

# Alcohol misuse: tackling the UK epidemic

February 2008



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A publication from the BMA Science and Education department and the Board of Science.

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# Abbreviations

A&E	accident and emergency
AERC	Alcohol Education Research Council
ANARP	Alcohol Needs Assessment Research Project
ASA	Advertising Standards Agency
AUDIT	Alcohol Use Disorders Identification Test
BAC	blood alcohol concentration
BCS	British Crime Survey
CHD	coronary heart disease
CNS	central nervous system
DALY	disability adjusted life year
DCMS	Department for Culture, Media and Sport
DEFRA	Department for Environment, Food and Rural Affairs
DES	direct enhanced service
DH	Department of Health
DHSSPS	Department of Health, Social Services and Public Safety
DSD	Department for Social Development
ESPAD	European School Survey Project on Alcohol and other Drugs
EU	European Union
FASD	fetal alcohol spectrum disorders
FAST	Fast Alcohol Screening Test
FCAC	Framework Convention on Alcohol Control
FCTC	Framework Convention on Tobacco Control
GHS	General Household Survey
GP	general practitioner
ICD-10	International Classification of Diseases (Tenth revision)
LGB	lesbian, gay and bisexual
MAST	Michigan Alcoholism Screening Test
NES	national enhanced service
GMS	general medical services
NHSS	national healthy school standard
NICS	Northern Ireland Crime Survey
NWPHO	North West Public Health Observatory
OCJS	Offending Crime and Justice Survey
ONS	Office for National Statistics
PAT	Paddington Alcohol Test
PCT	primary care trust
PMSU	Prime Minister's Strategy Unit
PND	penalty notices for disorder
POST	Parliamentary Office for Science and Technology
PSHE	personal, social and health education
QOF	quality outcomes framework
RASG	Retail of Alcohol Standards Group
SALSUS	Scottish Adolescent Lifestyle and Substance Use Survey
SCS	Scottish Crime Survey
SEHD	Scottish Executive Health Department
SHS	Scottish Health Survey
SIGN	Scottish Intercollegiate Guidelines Network
UK	United Kingdom
USA	United States of America
WHO	World Health Organisation

# Glossary

## Note

An alcoholic beverage is a drink containing ethanol (ethyl alcohol). For this report, the term alcohol refers to ethanol rather than the broader definition of alcohol that incorporates other compounds including methanol, propanol and butanol.

## Alcohol abuse

A term in wide use but of varying meaning. The *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV) defines psychoactive substance abuse as a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:

- recurrent substance use resulting in a failure to fulfil major role obligations at work, school, home (eg repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)
- recurrent substance use in situations in which it is physically hazardous (eg driving an automobile or operating a machine when impaired by substance use)
- recurrent substance-related legal problems (eg arrests for substance-related disorderly conduct)
- continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (eg arguments with spouse about consequences of intoxication, physical fights).<sup>1</sup>

The term is not used in the World Health Organisation (WHO) International Classification of Diseases 10th revision (ICD-10), where harmful and hazardous use are the equivalent terms. In common usage, the term 'abuse' is sometimes used to refer to any use at all, particularly of illicit drugs. In other contexts, abuse refers to persistent or sporadic excessive drug use inconsistent with or unrelated to acceptable medical practice.<sup>2</sup> The term alcohol abuse is used predominantly in the United States of America (USA).

## Alcohol misuse

The use of alcohol for a purpose not consistent with legal or medical guidelines.<sup>2</sup>

## Alcohol dependence syndrome

Alcohol dependence syndrome is classified by the ICD-10 as a cluster of behavioural, cognitive, and physiological phenomena that develop after repeated alcohol use and that typically include a strong desire to consume alcohol, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to its use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state.<sup>2</sup>

## Alcoholism

A term of common use and variable meaning, generally taken to refer to chronic continual drinking or periodic consumption of alcohol which is characterised by impaired control over drinking, frequent episodes of intoxication, preoccupation with alcohol, and the use of alcohol despite adverse consequences.<sup>2</sup> Alcoholism is not included as a diagnostic term in ICD-10.

## Alcohol use disorders

A generic term used to denote mental, physical, and behavioural conditions of clinical relevance and associated with the use of alcohol. The disorders include acute intoxication, harmful use, dependence syndrome, withdrawal syndrome (with and without delirium), psychotic disorders, and amnesic syndrome.<sup>2</sup>

## Binge drinking

The terms 'binge drinking' or 'binge' have no standard definition. Traditionally, a 'binge' has been used to describe a pattern of heavy drinking occurring over a prolonged period set aside for the purpose. Recent common use of the term 'binge' refers to a single drinking session intended to, or actually leading to, intoxication. A pattern of repeated 'binge' sessions is commonly therefore referred to as 'binge drinking' or 'heavy episodic drinking'. Alternative definitions of a 'binge' focus on specific and objective quantities of alcohol; for example, the UK Prime Minister's Strategy Unit (PMSU) defines a 'binge' as drinking over twice the recommended guidelines for daily drinking (see separate definition for recommended drinking guidelines).<sup>3</sup>

## Blood alcohol concentration

Blood alcohol concentration (BAC) is the concentration of alcohol in blood. It is measured either as a percentage by mass, by mass per volume, or a combination. In the United Kingdom (UK), BAC is reported as milligrams of alcohol per 100 millilitres of blood (eg 80mg per 100ml). In many countries, BAC is measured and reported as grams of alcohol per 1,000 millilitres (1 litre) of blood (g/1,000 ml). For purposes of law enforcement, BAC is used to define intoxication and provides a rough measure of impairment. Most countries disallow operation of motor vehicles, boats, aircraft and heavy machinery above prescribed levels of BAC. Blood alcohol concentration is commonly referred to as blood alcohol content.

## Harmful drinking

Harmful drinking is a pattern of alcohol use that causes damage to physical and/or mental health.<sup>2</sup> Harmful use commonly, but not invariably, has adverse social consequences. Social consequences on their own, however, are not sufficient to justify a diagnosis of harmful use.<sup>2</sup> Harmful drinking is included as a diagnostic term in the ICD-10.

## Hazardous drinking

Hazardous drinking is a pattern of alcohol use that increases the risk of harmful consequences for the individual.<sup>2</sup> In contrast to harmful use, hazardous drinking refers to patterns of use that are of public health significance despite the absence of any current disorder in the individual user.<sup>2</sup> Hazardous drinking is not included as a diagnostic term in the ICD-10.

## Heavy drinking

A pattern of drinking that exceeds some standard of moderate drinking. In the UK, heavy drinking is defined as consuming eight or more units for men and six or more units for women on at least one day in the week.<sup>3</sup>

## Moderate drinking

An inexact term for a pattern of drinking that is by implication contrasted with heavy drinking. It denotes drinking that is moderate in amount and does not cause problems.<sup>2</sup>

### **Recommended drinking guidelines**

Guidelines set by the UK Government that provide advice on daily and weekly maximum alcohol consumption levels. The guidelines recommend that men should not regularly drink more than three to four units of alcohol per day, and women should not regularly drink more than two to three units of alcohol per day. In terms of weekly limits, men are advised to drink no more than 21 units per week and women no more than 14 units per week. These guidelines are commonly referred to as 'sensible drinking guidelines'.

### **Unit**

In the UK, alcoholic drinks are measured in units and each unit corresponds to 7.9 grams (g) or 10 millilitres (ml) of ethanol. The value of one UK unit does not necessarily correspond to a typical serving size. For example, one unit of alcohol approximates to half a pint of ordinary strength beer, lager, or cider (3-4% alcohol by volume), or a small pub measure (25ml) of spirits (40% alcohol by volume). There are one and a half units of alcohol in a small glass (125ml) of ordinary strength wine (12% alcohol by volume), or a standard pub measure (35ml) of spirits (40% alcohol by volume). There is also substantial variation in the standard measures used in bars and restaurants as well as measures poured in the home. Different methods are used to define standard measurements internationally none of which correspond to the UK unit.

## Foreword

Alcoholic beverages consumed in moderation are enjoyed by many. Although socially accepted, alcohol can be an addictive drug. Alcohol misuse can be harmful foremost to the individual but also places a substantial burden on families and society. The levels of alcohol-related disorder, crime, morbidity and premature mortality in the UK are unacceptably high. Despite this, the strategy to reduce alcohol-related harm in the UK has seen an over-reliance on popular but ineffective policies, as well as liberalisation of the major drivers of alcohol consumption: availability and price. This represents a significant shortcoming in the political drive to improve public health and order.

It is essential that the UK Governments implement alcohol control policies that are evidence-based and proven to reduce alcohol-related harm. This includes policies that limit access to alcohol, as well as enforcement of responsible retailing and a move away from self-regulation by the alcohol industry. Targeted approaches are vital, including measures to reduce alcohol consumption by young people and children, and a greater emphasis on the provision of treatment for individuals who misuse alcohol.

The BMA has developed comprehensive policy on alcohol, and this report unifies its work and identifies effective, evidence-based policies for reducing the burden of alcohol misuse in the UK. It continues the work of the Board of Science on alcohol and health promotion which has resulted in a number of publications including *Fetal alcohol spectrum disorders – a guide for healthcare professionals* (BMA, 2007), *Binge drinking* (2005), and *Adolescent health* (2003) (see Appendix 1).

The aim of this report is to tackle alcohol misuse and not to assail those who enjoy consuming alcohol sensibly. It proposes policies that promote a culture where alcohol is enjoyed safely. As with other BMA Board of Science publications, this report is intended for policy makers with strategic or operational responsibility for public health and health promotion in the UK.



Professor Sir Charles George  
Chair, Board of Science

The Board of Science, a standing committee of the BMA, provides an interface between the medical profession, the Government and the public. The Board produces numerous reports containing policies for national action by government and other organisations, with specific recommendations affecting the medical and allied professions.



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## Executive summary

This report considers a range of evidence-based policies to tackle the problematic levels of alcohol misuse in the UK and is not intended to assail those who enjoy consuming alcohol in moderation.

Alcohol consumption represents an integral part of modern culture in the UK and internationally. Alcohol is a psychoactive substance and its consumption in moderation can lead to feelings of relaxation and euphoria. It is also an addictive drug and its misuse is associated with a wide range of dose-related adverse sequelae that can lead to significant harm to the individual and society.

Since 1950, alcohol consumption in the UK has risen from 3.9 litres pure alcohol per capita per year to a peak of 9.4 litres in 2004. Despite a recent fall to 8.9 litres, per capita consumption in the UK has remained consistently above 7 litres pure alcohol per year since 1980. The UK is among the heaviest alcohol consuming countries in Europe. The vast majority of the UK adult population consumes alcohol. The prevalence of alcohol consumption varies considerably by ethnic group. Only nine per cent of the White British population are non-drinkers, whereas 48 per cent of Black African origin and 90 per cent or more among those of Pakistani and Bangladeshi origin abstain from alcohol. There are also differences in alcohol consumption between men and women with men drinking twice as much alcohol as women on average per week. Individuals in employment are more likely to drink frequently compared to those who are unemployed.

A similar pattern is also seen for socio-economic classification. Individuals in managerial and professional occupations are more likely to drink more frequently than those in routine and manual occupations.

A large majority of the individuals in the UK who consume alcohol, do so in moderation. Analysis of the patterns of alcohol consumption, however, reveals that a significant proportion misuse alcohol by drinking above the UK recommended guidelines. Of particular concern is the pattern of drinking among adolescents, and the high level of binge drinking and heavy drinking among men and women in the 16 to 24 and 25 to 44 age groups. UK teenagers are among the most likely in Europe to report heavy consumption of alcohol, being intoxicated and experiencing adverse effects of drinking.

During the 1990s, the prevalence of alcohol misuse increased among both men and women, and in particular in the 16 to 24 age group. This upward trend was particularly marked among young women to the extent that consumption among this group is now the highest in Europe. The upward trend may have peaked, however. In the 16 to 24 age group, there has been a downward trend since 2003 in the proportion of men drinking above recommended daily guidelines and drinking heavily. A similar downward trend has occurred among women aged 16 to 24 since 2002. Data on average weekly consumption show a similar downward trend in recent years. It is not yet possible to determine whether these recent trends in alcohol consumption are genuine long-term changes in drinking habits. Recent years have seen an increasing trend among UK adults toward home-based alcohol consumption. This trend toward home-based alcohol consumption most likely reflects the lower cost of alcohol in off-licences compared to licenced premises in the UK. Among younger adults, there is also an increased tendency to consume alcohol at home prior to going out.

Alcohol consumption has been shown to be causally related to over 60 different medical conditions and is a significant cause of morbidity and premature death worldwide. In the majority of cases there is a dose-response relation, with risk increasing with the amount of alcohol consumed. Moderate alcohol consumption is not usually harmful to health. Indeed, consumption at moderate levels or below in older men and women is associated with a lower risk of coronary heart disease (CHD), ischaemic stroke and diabetes mellitus, compared to individuals who abstain from alcohol. Drinking heavily, however, can result in significant health problems through either acute or chronic misuse. In the UK, the burden of alcohol-related morbidity and mortality is

shifting to younger age groups in both men and women, and toward the most socially deprived groups. The pattern of consumption is important in determining the impact of alcohol misuse on health. Binge drinking is a particularly harmful form of alcohol consumption and significantly increases the risk of alcohol dependence in men and women. The frequency of heavy drinking by the pregnant mother is also associated with the occurrence of a range of completely preventable mental and physical birth defects collectively known as Fetal Alcohol Spectrum Disorders (FASD).

Alcohol misuse can lead to many harmful consequences for the individual drinker, their family and friends. It significantly impacts on family life and is also a significant contributory factor in domestic violence incidents in about 50 per cent of cases. Parental alcohol misuse is also correlated with child abuse and impacts on a child's environment in many social, psychological and economic ways. Driving under the influence of alcohol is a significant cause of death and serious injury from road traffic crashes in the UK. In 2006, six per cent of all road casualties and 17 per cent of road deaths were due to alcohol intoxication. Alcohol consumption by other road users such as cyclists and pedestrians is also associated with fatalities and injuries. The levels of alcohol-related crime and disorder vary with age and pattern of drinking, with alcohol-related offences particularly common among binge drinkers in the 18 to 24 age group compared to other regular drinkers. Drinking alcohol, especially frequent drinking, is also a significant factor in criminal and disorderly behaviour in young people aged under 18.

The cost of alcohol misuse in the UK is substantial, both in terms of direct costs (eg costs to hospital services and the criminal justice service) and indirect costs (eg loss of productivity and the impact on family and social networks). The control of alcohol at a national and international level is therefore essential. This requires the implementation of strategies that are effective at reducing overall alcohol consumption levels in a population, as well as targeted interventions aimed at specific populations who misuse alcohol, or individuals who are dependant on alcohol.

### **Effective policies to reduce alcohol-related harm in the UK**

There is a substantial body of evidence demonstrating that targeted and population-wide alcohol control policies can reduce alcohol-related harm. Historically, changes in alcohol control policies in the UK have been accompanied by fluctuations in alcohol consumption levels and associated problems. Since the Second World War, there has been considerable deregulation and liberalisation of alcohol control policies in the UK, which have been accompanied by an increase in consumption levels and alcohol-related problems. Current UK governmental alcohol control strategies have been the subject of much criticism due to the lack of commitment to evidence-based harm reduction policies. Lessening the burden of alcohol misuse in the UK requires strong leadership and the implementation of effective alcohol control policies that reduce overall consumption levels and minimise the harm to the public and the individual. Developing comprehensive alcohol control policies requires partnership between governmental agencies and organisations throughout the UK.

### **Access to alcohol – controlling price and availability**

Access to alcohol is an important determinant of alcohol use and misuse. This incorporates the implementation of policies that regulate the affordability of alcohol as well as the introduction and enforcement of strict controls on the availability of alcohol to adults and young people. In the UK, the affordability of alcohol increased by 65 per cent between 1980 and 2006. Over the corresponding time period, per capita alcohol consumption aged 15 and over increased from 9.4 to 10.9 litres pure alcohol. Since 1997, excise duties on wine and beer in the UK have only increased in line with inflation while the duty on spirits has not increased. There is strong and consistent evidence that increases in price have the effect of reducing consumption levels, and the rates of alcohol problems including alcohol-related violence and crime, deaths from liver cirrhosis,

and drink-driving deaths. Increases in the price of alcohol not only affect consumption at a population level, but there is evidence that particular types of consumers (eg heavy drinkers and young drinkers) are especially responsive to price. Studies have also reported that price increases have the effect of reducing rates of alcohol problems including alcohol-related violence and crime. As part of a range of measures to reduce alcohol misuse, it is essential that the level of excise paid on all alcoholic beverages is increased at higher than inflation rates and that this increase is proportionate to the amount of alcohol in the product. This increased taxation would reduce alcohol consumption and its related harms, and would also contribute to providing the necessary funding to meet the social and economic costs of these harms.

Licensing interventions are one of the most influential methods for controlling alcohol consumption and misuse through regulation of where, when and to whom alcohol can be sold. There is strong evidence that increased opening hours are associated with increased alcohol consumption and alcohol-related problems. Conversely, reductions in opening hours and the number of outlets are associated with reductions in alcohol use and related problems. The Licensing Act 2003 now permits 24-hour opening in England and Wales. Of particular note, is the fact that public health was not considered as one of the licensing objectives in the 2003 Licensing Act. The proposed changes to licensing in Scotland and Northern Ireland will permit more modest extensions in opening hours. A high density of alcohol outlets is associated with increased alcohol sales, drunkenness, violence and other alcohol-related problems. Consumers are likely to be deterred from purchasing alcohol when there is a lower density of outlets due to the increased time and inconvenience involved in purchasing it.

### ***Responsible retailing and industry practices***

Numerous factors contribute to the culture of drinking to excess and the rise in underage age drinking and alcohol-related harm in the UK. Key areas are the supply and promotion of alcohol to consumers. Active enforcement of laws regulating licensing hours and prohibiting the sale of alcohol to individuals who are intoxicated or those underage have been shown to be effective at increasing compliance with legislation. The layout, design and internal physical characteristics of licensed premises are also important considerations for strategies to reduce alcohol-related crime and disorder.

Irresponsible promotional activities are common in licensed premises and off-licences (including supermarkets and local convenience stores) throughout the UK, so it is essential that these forms of promotional activity are strictly regulated; thus prohibiting price promotions on alcoholic beverages, and by establishing minimum price levels. Repeated exposure to high-level alcohol promotion influences young people's perceptions, encourages alcohol consumption and increases the likelihood of heavy drinking. Specific advertising strategies such as sponsorship of sporting and music events, as well as advertisements using celebrity endorsements all serve to reinforce the image of alcohol among young people and predispose them to drinking well below the legal age to purchase alcohol. It is essential that there is statutory regulation of the marketing of alcoholic beverages in the UK. This includes prohibiting the broadcasting of alcohol advertising at any time that is likely to be viewed by young people, with specific provisions banning alcohol advertising prior to 9pm and in cinemas for films with a certificate below age 18.

Consideration also needs to be given to prohibiting alcohol industry sponsorship of sporting and music events aimed mainly at young people.

### ***Measures to reduce drink-driving***

Considerable reductions in the incidence of drink-drive road incidents and related deaths have occurred in the UK since 1980. The number of fatalities and serious injuries resulting from drink-drive road crashes, however, remains significantly high. In the UK, the BAC limit is 80mg/100ml which is among the highest in Europe, yet there is a marked deterioration in driving performance between a BAC of 50mg/100ml and 80mg/100ml. Drinking by drivers with a BAC between 50mg/100ml and 80mg/100ml is a significant but largely hidden cause of road traffic crashes and has been estimated to account for 80 road deaths a year in England. Newly qualified drivers are felt to be particularly at risk of alcohol-related road crashes as a result of their limited driving experience. It is essential that further measures are implemented to build on progress achieved over recent years in reducing the levels of drink-driving in the UK. This includes a reduction in the legal BAC limit from 80mg/100ml to 50mg/100ml, and consideration for further reductions for all newly qualified drivers.

### ***Education and health promotion***

The use of public information and educational programmes is a common theme for alcohol control policies in the UK and internationally. Such approaches are politically attractive but have been found to be largely ineffective at reducing heavy drinking or alcohol-related problems in a population. In the UK, mass media campaigns, public service messages and school-based educational programmes are used as key alcohol control measures. While these may be effective at increasing knowledge and modifying attitudes, they have limited effect on drinking behaviour in the long term. It is essential that the disproportionate focus upon, and funding of, such measures is redressed.

Much of the strategy to reduce alcohol-related harm in the UK focuses on recommended drinking guidelines. While the majority of people are aware of the existence of these guidelines, few can accurately recall them, understand them, or appreciate the relationship between units and glass sizes and drink strengths. Labelling of alcoholic beverage containers would be a useful method for explaining recommended drinking guidelines and for supporting other alcohol control policies. In the UK, recent voluntary agreements with the alcohol industry have led to the inclusion of information on unit content on some alcoholic beverages. The recommended guidelines, however, may only be one of the sources that inform individual decision-making with respect to alcohol consumption. Other influences include intrapersonal factors such as prior drinking experiences and interpersonal reasons such as peer influence.

### ***Early intervention and treatment of alcohol misuse***

Preventing alcohol-related harm requires the accurate identification of individuals who misuse alcohol, and the implementation of evidence-based interventions to reduce alcohol consumption. At present there is no system for routine screening and management of alcohol misuse in primary or secondary care settings in the UK. Screening and management occur opportunistically and where clinically appropriate in both settings. Identification of alcohol misuse among people not seeking treatment for alcohol problems can be achieved via alcohol screening questionnaires, detection of biological markers and detection of clinical indicators. The use of alcohol screening questionnaires is an efficient and cost-effective method for detecting alcohol misuse. Biological markers can be used as adjuncts to questionnaires for the screening process. Primary care, general hospital and accident and emergency (A&E) settings provide useful opportunities for screening for alcohol misuse and the delivery of brief interventions. It is essential that systems are developed in order to encourage this activity on a regular basis. Effective operation of such systems requires adequate funding and resources, and

comprehensive training and guidance on the use of validated screening questionnaires as well as the provision of brief interventions. Routine screening in primary care could be facilitated by the implementation of a directed enhanced service (DES).

Brief interventions (behavioural modification techniques) provide prophylactic treatment and produce clinically significant effects on drinking behaviour and related problems in non-alcohol dependent individuals. For individuals with more severe alcohol problems and levels of dependence, specialised alcohol treatment services can effect significant reductions in alcohol use and related problems. It is essential that individuals identified as having severe alcohol problems or as being alcohol dependent are offered referral to specialised alcohol treatment services. Not all individuals however, with severe alcohol problems will recognise or agree that they have an alcohol misuse problem, or that they require treatment.

The inadequate provision of specialised alcohol treatment services in the UK is a significant area of concern. It is essential that specialised alcohol treatment services are provided consistently throughout the UK, adequately resourced and funded, and that this funding is ring-fenced. High-level commitment is also required to ensure that the alcohol treatment services frameworks are prioritised when commissioning services. The need for, and provision of, alcohol treatment services throughout the UK must also be continually reviewed and assessed.

### ***International cooperation on alcohol control***

Different countries have adopted markedly varied policies for reducing the burden of alcohol misuse. International cooperation on alcohol control is essential for several reasons including the considerable global burden of alcohol, and trans-border factors such as global advertising and production, formal and informal trading and smuggling. Reducing alcohol-related harm across the European Union (EU) has been facilitated by the 2000 World Health Organisation (WHO) European Alcohol Action Plan, the 2006 EU Alcohol Strategy, and the establishment of the EU Alcohol and Health Forum. It is vital that the UK Government strongly supports EU initiatives and policies aimed at reducing alcohol-related harm to individual and public health.

While the introduction of agreements such as the WHO European Alcohol Action Plan and the EU Alcohol Strategy provide a useful platform for action, their effectiveness has been questioned due to the influence of the alcohol industry on their development. A further drawback of EU-level action and agreements is the fact that they are non-binding. An alternative approach would be to introduce a legally binding treaty similar to the WHO Framework Convention on Tobacco Control (FCTC). This would serve to support governments in developing and implementing effective alcohol control policies, foster collaboration between countries, counter the international trade agreements that currently restrict governments from introducing stricter alcohol control policies, and effectively engage non-governmental organisations.



## Recommendations

As the leading professional organisation representing doctors in the UK, the BMA through this report, aims to promote the development of comprehensive and effective alcohol control policies in the UK. The recommendations are for action by the UK Government. They form a range of evidence-based policies that must be collectively implemented in order to effectively tackle alcohol misuse and its associated harms.

### Access to alcohol – controlling price and availability

- Taxation on all alcoholic beverages should be increased at higher than inflation rates and this increase should be proportionate to the amount of alcohol in the product.
- The availability of alcoholic products should be regulated through a reduction in licensing hours for on- and off-licensed premises.
- Town planning and licensing authorities should ensure they consider the local density of on-licensed premises and the surrounding infrastructure when evaluating any planning or licensing application. Legislative changes should be introduced where necessary to ensure these factors are considered in planning or licensing applications for licensed premises.

### Responsible retailing and industry practices

- Licensing legislation in the UK should be strictly and rigorously enforced. This includes the use of penalties for breach of licence, suspension or removal of licences, the use of test purchases to monitor underage sales, and restrictions on individuals with a history of alcohol-related crime or disorder.
- Enforcement agencies should be adequately funded and resourced so that they can effectively carry out their duties. Consideration should be given to the establishment of a dedicated alcohol licensing and inspection service.
- Legislation should be introduced throughout the UK to:
  - prohibit irresponsible promotional activities in licensed premises and by off-licences
  - set minimum price levels for the sale of alcoholic beverages.
- A statutory code of practice on the marketing of alcoholic beverages should be introduced and rigorously enforced. This should include a ban on:
  - broadcasting of alcohol advertising at any time that is likely to be viewed by young people, including specific provisions prohibiting advertising prior to 9pm and in cinemas before films with a certificate below age 18
  - alcohol industry sponsorship of sporting, music and other entertainment events aimed mainly at young people
  - marketing of alcoholic soft drinks to young people.

### Measures to reduce drink-driving

- The legal limit for the level of alcohol permitted while driving, attempting to drive, or being in charge of a vehicle should be reduced from 80mg/100ml to 50mg/100ml throughout the UK.
- Legislation permitting the use of random roadside testing without the need for prior suspicion of intoxication should be introduced throughout the UK. This requires appropriate resourcing and public awareness campaigns.

### Education and health promotion

- There should be further qualitative research examining attitudes to alcohol misuse in the UK.
- Public and school-based alcohol educational programmes should only be used as part of a wider alcohol-related harm reduction strategy to support policies that have been shown to be effective at altering drinking behaviour, to raise awareness of the adverse effects of alcohol misuse, and to promote public support for comprehensive alcohol control measures.
- It should be a legal requirement to:
  - a) prominently display a common standard label on all alcoholic products that clearly states:
    - alcohol content in units
    - recommended daily UK guidelines for alcohol consumption
    - a warning message advising that exceeding these guidelines may cause the individual and others harm.
  - b) include in all printed and electronic alcohol advertisements information on:
    - recommended daily UK guidelines for alcohol consumption
    - a warning message advising that exceeding these guidelines may cause the individual and others harm.
- It should be a legal requirement for retailers to prominently display at all points where alcoholic products are for sale:
  - information on recommended daily UK guidelines for alcohol consumption
  - a warning message advising that exceeding these guidelines may cause the individual and others harm.

