under the influence
what we know about binge-drinking

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UNDER THE INFLUENCE

INTERIM REPORT

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EXECUTIVE SUMMARY

This literature review analyses the causes of, and possible responses to, binge-drinking among young adults aged 18-25 in the UK. Alcohol misuse is not something limited to this age group, but this is the group most associated with binge-drinking and alcohol-related harm. This is an interim paper, prepared as part of a wider project analysing the underlying causes of binge-drinking, of which the final report will be released in June 2011.

What is binge-drinking?

Worries about young adults binge-drinking in the UK are nothing new; they predate the Norman Conquest. Yet in the last ten years there has been a growth in media, government and public concern about the issue.

But the phrase 'binge-drinking' is confusing. In strictly medical terms, it refers to drinking more than twice the recommended daily allowance of alcohol in a single episode (this works out at about four pints of beer for a man, three for a woman). This is the definition used to calculate binge-drinking levels in the UK. But for the public, government, and media the term is shorthand to describe something more than just units of alcohol consumed. It refers to young adults that drink to extreme excess, often in an intentionally reckless and very public way, putting themselves and others at risk of harm.

These two distinct meanings are frequently mixed or conflated. In terms of levels of total alcohol consumed, the majority of people drink within the NHS guidelines, and the level consumed per person is falling. Moreover, unit-based binge-drinking has been falling steadily since around 2005, especially among young adults, and is not significantly higher than other European countries.

By contrast, there is evidence to suggest that a small but growing minority of young adults drink to extreme excess and behave in irresponsible and reckless ways. There are new drinking norms among young adults, such as 'pre-loading', which is drinking heavily before going out, aiming specifically at drunkenness. Furthermore, for a wide social spectrum of young adults, extreme drinking has

become an accepted, normal behaviour, which is perhaps part of a broader intoxication-driven consumer culture that embraces both legal and illicit drugs. These changes in drinking behaviour bring social costs. The burden on the NHS is considerable, particularly for A&E and ambulance services over the weekend. Alcohol-related violence, criminality, and drunk and disorderly offences have also been rising for the last decade. Such rises are perhaps reflected in the fact that sixty five per cent of the public agree with the statement 'the amount people drink in this country is out of control'.

To avoid confusing the two distinct understandings of drinking patterns outlined above, throughout this paper we make a clear distinction. The amount people drink – the unit-based definition – we refer to as *excessive alcohol consumption***.** The extreme, excessive drunkenness and related behaviour we refer to as *binge-drinking***.** It is binge-drinking that is contributing to a number of social, criminal and health costs, as well as causing societal concerns about moral decadence – often expressed through alarming media stories about 'binge-Britain'. We believe therefore that binge-drinking should be the focus of an urgent policy response distinct (although not completely separate) from policy on excessive alcohol consumption.

Although obviously related, the way people drink and how they behave when drunk cannot simply be reduced to how much alcohol people consume: several countries with high consumption levels and cheap alcohol have very low levels of alcohol related harm and vice versa. Drinking is a social activity, and the way people behave when intoxicated is the result of a complex and often mutually reinforcing set of individual, environmental, and cultural influences. Tackling binge-drinking is therefore an enormous challenge and there are no simple solutions. It requires the involvement of several groups, including: public health specialists, GPs, advocacy groups and alcohol charities, local authorities, police, retailers, pubs and bars, the alcohol industry, families and individuals themselves.

After reviewing the evidence from 36 binge-drinking interventions undertaken in the UK in the last decade, we believe that any response to binge-drinking should be realistic, targeted, and have three aims: to reduce the frequency and intensity of binge-drinking episodes and associated behaviours; to reduce costs that stem from binge-drinking; and to encourage a more responsible attitude toward alcohol consumption over the long-term.

In order to achieve these aims we have made a number of recommendations on the basis of this literature review. These recommendations are not comprehensive, but reflect areas where intervention could be effective. In the policy area of each recommendation, more work is required, and potentially further exploration or piloting, which we will do in phase II of this project.

Recommendations: interventions targeted at individuals

We believe that interventions should focus on enforcement when people step over the line, and aim to encourage greater personal responsibility. This approach would also have long-term impact on social norms.

- **Enforcement of existing laws relating to public disorder.** Binge-drinking should not be socially acceptable. The police must use the considerable powers at their disposal to target those who have crossed the line. Police should: vociferously target the selling of alcohol to under-18s; make greater use of drinking banning orders; issue more penalty notices for disorder; and enforce laws that forbid knowingly serving people who are already drunk. Cases such as St Neots' enforcement programme show this can effectively reduce alcohol related crime and harm, and may slowly shift the social norms around drinking behaviour.

- **GP consortia or local authorities should expand Alcohol Recovery Centres ('booze-tanks') and Alternative Response Vehicles ('booze-buses') across major cities in partnership with local police, and**

charge people who use these services. The Alternative Response Vehicle operates in Westminster (a similar service operates in Cardiff) and picks up extremely drunk people that need medical attention, dropping them off at an Alcohol Recovery Centre (ARC). Since the medical attention they need is relatively straightforward, it can be provided adequately away from the ambulance service and A&E, relieving a considerable burden. Recent evaluations have shown significant cost-savings for both services. However, those who use ARC should be held accountable for their behaviour. GP consortia or local authorities should commission ARCs in their areas in partnership with the local police constabulary, if binge-drinking is considered to be a local priority. Individuals who use ARC should be issued with a Penalty Notice for Disorder (£80) by the police for drunk and disorderly/incapable behaviour on admission, which should contribute directly to the running of the ARC. Operating in this way, ARC would reduce the burden on existing health services in a financially sustainable manner and encourage greater personal responsibility.

- **Doctors and members of ARC should employ brief interventions to talk to binge-drinkers about ways to limit their consumption.** The evidence suggests that people that binge-drink do not like to be lectured to, or patronised about their behaviour. However, brief interventions with individuals who are hospitalised as a result of alcohol related harm – especially in their contrite state the following morning, or within a few days so that memories are still fresh – can be effective in limiting consumption in the future. Moreover, consideration should be given to the idea that all GPs carry out brief interventions (where appropriate) when someone registers at a new practice.

Recommendations: nudges and environmental changes

The lay-out or atmosphere of the immediate drinking environment does play a role in how much alcohol people consume and how they behave. Exactly how much is not known. There may be scope for interventions that change this environment so that responsible consumption is incentivised and encouraged through 'nudges'. However, the evidence is unclear on how effective such initiatives can be, partly because the approach is so new. Nevertheless, we believe some policies have the potential to be effective and warrant further consideration.

- **Local authorities should form local partnerships to identify trouble-spots and intervene to reduce harm and anti-social behaviour.** Evidence shows that multi-component interventions involving local authorities, the police, bars, and transport companies can be effective in limiting the harm from binge-drinking. Similarly, the creation of 'Business Improvement Districts' can have a similar effect.

