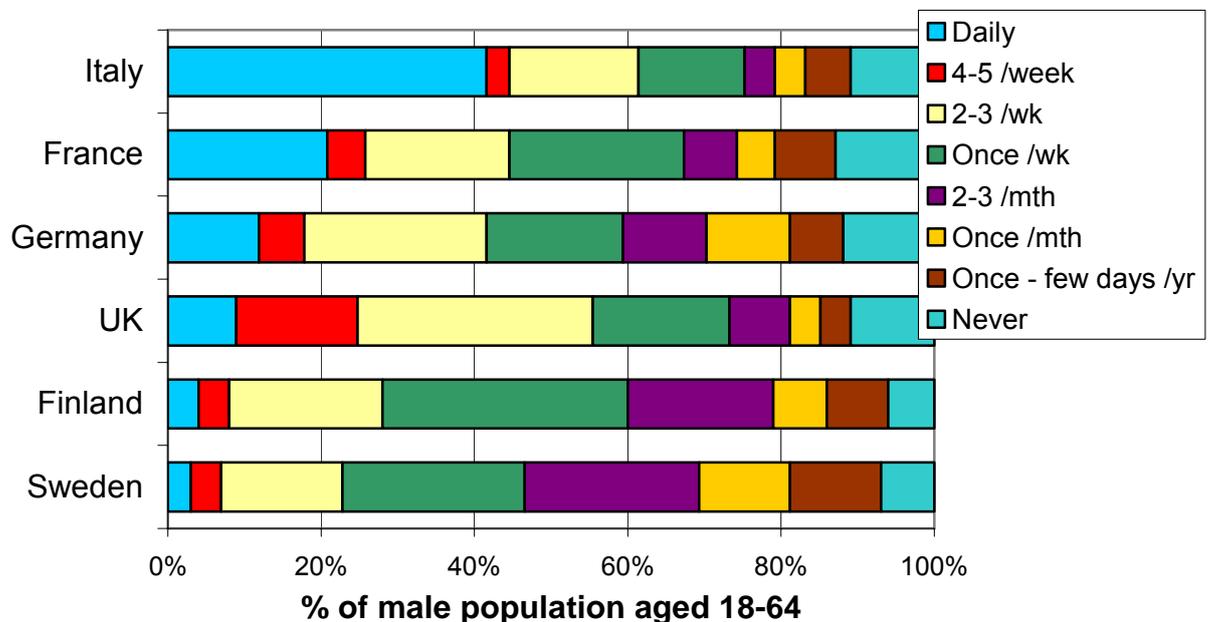


Figure 4.10 Drinking frequencies for men in six EU countries. Based on the most commonly consumed beverage type. **Source:** ECAS (Hemström, Leifman, and Ramstedt 2001)

Fewer data are available in the EU10 but there are some indications that the frequency of drinking tends to be lower in many EU10 countries than in most of the EU15. For example, a recent comparison in the Baltic countries and Finland (Helasoja *et al.* 2005) found that frequent drinking was less common in Estonia and particularly Latvia and Lithuania than in Finland (itself with one of the lower levels in Europe).¹⁹ Looking at the full range of frequencies, relatively frequent drinking has been found among Estonian men and Latvian women, but low frequencies were found among all other country/gender combinations in the Baltic states (McKee *et al.* 2000; low frequencies being roughly the same level as found for 45-64 year olds in

¹⁹ Frequent drinking defined as 15+ drinks per week for men, and 5+ for women.

Poland in Bobak *et al.* 2004). The GENACIS data shows that the drinking frequency in Hungary was also amongst the lowest in Europe for men and the lowest for women (Mäkelä *et al.* 2005). However, the frequency of drinking in the Czech Republic seems to at least at the level of the EU average (Kubicka *et al.* 1998; Mäkelä *et al.* 2005). Separate research has also suggested that the frequency of drinking is substantially lower in Poland than in the Czech Republic, although this study looked only at those aged 45-64 which may show a different pattern to that of the full population (Bobak *et al.* 2004). Nevertheless, we can tentatively suggest that a minimum of 5 of the 10 new Member States have frequencies of drinking that are at the lower end of the EU15 range.

As for most aspects of drinking patterns, it is difficult to definitively say anything about trends in the frequency of drinking due to the lack of long-running comparable datasets (Simpura and Karlsson 2001). One tentative analysis has nevertheless compared Eurobarometer data from 1988 with the results of the ECAS survey using similar methodologies (Leifman 2002).²⁰ This found that there has been a harmonization in drinking frequency in the ECAS countries, with a decreasing frequency in Germany, France and especially Italy, and stability elsewhere (or in the case of men in Finland and Sweden, an increase). This may be linked to the much stronger north-south gradient visible in the oldest age group (45-59) than the middle-age group (30-44) and particularly the youngest (15-29) in the same study (and see also Mäkelä *et al.* 2005) – for example, young males in the UK are more frequent drinkers than those in France, while young males in Finland, Germany and Sweden have similar frequencies (see also discussion of young people below).²¹ The conventional north-south view applies least of all to young women, where the UK and Italy (at a high level) and Finland and France (at a lower level) show the same frequencies (Leifman 2002).

While it may, therefore, have been relatively accurate to represent drinking frequencies as a simple north-south gradient in the 1980s, the complexities discussed above suggest that it must be more cautiously applied today.

Intoxication and binge-drinking

Binge-drinking has formed the focus of much media debate across Europe in recent years, but the concept itself is often misunderstood. The idea of looking at binge-drinking is to investigate drinking occasions leading to drunkenness or *intoxication*. This is defined in the next chapter as a state of functional impairment due to drinking, and is particularly important given its link to a number of health and social problems (Kuntsche, Rehm, and Gmel 2004; see also Chapter 5). In order to measure this in an 'objective' way and to avoid certain biases, it is often measured as single drinking occasions involving more than a certain number of drinks (usually 5-6). However, for different people on different 'single drinking occasions', there can be a wide variation in how drunk people become from a given alcohol intake (see e.g. Beirness, Foss, and Vogel-Sprott 2004).

²⁰ Frequency of drinking is based on the sum of beverage-specific frequencies for beer, wine and spirits, excluding abstainers.

²¹ These country/age-group comparisons are based on all three measures used in the ECAS survey (beverage-specific drinking frequencies; sum of drinking frequencies for beer, wine and spirits; and the sum of all 'drinking occasions' (with lunch, with dinner, at home without meal, away from home without meal) in the past 7 days). These all show consistent patterns for the trends mentioned in the text.

To avoid confusion, this chapter uses the term 'binge-drinking' *only* when looking at reported drinking occasions above a given cut-off level of drinking, while 'intoxication' and 'drunkenness' are used to refer to self-reports about how the individual perceived their state after drinking (see also Chapter 1).²²

Even when looking solely at measures of binge-drinking, a further problem is that many studies are not comparable due to different measurement techniques. Using the most common definition,²³ we can only tell that 11% of male drinkers in Spain were weekly binge-drinkers compared to 20%-30% in the EU10, with similar patterns for women in the range of 3%-6%. Better information is available from a comparative survey conducted in the Baltic region, which found that 40%-50% of men reported binge-drinking at least monthly in Estonia, Finland, Latvia, and Lithuania.²⁴ Here Estonia reported a prevalence of less than 10% for monthly binge-drinking in women,

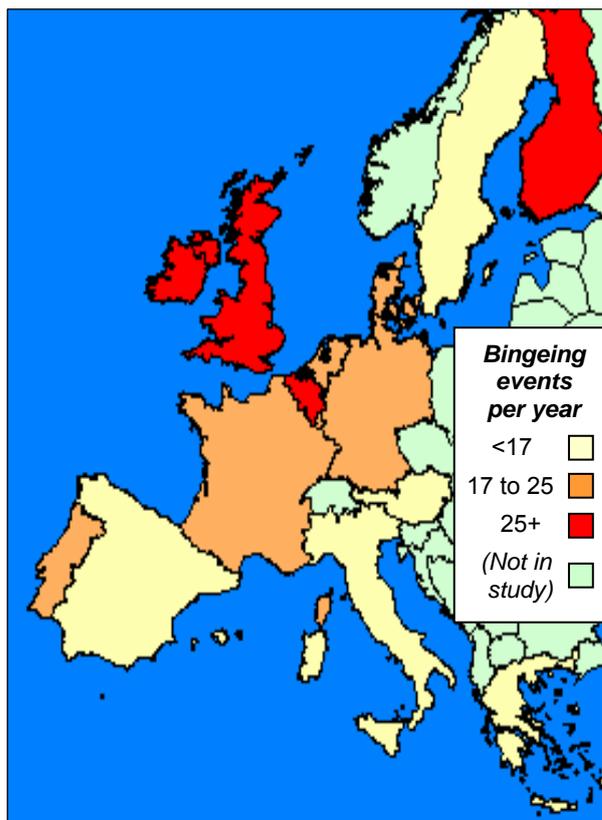


Figure 4.11 Binge-drinking in the adult population

5 pints of beer, 1 bottle of wine or 5 shots of spirits on a single occasion. Source: Eurobarometer 2003

but the other countries were all higher at 10%-20% (Helasoja *et al.* 2005). A separate comparative survey with yet another definition has also found the rate of monthly binge-drinking in 45-64 year olds to be 12% and 2% for men and women in Poland, compared to 17% and 4% in the Czech Republic (Bobak *et al.* 2004).²⁵ However, it is difficult to put all of these together into a coherent picture of binge-drinking in Europe.

The best information for EU15 countries comes from two explicitly comparative surveys conducted in the past few years each covering several EU countries. The first of these is the Eurobarometer survey,²⁶ which found that the southern European countries as a whole had significantly less people reporting monthly binge-drinking than elsewhere (24% compared to 40%), with Finland and Ireland reaching three times the level of Italy. While the pattern shown in Figure 4.11 strongly suggests a north-south

²² The term 'binge-drinking' has also been criticized for being stigmatizing (among other difficulties), which has led some to adopt the terms 'heavy episodic drinking' instead (Carey 2001) (which should really be called 'episodic heavy drinking'). However, this is a relatively cumbersome phrase that is not well-recognised by policymakers, the media or the public. Given the function of this report the term 'binge-drinking' has been used throughout this chapter (although see Chapter 1 for definitions).

²³ Data on 5 or more "standard drinks" on a single occasion (WHO 2004).

²⁴ Binge-drinking defined as 6 or more 'regular restaurant' portions on a single occasion.

²⁵ Binge-drinking defined as 80g or more of alcohol on a single occasion during the past month.

²⁶ Drinking to intoxication defined as 2.8 litres (5 pints) of beer, 1 bottle of wine or 5 shots of spirits on a single occasion; percentage shows the numbers reporting doing this monthly (Eurobarometer 2003). These figures are likely to underestimate the relative amount of binge-drinking in countries that drink more beer, as the definition of binge-drinking for beer includes a greater amount of alcohol than that for other beverages.

gradient, it is worth noting that Sweden was an exception from this – the level there was lower than any other country except Italy, and was less than two-thirds the level of Portugal.

