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## ► Achieving positive change in the drinking culture of Wales.

Bailey J., Poole R., Zinovieff F. et al. Glyndwr University and Bangor University, 2011.



This research report usefully reflects evidence from reviews and recent and seminal studies, offering guidance not just on each intervention type, but on what the most effective mix might be in Wales and by extension in the UK as a whole if the aim is to affect drink-related harm at the level of the whole population.

**Summary** This research report is based on research commissioned by **Alcohol Concern** Wales to collate the best available evidence to inform the development of effective alcohol policy in Wales. The project involved a review and synthesis of existing literature, together with a broad-based consultation process, in order to generate findings that are both evidence-based and relevant to Wales.

The findings presented here are not the result of either a Cochrane systematic review method or a meta-analysis (though findings from studies using these methods have been included). These methods are not appropriate to an overview of the best available evidence across a wide range of issues. However, the approach used to reach the conclusions set out below is rigorous and replicable, and includes an appraisal of the strength of the evidence for each conclusion.

There are significant difficulties in evaluating the impact of some of the factors that could reasonably be expected to influence drinking culture (for example, some types of government policy or the effects of advertising). Most studies of drinking depend on self report of alcohol consumption, known to be problematic. Natural experiments, where only one factor changes at a time, are rare. Some important variables are hard to measure, and for practical purposes only through proxy measures.

Drinking culture refers to common attitudes, beliefs and patterns of behaviour with regard to alcohol. Whilst drinking culture is tangible from subjective experience, objective changes in it can only be measured through consequences such as the overall level of consumption and changes in the frequency of social and medical harm related to alcohol.

Despite the challenges, a large body of relevant literature was reviewed and the most

robust findings within it have been replicated using different methods in different countries. This evidence was grouped under three broad themes: control; harm reduction; and attitudes. A fourth theme in the literature – young people and alcohol – is interwoven across the other three. The findings set out below are based on seminal studies and research reviews published in the past 10 years.

#### Control

This theme concerns measures usually taken by national or local governments to restrict the public availability and consumption of alcohol.

Within the international literature on reducing drinking and related harm, the finding with the strongest evidence base is that

**Key finding** It is well established that the price and affordability of alcohol is the key determinant of the overall level of consumption amongst all groups in the general population. This is the strongest finding in the international literature.

consumption is highly sensitive to changes in price (or, to be more accurate, affordability). When price drops, more is drunk; when alcohol becomes more expensive, less is consumed. This effect is seen across the entire population who drink. When alcohol becomes cheaper, non-dependant drinkers increase consumption, some in to the range where harm is likely to occur.

Nevertheless, the impact of price change has some complexities. The relationship between percentage change in price and percentage change in consumption varies between countries. There is some evidence that price changes can affect drinking patterns as well as overall consumption. Young drinkers are most affected. The impact of higher prices cumulate over time; sustained over long periods, there is likely to be an increasing positive impact on population health and social well being.

Most of the evidence is based on studies of changes in alcohol duty, usually applied differentially according to the alcoholic strength of products. Largely due to concern over alcohol being sold at below cost price, there has been considerable interest recently in the much less well researched strategy of setting a minimum price per unit of alcohol. Sophisticated mathematical modelling has shown that minimum pricing is likely to lead

Key finding Most of the evidence on the impact of price changes on alcohol consumption is based upon the effects of alterations in taxation or duties. Although international experience of minimum pricing is limited, there is good reason to believe that it would be effective in controlling alcohol consumption amongst at-risk groups such as young people.

to a reduction in alcohol consumption across the whole population, with the greatest effect (and cost burden) on the heaviest drinkers, and could be expected to have an impact on the level of consumption by dependent drinkers. Though on its own this is unlikely to move significant numbers into abstinence or non-dependent drinking, it might realistically be expected that reduced consumption might curb alcohol-related harm. A larger impact could be expected amongst non-dependent drinkers whose consumption is in the range associated with harm. Despite the fact that there is limited international experience of minimum pricing (and hence little empirical data), there is credible evidence to support minimum pricing as a measure that would be likely to be effective.

To see population-level reductions in social

**Key finding** Where alcohol consumption is

and health harms, price manipulation measures must be sustained for substantial periods, with maintenance of relative price through inflation-linked increases. controlled through manipulation of price, the full benefits in terms of reduction of alcohol-related harm will only be seen where price increases are sustained and index linked against inflation.