- **High quality training for bar-staff.** Making sure that bar-staff are able to quickly identify people who are already extremely drunk, and have the confidence to stop serving them, has been shown to be effective in reducing reckless binge-drinking and irresponsible behaviour associated with it. There are already 'too drunk to serve' laws in place and it is important that bar-staff have the confidence to enforce these.

- **Enforcement of the 2010 bans on promotions that are designed to encourage irresponsible drinking.** In 2010 a number of irresponsible promotions such as 'all you can drink' were banned. Although it is too early to assess the effectiveness of these bans, the evidence suggests that the growth in promotions has played a significant role in incentivising and normalising excessive binge-drinking. In particular, such promotions have encouraged a shift from beer drinking to speed drinking and drinking games with shots of liquor. In the past, enforcement of alcohol-related

regulation has sometimes been limited. It is essential that these regulations be stringently enforced**.**

- **Retailers and government should consider introducing responsible advertising, display and sales practices in the off-licence trade.** The evidence suggests that extremely cheap alcohol is a contributing factor to binge-drinking. But tackling this issue is extremely difficult. Minimum unit pricing, if set high enough (around 50 pence per unit), would reduce overall levels of alcohol consumption at the population level, including levels of excessive alcohol consumption. This measure would undoubtedly also cause some reduction in the frequency of binge drinking episodes amongst some groups. However, there is little evidence to show it would change the norms surrounding binge-drinking behaviour. Moreover, directly introducing a minimum unit price may be in breach of EU competition law, and is likely to be a regressive measure – hitting the poorest hardest, with additional profits being accumulated by the large retailers. 'Invoice pricing' (to prevent below cost-of-production sales) is extremely difficult to calculate. Increasing alcohol duty is an alternative, but the UK already has high levels of alcohol taxation, and further increases would harm on-licence trade without necessarily ending the practice of below-cost pricing in off-licences.

  One solution might be to explore ways to ensure the off-licence trade advertises, displays, and sells alcohol in a responsible way. The disparity between off and on-trade prices (and between spirits and beer prices) has grown and these price discrepancies appear to have encouraged 'pre-loading': drinking heavily before going out. In 2010, the Government introduced a number of restrictions on irresponsible promotions in the on-licence trade. Although off and on-licence trade sales are different, extremely cheap alcohol that is widely advertised and sold in off-licence retailers may encourage the social norm that drinking alcohol is primarily about getting intoxicated as cheaply as possible.

We recommend that retailers consider a joint initiative as part of the Public Health Responsibility Deal, which sets a code of conduct for responsible alcohol sales, as has been recently introduced in Ireland. This could include some restrictions on price-based advertising, whole-store displays, and loss leaders. Further consideration must be given to the precise details of such an initiative, and the role of government in upholding it. We shall address these issues in the second phase of this research.

Recommendations: changing social norms

The most crucial set of interventions – because they offer the prospect of long-term change – probably relate to the changing of capabilities (personal qualities like self-control) and social norms around reckless binge-drinking. However, these important determinants of behaviour are also the hardest to change.

- **Non-preachy social marketing campaigns.** Social marketing – trying to change behaviour and social norms through marketing techniques such as advertising – is a new field. What appears to work are advertising campaigns that focus on the following: correcting misconceptions about other people's behaviour; harm reduction rather than cessation of drinking; and non-preachy messages that go with the grain of people's behaviour. These kinds of campaigns are premised on a more realistic and accurate understanding of why people behave in particular ways. In respect of changing alcohol consumption, we believe social marketing might helpfully focus on:
    - Ensuring people know how many units they consume when drinking;
    - Correcting perceptions about how much other people drink, such as emphasising that the vast majority of people do not drink excessively;

    - Stressing ways for people to minimise harm such as *Drinkaware's* 'eat before you drink' and 'alternate drinks' slogans.

  The general principles of successful social marketing around alcohol seem to be to treat consumers like adults, and accept that behaviour can only be modified rather than changed wholesale.

- **Government should consider issuing advice to parents on drinking in front of children.** There is limited evidence that witnessing moderate drinking by adults (especially parents), rather than simply being told about it, helps to build expectations of moderate drinking behaviour amongst children and teenagers. Whilst this may not stop binge-drinking altogether, it can create a counterweight to peer norms, making young people familiar with other ways of drinking. This evidence, although limited, fits with what we know about behaviour: that steady exposure to norms and habits tacitly builds attitudes. Therefore more consideration needs to be given to advice that is given to parents about drinking in front of children.

These interventions taken in isolation will not change how people drink. But introduced together, we believe they can make a significant difference both by reducing the incidence of binge-drinking in the short term and creating more responsible social norms surrounding alcohol consumption, without unfairly punishing moderate and sensible drinkers.

Over the longer term, it is important to encourage a generation of more responsible drinkers. The evidence suggests that parents play a key role in this, particularly through leading by example and helping children to develop personal skills such as self-reliance, application and self-control from an early age. We are currently investigating this question for the full version of this report, which will be available in June 2011.

WHAT IS BINGE DRINKING?

Heavy drinking has been endemic in British society over many centuries and is a central part of many social and work practices.[1] Concerns about alcohol misuse are nothing new, either. In the mid-18th century, the 'gin craze' swept through London, and was viewed at the time as being behind much of the capital's crime. In 1751 the 'Gin Act' was passed to reduce consumption in response.

Today there is a new panic about the extent and consequences of alcohol misuse. The shorthand for these concerns – which are varied – is 'binge-drinking', and its main culprits are believed to be young adults. Although now part of our daily lexicon, the term binge-drinking is confusing. Originally, 'to binge' meant an extended period of drinking, rather like a 'bender' today.[2] In recent years, however, a new idea has been added: acute intoxication in a single episode (sometimes measured over a day), usually displayed as extreme drunkenness.[3]

How serious is it?

In January 2005, the *Daily Mail* declared war on binge-drinking in Britain, in response to a perceived explosion in its prevalence. This was the start of intense media interest in binge-drinking which has continued to grow. One content analysis showed a surge in reporting on binge-drinking in the *Times* from 2004,[4] and a search for 'binge-drinking' on the *Daily Mail* website yields 1,705 reports since August 2008 – almost two a day – often with extremely alarming headlines.[5] Since 1997, successive governments, including the Coalition Government, have pledged to crack down on binge-drinking.