A similar overall north-south gradient with exceptions is found in the ECAS study,²⁷ where binge-drinking as a proportion of all drinking occasions is highest in Ireland and the UK, but much lower in France and Italy. For the numbers of weekly binge-drinkers, Sweden was again an exception to the expected north-south gradient, with a lower frequency than every country except France. More surprisingly, and in contrast to the Eurobarometer results, the average number of binge-drinking episodes for Italy was also more than that for Finland. When examined in detail, it is apparent that the particular measure used for the comparison is crucial given the very varied distribution of binge-drinkers in different countries. At the lower end of the spectrum,²⁸ there were a greater number of people who binge-drank very rarely/never in Germany, France and Italy than elsewhere. At the top end, however,²⁹ the share of frequent binge-drinkers in Italy was relatively high, being greater than Sweden and Germany for both genders (a finding that should be interpreted alongside the findings on drinking frequency above).

No other European comparative studies exist to investigate this further, as relevant surveys either have no relevant data for southern Europe (GENACIS) or look solely at smaller country groups (the Nordic comparative surveys). Even for the case of Sweden, the GENACIS surveys confirm the low Swedish figures (Mäkelä *et al.* 2005) but the Nordic surveys show no sign that Sweden has a lower rate of binge-drinking than Finland or Norway (although note problems of comparability; see Mäkelä *et al.* 1999:5,40,51).

Other research has used the alternative measure of people's own reports of intoxication, but this may be affected by people's interpretation of drunkenness. For example, Danes report more binge-drinking (defined as 6 drinks) than intoxication, while Finns state the opposite (Mäkelä *et al.* 2001). This is a particular problem in southern European countries where drunkenness is relatively stigmatised (Pyörälä 1995), which may mean that respondents insist they were not drunk even when the amount consumed indicates they must have been (see also under young people below). Self-reported intoxication does, however, have some advantages in better capturing both individual differences and differences in the drinking situation (see above), although few data have investigated how *length* of drinking occasions vary across Europe (although note mentions in Pyörälä (1995)). Self-reported 'drinking too much' in the Eurobarometer survey, therefore, follows the same pattern as binge-drinking (Italians reporting this least and those from Finland, the UK and Ireland the most), but shows a much greater variation. Very little data has been able to track this over time, but long-term records in Finland imply that any change is very slow (Simpura, Karlsson, and Leppänen 2001).

Summing up across the EU15, the average frequency of people reporting that they 'drink too much' is about five times per year, while the average frequency of binge-drinking is about 17 times per year (representing 10%-60% of drinking occasions for

²⁷ Drinking to intoxication defined as 2.3 litres (4 pints) of beer, 1 bottle of wine or 25cl of spirits on a single occasion (Hemström, Leifman, and Ramstedt 2001). As with the Eurobarometer definition, the definitions of binge-drinking for different beverage types do not include the same level of alcohol, hence the results should be interpreted cautiously. (Leifman 2002; Ramstedt and Hope 2003).

²⁸ The percentage of drinkers who binge-drink a few days per year or less.

²⁹ The percentage of drinkers who binge-drink every week or more.

men and about half the proportion of occasions for women).³⁰ This is equivalent to 40m EU15 citizens 'drinking too much' at least once a month – over 1 in 8 people – or 100m EU15 citizens binge-drinking at least once a month, representing just under 1 in 3 of the adult population.³¹

Drinking patterns in a European and global context

Given the difficulties involved in obtaining comparative data in a European context, it is unsurprising that it is difficult to consider European drinking as opposed to the 'rest of the world'. Nevertheless, one crude measure has been calculated for a range of countries based on key informant reports and expert evaluation of the limited available evidence (Rehm *et al.* 2001; Rehm *et al.* 2003). This 'pattern value' was a first attempt to take account of the effect of drinking patterns within the WHO's Global Burden of Disease study (see Chapter 6), and looked into a number of areas of drinking patterns that are likely to link to health outcomes.³² The results of the expert evaluation and key informant surveys were then analysed through optimal scaling analysis before being combined into a single summary measure, shown in Figure 4.12.

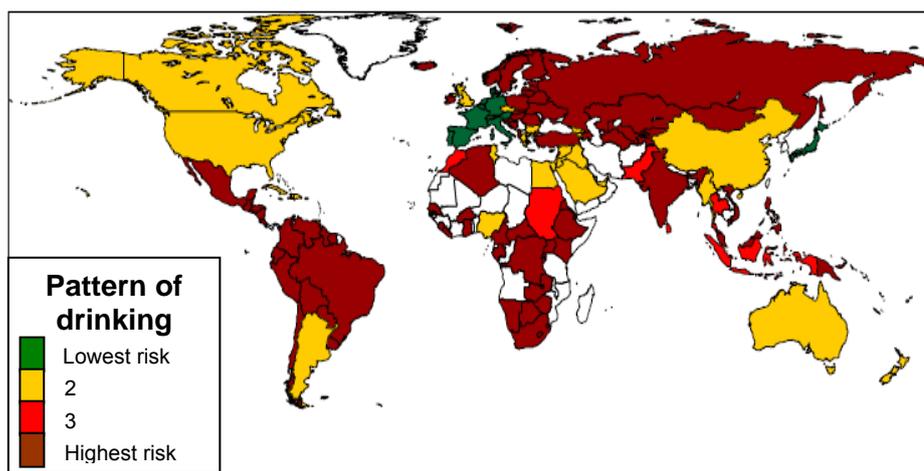


Figure 4.12 The global distribution of patterns of drinking
Source: World Health Organization 2005.

When interpreting the map, it should be remembered that this is an estimate of the effect of the pattern of drinking considered independently from the level of

³⁰ Average European frequency and numbers of Europeans getting drunk monthly taken from Eurobarometer data on intake in a single occasion; percentage of drinking occasions taken from ECAS.

³¹ As a sensitivity analysis, the average number of binges per year was also calculated based on the ECAS data (extrapolating the survey data within each of the three country groups). This produced a very similar result of 15-16 binges per year (depending on whether the later Ireland data is also included). A separate estimate for the number of weekly (rather than monthly) binge-drinkers from ECAS produced an estimate of 35m adult citizens of the EU15 (11% of the total adult population).

³² The full list of pattern variables was (i) daily drinking (inverse scoring); (ii) frequency of getting drunk; (iii) usual quantity per drinking session; (iv) fiesta binge drinking; (v) drinking with meals; and (vi) drinking in public places. For a full description of how responses to this were scored, see the description and appendices in Rehm *et al.* (2003).

consumption (in fact, the two variables are neither positively nor statistically significantly related). As can be seen from Figure 4.12, European drinking patterns are amongst the least damaging in the world, although relatively detrimental patterns can still be found, particularly in northern and eastern parts. The levels of harm in different countries will be a reflection of *both* patterns and consumption, and – given that we know Europe has the highest levels of consumption in the world – these relatively less detrimental patterns still coexist with significant levels of harm in Europe (see Chapter 6).

Despite the innovative nature of much of this analysis, there are a number of significant problems that caution against using the pattern value to compare European countries against each other. First, the justification for both the selection and weighting of the drinking patterns data in the creation of the pattern variable is unclear, often going far beyond the available epidemiological data on the basis of working hypotheses. Secondly, the data itself is lacking in many areas, relying on expert evaluations of e.g. whether drinking in public places is ‘common and everyday’ or not. Such evaluations may be based on local researchers’ best guesses, which (while better than nothing) have often been found to be contradicted by later research (for example, the expert views on drinking with meals in Allamani *et al.* 2000 differ substantially from the later evidence presented above). Nevertheless, these pattern values were found to mediate the effect of level of consumption on certain health outcomes linked to intoxication, and this is discussed in Chapter 6.

Summarising European drinking patterns

While this section has considered different aspects of drinking patterns separately, these findings must be recombined to produce a rounded picture of drinking behaviour. The overriding finding in many areas has been that there is a north-south gradient within the EU15, but that this is never simple and absolute.³³ In each case there are complications that ensure that European drinking patterns can only be understood by considering a general trend alongside the exceptions that go against it:

1. **Beverage choices:** southern European countries prefer wine while central and northern European countries prefer beer. *However, recent data suggests Spain drinks more beer than wine, while Greece and Spain both drink more of their alcohol in spirits than the ‘former-spirits countries’ of Sweden and Norway.*
2. **Drinking with meals:** southern European countries do more of their drinking with meals than other EU15 countries, particularly at lunchtime. *However, Denmark and particularly Sweden do more of their drinking with meals than some southern European countries, particularly Spain. Overall, the share of total drinking occasions that occur with the afternoon/evening meal is similar in most EU15 countries – but as southern European countries drink much more often in total, they are more likely to drink with any given meal.*

³³ This is relevant to the discussion on the typologies of drinking cultures that have been discussed in detail elsewhere (Room and Mäkelä 2000), although the discussion is not repeated here. For the purposes of this report, it is sufficient to note that Room and Mäkelä found that the concepts of ‘wet’ and ‘dry’ drinking cultures were increasingly problematic. The results here similarly suggest here that while the division may capture some aspects of drinking patterns, it serves to obscure others and can therefore be unhelpful.

3. **Frequency of drinking:** people in southern European countries drink alcohol more often than those in northern Europe, and are much more likely to be daily drinkers. *However, there is little evidence for an overall gradient in drinking frequency, with various central European countries showing the highest numbers of drinking days or occasions (particularly for women).*
4. **Drunkenness and binge-drinking:** there is a gradient in binge-drinking and drunkenness so that they are much more common in northern European countries than in the south. *However, the frequency of binge-drinking appears to be lower in Sweden than in many southern European countries. There are also more very frequent binge-drinkers in southern Europe than elsewhere in the EU15.*

It is also clear that many aspects of even this 'north-south gradient with exceptions' are much weaker in the younger generations (see also the section on young people, below). Young southern Europeans are more likely to drink beer and to drink in public places than older generations, and less likely to drink as much wine with meals. There has already been a partial harmonization of beverage preferences and (from the limited evidence) probably also of drinking frequency; if the patterns in young people represent a cohort rather than age effect, then further harmonization of drinking patterns in Europe is likely.

Characterising wider regularities in the EU10 is even more complicated, as the very limited evidence suggests these countries share little in terms of patterns of drinking. Nevertheless, there are some suggestions that the EU10 differs from the EU15 in that:

1. **Beverage choices:** many of these countries drink more spirits than in the EU15 (including Latvia, which drinks more spirits than any other drink);
2. **Drinking frequency:** people drink alcohol less often in the EU10 compared to the EU15; and
3. **Binge-drinking:** it appears that binge-drinking may be as common in parts of the EU10 as the highest levels in the EU15, although the limited data make this slightly speculative.

Perhaps the strongest conclusion from looking at drinking patterns in the EU10 is that there is an urgent need from a European perspective for more comparative data.

ALCOHOL AND POPULATION SUB-GROUPS – CLASS, GENDER AND AGE

The gender gap in drinking

In nearly every culture ever studied, irrespective of that culture's level or pattern of drinking, adult men are more likely to drink than adult women, and drink more when they do (Fillmore *et al.* 1991; Wilsnack, Vogeltanz, and Wilsnack 2000). These gaps are greater for riskier behaviour – for example, men's share of total consumption in Europe is around two to three times that of women's (Leifman 2002; Mäkelä *et al.* 2005), but men tend to report three to six times as much binge-drinking (Bloomfield *et al.* 1999; Ramstedt and Hope 2003). A much larger number of women than men have similarly never drunk alcohol in their life, although in contrast, there is only a

small tendency for more women to have not drunk alcohol in the past 12 months (Wilsnack, Vogeltanz, and Wilsnack 2000). Women also tend to prefer different beverages to men, drinking more wine and less beer, although this is less noticeable in the generally wine-drinking south of Europe (Hemström, Leifman, and Ramstedt 2001). Even after accounting for these the context of drinking varies by gender, with women drinking relatively more often with meals than men and relatively less in public drinking places – to a small extent in many countries, but occasionally noticeably such as in the UK and Hungary (Leifman 2002; Ahlström *et al.* 2005).