Some other measures that reduce the availability of alcohol also have a good evidence base. The degree to which alcohol regulations are enforced has a significant impact. The willingness of people to drink when under age, or to drive a motor vehicle when over the drink-drive limit, is affected by their perception of the chances of detection and the consequences for them. This is true both with regard to existing regulations (where these are poorly enforced) and new regulations. Examples include: age restrictions on the purchase of alcohol; obligations on drinking establishments not serve people who are intoxicated; and assertive policing of drink-driving limits. There is strong evidence that random roadside breathtesting reduces rates of driving when intoxicated. However, it is manpower-intensive and thus relatively expensive.

Raising the minimum age for the purchase of alcohol (for example, to 21 years) is effective in reducing consumption among young people, providing that the chances of detection are perceived to be high. Reduction of the maximum permissible blood alcohol level for driving a motor vehicle is known to be effective in reducing the number of intoxicated drivers and to reduce accident rates. The UK has a relatively high limit by European standards.

Limiting the availability of alcohol through controlling the density of retail outlets or restrictions on hours of sale is known to have an impact on population-level consumption and on alcohol-related harm. Until recently the UK has progressively relaxed such

**Key finding** Reducing the availability of alcohol by restricting the number of retail outlets is effective in reducing alcohol consumption and alcohol related harm.

restrictions; with relative price reduction, this has probably been a major factor in the steady increase in per capita alcohol consumption over the past 10 years. Irrespective of the political difficulty of reversal of these policies, there can be little doubt from the research evidence that this is likely to be effective in reducing consumption and harm.

There are some ambiguities in the evidence with regard to the effects of local measures to increase price and reduce availability of alcohol. Some people are willing to cross regional or national boundaries in order to purchase alcohol. However, local measures

**Key finding** Local measures on price and availability of alcohol can be effective, although a proportion of the population is prepared to travel to purchase at a lower price.

can be effective at a population level; they are not futile. Local geography (eg, proximity to borders) is likely to have an effect on the impact on consumption in some parts of the population.

#### Harm reduction

Harm reduction in this report refers to attempts to limit the damage which results from drinking alcohol, whether to drinkers themselves or to the social environment in which drinking takes place. This relates to both the social cost of alcohol consumption and to alcohol-related morbidity and mortality.

An extensive literature describes and evaluates harm reduction strategies. Much concerns harms to health, but there is also research on social harms resulting from alcohol, such as road traffic and other accidents and interpersonal violence. Measures to control the availability of alcohol in general or to specific groups such as the young are also relevant to harm reduction > above.

The approach with the most extensive and persuasive evidence base is 'brief interventions' – identifying high risk drinkers (eg, though screening for the amount of alcohol consumed) and delivering brief, medically-related advice and information. Many studies have shown this reduces drinking and potentially harmful drinking in

**Key finding** The strength of the evidence on brief interventions is sufficient to conclude that they are an effective means of reducing harm, and that they are an important component to the overall strategy to limit the health and social harm caused by alcohol.

non-dependent drinkers, at least in the short- to medium-term. This type of intervention was developed and initially delivered in general health contexts, either as part of general health screening in primary care or in the care and treatment of specific patient groups for whom alcohol poses a particular risk, such as those treated for minor injuries in accident and emergency departments or pregnant women. However, a considerable amount of research has investigated ways of broadening this type of intervention from a health base. Examples include: workplace brief interventions; police arrest or court diversionary schemes; innovative methods of delivery, such as the internet or by telephone; and the targeting of identifiable social groups, such as university students. The difficulty is assessing the extent to which the effects of such interventions are likely to persist, and whether they could eventually have an impact on the wider drinking culture.

Drink-driving legislation is known to reduce road traffic accidents and fatalities involving alcohol. This continues to be true where permissible limits are reduced to a very low level (for example 20mg/100ml in Sweden). It is less certain that lowering drink-driving limits has a positive effect on overall drinking patterns. Very low limits might be expected to deter drinking in general (for example, to avoid illegal blood levels the next day) but it is not clear that this is necessarily the case. Designated driver schemes tend to show a positive effect on the rate of driving when intoxicated, but increased consumption among the passengers. Overall, the evidence for designated driver (and other 'safe ride') schemes is not strong, and they cannot be recommended as a key policy.

Ignition interlocks prevent a car being started until after a breath test has shown the driver's blood alcohol is below a certain level. They reduce re-offending among people convicted of driving when intoxicated, but the effect is lost when the device is removed. Such devices have proved acceptable to prevent drink-driving amongst professional drivers. However, their applicability is very limited.