But assessing the scale and growth of binge-drinking in the UK is actually very difficult. It is usually measured through what are known as 'unit-based' surveys. Technically, binge-drinking refers to the consumption of more than 8 units of alcohol for a man and 6 for a woman in a single episode, which is twice the recommended daily intake: and it is this measure on which national statistics on the subject are compiled.[6]

According to these statistics, there was an increase in overall alcohol consumption, including excessive consumption, from around the mid-1980s.[7] Despite this growth, UK *per capita* alcohol consumption is unremarkable in comparison with other countries of a comparable size and income level, and well below historic levels such as those in the 18th or very early 20th century.[8] Moreover, the majority of the population drink within the government's lower risk limit.[9] In 2009, men drank, on average, 15.6 units of alcohol a week; women drank 9.5 units a week– both within the NHS guidelines. [10]

But these statistics obscure a surprising trend: excessive alcohol consumption (twice the recommended daily allowance in a single episode) in the UK has been decreasing since 2005 – perhaps since as early as 2000 – and more quickly among 16-24 year olds,* falling from 39 per cent in 1998 to 30 per cent in 2008, and by a similar amount among underage drinkers.[11]

The paradox of binge-drinking

All statistics about drinking behaviour need to be treated with caution. People have a tendency to underestimate the amount they consume in survey responses, while some research has noted a growth in abstinence levels, which could affect some of these figures (making it seem as if everyone is reducing consumption on average, where in fact it may be that some are not drinking at all while those that do are doing so more excessively).[12] Nevertheless, there appears to be a strange paradox: as unit-based binge-drinking levels have fallen, media and government concern about binge-drinking has increased.[13] What accounts for this?

This paradox is the result of confused and sometimes misleading language surrounding binge-drinking. In strictly medical terms, 'binge-drinking' refers to drinking over twice the recommended daily allowance of alcohol: drinking too much. It is this definition which is used to measure levels of binge-drinking in the UK. However, for the public, government, and media 'binge-drinking' means more than just levels of consumption. It is shorthand to describe the small but growing problem of young adults who drink

* It is a strange quirk of UK based statistics that figures for young adults' alcohol consumption combine above and below the legal age of purchase. We recommend this is changed in future.

to extreme excess, often in an intentionally reckless and very public way, putting themselves and others at risk of harm. It is this type of drinking behaviour that is contributing to a number of social, criminal, and health costs as well as causing societal concerns about moral decadence.

It is well established that alcohol consumed in moderation brings considerable personal, social and economic benefits (although of course some people should never drink alcohol for health reasons).[14] However, although nationally binge-drinking levels are falling, small-scale, localised research shows a steady growth in young people drinking with the express purpose of getting extremely drunk – what some academics call 'extreme' drinking.[15] For example, a 2007 study of nightlife consumers in a North-West city (which chose to remain anonymous for the study) found the mean consumption for men was 23.7 units for men and 16.3 for women – and similarly high levels were reported in other cities.[16] In Camden, London, a nightlife survey found that 12% of individuals drank more than 22 units in the evening the survey took place.[17]

Indeed, the UK is often described as the binge capital of Europe.[18] Even though we do not binge-drink more often than other European countries, the *amount* consumed when we do binge is higher than most other countries. The UK consumption average for a single drinking episode is the highest in Europe. [19]

Such excessive levels of consumption are related to new ways of drinking, such as 'pre-loading' (drinking before going out), which over half of 18-34 year olds in one large survey claimed to do.[20] The growth of pre-loading appears to reflect a change in the reasons why young adults drink to excess. Pre-loading may be done largely for economic reasons but there is research suggesting that some young people consider excessive binge-drinking to be an 'enjoyable activity' in terms of social bonding, a short period of 'controlled loss of control' and hedonism.[21] Therefore it seems that pre-loading plays an important role in the 'rituals' of binge-drinking among young people and is of particular concern, because those who do it are considerably more likely to end up being involved in an alcohol related incident.[22] Research also shows that there has been a large

increase in consumption of wine and spirits relative to beer in the last decade or so. These drinks are much stronger than beer and more likely to be purchased off-licence and 'pre-loaded'.

Binge-drinking can and does have a number of harmful effects. Unfortunately there has been a marked increase in the number of people who are unconcerned by the long-term health effects of their behaviour – and even their immediate personal safety.[23] There has also been a steady increase in reported alcohol-related hospital admissions over the last decade. In 2009/10 there were 1.1 million admissions related to alcohol, which was an increase of 12 per cent on the previous year; and around double the number in 2002/03, when there were 510,200 admissions.[24] These figures have to be put in the context of falling overall levels of excessive alcohol consumption, and falling levels of alcohol-related deaths.[25] As is frequently reported, many of these admissions occur on Friday and Saturday nights, being the result of binge-drinking, and placing an enormous burden on Accident and Emergency and ambulance services.

In a similar way, alcohol-related violence, criminality, and drunk and disorderly offences have also been rising for the last decade, particularly among women – although these too appear to have fallen back slightly over the last two or three years.[26] These increases are starting to affect public perceptions. Sixty five per cent of the public agree with the statement 'the amount people drink in this country is out of control' and 71 per cent agree it applies to only a minority of drinkers.[27] According to the *2008 Place Survey*, 29 per cent of those surveyed felt that drunk or rowdy behaviour was a problem in their area.[28] One in four members of the public said they avoid parts of their neighbourhoods as a result. [29]

Perhaps most significantly of all, binge-drinking is reported in the media as a sign of moral decadence and decline, an integral part of 'lad' and 'ladette' culture. Recent years has seen a slew of television programmes including *Boozed up Brits Abroad, The Truth about Binge-drinking,* and *Booze Britain: Binge Nation*. Some academics have observed that the visible increase in the number of women binge drinkers is a common feature in media comment on drinking

practices, and that changes in female behaviour are often a marker of 'moral panics': unjustified fears about breakdowns in the social order.[30]

The cost of binge-drinking

Because of the lack of clarity about what is meant by the term, attempts to estimate the cost of binge-drinking can be misleading. Working out the social and financial cost of any behaviour is notoriously difficult, and we will not attempt to do so here. However, media reports frequently refer to the cost of binge-drinking, mainly to the National Health Service, as £2.7 billion. This is in fact the cost of *all* alcohol misuse, and not all of this cost is related to binge-drinking.[31]

Long-term alcohol misuse, even if not immediately harmful and hazardous, can be a contributing factor to up to 60 health conditions and can result in a higher likelihood of life-threatening diseases like liver cirrhosis. Around 6 per cent of men, and 2 per cent of women are 'harmful' drinkers for whom damage to health is considered likely, and 1.6 million people are believed to be dependent on alcohol.[32] Alcohol-related fatalities are overwhelmingly the result of long-term drinking: the highest alcohol-related death rate is in men aged 55–74 (41.8 per 100,000); while for 15–34 year olds the rate was 2.6 per 100,000 – the lowest.[33] Of the quarter of a million hospital admissions in 2007/08, 87,200 were the result of binge-drinking episodes, whereas 109,600 are more likely the result of chronic long-term alcohol misuse.[34]

Of course, there is some overlap between different kinds of drinking behaviour. The precise relationship between binge-drinking at an early age and long-term harmful drinking practice is unclear, with contradictory evidence.[35]

The criminal and social disorder costs of binge-drinking are also difficult to calculate. The most common figure quoted is £8 billion, and this figure originates from data collected in the British Crime Survey, which estimated that there were 973,000 violent alcohol-related incidents in 2008 – around half of all violent crimes.[36]

However, these figures include any crimes in which the victim believes the offender to be intoxicated; the offender seems drunk or partially intoxicated; the offender reports having drunk, was in or near a licenced premises at the time of the offence, or was involved in an incident where others were intoxicated.[37] These categories for reporting alcohol-related crime are obviously somewhat imprecise and subjective, leaving considerable scope for mis-reporting.