### Early intervention and treatment of alcohol misuse

- The detection and management of alcohol misuse should be an adequately funded and resourced component of primary and secondary care in the UK to include:
  - formal screening for alcohol misuse
  - referral for brief interventions and specialist alcohol treatment services as appropriate
  - follow-up care and assessment at regular intervals.
- A system for the detection and management of alcohol misuse in primary care should occur via the implementation of a direct enhanced service by the UK health departments. This must be adequately funded and resourced.

- Systems for the detection and management of alcohol misuse should be developed for A&E care and the general hospital setting throughout the UK. These must be adequately funded and resourced.
- Comprehensive training and guidance should be provided to all relevant healthcare professionals on the identification and management of alcohol misuse.
- Funding for specialist alcohol treatment services should be significantly increased and ring-fenced to ensure all individuals who are identified as having severe alcohol problems or who are alcohol dependent are offered referral to specialised alcohol treatment services at the earliest possible stage.
- There should be continual assessment of the need for and provision of alcohol treatment services in the UK, building on the 2004 Alcohol Needs Assessment Research Project in England, and ensuring similar assessment is undertaken throughout the UK.

#### **International cooperation on alcohol control**

- There should be strong support for European Union, World Health Organisation and World Health Assembly initiatives and policies aimed at reducing alcohol-related harm to individual and public health.
- Lobby for, and support the World Health Organisation in developing and implementing a legally binding international treaty on alcohol control in the form of a Framework Convention on Alcohol Control. This should include provisions for:
  - regulation of the availability of alcohol through licensing
  - increased taxation on alcoholic beverages
  - statutory regulation of alcohol advertising, promotion and sponsorship
  - programmes aimed at educating the public of the harms associated with alcohol misuse
  - legislation to discourage drink-driving
  - appropriately funded and resourced treatment services
  - enforcement of the legal responsibility of retailers to sell alcoholic beverages in accordance with legislation
  - promoting research and the exchange of information among countries
  - establishing a priority for public health considerations in the regulation of international alcohol commerce
  - international cooperation to combat illegal production and trade in alcohol.



Death rates of most preventable diseases are falling, supported by government action. There is a tragedy unfolding with the rising levels of alcohol-related deaths, which could be addressed through the application of simple effective measures. These deaths signal a very disturbing change in drinking habits, which affect rates of crime, violence, divorce, abuse, productivity and mental health. There is an increasingly strong case for government to act.

**BMA member**

# Introduction

‘All things are  
poison and  
nothing is  
without  
poison, only  
the dose  
permits  
something  
not to be  
poisonous’

Alcohol consumption represents an integral part of modern culture in the UK and internationally. The production of alcoholic beverages such as beer, wine and spirits occurs on a vast scale as part of a multi-billion pound global industry. Alcohol is a psychoactive substance and its consumption in moderation can lead to feelings of relaxation and euphoria, causing it to be consumed widely in many social scenarios and across the socio-economic spectrum. Alcohol is also an addictive drug, however, and its misuse is associated with a wide range of dose-related adverse consequences that can lead to significant harm to the individual and society.

Recent years have seen increasing interest in the levels of alcohol misuse in the UK, and in particular the pattern of binge drinking and heavy drinking. Alcohol consumption is causally associated with a wide range of medical conditions and is a significant cause of morbidity and premature death worldwide. It contributes to a range of acute and chronic health consequences, from alcohol poisoning and injuries resulting from traffic crashes to cancer and cardiovascular disease. The more an individual consumes, the greater the risk of harm. Alcohol misuse is associated with crime, violence and anti-social behaviour, and can impact significantly on family and community life. The cost of alcohol misuse in the UK is substantial, both in terms of direct costs (eg costs to hospital services and the criminal justice service) and indirect costs (eg loss of productivity and the impact on family and social networks). The control of alcohol at a national and international level is therefore essential. This requires the implementation of strategies that are effective at reducing overall alcohol consumption levels in a population, as well as targeted interventions aimed at specific populations such as young people or individuals who are dependent on alcohol. Tackling alcohol misuse also requires greater personal responsibility from individuals who consume alcohol in a manner that is harmful to themselves and those around them.

## Paracelsus (1493-1541)

This report considers the problematic levels of alcohol misuse in the UK and is not aimed at those who enjoy consuming alcohol in moderation. It examines the patterns and trends of alcohol consumption and goes on to review the range of adverse effects both on the individual and society that are associated with its misuse. The report concludes by considering the evidence for effective alcohol control policies and discusses the current approaches in the UK. The recommendations are for action by the UK Government and are evidence-based policies that need to be adopted in order to tackle alcohol misuse and its associated harms.



The parallels between the smoking habits of old and the drinking habits of the present are stark. I sincerely hope that the current evidence of medical and societal harm is enough for the government to act on alcohol now, rather than waiting for the imminent epidemic of cirrhosis and cancer.

**BMA member**

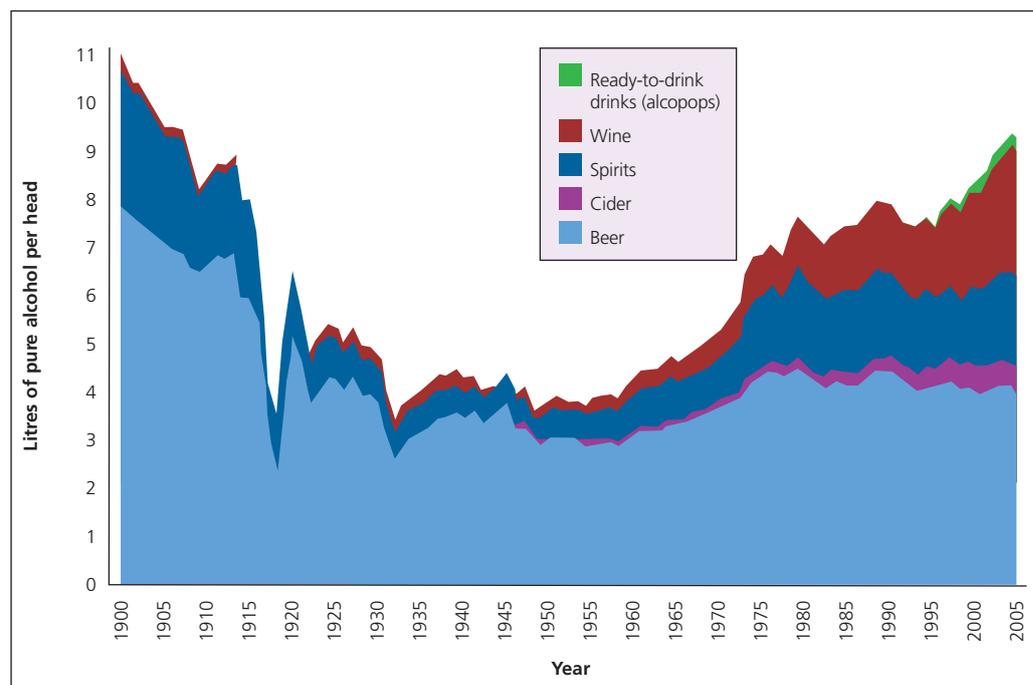
# Alcohol consumption in the UK

## Per capita alcohol consumption

Alcohol consumption in the UK has varied considerably over the past century (see **Figure 1**).<sup>4</sup> At the beginning of the 20th century, national per capita alcohol consumption<sup>a</sup> was higher than at any point in the subsequent years. The level of consumption declined significantly during the First World War and remained relatively low during the inter-war period and the Second World War. Since 1950, consumption rose from 3.9 litres per capita per year to a peak of 9.4 in 2004.<sup>5</sup> Per capita consumption subsequently fell to 8.9 litres in 2006.<sup>5</sup> Despite this recent decline, per capita consumption in the UK has remained consistently above 7 litres per capita per year since 1980, while consumption in other European countries including France, Italy and Spain has fallen steadily over the same period.<sup>6</sup> Comparison of per capita consumption among adults aged 15 and over shows the UK to be among the heaviest alcohol consuming countries in Europe (see **Figure 2**). Data on per capita consumption are not available for the devolved UK nations.

It is important to note that data on per capita consumption are based on tax-paid sales and do not account for unrecorded alcohol consumption resulting from legal or illegal home-made production, imported alcohol (including small-scale and large-scale smuggling and legally imported alcohol for personal use), and alcohol consumed by foreign visitors. It is likely that per capita consumption data are reasonably accurate for countries such as Australia and the USA where such factors are negligible. Nonetheless, cross border regulations in the EU and the relative ease of travel within Europe means that per capita data for European countries are likely to be less accurate.<sup>7</sup> It has been estimated that the approximate level of unrecorded consumption in Norway, Finland, Sweden, Denmark and the UK is two litres of 100 per cent alcohol per inhabitant aged 15 or over.<sup>7</sup> There is a need to improve data on per capita consumption to include not only tax-paid data for all the countries in the UK, but also regular published estimates of the amount of alcohol being imported outside of the tax regime.

**Figure 1 – per capita alcohol consumption in the UK (litres of pure alcohol)**

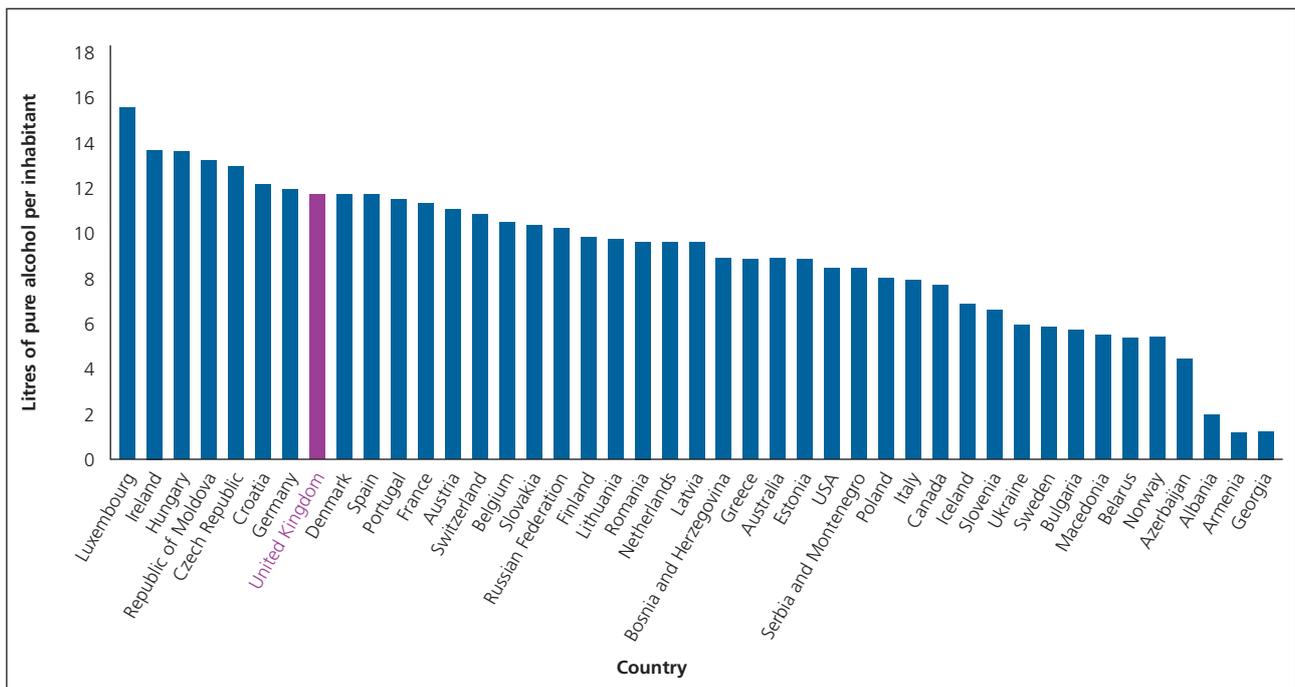


Source: *Statistical handbook 2007* (British Beer and Pub Association, 2007)

a Per capita alcohol consumption refers to the number of litres per head of pure (100%) alcohol.

There has been considerable variation in the levels of consumption of different types of beverage in the UK since 1970. While the proportion of alcohol consumed in the form of beer has fallen from 70.9 per cent in 1970 to 43.1 per cent (92.1 litres of beer per head of total population) in 2006, it remains the most popular alcoholic beverage in the UK.<sup>5</sup> Over the same period the proportion of spirits consumed rose from 17.1 per cent to 19.4 per cent (1.7 litres of spirits per head of total population), and cider from 2.0 per cent to 7.0 per cent (12.4 litres of cider per head of total population).<sup>5</sup> There has been a significant rise in the proportion of wine consumed, increasing from 10 per cent in 1970 to 28.8 per cent (21.5 litres of wine per head of total population) in 2005, with an additional 2 per cent (4 litres per head of total population) in the form of wine-based coolers and flavoured alcoholic beverages (alcopops).<sup>5</sup> While these data on per capita alcohol consumption provide useful information on trends, they do not provide information on the patterns of alcohol consumption.

**Figure 2 – per capita alcohol consumption in selected European and other countries (litres of pure alcohol per inhabitant) among adults (≥15 years), 2003**



Source: WHO Global Alcohol Database

## Prevalence of alcohol consumption

In the UK, alcohol consumption is commonplace; however, there is significant variation in the level and pattern of consumption between particular groups. Information on which people consume alcohol and on the level and pattern of their consumption is only available from surveys of individuals about their alcohol use. It is important to note that these surveys are subject to under-reporting and are therefore likely to be underestimates.

The vast majority of the UK adult population consume alcohol. The proportion of adults who consume alcohol has been estimated to be 90 per cent in England,<sup>8</sup> and 75 per cent in Northern Ireland.<sup>9</sup> A significant proportion of the UK adult population, however, abstains from alcohol consumption for religious, cultural and other reasons. The prevalence of alcohol consumption varies considerably by ethnic group. According to the General Household Survey (GHS) 2005, only 9 per cent of the White British population are non-drinkers, but the proportion is higher among every ethnic minority group, rising to 90 per cent or more among those of Pakistani and Bangladeshi origin.<sup>10</sup> Individuals of Mixed origin are less likely to be non-drinkers than those in other ethnic minority groups. Twenty-two per cent of those of Mixed White and Black African origin were found to be non-drinkers compared to 48 per cent of those of Black African origin.<sup>10</sup>

According to the GHS 2006<sup>b</sup> and the Scottish Health Survey (SHS) 2003, men were more likely than women to have had an alcoholic drink in the previous week, and to have drunk on more days of the week, and were much more likely to have drunk alcohol every day during the previous week.<sup>11,12</sup> Individuals in the 16 to 24 and 65 and over age groups were less likely than those in the middle age range to report drinking alcohol during the previous week; however, although they were less likely to have had a drink at all in the previous week, men and women aged 65 and over drank more frequently than those in younger age groups.<sup>11</sup> Individuals from ethnic minority groups are least likely to have drunk alcohol in the previous week. The GHS 2005 found that respondents of Pakistani or Bangladeshi origin were least likely to have drunk in the week prior to interview (5% and 4% respectively) compared to 68 per cent of those of White British origin and 67 per cent of those recording their ethnicity as 'Other White'.<sup>10</sup> Individuals from White British (18%) and 'Other White' (17%) ethnic groups were most likely to drink on five or more days of the week, while only 1 per cent of individuals of Pakistani or Bangladeshi origin reported doing so.<sup>10</sup>

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<sup>b</sup> Methods for calculating alcohol consumption for the GHS were revised in the 2006 edition to reflect the trend towards larger measures and stronger alcoholic drinks, especially wine. It should be noted, however, that changing the way in which alcohol consumption estimates are derived does not in itself reflect a real change in drinking among the adult population. For further information see *General household survey 2006* (Office for National Statistics, 2008).

## Patterns of alcohol misuse

For the most part, adults in the UK consume alcohol in moderation. In 2004, the PMSU report estimated that 26.3 million adults in Great Britain consume less than the recommended UK guidelines (14 units per week or less for women and 21 units per week or less for men), of whom 4.7 million abstain from all alcohol use.<sup>8</sup> The GHS 2006 found the average weekly consumption for men to be 18.7 units and women 9.0 units.<sup>11</sup>

Various estimates have been made for the number of individuals who misuse alcohol in the UK (see **Box 1**). While these estimates do not provide a definitive picture of consumption patterns, it is clear that a significant proportion of individuals in the UK misuse alcohol by drinking above recommended UK guidelines.

### Box 1 – estimates of the number of individuals in the UK who misuse alcohol

These estimates vary due to different methods of data collection and analysis, and as a result of differences in the categorisation of consumption levels and patterns of consumption. They are not therefore, directly comparable but provide an indication of the levels of alcohol misuse in the UK.

The 2003 PMSU interim analytical report estimated that in Britain:

- 6.4 million people consume alcohol at moderate to heavy levels (between 14 and 35 units per week for women and 21 and 50 units per week for men)
- 1.8 million people consume alcohol at very heavy levels (over 35 units a week for women and 50 units a week for men)
- 5.8 million people exceed recommended daily guidelines (between 4-8 units per day for men and 3-6 units for women)
- 5.9 million people engage in binge drinking (8 or more units per day for men and 6 or more units per day for women)
- 2.9 million (7%) of the adult population are alcohol dependent.<sup>3</sup>

The 2004 Alcohol Needs Assessment Research Project (ANARP) estimated that, for adults in England aged 16-64:<sup>c</sup>

- 38 per cent of men and 16 per cent of women have an alcohol use disorder, corresponding to 26 per cent overall (8.2 million people)
- of the 26 per cent with an alcohol use disorder, 23 per cent (7.1 million) consume alcohol at hazardous or harmful levels (32% of men and 15% of women), and 3.6 per cent (1.1 million) are alcohol dependent (6% of men and 2% of women)
- 21 per cent of men and 9 per cent of women are binge drinkers.<sup>13</sup>

The Parliamentary Office for Science and Technology (POST) estimated that:

- 5.9 million adults in the UK engage in binge drinking, 23 per cent of men and 9 per cent of women.<sup>14</sup>

A 2007 report from the North West Public Health Observatory (NWPHO) estimated that:

- 1.55 million people in England consume alcohol at harmful levels (over 50 units per week for men and over 35 units per week for women) and a further 6.3 million drink at hazardous levels (between 22 and 50 units per week for men and between 15 and 35 units per week for women).<sup>15</sup>

c The 2004 ANARP definition of alcohol use disorders includes harmful drinking, hazardous drinking and alcohol dependence. Hazardous drinking is not included as part of the WHO definition of alcohol use disorders. Please see the glossary for an explanation of terms.

Data from various alcohol use surveys provide a more detailed picture of alcohol consumption patterns and trends. In the UK, men are more likely to exceed recommended UK guidelines and to drink heavily compared to women. The GHS 2006 found that 40 per cent of men and 33 per cent of women in Britain exceeded recommended daily guidelines (4 units per day for men and 3 units per day for women) on at least one day in the previous week.<sup>11</sup> The proportion of men who drank heavily (8 or more units per day for men and 6 or more units per day for women) on at least one day during the previous week was 23 per cent compared to 15 per cent of women.<sup>11</sup> The Health and Social Wellbeing Survey 2001 found that in Northern Ireland, men were almost twice as likely as women to drink above the recommended weekly guidelines (25% and 14% respectively).<sup>16</sup>

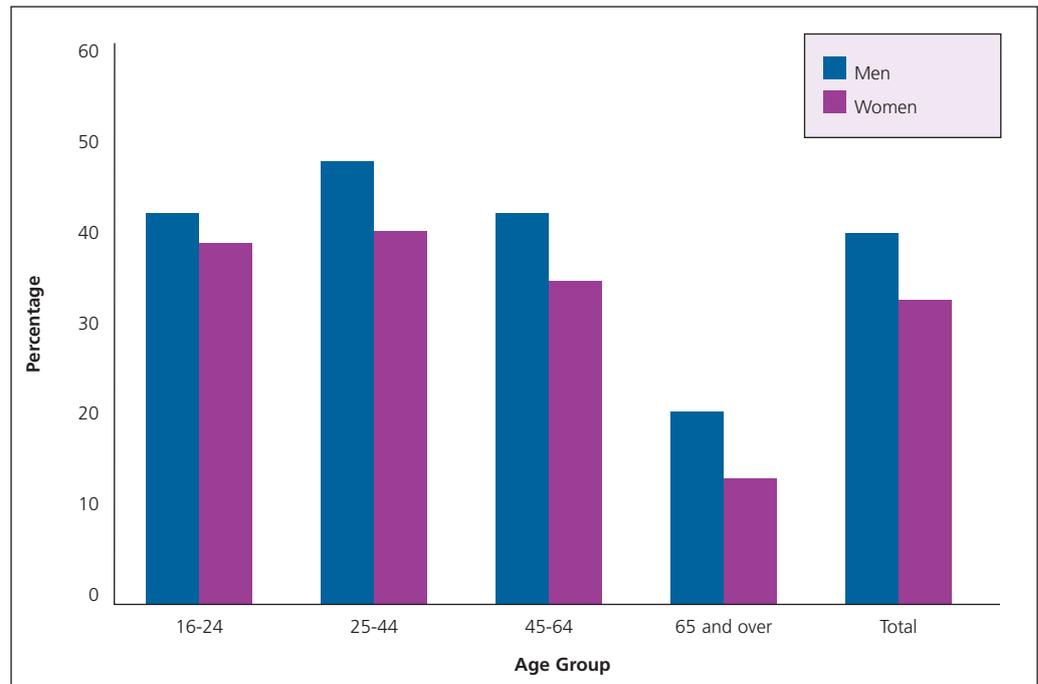
A noteworthy pattern of consumption in the UK is the high level of heavy drinking and binge drinking among men and women in the 16 to 24 and 25 to 44 age groups. In 2006, 42 per cent of British men and 39 per cent of British women exceeding recommended daily guidelines on at least one day in the previous week were aged 16 to 24, while the corresponding figures for the 25 to 44 age group were 48 per cent and 40 per cent respectively (see **Figure 3**).<sup>11</sup> A similar pattern was found for the proportion of British men and women who drank heavily on at least one day during the previous week (see **Figure 4**).<sup>11</sup> In Northern Ireland, men aged 16 to 24 were almost three times as likely to drink above recommended guidelines compared to those aged 65 to 74, while women aged 16 to 24 were five times as likely compared to those aged 65 to 74.<sup>16</sup> In Scotland, 62 per cent of men and 56 per cent of women who consumed more than the recommended daily amount on their heaviest drinking day were in the 16 to 24 age group.<sup>12</sup> Thirty-one per cent of Scottish men and 23 per cent of Scottish women drinking in excess of weekly recommended guidelines were found to be in the 16 to 24 age group.<sup>12</sup> Approximately 10 per cent of drinkers aged 16 to 24 were found to consume alcohol at these levels in Northern Ireland compared to 3 per cent aged over 25.<sup>16</sup>



It is not infrequent to find patients with fatty liver in their 30s and 40s, and when asked about previous alcohol consumption often describe heavy or binge drinking when a student in their 20s.