Countries differ in the size of the gender gap but not according to a consistent geographical pattern across Europe, although a recent comparative study within Europe noted that there were three types of different European societies where 'egalitarian drinking patterns' could be found (Ahlström, Bloomfield, and Knibbe 2001). These were countries where drinking was well-integrated into everyday life (Italy), where both this and a low employment status for women was visible (Switzerland), or where these two factors only result in an egalitarian pattern for those with a low employment status (Netherlands, Germany). While this suggests that egalitarian patterns are linked to both the presence of alcohol in the private sphere and the absence of women in high-status employment, a more detailed analysis of women's roles within the same project found a complicated picture that cannot be reduced to cross-cultural generalizations (Gmel *et al.* 2000). However, the divergence between men and women for the frequency of both drinking and drunkenness does appear to be lowest in the Nordic countries and the UK, and is also consistently lower in young adults in Europe, where drunkenness is most common (Mäkelä *et al.* 2005). This is also true for adolescents, as discussed separately below.

In line with wider social changes, it has been suggested that there has been a convergence in drinking behaviour between genders over the past few decades. Recent trends in the UK fit this view, with average consumption for young women nearly doubling over four years together with a rise in drinking to intoxication between 1992 and 2002, while young men's drinking has been relatively stable (Rickards *et al.* 2004). Some of the GENACIS results are also suggestive of a recent change in the EU10, with gender gaps in younger drinkers being much lower in the Czech Republic and Hungary compared to older drinkers (Mäkelä *et al.* 2005). Such trends cannot be seen in other European countries in the GENACIS project, however, nor can they be seen in the limited available longitudinal data that shows only a slight convergence visible in the latter part of a 30 year analysis in the Netherlands, and decreases in women's abstinence being partially reversed by a counter-trend in Finland in the late 1970s (Sulkunen 1987; Neve *et al.* 1996; and more recently Poelen *et al.* 2005). Looking across Finland, Germany, the Netherlands and Switzerland, Bloomfield and colleagues found only limited evidence of convergence in levels of consumption and hazardous drinking in the 1980s (Bloomfield *et al.* 2001).

The only small trend towards a smaller gender divide seems to be for changes in drinking at all in the past year, which currently shows a less than 25% gap in many countries (Wilsnack, Vogeltanz, and Wilsnack 2000). This is the case for the Nordic countries in particular, and has been put down to a mixture of gender equality and more general liberal attitudes to alcohol (Simpura, Karlsson, and Leppänen 2001; Bloomfield *et al.* 2001). Despite the lack of demonstrable convergence – which may in part be due to a lack of data covering a long enough period – there is still an expectation that women’s drinking will move closer to that of men’s in future. For example, market research agencies have already noted that *“the growing independence of women, as well as the trend towards starting a family later in life, makes women a key demographic for alcoholic drinks”* (Euromonitor and just-drinks.com 2005:17).

Box 4.2 – WOMEN AND ALCOHOL

- In every culture ever studied, men drink more than women. The gender gap is largest for riskier drinking, such as very heavy drinking or intoxication.
- Drinking any alcohol in the past year may be more equal between the sexes than in the past. However, it is hard to find evidence that this gap has narrowed across Europe for other aspects of adult drinking.
- Although many women give up alcohol when pregnant, a significant number do drink, and some continue to drink to harmful levels.

Aside from gender differences in drinking, it is also important to consider women’s consumption during pregnancy, given the growing evidence on the harm that alcohol can do to the developing foetus (see Chapter 5). Although many women give up alcohol when pregnant, there are a substantial number of women in all countries who continue to drink – ranging from 25% in Spain³⁴ to 35%-50% in the Netherlands and even higher rates in the UK. Furthermore, a smaller but still not insignificant proportion continue to drink at high levels when pregnant, although few data here are comparable (Hamlyn *et al.* 2002; Göransson *et al.* 2003; Health Council of the Netherlands 2004; Grundberg 2004).

Social inequalities in alcohol use

It should come as no surprise that different socioeconomic groups vary in their use of alcohol given the powerful cultural associations of drinking that were discussed in Chapter 3. The most consistent of these patterns is that ‘lower socioeconomic groups’ – those with less education, a lower occupational level or less income, as well as the unemployed – are more likely to abstain from alcohol, a finding that holds for nearly all of the EU25 (Hupkens, Knibbe, and Drop 1993; Marmot 1997; Simpura *et al.* 1999). This is true for both sexes, although the consistently higher level of abstinence in women compared to men (see above) seems to be lowest in those with more education (Knupfer 1989; Bongers *et al.* 1998).

At first sight there appears to be few trends for the total amount drunk, with studies from some countries showing manual workers having heavier consumption while others show the exact opposite (Péquignot *et al.* 1988; Marmot 1997; Bongers *et al.* 1998; Hemmingsson, Lundberg, and Diderichsen 1999). The lack of a fixed relationship is particularly obvious from a historical study from Sweden (Romelsjö

³⁴ Drinking monthly; other figures are for those who drink at all during pregnancy, suggesting that the situation in Spain may be closer to the other countries if identical questions were asked.

and Lundberg 1996; Norström and Romelsjö 1998), where managerial non-manual workers were replaced over the period from 1970 to 1994 by manual workers as the heaviest drinking group. Other patterns are further complicated by age effects, in that young unemployed people in some countries drink more than their employed counterparts, but this is reversed from age mid-20s onwards (Temple *et al.* 1991; Casswell, Pledger, and Hooper 2003).

The clearest results can be seen for men with a low level of education, who are likely to drink more than other men, although it should be remembered that alcohol use can also negatively affect educational outcomes (Bongers *et al.* 1998; Casswell, Pledger, and Hooper 2003; Schnohr *et al.* 2004; Bloomfield *et al.* 2005) (although see European Commission 2003b). It has been suggested that this is in fact due to two separate trends, where those with more education drink less on each occasion, but drink more often. This has received partial support (e.g. Knupfer 1989), but other studies have not found a clear link of education to drinking frequency (Eurobarometer 2003; Helasoja *et al.* 2005), instead finding that only income predicts a more frequent use of alcohol, and this is not found in all populations (McKee *et al.* 2000; Casswell, Pledger, and Hooper 2003). What seems to be more consistent is that adult men in lower occupational or educational groups in most of Europe are more likely to drink to intoxication or drink very heavily, and are least likely to drink smaller amounts (Ahlström 1987; Knupfer 1989; Jacobsen 1989; Norström and Romelsjö 1998; Bongers *et al.* 1998; Mackenbach *et al.* 2000; Eurobarometer 2003; Kuntsche, Rehm, and Gmel 2004; Estonia and Latvia in Helasoja *et al.* 2005). Even here, however, there are some countries where there is no real class gradient in drinking to intoxication (UK, Ireland, Finland) – although given these are the countries where men in higher occupational groups drink more often and more in total, this means that lower SES men are still much likely on a given drinking occasion to get drunk (Kelleher *et al.* 2003; Rickards *et al.* 2004; Yarnell *et al.* 2005) with heavy drinking also concentrated in deprived areas (Law and Whincup 1998; Yarnell *et al.* 2005).

Box 4.3 – SOCIAL INEQUALITIES IN ALCOHOL

- It has been consistently found that those with lower socio-economic status (SES) are more likely to abstain from alcohol.
- Several studies show that some measures of higher SES relate to more frequent consumption, particularly for women.
- Men with more education are less likely to be heavy drinkers, in contrast to a reverse effect found in women.
- Getting drunk and becoming dependent on alcohol are both clearly more likely in those with lower SES for both genders.

This picture changes for women, probably due to the link of gender inequalities to both drinking practices and socioeconomic status – for example, it has been suggested that the self-maintenance, productivity and opportunities for leisure that accompany professional occupations and high income may link to higher levels of consumption for women (Thundal and Allebeck 1998). One consequence of this complexity is that different countries exhibit different trends – for example, a number of studies show that women with more education drink more than other women, although the reverse has also been shown in other times and countries (Bongers *et al.* 1998; Ahlström, Bloomfield, and Knibbe 2001; Helasoja *et al.* 2005). In general, it appears as though women in higher socioeconomic groups drink more often than other women to an even greater degree than in men, meaning that the gender gap in frequency of drinking is smaller in those with more income or education than in those with less (Ahlström 1987; McKee *et al.* 2000; Casswell, Pledger, and Hooper 2003; Helasoja *et al.* 2005). In many countries it is also true that women with more education are more likely to be heavy drinkers, although drinking to intoxication may

be more commonly associated with lower educational groups (Ahlström 1987; Kuntsche, Rehm, and Gmel 2004; Bloomfield *et al.* 2005; Helasoja *et al.* 2005).

Taken together, it is clear that the effect of socioeconomic status on drinking practices can vary both over time and between population groups such as men and women (for other groups, see e.g. Knupfer 1989; Neumark, Rahav, and Jaffe 2003). Men with lower educational status are more likely to drink heavily, while conversely a greater level of consumption is found in better-educated women in some countries. Certain trends nevertheless seem to hold constant for both genders in Europe, not least the greater likelihood of drinking to intoxication in the lowest socioeconomic groups, as well as a greater probability of being dependent on alcohol (Thundal and Allebeck 1998; Bongers *et al.* 1998; Hemmingsson, Lundberg, and Diderichsen 1999; Droomers, Schrijvers, and Mackenbach 2004). This inequality in risky patterns of drinking – particularly for men – is mirrored by inequalities in levels of alcohol-related mortality, and is discussed further in Chapters 5 and 6.

Young people and adolescents

The political interest in young people's drinking has been an important driver of policy both within countries and at an EU-level in recent years (see Chapter 8). This has not only made it important to be aware of the evidence on young people's drinking patterns and trends, but it has also led to robust comparative data that have been available since the mid-1990s.³⁵ Nevertheless, these surveys only consider particular ages of adolescents (11, 13, and 15 years in the case of HBSC; 15-16 years in ESPAD), in contrast to the general definition of young people as either 15-24 years (for example, by the UN organizations) or 15-29 years old (as a broad category within much alcohol research). The Council Recommendation of 2001 that provides the context behind this report (see Chapter 8) is interesting here, as – while not explicitly defining the age range concerned – it refers to 'young people, in particular children and adolescents'.

As implied by this terminology, this section, therefore, focuses primarily on the age ranges covered in the international surveys (11-16 years) but also includes a discussion of older young people ('young adults'). These ages cover a time of substantial change, where particularly adolescents are defining themselves in terms of their work, friendships and relationships (Room 2004). Although these changes can be very different in different societies, their nature is itself tending to change in a common direction, with their duration lengthening and their demands increasing (Larson, Wilson, and Mortimer 2002). When this is combined with the potent symbolic content of alcohol (see also Chapter 2), it is likely that some drinking practices at this age can be understood as symbolic behaviour, such as rebellion against older generations (Room 2005). Throughout this section, however, it should equally be remembered that drinking can be an expression of *sub*-cultural identity (Abel and Plumridge 2004), meaning that there will be particular variation *within* as well as between European countries (see also the discussion of motivations below).