Casting doubt on reported figures is not meant to imply that society bears no social or financial costs from binge-drinking. As we argue above, it clearly does. And there are other costs related to binge-drinking that are seldom mentioned, such as lost days at work, poor sexual health and stresses on relationships.

However, clarity is needed about exactly what the problem of binge-drinking is, in order to effectively design policy responses. Therefore, throughout this paper we refer to the following two phenomena as separate issues. Excessive alcohol consumption means drinking twice the recommended daily allowance, while binge-drinking refers to the practice of extremely excessive, reckless drinking that puts oneself and others at risk of harm.

The evidence suggests that, technically speaking, excessive consumption of alcohol, defined as units consumed, appears to be falling, while what is usually thought of as binge-drinking appears to be static or rising (including the costs associated with it). It is binge-drinking that is at the core of most public, media, and governmental concerns related to alcohol misuse. Therefore, it should be a continued target of policy, alongside public health concerns over the long-term health effects of excessive consumption.

Influences on binge drinking

Trying to pin down how and why people behave in the way they do is of course fraught with difficulty. Although there are no definitive *causes* of binge-drinking, there are a number of contributing or influencing factors that reinforce one another. In this section we review the literature on these factors, from a variety of disciplines and perspectives. It is beyond the scope of this paper to review all influencing factors. We therefore concentrate on those that seem most pertinent to understanding binge-drinking, and to devising effective policy responses.

Drinking, like any other behaviour, is influenced by the two governing human behavioural systems centred in the brain.[38] The first of these is the automatic system, which is non-conscious, effortless, associative, fast and can process multiple pieces of information at once. The automatic system yields gut feelings, hunches and emotions. The second behavioural system is the reflective, which is slow, conscious, effortful, logical and can process only one piece of information at a time. It yields thoughts, plans, choices and decisions.[39]

The automatic system is influenced by the environment and by non-conscious social interactions, such as mimicking what others around us do.[40] The reflective system is influenced by beliefs, incentives, reasons, and cost and benefits. It is a rational system.[41] Much of recent behavioural science has shown that the automatic system influences more of human behaviour than had previously been thought.[42]

A person learns through both the automatic system (for example, non-consciously picking up physical and social cues) and the reflective system (through, for example, developing beliefs and attitudes based on information received). But the two systems are not separate; they are intertwined, and reinforce each other. Consequently, our behaviour is most effectively shaped when explicit information and guidance are aligned with the non-conscious development of habits and dispositions through experience.

Examining the literature on what influences binge-drinking suggests that there are three broad influencing factors that work on both the automatic and reflective systems.

Individual choice, capabilities and attitudes

There is a significant body of research that is concerned with the capabilities and attitudes that underpin moderate drinking choices, and how these capabilities and attitudes are formed.[43] The personal capabilities that are important for binge drinking are self-efficacy (underwriting the ability to refuse a drink and resist peer pressure), and the ability to defer gratification and think of long-term consequences (the ability to be non-impulsive).[44] Self-efficacy and deferring gratification are both 'internal' and 'external' capabilities – that is, they depend on a person's ability to do something, but also on external influences on how easy something is to do, such as having supportive family and friends.

Capabilities like this are quite general and result largely from parenting that combines clear boundaries with affection and warmth.[45] It is not clear that these capabilities can be imparted in any short-term kind of intervention, given the way they are learned (often non-consciously) through experience and practice. Although peer influence is important, parents and trusted adults can still have significant influence on the capabilities and attitudes of teenagers.[46] Britain has a particularly high level of adult disengagement from teenagers and this may be a significant factor in the UK's high levels of risky behaviour amongst this latter group.[47]

The main component of attitudes that is important for binge drinking is called 'alcohol expectancy': what a person expects to happen when he or she gets drunk.[48] Such expectations are built up over childhood and young adulthood. It is not only what parents tell children that matters, but parents' behaviour, since many attitudes are picked up non-consciously. There is some evidence to suggest that witnessing moderate drinking by parents does most to shape children's and young people's expectations of moderate drinking behaviour.[49] In other words, although information and guidance do

affect attitudes, it is the 'lived experience' of other people's drinking behaviour that matters most.

One important influence on individual choice beyond capabilities and attitudes is price, since it affects the cost-benefit analyses people make. It is clear from economic modelling that price impacts on total levels of alcohol consumption, but it is less clear how precisely it affect binge-drinking patterns. We discuss this issue in further detail below. A small-scale UK study has shown that price sometimes reduces the amount drunk in binge drinking sessions, and sometimes the way alcohol is consumed (e.g. encouraging more 'pre-loading'), but does not necessarily reduce the *motivation* to binge drink.[50]

Certainly alcohol is much more affordable than it used to be: 69.4 per cent more affordable in 2007 than it was in 1980.[51] One important trend over the last few years has been the difference in relative affordability between off and on-licence sales, and in particular the price of wine and spirits (which are stronger) relative to beer. There is now an enormous difference in off and on-licence pricing across Europe, with a trend to more off-licence consumption of alcohol, as this tends to be cheaper than alcohol sold for consumption on premises. In the UK, off-licence sales account for up to 50 per cent of all alcohol consumed.[52] The rise in such sales has contributed to a falling number of pub-goers, replaced by more drinking at home: since 1992, the volume of alcoholic drinks brought into the home in the UK has increased from 527ml per person to 706 ml in 2008, while alcohol consumed outside the home dropped by 40 per cent between 2001-08.[53]

The rising price of on-licence alcohol sales may have made pre-loading more attractive and emerging studies suggest it is an important component of binge-drinking behaviour. One recent survey of young adults (aged 18-35) in a large city in the North West (which remained anonymous) found that a quarter of female and 15 per cent of male alcohol consumption occurred before entering on-licence premises. Moreover, participants who drank before going out were more likely to have been involved in alcohol-related crime and disorder, being two and a half times more likely to have engaged in fighting during nights out within the previous 12 months.[54]

Drinking environment

Another influence on drinking choices is the environment within which drinking takes place. The environment can influence people's behaviour in a largely non-conscious way: behaviour often suggest itself simply because it is available and therefore salient.