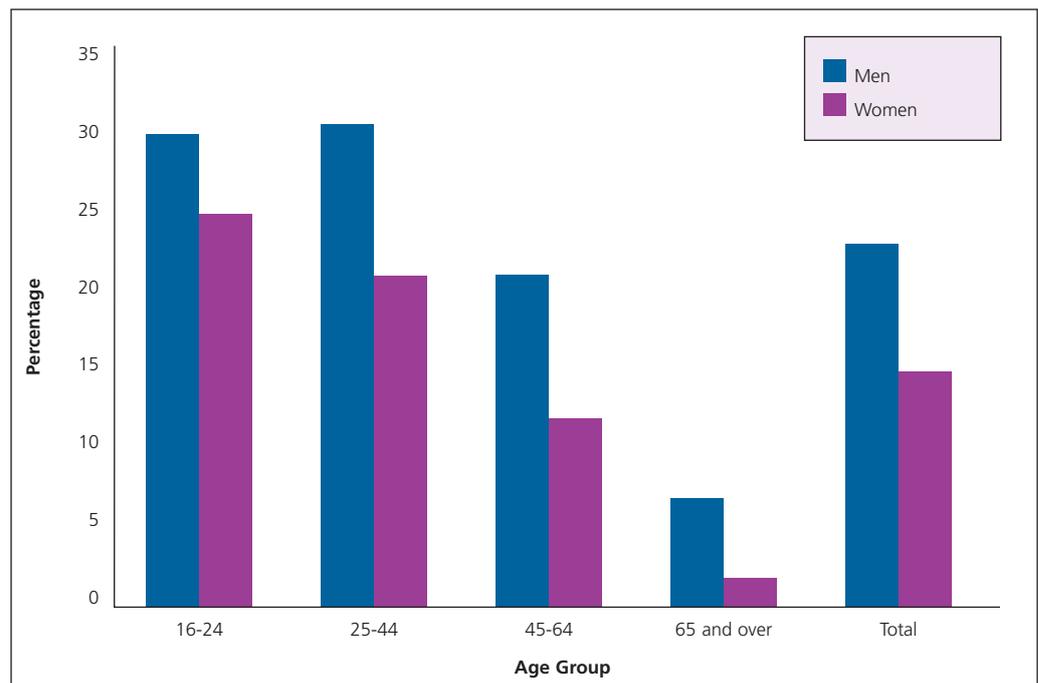
**BMA member**

**Figure 3 – proportion of men and women exceeding daily benchmarks on at least one day in the previous week: Great Britain, 2006**



Source: *General household survey 2006* (Office for National Statistics, 2008)

**Figure 4 – proportion of men and women drinking heavily on at least one day in the previous week: Great Britain, 2006**



Source: *General household survey 2006* (Office for National Statistics, 2008)

In relation to ethnicity, alcohol consumption above recommended daily guidelines occurs most commonly among individuals of White origin and those of mixed origin. According to the GHS 2005, drinking above recommended daily guidelines on at least one day in the previous week was found to be most common among individuals of Mixed White and Asian origin (35%), Mixed White and Black Caribbean origin (33%), White British origin (31%) and the Other White ethnic groups (28%).<sup>10</sup> Individuals of Pakistani (3%) and Bangladeshi (1%) origin were least likely to have drunk above recommended daily guidelines on at least one day in the previous week.<sup>10</sup> A similar pattern was observed with heavy drinking. The proportion of individuals reporting drinking in excess of recommended guidelines on one day in the previous week was highest among individuals of White and Asian mixed ethnicity (21%), those of White and Black Caribbean mixed ethnicity (18%), and those from the White British (16%) and the Other White (14%) ethnic groups.<sup>10</sup>

Patterns of alcohol misuse among lesbian, gay and bisexual (LGB) people are complex and varied. Surveys such as the GHS and the SHS do not incorporate questions relating to sexual orientation making it difficult to analyse patterns and trends of alcohol misuse among LGB people in the UK. International evidence provides a mixed picture for the relationship between sexual orientation and the risk of alcohol problems. Several studies have found lesbians and gay men to be more likely to use and misuse alcohol compared to heterosexual men and women;<sup>17-26</sup> however, other studies have not found differences by sexual orientation.<sup>27-32</sup> Results from a number of small-scale studies in the UK have found higher levels of alcohol use and misuse among LGB people.<sup>33-36</sup> As with sexual orientation, the relationship between patterns of alcohol consumption and disability is not considered within surveys such as the GHS and SHS. People with mental health problems are at an increased risk of alcohol misuse problems and vice versa. A number of psychiatric conditions are associated with alcohol dependence<sup>d</sup> including major depression, dysthymia, mania, hypomania, panic disorder, phobias, generalised anxiety disorder, personality disorders, any drug-use disorder, schizophrenia, and suicide.<sup>37</sup> There has been very little research into the prevalence of alcohol use and misuse among people with learning disabilities. There is some evidence that alcohol-related health problems are uncommon in people with learning disabilities,<sup>38</sup> and they are less likely to drink alcohol than people without learning disabilities.<sup>39</sup>

### Socio-economic factors and alcohol consumption

The link between alcohol consumption and socio-economic factors is an important consideration. Individuals in employment are more likely to drink frequently compared to those who are unemployed. The GHS 2006 found that among men aged 16 to 64, those in employment were most likely to have drunk alcohol during the previous week (76%) compared with those who were unemployed (54%) and those who were economically inactive<sup>e</sup> (59%).<sup>11</sup> For women aged 16 to 64, 65 per cent who were working, 54 per cent of unemployed, and 47 per cent of those who were economically inactive had drunk alcohol in the previous week.<sup>11</sup> The GHS 2006 found that working men (47%) were more likely than unemployed men (37%) and the economically inactive (32%) to have drunk more than the recommended amount of over four units on one day.<sup>11</sup> For women, those in employment were almost twice as likely as those who were economically inactive to have drunk heavily on at least one day in the previous week.<sup>11</sup> In Scotland, the SHS 2003 found that the proportion of men and women consuming more than the recommended daily guidelines

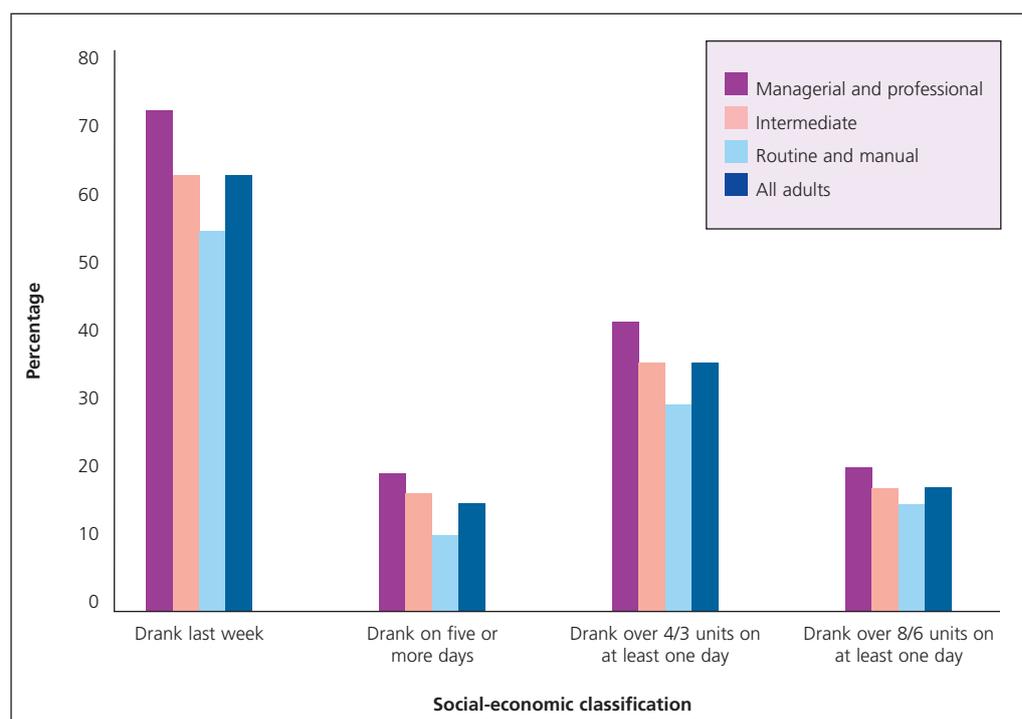
d The terms alcohol dependence syndrome, alcoholism and alcohol abuse are often used interchangeably in common usage. Please refer to the glossary for an explanation of these terms.

e 'Economically inactive' is defined according to the International Labour Organisation as individuals who are not in work, and who do not want a job, have not sought employment in the last four weeks and are not available to start employment in the next two weeks.

increased with each quintile of deprivation.<sup>12</sup> In England, unemployed men were just as likely to binge drink as working men (22% and 23% respectively).<sup>40</sup>

A similar pattern is also seen for socio-economic classification. According to the GHS 2006, individuals in managerial and professional occupations are more likely to have drunk alcohol in the previous week, and to drink more frequently than those in routine and manual occupations; yet, there is little difference in drinking above the daily recommendations between these two groups (see **Figure 5**).<sup>11</sup> In terms of weekly alcohol consumption, men in managerial and professional occupations were found to drink on average 19.9 units a week, compared to 16.7 units per week for men in the routine and manual group.<sup>11</sup> In women, average weekly consumption for the managerial and professional group was 10.7 units, compared to 7.1 units among those in the routine and manual group.<sup>11</sup>

**Figure 5 – adults (aged 16 and over) drinking in the last week by socio-economic classification, Great Britain, 2006**



Source: *General household survey 2006* (Office for National Statistics, 2008)

The level of earnings is also associated with variations in alcohol consumption. Men and women who are higher earners are more likely than the lower paid to have drunk alcohol at all, and to have drunk on five or more days.<sup>4, 11</sup> The GHS 2006 found that among full-time workers aged 16 to 64 who were earning more than £800 per week, 29 per cent of men and 16 per cent of women had drunk on five or more days in the previous week, compared with 23 per cent of men and 10 per cent of women earning £200 or less per week.<sup>11</sup> Men who are higher earners have been found to be more likely to consume above recommended daily guidelines compared to low earners, however, the reverse has been found among women.<sup>4</sup> Average weekly alcohol consumption was also found to be higher among men and women in high income households.<sup>11</sup> In households with a gross income exceeding £1,000 per week, men drank on average 22.1 units

per week, and women 12.2 units, compared with 17.8 units and 6.1 units respectively among those in households with an income of £200 or less.<sup>11</sup> No significant variation in average weekly consumption according to earnings has been found among those in full-time employment.<sup>11</sup>

### National and regional variations in alcohol consumption in the UK

The patterns of alcohol consumption in the UK are comparable across the devolved nations; however, slight variations do exist between the different countries. According to the GHS 2006, average weekly consumption was higher in England (13.7 units) and Wales (13.5 units) than in Scotland (11.6 units).<sup>11</sup> Consumption among men was lower in Scotland (16.3 units) than in England (18.9 units) and Wales (19.9 units).<sup>11</sup> In women, consumption in both Wales (7.8 units) and Scotland (7.8 units) was lower than in England (9.2 units).<sup>11</sup> In 2006, men and women in England and Wales were more likely to have drunk on at least five days in the previous week compared to those living in Scotland.<sup>11</sup> There was no statistically significant difference in the proportions of men and women exceeding recommended UK guidelines or drinking heavily between the devolved nations.<sup>11</sup>

All national surveys have consistently found the highest levels of binge drinking and drinking above recommended guidelines to be in the northern regions of England – in particular in Yorkshire and Humberside, the North East and the North West – and lowest in London.<sup>11,15,40</sup> The relatively low levels of alcohol consumption in London are largely explained by its high proportion of people in ethnic minority groups who abstain from alcohol consumption due to an ascetic element, or an inherent belief, that is present in some religions. In Scotland, the SHS 2003 found there to be little variation in weekly consumption of alcohol between NHS Board areas.<sup>12</sup>

### Trends in alcohol misuse

Over the last decade there has been considerable media interest in the rising levels of alcohol misuse in the UK. During the 1990s, the prevalence of alcohol misuse increased among both men and women, and in particular in the 16 to 24 age group.<sup>4,10</sup> This upward trend was particularly marked among young women to the extent that consumption among this group is now the highest in Europe.<sup>4</sup> A 2000 survey found that eight per cent of women aged 18 to 24 had consumed at least 35 units of alcohol in the previous week.<sup>4</sup> Another survey found that 38 per cent of women in their 20s in the UK had consumed six or more units on at least one day in the week.<sup>41</sup>

Analysis of recent data from alcohol use surveys suggests that while the proportion of individuals misusing alcohol remains high, the upward trend in alcohol misuse among men and women in the UK may have peaked. According to the GHS 2006<sup>f</sup>, the proportion of men and women in Britain exceeding recommended daily guidelines on at least one day in the previous week remained relatively constant between 1998 and 2004 (see **Table 1**).<sup>9,11</sup> Between 2004 and 2006, there was a fall among men from 39 per cent to 33 per cent, while the proportion of women remained at 20 per cent.<sup>11</sup> A similar pattern of change was found in the proportions drinking heavily on at least one day in the previous week (see **Table 2**).<sup>11</sup> These data vary considerably among the different age groups which makes it difficult to identify an overall trend. In the 16 to 24 age group, there has been a downward trend since 2003 in the proportion of men drinking above recommended daily guidelines and drinking heavily.<sup>11</sup> A similar downward trend has occurred among women aged 16 to 24 since 2002.<sup>11</sup>

<sup>f</sup> For comparative purposes, the GHS 2006 data on trends discussed in this section are those derived using the original method of conversion to units. For further information see *General household survey 2006* (Office for National Statistics, 2008).

<sup>g</sup> Data on the proportion of individuals exceeding recommended daily guidelines are only available from 1998 onwards as questions relating to the maximum daily amount of alcohol consumed in the last week were not included in the GHS prior to this year.

**Table 1 – proportion (%) of men/women in Great Britain drinking more than 4/3 units on at least one day in the previous week****a) Men**

	1998	2000	2001	2002	2003	2004	2005	2006
<b>16-24</b>	52	50	50	49	51	47	42	39
<b>25-44</b>	48	45	49	46	47	48	42	42
<b>45-64</b>	37	38	37	38	41	37	35	33
<b>65+</b>	16	16	18	16	19	20	16	14
<b>Total</b>	<b>39</b>	<b>39</b>	<b>40</b>	<b>38</b>	<b>40</b>	<b>39</b>	<b>35</b>	<b>33</b>

**b) Women**

	1998	2000	2001	2002	2003	2004	2005	2006
<b>16-24</b>	42	42	40	42	40	39	36	34
<b>25-44</b>	28	31	31	31	30	28	26	27
<b>45-64</b>	17	19	19	19	20	20	28	17
<b>65+</b>	4	4	5	5	4	5	4	4
<b>Total</b>	<b>21</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>22</b>	<b>20</b>	<b>20</b>

Source: *General household survey 2006* (Office for National Statistics, 2008)

**Table 2 – proportion (%) of men/women in Great Britain drinking more than 8/6 units on at least one day in the previous week****a) Men**

	1998	2000	2001	2002	2003	2004	2005	2006
<b>16-24</b>	39	37	37	35	37	32	30	27
<b>25-44</b>	29	27	30	28	30	31	25	25
<b>45-64</b>	17	17	17	18	20	18	16	15
<b>65+</b>	4	5	5	5	6	7	4	4
<b>Total</b>	<b>22</b>	<b>21</b>	<b>22</b>	<b>21</b>	<b>23</b>	<b>22</b>	<b>19</b>	<b>18</b>

**b) Women**

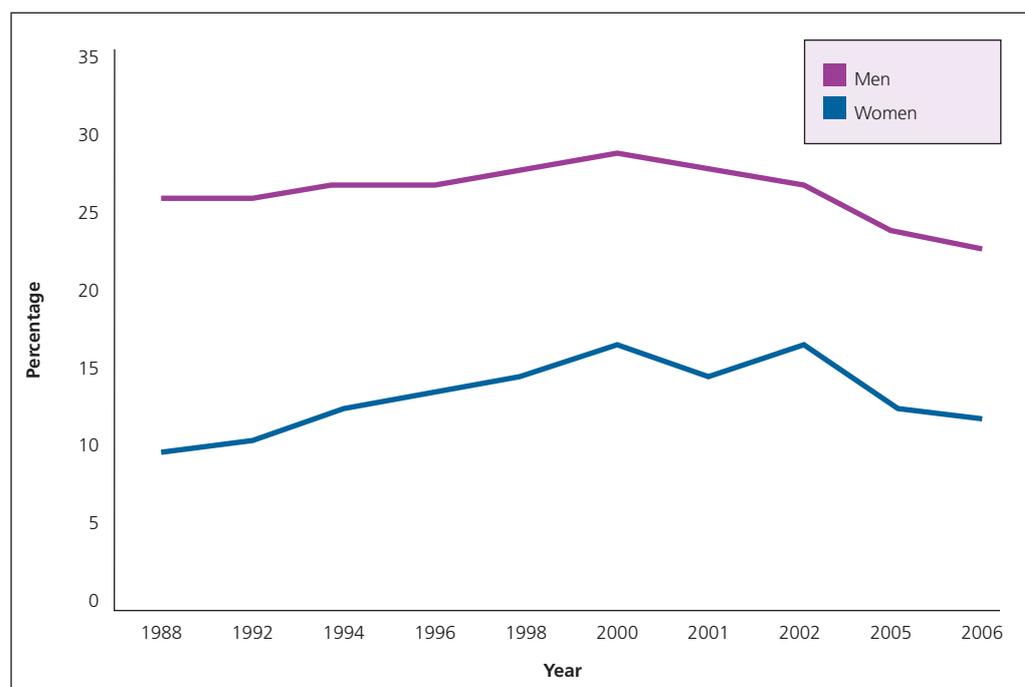
	1998	2000	2001	2002	2003	2004	2005	2006
<b>16-24</b>	24	27	27	28	26	24	22	20
<b>25-44</b>	11	13	14	13	13	13	11	12
<b>45-64</b>	5	5	5	5	5	6	4	4
<b>65+</b>	1	1	1	1	1	1	1	0
<b>Total</b>	<b>8</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>8</b>

Source: *General household survey 2006* (Office for National Statistics, 2008)

Data on average weekly consumption show a similar downward trend in recent years. The GHS 2006 found that the proportion of men drinking on average above recommended weekly drinking guidelines fell from 29 per cent in 2000 to 23 per cent in 2006, and for women fell from 17 per cent to 12 per cent respectively (see **Figure 6**).<sup>11</sup> This decrease occurred among men and women

in all age groups, but was most evident among those aged 16 to 24.<sup>11</sup> The proportion of men aged 16 to 24 who drank more than 21 units a week fell from 41 per cent in 2000 to 26 per cent in 2006, while the proportion of women who drank more than 14 units a week fell from 33 per cent to 19 per cent respectively.<sup>11</sup> Between 2002 and 2006, the average weekly consumption in the 16 to 24 age group fell from 21.5 to 16.4 units in men and from 14.1 to 9.0 units in women.<sup>11</sup> Since 2002, there has been a slight decline in the proportion of men drinking more than 50 units a week on average, but no significant change in the proportion of women drinking more than 35 units.<sup>11</sup> According to the SHS 2003, the proportion of Scottish men aged 16 to 64 who drank over 21 units per week on average decreased from 33 per cent in 1995 to 29 per cent in 2003.<sup>12</sup> The number of Scottish women aged 16 to 24 drinking over 14 units per week on average increased from 13 per cent in 1995 to 17 per cent in 2003.<sup>12</sup>

**Figure 6 – proportion of men drinking more than 21 units a week, and women drinking more than 14 units a week: Great Britain 1988 to 2006<sup>h</sup>**



Source: *General household survey 2006* (Office for National Statistics, 2008)

It is important to note that it is not yet possible to determine whether these recent trends in alcohol consumption are genuine long-term changes in drinking habits. It may be that there is an increased tendency to under-report consumption due to the recent extensive publicity about binge drinking and the dangers of heavy consumption. Data from future years will provide a clearer indication of any long-term trends.

<sup>h</sup> Data for 1988 to 1998 are unweighted; data for 1998 onwards are weighted.

## Alcohol consumption and young people

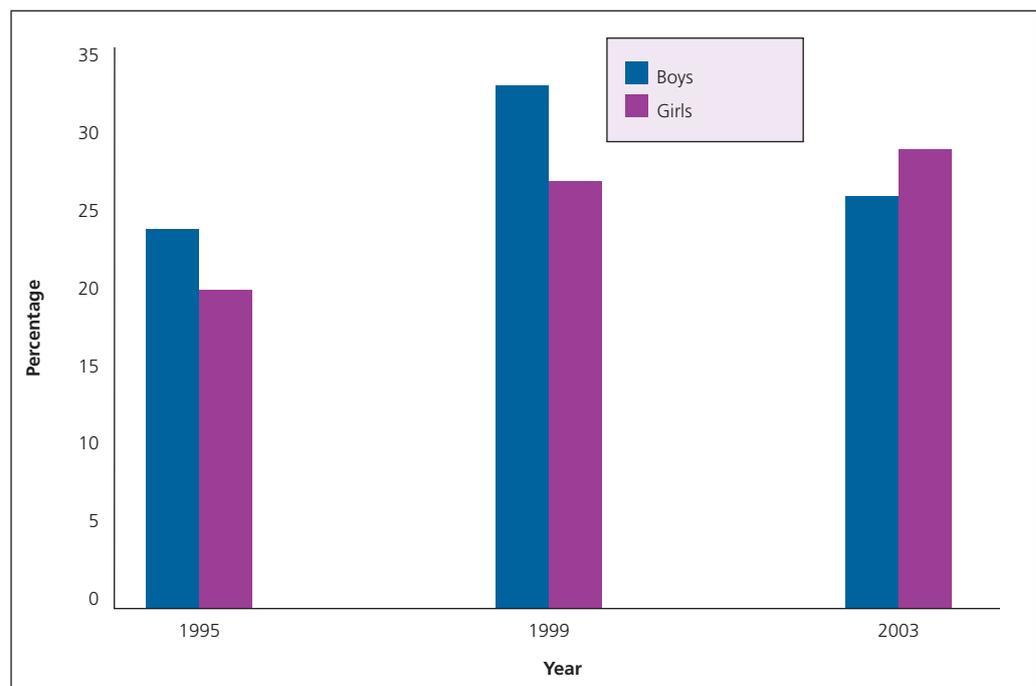
Alcohol consumption in young people aged under 18 is a significant problem in the UK. The 2003 BMA report *Adolescent health* examined the drinking habits of adolescents in the UK and found them to have one of the highest European levels of alcohol use, binge drinking and getting drunk.<sup>42</sup> The 2003 European School Survey Project on Alcohol and other Drugs (ESPAD) found that in Europe, UK teenagers were among the most likely to report heavy consumption of alcohol, being intoxicated and experiencing adverse effects of drinking (eg delinquency).<sup>43</sup> The highest proportion of teenagers who had consumed five or more drinks in a session on at least three occasions in the previous month were from Ireland (32%), the Netherlands (28%), and the UK and the Isle of Man (27% each).<sup>43</sup> The survey also found that in the UK, girls were more likely than boys to have consumed five or more drinks in a session on at least three occasions in the previous month.<sup>43</sup> This was also found in Ireland and the Isle of Man but not in the remaining 32 European countries surveyed.<sup>43</sup> The ESPAD 2003 showed that following an increase in the level of binge drinking in UK teenage boys between 1995 and 1999, the number fell slightly by 2003. Binge drinking in UK teenage girls, however, increased significantly between 1995 and 2003 (see **Figure 7**).<sup>44</sup> This increase in alcohol consumption in UK teenage girls mirrors the changes in young women in the UK discussed previously.



Seeing young people drunk in the streets and then encountering individuals of the same age with liver disease is very depressing.

**BMA member**

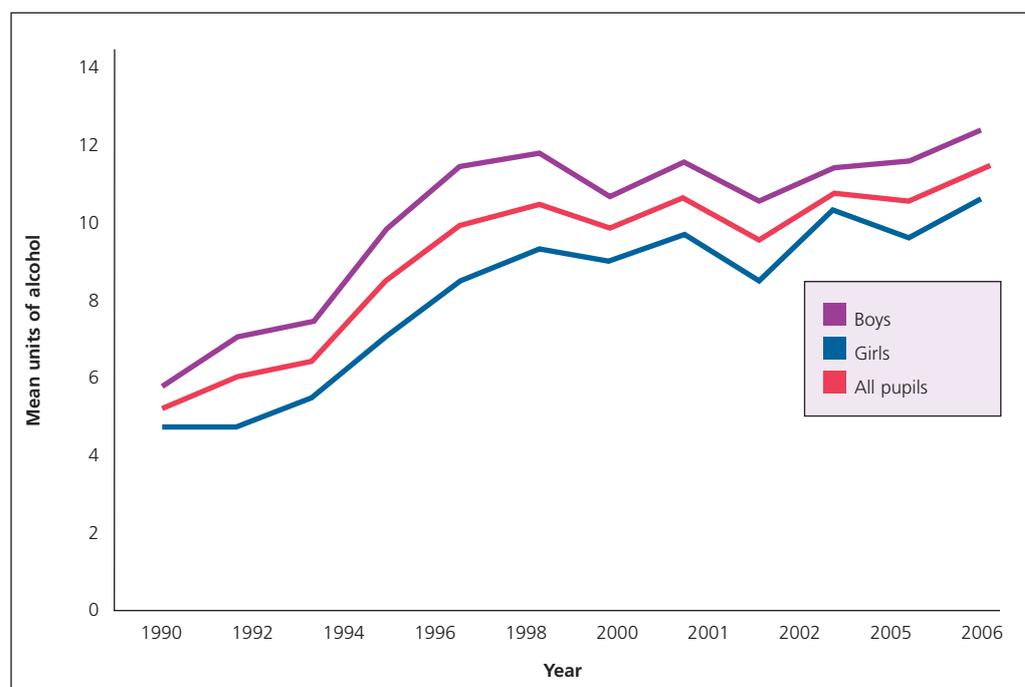
**Figure 7 – proportion (%) of UK teenage boys and girls aged 15 and 16 who had consumed five or more drinks in a session on at least three occasions in the previous month (1995-2003)**



Source: Plant MA & Plant ML (2006) *Binge Britain: Alcohol and the national response*. Oxford: Oxford University Press.

The high level of alcohol consumption among young people occurs throughout the UK and across the social spectrum. A 2006 survey found that 21 per cent of English pupils aged 11 to 15 reported drinking alcohol in the last week, of which the proportions of boys (21%) and girls (20%) were similar.<sup>45</sup> This is a fall from 26 per cent in 2001. In 2005, the proportion of pupils who had drunk alcohol in the last week increased with age from 3 per cent of 11-year-olds to 41 per cent of 15-year-olds.<sup>45</sup> While the prevalence of alcohol consumption has declined in recent years the consumption rates have increased significantly. The average consumption among pupils aged 11 to 15 who drank in the last seven days has increased from 5.3 units in 1990 to 11.4 units in 2006 (see **Figure 8**).<sup>45</sup> In 2006, the average level of consumption in the last seven days was higher among boys (12.3 units) compared with girls (10.5 units), and higher among older pupils compared to younger pupils.<sup>45</sup>

**Figure 8 – mean alcohol consumption (units) in the last week, by sex in pupils aged 11 to 15, England, 1990-2006**



Source: *Smoking, drinking and drug use among young people in England in 2006: headline figures* (Information Centre for Health and Social Care, National Centre for Social Research, National Foundation for Educational Research, 2007)

The 2004 Scottish Adolescent Lifestyle and Substance Use Survey (SALSUS) found that 20 per cent of 13-year-old boys and girls reported drinking in the past week, and this rose to 40 per cent and 46 per cent for 15-year-old boys and girls respectively.<sup>46</sup> As in England, the prevalence of alcohol consumption has declined in recent years; however, the consumption rates remain disproportionately high. The average weekly consumption by pupils who drank in the last week was nine units for 13-year-olds and 12 units for 15-year-olds.<sup>46</sup> More girls reported drinking over recommended guidelines, with 20 per cent of 15 year-old-boys reporting that they had drunk 21 units or more in the past week, while 25 per cent of girls reported drinking more than 14 units in the past week.<sup>46</sup> Eighty per cent of 15-year-olds and 57 per cent of 13-year-olds who reported drinking in the last week also reported that they had drunk more than five drinks on the same occasion at least once in the past.<sup>46</sup> In Northern Ireland, 74 per cent of 11 to 15-year-olds surveyed

in 1997/98 had consumed alcoholic drinks at some time.<sup>47</sup> Among the youngest age group, 5.6 per cent of boys reported drinking both weekly and monthly, while 2.5 per cent and 4.3 per cent of girls reported drinking weekly and monthly respectively.<sup>47</sup> In the older age group, 43.6 per cent of boys and 39.9 per cent of girls reported drinking weekly, while 21.4 per cent of boys and 23.3 per cent of girls reported drinking monthly.<sup>47</sup> Of those who reported drinking regularly, 31.5 per cent of boys and 23.2 per cent of girls reported having been drunk more than 10 times.<sup>47</sup>

### Why do individuals misuse alcohol?

There is comprehensive literature on why individuals use and misuse alcohol. Personal use of alcohol has been found to be associated by users with numerous positive consequences including enjoyment of the taste; feeling happier, more friendly and outgoing; having fun; feeling relaxed; and escaping and forgetting problems.<sup>4</sup> Alcohol use is also seen as a social norm in many cultures and across the socio-economic spectrum. Peer pressure may also be an important factor in the decision to consume alcohol.

Alcohol misuse has a complex aetiology. As with other alcohol consumers, individuals who misuse alcohol may do so due to social norms, peer pressure and the associated positive consequences.<sup>48, 49</sup> A 2002 study of British adults found there to be ambivalence about the positive effects of alcohol use and a range of adverse consequences of its misuse.<sup>50</sup> These adverse consequences include feeling hungover and sick; having accidents; doing something regrettable; harmful health effects; not being able to stop drinking; and getting into trouble with the police.<sup>4</sup> Many people therefore appear to be prepared to tolerate the adverse consequences of alcohol misuse in order to experience the associated positive aspects. Accordingly, while the negative effects are likely to be greater with the more alcohol that is consumed, there is also likely to be a greater level of positive effects. The prevailing culture and acceptability of various patterns of alcohol misuse are also important determinants of alcohol misuse. The desire to drink heavily and get drunk may therefore arise from a combination of the wish to experience the associated positive aspects of intoxication, the surrounding culture, the pharmacology of the drug, and an individual's personal genetics and preferences. The situation is markedly different for individuals who are dependent on alcohol as a result of their need to overcome symptoms of withdrawal, and due to the development of tolerance (ie the need to increase alcohol consumption in order to achieve the desired effect). Alcohol dependence is of multifactorial origin and determined by complex interactions between individual (eg genetic predisposition) and environmental factors (eg availability).<sup>51</sup>



I remember one patient who being so desperate for alcohol, once the drinks had run out used to be reduced to drinking nail varnish or spraying hairspray into a glass to get at the alcohol.