Starting to drink

Nearly all (over 9 in 10) 15-16 year-old students have drunk alcohol at some point in their life (Currie *et al.* 2000), starting on average just after 12½ years of age. Although young drinkers start much earlier in some countries than others, this does

³⁵ Most results presented in this chapter are from ESPAD, with the exception of (a) age of first drink or drunkenness; and (b) any results for those aged 11 or 13 years, which are taken from HBSC.

not follow patterns for the adult abstention rates, with students from northern and southern Europe trying alcohol later than those from eastern and particularly central Europe. Although the question explicitly avoids asking about drinking 'only a small amount', it does show that the first perceived drink does not occur earlier in southern Europe than elsewhere, suggesting that adolescents may not consider early family experiences as a first 'real' drinking experience (see also Milgram 2001:93; Room 2005).

Similarly, nearly three-quarters or more of those from the Baltic countries or a broadly defined central Europe (as opposed to north and south, including both Ireland and the Czech Republic) report having been drunk by the age of 15 years, compared to less than half of equivalent southern Europeans; although, as we shall see, the difference is less in reported binge-drinking. The average age of first intoxication for those that had been drunk was nearly 14 years, suggesting an average delay of about a year between experimenting with drinking and the first experience of drunkenness. However, given that this average age is relatively close to the age of the respondents, and that a sizeable number of respondents report never having been drunk so far in their life, it is likely that the average age of first drunkenness in the whole population is higher than that reported here (Room 2005).

Where do young people drink?

The two most common places for 15-16 year olds to drink are their own home or someone else's home, with these accounting for nearly half of all mentions of drinking places by students who drink.³⁶ There is no definitive geographical pattern to this, with lower average rates in southern and central Europe visible alongside high rates in France and the UK. In contrast, no more than a third of students in any country reporting drinking in outdoor public spaces (parks, streets or beaches) on the last occasion, and most countries reporting considerably less than this (closer to 10% and substantially under this in Greece). While the EU10 countries were generally similar to the EU15, noticeably higher values were found in some countries including Latvia (32%) and Poland (27%). Research within the UK suggests that drinking in outdoor locations is most common at earlier ages, becoming less frequent as young people reach the legal drinking age (Coleman and Cater 2005).

Rates of drinking in public drinking places were lowest (less than 5%) in the Nordic countries, where drinking at home was most common. They also tended to be highest in southern and some parts of central Europe (e.g. over 30% drinking in a bar on their last drinking occasion in Portugal). Within the EU10, the highest levels are found closer to central Europe (the Czech Republic, Hungary, Slovakia) and the lowest levels closer to northern Europe (the Baltic countries, Poland). No comparative information on enforcement of the legal purchase age in *bars* is available, but own-purchases of alcohol in a *shop* from ESPAD³⁷ shows that the greatest number of purchasers was found in central Europe (especially Denmark) and the EU10 (Malta, Poland, the Baltic countries), while the lowest rates were found in northern Europe. Boys were more likely to have bought drinks for themselves than girls, particularly for beer which was the most commonly purchased type of drink for both genders.

³⁶ From data on place of drinking on last consumption occasion in ESPAD 2003. Reported figures have been adjusted to show the drinking place as a percentage of all students who had been drinking.

³⁷ Analysis here uses highest value for any drink type.

What do adolescents drink?

As has been noted above, the division of all alcoholic drinks into the three categories of 'beer', 'wine' and 'spirits' represents a simplification of the spectrum of drinks available in Europe. This is particularly so for youth drinking, where a large amount of recent policy has been driven by concerns over a new, 'fourth' category of drinks that appealed to young people (see Mosher and Johnsson 2005 for a more detailed history). These sweetened, brightly-coloured drinks of around 5% alcohol concentration have been given several names – including 'wine coolers', 'Flavoured Alcoholic Beverages' (FABs) and 'Ready-To-Drink' beverages (RTDs) – but throughout this report are usually described as 'alcopops', following the European Working Group on Alcopops set up in the 1990s.

Despite these recent developments, beer and spirits are still the most popular drinks for young people overall, with beer accounting for over half of the total in 11 countries (5 in the non-EU study countries and 6 in the EU25) (see also Hupkens, Knibbe, and Drop 1993). Spirits are slightly more popular than beer in only three countries (Norway, Italy and Portugal), while alcopops are not the most popular drink in any country (Hemström, Leifman, and Ramstedt 2001).³⁸ Other drinks have a range of popularity in different parts of Europe – three times as many alcopops are drunk in the EU15 as in the EU10, but more wine is drunk by boys in the EU10 than in the EU15 (see Figure 4.13). Within the EU15, levels of spirits and wine consumption on the last occasion are similar, although beer and alcopops are over twice as popular in central compared to southern Europe.

When the amounts of each drink are added together, we find that the average amount of alcohol drunk on the last drinking occasion is 60g of alcohol. No EU15 country outside of southern Europe has an average level below 56g, while in the UK and Ireland the amount drunk on the last occasion even reaches over 80g of pure alcohol. Last occasion drinking levels are slightly lower in the EU10 (see Figure 4.13) and significantly lower in southern Europe, which averaged 38g of pure alcohol.

Drinking frequency and total consumption

On the other hand, a different picture emerges if amount drunk per occasion is combined with drinking frequency to produce an estimate of total annual consumption (bearing in mind that this assumes a consistent level of under-reporting). The frequency of 15-16 year old drinking is highest in central Europe (5-9 times per month) and lowest in northern Europe (around twice per month). The southern and eastern European countries are generally in-between at 3-5 times per month, although a particularly high value is found in Malta (7 times per month). As for other variables (see below), the frequency of drinking was generally higher for boys than for girls, with small gaps only found in the Nordic countries, Ireland and the UK.

For total consumption, this, therefore, means that boys from northern Europe appear to have the lowest levels of consumption (2-3 litres per year) with those in southern and eastern Europe generally drinking more (2-6 litres) and those in central Europe and Malta drinking much more (8-10 litres, and an exceptional 14 litres in the Netherlands – although the robustness of individual values is limited given the concerns in Box 4.1). For girls, those from central Europe and Malta also drink much more than those from anywhere else (4-7 litres compared to 3 litres in the Czech

³⁸ Wine is the most popular beverage in Slovenia, but given the marginal nature of the difference it may be more suitable to see Slovenia as equally split between beer, wine and spirits.

Republic and 1-2 litres elsewhere). Extending this to estimate the proportion of total consumption that is drunk by adolescents in the ECAS countries requires several crude assumptions, but tentatively suggests that the 4%-5% of the total population aged 15-17 years will drink 2%-3% of the total consumption.³⁹

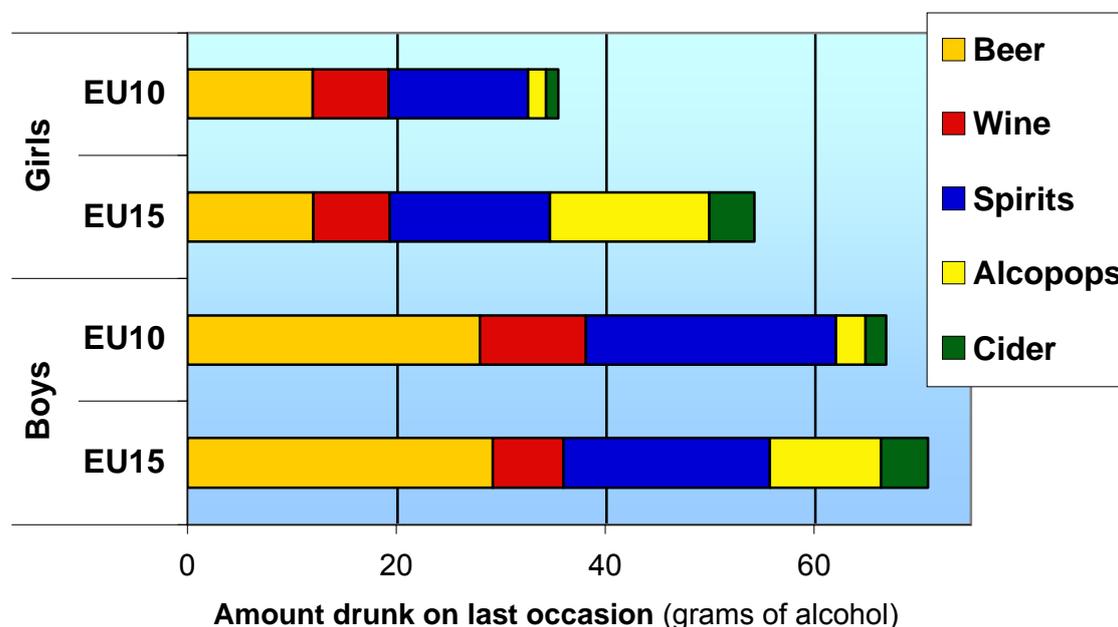


Figure 4.13 A picture of 15-16 year students' last drinking occasion (amount drunk on the last drinking occasion). It has been assumed that there was no consumption of alcopops/cider where the questions were not asked (two countries from each of the EU10 and EU15). As such, these figures may be an underestimate. **Source:** ESPAD 2003 (Hibell et al. 2004).

Binge-drinking and drunkenness in adolescents

As shown in Figure 4.14, the highest levels of both binge-drinking and drunkenness are found in the Nordic countries, UK, Ireland, Slovenia and Latvia.⁴⁰ This contrasts with the low levels found in France, Italy, Lithuania, Poland and Romania – for example, binge-drinking 3+ times in the last month was reported by 31% of boys and 33% of girls in Ireland, but only 12%-13% of boys and 5%-7% of girls in France and Hungary. Perhaps surprisingly, the differences between regions of Europe in Figure 4.14 are not visible at earlier ages, with the variation mainly occurring between the ages of 13 and 15 years. Across the whole EU though, over 1 in 8 (13%) of 15-16 year old students have been drunk more than 20 times in their life, and over 1 in 6

³⁹ This assumes that the ESPAD and ECAS survey coverage rates are similar, that consumption for those aged 15-17 years in ECAS is the same as for those aged 15-16 years in ESPAD, and that drinking by those aged 65 years plus is equal to drinking by those aged 50-65 years. These are all very rough approximations, but provide an indicative figure.

⁴⁰ Although a detailed comparison of the 1998 and 1999 surveys found that ESPAD estimates are higher than those from HBSC (Schmid et al. 2003), the variables used here showed a very high correlation ($r > 0.85$; present authors' own calculation) suggesting that the patterns across countries are similar. As such, lifetime drunkenness more than 20 times (from ESPAD) is used unless otherwise specified. Binge-drinking is highly correlated with similarly worded questions on intoxication ($r > 0.7$; present authors own calculation) but differs sufficiently to be reported separately.