The availability of certain drinks is an important facet of the drinking environment. For example, the introduction of alcopops and the promotion of drinks in bars have both seemed to influence people to drink more than might have otherwise been the case.[55] In addition, several other waves of drinking trends since the 1980s have made binge drinking more likely, such as high-strength lagers, high-strength wines, shots, and crucially, larger measures (doubles and large glasses of wine).[56]

Some new types of drinks (such as alcopops) as well as new ways of drinking (such as 'downing' shots) probably became more popular as part of the broader growth in determined drunkenness that came in the wake of the collapse of the ecstasy/dance culture of the 1980s and 1990s.[57] The promotion and consumption of these drinks in turn creates a feedback loop by sending cues about what is 'normal' drinking behaviour. Such feedback loops can subtly but substantially alter people's drinking habits over time simply by virtue of what is available and favoured in the drinking environment. The way that bar staff interact with customers and operate 'host responsibility' policies is another aspect of the drinking environment that can influence drinking behaviour.[58]

Environmental design issues are also important in shaping the behaviour of people once heavily intoxicated. In general, the way that town-centres are often laid out, with high concentrations of establishments that are tailored specifically for drinking (e.g. with promotional offers, few seats, a narrow demographic of young customers and loud music), may well have led to an increase in binge-drinking behaviour. The landscape of the night-time economy has obviously grown around existing demand, but sometimes supply can create demand. In other words, when young people go out into this landscape they are to some extent encouraged to indulge in reckless intoxicated behaviour, because that is what the

landscape has been set up to do. The growth of 'vertical drinking establishments' (where everybody stands rather than sits), for example, has been said to encourage faster drinking. A number of US studies have also shown that outlet density, such as several bars grouped together in the same street, can also make violence more likely to occur.[59] This is at least partly caused by the fact that large numbers of people in the same place at the same time increases the likelihood of conflict, especially if there are scarce resources such as good transport facilities. Little research has been undertaken on this subject in the UK, although one study found that serious violence in Cardiff's entertainment thoroughfare was directly proportional to the capacities of licenced premises in that street.[60]

Culture and social norms

The role of alcohol – its cultural place – in society is an important determinant of why and how people drink. Studies repeatedly show that different cultural groups not only drink in different ways (for example 'dry' versus 'wet' habits), but also *behave* in different ways when intoxicated.[61] This is because the way we drink is a 'learned behaviour', formed as we grow up. Drinking behaviours are learned from non-conscious social cues, such as the function alcohol plays in social interactions and activities; whether drinking is associated with eating or to escape difficulties; or whether inappropriate behaviour is considered normal when drunk, or is heavily disapproved of. It has long been recognized that in the United States, for example, public displays of drunkenness are considered far more of a social taboo than they are in the UK. With regard to forming cultural understandings of alcohol use, most crucial of all is the way that parents drink around their children. However, more general and diffuse influences are still important for younger adult drinkers. For example, some academics have argued that binge-drinking has become part of a broader, hedonistic, consumer culture that embraces both legal and illicit drugs, and encompasses a broad social spectrum of young people.[62]

The social norms that govern national and regional drinking cultures also operate at the level of smaller social networks. The behaviour of one's immediate peer group is extremely important in

determining behaviour – both in terms of drinking patterns and the behaviour that goes with them.[63] Studies in the US have shown that the drinking behaviour of students is shaped by the social norms of quite small groups and that these norms can vary widely across the university population.[64] Joseph Rowntree Foundation (JRF) research in the UK confirms the existence of many different binge-drinking sub-cultures on this side of the Atlantic.[65] The fact that norms influence behaviour heavily at the level of small social networks makes them particularly hard to predict and change.

The JRF research also shows that drinking cultures have changed over the last five to ten years, even as binge drinking levels have fallen. Binge-drinking has become more extreme, with visible displays of drunkenness viewed as normal and as forming personal narratives and myths.[66] The research shows that binge drinking has become a rite of passage into full adulthood (undertaken between the ages of 18-25 years old). And many young drinkers, although they do not take into account the health hazards of binge drinking, do consider there to be a 'normative pathway' to it – it being something you do when you are young but give up when more mature (into your late twenties). Whether people do in fact give up binge drinking when more mature is unclear and should be subject to further research.[67]

The prevalence of local drinking cultures means binge-drinking behaviour is affected by a host of specific factors such as socio-economic class, ethnicity, and random local and transient social norms. Indeed, binge drinking can be viewed as normal within some sub-cultures.[68] There is even some evidence that binge drinking is correlated with a lack of attachment to mainstream society.[69] The fact that binge-drinking cultures are specific at such local levels reveals just what a complex phenomenon it is.

OPTIONS FOR RESPONSES

The difficulty of dealing with an issue as complex as alcohol misuse is that there are multiple interventions trying to tackle it from a variety of perspectives, and sometimes with quite different goals.

A useful starting point is to consider the effectiveness of interventions that have targeted binge-drinking specifically. To do this, we undertook a rapid review of the evidence of programmes of this type in order to ascertain useful lessons. Originally we had envisaged undertaking a formal Rapid Evidence Assessment (REA), which is a systematic way of quickly reviewing evidence about a given subject. However, the criteria for inclusion in an REA were too difficult to define because interventions operate with significantly different understandings of what binge-drinking is, and what the goal of the intervention is (some were about cessation of binge drinking levels, others about reducing the harm associated with binge drinking).

Therefore, we conducted a more informal review of evidence, retaining some elements of an REA. We reviewed evaluations of UK based interventions over the past ten years which had as at least one of their stated aims a reduction in either:

a) binge-drinking levels

b) binge-drinking related social disorder and crime

c) binge-drinking related hospital admissions.

Thirty six studies were reviewed, made up of qualitative and quantitative studies, and a small number of meta-reviews (seven in total).

Following the classification of influences in the preceding chapter, the evaluations here are grouped in the same way.

Individual capabilities, attitudes and choices

One way in which personal choices can be affected is through pricing policy, and there are several mechanisms that can be employed to do this, including increasing taxation levels. Many public health professionals argue for a minimum unit price of alcohol set at 40 or 50 pence, which they argue would result in a significant improvement in public health levels, and a reduction in binge drinking.

A recent meta-review of minimum pricing by the University of Sheffield argued that control of price is the most effective way to limit harmful drinking.[70] The evidence supports the assumption that a floor price on alcohol units would reduce population levels of drinking, and in particular reduce the alcohol consumption of the heaviest drinkers and the underage, who are both price sensitive (and will often buy the cheapest available alcohol).[71] By reducing population levels of consumption, it is likely there would be a reduction in binge-drinking too.