**BMA member**

### Where is alcohol consumed?

Recent years have seen an increasing trend among UK adults toward home-based alcohol consumption.<sup>4</sup> Data on UK household expenditure suggest that more alcohol is purchased in on-licensed premises (such as restaurants, bars, public houses) than off-licensed premises (such as supermarkets and shops). A 2007 report from the Department for Environment, Food and Rural Affairs (DEFRA) found that 58 per cent of total household expenditure on alcoholic drinks in the UK was spent on alcohol consumed outside the home in 2005/06.<sup>52</sup> This was a decrease from 60 per cent in 2002/03.<sup>52</sup> Expenditure on alcoholic drinks consumed outside the home has fallen slightly each year from 2002/03 to 2005/06.<sup>52</sup> The 2006 ONS survey *Family spending* found that alcohol bought and consumed on licensed premises accounted for slightly more than half (57%) of all expenditure on alcoholic drink (£14.80 per household per week), while the remaining £6.30 was spent on alcohol bought at large supermarket chains or off-licence outlets.<sup>53</sup>

This trend toward home-based alcohol consumption most likely reflects the lower cost of alcohol in off-licences compared to licensed premises in the UK. Among younger adults, there is also an increased tendency to consume alcohol at home prior to going out.<sup>4</sup> Alcohol consumption among teenagers and adolescents below the legal purchase age for alcohol is commonly home-based, but with increasing age, becomes more non-home-based (often outdoors or illegally in licensed premises) and away from parental supervision.<sup>4,54</sup>



# The burden of alcohol on society

The relationship between alcohol consumption and health and social outcomes is complex and multifaceted. In the short term, the acute intoxicating effects of alcohol on cognitive and motor functioning impair an individual's reactions, judgement, coordination, vigilance, vision, hearing and memory. This impairment is associated with many adverse outcomes for the individual and those around them as it can lead people to have accidents, misread situations and react aggressively. Alcohol consumption is linked to long-term health and social consequences through three main causal pathways: intoxication, dependence, and toxic (and beneficial) direct biological effects.<sup>55</sup> These pathways are in turn affected by the volume of consumption and the pattern of drinking. Alcohol misuse is also frequently associated with drug abuse and other harmful behaviours such as smoking.

## Alcohol and health outcomes

### *Alcohol consumption and health*

Moderate alcohol consumption is not usually harmful to health.<sup>4</sup> Drinking heavily, however, can result in significant health problems. These may occur after heavy alcohol consumption over a short period (eg intoxication or poisoning) or may develop more gradually (eg cirrhosis of the liver).



The most upsetting (disturbing) memory relating to my clinical practice was watching a young patient in her 40s with multi-organ failure bid farewell to her children prior to dying a couple of days later. Her multiple medical problems were due to chronic alcoholism.

**BMA member**

Ethanol is a highly toxic compound that can affect the body in a variety of ways. The toxic effect on basic cell functions is produced by ethanol and its oxidation product, acetaldehyde, which accounts for much of the acute and delayed effects of ethanol toxicity.<sup>56</sup> Principally, ethanol affects the central nervous system (CNS), mainly through stimulation of opiate and benzodiazepine receptors as well as several neurotransmitters. The effects of alcohol on an individual are dependent on various factors including age, weight, type of drink, level of dehydration, previous exposure to alcohol, level and timing of food intake, and gender of the drinker. **Table 3** outlines the possible effects of alcohol at different levels.

**Table 3 – progressive effects of blood alcohol concentration**

BAC (mg/100ml)	Effect	Impairment (continuum)
10 - 50	Relaxation	Alertness
	Sense of well being	Judgement
		Loss of inhibition
60 - 100	Pleasure	Coordination (especially fine motor skills)
	Numbing of feelings	Visual tracking
		Nausea, Sleepiness
	Emotional arousal	Reasoning and depth perception
110 - 200	Mood swings	
	Anger	
	Sadness	
	Mania	Slurred speech
210 - 300	Aggression	
	Reduced sensations	Lack of balance
	Depression	
	Stupor	Loss of temperature regulation
310 - 400	Unconsciousness	
	Death possible	Loss of bladder control
	Coma	Difficulty breathing
> 410	Death	Slowed heart rate

Source: National Institute on Alcohol Abuse and Alcoholism

Alcohol has been shown to be causally related to over 60 different medical conditions (see **Box 2**), and in the majority of cases there is a dose-response relation to the volume of alcohol consumption, with risk of disease increasing with higher volume.<sup>55,57</sup> Alcohol consumption above recommended daily guidelines significantly increases the risk of various diseases and it has been suggested to be a significant contributory factor to a range of chronic conditions (see **Table 4** and **Table 5**).<sup>54</sup> The disease conditions related to alcohol consumption fall into three categories that reflect the nature of the conditions and the nature of the aetiologic influence of alcohol on the conditions:

- *wholly alcohol-attributable conditions* which include alcoholic psychoses, alcohol-dependence syndrome, alcoholic polyneuropathy, alcoholic cardiomyopathy, alcoholic gastritis, alcoholic liver cirrhosis, and ethanol toxicity
- *chronic conditions where alcohol is a contributory cause* which include lip, oropharyngeal, oesophageal, liver, laryngeal, and breast cancer, epilepsy, hypertension, cardiac arrhythmias, stroke, oesophageal varices, gastro-oesophageal haemorrhage, liver cirrhosis, acute and chronic pancreatitis, spontaneous abortion, low birth weight, and psoriasis
- *acute conditions where alcohol is a contributory cause* which include road injuries, injuries from falls, fires, drowning, occupational and machine injuries, other accidents, suicide, assault, and child abuse.<sup>55</sup>

“”

One image that sticks in my mind was the patient who had such severe memory problems secondary to alcohol that he came out of his room every few minutes asking where his jacket was, not realising that he was doing this about 15 times per hour – and what I also remember is the sustained patience of the nursing staff!

**BMA member**

The evidence that alcohol consumption is a contributory cause of a number of cancers has strengthened in recent years.<sup>58,59</sup> A 2007 review concluded that there is convincing evidence that alcoholic drinks are a contributory cause of cancers of the mouth, pharynx, and larynx, oesophagus, colorectum (men), and breast, and a probable cause of colorectal cancer in women and of liver cancer.<sup>59</sup> The review also concluded that there is no safe threshold below which no effect on cancer risk is observed.<sup>59</sup> The adverse effects of alcohol on health outlined in **Box 2** are most notable in individuals who are alcohol dependent. Alcohol dependence syndrome is strongly associated with neurologic impairment, cardiovascular disease, liver disease, malignant neoplasms, and an increased risk of injury.<sup>37</sup>

While the majority of effects from alcohol are detrimental to health, consumption at moderate levels or below is associated with a lower risk of CHD, ischaemic stroke and diabetes mellitus compared to individuals who abstain from alcohol.<sup>55,57,58,60-62</sup> These positive effects on the risk of CHD appear to be confined to males over the age of 45 years and females past the menopause.<sup>63</sup> As consumption increases above moderate levels, however, the risk relation reverses.

“”

Unfortunately, us doctors, journalists and politicians have supported the concept that alcohol is good for you (raises HDL cholesterol, the good cholesterol), but of course not for all, and only in small amounts.

**BMA member**

**Box 2 – major disease and injury conditions related to alcohol and proportions attributable to alcohol worldwide (%)<sup>i</sup>**

	Men	Women	Both
<b>Malignant neoplasms</b>			
Mouth and oropharynx cancers	22	9	19
Oesophageal cancer	37	15	29
Liver cancer	30	13	25
Breast cancer	N/A	7	7
<b>Neuropsychiatric disorders</b>			
Unipolar depressive disorders	3	1	2
Epilepsy	23	12	18
Alcohol use disorders	100	100	100
<b>Diabetes mellitus</b>	-1	-1	-1
<b>Cardiovascular diseases</b>			
Ischaemic heart disease	4	-1	2
Haemorrhagic stroke	18	1	10
Ischaemic stroke	3	-6	-1
<b>Gastrointestinal diseases</b>			
Cirrhosis of the liver	39	18	32
<b>Unintentional injury</b>			
Motor vehicle accidents	25	8	20
Drownings	12	6	10
Falls	9	3	7
Poisonings	23	9	18
<b>Intentional injury</b>			
Self-inflicted injuries	15	5	11
Homicide	26	16	24

Source: Room R, Babor T & Rehm J (2005) Alcohol and public health. *Lancet* **365**: 519-30.

**Table 4: Increased risks of ill health to harmful drinkers**

Condition	Men (increased risk)	Women (increased risk)
<b>Hypertension (high blood pressure)</b>	Four times	Double
<b>Stroke</b>	Double	Four times
<b>Coronary heart disease</b>	1.7 times	1.3 times
<b>Pancreatitis</b>	Triple	Double
<b>Liver disease</b>	13 times	13 times

Source: *Safe. Sensible. Social: the next steps in the national alcohol strategy* (HM Government, 2007)

<sup>i</sup> This table only summarises the major disease and injury categories and does not include diseases where there is currently insufficient epidemiological evidence to allow meta-analysis studies to be carried out. The negative percentages for diabetes mellitus, ischaemic heart disease and ischaemic stroke relate to the beneficial effect of alcohol consumption at moderate levels or below for these specific conditions.

**Table 5: Those with chronic conditions who are drinking above recommended daily guidelines on a regular basis**

Condition	Men (%)	Women (%)
<b>Hypertension</b>	42	10
<b>Coronary heart disease</b>	34	6
<b>Stroke</b>	33	7
<b>Diabetes</b>	35	8
<b>Kidney disease</b>	26	6
<b>Depression</b>	42	16

Source: *Safe. Sensible. Social: the next steps in the national alcohol strategy* (HM Government, 2007)

The pattern of consumption is an important determinant in assessing the impact of alcohol on health. Binge drinking is a particularly harmful form of alcohol consumption and significantly increases the risk of alcohol dependence in men and women.<sup>64</sup> The frequency of heavy drinking by the mother is also associated with the occurrence of a range of completely preventable mental and physical birth defects collectively known as Fetal Alcohol Spectrum Disorders (FASD).<sup>65</sup> FASD are lifelong conditions resulting from maternal alcohol consumption during pregnancy that can significantly impact on the life of the individual and those around them. The rate of teenage pregnancies in the UK is the highest in Western Europe<sup>66</sup> and with recent evidence suggesting that unplanned pregnancies are common,<sup>67, 68</sup> not only in young women but in women throughout their childbearing years.<sup>69</sup> The BMA recommends that the only sensible message for women who are pregnant or planning a pregnancy must be complete abstinence from alcohol. Further information on the risks of alcohol consumption during pregnancy can be found in the 2007 BMA Board of Science report *Fetal alcohol spectrum disorders – a guide for healthcare professionals*.

### *Alcohol-related morbidity, mortality and disability*

Alcohol is a significant cause of morbidity, mortality and disability in the UK and internationally. Information on alcohol-related morbidity alone is limited because of difficulties in assessing this in an objective and standardised way. There is also no standard measure for quantifying the burden of alcohol consumption where it is a contributory factor in illnesses such as cancer and CHD. There is a need to improve data on alcohol-related morbidity and mortality through the use of alcohol-specific code categories as in the ICD-10. This could be extended to include systems for routinely recording alcohol involvement in injuries based on categories Y-90 (evidence of alcohol involvement determined by blood alcohol level) and Y-91 (evidence of alcohol involvement determined by level of intoxication) in the ICD-10.

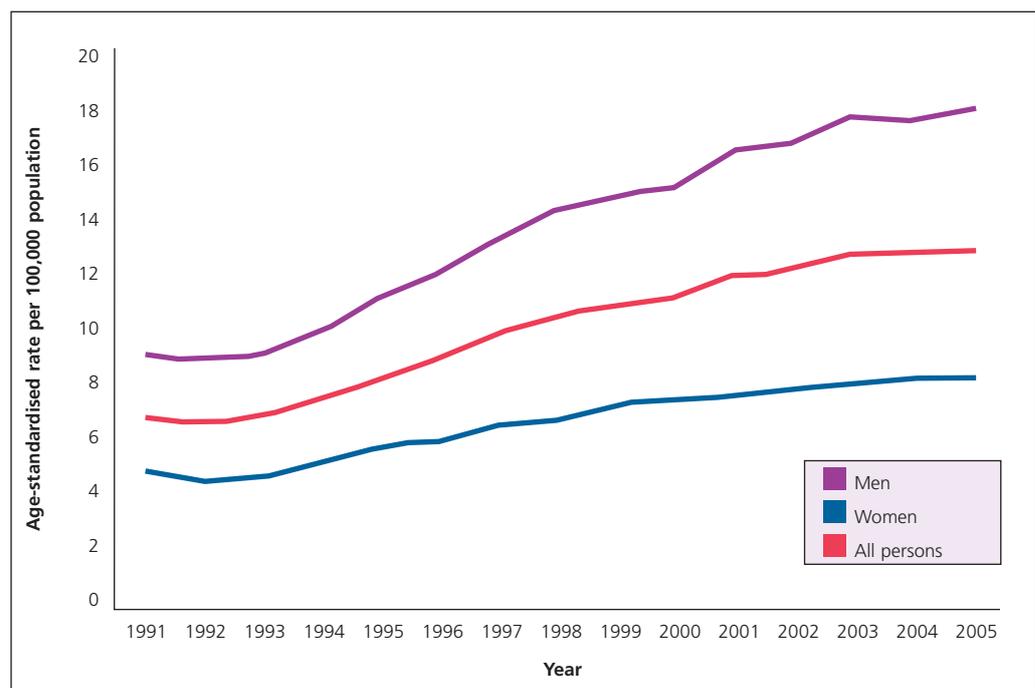
Worldwide, alcohol causes 3.27 per cent of all deaths (1.8 million) and 4 per cent of disability adjusted life years (DALYs) lost.<sup>70</sup> The burden is not equally distributed among countries. Alcohol consumption is the leading risk factor for disease burden in low mortality developing countries (accounting for 6.2% of DALYs lost) and the third largest risk factor in developed countries (accounting for 9.2% of DALYs lost compared to 10.9% and 12.2% for blood pressure and tobacco respectively).<sup>71</sup> In the UK, and internationally, alcohol-related mortality is closely linked to the level of alcohol consumption. According to the ONS – which collects data on deaths directly

attributable to alcohol<sup>j</sup> – the alcohol-related death rate in the UK almost doubled from 6.9 to 12.9 per 100,000 population between 1991-2005 (see **Figure 9**), and the number of alcohol-related deaths more than doubled from 4,144 in 1991 to 8,386 in 2005.<sup>72</sup> Death rates are much higher for males than females and the gap between the sexes has widened in recent years.<sup>72</sup> In 2005, the male death rate (17.9 deaths per 100,000 population) was more than twice the rate for females (8.3 deaths per 100,000 population) and males accounted for two-thirds of the total number of deaths.<sup>72</sup>



I had a patient, a few months ago, who had a bit too much to drink and while visiting his mother’s grave – lay down next to it and choked to death on his vomit!  
**BMA member**

**Figure 9 – alcohol-related death rates by sex, United Kingdom, 1991-2005**

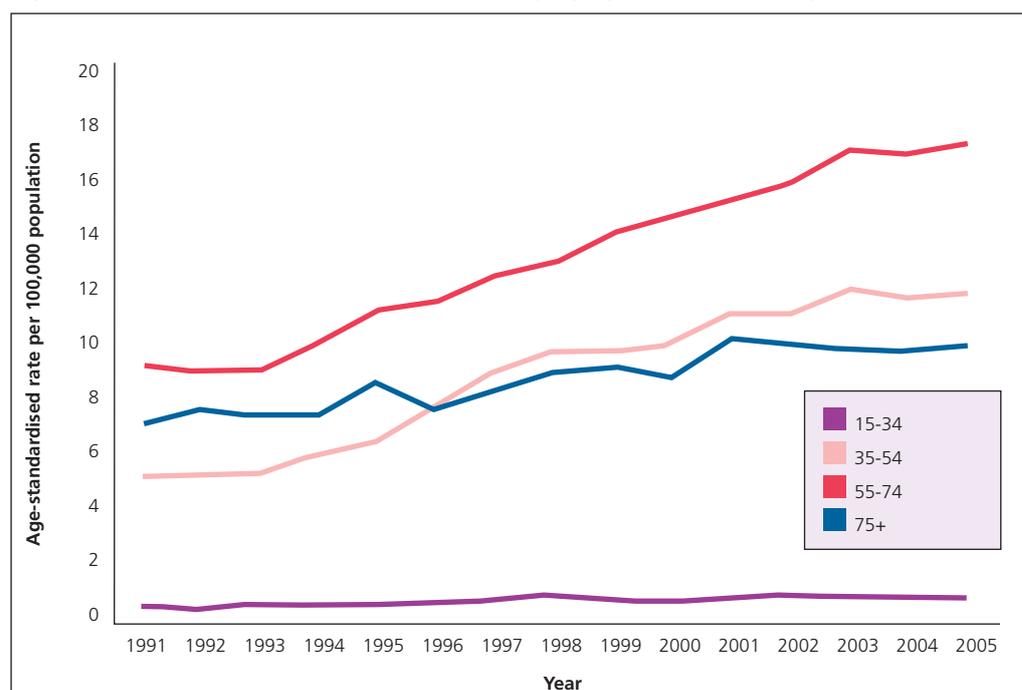


Source: Office for National Statistics, General Register Office for Scotland, Northern Ireland Statistics and Research Agency (2006)

<sup>j</sup> The ONS definition of alcohol-related deaths is based on the ICD-10 and includes those causes regarded as most directly due to alcohol consumption: mental and behavioural disorders due to alcohol (F10), alcoholic cardiomyopathy (I42.6), alcoholic liver disease (K70), chronic hepatitis – not elsewhere specified (K73), fibrosis and cirrhosis of the liver (K74), alcoholic induced chronic pancreatitis (K86.0), alcoholic poisoning by and exposure to alcohol (X45). These data do not include deaths where alcohol is a contributory cause (eg in road incidents, deaths from falls or accidents etc) and do not therefore account for the total number of deaths attributable to alcohol in the UK.

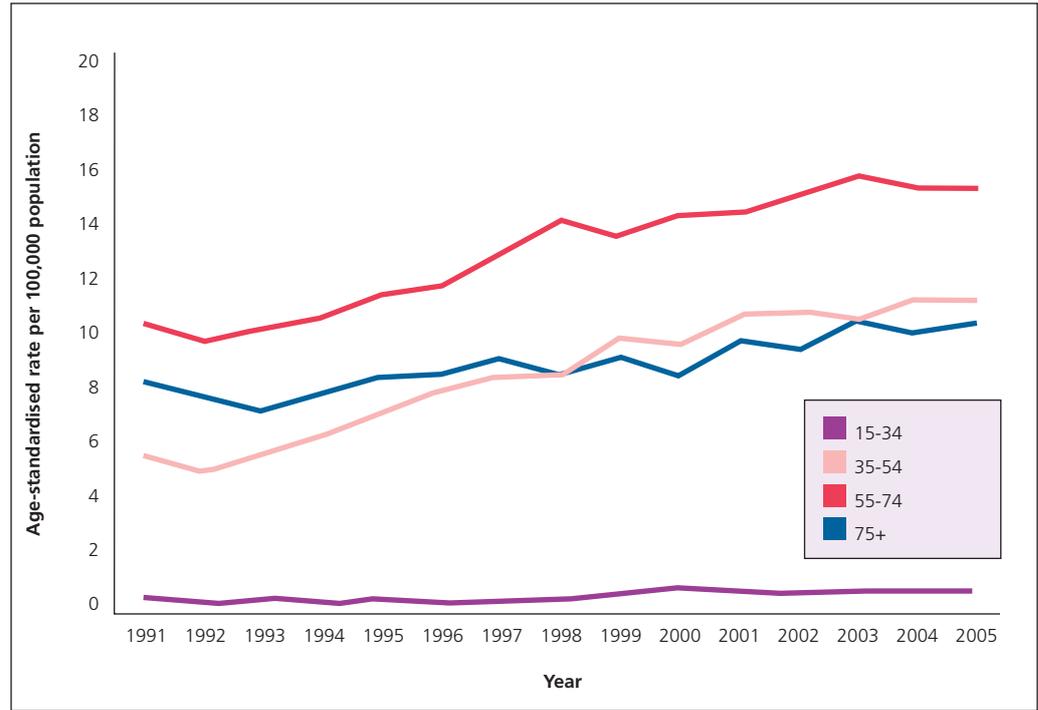
The burden of alcohol-related mortality is shifting to younger age groups in both men and women, and toward the most socially deprived groups. For men the death rates in all age groups in the UK increased between 1991 and 2005 with the biggest increase in the 35 to 54 age group (see **Figure 10**).<sup>72</sup> Rates in this age group more than doubled between 1991 and 2005, from 13.4 to 29.9 deaths per 100,000.<sup>72</sup> The highest rates in each year occurred in the 55 to 74 age group where the death rate reached 43.4 per 100,000 in 2005.<sup>72</sup> The death rates by age group for females in the UK were consistently lower than rates for males; however the trends showed a broadly similar pattern by age (see **Figure 11**).<sup>72</sup> The death rate for women aged 35 to 54 increased from 7.2 to 14.2 per 100,000 population between 1991 and 2005, a larger increase than the rate for women in any other age group.<sup>72</sup> The highest rates in each year were for women aged 55 to 74 where the death rate reached 19.2 per 100,000 population in 2005.<sup>72</sup> **Figure 12** shows how the alcohol-related mortality rate in England and Wales between 1999 and 2003 was significantly higher in the most deprived areas compared to the least deprived.

**Figure 10 – male alcohol-related death rates by age group, United Kingdom, 1991-2005**



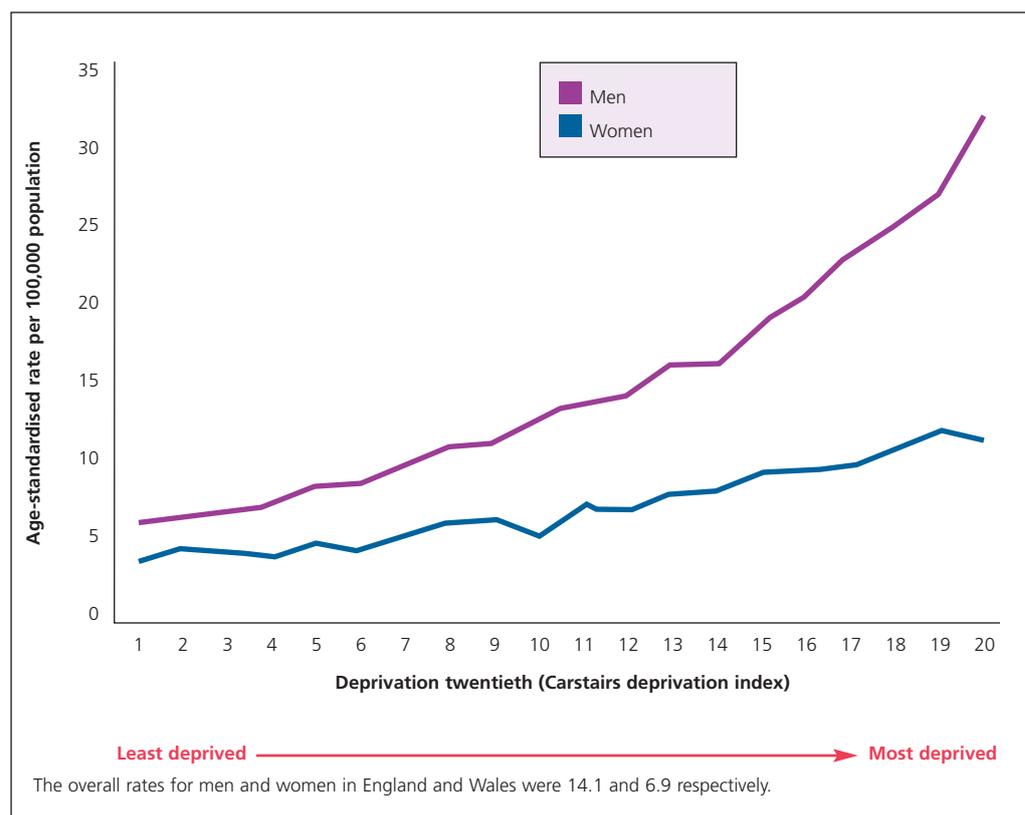
Source: Office for National Statistics, General Register Office for Scotland, Northern Ireland Statistics and Research Agency (2006)

**Figure 11 – female alcohol-related death rates by age group, United Kingdom, 1991-2005**



Source: Office for National Statistics, General Register Office for Scotland, Northern Ireland Statistics and Research Agency (2006)

**Figure 12 – age-standardised alcohol-related death rates by deprivation twentieth and sex, England and Wales, 1999-2003**



Source: Office for National Statistics (2007)

An important measure of alcohol-related deaths is the rate of mortality due to liver cirrhosis.<sup>k</sup> In England, the rate of liver cirrhosis mortality approximately trebled between 1970 and 1998, while the rate in the EU decreased by 30 per cent.<sup>73</sup> In the 35 to 44 years age group the death rate increased eight-fold in men and almost seven-fold in women, while there was a four-fold increase in 25 to 34 year-olds.<sup>73</sup> A study of liver cirrhosis mortality rates in Britain from 1950-54 to 2000-02 found that rates in men increased five-fold in England and Wales and six-fold in Scotland over this period.<sup>74</sup> In women, there was a corresponding four-fold increase.<sup>74</sup> This increase occurred in both the 15 to 44 years age group and the 45 to 64 years age group, although the absolute rates were much higher in the older group.<sup>74</sup> In comparison to the rates in 12 other western European countries<sup>l</sup> over a similar period, these increases were found to be the steepest rise in western Europe where the rate of mortality has been declining since the early 1970s.<sup>74</sup> The mortality rates for Scotland across both age-groups and sexes are now one of the highest in western Europe and while the absolute rates in England and Wales remain relatively low, the steep increase in recent years have seen the rates beginning to exceed the western European average.<sup>74</sup> In Wales, the number of alcohol-related deaths more than doubled between 1992 and 2005, increasing from 199 to 407.<sup>95</sup> In 2005, 63 per cent (255) of these deaths were among males, of which 46 per cent were aged 45 to 74.<sup>75</sup> Corresponding data are not available for Northern Ireland.

<sup>k</sup> There are many different causes of liver cirrhosis of which sustained alcohol misuse and hepatitis C infection are the most common.

<sup>l</sup> The 12 western European countries included in the study were Austria, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain and Sweden.