Health education has been subject to a reasonably large number of studies, many targeting schoolchildren. Some are intended to reduce consumption, others drink-driving, and others to discourage travelling in vehicles driven by intoxicated drivers. Higher education students have also frequently been

**Key finding** There is little evidence that health education campaigns on their own are effective in influencing the population's drinking behaviour. Nonetheless, many experts consider this an essential component within an overall strategy to limit alcohol related harm.

studied. Overall, the demonstrable effects have been disappointing. Positive changes tend to diminish over time. Successful campaigns involve more than simple provision of information. Social or 'refusal' skills workshops, for example, enhance the positive effects. It is still more difficult to identify positive effects from health education campaigns aimed at the general population, although this is partially due to the lack of methods to evaluate their impact. Labels on bottles or cans setting out the alcoholic strength of the beverage may have a neutral effect overall, leading moderate drinkers to seek out weaker drinks and heavier drinkers to seek out stronger ones.

Some experts suggest it is wrong to conclude from the lack of evidence for the effectiveness of health education campaigns that they are a waste of effort. It is at least logical to believe that a comprehensive strategy to reduce the social and health harms associated with alcohol should be backed by campaigns that provide a rationale for other measures. Provision of accurate information about alcohol can be regarded as worthwhile in itself, regardless of any specific impact on drinking.

### **Attitudes**

Attitudes to alcohol and intoxication are formed through complex mechanisms. It is possible to identify predominant cultural attitudes within a particular population, but there are also subcultural attitudes that can vary widely between different sub-groups. Religious belief, ethnicity, family influences, the implicit values of authority, and attitudes to authority, all have an impact.

Efforts to change cultural attitudes through governmental policy have had mixed results. Persistent efforts to reduce the social acceptability of smoking have ultimately succeeded. Liberalisation of alcohol policy to encourage a healthier 'southern European' drinking culture has palpably failed.

Some changes in cultural attitudes to alcohol probably have their origins in factors unrelated to alcohol policy. For example, the strong social taboo against public displays of intoxication by women has greatly weakened in recent decades, probably as much due to changes in attitudes to female social roles as changes in attitudes to alcohol per se. In contrast, common experience suggests that there has been a steady increase in the social opprobrium attached to drink-driving since the law was strengthened in the 1960s. Cultural attitudes can be influenced, but this must be understood in a broad way. For example, measures to increase the price of alcohol and restrict availability of alcohol would signal a change in the attitude of government or society. Provided this was not grossly in conflict with public opinion, over time this is likely to have an impact on cultural attitudes.

There are significant benefits when cultural attitudes change in a desired way, as the resultant changes in behaviour can become pervasive and self-sustaining.

The most extensively researched area with regard to attitudes to alcohol is advertising and promotion. UK government policy has emphasised the role of the industry in encouraging 'responsible drinking'. The conflict with maximising sales has been subject to much attention in the literature.

Key finding Although alcohol advertising is known to influence some sections of the population, such as young people, there is little evidence that advertising restrictions or bans have a significant impact. However, as with health education, expert opinion suggests that this may be an important component of an

Older evidence suggests advertising has little impact on overall levels of alcohol

overall alcohol strategy.

consumption, used by the industry to support their claim that advertising seeks to persuade consumers to change product rather than increase consumption. The same argument was used by the tobacco industry to resist restrictions on cigarette advertising. More recent literature has cast doubt on the methods and findings of these earlier studies. It is argued that total population consumption is a poor measure of the impact of advertising, partly because it is more strongly affected by other factors, and partly because advertising aims to increase consumption in particular groups or market niches, such as young people, who represent not just a present market, but a future one as well. Large changes in consumption amongst a relatively small proportion of drinkers are unlikely to be evident in gross population consumption statistics.

Increasingly sophisticated methods have been developed to measure the impact of advertising and media depictions of drinking on individuals, both in experimental and naturalistic settings. The appropriateness of such methods has been the subject of considerable controversy, for example, whether advertising campaigns can be understood in isolation, or whether the cumulative effect of many types of advertising and media depiction is more relevant.

Both experimental and naturalistic studies tend to suggest that exposure to advertising affects individual attitudes to alcohol, and that this may be particularly true of younger people. However, there is considerable ambiguity as to the size of the effect. There is little evidence that providing children or young people with health information (independent of industry sponsorship) about drinking has an effect on their later behaviour.

There are doubts over whether regulating advertising has been effective. Advertisers may have circumvented regulations prohibiting, for example, promotion of alcoholic beverages to young people by choosing media, imagery, humour or music that have a particular resonance for children and adolescents. Also, the available media have proliferated in recent years beyond traditional billboards and print and broadcast media. The internet creates particular difficulties in regulating promotional content within a single jurisdiction.