However, the evidence on precisely how much of a reduction is not clear. Affordability of alcohol does correlate to levels of consumption, but only accounts for 22 per cent of the variation in demand: countries where excise tax on alcohol is very high also have very high levels of consumption, and the UK already has the third least affordable alcohol in Europe. [72] More problematic is that there appears to be no correlation between affordability and alcohol-related harm.[73] In other words, even if alcohol is made less affordable, the behaviours associated with binge-drinking would not necessarily change, because they are a complex mix of cultural and social forces. In fact, according to a recent study by the Joseph Rowntree Foundation, there may be other side effects of minimum pricing, such as people shifting to stronger, cheaper alternatives such as drugs.[74]

Minimum pricing will also have distributional costs, which are especially significant if a minimum price does not change binge-drinking behaviour. Minimum pricing research is mainly based on non-UK sources and economic modelling, the latter relying on a number of assumptions. Varying assumptions can significantly

change net benefits and costs. The distributional impacts of minimum pricing are heavily contested, and have been questioned by a recent report by the Centre for Economics and Business Research, who argue that minimum pricing is a regressive measure because people on lower incomes typically pay less per unit of alcohol and are therefore most affected.[75]

But perhaps the main difficulty with minimum unit pricing concerns implementation. Directly introducing a minimum unit price is likely to be in breach of EU competition law, and 'invoice pricing' (to prevent below cost of production selling) would be extremely difficult to calculate. Although increased taxation is an alternative, the UK already has very high levels of alcohol taxation, and this would further harm the on-licence trade without necessarily ending the practice of below-cost pricing in off-licences.

Educating current binge-drinkers about the amount they drink seems an obvious way to teach people to be more responsible with alcohol, but the record of effectiveness is mixed and appears to depend on the timing and design of the intervention. Some advertising campaigns have been aimed at young adults in an effort to make them aware of how much they are drinking. *Know Your Limits*, for example, aims to make people think about how much they are consuming. Unfortunately, initiatives of this sort are usually evaluated in respect of how well they are received, not in terms of changes in consumption levels, which means it is difficult to judge effectiveness.[76]

Many education programmes aim at reducing binge-drinking by emphasising the health risks. However, research suggests that most young adults are aware of the health risks of alcohol – but do not worry about them in relation to binge-drinking.[77] There are also worries over the long-term effectiveness of educational interventions. One programme educated offenders with a history of binge drinking, and found that during the course of the programme binge drinking fell, but then increased again as soon as it was completed.[78]

School-based interventions– educating young children before they consume alcohol – are not always effective either. For example the *Kids Alcohol Together* programme – an education programme about alcohol – showed it was highly engaging and enjoyable, but there was little evidence that it led to changes in children's attitudes toward alcohol, producing only some limited effects on intention and behaviour. The programme recommended that interventions need to take place before the onset of drinking, which is some time before or at the beginning of secondary school.[79] A Cochrane meta-review of 'primary prevention' interventions aimed at young people (which included many educational interventions), found that most were ineffective and that those that worked were less educational and more concerned with strengthening families and developing 'culturally focused skills training'.[80]

One behavioural change campaign aimed at binge-drinking does appear to have had a direct impact on consumption. Drinkaware's *Why let good times go bad?* is a national campaign that offers advice on minimizing harm and reducing – not stopping – drinking over recommended daily allowances, including advice to 'eat before you drink', alternate alcohol and non-alcoholic drinks and to 'get watered, not slaughtered'. An evaluation of this work showed its non-preachy, realistic approach resonated well with young adults and has led to a marked increase in people taking up these tips – including uptake among what Drinkaware term 'irresponsible shameful' drinkers.[81]

Education also comes in the form of 'brief interventions', often a short conversation a doctor or other professional has with a patient about his or her alcohol consumption and how to reduce it. However, brief interventions can also involve longer more therapeutic sessions, usually constituted by 'motivational interviewing' techniques that aim to make drinkers aware of conflicts between their beliefs and values and their drinking behaviour. A number of hospitals in the UK, including Bolton and Warrington, have piloted brief interventions effectively.[82] A Cochrane meta-review of brief interventions in primary care indicated that after one year or more, people who received such

interventions drank less alcohol than people in control groups (average difference 38 grams/week), which could save the NHS as much as £124 million.[83] The review found that interventions delivered in doctor's surgeries were more effective than those delivered in Accident and Emergency wards (possibly because people are still drunk when in A&E). It also found that interventions were more effective on men than women, and that longer therapeutic interventions involving 'motivational interviewing' techniques were of no greater effectiveness than short professionally-led interventions.[84] Brief interventions work by making it salient to the reflective system that certain behaviour causes harm. Since the reflective system is sometimes a weak determinant of consequent behaviour it would seem that brief interventions may work best when delivered by trusted figures and in terms that are personally relevant and emotionally compelling to the recipient (e.g. scaring people into changing behaviour).

Changing habits through altering drinking technology and environments

Recent interest in behavioural economics, notably in 'nudging', has led to a number of proposals about how ideas from this new discipline could be applied to influence drinking behaviour. 'Nudging' is where the contexts within which choices are made are altered in such a way that certain preferred choices are more likely to be made. For example, by putting healthy eating options first in line at the canteen people are more likely to choose them. Nudges guide behaviour (often non-consciously through the automatic system) but they do not *dictate* behaviour. In other words, nudges leave free choice intact. However, just how we create nudges that effectively shape behaviour is not at all clear.

Two plausible areas of intervention that involve changing the drinking environment are 'promotion control' and 'outlet density control'. Unfortunately, such interventions have not been reviewed in any detail in the UK. One recent meta-review on 'promotion control' found three papers, none of which were about studies in the UK. Equally, there are no relevant studies that have conducted a full evaluation of alcohol outlet density interventions.[85] This does not

mean that interventions of this type would not be effective, just that there is no evidence either way.

Binge-drinking can be directly affected by regulation, which can change the norms around alcohol consumption. The Licensing Act 2003 and other new powers of regulation since 1997 have given more powers to statutory authorities to manage and control alcohol sales and consumption, including ASBOs, Drinking Banning Orders, 24-hour licensing, and Penalty Notices for Disorder.[86] There have been numerous evaluations as to the effectiveness of the 2003 Act in reducing crime and disorder, producing mixed results. In some areas violent crime and Accident and Emergency visits have reduced, in other areas they have increased since the Act was passed.[87] Specific measures do appear to have worked when properly enforced, for example *Challenge 21* (asking people for identification if they appear under 21 rather than 18) has had some impact in relation to the sale of alcohol to under-age drinkers. It appears that tough action here could be useful.[88] In Fife, Scotland, a ban on selling alcohol to under-21 year olds on Friday and Saturday night resulted in a large fall in anti-social behaviour.[89]