### Causes of alcohol-related mortality

Alcohol misuse can be directly associated with mortality from certain types of disease (eg liver cirrhosis). **Table 6** compares the data for the deaths from causes linked directly to alcohol consumption in 2005 for England and Wales, Scotland and Northern Ireland. As **Table 6** demonstrates, alcoholic liver disease accounts for the majority (approximately two-thirds) of deaths directly linked to alcohol consumption in the UK. With the exception of chronic hepatitis, more men than women died from each of the alcohol-related causes of death.

**Table 6 – deaths from causes directly linked to alcohol consumption in the UK in 2005 as a percentage of the total number of deaths (based on the ICD-10)**

Cause of death (ICD-10 code)	England and Wales		Scotland		Northern Ireland	
	Male	Female	Male	Female	Male	Female
<b>Mental and behavioural disorders due to alcohol (F10)</b>	8.9 (386)	6.2 (137)	25.0 (255)	17.9 (88)	33.7 (63)	27.4 (23)
<b>Alcoholic cardiomyopathy (I42.6)*</b>	1.5 (64)	0.7 (16)	1.3 (13)	0 (0)	11.8 (22)	4.8 (4)
<b>Alcoholic liver disease (K70)</b>	64.3 (2,789)	61.6 (1,371)	62.5 (638)	68.7 (338)	42.2 (79)	45.2 (38)
<b>Chronic hepatitis – not elsewhere specified (K73)</b>	0.32 (14)	2.3 (52)	0 (0)	1.0 (5)	0 (0)	2.4 (2)
<b>Fibrosis and cirrhosis of the liver (K74)</b>	21.3 (926)	26.2 (584)	9.6 (98)	11.4 (56)	8.6 (16)	17.9 (15)
<b>Alcoholic induced chronic pancreatitis (K86.0)**</b>	1.0 (44)	0.5 (11)	1.4 (14)	0.8 (4)	2.7 (5)	2.4 (2)
<b>Alcoholic poisoning by and exposure to alcohol (X45)</b>	2.3 (100)	2.3 (51)	0 (0)	0 (0)	1.1 (2)	0 (0)
<b>Total</b>	<b>100</b> (4,340)	<b>100</b> (2,227)	<b>100</b> (1,021)	<b>100</b> (492)	<b>100</b> (187)	<b>100</b> (84)

Source: *Statistics on alcohol: England 2007* (The Information Centre, 2007), General Register Office for Scotland (2007), Registrar General Northern Ireland Annual Report 2005 (Northern Ireland Statistics and Research Agency, 2006).

\* Data presented for Northern Ireland relate to the broader category of cardiomyopathy and not specifically for alcoholic cardiomyopathy (I42.6) for which data were not available.

\*\* Data presented for Northern Ireland relate to the broader category of other diseases of the pancreas (K86) and not specifically for alcoholic induced chronic pancreatitis (K86.0) for which data were not available.

The data in **Table 6** do not include mortality associated with, but not directly linked to, alcohol consumption (eg deaths from chronic conditions such as ischaemic stroke, CHD, and various cancers, as well as acute conditions such as suicide, homicide, and deaths resulting from accidents or injuries). Information on the number of deaths associated with, but not directly linked to, alcohol consumption is based on estimates due to the difficulty in attributing causation. It has been estimated that alcohol misuse accounts for more than 22,000 premature deaths per year in England, of which 1,000 are suicides.<sup>8</sup>

### *Alcohol-related hospital admissions*

Alcohol misuse is a major cause of admission to hospital in both the Accident and Emergency (A&E) and non-emergency setting. Alcohol may be the direct cause of admission, or may increase the burden on hospital services by adversely affecting the course of illness following admission. The PMSU has estimated that 70 per cent of all admissions to A&E at peak times are alcohol-related.<sup>8</sup> Recent years have seen a significant increase in the number of alcohol-related hospital admissions in the UK, with the most common cause for admission being mental and behavioural disorders due to alcohol consumption, followed by alcoholic liver disease and toxic effect of alcohol.<sup>m</sup> **Box 3** summarises the available data for England and Scotland. Comparative data are not available for Wales and Northern Ireland.



A&E particularly during the weekend is a nightmare. Staff are usually stretched to their limits with an over spilling waiting room which looks like a ‘war zone’ as patients wait, some with bloodstained clothes, to be seen. Staff trying to treat most of these intoxicated patients have to put up with a torrent of abuse, while clearing up vomit, urine etc.

**BMA member**

<sup>m</sup> Detailed information on the categories included within mental and behavioural disorders due to alcohol consumption, alcoholic liver disease and toxic effect of alcohol can be found in the ICD-10 at [www.who.int](http://www.who.int)

### Box 3 – summary data on alcohol-related hospital admissions in England and Scotland

#### England:

- the number of NHS hospital admissions of adults aged 16 and over with a primary or secondary diagnosis specifically related to alcohol more than doubled from 89,280 in 1995/96 to 187,640 in 2005/06
- in 2005/06, the most common causes for admission for adults aged 16 and over, where alcohol was specifically related to the primary or secondary diagnosis, were mental and behavioural disorders due to alcohol consumption (139,680), alcoholic liver disease (39,180) and toxic effect of alcohol (25,210)
- the number of NHS hospital admissions of children under 16 with a primary or secondary diagnosis specifically related to alcohol rose from 3,870 in 1995/96 to 5,280 in 2005/06
- in 2005/06, the most common causes for admission for children aged under 16, where alcohol was specifically related to the primary or secondary diagnosis, were mental and behavioural disorders (4,360) and toxic effect of alcohol (940).<sup>40</sup>

#### Scotland:

- in 2005/06, there were 39,061 alcohol-related general hospital discharges, of which 381 were children aged under 15
- there was an overall increase of 7 per cent in alcohol-related discharge rates from Scottish general hospitals between 2000/01 and 2005/06
- in 2005/06, mental and behavioural diagnoses accounted for 64 per cent (24,869) of all discharges, while alcoholic liver disease and toxic effect of alcohol accounted for 15 per cent (6,016) and 10 per cent (3,723) respectively
- in children under 15 years, the most common cause of alcohol-related discharge in 2005/06 was mental and behavioural diagnoses (260), followed by toxic effect of alcohol (77).<sup>12</sup>

### Alcohol-related crime, disorder and anti-social behaviour

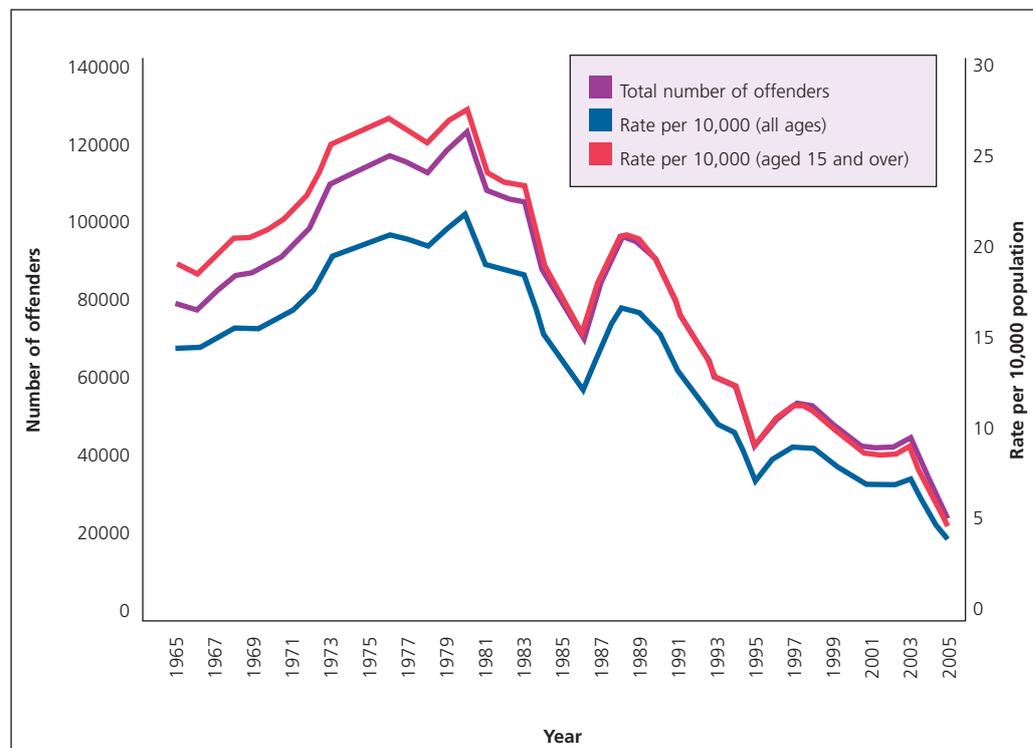
Alcohol misuse, particularly the pattern of binge drinking and the frequency of getting drunk, is associated with a wide range of crimes, disorders and anti-social behaviours.<sup>54</sup> Alcohol-related crime and disorder significantly impacts on quality of life, both directly through the effects of physical or sexual assault, or indirectly through the impact on the urban infrastructure (eg broken glass, noise and litter).<sup>8</sup> There are two main categories of offences associated with alcohol-related crime and disorder:

- alcohol-defined offences such as drunkenness offences or driving with excess alcohol (see page 42 for further information on driving and road safety)
- offences in which alcohol consumption was a contributory factor in the committing of an offence, usually where the offender was under the influence of alcohol at the time. Examples of offences which are often committed by people under the influence include physical and sexual assault, breach of the peace, criminal damage and other public order offences.

Alcohol consumption is also strongly associated with anti-social behaviour, particularly at weekends, in both urban and rural environments.<sup>54, 76, 77</sup> Anti-social behaviour can be defined as acting 'in a manner that caused or was likely to cause harassment, alarm or distress'<sup>78</sup> and includes activities such as nuisance and rowdy behaviour, noise disturbance, street drinking and begging, littering, and intimidation or harassment.

The number of officially recorded drunkenness offenders has been declining since 1981 throughout the UK (see **Figure 13**). These figures should be taken with caution as they most likely reflect changes in policy and police practice rather than changes in the actual incidence of drunkenness.<sup>4</sup> The 2004 PMSU alcohol-harm reduction strategy noted that 'Enforcement of legislation on drunk and disorderly behaviour has dropped sharply over the last 10 years. This reflects not only falling priority but also, crucially, the sheer practicalities of policing large numbers of drunk people'.<sup>8</sup> In England and Wales, the recent downward trend coincides with the introduction of Penalty Notices for Disorder (PND) in 2003/04. In 2004 there were approximately 3,000 penalty notices issued for drunkenness or consuming alcohol in a designated public place and 26,600 penalty notices issued for drunk and disorderly behaviour.<sup>40</sup>

**Figure 13 – drunkenness offenders in the UK, 1964-2005**



Source: *Statistical handbook 2007* (British Beer and Pub Association, 2007)

While statistics on alcohol-defined offences such as drunkenness and driving with excess alcohol are readily available, data on other offences where alcohol is a contributory factor are not collected per se due to the complexity in establishing causality. As a result, the involvement of alcohol in offences such as assault is not routinely investigated or recorded. This is compounded by the under-reporting in police statistics of violent crimes which is known to occur.<sup>79</sup> Data on the levels of antisocial behaviour are also limited as this information is also not routinely collected. There is a clear need to improve the collection of data on alcohol-related crime and disorder through routine coding in police investigations and incident reports.

Information on alcohol-related violent crime and disorder is available from crime surveys; however, these data are subjective as they are reliant on the victim's perception of an offender's alcohol use. According to the British Crime Survey (BCS) 2005-06, 44 per cent of violent offenders in England and Wales were perceived by their victims to be under the influence of alcohol.<sup>80</sup> This corresponds to a decrease in the number of violent incidents where the victim believed the offender or offenders to be under the influence of alcohol from 1,659,000 in 1995 to 1,029,000 in 2005/06. The offender was judged to be under the influence of alcohol in 54 per cent of incidents of stranger violence, 44 per cent of incidents of acquaintance violence and 21 per cent of incidents of mugging.<sup>80</sup> Eighteen per cent of violent offenders between the age of 10 and 25 reported being under the influence of alcohol only, and three per cent under the influence of drugs and alcohol, at the time of the offence.<sup>81</sup> Thirty-two per cent of young people surveyed reported being under the influence of alcohol when committing criminal damage offences and 27 per cent were under the influence of drugs and alcohol while being involved in vehicle related thefts.<sup>81</sup> The 2000 Scottish Crime Survey (SCS) found that 72 per cent of victims of violent crime in Scotland reported that the assailant was under the influence of alcohol, and that male offenders were more likely to be under the influence (69%) than female (30%).<sup>82</sup> Comparative data are not available for Northern Ireland.

The levels of alcohol-related crime and disorder vary with age and pattern of drinking. The 2003 Offending, Crime and Justice Survey (OCJS) found that binge drinkers were more likely to offend than other regular drinkers, and the number of offences was highest among binge drinkers aged 18 to 24.<sup>83</sup> While this age group accounted for only six per cent of the total adult survey sample, it was found to be responsible for 30 per cent of all crimes and 24 per cent of all violent incidents reported by adults in the preceding 12 months.<sup>83</sup> Young binge drinkers aged 18 to 24 were found to account for a disproportionate level of criminal and disorderly behaviour (ie getting into an argument or fight, breaking or damaging property, and stealing).<sup>83</sup> Drinking alcohol, especially frequent drinking, is also a significant factor in criminal and disorderly behaviour in young people aged under 18. The 2004 OCJS for England and Wales found that 10 to 17-year-olds who reported drinking alcohol once a week or more (14%) committed a disproportionate volume of crime, accounting for 37 per cent of all offences reported by the respondents.<sup>84</sup> Those who had never drunk alcohol or had not drunk alcohol in the past year, comprised 45 per cent of respondents and only committed 16 per cent of all the offences reported.<sup>84</sup>

## The social effects of alcohol misuse on individuals and families

Alcohol misuse can lead to many harmful consequences for the individual drinker, their family and friends. In terms of the individual, alcohol misuse can be associated with many negative consequences including tobacco and illicit drug use; accidents and injuries; malnutrition and eating disorders; unemployment; social exclusion; memory loss; self-harm and suicide; unprotected and underage sex; unplanned pregnancy; and problems in relationships with friends and partners.<sup>4</sup> There is a complex relationship between alcohol misuse and homelessness. Alcohol dependence can lead to homelessness, while for others, alcohol problems may develop as a result of being homeless.<sup>3, 85</sup> It has been estimated that around half of homeless people are dependent on alcohol. In contrast, a 1994 survey of 1,061 homeless people in hostels, night-shelters, day centres and private-sector leased accommodation in Britain found over 21 per cent to be alcohol dependent.<sup>86, 87</sup>

Alcohol misuse can also significantly impact on family life. Marriages where there are alcohol problems are twice as likely to end in divorce.<sup>88</sup> Parental alcohol misuse is correlated with child abuse and significantly impacts on a child's environment in many social, psychological and economic ways.<sup>89</sup> Single parent households, low income and parental unemployment are all significant risk factors for heavy alcohol use by children and young people.<sup>4</sup> In 2004, it was estimated that between 780,000 and 1.3 million children were affected by parental alcohol problems in England.<sup>9</sup> Drinking alcohol can impair performance as a parent, spouse or partner through negative effects on relationships with family members and through time spent away from the family and home. Alcohol use can significantly impact on family economic resources through direct expenditure on alcohol, increased medical and childcare expenses, reduced household income through alcohol-related morbidity and mortality, lost employment opportunities, legal costs of alcohol-related offences and decreased eligibility for loans.<sup>90</sup> The economic consequences of expenditures on alcohol can perpetuate the effects of poverty on families and children by diverting scarce funds away from meeting basic needs. Alcohol misuse can also result in substantial mental health problems for family members.<sup>70</sup>



Alcoholism destroys individuals and slowly but inevitably pulls the family down on the back of "they like their drink". Just imagine how different life would have been for people and public figures without the destruction by alcohol.

**BMA member**

In the workplace, alcohol misuse is associated with lower productivity through sickness-related absence and poor performance, as well as resulting in shorter working lives.<sup>8, 70, 91</sup> It has been estimated that alcohol misuse results in 17 million working days lost annually in England.<sup>8</sup> Research has found that alcohol is a significant contributory factor in domestic violence incidents and that the risks of suffering domestic abuse rise with increasing levels of drinking for both male and female victims.<sup>92</sup> The BCS 2005-06 found that 46 per cent of domestic abuse offenders were under the influence of alcohol.<sup>80</sup> The Northern Ireland Crime Survey (NICS) 2005 found that 51 per cent of perpetrators of domestic violence were identified by their victims as under the influence of alcohol at the time of their worst incident.<sup>93</sup> It has been found that domestic abuse characterised by the perpetrator's pre-assault alcohol use is associated with more serious outcomes, with perpetrator alcohol use being associated with approximately 1.5 times greater risk of victim injury and receipt of medical attention.<sup>94</sup> Victims of domestic abuse have also been found to have increased alcohol consumption compared with non-victims,<sup>95</sup> and children who witness domestic abuse are more likely to display harmful drinking patterns later in life.<sup>92</sup> Further information on domestic abuse and its association with alcohol misuse can be found in the 2007 BMA report *Domestic abuse*.<sup>96</sup>

### Driving and road safety

The adverse short- and long-term effects of alcohol misuse on judgement, coordination and reactions are a common cause of road traffic crashes involving intoxicated drivers and other intoxicated road users such as cyclists. Driving under the influence of alcohol is a significant cause of death and serious injury from road traffic crashes in the UK. In Great Britain, there were an estimated 14,380 casualties resulting from drink-drive road crashes in 2006, of which 540 were estimated to be fatal and 1,960 serious.<sup>97</sup> This corresponds to six per cent of all road casualties and 17 per cent of road deaths in 2006.<sup>97</sup> The number of people killed or seriously injured in drink-drive crashes in Great Britain fell from over 9,000 in 1979 to less than 2,000 in 2006.<sup>97</sup> Between 1995 and 2006, there has been no overriding trend in the number killed or seriously injured despite year-to-year fluctuation. In Northern Ireland, consumption of alcohol or drugs by drivers or riders was responsible for 18 deaths and 115 seriously injured casualties in 2006, corresponding to 10 per cent of all fatal and serious road traffic crashes.<sup>98</sup>

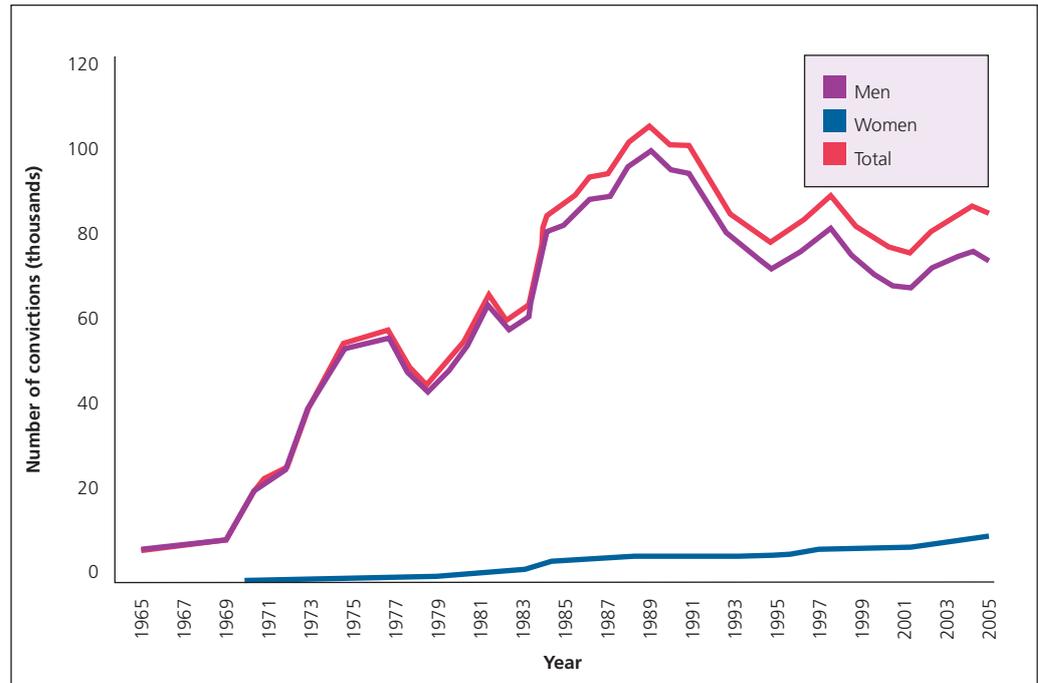


I have treated far too many casualties following drink-drive crashes, many of whom have been innocent victims due to an irresponsible motorist driving whilst over the legal limit. As a doctor I do my best to treat these patients but often they are left with permanent physical injuries and sometimes brain damage. These are tragic occurrences which occur all too frequently.

**BMA member**

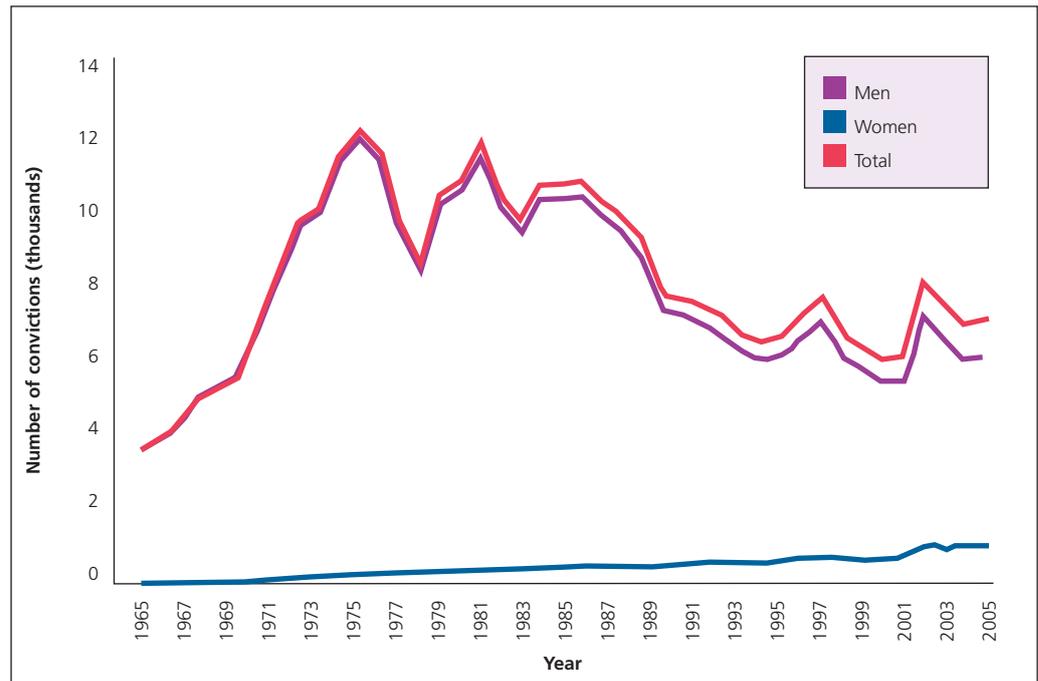
In the UK, drink-driving is more common in men, and among those aged under 30. According to road casualty data for Great Britain, three per cent of all male car drivers involved in a personal injury road crash in 2006 failed a breath test compared to 1.2 per cent of women.<sup>97</sup> In 2005, the highest rates of drink-drive crashes per 100,000 license holders were found in the 17 to 19 age group (74), followed by those in the 20 to 24 age group (71) and the 25 to 29 age group (48).<sup>97</sup> **Figure 14** and **Figure 15** show the number of convictions for drinking and driving in England and Wales, and Scotland respectively between 1963 and 2005. In England and Wales, the number of people convicted of drink-driving decreased substantially between 1990 and 1994, and has fluctuated around 80,000 individuals per year since then. In Scotland, there has been a downward trend in the number of people convicted since the mid 1970s. In Northern Ireland, the total number of convictions for drink-driving increased from 1,890 in 2001 to 2,536 in 2005.<sup>99</sup>

**Figure 14 – number of persons convicted of drinking and driving in England and Wales, 1965-2005**



Source: *Statistical handbook 2007* (British Beer and Pub Association, 2007)

**Figure 15 – number of persons convicted of drinking and driving in Scotland, 1965-2005**



Source: *Statistical handbook 2007* (British Beer and Pub Association, 2007)

Pedestrian alcohol consumption is also associated with fatalities and injuries. In Great Britain, 72 per cent<sup>n</sup> of pedestrians aged 16 and over killed between 10pm and 4am in 2005 were found to have a BAC in excess of 80mg/100ml.<sup>97</sup> Research conducted by the Scottish Office Central Research Unit found that 31 per cent of all pedestrian casualties attending A&E departments in five large Scottish hospitals in 1996/97 had consumed alcohol, of which 87 per cent were male.<sup>100</sup> In Northern Ireland, 12 per cent of fatal and serious pedestrian injuries in 2005 were due to pedestrian consumption of alcohol or drugs.<sup>98</sup>

### The cost of alcohol misuse and alcohol-related harm

The cost of alcohol misuse in the UK is substantial and can be divided into four broad categories:

- *healthcare service costs* – including costs to primary care services and hospital services (A&E, medical and surgical inpatient services, paediatric services, psychiatric services, and outpatient departments) of alcohol-related morbidity and mortality
- *cost of alcohol-related crime, disorder and anti-social behaviour* – including costs to the criminal justice system, costs to services (eg social work services), costs of drink-driving, and the human cost of alcohol-related harm (eg domestic abuse, assault)
- *loss of productivity and profitability in the workplace* – including costs to the economy from alcohol-related deaths and alcohol-related lost working days
- *impact on family and social networks* – including human and emotional costs such as breakdown of marital and family relationships, poverty, loss of employment, domestic and child abuse, homelessness and other drug use.

**Box 4** summarises various estimates of the costs of alcohol-related harm in the UK.

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<sup>n</sup> As blood alcohol levels were only available for 45 per cent of all pedestrian fatalities, these figures may overestimate the proportion of fatalities with a BAC in excess of 80mg/100ml.