There is little research on industry sponsorship of sporting and other events, but there is a consensus that this is unhelpful, especially with regard to impact of brand familiarity on young people.

Whilst there can be little doubt from the available evidence that advertising and media depictions of alcohol do have a measurable effect on attitudes and drinking behaviour, it is difficult to draw firm conclusions with regard to the feasibility or likely impact of tighter regulation. Nonetheless, as a matter of expert opinion, many authorities in the field strongly assert that regulation is an important component of overall alcohol policy. Many draw attention the role of bans on cigarette advertising in the overall effort to reduce tobacco use.

There is sufficient evidence to confidently say that responsible drinking campaigns sponsored by the alcohol industry are ineffective. While these may identify specific undesirable behaviours such as drink-driving.

**Key finding** There is evidence that alcohol industry sponsored campaigns to promote responsible drinking are ineffective or counterproductive. There is a strong body of international opinion that suggests that the

they serve to normalise and promote drinking in general. Those exposed to such materials do not gain a clear understanding of the

industry should not be engaged as a partner in efforts to reduce alcohol related harm.

nature of responsible drinking, and the option of abstinence is not promoted at all. There is at least a suspicion, and some evidence, that industry-sponsored campaigns promoting healthy drinking actually promote drinking in general. This is one of the reasons for the assertion from a number of credible authorities, including the World Health Organisation (WHO), that the industry should not be engaged as a partner in efforts to reduce alcohol related harm.

### Consultation with stakeholders

Our consultation with stakeholders in Wales suggests there is considerable concern over current levels of alcohol consumption and drinking patterns. There is particular concern that young people have developed a heavy drinking culture distinct from that of previous generations and of the adult population. Parents are seen as colluding with this. Although some special aspects of drinking culture in Wales were identified, there was general agreement that, overall, drinking patterns in Wales are similar to those in the rest of the UK.

Opinion with regard to measures likely to be helpful closely matched findings from the research literature. There was general support for the development of separate alcohol policies in Wales, though there was also recognition that there are limitations to this owing to the long border with England

**Key finding** Although alcohol policy in Wales has to take European and UK factors in to account, regional initiatives can have an impact. Alcohol policy should be part of a long-term, integrated strategy.

and other factors. Attention was drawn to the importance of provision of information and services through the medium of the Welsh language, and to the particular needs of small rural communities.

Finally, it is recognised that international and UK policies, laws and trade agreements affect the degree to which Wales can act in isolation to influence drinking culture. The evidence does not suggest that local measures are futile. However, local geography and demography are relevant. There is a strong consensus within the research literature that piecemeal measures are unlikely to be effective, and that alcohol policy should be thought of as a long-term, integrated strategy.

"seminal" studies, without itself conducting a fresh systematic review or quantitative synthesis of findings. It does so thoughtfully and usefully, offering guidance not just on each intervention type, but on what the most effective mix might be in Wales and by extension in the UK as a whole. However, its methodology leaves it at the mercy of the judgement of previous reviewers and the vagaries of what has been recently studied and what seems seminal. With a brief as wide as that undertaken by the authors and the available resources, this may have been the limits of what was feasible. Detailed examination of each study sometimes calls in to question the impression given by their headline results summarised in previous reviews. Arguably, (> below) brief interventions are a case in point.

For local practitioners and commissioners the main implementable recommendations concern screening and

brief intervention. In respect of its primary care homeland, the evidence that such a strategy can both be implemented widely enough and be effective enough to improve health across a population is weaker than might appear from the results of studies divorced to a degree from routine practice. When in England a major study tested what was intended to be a real-world implementation, fewer than two patients were screened per GP practice per week, and brief intervention counselling was no more effective in reducing drinking than a simple warning that the patient was drinking "above safe levels, which may be harmful to you". That was also the general picture at emergency departments and probation offices. Screening for and advising heavy drinkers on hospital wards also has potential to affect large numbers but internationally this potential has been inconsistently realised, and in Britain the evidence for brief interventions on wards is largely negative and so few patients may be screened that population-wide impacts are unlikely.

The views of the practitioners and experts consulted by the reviewers were sometimes at variance with the implications of the research review, leaving readers unclear about which authority to rely on.

Where the topics overlap, the conclusions of the featured review broadly correspond with those reached by Britain's National Institute for Health and Clinical Excellence in their guidelines on preventing the development of hazardous and harmful drinking.

Thanks for their comments on this entry in draft to Rob Poole and Fiona Zinovieff of Bangor University in Wales, and Jonathan Shepherd of the Violence Research Group at Cardiff University. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

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