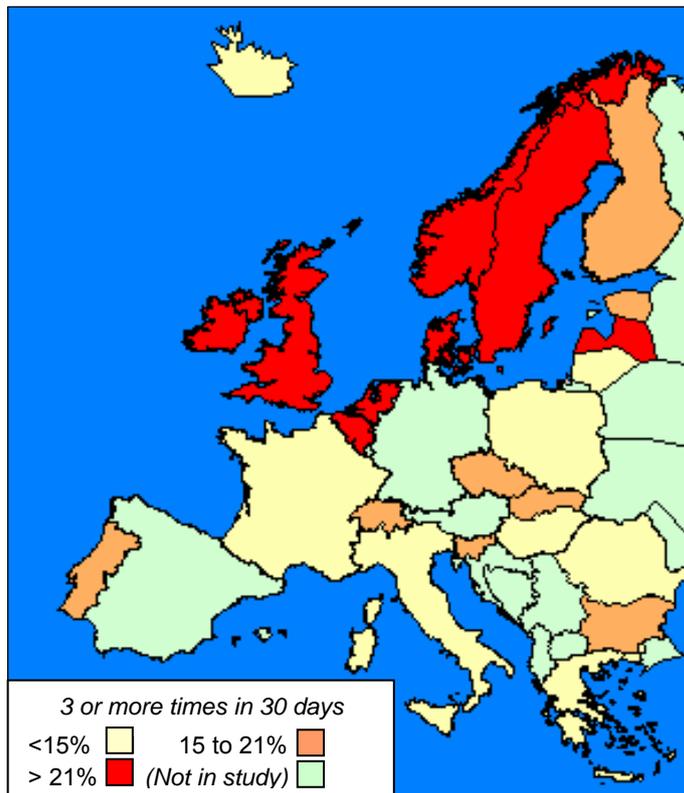


Figure 4.14 Binge-drinking in 15-16 year old students in Europe Defined as 5+ drinks on a single occasion

Source: ESPAD 2003 (Hibell et al 2004)

(18%) have binged (5+ drinks on a single occasion) three times or more in the last month.

To some degree this picture is sensitive to the particular variable used, with the numbers of those binge-drinking *at all* in the last 30 days (taken from the same dataset) showing no difference between differently conceptualised groups of 'wine' and 'spirits' countries (Room 2005). Similarly, students from southern Europe are about five times less likely than those from elsewhere in the EU15 to report being drunk more than 20 times in their life (as in Schmid *et al.* 2003), although they are only half as likely to report drinking 5+ drinks on a single occasion more than 3 times in 30 days. Other individual countries also show large discrepancies between the two measures (e.g. Malta

and Cyprus reporting five times as much binge-drinking as self-reported drunkenness, in contrast to Denmark that saw more drunkenness).

As discussed for adults above, this suggests that self-reports of intoxication may suffer from cultural biases, although there are also problems with binge-drinking as a measure (subjectively felt intoxication may also be of considerable importance for some harms due to 'drunken comportment', see Chapter 5). Qualitative data comparing Nordic and Mediterranean countries confirms that social heavy drinking and intoxication games are found in young people across Europe, but that the lack of self-control associated with visible drunkenness is suppressed in southern European youth culture despite heavy consumption within drinking rituals (Pyörälä 1995; Beccaria and Sande 2003). Further support for this comes from a study on expectations of the effect on alcohol, where those in Malta (culturally similar to other 'wine countries') were relatively surprised to find they were intoxicated, while those in other countries were more likely to expect to feel drunk (cited by Room 2005).

Risk factors in young people's drinking⁴¹

An enormous amount of research has been conducted into the risk and protective factors linked to young people's drinking, although these often work in different directions in different countries and present associational rather than causal evidence. It is beyond the scope of this report to comprehensively review this

⁴¹ Information for families' economic status (students' self-report) is from ESPAD 2003; other information is from HBSC 1998 and 2002.

literature, especially given a much lower level of comparative research on how these risk factors vary within different European environments. This section, therefore, outlines existing pan-European studies and provides brief summaries of recent research in several areas in order to flag important risk factors to the interested reader.

One of the strongest associations with alcohol use is for smoking – across Europe for both genders aged 11-15 years, never smoking is strongly associated with never drinking, frequent smoking is associated with frequent drinking (particularly frequent beer-drinking), and both ever-smoking and frequent smoking are strongly associated with frequent drunkenness (Currie *et al.* 2000; Currie *et al.* 2004; Duarte and Molina 2004). This may partly be a result of the personality trait of 'sensation seeking', which (together with binge-drinking) has been found to independently predict risky alcohol-related behaviours (e.g. drink-driving, fewer 'positive celebratory behaviours') in year 10/11 Australian students (van Beurden *et al.* 2005). Alternatively it may relate to antisocial behaviour, which has been shown (alongside frequent drinking) to predict later alcohol dependence (Bonomo *et al.* 2004). Another strong correlate of drunkenness is educational problems (Currie *et al.* 2000; Duarte and Molina 2004), although evidently this is a bi-directional relationship (cf. Chapters 5 and 6).

Much research has focused on the family of the young person, with a positive family environment being associated with a lowered probability of (risky) substance use (Beinart *et al.* 2002), including high levels of 'parental communication' (Currie *et al.* 2000) and 'parental awareness' (Hibell *et al.* 2004). While some family variables have a varying effect in different countries, a comparison of France and Britain found parental awareness was significantly related to drunkenness in both countries (Ledoux *et al.* 2002). In this context it is interesting to note that parents are more likely to always know where their child is on a Saturday night in southern and central Europe (up to two-thirds always knowing), and least likely to know in the Nordic countries (except Denmark) and the Baltic countries (Hibell *et al.* 2000). Parents can also impact on their (underage) children's' drinking by supplying them with alcohol, with Swedish research suggesting this is associated with heavier, more frequent consumption and increased drunkenness (Lundborg 2002). Finally, living with a single parent or step-parent is also associated with an increased frequency of use of alcohol and of heavy drinking across Europe (Bjarnason *et al.* 2003). When both family dynamics and family structure are considered simultaneously, it appears that family dynamics are one pathway through which family structure affects substance use (Ledoux *et al.* 2002; Hibell *et al.* 2004).

The influence of peers has also been extensively researched, with (for example) self-reported drunkenness across Europe associated with spending time with friends (Currie *et al.* 2000). Any effect of peers is unlikely to be entirely independent of the family, however, with one theory suggesting that peers mediate the protective effect of the family (Gerrard *et al.* 1999). In contrast, a separate developmental model attributes adolescent involvement with 'deviant peers' to poor parenting practices (Nash, McQueen, and Bray 2005). Nash's own research suggests that a supportive family environment – moderated by parental disapproval of substance use – can predict later self-efficacy and peer substance use, which in turn affects later alcohol behaviours.

Across Europe (Hibell *et al.* 2004), perceptions of peer drinking generally mirror the actual patterns of alcohol use above, with the highest values *primarily* in central Europe (e.g. 75% in Germany and 80% in Ireland believing that their friends drank alcohol regularly). The lowest perceptions of peer drinkers were scattered around to a greater degree, with low values found in parts of eastern Europe (e.g. Slovakia

44%) but strong increases visible elsewhere 1995-2003 (e.g. from 50% to 70% in the Czech Republic and Estonia). Perceived peer drunkenness is similarly linked to actual patterns of intoxication, with the highest values in Denmark, Ireland, and the UK (27%-36% believing their friends get drunk every week) and the lowest values in central and southern Europe (8% in Poland, 5% in Portugal). Again, a substantial rise can be seen in most EU10 countries including Estonia (9% to 27%) and Slovakia (4% to 17%).

Even more complex is the link of socioeconomic status (SES) to drinking behaviour across Europe, which shows different relationships in different countries (Hibell *et al.* 2004). The absence of any consistent social gradient, and some suggestions of earlier, heavier use in higher-SES young people (Eurobarometer 2003; Bjarnason 2003), is likely to be because of the limited income young people have available to spend on goods like alcohol (UN Department of Social Affairs 2005:138). This is supported by research showing that alcohol was the greatest expense for young (legal age) males in the Netherlands (Poelen *et al.* 2005), and that young people's income predicts consumption and drunkenness in Spain and the Netherlands (Duarte and Molina 2004; Poelen *et al.* 2005).

This is only a fraction of the full list of risk and protective factors linked to alcohol, including genetic vulnerability, other psychosocial characteristics, social norms (perceived use and approval among peers), elements of the neighbourhood (a deprived neighbourhood being a risk, but opportunities for involvement being a protective factor) and positive behaviour by friends and teachers (standards and praise for positive behaviour being protective factors) (Beinart *et al.* 2002; Olds, Thombs, and Tomasek 2005). However, it would seem unlikely that the variations in the levels of adolescent drinking and drunkenness across Europe described above can be attributed fully to these individual- and area-level factors – a suggestion supported by an analysis of ESPAD data that found an effect of per capita beer sales and particular 'adolescent drinking culture' on individuals' drinking (Bjarnason *et al.* 2003). As should be clear from the brief discussion, these risk factors do not act independently but instead can be thought of as probability models working through multiple pathways to come together in an individual's substance use.

Expectations and perceptions of alcohol

Adolescents' expectations of the consequences of drinking have also been related to the likelihood of binge-drinking at the individual level (Kuntsche, Rehm, and Gmel 2004). Unsurprisingly given the increasing drinking with age reported above, expectations of drinking are more negative at younger ages and become more positive with time (in the UK, starting to become more positive from about 10 years; Wright 1999). Across Europe, about 25% more 15-16 year old students think that positive consequences (e.g. feel happy) are likely or very likely than negative consequences (e.g. do something I regret), which may be either a prior expectancy (leading to consumption) or a post-hoc justification for drinking (Hibell *et al.* 2004). Given that the structure of these responses is relatively stable (countries will tend to be high or low on all positive consequences rather than just 'feel happy'), this can be seen as a 'net rating' of the consequences of alcohol of 25% (positive).

Looking at this by country, the most positive of these overall views comes from central Europe (40% in Denmark and Ireland, i.e. 40% more students saying positive consequences are likely compared to the numbers saying negative consequences are likely). Less positive views are found in northern Europe and especially eastern Europe, while the most negative picture comes from southern Europe (where France and Italy, as well as Romania and Turkey, had ratings of 10% or less).

Adolescents' perceptions of the risk of binge-drinking (asked as the risk of drinking 5 or more drinks on a single occasion) shows a quite similar pattern (Hibell *et al.* 2004). None of the southern EU15 countries had fewer than 40% of 15-16 year olds saying that there was a great risk (values above 50% were also found in Cyprus and Turkey). Perception of risk was lowest where binge-drinking itself was high, including Norway (19%), the Netherlands (19%) and the UK (21%). While the perception of risk has not moved in a consistent direction since 1995, the expected consequences have become significantly more positive between 1995 and 2003, particularly in the EU10, in parallel to a decline in the perceived disapproval of getting drunk every week (data only available 1995-9). In other words, increased binge-drinking in young people in many countries seems to have coexisted with more positive views of alcohol and reduced disapproval of drunkenness, but with no change in how risky young people feel binge-drinking is.

Why do young people drink?

Young people are bound together by the way society thinks of youth, which, in the EU, means new-found independence as well as a pressure to form an individual identity. One form of this is for young people to see drinking as a symbol of adult identity as opposed to the world of childhood (Wright 1999) – but the symbolic potential of alcohol clearly goes beyond statements of age (see also Chapter 2). Drinking may also be motivated by fulfilling different needs that particularly relate to young people's life situation – for example, the latest World Youth Report suggests that alcohol and other drug use “*may become a means of escaping from situations that youth feel powerless to control*” (UN Department of Social Affairs 2005:149). In other cultural contexts, the reverse can equally be true – in Latvia, for example, young people (aged 11-20 years) drink mainly to relax or feel better, while adults mainly drink to forget about their problems (Koroleva 2005).