According to the Department for Culture Media and Sport, one of the reasons the Licensing Act had mixed results was because local authorities and the police did not use the powers of enforcement available to them.[90] Indeed, enforcement of the laws for public drunkenness does appear to have declined in recent years. In 1989, there were almost 100,000 cases of public drunkenness handled by the police, compared to 71,000 now, despite a growth in public drunkenness and more powers available to deal with it. [91] In 2008, only 574 Penalty Notices for Disorder were issued for buying alcohol on behalf of someone under 18, and only 28 people were actually convicted of the offence.[92] Similarly, just 66 Penalty Notices for Disorder were issued in England and Wales for the sale of alcohol to a drunken person in 2008, and only one person was found guilty in a Magistrates Court of this offence in 2006-07.[93]

The difficulties of enforcement of these regulations are well-documented, one being the fact that it is resource intensive for the police to prove that the accused *knowingly* sold alcohol to a

drunken person. However, enforcement schemes such as the Community Alcohol Partnership in St Neots led to a 42 per cent decrease in anti-social behaviour; a 94 per cent decrease in under-age people found in possession of alcohol and a 92 per cent decrease in alcohol-related litter in key areas.[94] One type of intervention is the 'three strikes' campaign, whereby individuals who are involved in alcohol-related incidents are issued with two warnings and, on the third offence, banned from entering bars and clubs under a Drinks Banning Order. In Exeter, the scheme has proved an effective deterrent to repeat offending.[95]

A number of new regulatory measures introduced in April and October 2010 were targeted at binge-drinking. These measures included the banning of irresponsible promotions ('all you can drink', 'women drink free', 'speed drinking competitions'); free tap water for every customer; and vendors being forced to sell smaller measures. Unfortunately, it is too soon to evaluate if any of these measures (or their combination) have resulted in a change in behaviour.

A meta-review by the Joseph Rowntree Foundation of alcohol misuse interventions concluded that local, multi-component responses to alcohol management were more effective than any single component intervention, especially if they were about harm minimisation. The authors argued that police targeting of 'hot-spot' areas, intelligent environmental design, limited outlet density, good transportation infrastructure, and media engagement could all be effective in limiting the harms of binge-drinking. A European-level analysis came to a similar conclusion, demonstrating that multi-component responses which combined community mobilisation, responsible beverage service training and stricter enforcement of alcohol laws are associated with significant reductions in violent crime.[96]

There are a number of good examples of multi-component responses in the UK, usually focusing on key groups working together within a local community. *Manchester City Safe* has been able to reduce alcohol-related crime and disorder through a number of actions including new night bus routes and schemes to link taxi

drivers. Similarly, the *Newquay Safe* project (although aimed primarily at under-18s) is a partnership of the police, the council, local residents, business, pubs and clubs, all working together to tackle alcohol misuse and irresponsible behaviour. Through extra police resources, bar staff training, and contacting parents, the project has achieved impressive reductions in anti-social behaviour and alcohol related violence.[97] Similar interventions have been successfully piloted in Burnley, through the establishment of a dedicated police team that works closely with licence-holders and door staff, which bans offenders from all drinking establishments in the city centre and regularly enforces licensing laws.[98]

Similarly to multi-component partnerships, the UK has seen the recent development of Business Improvement Districts (BIDs), which are partnerships where businesses, local authorities, and other organisations work together to make the trading environment of a specific area a more pleasant place in which to live, work, invest, and visit. Successful BID areas can receive funds and incentives from central or local government and allow local businesses in a specific area or sector to vote on which further services they would like to invest these funds in. The Nottingham Leisure Partnership, known as *We Are Nottingham,* is the first BID to focus specifically on the night-time economy, involving 250 licenced businesses in the city-centre that provide food, drink and entertainment.[99] Initiatives have included the introduction of taxi marshals ensuring people get home safely at the end of an evening, and Best Bar None - an accreditation and awards scheme that recognises premises in the city centre that provide a safe, responsible setting for night-time activities. The scheme has led to increased action against badly managed premises and therefore improved standards of management, as well as a reduction by 19 per cent of violent crime.[100]

Although multi-component schemes appear to have the most effect on reducing binge drinking and associated harms, some isolated interventions can make a difference. Cardiff Council introduced the Cardiff Medical Treatment Centre and the Mobile Medical Response Unit schemes to provide alternative medical treatment

and patient transport arrangements for binge-drinkers in periods of peak activity within the city centre. It comprises of a triage vehicle, staffed by a driver and paramedic and supported by patient transportation vehicles. An independent evaluation of the scheme has shown that it relieves pressure on A&E services, offers quicker response times, and saves The Welsh Ambulance Service around £1,000 per night when it is employed. An evaluation of a similar scheme in Westminster was released just prior to this paper being published, and found very similar positive effects. [101]

The available evidence also suggests that the training of bar staff can be a powerful way to reduce excessive consumption and alcohol-related harm. According to NICE, intensive 'high quality' bar staff training, accompanied by strong and active management support is effective in reducing the level of intoxication in customers.[102] A European-level evaluation found something similar, provided that bar staff training was made mandatory.[103]

Culture and social norms

Although culture – by which we mean attitudes, social norms, and accepted behaviour – is crucial in dictating drinking behaviour, there are relatively few interventions that seek to address the underlying causes of alcohol related crime and disorder – probably because it is a long-term endeavour that it is difficult to succeed in.[104]

That being the case, the Joseph Rowntree Foundation recently suggested other successful types of behaviour change initiatives, such as changing attitudes to drink-driving and smoking, could provide insight into how to develop policy to tackle drinking norms. The authors argued that behaviour change initiatives must think long-term, have wide 'ownership', develop new positive norms about consumption, and recognise that there are different sub-groups who might respond differently to different policies.[105] That said, care needs to be taken when comparing binge-drinking with both the smoking ban and drink driving because these two interventions both focus on actions that are either criminal or put other people or the perpetrator in danger; and were coupled with legal sanctions. Although binge-drinking has an element of health

risk attached, there is a safe level of alcohol use, which is not the case for tobacco.

A Cochrane meta-review of 'social norm' interventions aimed at reducing alcohol misuse (largely focused on binge-drinking), showed mixed and inconclusive results.[106] One difficulty with social norm interventions is knowing which norms will become established. For example, by telling people binge-drinking is widespread may make it appear normal and increase its practice. Similarly, attempts to change norms through stigma may have effects opposite to those intended – one person's stigma being another's reason to brag.

One intervention, currently being piloted by the Department of Health in universities across Wales, applies social psychology research in an attempt to change the social norms of specific sub-groups. Research has shown that people routinely overestimate how much their peers drink – and feel obliged to 'keep up'. This pilot aims to educate people about the true extent of people's alcohol consumption, because that should normalise lower consumption levels. It is an interesting possibility. In the US there have been efforts to correct false perceptions on university campuses with some effect, although evaluations show that long-term results are mixed.[107]

One area that appears to combine both individual decision making and social norms is capability. Developing the capabilities so people are better able to make responsible drinking choices might be the most significant way in which individual behaviour can be affected. Some personality-targeted interventions have been shown to be reasonably effective among adolescents. One programme, based on 90-minute group sessions showed that interventions which looked at alcohol through a range of personality-related issues *delayed* but did not necessarily reduce growth in binge drinking. However, delaying alcohol consumption in adolescence by six months reduces the rate of adult alcohol dependency by 10 per cent.[108] There have been few evaluations of projects of this nature and given their intensive nature they are probably best-used as tools to target young people already identified as at risk.