#### Box 4 – estimated annual costs of alcohol-related harm in the UK

##### *England*

The National Social Marketing Centre estimated that the total annual societal cost of alcohol misuse in England to be £55.1 billion including:

- £21 billion cost to individuals and families/households (eg loss of income, informal care costs)
- £2.8 billion cost to public health services/care services
- £2.1 billion cost to other public services (eg criminal justice system costs, education and social services costs)
- £7.3 billion cost to employers (eg absenteeism)
- £21.9 billion in human costs (DALYs).<sup>101</sup>

The 2004 PMSU report estimated the overall annual cost of alcohol-related harm in England to be £20 billion including:

- up to £1.7 billion for the healthcare service
- up to £7.3 billion from alcohol-related crime and public disorder (£3.5 billion to services as a consequence of alcohol-related crime, £1.7-2.1 billion to services in anticipation of alcohol-related crime, £1.8 billion to the criminal justice system, £0.5 billion from drink-driving)
- up to £6.4 billion from loss of productivity and profitability in the workplace (£1.2-1.8 from alcohol-related absenteeism, £2.3-2.5 billion from alcohol-related deaths, £1.7-2.1 billion from lost working days).<sup>8</sup>

##### *Scotland*

In 2002/03, the overall annual cost of alcohol misuse in Scotland was estimated to be £1.13 billion including:

- £110.5 million for healthcare services provided by NHS Scotland
- £96.7 million for social work services
- £276.7 million for criminal justice and emergency services
- £417.8 million for wider economic costs associated with alcohol misuse including working days lost due to alcohol-related absenteeism
- £223.8 million for human costs (premature mortality in the non-working population).<sup>102</sup>

##### *Northern Ireland*

The annual cost of alcohol-related harm in Northern Ireland has been estimated to be £743 million, of which £34 million is incurred in direct costs (eg healthcare costs and prison service costs).<sup>9</sup>



## Effective policies to reduce alcohol-related harm in the UK

There is a substantial body of evidence demonstrating that targeted and population-wide alcohol control policies can reduce alcohol-related harm. Historically, changes in alcohol control policies in the UK have been accompanied by fluctuations in alcohol consumption levels and associated problems. In the 18th century, a dramatic increase in the consumption of gin in the UK occurred following a reduction in taxation levels, leading to a period of widespread chronic mass intoxication, drunken violence, disease, alcohol dependence and premature mortality.<sup>103</sup> It was not until 1743 that the 'gin epidemic' was brought under control through moderate taxation and strong enforcement. During the 19th century, deregulation of the sale of beer, ale and cider led to the proliferation of premises selling alcoholic drinks and an accompanying increase in drunkenness and alcohol-related problems.<sup>4</sup> This in turn brought about the introduction of licensing controls in the late 19th century. During the First and Second World Wars and the inter-war period, restrictions on the sale of alcoholic beverages and increased taxation – together with the removal of large numbers of young men by wartime duty or premature death – led to dramatically reduced national per capita consumption and alcohol-related problems.<sup>4</sup>



I see more and more alcohol-attributable deaths. 'There is nothing more we can do' is a hard discussion to have with a patient and their family. Excessive drinking has a wide range of adverse effects – medical, personal and social. The government needs to take tougher action to address these problems and it needs to happen now.

**BMA member**

Since the Second World War, there has been considerable deregulation and liberalisation of alcohol control policies in the UK. This has been accompanied by an increase in consumption levels and alcohol-related problems as discussed earlier. Information on current UK governmental alcohol control strategies can be found in Appendix 2. These strategies have been the subject of much criticism due to the lack of governmental commitment to evidence-based harm reduction policies.<sup>57, 104-111</sup> The primary criticism is the focus of the UK Government on interventions that are popular (eg educational programmes and media campaigns) but argued to be ineffective, and the rejection of policies such as increased taxation and reduced availability that have been found to reduce alcohol consumption and related problems. These criticisms are supported by analysis and comparison of the strength of alcohol control policies internationally. A recent study of alcohol control policies among countries in Europe, Asia, North America, and Australia found the strongest alcohol control policies to be in Norway and Poland while the UK was ranked 20th out of the 30 countries examined in the study.<sup>112</sup>

Lessening the burden of alcohol misuse in the UK requires strong leadership and the implementation of effective alcohol control policies that reduce overall consumption levels and minimise the harm to the public and the individual. It is worth noting that while the devolved UK nations have developed independent strategies, there is no overarching strategy for the UK. Developing comprehensive alcohol control policies therefore requires partnership between governmental agencies and organisations throughout the UK. A coordinated approach is also required to increase the popularity and acceptance of such policies among the general public. The UK Government's emphasis on partnership with the alcohol industry and self-regulation has at its heart a fundamental conflict of interest that does not adequately address individual and public health. The alcohol industry clearly has a vested interest in the development of control policies. It is essential, that the UK Government moves away from partnership with the alcohol industry and looks at effective alternatives to self-regulation that will ensure there is a transparent policy development process that is based on reducing the harm related to alcohol misuse.

The sub-sections to follow set out a range of evidence-based policies that must be collectively implemented in order to effectively tackle alcohol misuse and its associated harms.

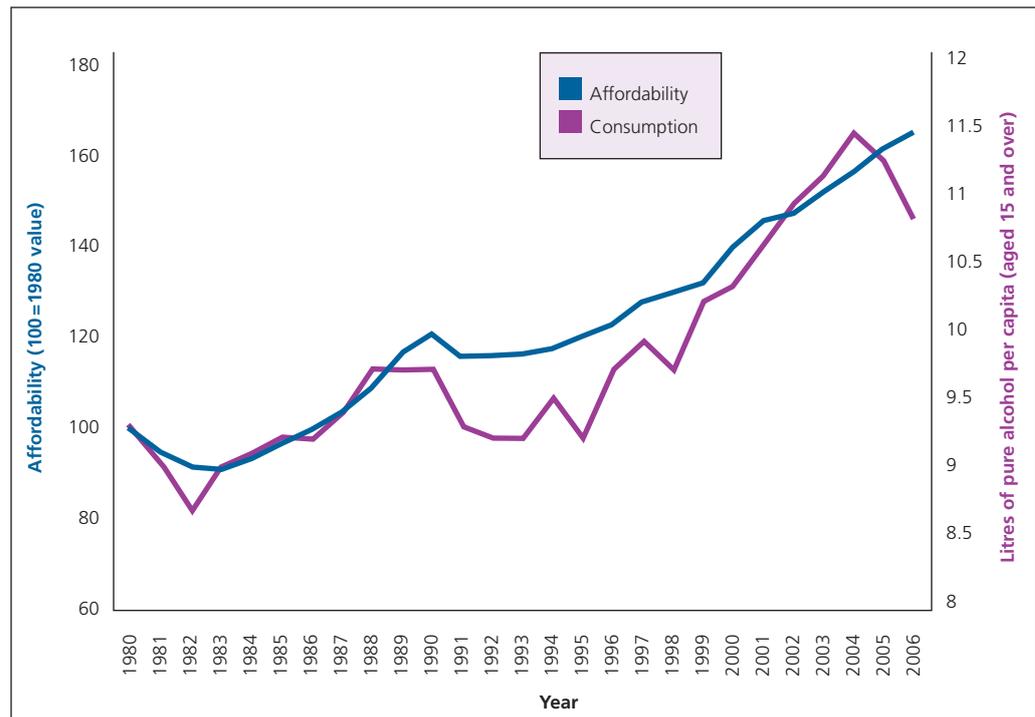
### Access to alcohol – controlling price and availability

Access to alcohol is an important determinant of alcohol use and misuse. This incorporates the implementation of policies that regulate the affordability of alcohol, as well as the introduction and enforcement of strict controls on the availability of alcohol to adults and young people.

#### Taxation and traveller’s allowances

In recent years, the affordability of alcohol in the UK has been increasing and this has played a significant role in the rise in alcohol consumption.<sup>4</sup> **Figure 16** shows how the affordability of alcohol in the UK increased by 65 per cent between 1980 and 2006.<sup>40</sup> In the corresponding period, per capita alcohol consumption for those aged 15 and over increased from 9.4 to 10.9 litres of pure alcohol.<sup>5</sup>

**Figure 16 – the affordability<sup>o</sup> of alcohol and consumption of alcohol per capita aged 15 and over, UK, 1980-2006**



Source: *Statistics on alcohol: England 2007* (The Information Centre, 2007), *Statistical handbook 2007* (British Beer and Pub Association, 2007)

<sup>o</sup> The affordability of alcohol has been calculated by comparing the relative changes in the price of alcohol (relative alcohol price index) with changes in household’s disposable income (real household’s disposable income index) over the same period (with both allowing for inflation). The base year for these data is 1980.

In the UK, taxation on alcohol is set centrally by Her Majesty's (HM) Treasury. Since 1997, the duties on wine and beer have only increased in line with inflation and the duty on spirits has not increased.<sup>113</sup> It is important to recognise that while the production, distribution and sale of alcoholic beverages is economically significant, the burden of alcohol misuse is equally important. There is strong and consistent evidence that alcohol consumption and rates of alcohol-related problems are responsive to price.<sup>114-118</sup> It has been estimated that a 10 per cent increase in alcohol prices in the UK would lead to a 10 per cent fall in consumption.<sup>4</sup> The price elasticity varies between types of alcoholic beverage. In the UK, price elasticities have been estimated as -0.48 for beer consumed on premises, -1.03 for packaged beer, -0.75 for wine, and -1.31 for spirits (ie spirits are most price elastic and beer consumed on premises least price elastic).<sup>119</sup> Based on these estimates, a 10 per cent increase in the prices of alcoholic beverages across the board would lead to a reduction in consumption of beer consumed on premises of 4.8 per cent, and spirits by 13.1 per cent.<sup>57</sup> Increases in the price of alcohol not only affect consumption at a population level, but there is evidence that particular types of consumers (eg heavy drinkers and young drinkers) are especially responsive to price.<sup>57, 114, 120-123</sup>

Studies have also reported that price increases have the effect of reducing rates of alcohol problems including alcohol-related violence and crime,<sup>4, 114</sup> deaths from liver cirrhosis,<sup>124</sup> and drink-driving deaths.<sup>125</sup> A 2007 review found the 2004 reductions in alcohol taxation in Finland to be associated with an increase in the number of sudden deaths involving alcohol.<sup>126</sup> A 2006 study examining the influence of the price of beer on violence-related injuries in England and Wales found that increased alcohol prices would result in substantially fewer violent injuries and reduced demand on trauma services.<sup>127</sup> The study concluded that a one per cent rise in the real price of alcohol would equate to an economy-wide reduction in cases of assaults in emergency departments of 5,000 per year.<sup>127</sup>

In the UK, alcohol is relatively highly taxed compared to other EU countries (see Appendix 3).<sup>5</sup> Furthermore, traveller's allowance guidelines for the importation of alcohol for personal use from other EU countries are disproportionately high. HM Revenue and Customs guidelines advise that no more than 10 litres of spirits, 20 litres of fortified wine, 90 litres of wine, and 110 litres of beer can be brought into the UK for personal use.<sup>128</sup> Any alcohol brought into the UK in excess of these guidelines may be seized by customs officers if the individual cannot provide satisfactory explanation that these quantities are for personal rather than commercial purposes. The combination of low alcohol taxation in the EU coupled with high traveller's allowances mean large quantities of alcohol are regularly imported into the UK from continental Europe. As noted previously, it has been estimated that the approximate level of unrecorded annual consumption in the UK is two litres of 100 per cent alcohol per inhabitant aged 15 or over.<sup>7</sup> Reducing the importation of alcohol from other EU countries, however, is unrealistic given current EU legislation and single market regulations.

It is clear that the relationship between the affordability of alcohol and the level of consumption provides an effective tool for controlling levels of consumption and reducing levels of alcohol-related harm. The UK Government, however, has consistently opted not to use taxation as an alcohol control policy. The proposal by the European Commission in 2006 to increase minimum levels of excise duty on alcoholic drinks across the EU was also rejected by the European Parliament. It is essential that there is an increase in the level of excise paid on alcohol in the UK and this should be relative to the number of units of alcohol. This increased taxation would not only reduce alcohol consumption and its related harms, but would also contribute to providing the necessary funding to meet the social and economic costs of these harms (eg police enforcement measures, healthcare service costs and treatment services).

### Recommendation

- Taxation on all alcoholic beverages should be increased at higher than inflation rates and this increase should be proportionate to the amount of alcohol in the product.

### Licensing reforms

Licensing interventions are one of the most influential methods for controlling alcohol consumption and misuse through regulation of where, when and to whom alcohol can be sold. There is strong evidence that increased opening hours are associated with increased alcohol consumption and alcohol-related problems.<sup>4, 57, 114, 115, 117</sup>

A literature review conducted by the Scottish Executive in 2003 on the impact of licensing and other controls on public disorder found that, although there is inconsistent evidence relating to the impact of licensing controls in the UK, there is international evidence to support the idea that longer hours of alcohol sales may be linked to increased problems with alcohol-related crime and disorder.<sup>129</sup> A study in 2002 noted that past increases in hours of alcohol sales in Michigan, Perth, New South Wales, Victoria, Tasmania, Brisbane, Finland and Sweden have been shown to result in increases in road deaths and injuries and/or violence.<sup>130</sup> In a study in hotels in Perth, Australia, late trading was found to be associated with both increased violence and increased levels of alcohol consumption during the study period.<sup>131</sup> It is suggested that greater numbers of patrons and increased levels of intoxication contributed to the observed increase in violence.<sup>131</sup>

Several controlled and uncontrolled studies in Nordic countries with State alcohol monopolies have shown that major relaxations in controls on beer strength or sales outlets were followed by increases in alcohol consumption, drunkenness and alcohol-related hospital admissions.<sup>132</sup> The extension of licensing hours in Reykjavik, Iceland, was found to result in net increases in police work, in emergency room admissions, and in drink-driving cases.<sup>123</sup> The extension of opening hours for pubs and clubs in the Republic of Ireland following the introduction of the 2000 Intoxicating Liquor Act was found to result in a number of negative consequences including a significant rise in binge drinking, especially among under-age drinkers.<sup>4</sup> Conversely, reductions in the opening hours and the number of outlets are associated with reductions in alcohol use and related problems. Reductions in licensing hours in Norway, Finland and Sweden led to a decrease in the alcohol consumption of heavy drinkers.<sup>133</sup>

In the UK, access to alcohol has increased significantly due to the doubling in the number of on- and off-licensed premises since the 1950's. In 1953, there were 61,000 on-licensed premises and 24,000 off-licensed premises in Great Britain.<sup>134</sup> In 2001, the total number of on-licensed and off-licensed premises in England and Wales was estimated to be 110,000 and 44,700 respectively.<sup>135</sup> Despite the evidence that increased opening hours and availability of alcohol are associated with greater consumption and alcohol-related problems, recent and proposed changes to licensing policies in the UK have favoured extended trading hours. The Licensing Act 2003 now permits 24-hour opening in England and Wales, while proposed changes to licensing in Scotland and Northern Ireland will permit more modest extensions in opening hours. The licensing reforms in England and Wales were introduced in 2005 with the aim of altering the drinking culture, reducing binge drinking levels and reducing the tendency of drinkers to rush to consume alcohol immediately prior to closing time.<sup>4</sup> Of particular note, however, is the fact that public health is not considered as one of the licensing objectives in the 2003 Act.<sup>136</sup> By contrast, the Licensing (Scotland) Act 2005 specifically mentions 'protecting and improving public health' as one of the licensing objectives.<sup>137</sup>

The decision to permit extended licensing hours in England and Wales has received considerable criticism in the medical community.<sup>138-140</sup> In 2005, the Association of Chief Police Officers (ACPO) raised concerns that extended licensing hours would result in greater numbers of people under the influence of alcohol, and therefore lead to increased levels of crime and disorder, and associated demands on policing.<sup>141</sup> It is essential that licensing reforms are based on the best available evidence on the effects of increased licensing hours. It is also important that any changes to licensing legislation are accompanied by a programme of post change research to evaluate the short, intermediate and long-term effects, including an assessment of any health impacts. A recent small-scale review of the effect of the new licensing laws in England and Wales found a statistically significant increase in alcohol-related overnight attendances in the emergency department in St Thomas' hospital in London following the introduction of the new licensing legislation.<sup>142</sup> The number of alcohol-related attendances increased from 79 (2.9% of all overnight attendances) in March 2005 to 250 (8% of all overnight attendances) in March 2006.<sup>142</sup> A 2007 Home Office report examining violent crime, disorder and criminal damage since the introduction of the Licensing Act 2003 indicated that there had been an increase in offences of all types (criminal damage, harassment, assault with no injury, less serious wounding, serious violent crime) between 3am and 6am after the introduction of the 2003 Licensing Act in November 2005.<sup>143</sup> The report concluded that the increase between 3am and 6am was likely to partly reflect the change to opening hours of licensed premises and the increased numbers of people in a public place at these times.<sup>143</sup>

A high density of alcohol outlets is also associated with increased alcohol sales, drunkenness, violence and other alcohol-related problems.<sup>114, 144-149</sup> A high density of outlets increases the likelihood of movement between bars which in turn increases noise and disturbance in the vicinity, complicates the assignment of responsibility to any one server or establishment to prevent intoxicification, and makes it easier for customers to respond to price promotions in the area.<sup>149</sup> Consumers are likely to be deterred from purchasing alcohol when there is a lower density of outlets due to the increased time and inconvenience involved in purchasing. It is therefore important that the density of alcohol outlets is taken into account when considering planning or licence applications, and where necessary, legislative changes are introduced to ensure these factors are considered. The surrounding infrastructure and availability of local amenities (eg taxi services and food outlets) are also important considerations.

### Recommendations

- The availability of alcoholic products should be regulated through a reduction in licensing hours for on- and off-licensed premises.
- Town planning and licensing authorities should ensure they consider the local density of on-licensed premises and the surrounding infrastructure when evaluating any planning or licensing application. Legislative changes should be introduced where necessary to ensure these factors are considered in planning or licensing applications for licensed premises.

### *Legal age of consumption and age of purchase*

In the UK, the legal age for consuming alcohol is five, provided parental consent is given. It is, however, illegal for anyone under aged 18 to buy alcohol in a pub, off-licence, supermarket, or other outlet, or for anyone to buy alcohol for someone under 18 to consume in a pub or a public place.<sup>p</sup> Regulating access to alcohol through restrictions on the legal age of consumption and purchase is a particularly effective strategy for preventing alcohol-related health and social problems among young people. There is strong evidence from the USA that raising the legal age of consumption and purchase reduces consumption levels in young people (including binge drinking), and reduces the levels of alcohol-related traffic crashes, injuries and fatalities.<sup>114, 115, 125, 150-154</sup> The effect of reducing the legal age to purchase alcohol has been reported to increase consumption and the number of alcohol-related road crashes.<sup>155</sup> Hence, it is important to consider whether a review of the current legal age limits for consuming and purchasing alcohol is necessary. Evidence from the USA clearly demonstrates that raising the legal drinking age has a significant positive effect on alcohol-related problems.

The illegal purchase of alcohol by young people is a significant problem in the UK. A nationwide police operation in 2004 found that 51 per cent of on-licensed premises and 32 per cent of off-licences had sold alcohol illegally to individuals aged under 18.<sup>4</sup> The legal sale of alcohol is complicated by the difficulty in accurately determining the age of young people aged between 16 and 18. There is also considerable anecdotal evidence that licensees are subjected to verbal and physical abuse when refusing to sell age-restricted items such as alcohol. In the UK, the Retail of Alcohol Standards Group (RASG) established the voluntary 'Under 21?' signage initiative in December 2005 which aims to support retailers in encouraging anyone who is over 18 but looks under 21 to carry acceptable identification if they wish to buy alcohol. All licensees should be encouraged to sign-up to this voluntary agreement.

### **Responsible retailing and industry practices**

Numerous factors contribute to the culture of drinking to excess and the rise in underage drinking and alcohol-related harm in the UK. Key areas are the supply and promotion of alcohol to consumers.

#### *Enforcing responsible serving practices*

In addition to regulating licensing hours, legislation in the UK prohibits the sale of alcohol to intoxicated customers and people under the age of 18. The enforcement of licensing laws is a vital component of effective alcohol control that places the responsibility on licensees for the actions of their customers. This is an advantageous approach as it does not rely on compliance from the individual consumer and is likely therefore to be received as an acceptable alcohol control policy.

Active enforcement of laws regulating licensing hours and prohibiting the sale of alcohol to individuals who are intoxicated or those underage have been shown to be effective at increasing compliance with legislation.<sup>156</sup> In the USA, enforcement has also been shown to increase public awareness, and when coupled with measures to encourage retailers and the public to comply with the law, to reduce alcohol-related problems such as road traffic fatalities and homicides.<sup>115, 157, 158</sup> These benefits from increased enforcement of licensing laws have also been found to significantly exceed the costs.<sup>159</sup>

<sup>p</sup> In the UK, young people aged 16 and 17, with the licensee's permission, can drink beer, wine or cider with a meal if it is bought by an adult and they are accompanied by an adult. It is illegal for this age group to drink spirits in pubs even with a meal. In Scotland, 16 and 17 -year -olds can buy beer, wine or cider so long as it's served with a meal and consumed in an area used solely for eating meals.

Tougher enforcement policies were introduced by the Licensing Act 2003 in England and Wales, including increased penalties for breach of licence conditions, additional powers for the police to deal with troublesome premises (eg removal or suspension of licence and limiting opening hours) and the use of test purchases. These are accompanied by increased powers to prohibit anti-social drinking in areas where there has been a history of alcohol-fuelled disorder, as well as powers banning individuals responsible for alcohol-related disorder from entering licensed premises or specific public areas. Similar provisions have also been proposed in the licensing reforms in Scotland and Northern Ireland. It is essential that these powers are strictly and rigorously enforced, and that the enforcement agencies are adequately funded and resourced. In the UK, the enforcement of licensing regulations is undertaken by the police in conjunction with local authorities and Trading Standards Officers. These authorities have numerous responsibilities and, consequently, the enforcement of alcohol licensing regulations is not adequately prioritised. International experience suggests that the use of a dedicated licensing and inspection service covering all licensed premises increases compliance with regulations and prohibitions on alcohol sales. Such a system has been introduced in the Netherlands where a dedicated alcohol control service consisting of approximately 70 inspectors has been found to have a significant effect on reducing the rate of violent crimes between 10pm and 6am.<sup>160</sup>

There is evidence that premises where there is little seating, loud music, crowding, large numbers of young customers and poorly-trained staff are particularly likely to fuel heavy drinking and alcohol-related crime and disorder.<sup>4, 8, 114, 148</sup> Other factors that have been found to be associated with alcohol-related violence include hidden areas, dark and noisy environments, poorly maintained premises, low cleanliness, and poor ventilation.<sup>148</sup> The layout, design and internal physical characteristics of licensed premises are therefore important considerations when planning strategies to reduce alcohol-related crime and disorder.

An aggressive approach by staff at closing time and the inability of staff to manage problem behaviour are also important factors that may increase alcohol-related problems.<sup>114, 148, 161, 162</sup> Responsible beverage service training is designed to alter attitudes, knowledge, skills and practices among individuals serving alcohol. Such programmes have been shown to increase the likelihood of servers intervening with customers who are visibly intoxicated,<sup>163</sup> and to decrease bad serving practices such as promoting particular beverages.<sup>114</sup> While server training is less likely to increase actual refusal of service to intoxicated patrons,<sup>163, 164</sup> it has been found to reduce levels of patron intoxication when accompanied by policing enforcement, and strong and active management support.<sup>114, 153</sup> Community-based approaches focused on licensed premises have been found to be a powerful mechanism for reducing problem behaviour, although the long-term efficacy of this approach has not been demonstrated.<sup>114</sup> Voluntary codes of practice have only been shown to be effective when combined with community pressure from the police and public.<sup>114</sup>

The implementation of responsible service training when combined with rigorous enforcement can lead to improved management practices within drinking venues. This in turn can lead to reduced levels of intoxication and an associated reduction in alcohol-related problems. It is important that this training is compulsory and extended to staff working in off-licence premises.

### Recommendations

- Licensing legislation in the UK should be strictly and rigorously enforced. This includes the use of penalties for breach of licence, suspension or removal of licences, the use of test purchases to monitor underage sales, and restrictions on individuals with a history of alcohol-related crime or disorder.
- Enforcement agencies should be adequately funded and resourced so that they can effectively carry out their duties. Consideration should be given to the establishment of a dedicated alcohol licensing and inspection service.

### Marketing and advertising

The tendency to drink quickly and to excess is frequently facilitated by heavily discounted alcohol prices and the use of price promotions such as two-for-one offers and happy hours. Irresponsible promotional activities are common in licensed premises and off-licences (including supermarkets and local convenience stores) throughout the UK, and are even used to target particular groups (eg special cheap offers for women in pubs and clubs). The heavily discounted price of alcohol in UK supermarkets is a particular area of concern. There is evidence that excessively cheap promotions are particularly likely to fuel heavy drinking and alcohol-related crime and disorder.<sup>8</sup> It is essential that these forms of promotional activity are strictly regulated through the introduction of legislation prohibiting price promotions on alcoholic beverages and establishing minimum price levels.



An incident which sticks out in my mind was having to treat multiple young adults – out on a one night binge – for severe smoke inhalation and lung damage. They began binge drinking during a “Happy Hour” in a bar and after a prolonged night of ingesting excessive alcohol went to the flat of one of the group to continue the party. One member decided to make “chips” using an unattended chip pan which went on fire, seriously injuring all the occupants of the flat.

**BMA member**

Alcohol marketing is a significant expenditure for the alcohol industry. The levels of alcohol advertising and promotion have increased substantially in recent years and this has been accompanied by the development of increasingly sophisticated marketing techniques such as internet advertising. Alcohol advertising is not necessarily an inappropriate activity per se as it is normal for a business to promote its products competitively. Econometric studies have generally found alcohol advertising to have little or no effect on total alcohol consumption.<sup>114</sup> There is, however, significant concern regarding the impact of sophisticated marketing techniques and their effect on some individuals and in particular on younger people.

Research evidence suggests that repeated exposure to high-level alcohol promotion influences young people’s perceptions, encourages alcohol consumption and increases the likelihood of heavy drinking.<sup>114</sup> A 2007 review of the impact of alcohol advertising on young people found there to be considerable evidence that alcohol advertisements are related to positive attitudes and beliefs about alcohol among young people, and that young people are particularly drawn to elements of music, characters, story and humour.<sup>165</sup> The review also found there to be seven well-designed longitudinal studies showing that the volume of advertisements and media exposure increase the likelihood of young people starting to drink, the amount they drink, and the amount they drink on any one occasion.<sup>165</sup> These studies examined various forms of exposure including television, radio

and printed advertisements; in-store displays; billboards; movies; and branded merchandise. No published longitudinal studies were found where this effect was not apparent.<sup>165</sup> Specific advertising strategies such as sponsorship of sporting and music events, as well as advertisements on television and radio, in films and in other media formats all serve to reinforce the image of alcohol among young people and predispose them to drinking well below the legal age to purchase alcohol.<sup>114, 166</sup> Alcohol advertising using celebrity endorsements or popular images that symbolise good times or masculinity have also been found to appeal to younger people.<sup>114</sup>

Studies in the UK have found that 88 per cent of 10 to 13-year-olds and 96 per cent of 14 to 17-year-olds were aware of alcohol advertising, while 76 per cent could identify three or more adverts even when the brand was masked.<sup>167, 168</sup> Eighty-six per cent of 10 to 17-year-olds were found to enjoy alcohol advertisements.<sup>167, 168</sup> A survey conducted by Alcohol Concern between December 2006 and March 2007 found that thousands of children were exposed to commercials for alcoholic beverage during popular children's programmes.<sup>169</sup> The marketing of alcoholic energy drinks and alcoholic soft drinks (commonly termed alcopops) toward younger people is another area of concern as they may act as a potential gateway to more traditional drinks.