Many other reasons have been suggested by different groups of young people, including boredom, psychological distress and sociability (Milgram 2001). In the context of pressures on group membership and identity (which also relates to the 'peer pressure' discussed under 'risk factors' above), it is perhaps unsurprising that young people frequently cite the disinhibitory effects of alcohol (e.g. for sociability, or sexual relations) as a key motivation to drink (Kloep *et al.* 2001; Abel and Plumridge 2004). A UK study has divided motivations in 12-17 year olds into three categories: 'individually-based reasons' (relaxation and coping with stressful events), 'socially-based reasons' (linked to relationships with others) and 'peer influence' (Honest, Seymour, and Webster 2000). These are not only similar to the reported motivations of young 'risky' drinkers in a separate UK study (Coleman and Cater 2005), but are also similar to the motivations given by adult drinkers, with the exception of peer influence motivations (Crawford 1987).

While it is likely that motivations vary cross-culturally, it is also important to realise that motivations change considerably with age even within a single country. For example, the 12-13 year olds in the UK study wanted to experiment with alcohol to signal the change from child status, while 14-15 year olds' secretive drunkenness serves both to test limits and to be sociable (Honest, Seymour, and Webster 2000; Newburn and Shiner 2001). It is also likely that different motivations are associated with different patterns of drinking within any particular group (Room 2005); one study found that those seeking a 'buzz' (i.e. intoxicating effect) were more likely to report harmful outcomes than those looking for social facilitation (Coleman and Cater 2005). Although multiple drinking patterns can be associated with any given motivation (Crawford 1987:292), it would be interesting to see if further research across Europe showed any cultural regularities in how motivations relate to drinking patterns and consequences.

Trends in young people's drinking

In line with the attention in young people's risky drinking, it is clear that binge-drinking in young people has increased across much of Europe in the last 10 years, although other aspects of drinking are more ambiguous. Most countries are above the dashed line in Figures 4.15 and 4.16, showing that the numbers binge-drinking regularly has increased since 1995 (or where 1995 data is not available, since 1999). For the vast majority of these countries (coloured in red), the change has been a noticeable size of more than 2%.⁴² However, this rise was not seen everywhere in Europe, with a small number of countries even showing a fall in this period (coloured in blue).

These changes go in the reverse direction to the frequency of drinking in the past 30 days, which decreased considerably across the EU, particularly during the 1995-9 period.

Similar trends in binge-drinking are also visible in EU countries not covered by the ESPAD report, with noticeable rises in reports of being 'really drunk' at least twice in Austria (girls only), Belgium, Spain (mainly girls) and Switzerland (data from HBSC). Other data from Spain for 14-18 year olds also show a jump between 2002 and 2004 in last-month drunkenness (from 24% to 35%), following relative stability in the 1990s (Ministerio de Sanidad y Consumo 2005; Oservatorio 2005). Looking at all the EU countries in the HBSC study, we find that the numbers of both 15-year old boys and girls who report being 'really drunk' more than once has increased in the majority of countries 1994-2002 (for boys, only Austria and Wales were exceptions; there were no noticeable decreases for girls). A smaller but still noticeable increase is also visible for drunkenness in girls at 13 years, although 11-year olds appear to be young enough to miss the new trends.

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⁴² This is not the same as being statistically significant (a real change rather than sampling error), as this is not reported in the ESPAD study.

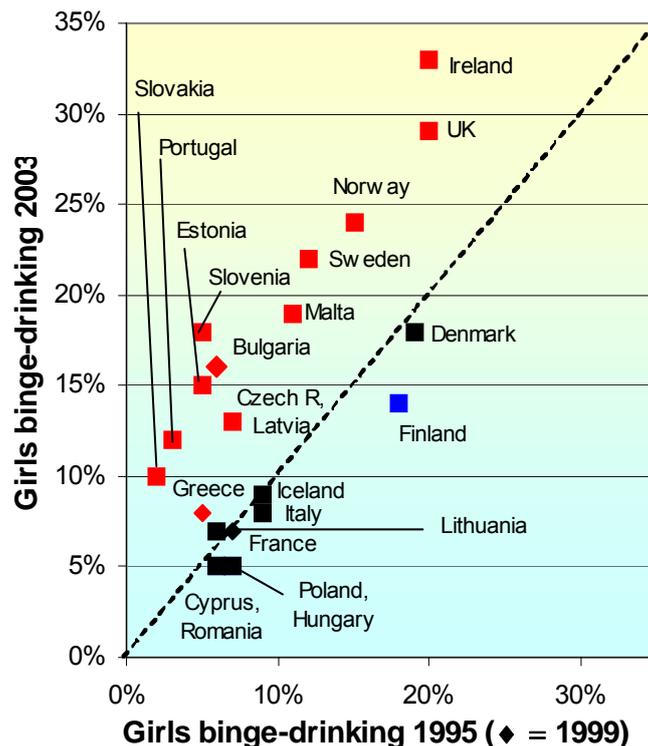


Figure 4.15 Trends in binge-drinking in 15-16 year old **female** students, 1995-2003

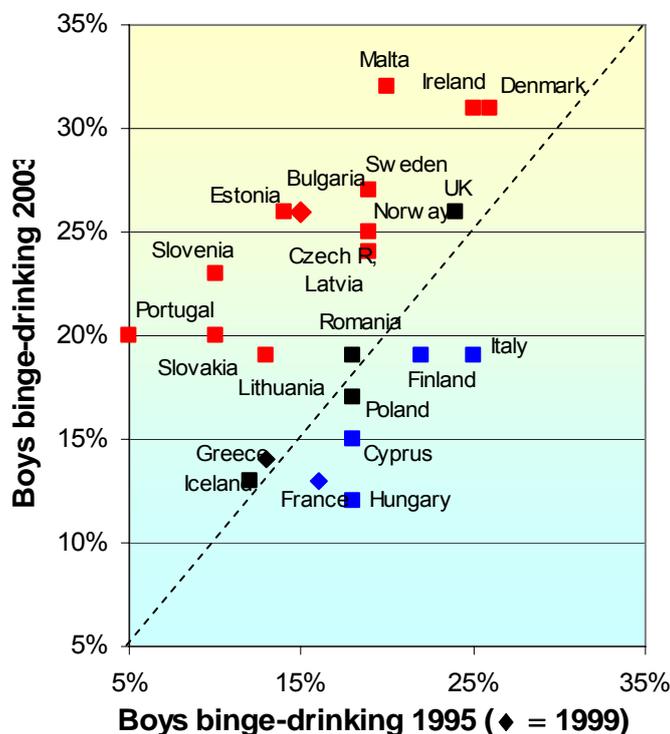


Figure 4.16 Trends in binge-drinking in 15-16 year old **male** students, 1995-2003
 5+ drinks on a single occasion 3+ times in last 30 days. Source: *ESPAD surveys (Hibell et al. 1996; 2000; 2004)* A point above the dashed line means that binge-drinking has increased. Countries in red have seen more than a 2% increase; countries in blue have seen more than a 2% decrease. Countries in black have seen less than a 2% change.

Looking more closely at the ESPAD results (see Tables 4.2 to 4.4), we find that this increase is not a simple linear trend applying equally to the whole of Europe. For the first data period (1995-9 or 1993/4-97/8), we can see a very strong trend for binge-drinking and drunkenness to increase – indeed, none of the three displayed variables for boys show a noticeable *decrease*, while *rises* in at least one variable were seen in 18 of the 22 countries with data. In contrast, trends in the second period (1999-2003 or 1997/8 to 2001/2) are much less clear, with boys showing no discernible trend and girls showing an inconsistent rising trend. Eastern Europe also appears to differ from the rest of Europe in the second period, with more countries showing rising rather than falling binge-drinking and drunkenness (particularly for girls), as well as rises in other measures (including the numbers of 13- and 15-year olds who have ever been drunk and the level of last occasion consumption).

The combination of these trends explains why there is much less systematic difference between the EU10 and EU15 in youth drinking behaviour than there was 10 years ago, as can be shown in the falls in relative dispersion for binge-drinking (15%) and intoxication (28%).⁴³ However, in other aspects of drinking there has been little or no change in recent years. Overall consumption rose in eastern Europe for both boys and girls 1999-2003, but showed no strong changes in the EU15.

Gender and young people's drinking

Despite the media attention on girls' drinking in parts of Europe, it is still the case that boys are more likely than girls to have tried alcohol by age 11 years, be drunk by 13 years, to binge-drink, to be drunk, and to drink more on each drinking occasion (as occurs in the rest of the world, cf. Jernigan 2001). The size of the gender gap varies for different behaviours, and in general is stronger for more unusual behaviour, e.g. boys are more likely than girls to have drunk alcohol by age 11 years, but by 15 years the differences are almost non-existent.

The inequality between genders also changes size in different parts of Europe, where the difference in 'ever having been drunk' is larger in the EU10 than the EU15 (due to a greater frequency in boys but not girls). For many aspects of drinking (e.g. age of first drink, last occasion consumption, binge-drinking) the gap is also noticeably larger in southern Europe than elsewhere, although once more this may be biased by cultural desirability. For the first time in 2003, it is also true that binge-drinking in some countries (the UK and Ireland) and reported drunkenness in others (Finland, Iceland for some measures, and the UK) is more common for girls than boys. It has been suggested that this relative gender equality is linked to the wider position of women in the UK, Ireland, and the Nordic countries, although the complexity of the adult situation (see above) should warn against overly simplistic interpretations here (see also Room 2005).

⁴³ Relative dispersion is calculated as the Coefficient of Variation (CV), described in footnote 8 above.

Table 4.2 Young people's trends in different measures of binge-drinking and drunkenness by country, here showing *binge-drinking three or more times in the past 30 days*.

Red ▲ show a greater than 2% rise; blue ▼ show a greater than 2% fall; grey — show a trend of less than 2%.

| | BOYS | | GIRLS | |
|-----------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1995 – 1999 ¹ | 1999 – 2003 ¹ | 1995 – 1999 ¹ | 1999 – 2003 ¹ |
| Bulgaria | | ▲ | | ▲ |
| Cyprus | | ▼ | | — |
| Czech R. | ▲ | — | ▲ | — |
| Denmark | ▲ | ▼ | ▲ | ▼ |
| Estonia | ▲ | ▲ | ▲ | ▲ |
| Finland | — | — | ▼ | — |
| France | | ▼ | | — |
| Greece | | — | | ▲ |
| Hungary | — | ▼ | — | ▼ |
| Iceland | ▲ | ▼ | ▲ | ▼ |
| Ireland | ▲ | — | ▲ | — |
| Latvia | | ▲ | | ▲ |
| Lithuania | — | ▲ | — | — |
| Malta | ▲ | ▲ | ▲ | — |
| Norway | ▲ | — | ▲ | — |
| Poland | ▲ | ▼ | ▲ | ▼ |
| Portugal | ▲ | ▲ | — | ▲ |
| Romania | | — | | — |
| Slovak R. | — | ▲ | ▲ | ▲ |
| Slovenia ⁴ | ▲ | ▼ | ▲ | — |
| Sweden | ▲ | ▲ | — | ▲ |
| UK | ▲ | ▼ | ▲ | — |

Notes: No results have been displayed for Italy as data were only available for 1995 and 2003; this longer time period showed a fall for boys and no change for girls.

Sources: ESPAD (Hibell *et al.* 1997; Hibell *et al.* 2000; Hibell *et al.* 2004).