The most significant group of people to consider in respect of developing capabilities are parents. Parents play a key role in young people's first and subsequent alcohol use. Evaluations of educational interventions about alcohol misuse all stress the importance of focusing on harm minimisation rather than abstinence, and above all, involving parents.[109] The only meta-review of the subject is the Cochrane review mentioned above, which showed that parenting programmes can be effective in reducing or preventing substance use (including alcohol), and are most effective when they share an emphasis on active parental involvement and developing skills in social competence, self-regulation and parenting.[110] Other evaluations also point out that it is parental drinking *practice* that is crucial – that is, parents must lead by example.[111]

CONCLUSION

The point at which governments should intervene in what people freely choose to do is not just a question of 'what works'. It is also a question of moral and political values. Most people object to too much government interference, yet few dispute that the state has a legitimate role to play in improving public health or in reducing social disorder and crime. Good health and safe streets are important, but so is freedom. The question of legitimate state intervention ultimately comes down to differing conceptions of what makes a good society. In a wide – and growing – variety of contexts people's choices have a social cost: our diets, whether we recycle or not, where we do our shopping, whether we smoke, and of course how, when and where we drink alcohol. How government deals with these issues is one of the most difficult political questions facing modern liberal democracies.

A useful starting point is to define the problem clearly. In this review it became apparent that binge-drinking is often used as shorthand to describe a bundle of different concerns. As a result, it tends to be viewed through two lenses. On the one hand, the 'public health approach' tends to see binge-drinking as a subset of a larger problem of general alcohol consumption, which is causing significant strain on the NHS and contributing to acute and long-term health conditions. Proponents of this view argue the Government should try to reduce overall alcohol consumption – including binge-drinking – across the board, because this would improve public health and well-being, while reducing costs to the NHS.[112] On the other hand, the 'harm minimisation approach' tends to consider binge-drinking primarily a problem of public safety, where certain drinking practices are contributing to unacceptable levels of crime and anti-social behaviour, especially in town centres. As such, they argue public policy should try to limit harm and criminal behaviour, without necessarily reducing consumption levels.[113]

This separation of approaches is not completely mutually exclusive. Public health measures (such as price increases) can influence

behaviour, and behaviourally-oriented policies (such as changing social norms through marketing) can affect public health outcomes. However, many groups still argue for one or the other, which results in policy being less effective than it could be. For example, taking a public health approach to the subject invariably leads to policy responses that aim at reducing overall alcohol consumption levels, such as minimum pricing or education strategies, highlighting the health risks of binge-drinking. Such responses risk not tackling the problem of binge-drinking head-on at all. Binge-drinking is a particular subset of alcohol misuse and a response which aims at reducing overall consumption levels will be unlikely to work.

Based on our review, it appears that both overall and excessive alcohol consumption has in fact been falling steadily since 2005. However, there is a small but growing problem with young adults that binge-drink to extreme excess, often in an intentionally reckless and very public way, putting themselves and others at risk of harm. It is mainly this type of binge-drinking that is contributing to a number of social, criminal, and health costs as well as causing societal concerns about moral decadence. This kind of drinking appears to be static or rising, so should be an urgent target for policy.

Since binge-drinking is primarily a *behavioural* phenomenon, a multi-component, long-term response is needed. Numerous studies have shown that both alcohol-related harm and crime are not directly related to overall consumption levels, but are driven by a complex mix of social, cultural, and even sub-cultural factors, of which consumption is one aspect. Changing this mix requires a deeper understanding of what is driving behaviour and what can change it.

Therefore, any policy response should be realistic, targeted, and have three aims: to reduce the frequency and intensity of binge-drinking episodes and associated behaviours; to reduce costs that stem from binge-drinking; and to encourage a more responsible attitude toward alcohol consumption over the long-term. To achieve these aims requires the involvement of several groups, including health specialists, GPs, advocacy groups and alcohol charities, local

authorities, police, retailers, pubs and bars, the alcohol industry, families and individuals themselves.

We have made a number of recommendations on the basis of this literature review, which could help achieve these aims and are set out in the executive summary. They are not comprehensive, but reflect areas where intervention could be effective. In each, more work is required, and potentially further exploration or piloting.

We believe some of the recommendations set out above would not only improve matters in the short term, but would act to slowly create more responsible social norms surrounding alcohol consumption in the long-term, without unfairly punishing moderate and sensible drinkers.

Over the longer-term, it is important to encourage a generation of more responsible drinkers. The evidence suggests that parents play a key role in this, particularly through leading by example and helping children to develop personal skills such as self-reliance, application and self-control from an early age. This of course is true of parenting in general, rather than parenting focused specifically on drinking behaviour, and appears to be significant even though it is only indirectly connected to binge drinking. However, further research is needed to understand the role that parenting and the development of personal skills might play in shaping binge drinking habits, and how these influencing factors could be changed. We are currently investigating these questions for the full version of this report, which will be available in June 2011.

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NOTES

[1] Berridge, V, Thom, B and Herring, R, 'The Normalisation of Binge Drinking? An historical and cross-cultural investigation with implications for action', *Alcohol Insight* 49, (2007).

[2] In 1994, the World Health Organisation defined it as 'a pattern of binge drinking that occurs over an extended period (usually several days) set aside for this purpose'.

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Worries about binge-drinking in the UK are nothing new: they predate the Norman Conquest. Yet in the last ten years there has been a growth in media, government and public concern about the issue. This pamphlet investigates the causes of, and possible responses to, binge-drinking among young adults aged 18-25 in the UK. This is an interim paper, prepared as part of a wider project analysing the underlying causes of binge-drinking, which will report later in 2011.

Under the Influence draws upon the evidence from 36 binge-drinking interventions undertaken in the last decade, which include quantitative and qualitative studies and meta-reviews. The authors conclude that any response to binge-drinking should be realistic, targeted, and have three aims: to reduce the frequency and intensity of binge-drinking episodes and associated behaviours; to reduce costs that stem from binge-drinking; and to encourage a more responsible attitude toward alcohol consumption over the long-term.

To achieve this, government should develop policy tools that target the social norms that underpin binge-drinking and associated behaviour. A renewed focus on the individual is suggested, including consistent enforcement of public order laws. The authors also propose that environmental changes, such as better trained bar staff and fewer drinks promotions, could 'nudge' people into responsible drinking habits. Finally, they advocate the long-term development of capabilities, which are personal qualities like self-control, to encourage a generation of responsible drinkers.

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