In the UK, alcohol advertising standards are controlled by a combination of non-statutory regulation and co-regulation that does not adequately reflect the needs of children and young people. A voluntary code agreed by the self-regulatory Portman Group is responsible for controlling the packaging and naming of alcoholic drinks. Voluntary restrictions governing television and radio advertising are regulated by Ofcom, while poster and magazine advertising of alcohol-related products are regulated by the Advertising Standards Authority (ASA). Complaints to the ASA, Ofcom or the Independent Complaints Panel can be made if it is considered that alcoholic drinks are marketed to appeal in particular to individuals aged under 18; there are no legislative powers to undertake enforcement. Stricter rules<sup>q</sup> for the content of alcohol advertisements were introduced in 2005;<sup>170</sup> however, these changes did not address restrictions on the volume of advertising.

The 2007 review of the impact of alcohol advertising on young people found that of 24 European countries, only the UK and the Netherlands have no statutory regulation on alcohol advertising, and the UK was the only country surveyed not to have at least one ban on advertising (eg bans covering specific timings and locations of advertising).<sup>165</sup> Voluntary codes of self-regulation are not always adhered to and are largely ineffective.<sup>114</sup> There is no available scientific evidence that non-statutory regulation impacts on the content or volume of advertisements.<sup>165</sup> Self-regulation has also not been found to prevent the kind of marketing which can have an impact on younger people.<sup>165</sup> In contrast, statutory regulations are more likely to include systematic checks on violations of codes and are more likely to cover volume restrictions (see **Box 5**).<sup>165</sup>

q The 2005 revised rules for alcohol advertising on television and in non-broadcast media covered four main areas: links between alcohol and sex, appeal to under-18s, irresponsible or anti-social behaviour, and handling and serving of alcoholic drinks in advertisements.

### Box 5 – the ‘loi Evin’: statutory legislation on alcohol advertising in France

In France, alcohol advertising is regulated by statutory legislation passed in 1991 known as the ‘loi Evin’. This legislation applies to beverages above 1.2 per cent alcohol by volume, and completely prohibits advertising on television. Advertising for alcoholic beverages is only permitted in certain media and the content of advertisements is strictly regulated; adverts are not allowed, for example, to show individuals consuming a drink or include any references indicating that the alcoholic beverage will improve an individual’s image, sporting ability or sexual attraction.

The legislation is accompanied by strict penalties for infringement and, since 1991, many advertisements infringing the law have been condemned by the French courts of justice.<sup>171, 172</sup> A change in the alcohol advertising has also been observed with alcohol advertising losing most of its seductive character, not using images of drinkers and drinking atmospheres, and increased emphasis on the individual product.<sup>171, 172</sup> The loi Evin has been regularly criticised and attacked by the alcohol industry, however, only small changes have been made to the law since 1991 including the possibility of referring to the objective characteristics of the products (eg colour, smell, taste) where advertising is permitted.<sup>171</sup>

It is essential that there is statutory regulation of the marketing of alcoholic beverages in the UK. This includes prohibiting the broadcasting of alcohol advertising at any time that is likely to be viewed by young people, with specific provisions banning alcohol advertising prior to 9pm and in cinemas for films with a certificate below age 18. Consideration also needs to be given to prohibiting alcohol industry sponsorship of sporting and music events aimed mainly at young people.

### Recommendations

- Legislation should be introduced throughout the UK to:
  - prohibit irresponsible promotional activities in licensed premises and by off-licences
  - set minimum price levels for the sale of alcoholic beverages.
- A statutory code of practice on the marketing of alcoholic beverages should be introduced and rigorously enforced. This should include a ban on:
  - broadcasting of alcohol advertising at any time that is likely to be viewed by young people, including specific provisions prohibiting advertising prior to 9pm and in cinemas before films with a certificate below age 18
  - alcohol industry sponsorship of sporting, music and other entertainment events aimed mainly at young people
  - marketing of alcoholic soft drinks to young people.

## Measures to reduce drink-driving

Considerable reductions in the incidence of drink-drive road incidents and related deaths have occurred in the UK since 1980. This has most likely resulted from numerous factors including police enforcement of drink-drive legislation, the use of portable devices to measure samples of drivers' breaths, tough penalties for drink-driving (prison terms, fines and mandatory disqualification), high level anti-drink-drive campaigns, and improvements in automobile design. As noted previously, however, the number of fatalities and serious injuries resulting from drink-drive road crashes remains significantly high.

In the UK, the BAC limit is 80mg/100ml which is among the highest in Europe (see **Figure 17**). Research has found that there is a marked deterioration in driving performance between a BAC of 50mg/100ml and 80mg/100ml. The relative crash risk of drivers with a BAC of 50mg/100ml is double that for a person with a zero BAC, and the risk rises to 10 times for a BAC of 80mg/100ml.<sup>114</sup> Drinking by drivers with a BAC between 50mg/100ml and 80mg/100ml is a significant but largely hidden cause of road traffic crashes, and has been estimated to account for 80 road deaths a year in England.<sup>173</sup> Studies in Sweden, Australia and the USA have consistently found lowering legal blood alcohol limits to produce reductions in the incidence of drink-driving and related crashes.<sup>116, 145, 153, 174-178</sup>

Newly qualified drivers are felt to be particularly at risk of alcohol-related road crashes as a result of their limited driving experience. As noted previously, the highest rates of drink-drive accidents per 100,000 licence holders occur in the 17 to 19 age group, followed by those in the 20 to 24 age group.<sup>97</sup> Evaluation of the introduction of lower BAC limits as part of new driver licensing systems have shown them to be effective in reducing collisions among young drivers and novice drivers.<sup>179-182</sup> In the USA and Australia, the introduction of BAC limits between 10 and 20mg/100ml for young drivers aged under 21 have been found to reduce levels of drink-driving and fatal road crashes.<sup>116, 145, 153, 183-185</sup> In Spain, it is illegal for all newly qualified drivers to drive with a BAC in excess of 15mg/100ml for the two years after they have obtained their driving licence.

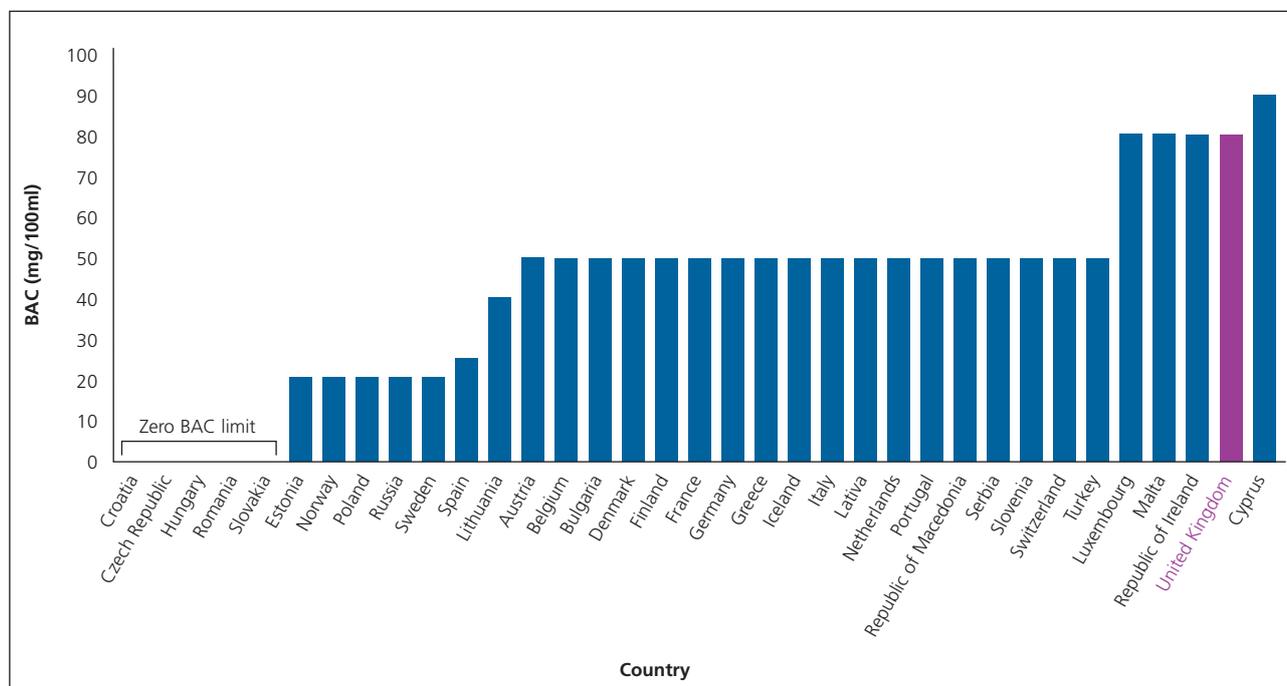
Enforcement of drink-drive legislation is essential for compliance. In the UK, this is operated through selective breath testing and high-profile media campaigns. Selective breath testing requires police to have judged that a motorist has consumed alcohol before implementing the test. This deterrence-based policy is insufficient as many offenders may be able to avoid detection. Random breath testing permits police to stop motorists who are not suspected of committing an offence or of being involved in an incident. This is an advantageous approach as motorists are unable to influence the likelihood of being tested. With the exception of Denmark and the UK, random breath testing is permitted throughout the EU.<sup>186</sup> Research in Australia has found that highly visible, random testing can have a sustained and significant effect in reducing levels of drink-driving, alcohol-related road traffic crashes and associated injuries and fatalities.<sup>145, 153, 176</sup> One study found random testing to be twice as effective as selective testing, with a reduction in fatal crashes of 35 per cent and 15 per cent respectively.<sup>176</sup>

It is essential that further measures are implemented to build on progress achieved over recent years in reducing the levels of drink-driving and associated problems in the UK. This includes a reduction in the legal BAC limit from 80mg/100ml to 50mg/100ml,<sup>4</sup> and consideration for further reductions for all newly qualified drivers. It is also important that a consistent approach is adopted across the EU where cross-border travel is commonplace. This requires standardisation of the maximum legal BAC while driving among the EU member states. The use of highly visible, selective and non-selective breath testing programmes is a key component of effective enforcement of drink-drive legislation.

### Recommendations

- The legal limit for the level of alcohol permitted while driving, attempting to drive, or being in charge of a vehicle should be reduced from 80mg/100ml to 50mg/100ml throughout the UK.
- Legislation permitting the use of random roadside testing without the need for prior suspicion of intoxication should be introduced throughout the UK. This requires appropriate resourcing and public awareness campaigns.

Figure 17 – the maximum BAC legal limit for selected European countries<sup>5</sup>



r A zero limit for the level of alcohol permitted while driving is not practical as there will be cases where an individual would register slightly above zero even when they had not been drinking; diabetes and the use of mouthwash can both cause an above-zero level. The BMA doubts whether an absolute zero would be enforceable and acceptable to the public but argues that a 50mg level, which would bring the UK in line with most other European countries, would be effective and beneficial.

s The maximum BAC legal limit for Croatia, Czech Republic, Hungary, Romania and Slovakia is zero. The Department of Road Transport in Cyprus has announced plans to reduce the BAC legal limit in Cyprus to 50mg/100ml



I dread working over weekend nights and public holiday periods. It has become normal to deal with major trauma casualties. In our society the message has not been completely received to “NEVER EVER DRINK AND DRIVE”.

**BMA member**

## Education and health promotion

Education and health promotion strategies are widely used at an individual and population level. Providing health advice and educating the general public on the dangers of alcohol misuse, however, requires a clear understanding of the culture and environments associated with alcohol misuse.

### *Educational programmes*

The use of public information and educational programmes is a common theme for alcohol control policies in the UK and internationally. Such approaches are politically attractive but have been found to be largely ineffective at reducing heavy drinking or alcohol-related problems in a population.<sup>4, 57, 114, 116, 187</sup>

Mass media campaigns and public service messages aimed at countering the extensive promotion of alcoholic beverages have only been found to raise awareness and not to encourage individuals to reduce their alcohol consumption or alter their drinking behaviour.<sup>114, 118</sup> There is some evidence, however, that they may be effective in building or sustaining support for public health-oriented alcohol policies.<sup>188</sup>

In the UK, education on the use of alcohol is provided as a statutory requirement through school-based programmes (see **Appendix 4**). Reviews of the efficacy of school-based alcohol education programmes have consistently concluded that they may be effective at increasing knowledge and modifying attitudes, but have limited effect on drinking behaviour in the long term.<sup>4, 114, 115, 189-198</sup> Research has further found that some educational programmes have even increased alcohol consumption among young people.<sup>199</sup> Only a very small number of credible and well-designed educational programmes have been found to reduce young people's drinking.<sup>196, 200</sup> There is some evidence that comprehensive school-based programmes in the USA involving individual-level education and family- or community-level interventions (eg reducing alcohol sales and provision of alcohol to young people) have been effective in reducing drinking among young people, but these reductions have been difficult to sustain.<sup>114</sup>

The effect of alcohol educational programmes on raising awareness, increasing knowledge and modifying attitudes provides justification for their use; however, given their ineffectiveness at changing drinking behaviour, it is essential that the disproportionate focus on, and funding of, such measures is redressed. Educational strategies are not effective as a key stand-alone alcohol control policy, but can be used to supplement other policies that are effective at altering drinking behaviour, and to promote public support for comprehensive alcohol control measures.

### *Understanding recommended drinking guidelines*

Much of the strategy to reduce alcohol-related harm in the UK focuses on recommended drinking guidelines. While the majority of people are aware of the existence of these guidelines, there is evidence that few can accurately recall them.<sup>201-203</sup> A 2007 ONS survey of adults in the UK found that 69 per cent had heard of the recommended drinking daily benchmarks; however, 36 per cent of these people did not know what they were.<sup>204</sup> It is also apparent that many people are confused by these guidelines, and in particular, about what a unit means, and about the relationship between units and glass sizes and drink strengths.<sup>4, 54</sup> Eighty five per cent of those surveyed in 2007 had heard of measuring alcohol consumption in units, and in general, the more people drank, the more likely they were to have heard of units.<sup>204</sup> Individuals aged under 65 were more likely to have heard of units compared to the older age group.<sup>204</sup> Those in routine and manual occupations were less likely to have heard of measuring alcohol in units compared to those in the managerial and professional occupational grouping.<sup>204</sup> In relation to particular drink types, approximately one third of frequent (at least once a week) beer drinkers (37%) and a quarter of frequent wine drinkers (23%) and frequent spirits drinkers (28%) were not aware of the number of units in what they were drinking.<sup>204</sup> For each of these drink types, awareness of the number of units they were drinking was lower among individuals who drank them less frequently.<sup>204</sup> Just under half (45%) of all individuals who consumed alcopops frequently were not aware of the number of units in what they were drinking.<sup>204</sup>

Labelling of alcoholic beverage containers would be a useful method for providing explanatory guidance on recommended drinking guidelines and for supporting other alcohol control policies. Research following the introduction of mandatory warning labels on alcoholic beverages in the USA in 1989 found that, while the warning labels did not have any measurable effect on drinking behaviours, they did increase knowledge regarding the risks of drink-driving and drinking during pregnancy among particular groups.<sup>114, 205, 206</sup> In the UK, the Drinkaware Trust provides information on responsible drinking and recent voluntary agreements with the alcohol industry have led to the inclusion of information on unit content on some alcoholic beverages. This is an encouraging development; however, it is vital that there is a mandatory requirement for all alcoholic beverage containers to be labelled to show the following information:

- the number of units they contain
- the number of units which should not be exceeded each day
- a warning message stating that consuming more than the recommended daily guidelines is likely to cause the individual or others significant harm.

This information should also be readily available from retailers at the point of sale, and in all printed and electronic alcohol advertisements.

It is worth noting that the recommended guidelines may only be one of the sources that inform individual decision-making with respect to alcohol consumption. Other influences include intrapersonal factors such as prior drinking experiences and the amount of alcohol individuals perceive they can consume before experiencing negative consequences; interpersonal reasons such as peer influence. Additionally, as noted earlier, individuals vary widely in their ability to absorb and eliminate alcohol and its effects depend on a number of factors including age, weight, type of drink, level of dehydration, previous exposure to alcohol, timing and intake of food, and gender of the drinker.

*Health promotion and advice from healthcare professionals*

Healthcare professionals are well placed to provide advice to their patients on recommended drinking guidelines and the problems associated with hazardous and harmful drinking. This is in addition to the advice provided to patients on other lifestyle choices such as smoking habits and nutrition. As part of routine clinical care, general practitioners (GPs) and healthcare professionals in the secondary care setting have a responsibility to provide information and advice on recommended drinking guidelines where clinically appropriate. It is essential that the advice provided by healthcare professionals is up to date and consistent, and supplemented with 'take home' printed information.

**Recommendations**

- There should be further qualitative research examining attitudes to alcohol misuse in the UK.
- Public and school-based alcohol educational programmes should only be used as part of a wider alcohol-related harm reduction strategy to support policies that have been shown to be effective at altering drinking behaviour, to raise awareness of the adverse effects of alcohol misuse, and to promote public support for comprehensive alcohol control measures.
- It should be a legal requirement to:
  - a) prominently display a common standard label on all alcoholic products that clearly states:
    - alcohol content in units
    - recommended daily UK guidelines for alcohol consumption
    - a warning message advising that exceeding these guidelines may cause the individual and others harm.
  - b) include in all printed and electronic alcohol advertisements information on:
    - recommended daily UK guidelines for alcohol consumption
    - a warning message advising that exceeding these guidelines may cause the individual and others harm.
- It should be a legal requirement for retailers to prominently display at all points where alcoholic products are for sale:
  - information on recommended daily UK guidelines for alcohol consumption
  - a warning message advising that exceeding these guidelines may cause the individual and others harm.

## Early intervention and treatment of alcohol misuse

Preventing alcohol-related harm requires the accurate identification of individuals who misuse alcohol, and the implementation of evidence-based interventions to reduce alcohol consumption. These measures are primarily aimed at the individual, but can impact at a community and population level through raising public awareness of alcohol problems, further involving healthcare professionals in prevention, and providing secondary benefits to others affected by an individual's alcohol use disorder. In the UK, guidance on the management and prevention of alcohol misuse is set out in *Models of care for alcohol misusers* (DH, 2006)<sup>207</sup> in England and in *The management of harmful drinking and alcohol dependence in primary care* (Scottish Intercollegiate Guidelines Network (SIGN), 2003)<sup>208</sup> in Scotland. Equivalent guidance is not available in Wales or Northern Ireland.<sup>†</sup>

### Screening and brief interventions for alcohol misuse

Identification of alcohol misuse among people not seeking treatment for alcohol problems can be achieved via alcohol screening questionnaires, detection of biological markers or detection of clinical indicators. Several alcohol screening questionnaires have been developed to provide a rapid method of detecting alcohol misuse including the Alcohol Use Disorders Identification Test (AUDIT), the Michigan Alcoholism Screening Test (MAST), The CAGE questionnaire, the 5-Shot questionnaire, the T-ACE questionnaire, the TWEAK questionnaire, the Fast Alcohol Screening Test (FAST), and the Paddington Alcohol Test (PAT).<sup>209-216</sup> A 2006 review of the alcohol screening questionnaires found that:

- the AUDIT is a screening instrument of good sensitivity and specificity for detecting hazardous and harmful drinking among people not seeking treatment for alcohol problems. It has been validated for use in a wide range of settings, populations and cultural groups and should be considered as the screening instrument of first choice in community settings
- the AUDIT is superior to the MAST and CAGE for the detection of hazardous and harmful drinking
- shortened versions of the AUDIT (eg AUDIT-C) can be used in very busy settings without undue loss of efficiency compared to the full AUDIT
- the FAST offers a rapid and efficient way of screening for hazardous and harmful alcohol consumption that can be used in a variety of settings, and in particular, as a rapid and efficient screening tool for detecting alcohol misuse in the A&E setting
- the PAT is a quick and efficient screening tool in the A&E setting
- the T-ACE and TWEAK are efficient screening instruments for detecting alcohol misuse among pregnant women.<sup>217</sup>

Biological markers (eg carbohydrate deficient transferrin) may also be used as part of a comprehensive assessment. They have been found to be less sensitive in the detection of alcohol misuse in community settings compared to screening questionnaires; however, they can be useful for confirming self-reports, for providing motivational feedback on health status and in the monitoring of progress following treatment.<sup>217</sup> Clinical history and physical examination can be used to detect harmful drinking through indicators such as hypertension, dilated facial capillaries, bloodshot eyes and domestic problems. Research has found, however, that the majority of hazardous and harmful drinkers may be missed by reliance on clinical history and indicators.<sup>217</sup>

† The National Institute for Health and Clinical Excellence (NICE) is in the early stages of developing guidance on the prevention and early identification of alcohol use disorders in adults and adolescents for England and Wales. The expected date of issue for this guidance is 2010.

The use of alcohol screening questionnaires in a variety of healthcare settings is an efficient and cost-effective method for detecting alcohol misuse.<sup>217</sup> Biological markers are less efficient primary screening measures but can be used as adjuncts to questionnaires for the screening process. It is important to note, however, that screening for alcohol use disorders is complicated by a number of factors including:

- under or overestimation of alcohol consumption levels in response to screening questionnaires, either deliberately or as a result of poor recall
- embarrassment on the part of healthcare staff who view monitoring as intrusive
- inaccurately recorded patient histories of alcohol use
- poor use of screening techniques and follow-up procedures by healthcare professionals.

Brief interventions are intended to provide prophylactic treatment before or soon after the onset and identification of alcohol-related problems. Research has found that brief interventions produce clinically significant effects on drinking behaviour and related problems in non-alcohol dependent individuals who consume alcohol at harmful and hazardous levels.<sup>57, 114, 217-221</sup> There is however, little evidence that brief interventions are beneficial for alcohol dependent individuals or those with severe alcohol problems.<sup>114, 222</sup> Brief interventions are cost-effective measures that commonly consist of a number of stages including assessment, feedback and goal setting. They are delivered using behavioural modification techniques and reinforced with the provision of written material. Simple brief interventions involve a specific short interview conducted by a competent practitioner immediately following a screening assessment. Extended brief interventions incorporate a series of these structured interviews (between three and 12) delivered by a competent practitioner. They can be delivered in a variety of settings, including medical settings – such as primary care and accident and emergency – and in generic non-specialist services. The provision of brief interventions have been found to be effective at reducing alcohol consumption in non-dependent individuals in both the primary care setting,<sup>218, 219</sup> and in emergency departments.<sup>223</sup> The type of advice that should be offered during a brief intervention includes:

- information about the nature and effects of alcohol and its potential for harm
- personalised feedback on risk and harm
- emphasis on the individual's personal responsibility for change
- attempts to increase the patient's confidence in being able to reduce their alcohol consumption ('self-efficacy')
- goal-setting (for example, start dates and daily or weekly targets for drinking)
- written self-help material for the individual to take away, containing more detailed information on consequences of excessive drinking and tips for cutting down (this can be in a variety of media, including electronic, such as the internet)
- signposting individuals to having a wider general health check, where indicated
- arrangements for follow-up monitoring
- information on where to get further help if necessary.

At present there is no system for routine screening and management of alcohol misuse in primary or secondary care settings in the UK. Screening and management occur opportunistically and where clinically appropriate in both settings. This is often limited, however, due to various barriers including time constraints, poor availability of support services, inadequate training and guidance, the requirement to respond to multiple problems during patient consultations, and organisational barriers (eg the separation of mental health from acute trusts).<sup>221, 224-229</sup> Accordingly, a number of studies have found that the detection and management of alcohol misuse in primary and secondary care to be inadequate. The UK General Practice Research Database (GPRD) study found extremely low levels of formal identification, treatment and referral of alcohol misuse by GPs, and that the level of under-identification was higher in younger patients compared with older patients.<sup>13</sup> A 2007 survey of all A&E departments in England found that only 2.1 per cent used formal alcohol screening tools, 12.7 per cent asked questions about consumption, 73.9 per cent offered advice on alcohol problems, and 44.4 per cent offered treatment for alcohol problems.<sup>230</sup> A report from the Royal College of Physicians in 2001 found that many acute general hospital admissions are not assessed for alcohol misuse, and that there was uncertainty about what action to take with individuals identified as dependent drinkers.<sup>221</sup>

Primary care, general hospital and A&E settings provide useful opportunities for screening for alcohol misuse and the delivery of brief interventions. It is essential that systems are developed in order to encourage this activity on a regular basis. Effective operation of such systems requires adequate funding and resources, and comprehensive training and guidance on the use of validated screening questionnaires as well as the provision of brief interventions. Routine screening in primary care could be facilitated by the implementation of a directed enhanced service (DES). As these services are commissioned nationally, they have the advantage of ensuring equal service provision by all PCOs. Introducing a DES also makes it clear that this area of work is a national priority. Pilot schemes have been developed in the UK for the detection and management of alcohol misuse in the A&E setting and in the general hospital setting (see **Box 6**).

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<sup>u</sup> In the UK, GPs are not required to provide alcohol services under the essential services component of the General Medical Services (GMS) contract. The GMS contract does include an optional alcohol National Enhanced Service (NES) section that aims to create a framework that can be commissioned by primary care organisations (PCOs) for enhanced alcohol services including screening and more specialist interventions. Alcohol is not currently a clinical area included within the Quality and Outcomes Framework (QOF) of the GMS contract. The QOF is a voluntary incentive programme for all GP surgeries in the UK. The QOF is subject to periodic review of the evidence base for current indicators. During review any individual or organisation is able to submit evidence about a current or future area they feel should be included in the framework. These submissions are evaluated by an expert panel of senior academics and the submitting organisations or individuals are offered the opportunity to discuss their submissions further if they meet appropriate criteria. The evidence is then submitted to the QOF negotiating group for consideration.

### Box 6 – good practice in the detection and management of alcohol misuse

In St Mary's Hospital, London, all patients presenting to A&E with one of the targeted conditions (falls, collapse, head injury, assault, gastrointestinal problems, 'unwell', psychiatric problems, cardiac symptoms and accidents) are screened for alcohol misuse using the PAT. Individuals who score a positive result (indicating hazardous or harmful drinking) are offered the opportunity to have a session with the A&E's alcohol health worker within 24 to 48 hours. This worker is a trained nurse who carries out a more in-depth assessment concerning the individual's lifestyle and alcohol use. The worker then delivers a brief intervention of education and counselling concerning the patient's use of alcohol. A review of this model found the introduction of this opportunistic screening and management resulted in lower levels of alcohol consumption over the following six months and reduced re-attendance rates at the A&E department.<sup>231</sup>

At the Royal Liverpool Hospital, an alcohol specialist nurse is employed to respond to alcohol-related referrals from A&E, clinics and ward areas throughout the hospital. The main aims of the model are to:

- optimise medical management of alcohol-related attendance and admissions
- develop staff attitudes and knowledge about alcohol misuse
- provide patients with timely appropriate and effective clinical pathways of care
- reduce overall alcohol-related hospital admission and attendance
- reduce length of stay for alcohol-related admissions.