Table 4.3 Young people's trends in different measures of binge-drinking and drunkenness by country, here showing *binge-drinking ten or more times per year*

Red ▲ show a greater than 2% rise; blue ▼ show a greater than 2% fall;
grey — show a trend of less than 2%.

| Years | BOYS | | GIRLS | |
|-----------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1995 – 1999 ¹ | 1999 – 2003 ¹ | 1995 – 1999 ¹ | 1999 – 2003 ¹ |
| Bulgaria | | ▲ | | — |
| Cyprus | — | — | — | — |
| Czech R. | ▲ | — | — | ▲ |
| Denmark | ▲ | ▼ | ▲ | ▼ |
| Estonia | ▲ | ▲ | ▲ | ▲ |
| Finland | ▲ | ▼ | ▼ | ▼ |
| France | | — | | — |
| Greece | | — | | — |
| Hungary | — | ▲ | — | ▲ |
| Iceland | — | ▼ | ▼ | ▼ |
| Ireland | ▲ | — | ▲ | ▲ |
| Italy | — | ▲ | — | — |
| Latvia | | — | | — |
| Lithuania | ▲ | ▲ | — | ▲ |
| Malta | — | — | — | — |
| Norway | ▲ | ▼ | ▲ | — |
| Poland | ▲ | — | — | — |
| Portugal | ▲ | ▼ | — | — |
| Romania | | — | | — |
| Slovak R. | — | ▲ | ▲ | — |
| Slovenia | ▲ | — | ▲ | — |
| Sweden | ▲ | ▼ | — | ▼ |
| UK | ▲ | ▼ | — | — |

Sources: ESPAD (Hibell *et al.* 1997; Hibell *et al.* 2000; Hibell *et al.* 2004).

Table 4.4 Young people's trends in different measures of binge-drinking and drunkenness by country, showing *lifetime drunkenness two or more times*

Red ▲ show a greater than 2% rise; blue ▼ show a greater than 2% fall; grey — show a trend of less than 2%.

| Years | BOYS | | GIRLS | |
|----------------------|--------|--------|--------|--------|
| | 1993/4 | 1997/8 | 1993/4 | 1997/8 |
| | — | — | — | — |
| | 1997/8 | 2001/2 | 1997/8 | 2001/2 |
| Austria | ▲ | ▼ | ▲ | — |
| Belgium ¹ | — | ▲ | ▲ | ▲ |
| Czech R. | — | — | ▲ | ▲ |
| Denmark | ▲ | ▼ | ▼ | — |
| Estonia | ▲ | ▲ | ▲ | ▲ |
| Finland | — | — | ▲ | — |
| Greece | | — | | ▼ |
| Hungary | ▲ | ▲ | — | ▲ |
| Ireland | | ▼ | | ▲ |
| Latvia | ▲ | ▼ | — | — |
| Lithuania | ▲ | ▲ | ▲ | ▲ |
| Norway | ▲ | — | ▲ | — |
| Poland | ▲ | — | ▲ | — |
| Portugal | | ▼ | | ▲ |
| Sweden | ▲ | — | ▲ | — |
| Switzerland | ▲ | ▲ | ▲ | ▲ |
| UK ² | | ▲ | | ▲ |

Notes: ¹ French area of Belgium only; ² UK data refers to England only; other regions in the same period show different trends (Scotland showing no change for boys, and a rise and then fall for girls; Wales showing a rise 1993/4-1997/8 and a fall 1997/8-2001/2 for both genders).

No results have been displayed for Slovenia as data were only available for 1993/4 and 2001/2; this longer time period showed no change for boys and a rise for girls.

Sources: HBSC (King and colleagues 1996; Currie *et al.* 2000; Currie *et al.* 2004) reports.

Comparing the trends in drunkenness by gender (see Figures 3.14 and 3.15), it is clear that there were a few exceptions to the rise in drunkenness for boys, whereas it was a very consistent rise for girls. This trend is strongest in the EU15, where 7 of the 10 countries showed a proportional increase in girls' drunkenness that was greater than the change for boys (exceptions were Finland, the only country where drunkenness decreased overall, and Denmark, which had the highest levels in 1995; similar if less pronounced results are also found from HBSC). In some parts of the EU10 (Estonia, Latvia, Slovak Republic and Slovenia), the proportional increase was also much greater in girls than boys, although this trend was not visible everywhere (e.g. Poland, Lithuania). However, these figures can overstate how much the *absolute* gap between girls and boys has gone down – for example, the proportion of Estonian girls getting drunk 3 or more times a month trebled from 5% to 15%, but this is still less in absolute terms than the proportionally smaller 12% rise for Estonian boys. This means that the difference in the numbers of boys and girls getting drunk 3 or more times a month has increased in as many countries as it has decreased in recent years.

In conclusion, there are some signs of a narrowed gap between the genders, but this is happening for some aspects of drinking in some countries rather than being universal. Instead, the main trends in young people's drinking are occurring in parallel for both genders.

Drinking and dependence in young adults

If we look instead at young adults,⁴⁴ we find that younger age groups have the highest level of consumption compared to older ages in some countries and a lower amount elsewhere (Mäkelä *et al.* 2001; Hemström, Leifman, and Ramstedt 2001; Mäkelä *et al.* 2005).⁴⁵ This means that people aged 19-29 years account for an estimated 20%-45% of all consumption in both males and females aged 19-65 years, with the exact value depending on the country (authors' calculation from Hemström, Leifman, and Ramstedt 2001; Ramstedt and Hope 2003). This compares 19-29 year olds accounting for 25%-30% of the population in most countries and 38% in Ireland. Similarly, although young adults generally drink less often than their elders (Eurobarometer 2003), this effect is strongest in southern Europe and Germany (Leifman 2002; Mäkelä *et al.* 2005). This effect is still visible in the Nordic countries and the UK, but is much less strong (particularly for women) and can even disappear depending on the variable used (Leifman 2002).⁴⁶

One major factor behind this seems to be young people's relatively stable preference for drinking in public drinking places such as bars rather than drinking with meals. This is particularly strong in southern Europe (and to a lesser extent, Germany) where young people are considerably less likely to drink with either lunch or the afternoon/evening meal than older groups, yet are more likely to drink at a restaurant or bar (the absolute size of the latter being insufficient to outweigh the former). Young people in northern Europe show a similar level of increased frequency of public drinking, but the frequency of drinking with meals is much less pronounced – and exceptionally in the UK, drinking with meals is even more common in young

⁴⁴ 'Young adults' in this context only refers to either the 18-29 years (in ECAS) or 20-34 years (GENACIS surveys of Mäkelä *et al.* 2004) age group, and therefore excludes children and adolescents.

⁴⁵ Young adults have the highest level of alcohol consumption in northern Europe, Ireland and the UK, but drink less than older groups in central European EU10 countries.

⁴⁶ The effect is visible when drinking frequency is calculated as either the highest beverage-specific drinking frequency or the sum of drinking frequencies for different beverages, but disappears when the number of weekly 'drinking occasions' (with lunch, with dinner, at home without a meal, away from home without a meal) is considered. See also the discussion on measuring frequency of drinking above.

people than others (Leifman 2002). As a result of the different sizes of these age patterns, the contexts of drinking for young people in Europe look different than for older adults (described above); in particular, the UK has a frequency of drinking with afternoon/evening meals that matches that of Italy and is greater than that of France.

As found for public drinking, the frequency of drinking to intoxication is highest in young people compared with older groups in most but not all studies (although exceptions are found in Eurobarometer 2003), and the difference is much stronger in parts of northern Europe, the UK and Ireland than elsewhere (Leifman 2002; Kuntsche, Rehm, and Gmel 2004). In the Baltic region, the pattern seems to divide by gender, with higher rates of binge-drinking compared to older adults found in women but not men in Estonia, Latvia, Lithuania and Finland (Helasoja *et al.* 2005).⁴⁷ The link of youth and beer-drinking across Europe is one of the most consistent patterns – in nearly all countries (except Germany), younger age groups were more likely to choose beer than older groups (Hupkens, Knibbe, and Drop 1993; Hemström, Leifman, and Ramstedt 2001; Leifman 2002).

Although few data are available for looking at trends in young adults' drinking, research in Italy suggests that young people drink relatively less than older age groups in the 1990s when compared with the 1950s (Leppänen, Sullström, and Suoniemi 2001) but are more likely to drink outside meals (Ministero della Salute 2003). To the extent that the declining per capita consumption in Italy is explicable by declining consumption with meals (see discussion below), these findings may in fact be mutually supporting rather than contradictory. In other cases though, it is difficult to divide between trends over time in a population's drinking that occur first in young people (cohort effects) or simple age effects that will not lead to any change at the population level. Only time will tell if the much reduced differences between young adults' drinking in different EU countries (as shown in drinking frequency, beverage preferences and drinking with meals) represent a further harmonization in Europe.

WHAT EXPLAINS EUROPEAN DRINKING TRENDS?

Throughout this chapter we have seen evidence for harmonization of some aspects of alcohol use in some parts of Europe, while other aspects and regions have seen continued differences. In particular, EU countries have come closer together in (i) recorded consumption, (ii) beverage preferences, and (iii) youth drunkenness – in the latter case, a change we can see just from the last 10 years. For recorded consumption levels the harmonization has occurred in most of the EU, but in other areas the convergence is only within the EU15 (for beverage preferences) or between the EU10 and EU15 (for youth drinking). Unfortunately, we do not have the data to see how this relates to trends in risky patterns of drinking for adults, which, given the public health importance of the issue, is a gap that should be closed as a priority.

While these results provide a broad picture of recent drinking trends, they in turn demand an explanation: why has this partial harmonization taken place?

⁴⁷ Youngest age group was aged 20-34 years; 'middle-age' refers to the 35-49 years age group. Binge-drinking defined as six ('regular restaurant') portions on a single occasion.

One possibility is that wider changes in living conditions within the EU are responsible, such as changing patterns of time use, urbanization, and a move from agricultural to industrial/service sectors in the Mediterranean areas (Allamani 2001). However, declining numbers of heavy-drinking agricultural workers in France were responsible for only one-fortieth of the total decline in consumption between 1965 and 1979 (Sulkunen 1989). Indeed, changes in consumption and beverage preferences in France in this period can be observed in all occupational groups (including agricultural workers), as well as in both rural and urban environments. More recently, European studies have shown no systematic differences between rural and urban areas in the EU15 in either the share of their income spent on alcohol or in the level of consumption (Eurobarometer 2003; European Commission 2003b). And on a general level, it is difficult to reconcile a simple single-factor explanation with the different outcomes of similar changes in northern Europe and southern Europe (Simpura 1998). One reason for this may be that the relationship between urbanization and alcohol use is complex and pulls in multiple directions, with some sociologists predicting that alcohol's role as a social lubricant will become more, rather than less, important in the anonymous world of the city (Sulkunen 1989; Simpura 1996).

Economic factors, such as increases in disposable income (especially for young people) and changes in the price of alcohol, have also been considered as a contributory factor in the partial harmonization. For example, it has been found that GDP is an important factor affecting consumption levels in the EU15 (Customs Associates Ltd 2001), while market research firms have predicted rises in consumption due to rising GDP (cited in Anderson 2006). More generally, alcohol consumption levels have been found on many occasions to be responsive to tax and price (see Chapter 7). However, the most comprehensive econometric analysis finds that price and expenditure on their own cannot predict harmonization in consumption levels in the EU15, even though they can explain a part of the variation (Leppänen, Sullström, and Suoniemi 2001; Leifman 2001b). The decline in wine consumption in southern Europe is also clearly problematic from this perspective, given that real prices were stable or declining at the same time as consumption showed a stable decrease (Allamani 2001). Nevertheless, the recession in the mid-1980s has been put forward as a contributory factor in the decline of consumption in southern Europe, while the relative increase in wine prices compared to beer has also been linked to changing beverage choices in Spain (Gual and Colom 1997). This suggests that economic factors may play some part even where alcohol is relatively cheap (see Chapter 9 for a comparison of the price of alcohol in Europe).

A third potential driver of these process is 'globalization' in its many forms, and in particular the business practices of increasingly multinational drinks operators in the EU15 and more recently also within the EU10 (Simpura 1997; Leifman 2001b), as described in more detail in the discussion of marketing in Chapter 7. One aspect of this is the dominance of beer and spirits advertising over wine in southern Europe (Gual and Colom 1997), while another is the deeper ties and market access within the various forms of the EU (see Chapter 8). Perhaps more importantly, this would also seem to suggest that countries are increasingly drinking 'international alcoholic drinks' rather than simply the drinks that have tended to be produced within their own countries. Partially in support of this, the share of imports within all alcohol on the market in Greece, Italy, Portugal and Spain has dramatically increased from 1% or

less in 1970 to between 9% and 18% today.⁴⁸ Yet this means the bulk of alcohol drinks are still domestically produced, and even for beer – the ‘new beverage’⁴⁹ – only Italy gets less than 90% from domestic sources (see also Pyörälä 1989). Furthermore, the power of advertising in precipitating cultural change can be overstated, and it is likely that advertising has prompted or accelerated cultural change rather than being solely responsible for it.

Perhaps the most interesting explanation comes from an analysis of cultural competition between social groups (Sulkunen 1989; Hupkens, Knibbe, and Drop 1993; Knibbe, Drop, and Hupkens 1996). Using the social theory of Pierre Bourdieu (Bourdieu 1984; see also Bourdieu 1990), it has been argued that those people with ‘cultural capital’ use their judgements of taste to cement their high position in society (though this is often unconscious and ‘natural’ rather than made explicit). This judgement of taste diffuses throughout European society based not only on people’s own desire to maximise cultural capital, but also due to their recognition that there is a hierarchy of taste – or in Bourdieu’s famous phrase, because they know that “*taste classifies, and it classifies the classifier*” (Bourdieu 1984:6). Those with less cultural capital adopt the patterns of this elite to show their cultural competence, and in this way it is argued that the behaviour of those with higher status is gradually diffusing through European society. In France, and possibly in the other wine-producing countries such as Italy and Spain, the traditional substantial consumption of wine with meals seems to be seen more and more associated with old-fashioned habits, to be replaced by more stylish drinking behaviour such as abstinence or drinking outside meals (Sulkunen 1989; Simpura 1998). Certainly some of the previous uses of wine have been replaced by consumption of cola, fruit juice and mineral water, drinks that were previously rarely drunk in this region (Gual and Colom 1997).

A strength of this approach is that it seems to be equally true in the rest of the EU15, where non-traditional drinks are also a way of showing fashionable tastes. In northern Europe this translates to the increasing popularity of wine with meals, a trend that (as would be predicted) appears to be strongest in the higher socioeconomic groups (Hupkens, Knibbe, and Drop 1993). Regional data also seems to support this, despite being blurred by the lack of controls for the drinking patterns of different educational groups.

Nevertheless, the relative preference for one beverage over another shows the predicted pattern for the educational level of regions, i.e. less educated regions in the Mediterranean show a stronger tendency to drink wine more often than beer, but those in northern European show the inverse.⁵⁰ It is important not to overstate the explanatory power of this – wine is still the preferred beverage in France, for example, particularly in certain regions – but it points to a possible common cause underneath some of the otherwise diverse trends in Europe.

⁴⁸ Alcohol availability calculated as “production + imports – exports”; all data (by weight) from the UN Food and Agriculture Organization’s Statistical Division (FAOSTAT), publicly available from <http://faostat.fao.org/>.

⁴⁹ Beer is not wholly ‘new’ to southern Europe, its existence having been known for several thousand years. However, both beer in southern Europe and wine in northern Europe are sometimes described as ‘new beverages’ given their absence from frequent mainstream use in recent history.

⁵⁰ Present authors’ re-interpretation of data presented by Knibbe *et al.* (Knibbe, Drop, and Hupkens 1996). The original study saw no support for this trend for beer, but took no account of the *relative* preference for one beverage over another. Instead, the absolute correlations of the frequency of drinking beer/wine with the regional educational level were used, which seemed to create a distortion in the results.

A final factor to be considered is the impact of public health policy, where there has also been a harmonization since the Second World War (see Chapter 9). The change in policy measures has been most noticeable where there were few policies before – including southern European countries – and it has been noted that the decrease in consumption in these countries started at around the same point that these policies were starting to be adopted (Gual and Colom 1997). Gual and Colom further note that a public policy aim of curbing the use of spirits may have contributed to a growth in beer drinking. There may also be an effect of public health policy on young people's drinking, given that the rise in binge-drinking in the EU15 in the mid-to-late 1990s was followed by increased awareness and action on a national and European level (see Chapter 8)

A major difficulty here is in separating out the causes and effects of policy: an increase in awareness of alcohol-related harm may both reduce risky drinking and increase the chances of alcohol policies being adopted (Allamani 2001). For example, respondents to surveys in France in the early 1980s often said that health concerns were behind their reduced drinking (cited in Sulkunen 1989), which in turn can be linked to the changing French policies on alcohol. While it, therefore, seems unlikely that stringent public health policies can fully explain a large cultural shift, increasing levels of alcohol policy are frequently cited by market research organisations as factors explaining reduced consumption in countries such as France (for an example on underage drinking enforcement and drink-driving, see Euromonitor and just-drinks.com 2005:11, 23).

Cultural complexity and youth trends

These economic and cultural forces should not be seen as artificially distinct processes; instead, they are ways to understand a complex interplay of factors that are undoubtedly at work in what some have termed the 'modernization' of drinking preferences in Europe (see also below). For example, increasing health awareness may partly explain why wine is viewed as less stylish than it was before in France (Sulkunen 1989), while the 20th century explosion of car use has helped convince many in southern Europe that alcohol is a health risk (Gual and Colom 1997; Simpura 1998). More importantly, the globalization of cultural forms alongside the globalization of commerce (Simpura 1997) may have important implications for the style and taste associated with particular drinking practices, potentially leading to increasing harmonization. This can be seen in the increased movement of both people and cultural artefacts (e.g., TV programmes, films, music, and books) between regions and countries, giving people the opportunity to view alternate ways of life (and on a narrower level, alternate ways of drinking). Even if naïve models of cultural homogenization have now been generally dismissed, the increased exposure and use of previously 'foreign' cultural forms – particularly among young people – may lead to trends and fashions occurring across several geographical areas in parallel in a way that was much rarer in a less globalized world.

This may partially explain the harmonization in drunkenness between the EU10 and EU15 over the past decade, and the increasing reports of risky alcohol use in young people in countries not used to these problems. This includes rising binge-drinking in Portugal (Hibell *et al.* 2004), increased drinking outside meals in Italy (Ministero della Salute 2003), and the phenomenon of large numbers of young people drinking and listening to music until the early hours of the morning in Spanish towns known as 'el botellón' (Baigorri, Fernández, and GIESYT 2004). This has occurred within a context of increasing use of illicit drugs in the 1990s (Hibell *et al.* 2000), often by young people as part of an occasional leisure activity (Allaste and Lagerspetz 2002), and leading to what some have called the 'recreational drug wars' between legal and illegal drugs (Brain 2000). This suggests that alcohol and other drugs have to

compete for their youth market by offering increasing 'highs' in the pursuit of pleasure, both in terms of the alcoholic product and the environment in which it is consumed (Measham 2004).

Although much of this analysis has been for the UK, a similar context has been observed throughout the EU. For example, drug use "is becoming more and more a consumption phenomenon rather than a deviant phenomenon" in Italy (Beccaria and Sande 2003:104), while there was a doubling of cannabis use and a quadrupling of cocaine use in Spain 1994-2002, followed by a sharp rise in binge-drinking 2002-4 (Ministerio de Sanidad y Consumo 2005). Based on the experience of the Estonian capital Tallinn, it has been suggested that recreational drug use among young people depends upon both a free media and the breakthrough of 'youth culture', itself a product of cultural change, economic growth and globalization in the post-World-War-II period (Allaste and Lagerspetz 2002). While other diverse causes may underpin these trends, it has been argued that the common experience of consumerism and individualism – creating a world of unmet expectations and isolation that people attempt to consume their way out of – may further be partially responsible (Eckersley 2005). Further analyses of both the extent and causes of these trends from a European perspective would be valuable in extending these conjectures, helping to explain the patterns clearly visible in young European citizens.

Yet despite these many forces at work, it is also important to remember that ways of drinking are deeply embedded in European cultures, and have their own inertia that makes the pace of change often very slow (Simpura, Karlsson, and Leppänen 2001). Indeed, this inertia may be linked to the internal rhythms of alcohol consumption in 'long waves' (see e.g. Simpura 1995). Recent changes in youth drinking culture may suggest that young people are more open to change than adults, which has an intuitive appeal. Nevertheless, the proportion of young people in a region did not correlate with the adoption of the 'new beverage' in any part of Europe (Knibbe, Drop, and Hupkens 1996), while adult drinking cultures are still an important factor in patterns of youth drinking (Bjarnason *et al.* 2003). Most clearly of all, the evidence presented in this chapter shows that many of the patterns in adult drinking are replicated in their younger counterparts, despite the differences within each country between generations.

CONCLUSION

This chapter has sketched out the current picture of drinking habits in the EU, the highest-drinking region in the world. It has shown how population consumption levels are likely to move in tandem with the numbers of heavy drinkers, while trends in non-drinkers move relatively independently. Within this broad view, there are some clear differences – both between population subgroups (defined by socioeconomic status, gender or age) and between the countries of Europe. Yet the most striking feature from a long-term perspective is the partial harmonization that has taken place, sometimes within the whole EU (for consumption levels) and sometimes only within certain parts of the EU (between the EU10 and EU15 for youth drunkenness, within the EU15 for beverage preferences). There also appears to be a trend for new, riskier patterns of alcohol use in young people across many parts of Europe, although the general increase does not mean that young people are entirely disconnected from the drinking culture of their home country.

While trying to summarize the European situation is not always easy, trying to explain the reasons behind it are undoubtedly more difficult. A simple term such as 'modernization' can incorporate a number of different explanations, all of which interact in complex ways and often differently in different contexts. That said, the five broad perspectives considered above – living conditions, economic changes, globalization, cultural competition and public health policy – together offer a way of trying to grapple with these changes, and potentially guide predictions as to the future. Changing time use and urbanization may well have played some part in converging consumption levels, as may be true for rising prosperity, although in neither case do they explain as much as is sometimes thought. Globalization, by which we particularly mean the internationalization of the alcoholic drinks industry, has increased the availability of 'foreign' drinks types and also gradually standardized marketing practices (if not content). This may well connect to the symbolic competition going on within everyday choices, and partially explain why 'new drinks' have become more desirable across the EU15. Finally, while it is hard to fully separate out the policy effect from other factors, it is widely accepted – from both a public health and industry standpoint – that the converging and generally increased public health policies on alcohol (see Chapter 9) have contributed in some way to the observed harmonization in drinking levels.

From a public health policy-making perspective, these changes in drinking behaviour need to be further understood within the context of drinking-related harm. It is to these risks and outcomes that the following two chapters now turn.

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