An assessment of interventions by the specialist nurse found that they reduced mean daily alcohol consumption, reduced re-attendances, and improved staff attitudes and knowledge.<sup>221</sup>

### Specialist alcohol treatment services

For individuals with more severe alcohol problems and levels of dependence, specialised alcohol treatment services have been found to be effective and provide better outcomes for individuals who are alcohol dependent compared to untreated individuals, including significant reductions in alcohol use and related problems.<sup>114, 217, 232</sup> Specialised treatment services consist of both therapeutic approaches (eg relapse prevention) and management components (eg detoxification facilities, inpatient residential programmes and outpatient clinics) that can be provided within the healthcare system or by private providers. Evidence suggests that the most effective specific treatment modality is through cognitive behavioural treatments (eg behavioural self-control training), while pharmacotherapies (eg disulfiram) can be considered as adjuncts to cognitive behavioural treatments.<sup>114, 217</sup>

There has been very little research into the cost-effectiveness of alcohol treatment services; however, cost offset studies primarily conducted in the USA have found that alcohol dependent individuals and their families use healthcare services more than non-alcohol dependent individuals of the same age and gender, and their demand for healthcare services declines following treatment.<sup>114, 233</sup>

Not all individuals with severe alcohol problems will recognise or agree that they have an alcohol misuse problem, or that they require treatment. It is essential, that individuals identified as having severe alcohol problems or as being alcohol dependent are offered referral to specialised alcohol

treatment services. The inadequate provision of specialised alcohol treatment services in the UK is a significant area of concern. The 2004 ANARP found that:

- many of the patients with alcohol use disorders identified by GPs and who were felt to need specialist treatment, were not referred because of perceived difficulties in access (with waiting lists for specialist treatment being the main reason given), and patient preference not to engage in specialist treatment
- there was a high level of satisfaction with specialist services once access was achieved
- 86 per cent of drug action team professionals indicated that their alcohol treatment budgets were much lower than drug budgets, and that there was a 'very large gap' between the provision of alcohol treatment and need or demand
- considerable regional variation in the number of agencies exists across England, with London having the largest number of agencies and the North East the fewest
- the largest proportion of referrals to alcohol agencies were self referrals (36%) followed by GP/primary care referrals (24%)
- the estimated annual spend on specialist alcohol treatment to be £217 million, and the number of whole time equivalent personnel working in specialist alcohol agencies across England to be approximately 4,250
- the average waiting time for assessment to be 4.6 weeks (ranging from 3.3 weeks to 6.5 weeks)
- only 5.6 per cent (one in 18) of the alcohol dependent population were accessing specialised alcohol services per annum.<sup>13</sup>

While not all individuals who are alcohol dependent will need continuous structured treatment, and many may not be willing to accept treatment places, the proportion in treatment is disproportionately low. Similar assessments of alcohol treatment services have not been conducted in Wales, Scotland and Northern Ireland; however, it is generally accepted that the provision of specialised treatment services is deficient in most countries globally.<sup>234</sup> The lack of necessary funding and unequal provision of specialised alcohol services is a significant concern. Only £15 million has been allocated to primary care trusts (PCTs) in England for alcohol interventions in 2007/08,<sup>235</sup> and the average amount spent on alcohol treatment by a PCT in 2006 was £273,495.<sup>236</sup> The SEHD allocated £13 million over 2005/06 and 2006/07 to support local alcohol treatment, support and prevention activities.<sup>237</sup> The absence of a ring-fenced funding stream for specialist services means that any funding allocated for these services may be withdrawn and allocated to other priorities by healthcare service commissioning bodies. It is essential that specialised alcohol treatment services are provided consistently throughout the UK, are adequately resourced and funded, and that this funding is ring-fenced. High-level commitment is also required to ensure that the alcohol treatment services frameworks are prioritised when commissioning services.<sup>v</sup> The need for and provision of alcohol treatment services must also be continually reviewed and assessed, building on the 2004 ANARP in England, and ensuring similar assessments are undertaken in Scotland, Wales and Northern Ireland.

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v The alcohol treatment services framework for England is set out in *Models of care for alcohol misusers* (DH, 2006); for Scotland in *Alcohol problems support and treatment services framework* (Scottish Executive, 2002); for Wales in *Substance misuse treatment framework for Wales* (Welsh Assembly Government, 2003); and for Northern Ireland in *New strategic direction for alcohol and drugs 2006–2011* (DHSSPS, 2006).

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As a GP I usually refer to the Drugs and Alcohol team, but due to the lack of services/resources there are long waiting times before patients are seen by the team, and then another wait before they get detoxification (which for my patients is only available outside of our local area). So even though we spend time advising patients and refer them for treatment, without immediate help patients tend not to keep appointments and continue to drink.

**BMA member**

### Recommendations

- The detection and management of alcohol misuse should be an adequately funded and resourced component of primary and secondary care in the UK to include:
  - formal screening for alcohol misuse
  - referral for brief interventions and specialist alcohol treatment services as appropriate
  - follow-up care and assessment at regular intervals.
- A system for the detection and management of alcohol misuse in primary care should occur via the implementation of a direct enhanced service by the UK health departments. This must be adequately funded and resourced.
- Systems for the detection and management of alcohol misuse should be developed for A&E care and the general hospital setting throughout the UK. These must be adequately funded and resourced.
- Comprehensive training and guidance should be provided to all relevant healthcare professionals on the identification and management of alcohol misuse.
- Funding for specialist alcohol treatment services should be significantly increased and ring-fenced to ensure all individuals who are identified as having severe alcohol problems or who are alcohol dependent are offered referral to specialised alcohol treatment services at the earliest possible stage.
- There should be continual assessment of the need for and provision of alcohol treatment services in the UK, building on the 2004 Alcohol Needs Assessment Research Project in England, and ensuring similar assessment is undertaken throughout the UK.

## International cooperation on alcohol control

It is evident that different countries have adopted markedly varied policies for reducing the burden of alcohol misuse.<sup>112, 234, 238-240</sup> This reflects the differences in alcohol consumption and related harm between countries, as well as the diverse political climates and objectives. International cooperation on alcohol control is essential for several reasons including: the significant global burden of alcohol; the commonality of problems faced by different countries (eg underage drinking, alcohol-related road deaths); trans-border factors such as global advertising and production, formal and informal trading, and smuggling; and the difficulty countries have in dealing with alcohol problems in isolation.

Reducing alcohol-related harm across the EU has been facilitated by the adoption in 2006 of an EU Alcohol Strategy with five priority themes:

- to protect young people, children and the unborn child
- to reduce injuries and death from alcohol-related road deaths
- to prevent alcohol-related harm among adults and to reduce the impact on the workplace
- to inform, educate and raise awareness on the impact of hazardous consumption
- to develop and maintain a common evidence base at EU level.<sup>241</sup>

In 2007, an EU Alcohol and Health Forum was set up to assist implementation of the strategy and to provide a common platform for relevant stakeholders who pledge to increase their actions to reduce alcohol-related harm. Other initiatives include the adoption of the EU Road Safety Action Programme 2003/08, the EU Community Public Health Programme 2003/08, and Audiovisual Media Services Directive (previously known as the Television Without Frontiers Directive).<sup>241</sup> In 1995, the WHO European Charter on Alcohol – which was endorsed by all Member States of the EU – set out 10 key areas of health promotion that need to be addressed in reducing the burden of alcohol in Europe (see Appendix 5).<sup>242</sup> This has since been re-enforced by the 2000 WHO European Alcohol Action Plan,<sup>243</sup> the 2001 WHO declaration aimed at reducing alcohol misuse among young people,<sup>244</sup> and the 2005 WHO Framework for Alcohol Policy in the European Region.<sup>245</sup>

While the introduction of agreements such as the WHO European Alcohol Action Plan and the EU Alcohol Strategy provide a useful platform for action, their effectiveness has been questioned because of the influence of the alcohol industry on their development.<sup>246-248</sup> These questions focus on the omission of key policies from the 2006 strategy such as those that affect price and availability.<sup>246, 247</sup> This represents a significant shortcoming in the promotion of public health by EU member states. It is vital that the UK Government strongly supports EU initiatives and policies aimed at reducing alcohol-related harm to individual and public health. Strong support for WHO and World Health Assembly (WHA) initiatives on alcohol is also necessary.

A further drawback of EU-level action and agreements is the fact that they are non-binding.<sup>240</sup> Existing international agreements and treaties on trade also serve to weaken the ability of national and sub-national governments to restrict the alcohol market.<sup>240</sup> It is therefore important that a legally binding international treaty on alcohol is developed and implemented to reduce the global burden of alcohol. There is no pre-existing international framework or convention under which alcohol could easily be incorporated.<sup>w</sup> An alternative approach would be to introduce a legally binding treaty similar to the WHO Framework Convention on Tobacco Control (FCTC) that came

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w The 1971 Narcotics Convention may provide a feasible international convention under which alcohol could be incorporated; however, resistance from the alcohol industry and from the general public is likely to make this unrealistic.

into force in 2005 (see **Appendix 6**). To be effective in reducing the burden of alcohol misuse, any international treaty should set out legally binding provisions including regulating the availability of alcohol through licensing; increased taxation on alcoholic beverages; enacting comprehensive restrictions on alcohol advertising, promotion and sponsorship; educating the public of the harms associated with alcohol misuse; establishing and enforcing laws to discourage drink-driving; providing accessible and effective treatment services; enforcing the legal responsibility of retailers to sell alcoholic beverages in accordance with legislation; promoting research and the exchange of information among countries; establishing a priority for public health considerations in the regulation of international alcohol commerce; and international cooperation to combat illegal production and trade in alcohol.

The introduction of a Framework Convention on Alcohol Control (FCAC) would serve to support governments in developing and implementing effective alcohol control policies, foster collaboration between countries, counter the international trade agreements that currently restrict governments from introducing stricter alcohol control policies, and effectively engage non-governmental organisations.

### Recommendations

- There should be strong support for European Union, World Health Organisation and World Health Assembly initiatives and policies aimed at reducing alcohol-related harm to individual and public health.
- Lobby for, and support the World Health Organisation in developing and implementing a legally binding international treaty on alcohol control in the form of a Framework Convention on Alcohol Control. This should include provisions for:
  - regulation of the availability of alcohol through licensing
  - increased taxation on alcoholic beverages
  - statutory regulation of alcohol advertising, promotion and sponsorship
  - programmes aimed at educating the public of the harms associated with alcohol misuse
  - legislation to discourage drink-driving
  - appropriately funded and resourced treatment services
  - enforcement of the legal responsibility of retailers to sell alcoholic beverages in accordance with legislation
  - promoting research and the exchange of information among countries
  - establishing a priority for public health considerations in the regulation of international alcohol commerce
  - international cooperation to combat illegal production and trade in alcohol.



# Appendix 1

## Summary of previous BMA publications on alcohol

### ***Fetal alcohol spectrum disorders – a guide for healthcare professionals (BMA, 2007)***

FASD are a series of completely preventable mental and physical birth defects resulting from maternal alcohol consumption during pregnancy. FASD are lifelong conditions that can significantly impact on the life of the individual and those around them as illustrated by the case studies included within this report. This report focuses on the adverse health impacts of alcohol consumption during pregnancy, and in particular the problem of FASD. The report aims to raise awareness of FASD by examining the incidence, cause and outcomes of the range of disorders associated with alcohol consumption during pregnancy. It further outlines the responsibilities of healthcare professionals and the wider medical community in managing and reducing the incidence of these disorders. This report is intended for healthcare professionals and relevant bodies with strategic or operational responsibility for public health and health promotion.

### ***Binge drinking (2005)***

This web resource acts as a hub for information on the medical, personal and social effects of binge drinking. It considers the definition of binge drinking, summarises the recommended drinking guidelines and provides sources of further information.

### ***Adolescent health (2003)***

This report focuses on the problems facing adolescents and examines the evidence surrounding adolescent health, behaviour and interventions. It reviews four important areas in adolescent health: nutrition, exercise and obesity; smoking, drinking and drug use; mental health; and sexual health. For each area this report discusses the prevalence of the problems involved, examines which adolescents are affected, describes the interventions used to address the issues and evaluates the effectiveness of these strategies. This report is intended to raise the profile of adolescent health and to help inform future policy. In addition, this report acts as an information resource for healthcare professionals, providing an overview of adolescent health issues and the policy environment.

### ***Alcohol and young people (1999)***

This report examines the problem of alcohol consumption among young people. It specifically examines designer drinks, marketing, monitoring of the drinks industry, and education and enforcement. Recommendations from this report include increased regulation of the drinks industry, tougher advertising controls, the need for a review of the licensing laws and health education.

### ***Alcohol: guidelines on sensible drinking (1995)***

This report examines the existing evidence on recommended daily limits and calls for a comprehensive sensible drinking message to provide the public with guidelines on limits, along with concise statements about the evidence of benefits. It also recommends increasing the cost of drinking in light of evidence that education and health promotion have low efficacy in reducing the mean level of drinking.

### ***The BMA guide to alcohol and accidents (1989)***

This report provides information on alcohol as a cause of accidents. It also provides practical advice on ascertaining alcohol consumption by individuals attending casualty departments, diagnosing long-term alcohol abuse and managing the 'at-risk' drinker.

### ***The drinking driver (1988)***

This report examines the scientific and epidemiological evidence relating to drink-driving. It proposes a range of countermeasures aimed at persistent offenders who are likely to have an underlying drink problem and at social drinkers who offend.

## Appendix 2

### UK alcohol control policies

In the UK, separate strategies to reduce the burden of alcohol misuse have been developed in England, Wales, Scotland and Northern Ireland. These strategies are contained within various policy documents which have the common theme of encouraging the safe use of alcohol and reducing alcohol misuse through national, local and community-based partnership approaches.

#### England and Wales

In England, the 2004 *Alcohol harm reduction strategy for England* (PMSU, 2004) identified 41 action areas grouped in four categories: better education and communication; better health and treatment systems; combating alcohol crime and disorder; and working with the alcohol industry.<sup>8</sup> Responsibility for implementation of the strategy was shared between the Home Office and the DH, and the key areas of the strategy were re-enforced in *Choosing health: making healthier choices easier* (DH, 2004).<sup>249</sup> The 2004 *Alcohol harm reduction strategy for England* was superseded in 2007 by *Safe. Sensible. Social. The next steps in the National Alcohol Strategy* (HM Government, 2007) which was jointly authored by the DH, the Home Office, the Department for Education and Skills, and the Department for Culture, Media and Sport (DCMS). *Safe. Sensible. Social. The next steps in the National Alcohol Strategy* (HM Government, 2007) set out eight key action areas:

- sharpened criminal justice for drunken behaviour
- a review of NHS alcohol spending
- more help for people who want to drink less
- toughened enforcement of underage sales
- trusted guidance for parents and young people
- public information campaigns to promote a new 'sensible drinking' culture
- public consultation on alcohol pricing and promotion
- local alcohol strategies.<sup>54</sup>

In Wales, the 1996 strategy document *Forward together: a strategy to combat drug and alcohol misuse in Wales* (Welsh Office, 1996) set out proposals to increase prevention activity with a view to reducing the acceptability of taking drugs, and excessive or inappropriate drinking.<sup>250</sup> This strategy also focused on the national and local delivery of treatment, support and rehabilitation services. This strategy was superseded by *Tackling substance misuse in Wales. A partnership approach* (National Assembly for Wales, 2000) which set out four key aims:

- to help children, young people and adults resist substance misuse in order to achieve their full potential in society, and to promote sensible drinking in the context of a healthy lifestyle
- to protect families and communities from anti-social and criminal behaviour and health risks related to substance misuse
- to enable people with substance misuse problems to overcome them and live healthy and fulfilling lives and in the case of offenders, crime-free lives
- to stifle the availability of illegal drugs on our streets and inappropriate availability of other substances.<sup>251</sup>

While England and Wales have separate alcohol control strategies, the licensing systems in both regions are regulated by the Licensing Act 2003 which came into effect in November 2005. The 2003 Act replaced the previous fragmented system with a single piece of legislation regulating all licensed activities involving alcohol – including off-licenses and supermarkets, entertainment and late-night refreshment – and incorporates a number of key measures including:

- flexible opening hours for premises, with the potential for up to 24-hour opening, seven days a week
- a single premises licence which can permit premises to be used to supply alcohol, to provide regulated entertainment and to provide refreshment late at night

- a new system of personal licences relating to the supply of alcohol which will enable holders to move more freely between premises where a premises licence is in force
- premises licences to be issued by licensing authorities after notification to and scrutiny of all applications by the police, other responsible authorities, and those living, and businesses operating, in the vicinity of the premises
- tougher enforcement policies including increased fines and penalties for breach of conditions of licence, suspension of licence, and test purchases
- personal licences to be issued by licensing authorities after scrutiny by the police where the applicant has been convicted of certain offences.<sup>252</sup>

### Scotland

In Scotland, the strategy for reducing the harm associated with alcohol use and misuse was first set out by the Scottish Executive Health Department (SEHD) in *Plan for action on alcohol problems* (SEHD, 2002).<sup>253</sup> This aimed to reduce alcohol-related harm in Scotland by tackling the harmful effects of alcohol misuse with a particular focus on reducing excessive and harmful drinking by children and young people. In February 2007, the SEHD published *Plan for action on alcohol problems: update* which provides an update on the original 2002 strategy.<sup>237</sup> This had a wider focus than just health concerns and outlined aims to change the culture of excessive drinking in Scotland through a number of key actions:

- extending the alcohol test purchasing pilot to all of Scotland in 2007
- using the Executive commissioned evaluation of effectiveness of drugs education in Scottish schools to develop an alcohol education programme as part of a wider, robust substance misuse education programme for schools
- giving Licensing Boards more power to control the spread of licensed premises, and tackling excessive drinking, through the implementation of the Licensing (Scotland) Act 2005
- piloting, during 2007/08, a telephone-based brief interventions service, aimed at identifying harmful and hazardous drinkers at an early stage and providing appropriate support
- completing, by mid 2007, a set of national publications about the short- and long-term effects of drinking alcohol
- supporting further development of Youth Community Alcohol Free Environments and working with partners to provide other diversionary activities for young people, for the duration of this Plan
- undertaking, by May 2007, a stocktake of Alcohol and Drug Action Teams to assess performance to date and capability to deliver Ministerial priorities on drugs and alcohol. This should establish a firm evidence base to determine the future mechanism for effective local action to deliver national priorities
- researching how best to improve recording and reporting information on drug and alcohol use during pregnancy – report anticipated in July 2007
- extending successful measures from the Alcohol Education Research Council (AERC) funded culture change pilot to all areas of Scotland, by December 2007
- developing a quality standards framework for drug and alcohol services
- developing a national drugs and alcohol workforce development strategy by summer 2008 and plans for its implementation by spring 2009.<sup>237</sup>

Licensing in Scotland is regulated by the Licensing (Scotland) Act 1976. As a result of regular extensions to licensing hours since 1976, Scotland has seen considerable liberalisation of opening hours to the extent that it is theoretically possible to purchase alcohol continuously for 24 hours. Licensing law in Scotland will be radically changed following the implementation of the Licensing (Scotland) Act 2005, which is due to come into force in August 2009 following a transition period starting in February 2008. The Licensing (Scotland) Act 2005 incorporates a range of new measures including:

- the introduction of two new licences (personal and premises) to replace the old system of seven licences and statutory opening hours
- a 'premises by premises' approach to opening hours authorised by local Licensing Boards coupled with a statutory presumption against 24-hour opening (which will only be allowed in exceptional circumstances)
- mandatory training of staff as a condition of licence
- the requirement for all licensees to operate on a no-proof no-sale basis and the overhaul of under-age drinking offences
- prohibition of irresponsible promotional activities that encourage speed and binge drinking including two-for-one offers and happy hours
- the introduction of tougher enforcement with a wider range of sanctions and new Licensing Standards Officers.<sup>254</sup>

### Northern Ireland

The Department of Health, Social Services and Public Safety (DHSSPS) sets out the alcohol control policies for Northern Ireland in *Strategy for reducing alcohol related harm* (DHSSPS, 2000).<sup>255</sup>

This strategy set out five key action areas:

- to encourage the responsible use of alcohol through health promotion and education programmes, which will have particular emphasis for those groups identified as being most at risk
- to promote and improve treatment and support services, ensuring that they are effective, adequate to the real level of need in the community, and fairly available
- to protect individuals, families and communities from the anti-social and often criminal consequences of alcohol misuse
- to develop a research and information programme that provides detailed and up-to-date knowledge of local drinking patterns and behaviours
- to implement and manage the strategy effectively through a regular and systematic review process involving local implementation groups.<sup>255</sup>

Licensing in Northern Ireland is regulated by the Licensing (Northern Ireland) Order 1996. The Order includes restricted opening hours although it is possible for a court to grant additional opening hours to public houses, hotels, restaurants, conference centres and higher education establishments under certain conditions. In October 2005, the Department for Social Development (DSD) published draft proposals for reform of the licensing laws in Northern Ireland.<sup>256</sup> The provisional implementation date for these proposals is 2009 and they incorporate a number of measures including:

- a move from a court-based system to a licensing authority under the aegis of district councils
- a modest extension of current opening hours, creating scope for opening to 2am Monday to Saturday and midnight on Sunday, with some extra flexibility for special, major events
- the introduction of a range of measures for the protection of children (eg new test purchasing powers and a voluntary proof of age scheme)
- the introduction of new and more effective enforcement measures to enforce licensing laws (eg immediate temporary closure powers for the police, a penalty points system for breaches of the legislation and the creation of new liquor licensing officers); and replacement of the current licences categories with a dual system of personal and premises licences.<sup>256</sup>

# Appendix 3

## Excise duty rates in the European Union

Country	Excise duty (pence) per unit of alcohol			VAT (%)
	Beer	Wine	Spirits	
Austria	3.27	0	6.79	20.0
Belgium	2.78	2.91	11.93	21.0
Bulgaria	1.27	0	3.82	20.0
Cyprus	3.27	0	4.11	15.0
Czech Rep	1.41	0	6.43	19.0
Denmark	4.65	5.09	13.68	25.0
Estonia	2.54	4.11	6.61	18.0
Finland	13.24	13.10	19.21	22.0
France	1.76	0.21	9.86	19.6
Germany	1.30	0	8.86	19.0
Greece	1.83	0	7.43	19.0
Hungary	3.52	0	6.43	20.0
Ireland	13.52	16.88	26.68	21.0
Italy	3.84	0	5.42	20.0
Latvia	1.23	2.62	6.03	18.0
Lithuania	1.37	2.69	6.29	18.0
Luxembourg	1.30	0	7.07	15.0 *
Malta	1.23	0	15.86	18.0
Netherlands	3.42	3.65	10.21	19.0
Poland	2.89	2.17	7.96	22.0
Portugal	2.25	0	6.36	21.0 *
Romania	1.27	0	5.36	19.0
Slovakia	2.43	0	5.71	19.0
Slovenia	4.68	0	4.71	20.0
Spain	1.34	0	5.64	16.0
Sweden	10.77	14.68	36.68	25.0
UK	13.73	16.2	19.57	17.5

\* VAT rates lower for wine (12%)

These data were calculated using excise duty rates from the *Statistical handbook 2007* (British Beer and Pub Association, 2007). The price per unit of alcohol was calculated based on:

**Beer** pence per pint at 5 per cent ABV

**Wine** pence per 75cl bottle at 11 per cent ABV

**Spirits** £ per 70cl bottle at 40 per cent ABV

$$\text{Number of units} = \frac{\text{Amount of drink (ml)} \times \text{ABV (\%)}}{1000}$$

# Appendix 4

## School-based alcohol education in the UK

In England and Wales, alcohol education is a statutory requirement of the National Curriculum Science Order 1991, and schools are expected to use the non-statutory framework for personal, social and health education (PSHE) as the basis for extending their provision in this area. Alcohol education also features as one of the 10 themes of the National Healthy School Standard (NHSS). In Scotland, alcohol education is included in the ages five to 14 Health Education National Guidelines and NHS Health Scotland distributes teaching resources to schools, *Drink talking and Alcohol: what every parent should know*, that contain information on the effects of alcohol on the body and the health of unborn children. The current statutory curricular arrangements in Northern Ireland include a cross-curricular health education programme for young people aged between four and 16 years. Specifically, alcohol education is included within the Programmes of Study for Science and Technology (Key Stages 2-4).

## Appendix 5

### World Health Organisation European Charter on Alcohol

The 1995 WHO European Charter on Alcohol sets out 10 key strategy areas for implementation by each Member State:

1. Inform people of the consequences of alcohol consumption on health, family and society and of the effective measures that can be taken to prevent or minimise harm, building broad educational programmes beginning in early childhood.
2. Promote public, private and working environments protected from accidents and violence and other negative consequences of alcohol consumption.
3. Establish and enforce laws that effectively discourage drink-driving.
4. Promote health by controlling the availability, for example for young people, and influencing the price of alcoholic beverages, for instance by taxation.
5. Implement strict controls, recognising existing limitations or bans in some countries, on direct and indirect advertising of alcoholic beverages and ensure that no form of advertising is specifically addressed to young people, for instance, through the linking of alcohol to sports.
6. Ensure the accessibility of effective treatment and rehabilitation services, with trained personnel, for people with hazardous or harmful alcohol consumption and members of their families.
7. Foster awareness of ethical and legal responsibility among those involved in the marketing or serving of alcoholic beverages, ensure strict control of product safety and implement appropriate measures against illicit production and sale.
8. Enhance the capacity of society to deal with alcohol through the training of professionals in different sectors, such as health, social welfare, education and the judiciary, along with the strengthening of community development and leadership.
9. Support nongovernmental organisations and self-help movements that promote healthy lifestyles, specifically those aiming to prevent or reduce alcohol-related harm.
10. Formulate broad-based programmes in Member States, taking account of the present European Charter on Alcohol; specify clear targets for and indicators of outcome; monitor progress; and ensure periodic updating of programmes based on evaluation.

Source: *European Charter on Alcohol* (WHO, 1995).

## Appendix 6

### Framework Convention on Tobacco Control

The Framework Convention on Tobacco Control (FCTC) was adopted by the WHO in 2003 and came into force on 27 February 2005.<sup>257</sup> The FCTC is a legally binding treaty which was negotiated by the 192 Member States of the WHO. It commits governments to reducing the burden of tobacco-related morbidity and mortality. The treaty incorporates a range of measures designed to reduce the devastating health and economic impacts of tobacco and provides the basic tools for countries to enact comprehensive tobacco control legislation. The key provisions set out by the treaty are aimed at encouraging countries to:

- enact comprehensive bans on tobacco advertising, promotion and sponsorship
- obligate the placement of rotating health warnings on tobacco packaging that cover at least 30 per cent (but ideally 50% or more) of the principal display areas and can include pictures or pictograms
- ban the use of misleading and deceptive terms such as 'light' and 'mild'
- protect citizens from exposure to tobacco smoke in workplaces, public transport and indoor public places
- combat smuggling, including the placing of final destination markings on packs
- increase tobacco taxes.<sup>257</sup>

The FCTC encompasses additional measures such as mandating the disclosure of ingredients in tobacco products, providing smoking cessation services, encouraging legal action against the tobacco industry, and promoting research and the exchange of information among countries. The treaty is an important first step to effective international tobacco control as it coordinates international, national and regional efforts; facilitates the sharing of research and expertise; prioritises tobacco control within governments; and raises public awareness.

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